ENTERED

Los Alamos
NATIONAL LABORATORY
EST 1943

Environmental Safety & Health
Environmental Protection Division
P.O. Box 1663, K491
Los Alamos, New Mexico 87545
(505) 665-6592/FAX (505) 665-3811

National Nuclear Security Administration
Los Alamos Site Office, A316
3747 West Jemez Road
Los Alamos, New Mexico 87545
(505) 667-5794/FAX (505) 667-5948

Date: January 24, 2012
Refer To: ENV-DO-12-0003
LAUR: 12-10088

RECEIVED
JAN 2012
Hazardous Waste Bureau

Mr. Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2261
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Schoeppner:

SUBJECT: 2011 ANNUAL GROUNDWATER DISCHARGE PERMIT DP-857 REPORT FOR THE TA-46 SANITARY WASTEWATER SYSTEMS (SWWS) PLANT

This report and enclosures are the 2011 Annual Groundwater Discharge Permit DP-857 Report for the TA-46 Sanitary Wastewater Systems (SWWS) Plant at Los Alamos National Laboratory. In addition to satisfying the annual reporting requirements, this report also contains the required quarterly monitoring data for the 4th quarter (October, November, and December) of 2011. Please contact Bob Beers at (505) 667-7969 of the Water Quality and RCRA Group (ENV-RCRA) if you have questions concerning this annual report.

Sincerely,

Alison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security, LLC

Sincerely,

Peter Maggiore for Gene E. Turner

Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Site Office
National Nuclear SecurityAdministration

Enclosures: a/s

Cy: James Bearzi, NMED/SWQB, Santa Fe, NM, w/enc.
John Kieling, NMED/HWB, Santa Fe, NM, w/enc.
Hai Shen, LASO-EO, w/enc., A316
George J. Rael, LASO-EO, w/o enc., A906
Gene E. Turner, LASO-EO, w/enc., A316
Steve Yanicak, LASO-GOV, w/enc., M894
Carl A. Beard, PADOPS, w/o enc., A102
Michael T. Brandt, ADESH, w/o enc., K491
Alison M. Dorries, ENV-DO, w/o enc., K491
Scotty Jones, ENV-DO, w/o enc., K491
Andy Erickson, UI-DO, w/o enc., K760
Charles Barnett, UI-OPS, w/enc., J972
Walter Atencio, ESHQ-DR, w/enc., P908
Mell Smithour, ES-UI, w/enc., K718
Mike Saladen, ENV-RCRA, w/o enc., K490, (E-File)
Bob Beers, ENV-RCRA, w/enc., K490
ENV-RCRA File, (12-0021) w/enc., M704
IRM-RMMSO, w/enc., A150

2011 ANNUAL GROUNDWATER DISCHARGE PERMIT DP-857 REPORT

For the

TA-46 SANITARY WASTEWATER SYSTEMS (SWWS) PLANT

Submitted by:

US Department of Energy/National Nuclear Security Administration (NNSA)

and

Los Alamos National Security, LLC

ENV-RCRA-12-0021

LAUR-12-10088

January 23, 2012

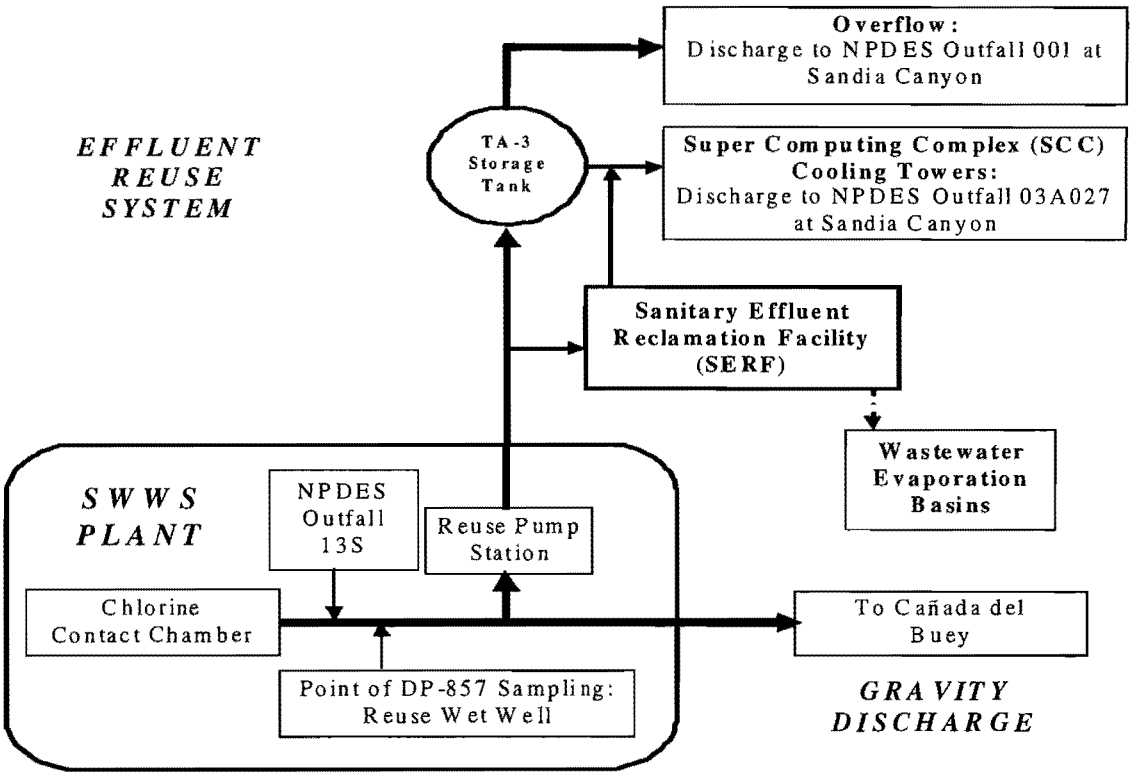
Los Alamos
NATIONAL LABORATORY
EST. 1943

An Equal Opportunity Employer / Operated by Los Alamos National Security LLC for DOE/NNSA

Introduction

Sanitary wastewater generated at Los Alamos National Laboratory (the Laboratory) is treated at the Technical Area (TA)-46 Sanitary Wastewater Systems (SWWS) Plant. The SWWS Plant is an extended-aeration, activated sludge sanitary wastewater treatment plant with a design capacity of 0.6 million gallons per day. As shown in **Figure 1**, treated effluent from the SWWS Plant may be discharged through National Pollutant Discharge Elimination System (NPDES) Outfall 13S by gravity to Cañada del Buey or pumped via a force main to a reuse system at TA-3. Since the SWWS Plant became operational in 1992, all treated effluent has been pumped via the force main for discharge to Sandia Canyon; no effluent has ever been discharged to Cañada del Buey. In 2011, all of the treated effluent generated by the SWWS Plant (approximately 106.84 million gallons) was pumped to TA-3 and discharged to Sandia Canyon through NPDES Outfall 001. With the exception of a 2-week test run in August 2011, no treated effluent was used by the Super Computing Complex (SCC) cooling towers during 2011 because the Sanitary Effluent Reclamation Facility (SERF) was out-of-service.

Figure 1, Effluent Reuse System Schematic



Discharge Permit DP-857 Renewal

In accordance with New Mexico Water Quality Control Commission (NMWQCC) Regulation 3106.F, on August 27, 2002, the Laboratory submitted an application to the New Mexico Environment Department (NMED) for renewal of Groundwater Discharge Permit DP-857. The Laboratory's renewal application was submitted at least 120 days before the expiration date of January 7, 2003, as required by regulation.

On April 6, 2010, the NMED submitted a written request to the Laboratory for a comprehensive and up-to-date application for renewal and modification of Groundwater Discharge Permit DP-857. In accordance with the NMED's request, on June 30, 2010, the Laboratory submitted an application for renewal and modification. On August 11, 2010, the NMED deemed the Laboratory's application to be administratively complete. As required by regulation (20.6.2.3108 NMAC), the Laboratory implemented public notice by posting signs, mailing flyers to adjacent property owners, and placing a display ad in the Los Alamos Monitor. Public notice was completed by the Laboratory on December 6, 2010.

In 2011, the NMED issued three requests for additional information for Discharge Permit DP-857 renewal. A copy of each request, including the Laboratory's response, has been provided in **Enclosure 1.** As of December 31, 2011, permit renewal by the NMED was pending.

Discharge Permit DP-857 Inspection

The NMED Ground Water Quality Bureau scheduled an inspection of Discharge Permit DP-857 facilities for Thursday, December 1, 2011, but was forced to cancel. The inspection was tentatively rescheduled for the first quarter of 2012. A copy of the cancelation email and additional correspondence regarding the inspection are provided in **Enclosure 1**.

SWWS Plant Upgrades & Modifications

During 2011, the following upgrades and modifications were made to the TA-46 SWWS Plant and the collection system:

1. As described in the Laboratory's *Application for Renewal and Modification of Discharge Permit DP-857, TA-46 Sanitary Wastewater Systems (SWWS) Plant* (ENV-RCRA-10-127, June 2010) the TA-46 SWWS Plant initiated a pilot study to increase Biological Oxygen Demand (BOD) via the addition of crude glycerol (glycerine). Assessments of the pilot study indicated that the increased BOD produced a more robust micro-organism population and therein improved plant operations. In 2011 the TA-46 SWWS Plant made permanent the addition of glycerine.

2. In 2011 the National Nuclear Security Administration (NNSA) and Los Alamos National Security, LLC (LANS) began a project to extend the TA-46 SWWS Plant's collection system; buildings previously discharging domestic wastewater to sanitary holding tanks or septic tank/leachfield systems are being connected. One septic tank/leachfield system—TA-15-0569—was connected in 2011 and another—TA-40-0025—will be connected in early 2012. A sanitary holding tank—TA-40-0024— will be removed from service in early 2012. Approximately 250 gpd of additional influent to the TA-46 SWWS Plant will result from the above referenced changes.

3. As described in the Laboratory's *Application for Renewal and Modification of Discharge Permit DP-857, TA-46 Sanitary Wastewater Systems (SWWS) Plant* (ENV-RCRA-10-127, June 2010) the effluent reuse system at LANL is being expanded to conserve potable water and reduce the volume of wastewater discharges to the environment. As part of this expansion, the Sigma Facility cooling tower at TA-3 was piped to the TA-46 SWWS Plant's collection system in November 2011; wastewater from the cooling tower will no longer be discharged through NPDES Outfall 03A022 but will be treated by the TA-46 SWWS Plant for reuse as cooling tower make-up water. Approximately 80,000 gallons per month were discharged from the Sigma Facility cooling tower through NPDES Outfall 02203A during 2011.

SERF and SERF Evaporation Basins

The SERF did not operate during 2011 with the exception of a two-week test run in August 2011. During the test run, product water from the SERF was blended with TA-46 SWWS Plant reuse water (treated effluent) to produce approximately 0.271 million gallons (271,000 gallons) of blended water; the blended water was used by the SCC cooling towers as make-up water. During the test run reject water (concentrate) from the SERF's reverse osmosis (RO) treatment unit was discharged to the SERF evaporation basins; this discharge represents the only discharge of Laboratory wastewater to the SERF evaporation basins in 2011.

The Laboratory reported in April 2011 (ENV-RCRA-11-0072) that water was discovered in one of the SERF basin's leak inspection standpipes on February 24, 2011. The contents of the west SERF basin were immediately transferred to the east SERF basin. The Laboratory developed a plan to leak test the west SERF basin by injecting clean water between the primary and secondary liners. In preparation for the leak test, accumulated sediment was removed from the west SERF basin. During final cleaning and before the test was conducted, workers discovered six small tears in the liner. These tears were successfully patched in July 2011. **Enclosure 2** presents photographs taken of the four leak inspection standpipes during October, November, and December, 2011.

SERF and SERF Evaporation Basins Upgrades

In July 2011, the NNSA and LANS began construction on an expansion of the SERF that includes the following:

1. A new 3,000 square foot building housing these treatment units.
    a) Three new microfilter treatment units
    b) Three new reverse osmosis (RO) treatment units
    c) New Process tanks

2. A new 400,000 gallon blended water storage tank.

SERF product water is blended with reuse water from the TA-46 SWWS Plant at a ratio of approximately two parts SERF to one part SWWS (2:1). Once the SERF expansion is completed in June 2012, the SERF will be capable of producing blended water for reuse by cooling towers at approximately 300 gallons per minute (gpm), a significant increase over the current production rate of approximately 100 gpm.

In order to accommodate the additional wastewater (RO reject) generated by the expanded SERF, the capacity of the SERF evaporation basins on Sigma Mesa are also being increased. Two additional evaporation basins are being constructed adjacent to the existing basins. The new basin's design will be the same as the existing basins: two synthetic liners with a leak collection and monitoring system. Adding two new basins will approximately double the current capacity.

Both the SERF expansion and the new evaporation basins are being constructed under a design-build contract. As a result, design drawings and specifications are completed in stages; copies will be submitted to the NMED under separate cover as they become available for release.

Effluent Irrigation at the SWWS Plant

During the months of April through October 2011, effluent from the SWWS Plant was re-used to irrigate approximately 1/3 acre of turf grass on the plant's grounds. The irrigated grass is within the confines of the SWWS Plant's perimeter security fence and access is restricted to Laboratory employees/contractors on official business and visitors being escorted by SWWS Plant personnel.

4th Qtr 2011 Monitoring: Reuse Water, NPDES Outfalls 001 & 03A027, CDBO-6

Table 1.0 presents the analytical results from monitoring conducted at the SWWS Plant's reuse wet well, and NPDES Outfalls 001 and 03A027. No water quality data are available for Cañada del Buey alluvial monitoring well CDBO-6 because the well was dry (water level below pump intake) during the 4th quarter of 2011. All sample results in Table 1.0 are less than NMWQCC Regulation 3103 standards for groundwater. Copies of the analytical reports are provided in the **Enclosure 3** (CD).

Table 2.0 presents the water level in CDBO-6 for the 4th quarter of 2011; no measurement was available because the water level in the well was below the top of the pump.

Table 3.0 presents the volume of water discharged from the following locations during the 4th quarter of 2011:

- SWWS Plant effluent (reuse water) pumped to TA-3 via the force main,
- Effluent discharge through NPDES Outfall 001,
- Reuse water used by the SCC cooling towers, and
- Effluent discharged through NPDES Outfall 03A027.

Table 4.0 presents the results from monthly monitoring of the SERF evaporation basins' leak inspection standpipes. **Enclosure 2** presents photographs taken of the four leak inspection standpipes during October, November, and December, 2011. No water was present in any of the basin's four leak inspection standpipes with the exception of minimal amounts of condensate water.

2011 Annual Water Quality Monitoring: SWWS Plant Effluent

Tables 5.0 through **9.0** present the analytical results from annual monitoring of the TA-46 SWWS Plant's effluent in 2011; samples were collected at NPDES Outfall 13S, directly adjacent to and representative of water in the TA-46 SWWS Plant's reuse wet well. Copies of the analytical reports are provided in **Enclosure 3**.

- **Table 5.0** presents the analytical results from annual monitoring of the SWWS Plant's effluent for general inorganics and metals. All sample results were less than NMWQCC Regulation 3103 standards for groundwater.

- **Table 6.0** presents the analytical results from annual monitoring of the SWWS Plant's effluent for PCBs. All sample results were nondetect.

- **Table 7.0** presents the analytical results from annual monitoring of the SWWS Plant's effluent for radiological constituents. The combined radium-226 and radium-228 activity was less than the NMWQCC Regulation 3103 standard of 30 pCi/L.

- **Table 8.0** presents the analytical results from the annual monitoring of the SWWS Plant's effluent for volatile organic compounds (VOCs). All sample results were nondetect with the exception of the following five VOCs that were detected at concentrations greater than the analytical laboratory's Method Detection Limit (MDL):

    1. **Bromodichloromethane** was detected at a concentration of 53.5 µg/L. There is no NMWQCC Regulation 3103 standard for bromodichloromethane.

    2. **Bromoform** was detected at a concentration of 38.6 µg/L. There is no NMWQCC Regulation 3103 standard for bromoform.

    3. **Chlorodibromomethane** was detected at a concentration of 93.6 µg/L. There is no NMWQCC Regulation 3103 standard for chlorodibromomethane.

    4. **Chloroform** was detected at a concentration of 23.4 µg/L. The NMWQCC Regulation 3103 standard for chloroform in groundwater is 100 µg/L.

Bromodichloromethane, bromoform, chlorodibromomethane, and chloroform are common by-products—called trihalomethanes—from the disinfection of wastewater effluent with chlorine compounds.

- **Table 9.0** presents all results from the annual monitoring of the SWWS Plant's effluent for semi-volatile organic compounds (SVOCs). All sample results were less than the analytical laboratory's MDLs.

2011 Annual Water Quality Monitoring: Monitoring Well CDBO-6

During the last two quarters of 2011 there was insufficient water in monitoring well CDBO-6 for sampling. Because the annual sample was scheduled for collection during the 4th quarter, no annual sample was collected in 2011. All analytical results collected from CDBO-6 during the first two quarters of 2011 are provided in **Table 10.0**. All sample results were less than NMWQCC Regulation 3103 standards for groundwater. Copies of the analytical reports are provided in **Enclosure 3**.

Table 1.0 Water Quality Data: SWWS Plant Reuse Water, NPDES Outfalls 001 and 03A027, and CDBO-6. 4th Quarter, 2011.

Sampling Location	Field Prep[2]	Sample Date	Sample ID No.	TDS (mg/L)	Chloride (mg/L)	NO3+NO2-N (mg/L)	TKN (mg/L)	NH3-N (mg/L)
SWWS Plant								
SWWS Plant Reuse Wet Well[1]	UF	12/8/2011	SWWS46-12-1815	539	144	2.0	1.3	0.11
Sandia Canyon								
NPDES Outfall 001	UF	12/8/2011	SWWS46-12-1813	474	135	1.2	0.85	0.11
NPDES Outfall 03A027	UF	12/8/2011	SWWS46-12-1814	463	15.8	0.42	1.0	0.22
Canada del Buey								
CDBO-6	F	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]
CDBO-6	UF	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]	Dry[4]
NMWQCC Regulation 3103 Ground Water Standards (mg/L)				*1000*	*250*	*10*[3]	*NA*	*NA*

Notes:

[1]Water in the reuse wet well is representative of water in the reuse pond.

[2]UF means a non-filtered sample, F means a filtered sample.

[3]The NMWQCC Regulation 3103 Ground Water Standard is for NO_3-N.

[4]Dry means that there was insufficient water in the well for sampling.

J means the reported result was greater than the Method Detection Limit but less than the Reporting Limit.

J- means that the reported value is expected to be more uncertain than usual with a potential negative bias.

J+ means that the reported value is expected to be more uncertain than usual with a potential positive bias.

NA means that there is no NM WQCC Regulation 3103 ground water standard for this analyte.

Table 2.0. Water Level in Cañada del Buey Observation Well (CDBO)-6, 4th Quarter 2011

Location	Date	Water Level† (ft)
CDBO-6	11/9/11	Below top of pump

Notes:
† Measured in feet from the top of the well casing to the surface of the water.

Table 3.0. Discharge Volumes from the SWWS Plant and NPDES Outfall 001, and SWWS Plant Reuse Water to SCC Cooling Towers, 4th Quarter 2011 (in millions of gallons).

Month	SWWS Plant Effluent to TA-3[1]	Discharges to NPDES Outfall 001[2]	Reuse Water to SCC Cooling Towers[3] (estimated)	Discharges to NPDES Outfall 03A027[4]
Oct-11	11.801	9.284	0	0[5]
Nov-11	9.316	8.628	0	0.900[5]
Dec-11	10.310	9.014	0	1.705

Notes:
[1]In the 4th quarter of 2011, all SWWS Plant effluent was pumped via a force main to TA-3 for reuse or discharge.
[2]Power plant wastewater and all SWWS Plant reuse water not used by the SCC Cooling Towers are discharged at NPDES Outfall 001.
[3]The SCC cooling towers can use potable or SWWS Plant reuse water. Table 3.0 contains the estimated volume of SWWS Plant reuse water that the SCC cooling towers used during the 4th quarter of 2011.
[4]The SCC cooling towers discharge to NPDES Outfall 03A027 at Sandia Canyon.
NA means that no flow volumes were available at the time this report was prepared.
[5]On August 2, 2011, all SCC cooling tower discharges were redirected to the TA-46 SWWS Plant due to a plug in the discharge line. The line remained plugged until November 16, 2011.

Table 4.0. Inspection Results, SERF Evaporation Basins, Leak Collection Standpipes.

Inspection Date	Inspection Results
10/27/11	All standpipes are dry or contain minimal amounts of water
11/8/11	All standpipes are dry or contain minimal amounts of water
12/8/11	All standpipes are dry or contain minimal amounts of water

Table 5.0. SWWS Plant Reuse Water, General Inorganics and Metals.

Location Name	Start Date	Analyte	Anyl Meth Code	Fld Prep Code		Std Result	Units	Std Mdl	Lab Qual Code	Concat Flag Code	Lab Code	Sample ID
NPDES Outfall SSS13S	08/25/11	CN(TOTAL)	EPA:335.4	UF		0.00161	mg/L	0.0015	J	J	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Cl(-1)	EPA:300.0	UF		60.5	mg/L	0.66			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	F(-1)	EPA:300.0	UF		0.342	mg/L	0.033			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	NH3-N	EPA:350.1	UF		0.0611	mg/L	0.016			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	NO3+NO2-N	EPA:353.2	UF		3.86	mg/L	0.1			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	SO4(-2)	EPA:300.0	UF		28	mg/L	0.1		J+	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	TKN	EPA:351.2	UF	<	0.035	mg/L	0.035	U	UJ	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Ag	EPA:200.8	UF	<	0.2	ug/L	0.2	U	U	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Al	EPA:200.8	UF		59	ug/L	15			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	As	EPA:200.8	UF		2.00	ug/L	1.7	J	J-	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	B	EPA:200.8	UF		74.3	ug/L	4		J-	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Ba	EPA:200.8	UF		40.5	ug/L	0.6			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Be	EPA:200.8	UF	<	0.2	ug/L	0.2	U	UJ	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Cd	EPA:200.8	UF	<	0.11	ug/L	0.11	U	UJ	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Co	EPA:200.8	UF		0.11	ug/L	0.1	J	J-	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Cr	EPA:200.7	UF		1.5	ug/L	1	J	J	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Cu	EPA:200.8	UF		4.9	ug/L	0.35			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Fe	EPA:200.7	UF		90.2	ug/L	30	J	J	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Hg	EPA:245.2	UF	<	0.066	ug/L	0.066	U	U	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Mn	EPA:200.8	UF		4.7	ug/L	1	J	J	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Mo	EPA:200.8	UF		6.5	ug/L	0.17		J-	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Ni	EPA:200.8	UF		1.1	ug/L	0.5	J	J	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Pb	EPA:200.8	UF	<	0.5	ug/L	0.5	U	U	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Sb	EPA:200.8	UF	<	1	ug/L	1	U	R	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Se	EPA:200.8	UF		1.8	ug/L	1.5	J	J-	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Tl	EPA:200.8	UF	<	0.45	ug/L	0.45	U	UJ	GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	U	EPA:200.8	UF		0.291	ug/L	0.067			GELC	NPDES13S-11-13861
NPDES Outfall SSS13S	08/25/11	Zn	EPA:200.7	UF		38.5	ug/L	3.3			GELC	NPDES13S-11-13861

Table 6.0. SWWS Plant Reuse Water, PCBs.

Location Name	Start Date	Analyte	Analyte Desc	Anyl Meth Code	Fld Prep Code		Std Result	Units	Std Mdl	Lab Qual Code	Concat Flag Code	Lab Code	Sample ID
NPDES Outfall SSS13S	08/31/11	11096-82-5	Aroclor-1260	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995
NPDES Outfall SSS13S	08/31/11	11097-69-1	Aroclor-1254	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995
NPDES Outfall SSS13S	08/31/11	11104-28-2	Aroclor-1221	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995
NPDES Outfall SSS13S	08/31/11	11141-16-5	Aroclor-1232	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995
NPDES Outfall SSS13S	08/31/11	12672-29-6	Aroclor-1248	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995
NPDES Outfall SSS13S	08/31/11	12674-11-2	Aroclor-1016	EPA:608	UF	<	0.0362	ug/L	0.036	U	U	GELC	NPDES13S-11-26995

Table 7.0. SWWS Plant Reuse Water, Radiologicals.

Location Name	Start Date	Analyte	Analyte Desc	Anyl Meth Code	Fld Prep Code		Std Result	Units	Std Uncert	Std Mda	Lab Qual Code	Concat Flag Code	Sample ID
NPDES Outfall SSS13S	08/25/11	GROSS A	Gross alpha	EPA:900	UF		3.74	pCi/L	1.2	2.8			NPDES13S-11-13861
NPDES Outfall SSS13S	09/08/11	Ra-226	Radium-226	EPA:903.1	UF	<	0.696	pCi/L	0.24	0.62		U	NPDES13S-11-26992
NPDES Outfall SSS13S	09/08/11	Ra-228	Radium-228	EPA:904	UF	<	0.136	pCi/L	0.16	0.55	U	U	NPDES13S-11-26992

Table 8.0. SWWS Plant Reuse Water, Volatile Organic Compounds (VOCs).

Location Name	Start Date	Analyte	Analyte Desc	Anyl Meth Code		Std Result	Units	Std Mdl	Qual Code	Flag Code	Lab Code	Sample ID
NPDES Outfall SSS13S	09/16/11	107-02-8	Acrolein	EPA:624	<	1.25	ug/L	1.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	107-13-1	Acrylonitrile	EPA:624	<	1	ug/L	1	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	71-43-2	Benzene	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-27-4	Bromodichloromethane	EPA:624		53.5	ug/L	0.25			GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-25-2	Bromoform	EPA:624		38.6	ug/L	0.25			GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	74-83-9	Bromomethane	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	56-23-5	Carbon Tetrachloride	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	108-90-7	Chlorobenzene	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	124-48-1	Chlorodibromomethane	EPA:624		93.6	ug/L	0.3			GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-00-3	Chloroethane	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	110-75-8	Chloroethyl vinyl ether[2-]	EPA:624	<	1.5	ug/L	1.5	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	67-66-3	Chloroform	EPA:624		23.4	ug/L	0.25			GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	74-87-3	Chloromethane	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	95-50-1	Dichlorobenzene[1,2-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	541-73-1	Dichlorobenzene[1,3-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	106-46-7	Dichlorobenzene[1,4-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-34-3	Dichloroethane[1,1-]	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	107-06-2	Dichloroethane[1,2-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-35-4	Dichloroethene[1,1-]	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	156-60-5	Dichloroethene[trans-1,2-]	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	78-87-5	Dichloropropane[1,2-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	10061-01-5	Dichloropropene[cis-1,3-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	10061-02-6	Dichloropropene[trans-1,3-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	100-41-4	Ethylbenzene	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-09-2	Methylene Chloride	EPA:624	<	3	ug/L	3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	79-34-5	Tetrachloroethane[1,1,2,2-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	127-18-4	Tetrachloroethene	EPA:624	<	0.3	ug/L	0.3	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	108-88-3	Toluene	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	71-55-6	Trichloroethane[1,1,1-]	EPA:624	<	0.325	ug/L	0.33	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	79-00-5	Trichloroethane[1,1,2-]	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	79-01-6	Trichloroethene	EPA:624	<	0.25	ug/L	0.25	U	U	GELC	NPDES13S-11-26994
NPDES Outfall SSS13S	09/16/11	75-01-4	Vinyl Chloride	EPA:624	<	0.5	ug/L	0.5	U	U	GELC	NPDES13S-11-26994

Table 9.0. SWWS Plant Reuse Water, Semi-volatile Organic Compounds (SVOCs).

Location Name	Start Date	Analyte	Analyte Desc	Anyl Meth Code		Std Result	Units	Std Mdl	Lab Qual Code	Concat Flag Code	Lab Code	Sample ID
NPDES Outfall SSS13S	08/30/11	83-32-9	Acenaphthene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	208-96-8	Acenaphthylene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	120-12-7	Anthracene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	92-87-5	Benzidine	EPA:625	<	3.8	ug/L	3.8	U	UJ	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	56-55-3	Benzo(a)anthracene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	50-32-8	Benzo(a)pyrene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	205-99-2	Benzo(b)fluoranthene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	191-24-2	Benzo(g,h,i)perylene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	207-08-9	Benzo(k)fluoranthene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	111-91-1	Bis(2-chloroethoxy)methane	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	111-44-4	Bis(2-chloroethyl)ether	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	117-81-7	Bis(2-ethylhexyl)phthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	101-55-3	Bromophenyl-phenylether[4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	85-68-7	Butylbenzylphthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	59-50-7	Chloro-3-methylphenol[4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	91-58-7	Chloronaphthalene[2-]	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	95-57-8	Chlorophenol[2-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	7005-72-3	Chlorophenyl-phenyl[4-] Ether	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	218-01-9	Chrysene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	84-74-2	Di-n-butylphthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	117-84-0	Di-n-octylphthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	53-70-3	Dibenz(a,h)anthracene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	91-94-1	Dichlorobenzidine[3,3'-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	120-83-2	Dichlorophenol[2,4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	84-66-2	Diethylphthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	131-11-3	Dimethyl Phthalate	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	105-67-9	Dimethylphenol[2,4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	534-52-1	Dinitro-2-methylphenol[4,6-]	EPA:625	<	3.8	ug/L	3.8	U	UJ	GELC	NPDES13S-11-26856

Table 9.0 (con't). SWWS Plant Reuse Water, Semi-volatile Organic Compounds (SVOCs).

Location Name	Start Date	Analyte	Analyte Desc	Anyl Meth Code		Std Result	Units	Std Mdl	Lab Qual Code	Concat Flag Code	Lab Code	Sample ID
NPDES Outfall SSS13S	08/30/11	51-28-5	Dinitrophenol[2,4-]	EPA:625	<	6.3	ug/L	6.3	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	121-14-2	Dinitrotoluene[2,4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	606-20-2	Dinitrotoluene[2,6-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	122-39-4	Diphenylamine	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	122-66-7	Diphenylhydrazine[1,2-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	206-44-0	Fluoranthene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	86-73-7	Fluorene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	118-74-1	Hexachlorobenzene	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	87-68-3	Hexachlorobutadiene	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	77-47-4	Hexachlorocyclopentadiene	EPA:625	<	3.8	ug/L	3.8	U	UJ	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	67-72-1	Hexachloroethane	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	193-39-5	Indeno(1,2,3-cd)pyrene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	78-59-1	Isophorone	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	91-20-3	Naphthalene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	98-95-3	Nitrobenzene	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	88-75-5	Nitrophenol[2-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	100-02-7	Nitrophenol[4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	621-64-7	Nitroso-di-n-propylamine[N-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	62-75-9	Nitrosodimethylamine[N-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	108-60-1	Oxybis(1-chloropropane)[2,2'-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	87-86-5	Pentachlorophenol	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	85-01-8	Phenanthrene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	108-95-2	Phenol	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	129-00-0	Pyrene	EPA:625	<	0.38	ug/L	0.38	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	120-82-1	Trichlorobenzene[1,2,4-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856
NPDES Outfall SSS13S	08/30/11	88-06-2	Trichlorophenol[2,4,6-]	EPA:625	<	3.8	ug/L	3.8	U	U	GELC	NPDES13S-11-26856

Table 10.0. CDBO-6 Alluvial Monitoring Well, General Inorganics, 2011.

Location Name	Start Date	Analyte	Anyl Meth Code	Fld Prep Code		Std Result	Units	Std Mdl	Lab Qual Code	Concat Flag Code	Lab Code	Sample ID
CDBO-6	01/24/11	Cl(-1)	EPA:300.0	F		22.7	mg/L	0.33			GELC	CAPA-11-2952
CDBO-6	04/19/11	Cl(-1)	EPA:300.0	F		24.1	mg/L	0.13			GELC	CAPA-11-9541
CDBO-6	01/24/11	ClO4	SW-846:6850	F		0.308	ug/L	0.05			GELC	CAPA-11-2952
CDBO-6	04/19/11	ClO4	SW-846:6850	F		0.292	ug/L	0.05			GELC	CAPA-11-9541
CDBO-6	01/24/11	CN(TOTAL)	EPA:335.4	UF	<	0.005	mg/L	0.0017	U	UJ	GELC	CAPA-11-2951
CDBO-6	04/19/11	CN(TOTAL)	EPA:335.4	UF	<	0.005	mg/L	0.0015	U	U	GELC	CAPA-11-9540
CDBO-6	01/24/11	F(-1)	EPA:300.0	F		0.178	mg/L	0.033			GELC	CAPA-11-2952
CDBO-6	04/19/11	F(-1)	EPA:300.0	F		0.149	mg/L	0.033			GELC	CAPA-11-9541
CDBO-6	01/24/11	NH3-N	EPA:350.1	F	<	0.05	mg/L	0.016	U	U	GELC	CAPA-11-2952
CDBO-6	04/19/11	NH3-N	EPA:350.1	F	<	0.05	mg/L	0.016	U	U	GELC	CAPA-11-9541
CDBO-6	01/24/11	NO3+NO2-N	EPA:353.2	F	<	0.25	mg/L	0.05	U	U	GELC	CAPA-11-2952
CDBO-6	04/19/11	NO3+NO2-N	EPA:353.2	F	<	0.5	mg/L	0.1	U	UJ	GELC	CAPA-11-9541
CDBO-6	01/24/11	pH	EPA:150.1	F		6.42	SU	0.01	H	J-	GELC	CAPA-11-2952
CDBO-6	01/24/11	pH	GENERIC FIELD PH	UF		5.51	SU				FLD	CAPA-11-2951
CDBO-6	04/19/11	pH	GENERIC FIELD PH	UF		5.69	SU				FLD	CAPA-11-9540
CDBO-6	04/19/11	pH	EPA:150.1	F		6.24	SU	0.01	H	J-	GELC	CAPA-11-9541
CDBO-6	01/24/11	SO4(-2)	EPA:300.0	F		9.69	mg/L	0.1			GELC	CAPA-11-2952
CDBO-6	04/19/11	SO4(-2)	EPA:300.0	F		9.08	mg/L	0.1			GELC	CAPA-11-9541
CDBO-6	01/24/11	TDS	EPA:160.1	F		176	mg/L	2.4			GELC	CAPA-11-2952
CDBO-6	04/19/11	TDS	EPA:160.1	F		186	mg/L	2.4			GELC	CAPA-11-9541
CDBO-6	01/24/11	TKN	EPA:351.2	UF	<	0.1	mg/L	0.033	U	UJ	GELC	CAPA-11-2951
CDBO-6	04/19/11	TKN	EPA:351.2	UF	<	0.1	mg/L	0.035	U	UJ	GELC	CAPA-11-9540

ENCLOSURE 1

2011 LANS/NMED Communications RE: DP-857

Email Dates:
January 25, 2011
January 27, 2011
February 22, 2011
November 28, 2011
November 30, 2011

From: Robert S. Beers
To: "Knutson, Gerald, NMENV"
Cc: "George, Robert, NMENV"; "Michael T. Saladen"; "weatencio@lanl.gov"; "Trujillo, Mark"; "smithour_mell_a@lanl.gov"
Subject: RE: Request for Additional Information
Date: Tuesday, January 25, 2011 11:34:00 AM

Dear Mr. Knutson,

Per your request, the capacity of each SERF evaporation basin is approximately 1,150,000 gallons.

We have two identical basins, so the total capacity of both SERF evaporation basins is approximately 2,300,000 gallons.

Please let me know if you have any additional questions.

Sincerely,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Laboratory

From: Knutson, Gerald, NMENV [mailto:Gerald.Knutson@state.nm.us]
Sent: Thursday, January 20, 2011 3:29 PM
To: Robert S. Beers
Cc: George, Robert, NMENV
Subject: RE: Request for Additional Information

Mr. Beers,

This is a request for addition information concerning the Discharge Permit Renewal and Modification application for DP-857.

During the technical review of the Discharge Permit Renewal and Modification application, I was not able to find the capacity of the two synthetically lined lagoons located on Sigma Mesa. Also and upon review, this information is not in the LANL-SWWS files.

Please submit the capacity of each lagoon located on Sigma Mesa.

Thank you for your cooperation during the review process.

Sincerely,

Gerald Knutson
NMED-GWQB

From: Robert S. Beers
To: "Knutson, Gerald, NMENV"
Cc: "Michael T. Saladen"
Subject: RE: DP-857 Request for information
Date: Thursday, January 27, 2011 9:22:00 AM

Mr. Knutson,

Presently, there is no specific Waste Acceptance Criteria (WAC) for the Sanitary Effluent Reclamation Facility (SERF) or the SERF evaporation basins for the following reasons:

1. The SERF is currently permitted under the Laboratory's NPDES outfall permit to receive only treated effluent from the TA-46 SWWS Plant. Accordingly, at the present time, the is no need for a SERF-specific WAC because the SWWS Plant's WAC indirectly protects SERF. If, in the future, the SERF were to receive influent other than SWWS Plant effluent then a WAC for SERF may be required.

2. Under the Laboratory's current policy, the SERF evaporation basins are only authorized to receive wastewater from SERF operations. Again, if, in the future, the SERF basins were to receive wastewater from sources other than SERF then a WAC for the SERF evaporation basins may be required.

Please let me know if you have questions or concerns regarding this information.

Sincerely,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Laboratory

From: Knutson, Gerald, NMENV [mailto:Gerald.Knutson@state.nm.us]
Sent: Tuesday, January 25, 2011 1:43 PM
To: Robert S. Beers
Cc: George, Robert, NMENV
Subject: DP-857 Request for information

Mr. Beers,

In the Discharge Permit Renewal and Modification application for SWWS, DP-857, LANL enclosed the WAC for SWWS. Are SERF and the evaporation basins at Sigma Mesa covered under this WAC?

Thank you for your cooperation during the review process.

Sincerely,

Gerald Knutson
NMED-GWQB

From: Robert S. Beers
To: "Knutson, Gerald, NMENV"
Cc: "George, Robert, NMENV"; "Michael T. Saladen"; "marc@lanl.gov"; "Gene E. Turner"
Bcc: "bbeers@lanl.gov"
Subject: RE: LANL-SWWS, DP-857 Request for Information
Date: Tuesday, February 22, 2011 1:47:00 PM

Dear Mr. Knutson,

To date, the TA-35-124 cooling tower has not discharged any wastewater to NPDES Outfall 03A160 in 2011.

In 2010, the TA-35-124 cooling tower only discharged wastewater to NPDES Outfall 03A160 on 7 days; the total volume of wastewater discharged during those 7 days was 18,771 gallons.

Please let me know if have questions or need additional information.

Sincerely,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Laboratory
505-667-7969

From: Knutson, Gerald, NMENV [mailto:Gerald.Knutson@state.nm.us]
Sent: Tuesday, February 22, 2011 9:35 AM
To: Robert S. Beers
Cc: George, Robert, NMENV
Subject: LANL-SWWS, DP-857 Request for Information

Dear Mr. Beers,

NMED is in the process for drafting the Discharge Permit Renewal and Modification for LANL-SWS, DP-857. Addition information is required for this process. Please submit the discharge volume for TA-35-124's cooling bower blow-down.

Thank you for you cooperation during the review process.

Gerald Knutson
NMED-GWQB

From: Beers, Robert S
To: "Knutson, Gerald, NMENV"
Cc: Saladen, Michael T; George, Robert, NMENV; Turner, Gene E.; Sandoval, Randy J; Rebar, John, NMENV; Stockton, Marjorie B
Subject: RE: NMED DP-857 Inspection_Dec 1, 2011
Date: Monday, November 28, 2011 8:59:00 AM

Mr. Knutson—

I look forward to seeing you and Mr. Rebar on Thursday morning, December 1, 8:30am, at TA-59.

Please call me at 505-695-5689 or 505-667-7969 when you arrive at TA-59 so that I can escort you into the conference room for our kickoff meeting.

Would it be acceptable to you and Mr. Rebar if we conduct the inspection is the following order:

1. TA-46 Sanitary Wastewater Systems (SWWS) Plant
2. Sanitary Effluent Reclamation Facility (SERF)
3. SERF evaporation basins on Sigma Mesa
4. NPDES Outfalls 001 and 03A027
5. The lift station(s) receiving trucked sanitary waste (septage) from LANL's holding tanks.

Please let me know if you would prefer visiting the above facilities in a different sequence.

Regards,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Security, LLC

From: Knutson, Gerald, NMENV [mailto:Gerald.Knutson@state.nm.us]
Sent: Tuesday, November 22, 2011 3:39 PM
To: Beers, Robert S
Cc: Saladen, Michael T; George, Robert, NMENV; Marshall, Clint, NMENV; Turner, Gene E.; Sandoval, Randy J; Rebar, John, NMENV
Subject: RE: NMED DP-857 Inspection_Dec 1, 2011

Mr. Beers,

John Rebar and I will be the NMED employees to participate in the December 1, 2011 inspection.
Mr. Rebar is not a badge holder.
Mr. Rebar is a US citizen.

Sincerely,

Gerald Knutson (badge holder)
NMED-GWQB
(505) 827-2996

From: Beers, Robert S [mailto:bbeers@lanl.gov]
Sent: Monday, November 21, 2011 8:46 AM
To: Knutson, Gerald, NMENV
Cc: Saladen, Michael T; George, Robert, NMENV; Marshall, Clint, NMENV; Turner, Gene E.; Sandoval, Randy J
Subject: NMED DP-857 Inspection_Dec 1, 2011

Dear Mr. Knutson—

I would like to confirm your verbal request (telephone conversation, 11/17/11) to inspect the following LANL facilities regulated under Discharge Permit DP-857:

6. TA-46 Sanitary Wastewater Systems (SWWS) Plant
7. Sanitary Effluent Reclamation Facility (SERF)
8. SERF evaporation basins on Sigma Mesa
9. NPDES Outfalls 001 and 03A027
10. The lift station(s) receiving trucked sanitary waste (septage) from LANL's holding tanks.

This inspection has been scheduled for Thursday, December 1, 2011, at 8:30am. We will hold a kickoff meeting for the inspection at TA-59, Building 96, Room 205.

At your earliest convenience, please send me a list of all NMED employees participating in the inspection. Also, please indicate if those employees are badge holders. If the employee is not a badge holder then please confirm their US citizenship.

Please call me at 505-667-7969 if you have questions.

Sincerely,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Security, LLC
505-667-7969

From: Knutson, Gerald, NMENV
To: Beers, Robert S
Cc: Saladen, Michael T; Rebar, John, NMENV
Subject: RE: NMED DP-857 Inspection_Dec 1, 2011
Date: Wednesday, November 30, 2011 10:32:06 AM

Mr. Beer,

As per my phone message to you yesterday and follow-up call today, the Thursday, December 1, 2011 inspection of SWWS, SERF, and outfalls (DP-857) has been cancelled. I will reschedule the inspection at a later date.

Sincerely,

Gerald Knutson
NMED-GWQB
505-827-2996

From: Beers, Robert S [mailto:bbeers@lanl.gov]
Sent: Wednesday, November 30, 2011 6:56 AM
To: Knutson, Gerald, NMENV
Cc: Saladen, Michael T; Rebar, John, NMENV
Subject: RE: NMED DP-857 Inspection_Dec 1, 2011

Mr. Knutson,

Just a reminder that Mr. Rebar must bring a valid picture ID (drivers license is acceptable) on Thursday.

Also, please refrain from bringing a camera; while it is possible for non-LANL workers to take photos with a non-government camera it requires special authorizations and escorting that I have not arranged for. If you need a picture taken I can make arrangements to get you a photo from a government-owned camera.

And finally, please make sure that you and Mr. Rebar are wearing appropriate shoes (no sandals) and clothing for touring the wastewater treatment plant.

Sincerely,

Bob Beers
Water Quality & RCRA Group
Los Alamos National Security, LLC
505-667-7969

From: Knutson, Gerald, NMENV [mailto:Gerald.Knutson@state.nm.us]
Sent: Tuesday, November 22, 2011 3:39 PM

To: Beers, Robert S
Cc: Saladen, Michael T; George, Robert, NMENV; Marshall, Clint, NMENV; Turner, Gene E.; Sandoval, Randy J; Rebar, John, NMENV
Subject: RE: NMED DP-857 Inspection_Dec 1, 2011

Mr. Beers,

John Rebar and I will be the NMED employees to participate in the December 1, 2011 inspection.
Mr. Rebar is not a badge holder.
Mr. Rebar is a US citizen.

Sincerely,

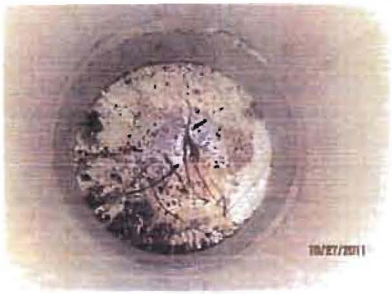
Gerald Knutson (badge holder)
NMED-GWQB
(505) 827-2996

ENCLOSURE 2

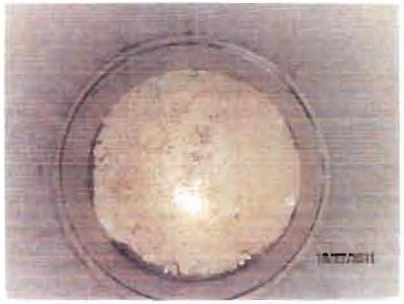
Photographs

SERF Evaporation Basins and Leak Inspection Pipes

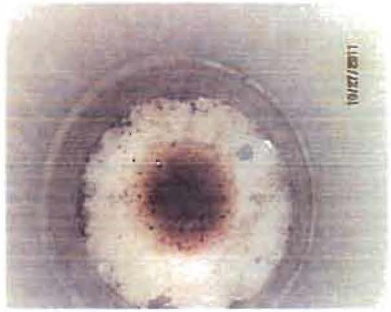
Inspection Dates:
October 27, 2011
November 8, 2011
December 8, 2011



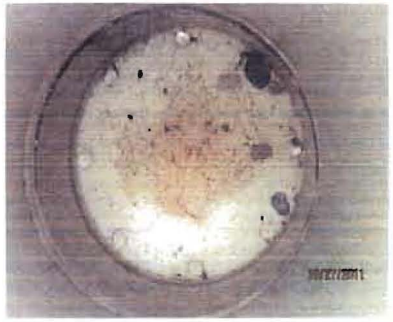
West basin, west inspection pipe. (10-27-11)



West basin, east inspection pipe. (10-27-11)

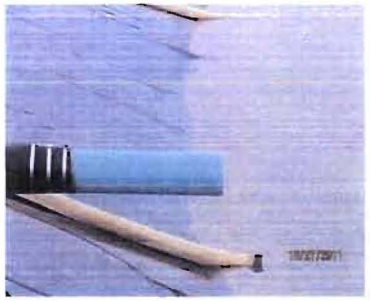


East basin, west inspection pipe. (10-27-11)



East basin, east inspection pipe. (10-27-11)

East basin influent pipe. (10-27-11)



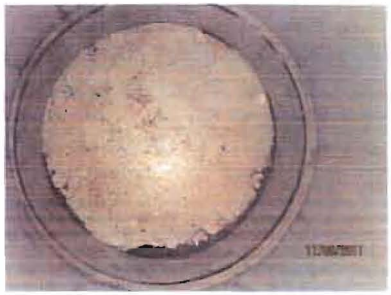
East basin overflow pipe. (10-27-11)

West basin overflow pipe. (10-27-11)

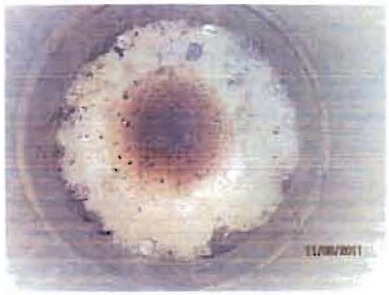
West basin influent pipe. (10-27-11)

SERF Evaporation Basin Inspection
October 27, 2011

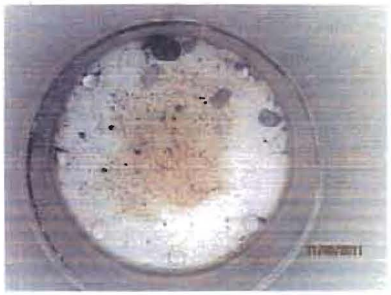
West basin, west inspection pipe (11-08-11)



West basin, east inspection pipe (11-08-11)



East basin, west inspection pipe (11-08-11)



East basin, east inspection pipe (11-08-11)

East basin influent pipe. (11-08-11)

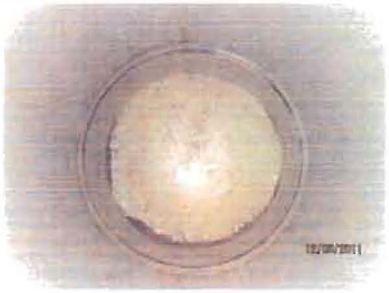
East basin overflow pipe. (11-08-11)

West basin overflow pipe. (11-08-11)

West basin influent pipe. (11-08-11)

SERF Evaporation Basin Inspection
November 8, 2011

West basin, west inspection pipe (12-08-11)



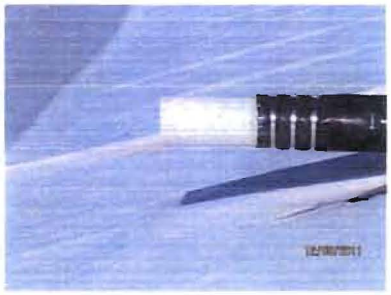
West basin, east inspection pipe (12-08-11)

East basin, west inspection pipe (12-08-11)

East basin, east inspection pipe (12-08-11)

East basin influent pipe (12-08-11)

East basin overflow pipe (12-08-11)



West basin overflow pipe (12-08-11)

West basin influent pipe (12-08-11)

SERF Evaporation Basin Inspection
December 8, 2011

ENCLOSURE 3

GEL Laboratories Analytical Data Reports

Reports on Compact Disc (CD):

11-3330
11-3386
11-3492
11-3620
12-484
12-485

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

December 12, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL WQH WQCC Regs
Work Order: 291689
SDG: 12-484

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 09, 2011, and analyzed for General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 12-484
Enclosures

ARS International (63641-10)
LANL WQH WQCC Regs
Workorder #: 291689
SDG # : 12-484

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....3

Data Review Qualifier Flag Definition Sheet.....10

General Chem Analysis.....12

Case Narrative.....13

Sample Data Summary.....29

Quality Control Summary.....33

Instrument QC Data Summary.....37

Ammonia Nitrogen Raw Data.....42

Ion Chromatography Raw Data.....49

Nitrate Nitrite by Cadmium Reduction Raw Data.....88

Solids, Total Dissolved Raw Data.....96

Total Kjeldahl Nitrogen Raw Data.....98

Miscellaneous.....105

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL WQH WQCC Regs
Workorder #: 291689
SDG # : 12-484

December 12, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 09, 2011 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

Chain of Custody and Supporting Documentation

Thursday, December 08, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 12-484C

REQUEST NUMBER: 12-484

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/7/2012

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 291689 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
SWWS46-12-1813	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
SWWS46-12-1813	1	POLY	NPDES-TDS+Cl	Ice	WOE
SWWS46-12-1814	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
SWWS46-12-1814	1	POLY	NPDES-TDS+Cl	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	12/8/11	1400	P. Nent	12/9/11	09:05
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Thursday, December 08, 2011

REQUEST NUMBER: 12-484

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 12-484
Per Agreement Number: 126310011
Project Cost Code: WE6L11570000

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/8/2011
TURNAROUND/REPORT DUE: 1/7/2012
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:160.1	1	SWWS46-12-1813	WOE	12/8/2011	
		1	SWWS46-12-1814	WOE	12/8/2011	
	EPA:300.0	1	SWWS46-12-1813	WOE	12/8/2011	
		1	SWWS46-12-1814	WOE	12/8/2011	
	EPA:350.1	1	SWWS46-12-1813	WOE	12/8/2011	
		1	SWWS46-12-1814	WOE	12/8/2011	
	EPA:351.2	1	SWWS46-12-1813	WOE	12/8/2011	
		1	SWWS46-12-1814	WOE	12/8/2011	
	EPA:353.2	1	SWWS46-12-1813	WOE	12/8/2011	
		1	SWWS46-12-1814	WOE	12/8/2011	

Final Page of REQUEST NUMBER 12-484

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/AR/COC/Work Order: 12-484**
Received By:Patricia Dent	**Date Received:December 09, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): **0CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	X			Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius **2-4,13,15C**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: Secondary Temperature Device Serial # (If Applicable):**61524646**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			**Sample ID's and containers affected:**
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected:**Time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**CLIENTS**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			**Circle Applicable:** **FedEx Air FedEx Ground UPS Field Services Courier Other** **7209 7856 1318 2c 7209 7856 1329 2c** **7209 7856 1307 3c 7209 7856 1270 4c** **7209 7856 1281 13c 7209 7856 1292 15c**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials [illegible] Date 12-12-11 Page 1 of 1

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

2c

FedEx Express

2 of 3
S# 7209 7856 1318
trk# 7209 7856 1307

FRI - 09 DEC A1
PRIORITY OVERNIGHT

0201

X CHSA

29407
SC-US CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

3c

FedEx Express

1 of 3
RK# 7209 7856 1307
0201
MASTER

FRI - 09 DEC A1
PRIORITY OVERNIGHT

X CHSA

29407
SC-US CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

2c

FedEx Express

3 of 3
MPS# 7209 7856 1329
0263
MstrW 7209 7856 1307

FRI - 09 DEC A1
PRIORITY OVERNIGHT

0201

XX CHSA

29407
SC-US CHS

Part # 156148-434 RIT2 08/10

NPOEX

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR3A02244M00

4c

FedEx Express

TRK# 7209 7856 1270
0201

FRI - 09 DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US CHS

RIT2 08/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

13c

58DC1/859F/18BC

FedEx Express

J111311060680125

1 of 2

TRK# 0201 7209 7856 1281

FRI - 09 DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US CHS

Part # 156148-434 RIT2 08/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

15c

58DC1/859F/18BC

FedEx Express

J111311060680125

2 of 2

MPS# 0263 7209 7856 1292

Mstr# 7209 7856 1281

FRI - 09 DEC A1
PRIORITY OVERNIGHT

0201

XX CHSA

29407
SC-US CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

General Chem Analysis

Case Narrative

General Chemistry Narrative
ARS International (ARSL)
SDG 12-484

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	1169336	**Method:**	EPA 300.0 Chloride in Liquid

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814
1202555250	Method Blank (MB)
1202555251	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555252	291689001(SWWS46-12-1813) Post Spike (PS)
1202555253	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 20.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291689001 (SWWS46-12-1813).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555252 (SWWS46-12-1813).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202555251 (SWWS46-12-1813), 1202555252 (SWWS46-12-1813) and 291689001 (SWWS46-12-1813).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1030631 1202555252 (SWWS46-12-1813).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	1169314	**Method:**	Nitrogen as Ammonia
Prep Batch :	1169312	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814
1202555175	Method Blank (MB)
1202555176	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555177	291796002(CALA-12-1767) Sample Duplicate (DUP)
1202555178	291689001(SWWS46-12-1813) Matrix Spike (MS)
1202555179	291796002(CALA-12-1767) Matrix Spike (MS)
1202555180	291689001(SWWS46-12-1813) Matrix Spike Duplicate (MSD)
1202555181	291796002(CALA-12-1767) Matrix Spike Duplicate (MSD)
1202555182	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 291689001 (SWWS46-12-1813) and 291796002 (CALA-12-1767).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555181 (CALA-12-1767).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202555177 (CALA-12-1767).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1029616 1202555181 (CALA-12-1767).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	1169324	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	1169323	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814
1202555215	Method Blank (MB)
1202555217	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555219	291689001(SWWS46-12-1813) Matrix Spike (MS)
1202555221	291689001(SWWS46-12-1813) Matrix Spike Duplicate (MSD)
1202555222	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291689001 (SWWS46-12-1813).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555219 (SWWS46-12-1813).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555221 (SWWS46-12-1813).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample: 1202555217 (SWWS46-12-1813).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202555215 (MB). The following samples were re-analyzed to verify the results: 1202555215 (MB) and 1202555222 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1030062 1202555217 (SWWS46-12-1813), 1202555219 (SWWS46-12-1813) and 1202555221 (SWWS46-12-1813).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	1169319	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814
1202555191	Method Blank (MB)
1202555193	291703001(Buckman1-12-1727) Sample Duplicate (DUP)
1202555195	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555198	291703001(Buckman1-12-1727) Post Spike (PS)
1202555200	291689001(SWWS46-12-1813) Post Spike (PS)
1202555202	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 291689001 (SWWS46-12-1813) and 291703001 (Buckman1-12-1727).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202555193 (Buckman1-12-1727).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to matrix interference: 1202555193 (Buckman1-12-1727), 1202555195 (SWWS46-12-1813), 1202555198 (Buckman1-12-1727), 1202555200 (SWWS46-12-1813) and 291689001 (SWWS46-12-1813).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Solids, Total Dissolved**		
Analytical Batch:	1169725	**Method:**	EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
291689001	SWWS46-12-1813
291689002	SWWS46-12-1814
1202556227	Method Blank (MB)
1202556228	291687001(SWWS46-12-1815) Sample Duplicate (DUP)
1202556229	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration
All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291687001 (SWWS46-12-1815).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 19Dec11

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

ARSL001 ARS International (63641-10)

Client SDG: 12-484 GEL Work Order: 291689

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

H Analytical holding time was exceeded

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the RL or LOQ.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed By:

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 16, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL WQH WQCC Regs

Client SDG: 12-484

Client Sample ID:	SWWS46-12-1813	Project:	ESHL00110
Sample ID:	291689001	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	08-DEC-11 12:00		
Receive Date:	09-DEC-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA 300.0 Chloride in Liquid "As Received"											
Chloride		135	0.660	2.00	mg/L	10	MAR1	12/14/11	1222	1169336	1
Nutrient Analysis											
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		1.16	0.050	0.250	mg/L	5	KLP1	12/15/11	1039	1169319	2
Nitrogen as Ammonia "As Received"											
Nitrogen, Ammonia		0.113	0.016	0.050	mg/L	1	KLP1	12/13/11	1051	1169314	3
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl		0.852	0.035	0.100	mg/L	1	KLP1	12/14/11	1421	1169324	4
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		474	3.40	14.3	mg/L		LYG1	12/13/11	1023	1169725	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	AXS5	12/12/11	1541	1169312
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	AXS5	12/13/11	1700	1169323

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 353.2	
3	EPA 350.1	
4	EPA 351.2	
5	EPA 160.1	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 16, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL WQH WQCC Regs

Client SDG: 12-484

Client Sample ID:	SWWS46-12-1814	Project:	ESHL00110
Sample ID:	291689002	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	08-DEC-11 12:00		
Receive Date:	09-DEC-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA 300.0 Chloride in Liquid "As Received"											
Chloride		15.8	0.066	0.200	mg/L	1	MAR1	12/12/11	1809	1169336	1
Nutrient Analysis											
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.423	0.010	0.050	mg/L	1	KLP1	12/15/11	1042	1169319	2
Nitrogen as Ammonia "As Received"											
Nitrogen, Ammonia		0.216	0.016	0.050	mg/L	1	KLP1	12/13/11	1058	1169314	3
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl		1.01	0.035	0.100	mg/L	1	KLP1	12/14/11	1425	1169324	4
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		463	3.40	14.3	mg/L		LYG1	12/13/11	1023	1169725	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	AXS5	12/12/11	1541	1169312
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	AXS5	12/13/11	1700	1169323

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 353.2	
3	EPA 350.1	
4	EPA 351.2	
5	EPA 160.1	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 16, 2011

Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **291689**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 1169336											
QC1202555251 291689001 DUP											
Chloride			135		135	mg/L	0.119		(0%-20%)	MAR1	12/14/11 12:51
QC1202555253 LCS											
Chloride	10.0				9.66	mg/L		96.6	(90%-110%)		12/12/11 15:45
QC1202555250 MB											
Chloride				U	ND	mg/L					12/12/11 15:16
QC1202555252 291689001 PS											
Chloride	10.0		13.5		24.9	mg/L		115*	(90%-110%)		12/14/11 13:20
Nutrient Analysis											
Batch 1169314											
QC1202555176 291689001 DUP											
Nitrogen, Ammonia			0.113		0.118	mg/L	4.33 ^		(+/-0.050)	KLP1	12/13/11 10:52
QC1202555177 291796002 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A				12/13/11 11:03
QC1202555182 LCS											
Nitrogen, Ammonia	1.00			J	1.06	mg/L		106	(90%-110%)		12/13/11 10:47
QC1202555175 MB											
Nitrogen, Ammonia				U	ND	mg/L					12/13/11 10:46
QC1202555178 291689001 MS											
Nitrogen, Ammonia	1.00		0.113		1.17	mg/L		106	(90%-110%)		12/13/11 10:53
QC1202555179 291796002 MS											
Nitrogen, Ammonia	1.00	U	ND		1.07	mg/L		107	(90%-110%)		12/13/11 11:03
QC1202555180 291689001 MSD											
Nitrogen, Ammonia	1.00		0.113		1.21	mg/L	3.36	110	(0%-15%)		12/13/11 10:53
QC1202555181 291796002 MSD											
Nitrogen, Ammonia	1.00	U	ND		1.12	mg/L	4.57	112*	(0%-15%)		12/13/11 11:04
Batch 1169319											
QC1202555193 291703001 DUP											
Nitrogen, Nitrate/Nitrite			0.895		1.11	mg/L	21.4 ^		(+/-0.250)	KLP1	12/15/11 11:37
QC1202555195 291689001 DUP											
Nitrogen, Nitrate/Nitrite			1.16		1.16	mg/L	0.00 ^		(+/-0.250)		12/15/11 10:40
QC1202555202 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.913	mg/L		91.3	(90%-110%)		12/15/11 10:30
QC1202555191 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/15/11 10:29
QC1202555198 291703001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.179		1.13	mg/L		95.1	(90%-110%)		12/15/11 11:38
QC1202555200 291689001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.231		1.18	mg/L		94.9	(90%-110%)		12/15/11 10:41
Batch 1169324											
QC1202555217 291689001 DUP											
Nitrogen, Total Kjeldahl			0.852		0.606	mg/L	33.7*		(0%-20%)	KLP1	12/14/11 14:22
QC1202555222 LCS											

QC Summary

Workorder: 291689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis										
Batch 1169324										
Nitrogen, Total Kjeldahl	1.00			1.07	mg/L		107	(90%-110%)		12/14/11 13:58
QC1202555215 MB										
Nitrogen, Total Kjeldahl			J	0.0625	mg/L				KLP1	12/14/11 14:06
QC1202555219 291689001 MS										
Nitrogen, Total Kjeldahl	1.00	0.852		1.74	mg/L		88.8 *	(90%-110%)		12/14/11 14:23
QC1202555221 291689001 MSD										
Nitrogen, Total Kjeldahl	1.00	0.852		1.74	mg/L	0.00	88.8 *	(0%-20%)		12/14/11 14:24
Solids Analysis										
Batch 1169725										
QC1202556228 291687001 DUP										
Total Dissolved Solids		539		533	mg/L	1.07		(0%-10%)	LYG1	12/13/11 10:23
QC1202556229 LCS										
Total Dissolved Solids	300			291	mg/L		97.1	(95%-105%)		12/13/11 10:23
QC1202556227 MB										
Total Dissolved Solids			U	ND	mg/L					12/13/11 10:23

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound

QC Summary

Workorder: 291689

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-484

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-DEC-2011 09:29:00**	**111212**	**9.6508**	**10**	**96.5**	**(90%-110%)**	**Yes**
CCV	12-DEC-2011 14:18:00	111212	9.6946	10	96.9	(90%-110%)	Yes
CCV	12-DEC-2011 18:38:00	111212	14.9036	15	99.4	(90%-110%)	Yes
ICV	**14-DEC-2011 10:55:00**	**111214**	**9.6495**	**10**	**96.5**	**(90%-110%)**	**Yes**
CCV	14-DEC-2011 16:13:00	111214	14.8483	15	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-DEC-2011 09:58:00**	**111212**	**0**	**0.2**	**Yes**
CCB	12-DEC-2011 14:47:00	111212	0	0.2	Yes
CCB	12-DEC-2011 19:07:00	111212	0	0.2	Yes
ICB	**14-DEC-2011 11:24:00**	**111214**	**0**	**0.2**	**Yes**
CCB	14-DEC-2011 16:42:00	111214	0	0.2	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-484

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**13-DEC-2011 10:42:41**	**OM_12-13-2011_10-35-37**	**0.96**	**1**	**96**	**(90%-110%)**	**Yes**
CCV	13-DEC-2011 10:54:39	OM_12-13-2011_10-35-37	1	1	100	(90%-110%)	Yes
CCV	13-DEC-2011 11:06:31	OM_12-13-2011_10-35-37	1.01	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**13-DEC-2011 10:44:32**	**OM_12-13-2011_10-35-37**	**-0.0268**	**0.05**	**Yes**
CCB	13-DEC-2011 10:56:29	OM_12-13-2011_10-35-37	-0.0234	0.05	Yes
CCB	13-DEC-2011 11:08:21	OM_12-13-2011_10-35-37	-0.0212	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-484

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**14-DEC-2011 13:50:51**	**OM_12-14-2011_13-44-06**	**1.02**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	14-DEC-2011 14:02:58	OM_12-14-2011_13-44-06	0.981	1	98.1	(90%-110%)	Yes
CCV	14-DEC-2011 14:14:46	OM_12-14-2011_13-44-06	0.941	1	94.1	(90%-110%)	Yes
CCV	14-DEC-2011 14:27:03	OM_12-14-2011_13-44-06	0.951	1	95.1	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**14-DEC-2011 13:52:42**	**OM_12-14-2011_13-44-06**	**0.0509**	**0.1**	**Yes**
CCB	14-DEC-2011 14:04:49	OM_12-14-2011_13-44-06	0.0616	0.1	Yes
CCB	14-DEC-2011 14:16:38	OM_12-14-2011_13-44-06	0.0553	0.1	Yes
CCB	14-DEC-2011 14:28:55	OM_12-14-2011_13-44-06	0.0293	0.1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-484

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2011 10:12:00**	**OM_12-15-2011_10-02-37**	**0.957**	**1**	**95.7**	**(90%-110%)**	**Yes**
CCV	15-DEC-2011 10:33:16	OM_12-15-2011_10-02-37	1.05	1	105	(90%-110%)	Yes
CCV	15-DEC-2011 10:49:50	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes
CCV	15-DEC-2011 11:23:00	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes
CCV	15-DEC-2011 11:39:34	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2011 10:14:21**	**OM_12-15-2011_10-02-37**	**-0.00171**	**0.05**	**Yes**
CCB	15-DEC-2011 10:35:37	OM_12-15-2011_10-02-37	-0.00158	0.05	Yes
CCB	15-DEC-2011 10:52:11	OM_12-15-2011_10-02-37	-0.00153	0.05	Yes
CCB	15-DEC-2011 11:25:21	OM_12-15-2011_10-02-37	-0.00137	0.05	Yes
CCB	15-DEC-2011 11:41:55	OM_12-15-2011_10-02-37	-0.00105	0.05	Yes

Ammonia Nitrogen Raw Data

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **1169312.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 15

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555182	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555178	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555179	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555180	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555181	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202555175 MB	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555182 LCS	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291296001	12-DEC-2011 15:41:00	Surface Water	25	25	1	9.5
291534001	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291535001	12-DEC-2011 15:41:00	Surface Water	25	25	1	9.5
291687001	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291689001	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555176 DUP (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555178 MS (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555180 MSD (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291689002	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291703001	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703003	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703005	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703007	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796002	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555177 DUP (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555179 MS (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555181 MSD (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796003	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796005	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291797002	12-DEC-2011 15:41:00	Water	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **1169312.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 15

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555182	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555178	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555179	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555180	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555181	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check

Reagent/Solvent Lot ID	Description	Amount
110629-C	Borate Buffer	1.25 mL
1609355-C	50% NaOH Solution	1 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	klp1	12/13/2011 10:36:35	OM_12-13-2011_10-35-37
1.0 ppm Std.		1	klp1	12/13/2011 10:37:25	OM_12-13-2011_10-35-37
0.5 ppm Std		1	klp1	12/13/2011 10:38:15	OM_12-13-2011_10-35-37
0.1 ppm Std		1	klp1	12/13/2011 10:39:06	OM_12-13-2011_10-35-37
0.05 ppm Std		1	klp1	12/13/2011 10:39:58	OM_12-13-2011_10-35-37
ICAL-00		1	klp1	12/13/2011 10:40:51	OM_12-13-2011_10-35-37
ICV		1	klp1	12/13/2011 10:42:41	OM_12-13-2011_10-35-37
ICB		1	klp1	12/13/2011 10:44:32	OM_12-13-2011_10-35-37
1202555175	1169314	1	klp1	12/13/2011 10:46:21	OM_12-13-2011_10-35-37
1202555182	1169314	1	klp1	12/13/2011 10:47:12	OM_12-13-2011_10-35-37
291296001	1169314	1	klp1	12/13/2011 10:48:03	OM_12-13-2011_10-35-37
291534001	1169314	1	klp1	12/13/2011 10:48:53	OM_12-13-2011_10-35-37
291535001	1169314	1	klp1	12/13/2011 10:49:44	OM_12-13-2011_10-35-37
291687001	1169314	1	klp1	12/13/2011 10:50:34	OM_12-13-2011_10-35-37
291689001	1169314	1	klp1	12/13/2011 10:51:23	OM_12-13-2011_10-35-37
1202555176	1169314	1	klp1	12/13/2011 10:52:12	OM_12-13-2011_10-35-37
1202555178	1169314	1	klp1	12/13/2011 10:53:01	OM_12-13-2011_10-35-37
1202555180	1169314	1	klp1	12/13/2011 10:53:50	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 10:54:39	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 10:56:29	OM_12-13-2011_10-35-37
291689002	1169314	1	klp1	12/13/2011 10:58:17	OM_12-13-2011_10-35-37
291703001	1169314	1	klp1	12/13/2011 10:59:05	OM_12-13-2011_10-35-37
291703003	1169314	1	klp1	12/13/2011 10:59:53	OM_12-13-2011_10-35-37
291703005	1169314	1	klp1	12/13/2011 11:00:40	OM_12-13-2011_10-35-37
291703007	1169314	1	klp1	12/13/2011 11:01:28	OM_12-13-2011_10-35-37
291796002	1169314	1	klp1	12/13/2011 11:02:17	OM_12-13-2011_10-35-37
1202555177	1169314	1	klp1	12/13/2011 11:03:08	OM_12-13-2011_10-35-37
1202555179	1169314	1	klp1	12/13/2011 11:03:59	OM_12-13-2011_10-35-37
1202555181	1169314	1	klp1	12/13/2011 11:04:50	OM_12-13-2011_10-35-37
291796003	1169314	1	klp1	12/13/2011 11:05:40	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 11:06:31	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 11:08:21	OM_12-13-2011_10-35-37
291796005*	1169314	1	klp1	12/13/2011 11:10:10	OM_12-13-2011_10-35-37
291797002*	1169314	1	klp1	12/13/2011 11:11:00	OM_12-13-2011_10-35-37
1202555207*	1169322	1	klp1	12/13/2011 11:11:49	OM_12-13-2011_10-35-37
1202555214*	1169322	1	klp1	12/13/2011 11:12:39	OM_12-13-2011_10-35-37
291506001*	1169322	1	klp1	12/13/2011 11:13:28	OM_12-13-2011_10-35-37
1202555208*	1169322	1	klp1	12/13/2011 11:14:17	OM_12-13-2011_10-35-37
1202555210*	1169322	1	klp1	12/13/2011 11:15:06	OM_12-13-2011_10-35-37
1202555212*	1169322	1	klp1	12/13/2011 11:15:54	OM_12-13-2011_10-35-37
291537001*	1169322	1	klp1	12/13/2011 11:16:42	OM_12-13-2011_10-35-37
1202555209*	1169322	1	klp1	12/13/2011 11:17:30	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 11:18:19	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 11:20:09	OM_12-13-2011_10-35-37

Author: klp1 Date : 12/13/2011

Original Run Filename: OM_12-13-2011_10-35-37.OMN created 12/13/2011 10:35:37
Original Run Author's Signature: [klp1]
Current Run Filename: OM_12-13-2011_10-35-37.OMN last modified 12/13/2011 11:21:13
Current Run Author's Signature: [klp1]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111213-03	1	S10	2.00	16.6	12/13/2011@10:36:35			2.0 ppm Std.
WTR111213-04	1	S11	1.00	8.53	12/13/2011@10:37:25			1.0 ppm Std.
WTR111213-05	1	S12	0.500	4.56	12/13/2011@10:38:15			0.5 ppm Std
WTR111213-06	1	S13	0.100	1.45	12/13/2011@10:39:06			0.1 ppm Std
WTR111213-07	1	S14	0.0500	0.651	12/13/2011@10:39:58			0.05 ppm Std
WTR111213-10 0.0 ppm	1	S15	0.00	0.139	12/13/2011@10:40:51			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111213-08 ICV	1	S16	0.960	8.20	12/13/2011@10:42:41			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.960 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.960 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR111213-10 ICB	1	S15	-0.0268	0.143	12/13/2011@10:44:32			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0268 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0268 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
1202555175|1169314|MB	1	1	-0.0195	0.202	12/13/2011@10:46:21			
1202555182||LCS	1	2	1.06	9.00	12/13/2011@10:47:12			
291296001	1	3	0.112	1.28	12/13/2011@10:48:03			
291534001	1	4	0.124	1.37	12/13/2011@10:48:53			
291535001	1	5	0.0229	0.548	12/13/2011@10:49:44			
291687001	1	6	0.108	1.24	12/13/2011@10:50:34			
291689001	1	7	0.113	1.29	12/13/2011@10:51:23			
1202555176||DUP	1	8	0.118	1.32	12/13/2011@10:52:12			
1202555178||MS	1	9	1.17	9.94	12/13/2011@10:53:01			
1202555180||MSD	1	10	1.21	10.2	12/13/2011@10:53:50			
WTR111213-04 CCV	1	S11	1.00	8.53	12/13/2011@10:54:39			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.0234	0.171	12/13/2011@10:56:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0234 < 0.0490					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0234 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291689002	1	11	0.216	2.12	12/13/2011@10:58:17			
291703001	1	12	0.0117	0.457	12/13/2011@10:59:05			
291703003	1	13	-0.0154	0.236	12/13/2011@10:59:53			
291703005	1	14	0.0206	0.529	12/13/2011@11:00:40			
291703007	1	15	1.72e-4	0.363	12/13/2011@11:01:28			
291796002	1	16	-0.0295	0.121	12/13/2011@11:02:17			
1202555177||DUP	1	17	-0.0121	0.263	12/13/2011@11:03:08			
1202555179||MS	1	18	1.07	9.12	12/13/2011@11:03:59			
1202555181||MSD	1	19	1.12	9.48	12/13/2011@11:04:50			
291796003	1	20	0.0159	0.491	12/13/2011@11:05:40			
WTR111213-04 CCV	1	S11	1.01	8.60	12/13/2011@11:06:31			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.0212	0.189	12/13/2011@11:08:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0212 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0212 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291796005	1	21	0.00928	0.437	12/13/2011@11:10:10			
291797002	1	22	6.54e-4	0.367	12/13/2011@11:11:00			
1202555207|1169322|MB	1	23	-0.00786	0.297	12/13/2011@11:11:49			
1202555214||LCS	1	24	1.07	9.13	12/13/2011@11:12:39			
291506001	1	25	-0.0244	0.162	12/13/2011@11:13:28			
1202555208||DUP	1	26	-0.0348	0.0773	12/13/2011@11:14:17			
1202555210||MS	1	27	-0.0362	0.0660	12/13/2011@11:15:06			
1202555212||MSD	1	28	-0.0314	0.105	12/13/2011@11:15:54			
291537001	1	29	0.147	1.56	12/13/2011@11:16:42			
1202555209||DUP	1	30	0.132	1.44	12/13/2011@11:17:30			
WTR111213-04 CCV	1	S11	1.00	8.53	12/13/2011@11:18:19			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.142	-0.797	12/13/2011@11:20:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.142 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.142 < -0.0500					
		Message	CCB Failed					
		Action	Stop Run					

Channel 1 (NH3) : Current View

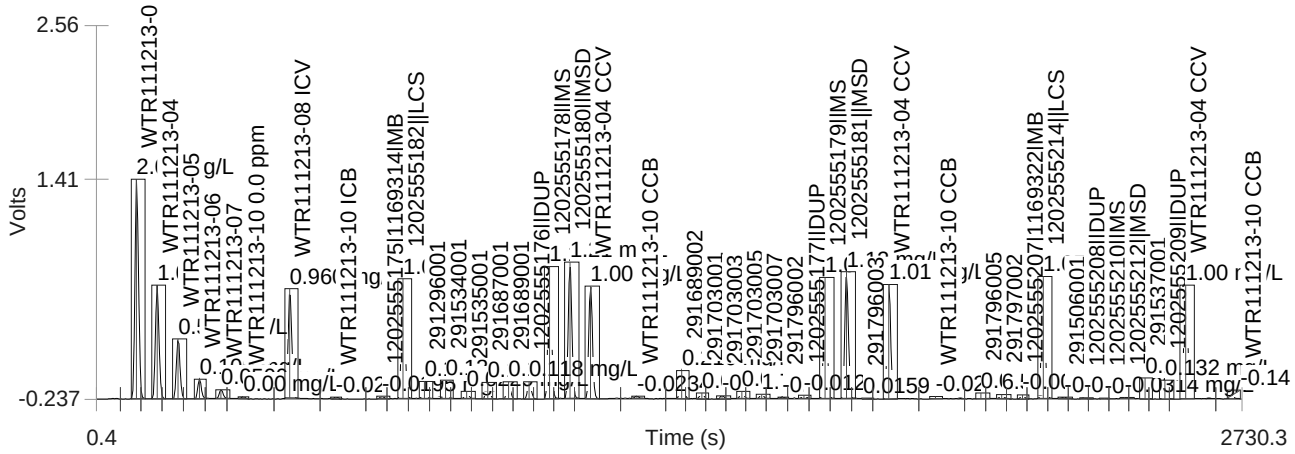
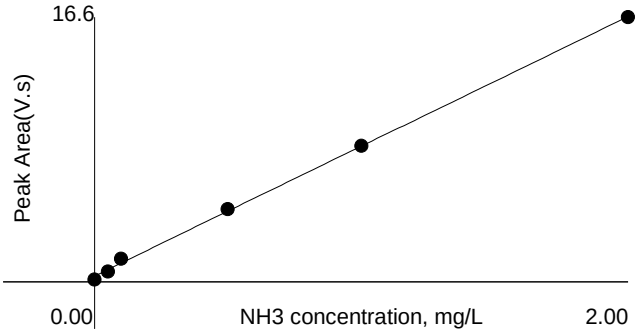


Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.00	1	16.6	1.64	0.3	12/13/2011	10:37:38
2	1.00	1	8.53	0.850	-0.1	12/13/2011	10:38:28
3	0.500	1	4.56	0.447	-2.6	12/13/2011	10:39:18
4	0.100	1	1.45	0.145	-22.7	12/13/2011	10:40:09
5	0.0500	1	0.651	0.0634	15.8	12/13/2011	10:41:01
6	0.00	1	0.139	0.0128		12/13/2011	10:41:53

Figure 1: NH3



Area = 8.15 * Conc + 0.365
Conc = 0.123 * Area - 0.0443
Correlation Coefficient (r) = 0.99962

No Weighting

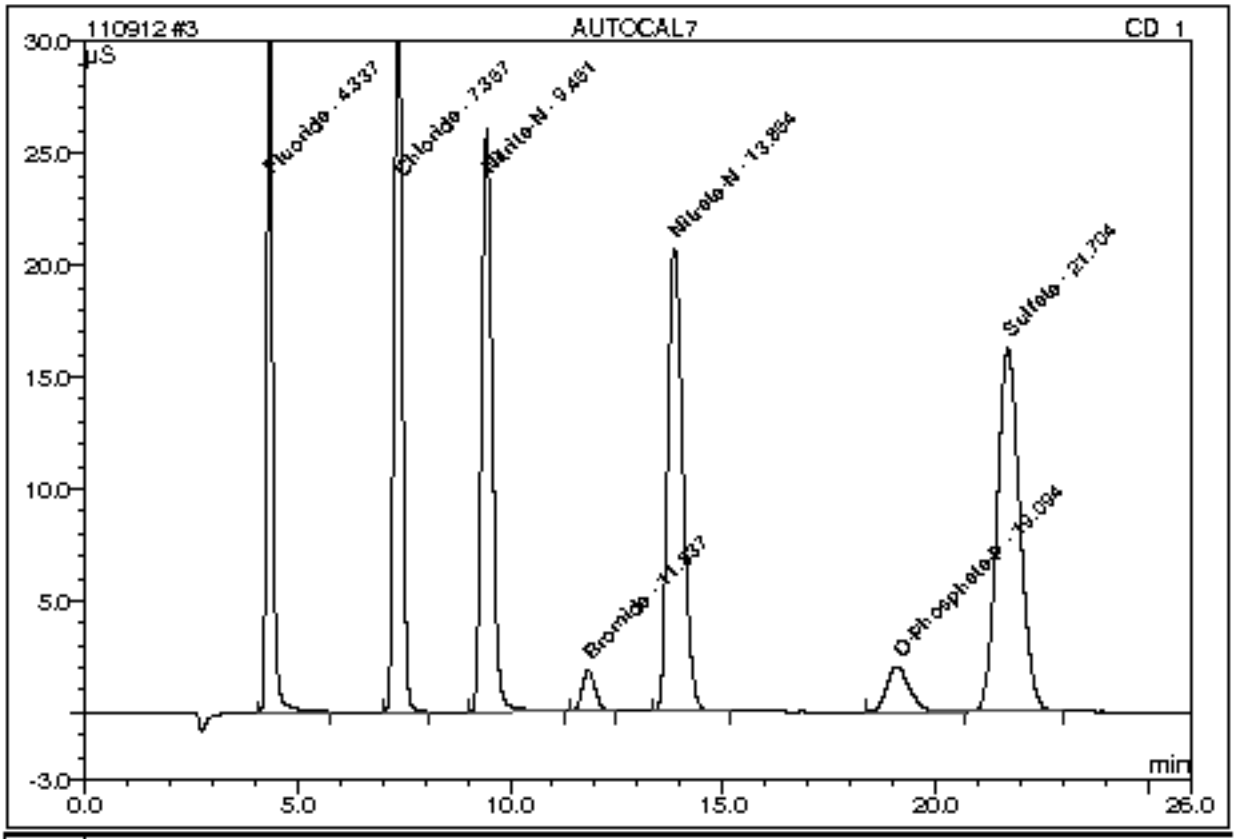
Ion Chromatography
Raw Data

This is runlog for Sequence 111001.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	09/12/11 13:42		1	111001	MAR1
ICAL-06	09/12/11 14:11		1	111001	MAR1
ICAL-05	09/12/11 14:40		1	111001	MAR1
ICAL-04	09/12/11 15:09		1	111001	MAR1
ICAL-03	09/12/11 15:38		1	111001	MAR1
ICAL-02	09/12/11 16:07		1	111001	MAR1
ICAL-01	09/12/11 16:36		1	111001	MAR1
ICAL-07	09/12/11 13:42		1	111001	MAR1
ICAL-06	09/12/11 14:11		1	111001	MAR1
ICAL-05	09/12/11 14:40		1	111001	MAR1
ICAL-04	09/12/11 15:09		1	111001	MAR1
ICAL-03	09/12/11 15:38		1	111001	MAR1
ICAL-02	09/12/11 16:07		1	111001	MAR1
ICAL-01	09/12/11 16:36		1	111001	MAR1

3 AUTOCAL7

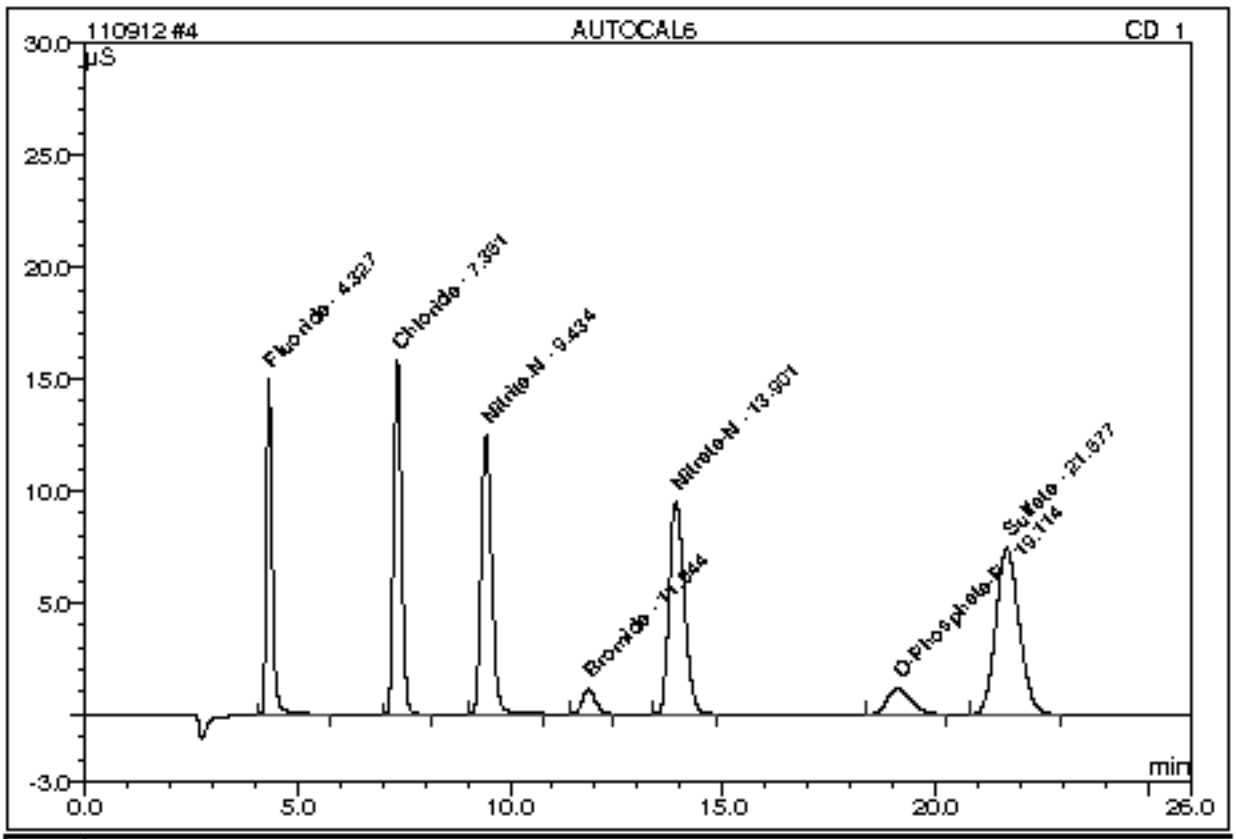
Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 13:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	10.0000	9.7365		5.12809	12.59
2	7.37	Chloride	20.0000	19.5160		7.47308	18.35
3	9.45	Nitrite-N	10.0000	9.7415		7.58982	18.63
4	11.84	Bromide	5.0000	5.7824		0.63781	1.57
5	13.86	Nitrate-N	10.0000	9.7535		8.54007	20.97
6	19.09	O-Phosphate-P	5.0000	5.8096		1.26200	3.10
7	21.70	Sulfate	40.0000	38.9896		10.10357	24.80
Total:				99.3290	0.000	40.734	100.00

4 AUTOCAL6

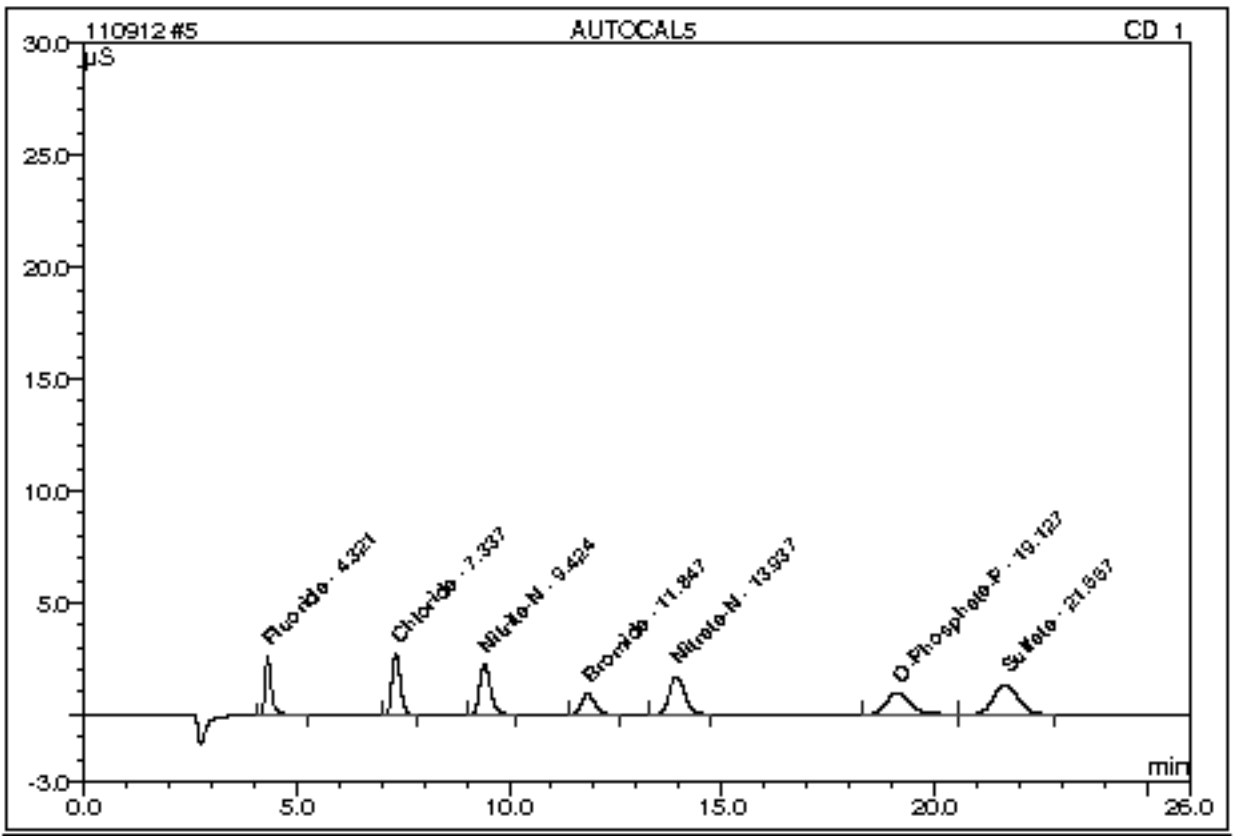
Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 14:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	5.0000	4.8790		2.47571	12.87
2	7.35	Chloride	10.0000	9.3264		3.39321	17.64
3	9.43	Nitrite-N	5.0000	4.8192		3.60367	18.74
4	11.84	Bromide	3.0000	3.0088		0.38295	1.99
5	13.90	Nitrate-N	5.0000	4.6983		3.91854	20.37
6	19.11	O-Phosphate-P	3.0000	2.9469		0.72995	3.80
7	21.68	Sulfate	20.0000	19.0612		4.72813	24.58
Total:				48.7398	0.000	19.232	100.00

5 AUTOCAL5

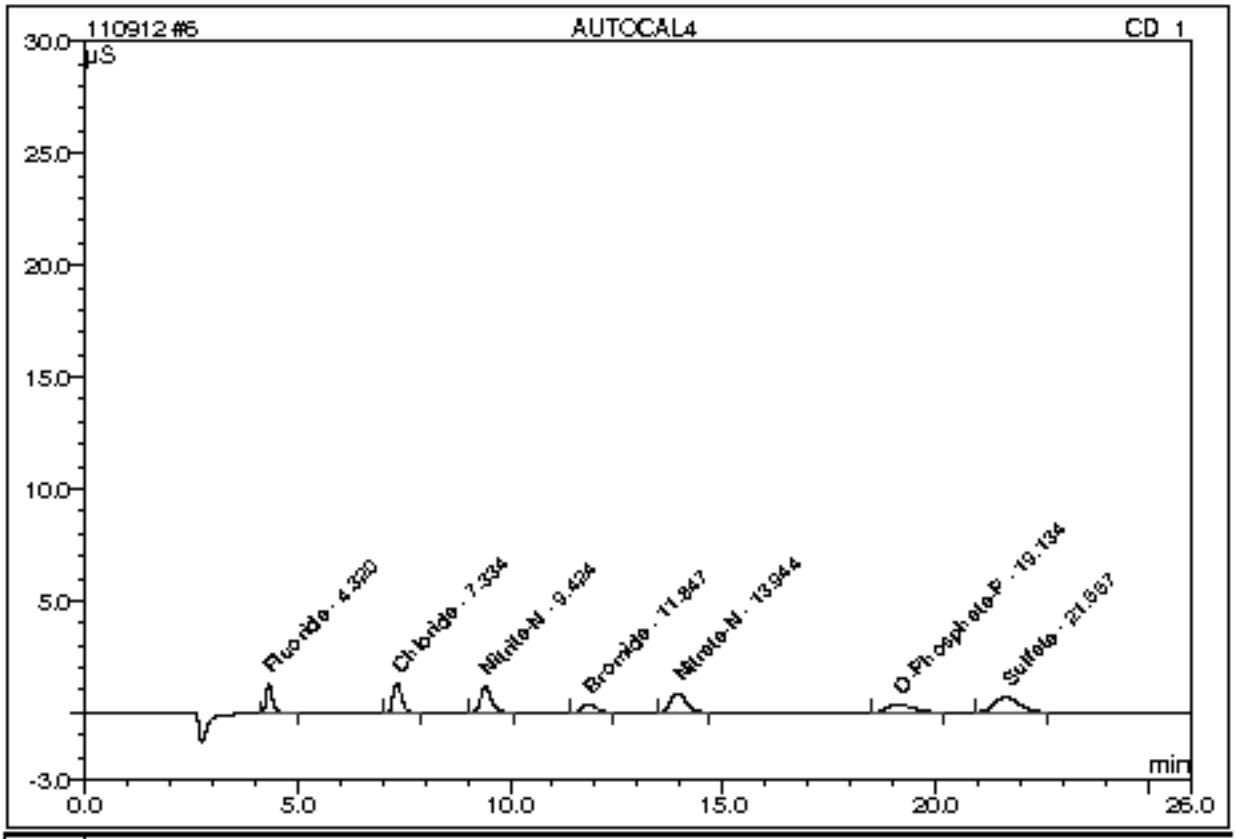
Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 14:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	1.0000	0.9357		0.45233	10.67
2	7.34	Chloride	2.0000	1.8409		0.60849	14.36
3	9.42	Nitrite-N	1.0000	0.9269		0.64979	15.33
4	11.85	Bromide	2.5000	2.5247		0.32216	7.60
5	13.94	Nitrate-N	1.0000	0.9204		0.70204	16.57
6	19.13	O-Phosphate-P	2.5000	2.5145		0.62281	14.70
7	21.66	Sulfate	4.0000	3.7829		0.88026	20.77
Total:				13.4462	0.000	4.238	100.00

6 AUTOCAL4

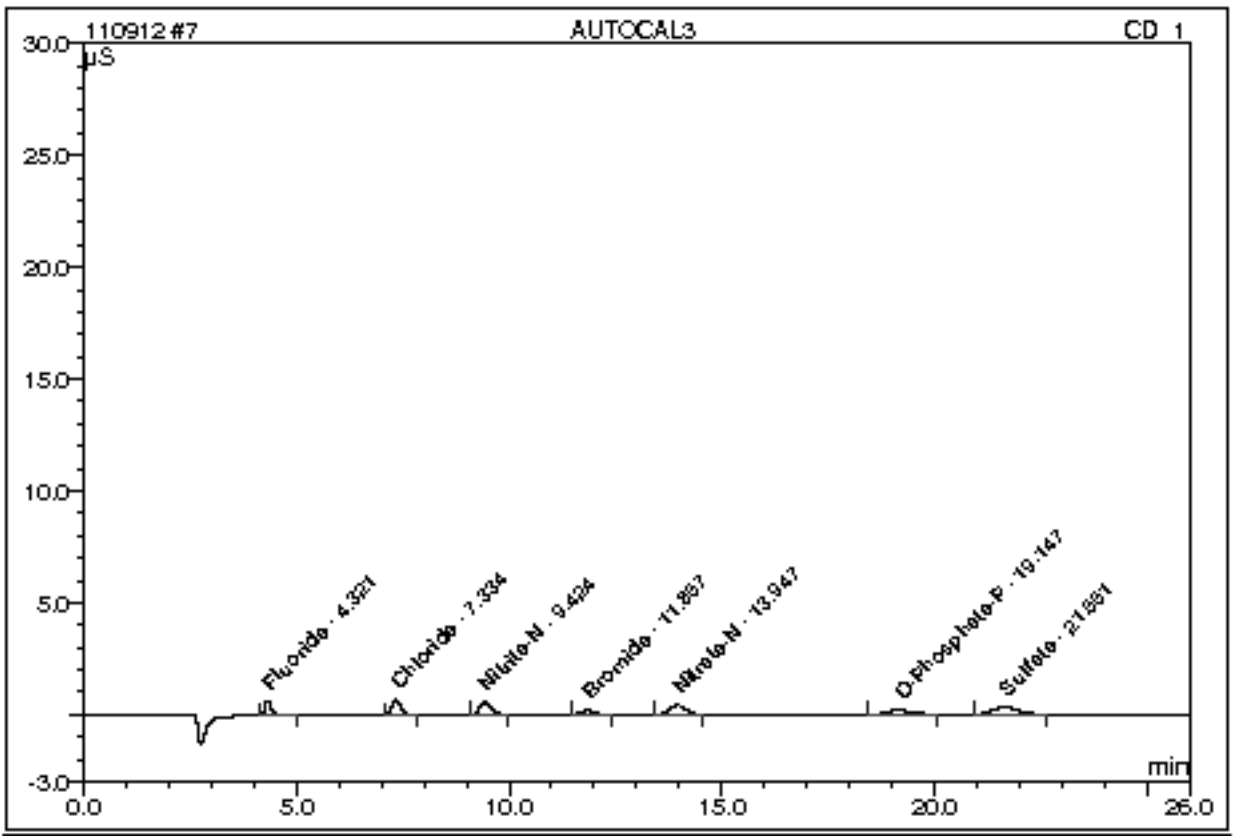
Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.5000	0.4900		0.21992	11.15
2	7.33	Chloride	1.0000	1.0193		0.29484	14.95
3	9.42	Nitrite-N	0.5000	0.5043		0.32403	16.43
4	11.85	Bromide	1.0000	0.9908		0.12636	6.41
5	13.94	Nitrate-N	0.5000	0.5166		0.35086	17.79
6	19.13	O-Phosphate-P	1.0000	0.9515		0.22473	11.39
7	21.66	Sulfate	2.0000	2.0308		0.43176	21.89
Total:				6.5033	0.000	1.972	100.00

7 AUTOCAL3

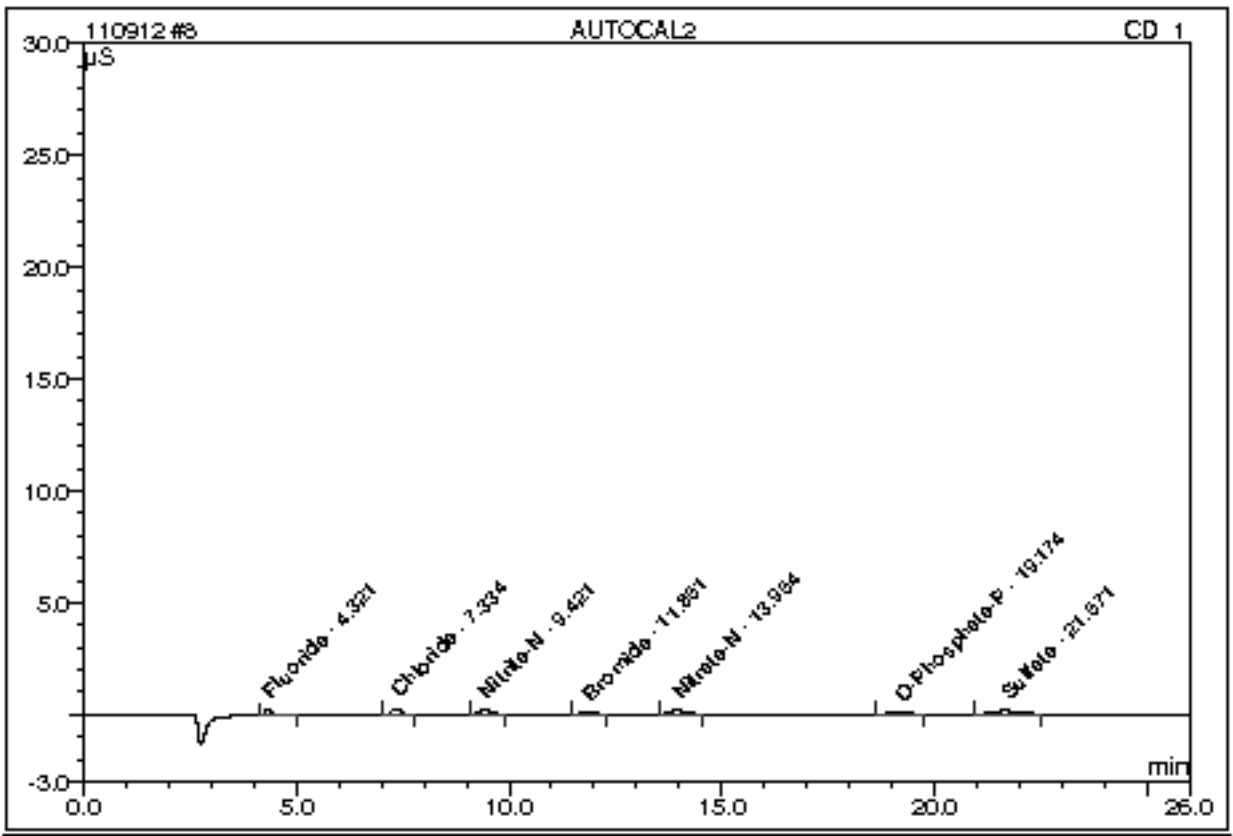
Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 15:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.2500	0.2892		0.11405	11.72
2	7.33	Chloride	0.5000	0.6441		0.14782	15.19
3	9.42	Nitrite-N	0.2500	0.2938		0.15930	16.37
4	11.86	Bromide	0.5000	0.4827		0.06081	6.25
5	13.95	Nitrate-N	0.2500	0.3149		0.17247	17.72
6	19.15	O-Phosphate-P	0.5000	0.4808		0.10482	10.77
7	21.65	Sulfate	1.0000	1.1938		0.21398	21.99
Total:				3.6993	0.000	0.973	100.00

8 AUTOCAL2

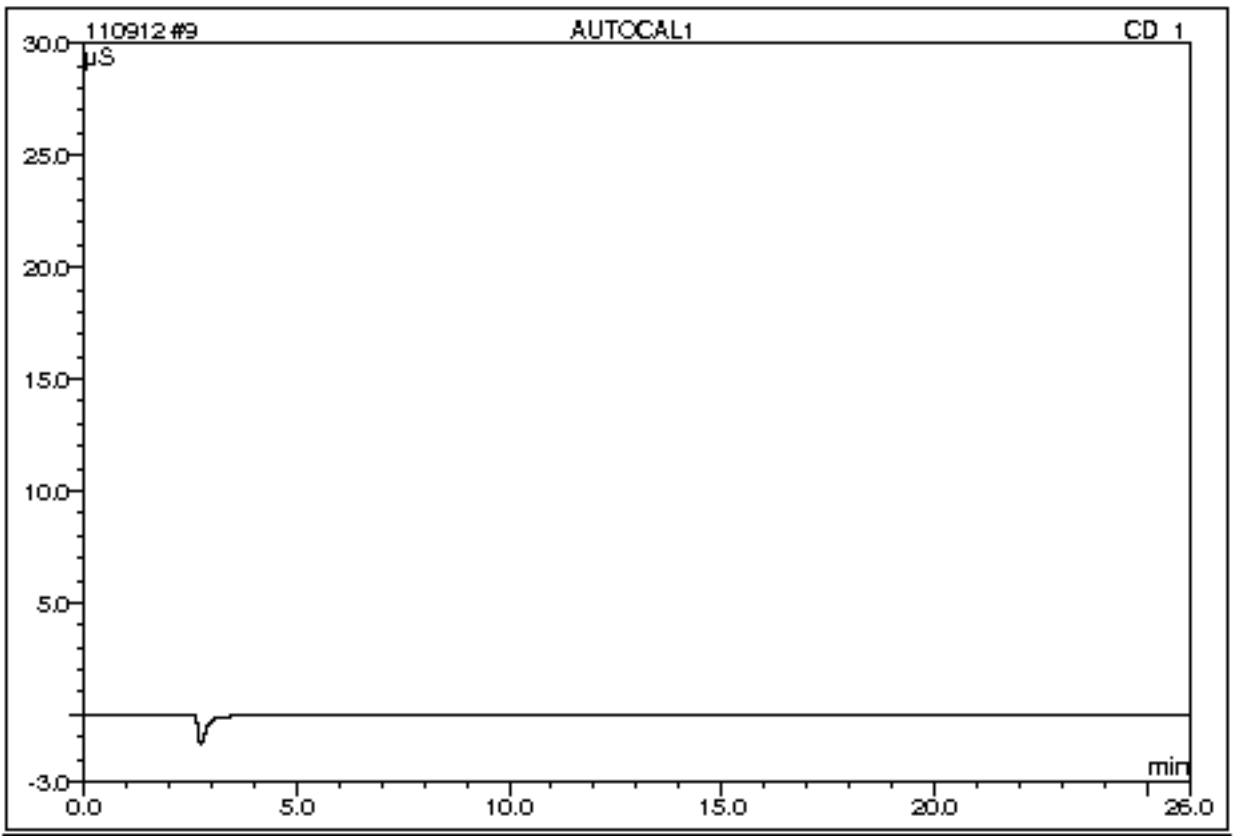
Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.1000	0.1501		0.04924	12.71
2	7.33	Chloride	0.2000	0.3674		0.06064	15.65
3	9.42	Nitrite-N	0.1000	0.1546		0.06431	16.60
4	11.85	Bromide	0.2000	0.1997		0.02457	6.34
5	13.95	Nitrate-N	0.1000	0.1748		0.06946	17.93
6	19.17	O-Phosphate-P	0.2000	0.1846		0.02820	7.28
7	21.67	Sulfate	0.4000	0.6434		0.09100	23.49
Total:				1.8748	0.000	0.387	100.00

9 AUTOCAL1

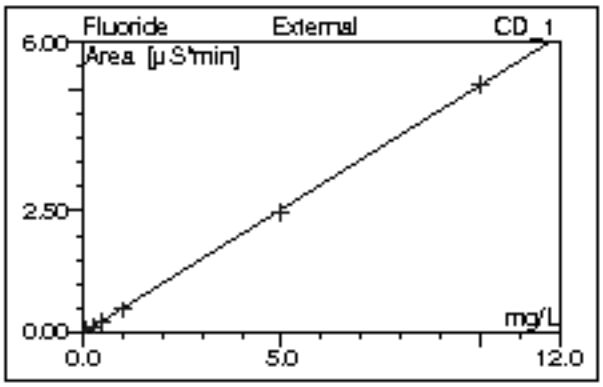
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056

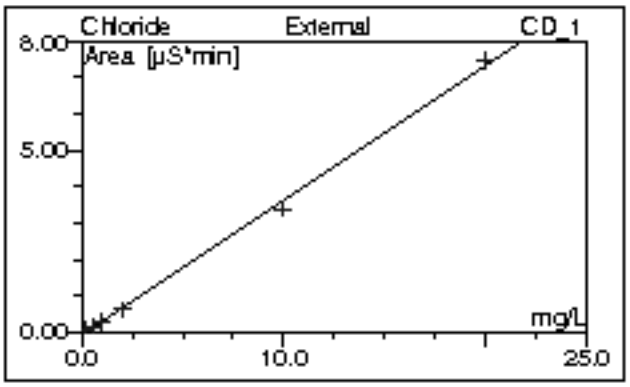


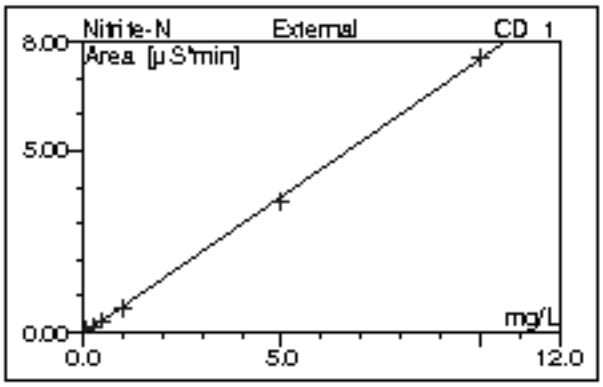
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

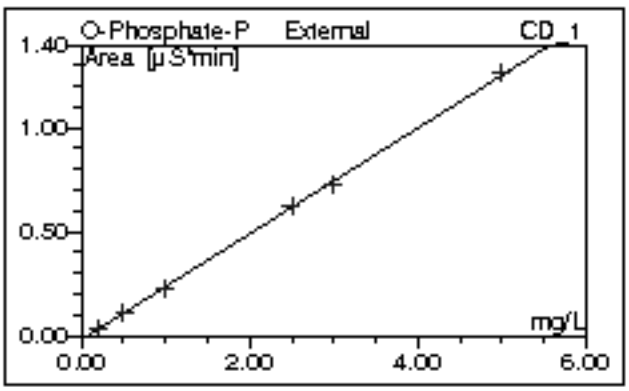
9 AUTOCAL1

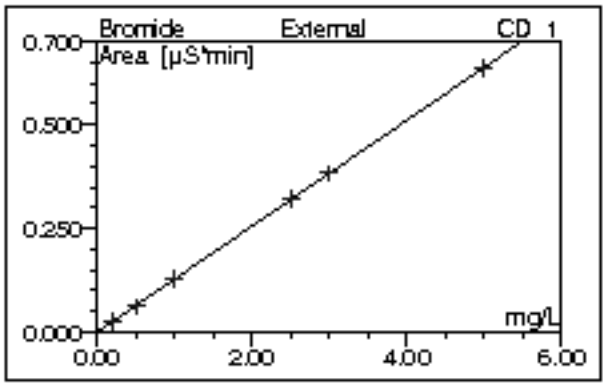
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056

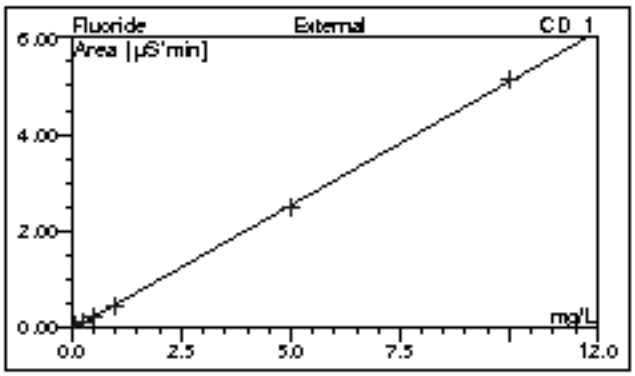


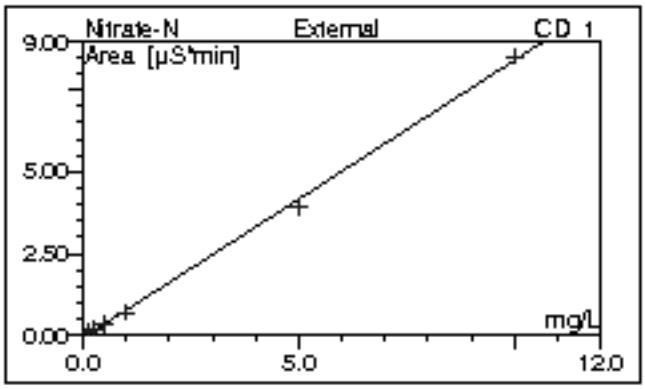


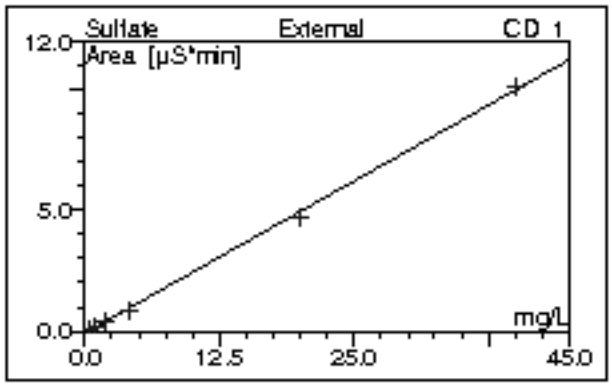












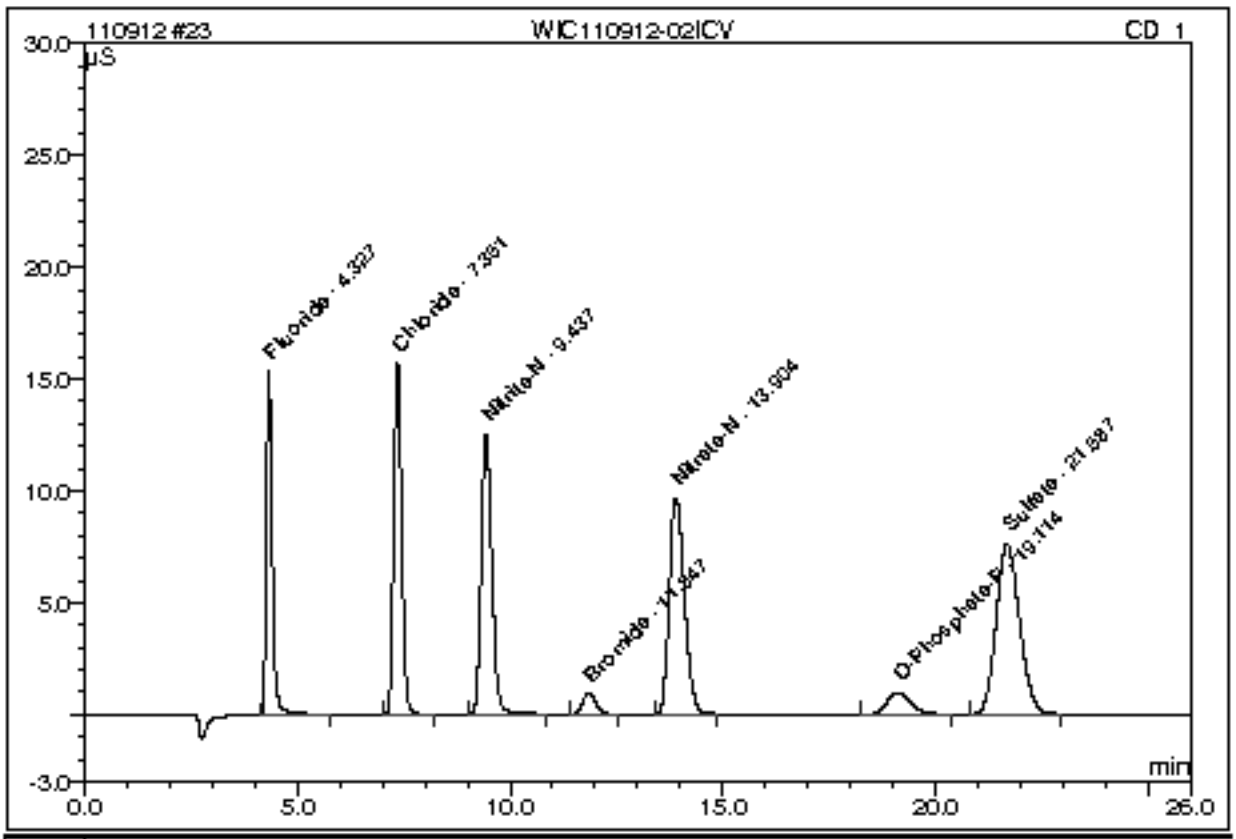
No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9692	-0.0277	0.5124	0.0000
n.a.	n.a.	Chloride	0LO11	99.8103	-0.0757	0.3712	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9408	-0.0528	0.7573	0.0000
n.a.	n.a.	Bromide	0LO11	99.9939	-0.0010	0.1280	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8465	-0.0790	0.8490	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9579	-0.0188	0.2544	0.0000
n.a.	n.a.	Sulfate	0LO11	99.9075	-0.0708	0.2514	0.0000
Average:				99.9180	-0.0465	0.4462	0.0000

This is runlog for Sequence 110912.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	09/12/11 12:45	1		110912	MAR1
BLK	09/12/11 13:13	1		110912	MAR1
ICAL-07	09/12/11 13:42	1		110912	MAR1
ICAL-06	09/12/11 14:11	1		110912	MAR1
ICAL-05	09/12/11 14:40	1		110912	MAR1
ICAL-04	09/12/11 15:09	1		110912	MAR1
ICAL-03	09/12/11 15:38	1		110912	MAR1
ICAL-02	09/12/11 16:07	1		110912	MAR1
ICAL-01	09/12/11 16:36	1		110912	MAR1
ICV	09/12/11 17:05	1		110912	MAR1
ICB	09/12/11 17:33	1		110912	MAR1

23 WIC110912-02ICV

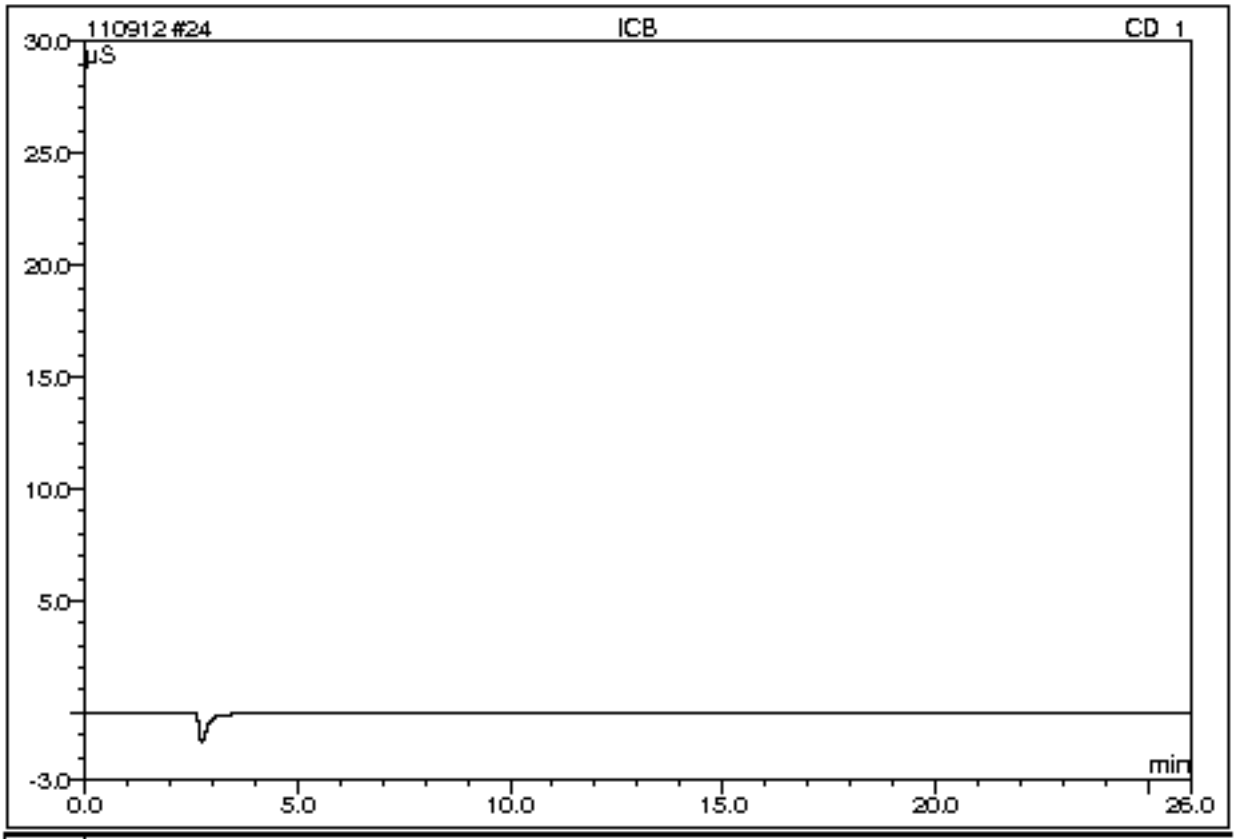
Sample Name:	WIC110912-02ICV	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 17:05	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	4.9780		2.52279	13.02
2	7.35	Chloride	n.a.	9.3703		3.40217	17.56
3	9.44	Nitrite-N	n.a.	4.8571		3.62546	18.71
4	11.85	Bromide	n.a.	2.5399		0.32411	1.67
5	13.90	Nitrate-N	n.a.	4.8129		4.00734	20.68
6	19.11	O-Phosphate-P	n.a.	2.5278		0.62436	3.22
7	21.69	Sulfate	n.a.	19.6566		4.87081	25.14
Total:				48.7426	0.000	19.377	100.00

24 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 17:33	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

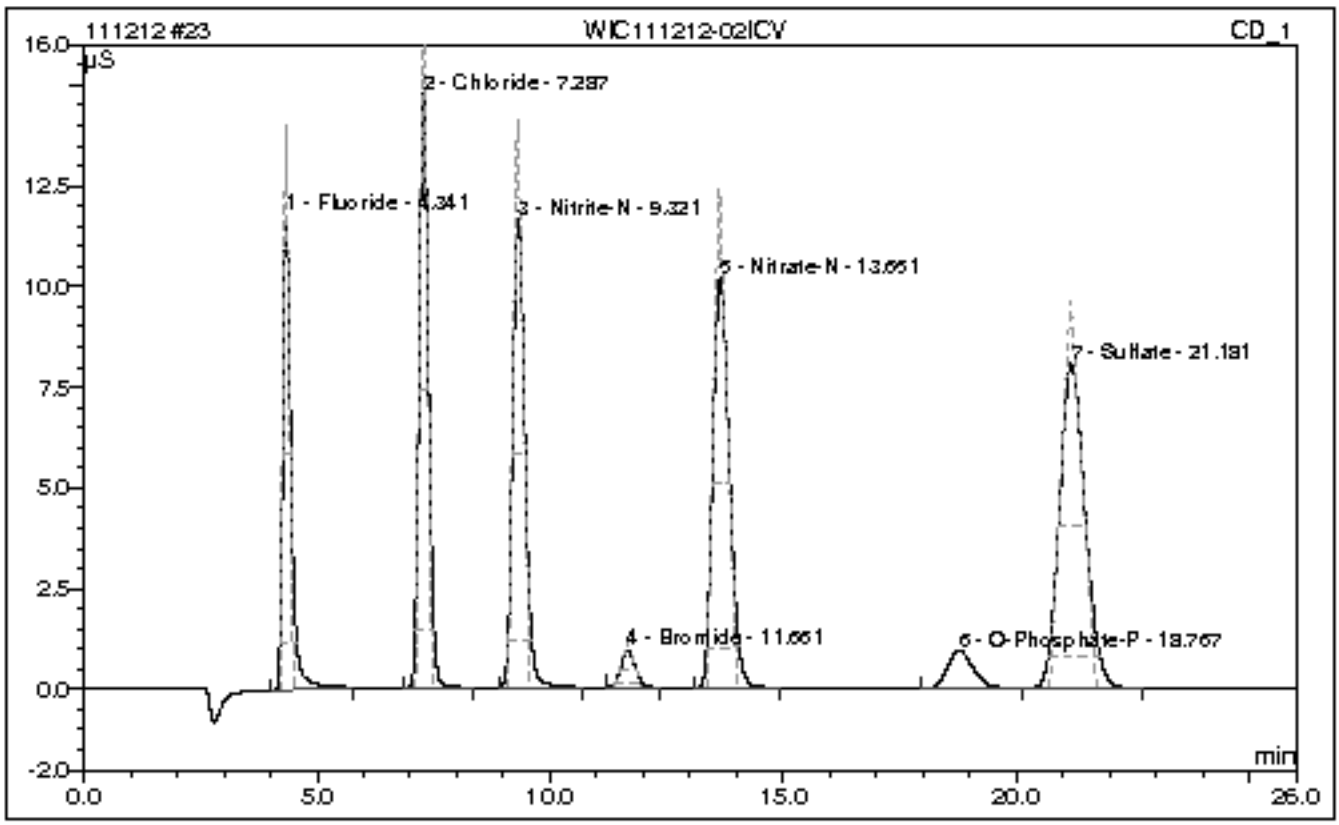
This is runlog for Sequence 111212.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/12/11 08:32		1	111212	MAR1
BLK	12/12/11 09:00		1	111212	MAR1
ICV	12/12/11 09:29		1	111212	MAR1
ICB	12/12/11 09:58		1	111212	MAR1
291441006	12/12/11 10:27	1167411	20	111212	MAR1
CVH	12/12/11 10:56		1	111212	MAR1
CCB	12/12/11 11:25		1	111212	MAR1
1202553735	12/12/11 11:54	1168755	1	111212	MAR1
1202553738	12/12/11 12:23	1168755	1	111212	MAR1
291647002	12/12/11 12:51	1168755	1	111212	MAR1
1202553736	12/12/11 13:20	1168755	1	111212	MAR1
1202553737	12/12/11 13:49	1168755	1	111212	MAR1
CCV	12/12/11 14:18		1	111212	MAR1
CCB	12/12/11 14:47		1	111212	MAR1
1202555250	12/12/11 15:16	1169336	1	111212	MAR1
1202555253	12/12/11 15:45	1169336	1	111212	MAR1
291687001	12/12/11 16:14	1169336	1	111212	MAR1
291689001	12/12/11 16:43	1169336	1	111212	MAR1
1202555251	12/12/11 17:12	1169336	1	111212	MAR1
1202555252	12/12/11 17:41	1169336	1	111212	MAR1
291689002	12/12/11 18:09	1169336	1	111212	MAR1
CVH	12/12/11 18:38		1	111212	MAR1
CCB	12/12/11 19:07		1	111212	MAR1
1202553327	12/12/11 19:36	1168547	1	111212	MAR1
1202553330	12/12/11 20:05	1168547	1	111212	MAR1
291607001	12/12/11 20:34	1168547	1	111212	MAR1
1202553328	12/12/11 21:03	1168547	1	111212	MAR1
1202553329	12/12/11 21:32	1168547	1	111212	MAR1

CCV	12/12/11 22:01	1	111212	MAR1
CCB	12/12/11 22:30	1	111212	MAR1

23 WIC111212-02ICV

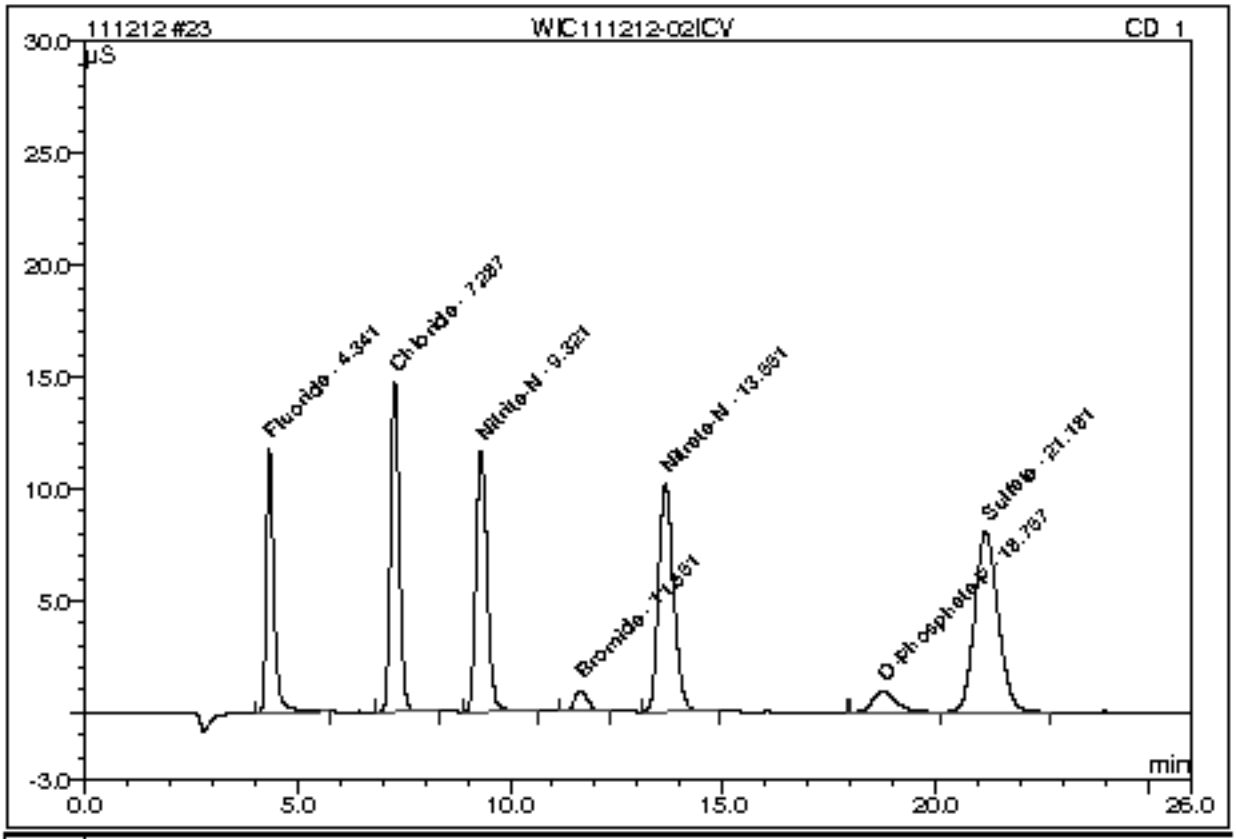
Sample Name:	WIC111212-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056



No.	Ret.Time min	Peakname min	Ret. Dev. (%) Lim: ± 10%	Type	Resol. (EP)	Asym. (EP)	Plates (EP)
1	4.341	Fluoride	0.5	BMB	8.76	1.44	3313
2	7.287	Chloride	-0.2	BMB	4.80	1.14	6115
3	9.321	Nitrite-N	-0.6	BMB	4.44	1.18	6117
4	11.661	Bromide	-1.2	BMB	3.23	1.16	6459
5	13.651	Nitrate-N	-1.6	BMB	9.09	1.23	6934
6	18.767	O-Phosphate-P	-1.1	Ru	n.a.	n.a.	n.a.
7	21.181	Sulfate	-1.3	BMB	n.a.	1.14	7092
Average:			-0.779		6.06	1.21	6005

23 WIC111212-02ICV

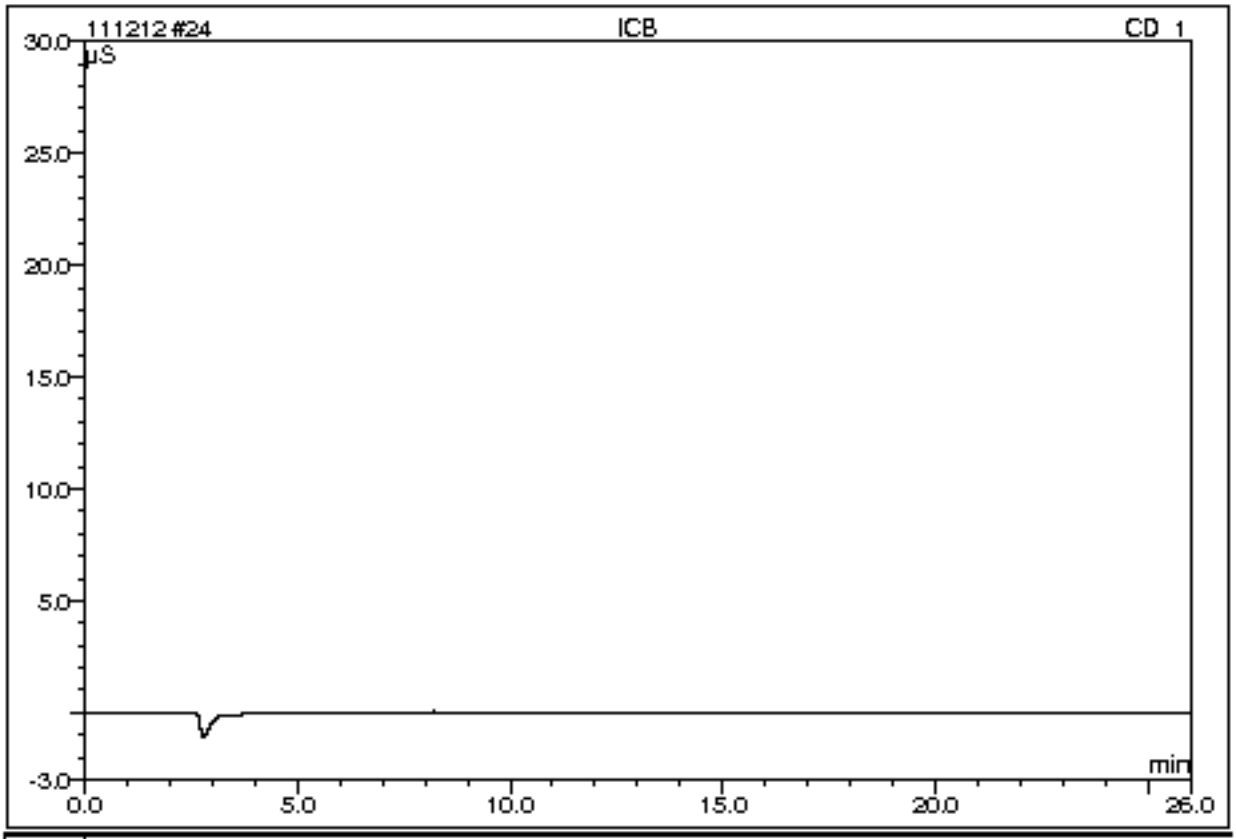
Sample Name:	WIC111212-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.7978		2.45300	12.40
2	7.29	Chloride	n.a.	9.6508		3.51614	17.77
3	9.32	Nitrite-N	n.a.	4.7743		3.56017	17.99
4	11.66	Bromide	n.a.	2.5520		0.33600	1.70
5	13.65	Nitrate-N	n.a.	5.0393		4.20211	21.23
6	18.77	O-Phosphate-P	n.a.	2.3224		0.59035	2.98
7	21.18	Sulfate	n.a.	20.5255		5.13140	25.93
Total:				49.6620	0.000	19.789	100.00

24 ICB

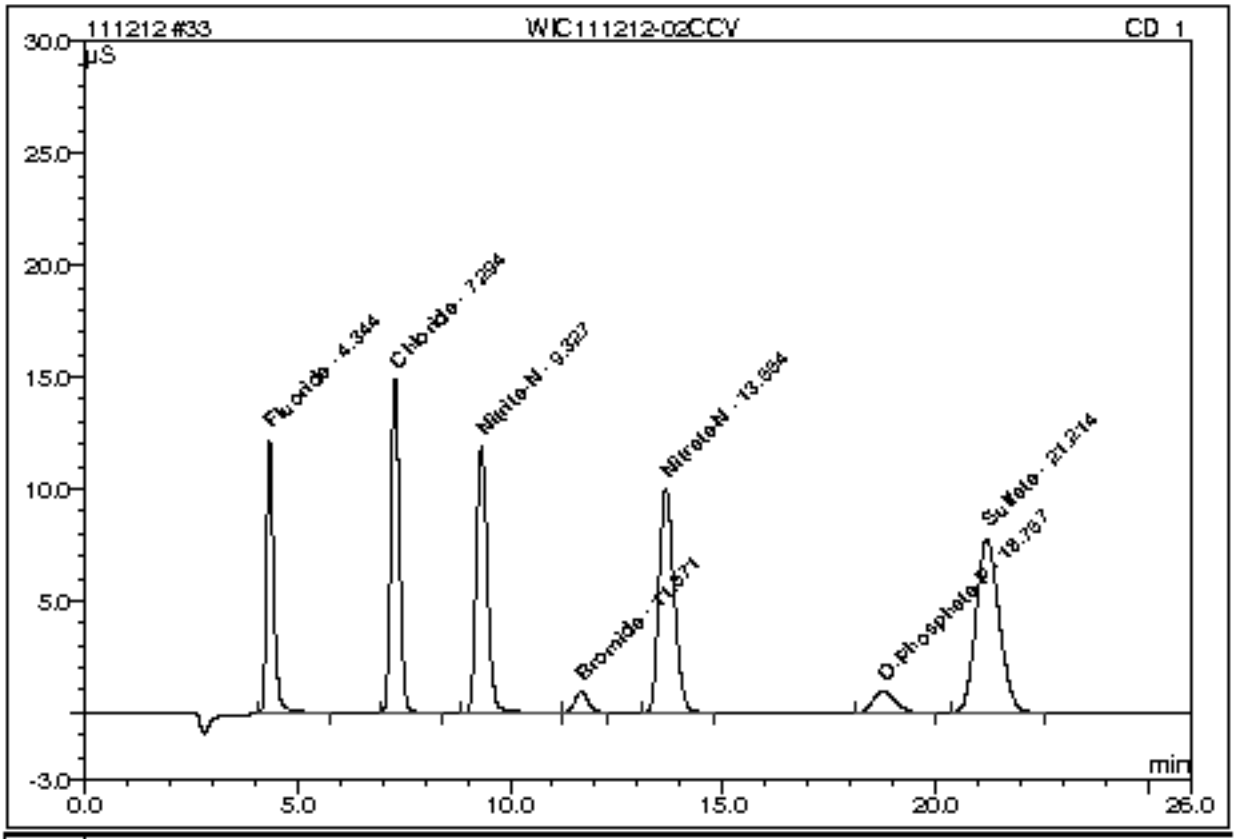
Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:58	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

33 WIC111212-02CCV

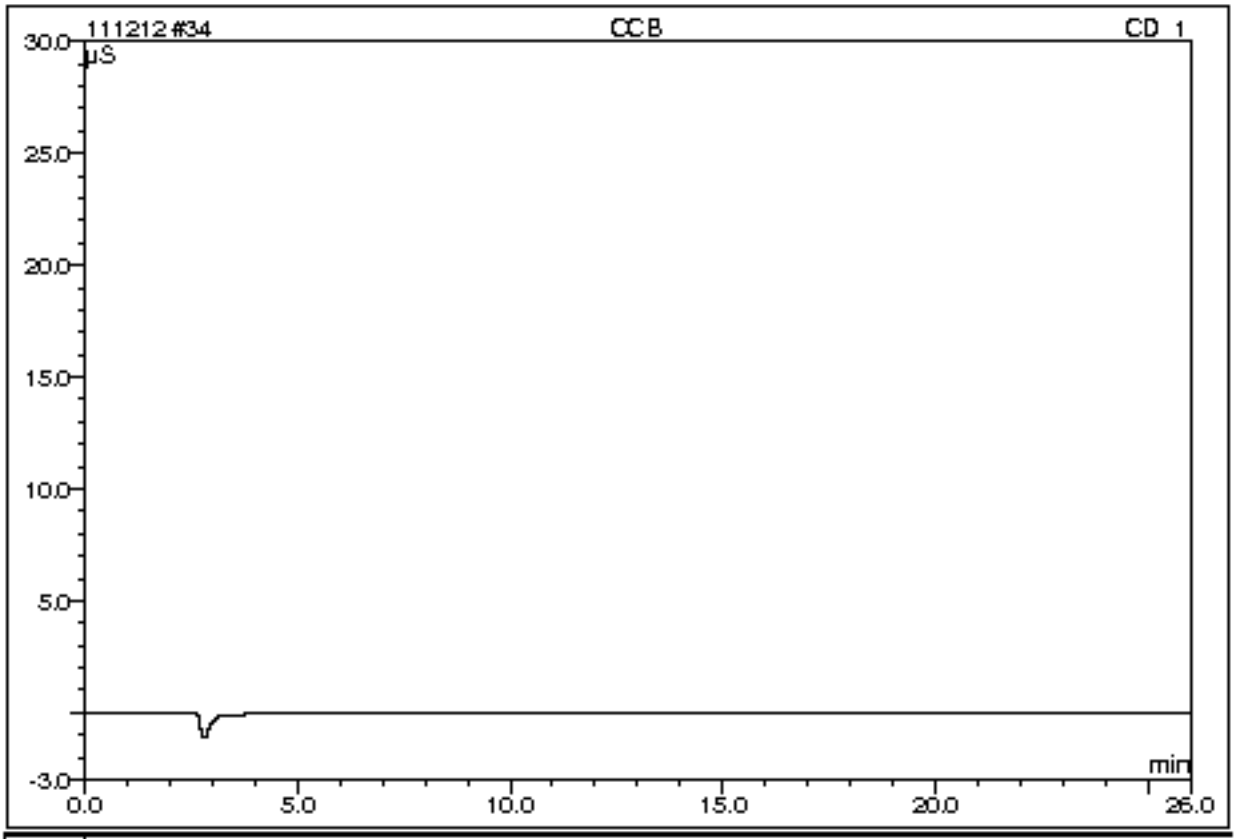
Sample Name:	WIC111212-02CCV	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 14:18	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.8109		2.45979	12.55
2	7.29	Chloride	n.a.	9.6946		3.53244	18.02
3	9.33	Nitrite-N	n.a.	4.8571		3.62281	18.48
4	11.67	Bromide	n.a.	2.5140		0.33099	1.69
5	13.66	Nitrate-N	n.a.	4.9442		4.12148	21.02
6	18.77	O-Phosphate-P	n.a.	2.3166		0.58888	3.00
7	21.21	Sulfate	n.a.	19.8029		4.94826	25.24
Total:				48.9403	0.000	19.605	100.00

34 CCB

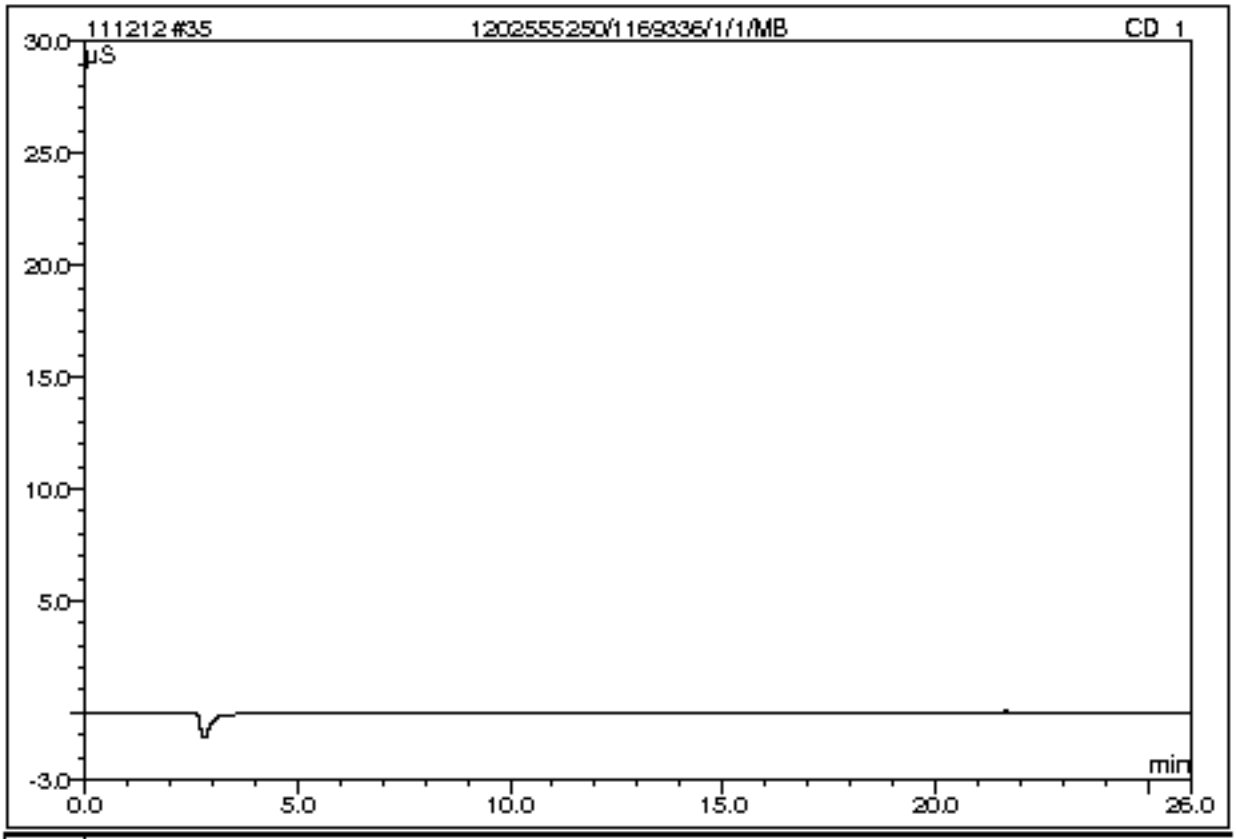
Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 14:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 1202555250/1169336/1/1/MB

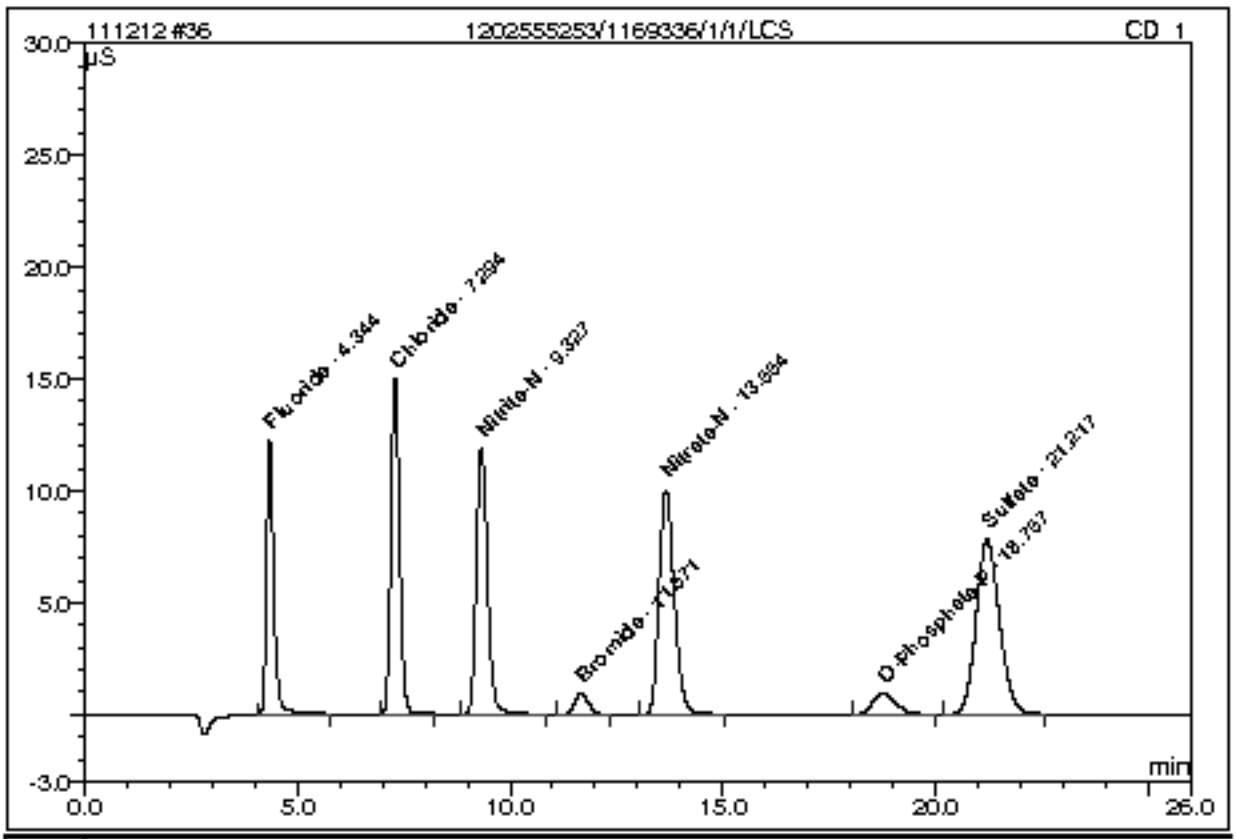
Sample Name:	1202555250/1169336/1/1/MB	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 15:16	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

36 1202555253/1169336/1/1/LCS

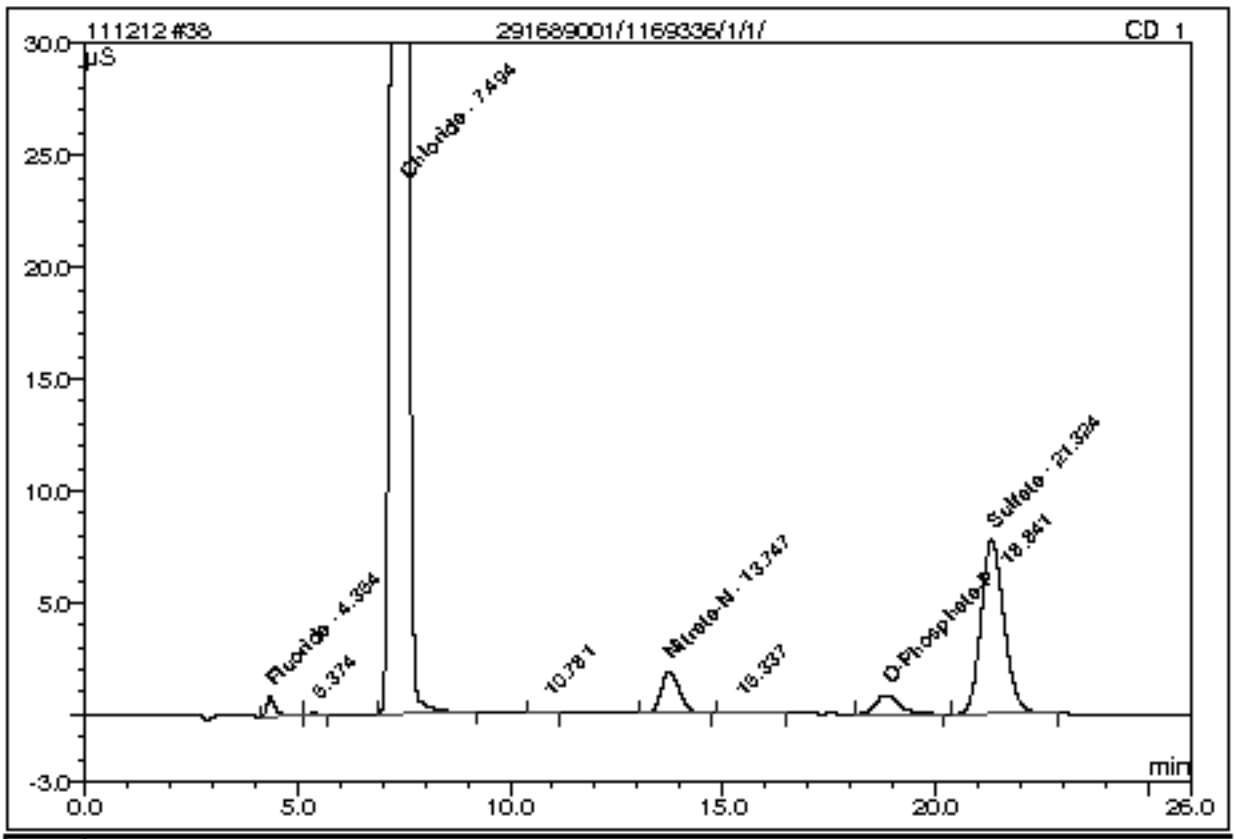
Sample Name:	1202555253/1169336/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 15:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.8234		2.46625	12.57
2	7.29	Chloride	n.a.	9.6628		3.52062	17.95
3	9.33	Nitrite-N	n.a.	4.8424		3.61169	18.41
4	11.67	Bromide	n.a.	2.5442		0.33496	1.71
5	13.66	Nitrate-N	n.a.	4.9629		4.13739	21.09
6	18.77	O-Phosphate-P	n.a.	2.3153		0.58854	3.00
7	21.22	Sulfate	n.a.	19.8349		4.95638	25.27
Total:				48.9860	0.000	19.616	100.00

38 291689001/1169336/1/1/

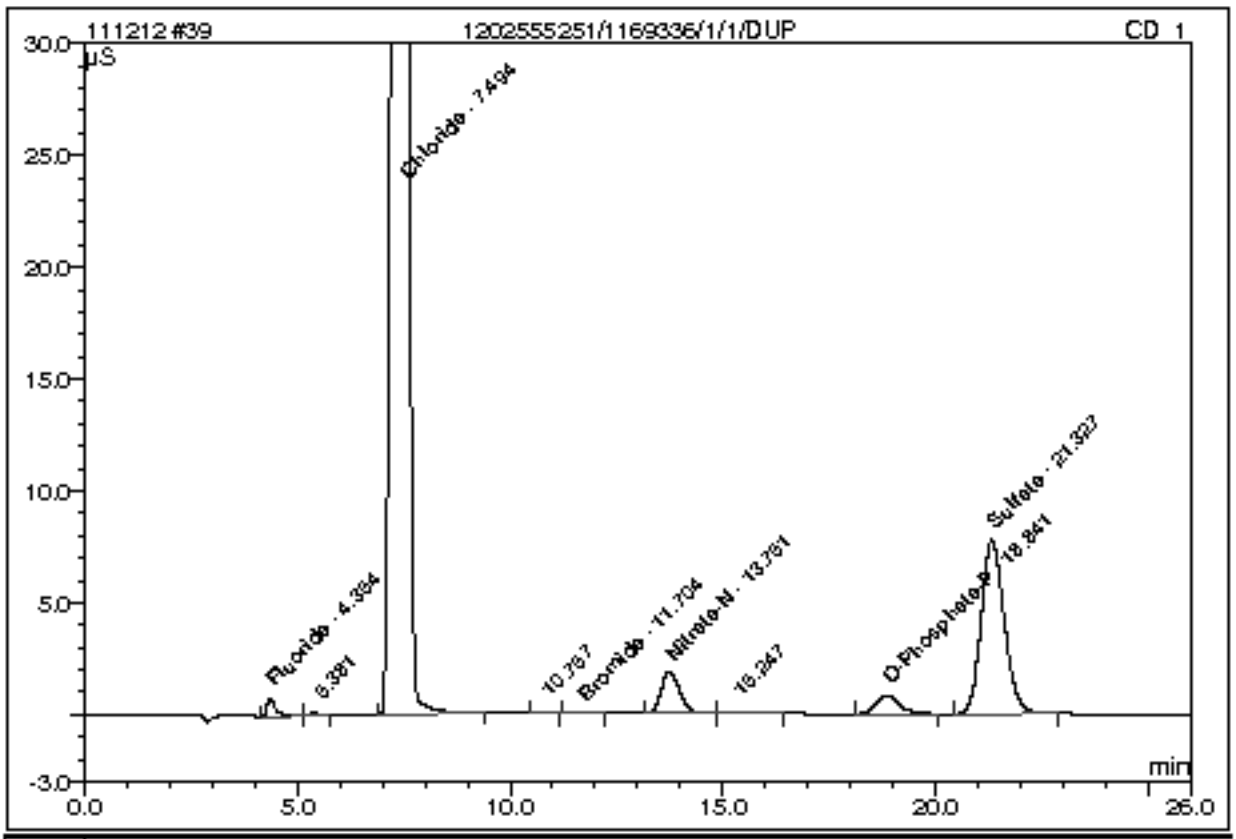
Sample Name:	291689001/1169336/1/1/	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 16:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.4745		0.21931	0.30
3	7.49	Chloride	n.a.	176.4215		65.50843	90.73
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
5	13.75	Nitrate-N	n.a.	1.1814		0.93178	1.29
7	18.84	O-Phosphate-P	n.a.	2.0681		0.52517	0.73
8	21.32	Sulfate	n.a.	19.6486		4.90916	6.80
Total:				199.7941	0.000	72.094	99.85

39 1202555251/1169336/1/1/DUP

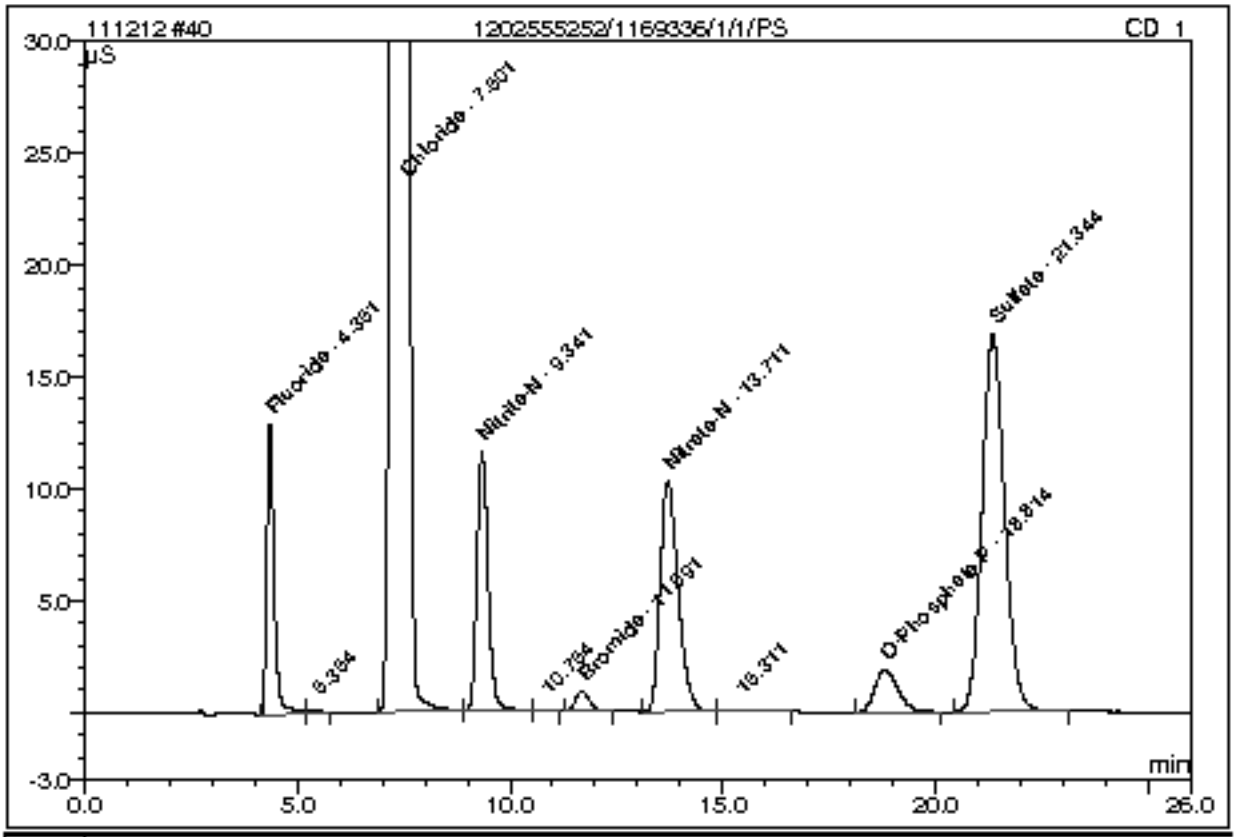
Sample Name:	1202555251/1169336/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 17:12	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.5212		0.24345	0.34
3	7.49	Chloride	n.a.	176.4547		65.52077	90.70
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
5	11.70	Bromide	n.a.	0.1057		0.01362	0.02
6	13.75	Nitrate-N	n.a.	1.1666		0.91923	1.27
8	18.84	O-Phosphate-P	n.a.	2.0645		0.52425	0.73
9	21.33	Sulfate	n.a.	19.6093		4.89918	6.78
Total:				199.9219	0.000	72.121	99.84

40 1202555252/1169336/1/1/PS

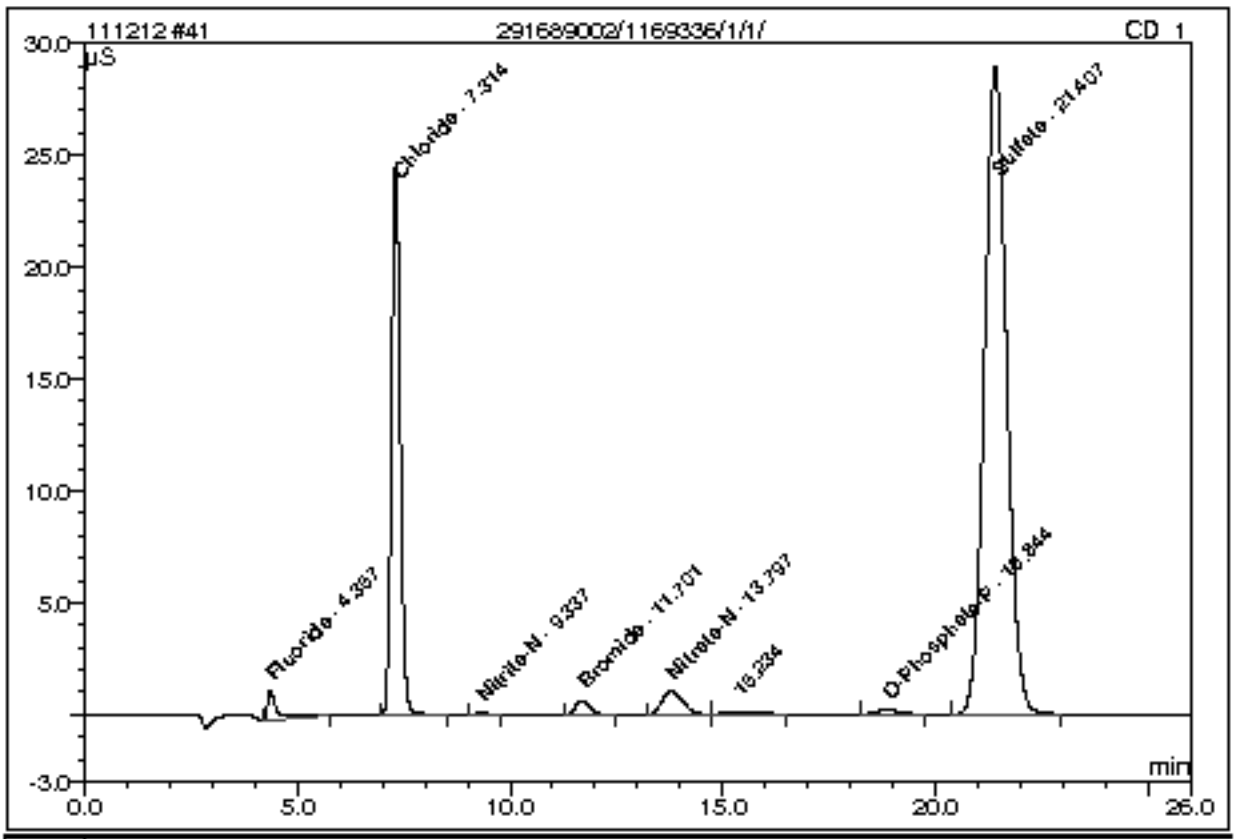
Sample Name:	1202555252/1169336/1/1/PS	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 17:41	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	5.1594		2.63983	2.86
3	7.50	Chloride	n.a.	186.3652		69.20472	74.89
4	9.34	Nitrite-N	n.a.	4.6981		3.50254	3.79
6	11.69	Bromide	n.a.	2.5326		0.33343	0.36
7	13.71	Nitrate-N	n.a.	6.0147		5.02895	5.44
9	18.81	O-Phosphate-P	n.a.	4.6678		1.19160	1.29
10	21.34	Sulfate	n.a.	41.1768		10.36555	11.22
Total:				250.6146	0.000	92.267	99.85

41 291689002/1169336/1/1/

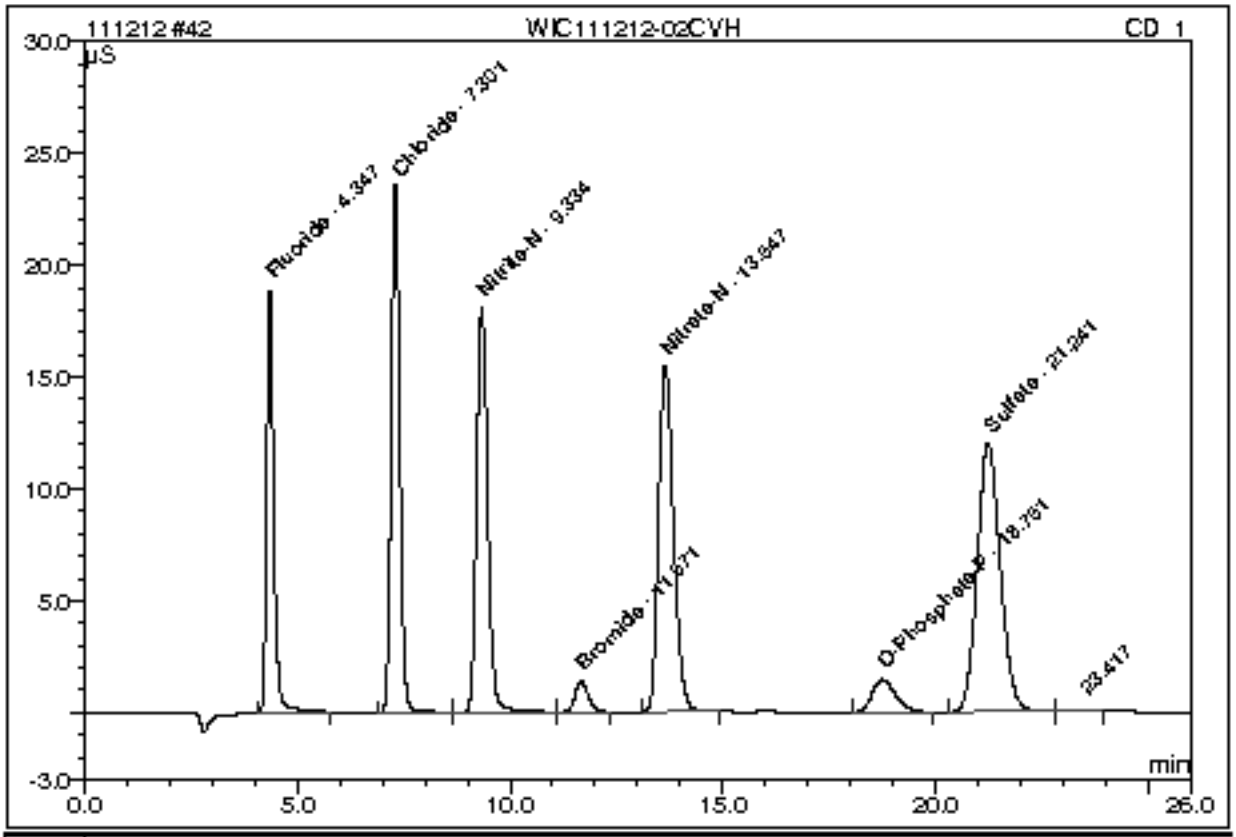
Sample Name:	291689002/1169336/1/1/	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 18:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	n.a.	0.7761		0.37516	1.52
2	7.31	Chloride	n.a.	15.7866		5.79696	23.43
3	9.34	Nitrite-N	n.a.	0.0968		0.02227	0.09
4	11.70	Bromide	n.a.	1.8560		0.24427	0.99
5	13.80	Nitrate-N	n.a.	0.7800		0.59157	2.39
7	18.84	O-Phosphate-P	n.a.	0.5071		0.12502	0.51
8	21.41	Sulfate	n.a.	69.2761		17.48739	70.67
Total:				89.0787	0.000	24.643	99.59

42 WIC111212-02CVH

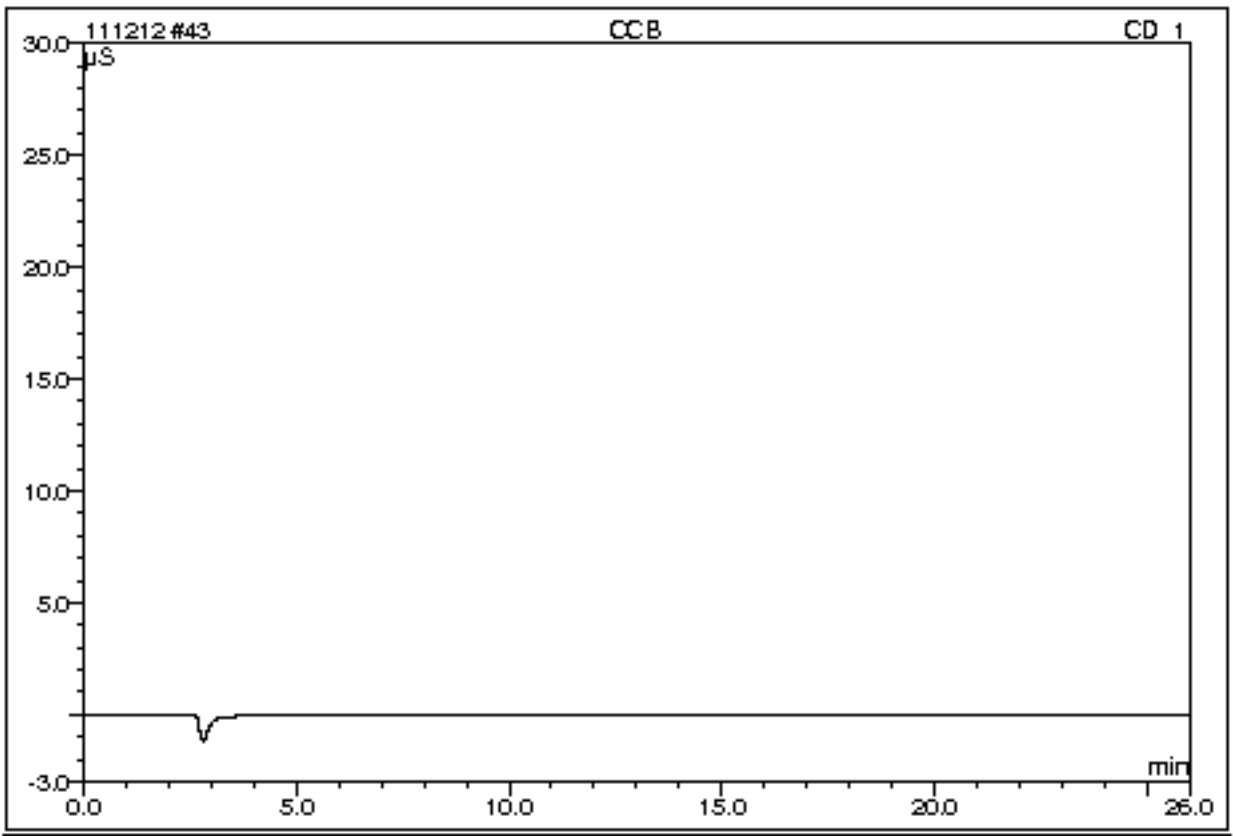
Sample Name:	WIC111212-02CVH	*Injection Volume:*	50.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 18:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	7.2479		3.71890	12.42
2	7.30	Chloride	n.a.	14.9036		5.46873	18.26
3	9.33	Nitrite-N	n.a.	7.3149		5.48178	18.30
4	11.67	Bromide	n.a.	3.6604		0.48205	1.61
5	13.65	Nitrate-N	n.a.	7.5531		6.33301	21.14
6	18.75	O-Phosphate-P	n.a.	3.5703		0.91025	3.04
7	21.24	Sulfate	n.a.	30.0441		7.54391	25.19
Total:				74.2942	0.000	29.939	99.96

43 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 19:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

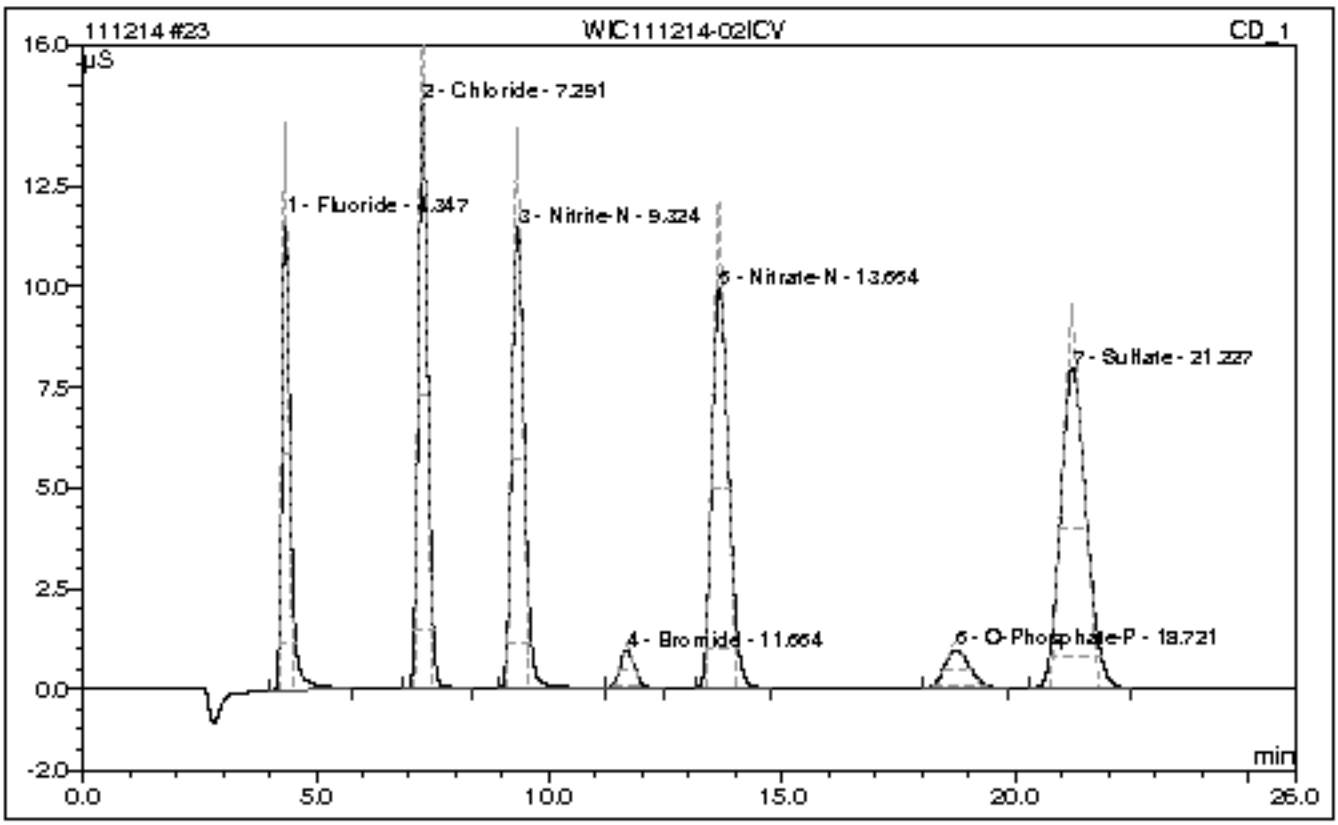
This is runlog for Sequence 111214.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/14/11 09:58		1	111214	MAR1
BLK	12/14/11 10:26		1	111214	MAR1
ICV	12/14/11 10:55		1	111214	MAR1
ICB	12/14/11 11:24		1	111214	MAR1
291687001	12/14/11 11:53	1169336	20	111214	MAR1
291689001	12/14/11 12:22	1169336	10	111214	MAR1
1202555251	12/14/11 12:51	1169336	10	111214	MAR1
1202555252	12/14/11 13:20	1169336	10	111214	MAR1
292033008	12/14/11 13:49	1170476	1	111214	MAR1
292033013	12/14/11 14:18	1170476	1	111214	MAR1
292033005	12/14/11 14:46	1170476	1	111214	MAR1
1202558169	12/14/11 15:15	1170476	1	111214	MAR1
1202558170	12/14/11 15:44	1170476	1	111214	MAR1
CVH	12/14/11 16:13		1	111214	MAR1
CCB	12/14/11 16:42		1	111214	MAR1
1202558168	12/14/11 17:11	1170476	1	111214	MAR1
1202558171	12/14/11 17:40	1170476	1	111214	MAR1
291607001	12/14/11 18:09	1168547	20	111214	MAR1
1202553328	12/14/11 18:38	1168547	20	111214	MAR1
1202553329	12/14/11 19:07	1168547	2	111214	MAR1
CCV	12/14/11 19:35		1	111214	MAR1
CCB	12/14/11 20:04		1	111214	MAR1
1202553956	12/14/11 20:33	1168853	1	111214	MAR1
1202553959	12/14/11 21:02	1168853	1	111214	MAR1
291725001	12/14/11 21:31	1168853	1	111214	MAR1
1202553957	12/14/11 22:00	1168853	1	111214	MAR1
1202553958	12/14/11 22:29	1168853	1	111214	MAR1
CVH	12/14/11 22:58		1	111214	MAR1

CCB	12/14/11 23:27		1	111214	MAR1
1202555046	12/14/11 23:56	1169252	1	111214	MAR1

23 WIC111214-02ICV

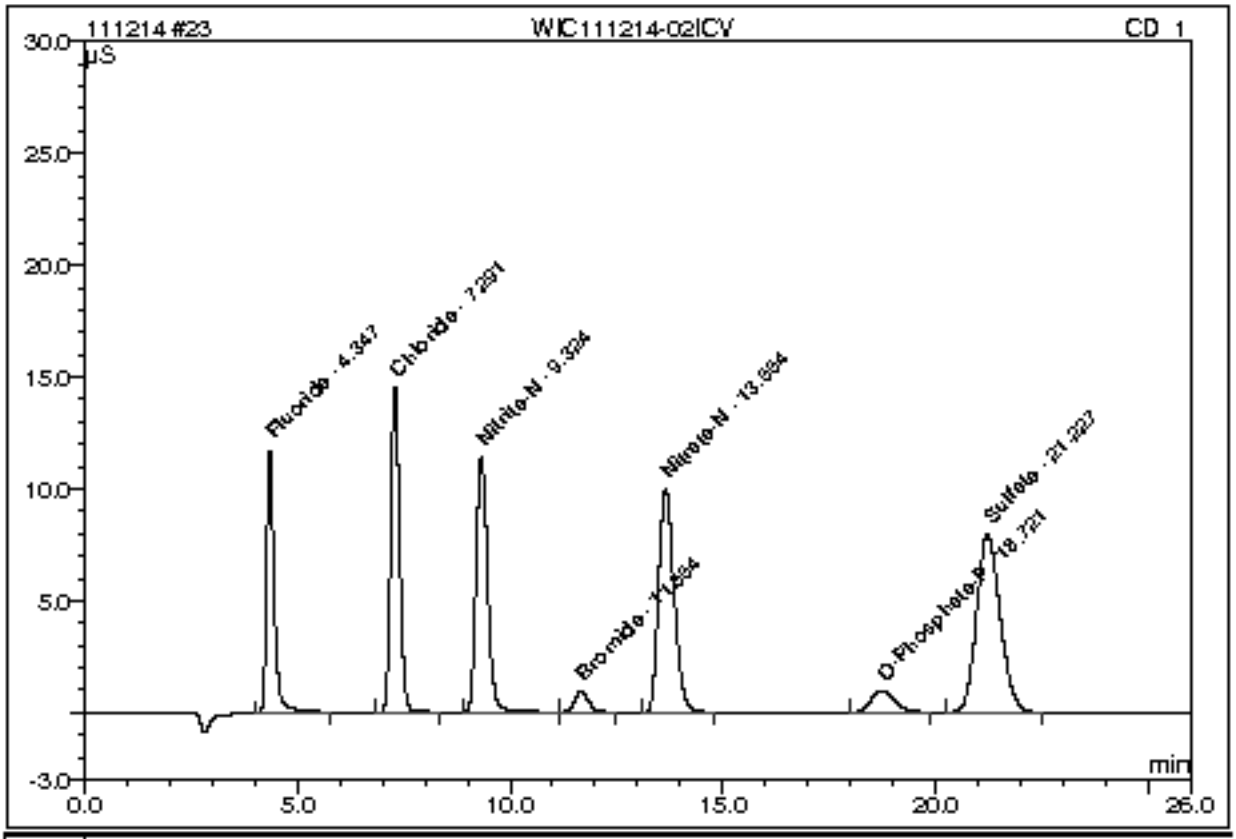
Sample Name:	WIC111214-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 10:55	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056



No.	Ret.Time min	Peakname min	Ret. Dev. (%) Lim: ± 10%	Type	Resol. (EP)	Asym. (EP)	Plates (EP)
1	4.347	Fluoride	0.7	BMB	8.63	1.40	3255
2	7.291	Chloride	-0.1	BMB	4.72	1.15	5921
3	9.324	Nitrite-N	-0.6	BM	4.35	1.19	5895
4	11.664	Bromide	-1.2	MB	3.16	1.17	6170
5	13.654	Nitrate-N	-1.6	BMB	6.02	1.24	6653
6	18.721	O-Phosphate-P	-1.3	BMB	2.47	1.25	5423
7	21.227	Sulfate	-1.1	BMB	n.a.	1.14	6919
Average:			-0.742		4.89	1.22	5748

23 WIC111214-02ICV

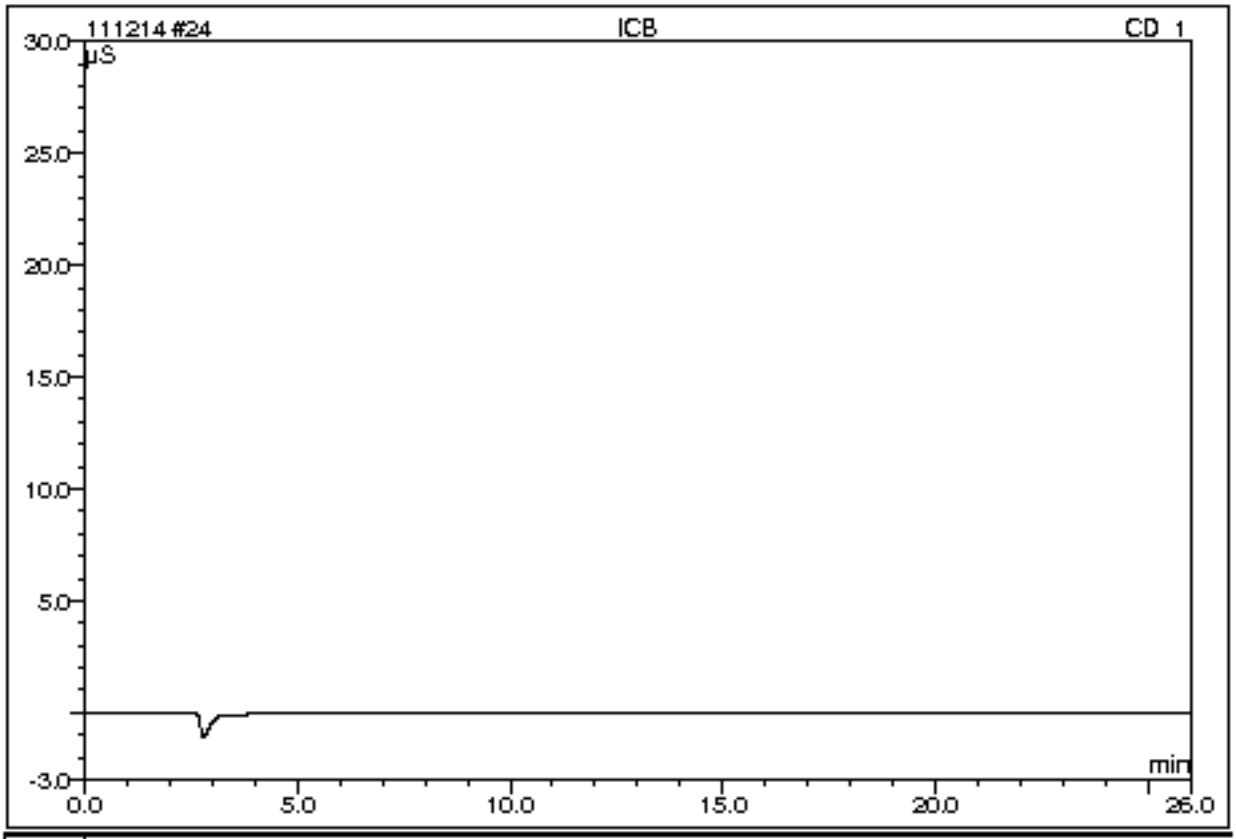
Sample Name:	WIC111214-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 10:55	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.8203		2.46466	12.43
2	7.29	Chloride	n.a.	9.6495		3.51567	17.72
3	9.32	Nitrite-N	n.a.	4.8041		3.58269	18.06
4	11.66	Bromide	n.a.	2.6485		0.34870	1.76
5	13.65	Nitrate-N	n.a.	5.0192		4.18509	21.10
6	18.72	O-Phosphate-P	n.a.	2.3989		0.60997	3.08
7	21.23	Sulfate	n.a.	20.5124		5.12809	25.85
Total:				49.8529	0.000	19.835	100.00

24 ICB

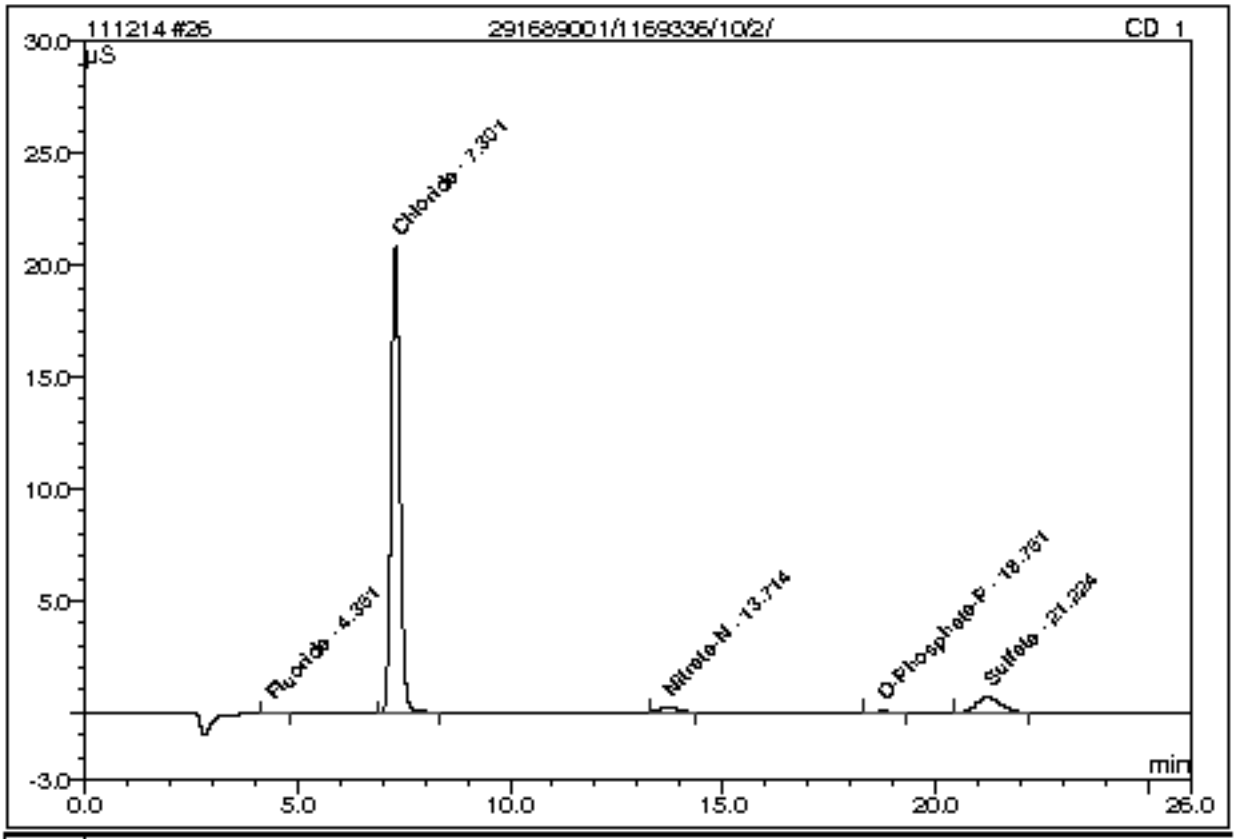
Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 11:24	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

26 291689001/1169336/10/2/

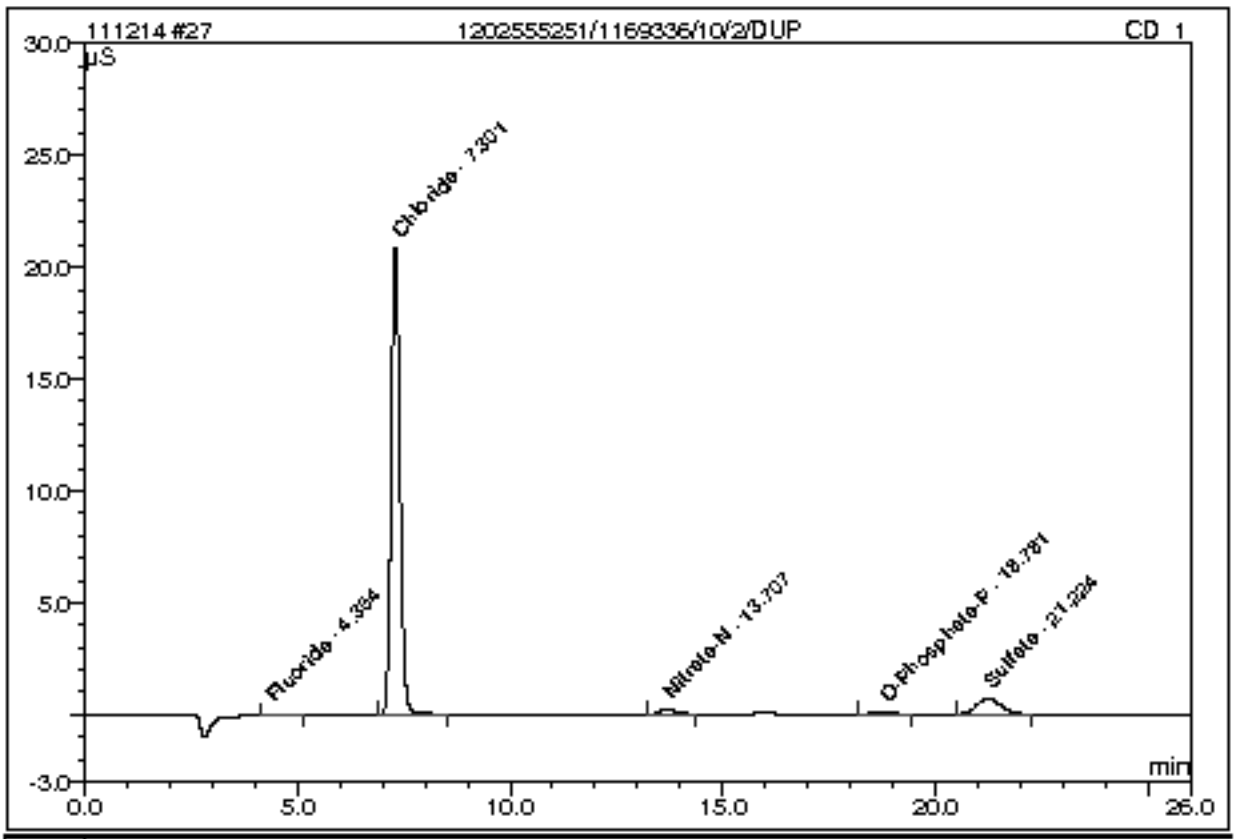
Sample Name:	291689001/1169336/10/2/	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 12:22	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	0.0896		0.02045	0.37
2	7.30	Chloride	n.a.	13.4523		4.92926	89.43
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.71	Nitrate-N	n.a.	0.1889		0.09048	1.64
4	18.75	O-Phosphate-P	n.a.	0.0943		0.01921	0.35
5	21.22	Sulfate	n.a.	2.0645		0.45241	8.21
Total:				15.8896	0.000	5.512	100.00

27 1202555251/1169336/10/2/DUP

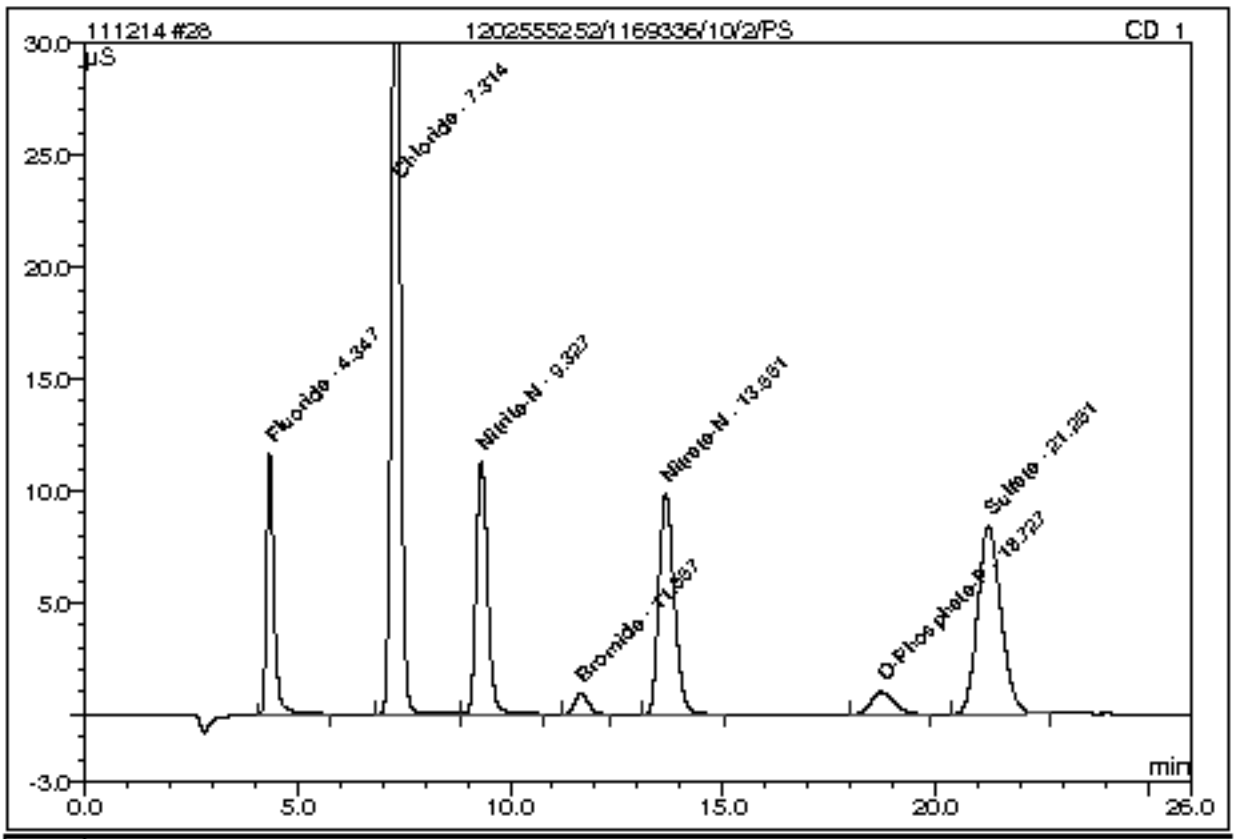
Sample Name:	1202555251/1169336/10/2/DUP	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 12:51	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	0.1023		0.02701	0.49
2	7.30	Chloride	n.a.	13.4683		4.93519	89.29
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.71	Nitrate-N	n.a.	0.1868		0.08868	1.60
4	18.78	O-Phosphate-P	n.a.	0.1154		0.02461	0.45
5	21.22	Sulfate	n.a.	2.0616		0.45168	8.17
Total:				15.9343	0.000	5.527	100.00

28 1202555252/1169336/10/2/PS

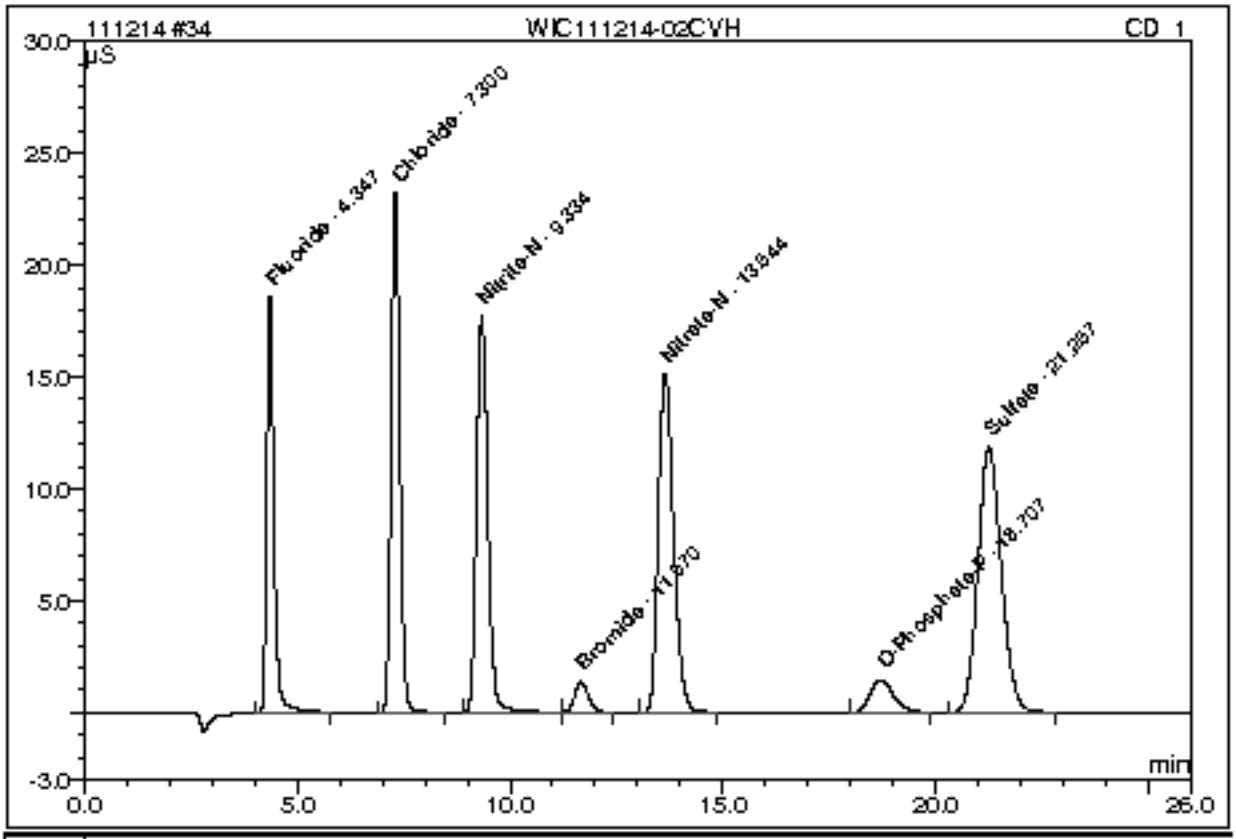
Sample Name:	1202555252/1169336/10/2/PS	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 13:20	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.7279		2.41692	9.44
2	7.31	Chloride	n.a.	24.9079		9.18753	35.89
3	9.33	Nitrite-N	n.a.	4.7104		3.51187	13.72
4	11.67	Bromide	n.a.	2.4789		0.32636	1.27
5	13.66	Nitrate-N	n.a.	4.9763		4.14874	16.21
6	18.73	O-Phosphate-P	n.a.	2.5050		0.63717	2.49
7	21.25	Sulfate	n.a.	21.4660		5.36978	20.98
Total:				65.7725	0.000	25.598	100.00

34 WIC111214-02CVH

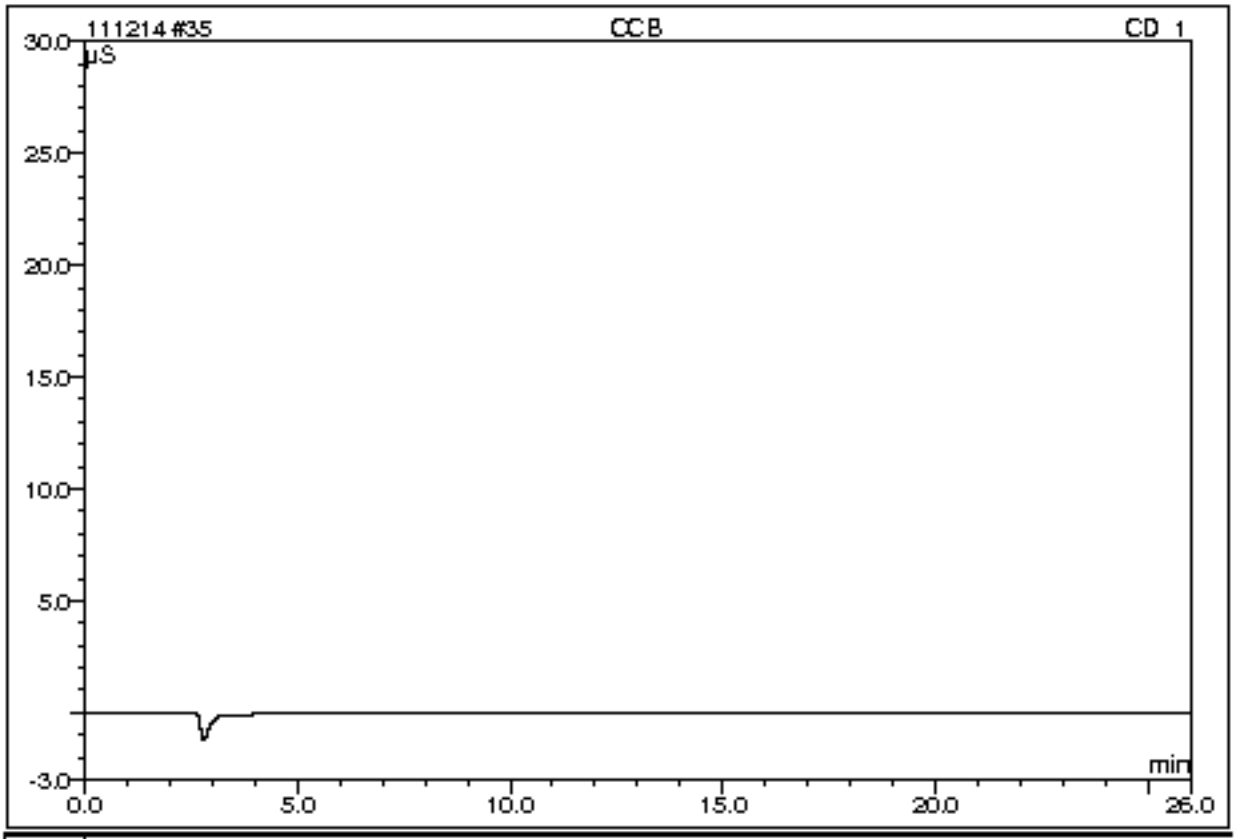
Sample Name:	WIC111214-02CVH	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 16:13	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	7.2349		3.71220	12.44
2	7.30	Chloride	n.a.	14.8483		5.44818	18.26
3	9.33	Nitrite-N	n.a.	7.2691		5.44718	18.25
4	11.67	Bromide	n.a.	3.7263		0.49074	1.64
5	13.64	Nitrate-N	n.a.	7.5239		6.30829	21.14
6	18.71	O-Phosphate-P	n.a.	3.5685		0.90980	3.05
7	21.26	Sulfate	n.a.	29.9796		7.52759	25.22
Total:				74.1507	0.000	29.844	100.00

35 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 16:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction Raw Data

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	KLP1	12/15/2011 10:03:38	OM_12-15-2011_10-02-37
1.0 PPM		1	KLP1	12/15/2011 10:04:49	OM_12-15-2011_10-02-37
0.5 ppm		1	KLP1	12/15/2011 10:06:01	OM_12-15-2011_10-02-37
0.1 ppm		1	KLP1	12/15/2011 10:07:13	OM_12-15-2011_10-02-37
0.05 ppm		1	KLP1	12/15/2011 10:08:25	OM_12-15-2011_10-02-37
ICAL-00		1	KLP1	12/15/2011 10:09:38	OM_12-15-2011_10-02-37
1.0 ppm ICV		1	KLP1	12/15/2011 10:12:00	OM_12-15-2011_10-02-37
ICB		1	KLP1	12/15/2011 10:14:21	OM_12-15-2011_10-02-37
Nitrate 1.0 ppm		1	KLP1	12/15/2011 10:16:40	OM_12-15-2011_10-02-37
Nitrite 1.0 ppm		1	KLP1	12/15/2011 10:18:59	OM_12-15-2011_10-02-37
1202555203	1169320	1	KLP1	12/15/2011 10:21:19	OM_12-15-2011_10-02-37
1202555206	1169320	1	KLP1	12/15/2011 10:22:31	OM_12-15-2011_10-02-37
291586002	1169320	10	KLP1	12/15/2011 10:23:43	OM_12-15-2011_10-02-37
1202555204	1169320	10	KLP1	12/15/2011 10:24:54	OM_12-15-2011_10-02-37
1202555205	1169320	10	KLP1	12/15/2011 10:26:06	OM_12-15-2011_10-02-37
291691004	1169320	10	KLP1	12/15/2011 10:27:19	OM_12-15-2011_10-02-37
291801005	1169320	1	KLP1	12/15/2011 10:28:31	OM_12-15-2011_10-02-37
1202555191	1169319	1	KLP1	12/15/2011 10:29:42	OM_12-15-2011_10-02-37
1202555202	1169319	1	KLP1	12/15/2011 10:30:53	OM_12-15-2011_10-02-37
291670001	1169319	1	KLP1	12/15/2011 10:32:05	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 10:33:16	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 10:35:37	OM_12-15-2011_10-02-37
291687001	1169319	5	KLP1	12/15/2011 10:37:56	OM_12-15-2011_10-02-37
291689001	1169319	5	KLP1	12/15/2011 10:39:06	OM_12-15-2011_10-02-37
1202555195	1169319	5	KLP1	12/15/2011 10:40:17	OM_12-15-2011_10-02-37
1202555200	1169319	5	KLP1	12/15/2011 10:41:28	OM_12-15-2011_10-02-37
291689002	1169319	1	KLP1	12/15/2011 10:42:38	OM_12-15-2011_10-02-37
291703001	1169319	1	KLP1	12/15/2011 10:43:51	OM_12-15-2011_10-02-37
1202555193	1169319	1	KLP1	12/15/2011 10:45:03	OM_12-15-2011_10-02-37
1202555198	1169319	1	KLP1	12/15/2011 10:46:15	OM_12-15-2011_10-02-37
291703003	1169319	5	KLP1	12/15/2011 10:47:27	OM_12-15-2011_10-02-37
291703005	1169319	5	KLP1	12/15/2011 10:48:39	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 10:49:50	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 10:52:11	OM_12-15-2011_10-02-37
291703007	1169319	1	KLP1	12/15/2011 10:54:31	OM_12-15-2011_10-02-37
291730002	1169319	10	KLP1	12/15/2011 10:55:43	OM_12-15-2011_10-02-37
291741006	1169319	1	KLP1	12/15/2011 10:56:54	OM_12-15-2011_10-02-37
1202555196	1169319	1	KLP1	12/15/2011 10:58:06	OM_12-15-2011_10-02-37
1202555201	1169319	1	KLP1	12/15/2011 10:59:17	OM_12-15-2011_10-02-37
291774002	1169319	1	KLP1	12/15/2011 11:00:28	OM_12-15-2011_10-02-37
291774025	1169319	500	KLP1	12/15/2011 11:01:39	OM_12-15-2011_10-02-37
291784001	1169319	500	KLP1	12/15/2011 11:02:49	OM_12-15-2011_10-02-37
1202555192	1169319	500	KLP1	12/15/2011 11:04:00	OM_12-15-2011_10-02-37
1202555197	1169319	500	KLP1	12/15/2011 11:05:11	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 11:06:22	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 11:08:43	OM_12-15-2011_10-02-37
291784007	1169319	500	KLP1	12/15/2011 11:11:03	OM_12-15-2011_10-02-37
291784011	1169319	1	KLP1	12/15/2011 11:12:15	OM_12-15-2011_10-02-37
291796002	1169319	1	KLP1	12/15/2011 11:13:27	OM_12-15-2011_10-02-37
291796003	1169319	1	KLP1	12/15/2011 11:14:39	OM_12-15-2011_10-02-37
291796005	1169319	1	KLP1	12/15/2011 11:15:51	OM_12-15-2011_10-02-37
291797002	1169319	1	KLP1	12/15/2011 11:17:03	OM_12-15-2011_10-02-37
291809002	1169319	1	KLP1	12/15/2011 11:18:15	OM_12-15-2011_10-02-37
1202555194	1169319	1	KLP1	12/15/2011 11:19:26	OM_12-15-2011_10-02-37
1202555199	1169319	1	KLP1	12/15/2011 11:20:37	OM_12-15-2011_10-02-37
1202558724	1170734	1	KLP1	12/15/2011 11:21:49	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 11:23:00	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 11:25:21	OM_12-15-2011_10-02-37

1202558728	1170734	1	KLP1	12/15/2011	11:27:41	OM_12-15-2011_10-02-37
289522016	1170734	10	KLP1	12/15/2011	11:28:51	OM_12-15-2011_10-02-37
1202558725	1170734	10	KLP1	12/15/2011	11:30:02	OM_12-15-2011_10-02-37
1202558726	1170734	10	KLP1	12/15/2011	11:31:13	OM_12-15-2011_10-02-37
1202558727	1170734	10	KLP1	12/15/2011	11:32:24	OM_12-15-2011_10-02-37
291801005	1169320	5	KLP1	12/15/2011	11:33:35	OM_12-15-2011_10-02-37
291670001	1169319	5	KLP1	12/15/2011	11:34:47	OM_12-15-2011_10-02-37
291703001	1169319	5	KLP1	12/15/2011	11:35:59	OM_12-15-2011_10-02-37
1202555193	1169319	5	KLP1	12/15/2011	11:37:11	OM_12-15-2011_10-02-37
1202555198	1169319	5	KLP1	12/15/2011	11:38:23	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011	11:39:34	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011	11:41:55	OM_12-15-2011_10-02-37
291741006	1169319	5	KLP1	12/15/2011	11:44:15	OM_12-15-2011_10-02-37
1202555196	1169319	5	KLP1	12/15/2011	11:45:26	OM_12-15-2011_10-02-37
1202555201	1169319	5	KLP1	12/15/2011	11:46:38	OM_12-15-2011_10-02-37
291774002	1169319	5	KLP1	12/15/2011	11:47:49	OM_12-15-2011_10-02-37
291809002	1169319	5	KLP1	12/15/2011	11:49:00	OM_12-15-2011_10-02-37
1202555194	1169319	5	KLP1	12/15/2011	11:50:12	OM_12-15-2011_10-02-37
1202555199	1169319	5	KLP1	12/15/2011	11:51:23	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011	11:53:43	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011	11:56:04	OM_12-15-2011_10-02-37

Author: lachat Date : 12/15/2011

Original Run Filename: OM_12-15-2011_10-02-37.OMN created 12/15/2011 10:02:37
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-15-2011_10-02-37.OMN last modified 12/15/2011 11:57:25
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum AR1111A
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111215-26	1	S9	1.50	14.4	12/15/2011@10:03:38			1.5 PPM
WTR111215-25	1	S10	1.00	10.6	12/15/2011@10:04:49			1.0 PPM
WTR111215-24	1	S11	0.500	4.92	12/15/2011@10:06:01			0.5 ppm
WTR111215-23	1	S12	0.100	0.961	12/15/2011@10:07:13			0.1 ppm
WTR111215-21	1	S13	0.0500	0.504	12/15/2011@10:08:25			0.05 ppm
0.0ppm	1	S15	0.00	0.0354	12/15/2011@10:09:38			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99820 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111215-27 ICV	1	S16	0.957	9.48	12/15/2011@10:12:00			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.957 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.957 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00171	0.0380	12/15/2011@10:14:21			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00171 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00171 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR111215-22	1	S1	1.00	9.92	12/15/2011@10:16:40			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.900					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR111215-28	1	S2	1.03	10.2	12/15/2011@10:18:59			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.900					
		Message	Pass					
		Action	None					
1202555203|1169320|MB	1	1	-4.21e-4	0.0507	12/15/2011@10:21:19			
1202555206||LCS	1	2	0.925	9.16	12/15/2011@10:22:31			
291586002	1	3	0.504	5.02	12/15/2011@10:23:43		10.00	
1202555204||DUP	1	4	0.472	4.70	12/15/2011@10:24:54		10.00	
1202555205||PS	1	5	1.40	13.9	12/15/2011@10:26:06		10.00	

291691004	1	6	0.530	5.28	12/15/2011@10:27:19		10.00	
291801005	1	7	-0.0704	-0.639	12/15/2011@10:28:31			
1202555191|1169319|MB	1	8	-0.00231	0.0321	12/15/2011@10:29:42			
1202555202||LCS	1	9	0.913	9.04	12/15/2011@10:30:53			
291670001	1	10	-0.0518	-0.455	12/15/2011@10:32:05			
WTR111215-25 CCV	1	S10	1.05	10.4	12/15/2011@10:33:16			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.05 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.05 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00158	0.0393	12/15/2011@10:35:37			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00158 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00158 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291687001	1	11	0.406	4.06	12/15/2011@10:37:56		5.00	
291689001	1	12	0.231	2.33	12/15/2011@10:39:06		5.00	
1202555195||DUP	1	13	0.231	2.33	12/15/2011@10:40:17		5.00	
1202555200||PS	1	14	1.18	11.7	12/15/2011@10:41:28		5.00	
291689002	1	15	0.423	4.22	12/15/2011@10:42:38			
291703001	1	16	0.558	5.55	12/15/2011@10:43:51			
1202555193||DUP	1	17	0.561	5.57	12/15/2011@10:45:03			
1202555198||PS	1	18	1.24	12.3	12/15/2011@10:46:15			
291703003	1	19	0.326	3.26	12/15/2011@10:47:27		5.00	
291703005	1	20	0.321	3.21	12/15/2011@10:48:39		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@10:49:50			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00153	0.0397	12/15/2011@10:52:11			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00153 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00153 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291703007	1	21	0.296	2.97	12/15/2011@10:54:31			
291730002	1	22	0.859	8.51	12/15/2011@10:55:43		10.00	
291741006	1	23	0.519	5.17	12/15/2011@10:56:54			
1202555196||DUP	1	24	0.530	5.28	12/15/2011@10:58:06			
1202555201||PS	1	25	1.15	11.4	12/15/2011@10:59:17			
291774002	1	26	-0.0877	-0.809	12/15/2011@11:00:28			
291774025	1	27	0.397	3.97	12/15/2011@11:01:39		500.00	
291784001	1	28	0.853	8.46	12/15/2011@11:02:49		500.00	
1202555192||DUP	1	29	0.831	8.24	12/15/2011@11:04:00		500.00	
1202555197||PS	1	30	1.79	17.7	12/15/2011@11:05:11		500.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:06:22			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00161	0.0390	12/15/2011@11:08:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00161 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00161 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291784007	1	31	0.850	8.42	12/15/2011@11:11:03		500.00	
291784011	1	32	1.28	12.6	12/15/2011@11:12:15			
291796002	1	33	0.152	1.56	12/15/2011@11:13:27			
291796003	1	34	0.120	1.24	12/15/2011@11:14:39			
291796005	1	35	-0.0499	-0.437	12/15/2011@11:15:51			
291797002	1	36	0.0777	0.820	12/15/2011@11:17:03			
291809002	1	37	0.117	1.20	12/15/2011@11:18:15			
1202555194||DUP	1	38	0.115	1.19	12/15/2011@11:19:26			
1202555199||PS	1	39	0.376	3.75	12/15/2011@11:20:37			
1202558724|1170734|MB	1	40	-2.48e-4	0.0524	12/15/2011@11:21:49			
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:23:00			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00137	0.0413	12/15/2011@11:25:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00137 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00137 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202558728||LCS	1	41	1.05	10.4	12/15/2011@11:27:41			
289522016	1	42	0.864	8.56	12/15/2011@11:28:51		10.00	
1202558725||DUP	1	43	0.810	8.03	12/15/2011@11:30:02		10.00	
1202558726||MS	1	44	0.903	8.95	12/15/2011@11:31:13		10.00	
1202558727||MSD	1	45	0.849	8.41	12/15/2011@11:32:24		10.00	
291801005|1169320|	1	7	-0.00698	-0.0140	12/15/2011@11:33:35		5.00	
291670001|1169319|	1	10	6.86e-4	0.0616	12/15/2011@11:34:47		5.00	
291703001	1	16	0.179	1.82	12/15/2011@11:35:59		5.00	
1202555193||DUP	1	17	0.222	2.24	12/15/2011@11:37:11		5.00	
1202555198||PS	1	18	1.13	11.1	12/15/2011@11:38:23		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:39:34			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00105	0.0445	12/15/2011@11:41:55			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00105 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00105 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291741006	1	23	0.172	1.75	12/15/2011@11:44:15		5.00	
1202555196||DUP	1	24	0.228	2.30	12/15/2011@11:45:26		5.00	
1202555201||PS	1	25	1.26	12.5	12/15/2011@11:46:38		5.00	
291774002	1	26	0.0407	0.456	12/15/2011@11:47:49		5.00	
291809002	1	37	0.128	1.31	12/15/2011@11:49:00		5.00	
1202555194||DUP	1	38	0.126	1.29	12/15/2011@11:50:12		5.00	
1202555199||PS	1	39	1.07	10.5	12/15/2011@11:51:23		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:53:43			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00151	0.0399	12/15/2011@11:56:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00151 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00151 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat Date : 12/15/2011

Channel 1 (NO3 + NO2) : Current View

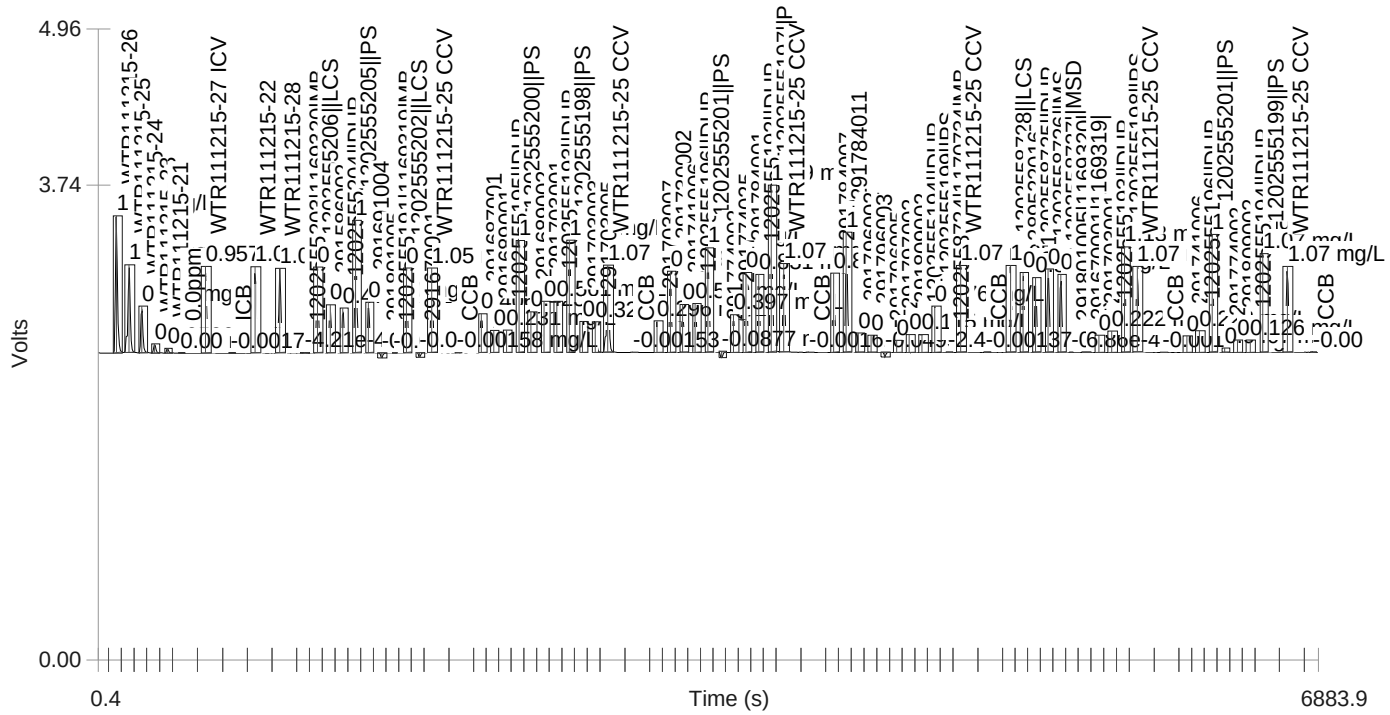
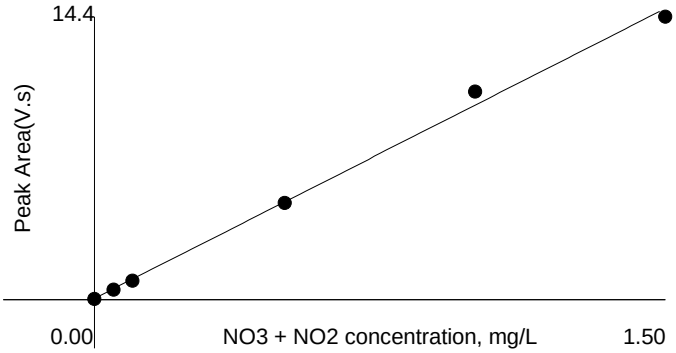


Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	14.4	1.08	2.8	12/15/2011	10:04:58
2	1.00	1	10.6	0.691	-6.8	12/15/2011	10:06:09
3	0.500	1	4.92	0.368	1.2	12/15/2011	10:07:21
4	0.100	1	0.961	0.0719	8.9	12/15/2011	10:08:33
5	0.0500	1	0.504	0.0377	10.7	12/15/2011	10:09:45
6	0.00	1	0.0354	0.00246		12/15/2011	10:10:58

Figure 1: NO3 + NO2



Area = 9.81 * Conc + 0.0735
Conc = 0.102 * Area - 0.00557
Correlation Coefficient (r) = 0.99820

No Weighting

Solids, Total Dissolved
Raw Data

Batch: 1169725.0
Analyst: 2REV

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202556229	1700810	300	97.143

Sample Type	Sample Id	Rpd(%)
DUP	1202556228	1.0666666666667

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202556227	MB		BAL216	13-DEC-2011 10:23	F5	0.07	55.3743	55.3741	55.3742			-1.42857	mg/L
1202556229	LCS		BAL216	13-DEC-2011 10:23	AFU	0.07	67.7889	67.8091	67.8093			291.42857	mg/L
291687001	SAMPLE		BAL216	13-DEC-2011 10:23	F16	0.07	59.1539	59.1914	59.1916			538.57143	mg/L
1202556228	DUP	291687001	BAL216	13-DEC-2011 10:23	2	0.07	53.3142	53.351	53.3515			532.85714	mg/L
291689001	SAMPLE		BAL216	13-DEC-2011 10:23	ND	0.07	61.1639	61.1969	61.1971			474.28571	mg/L
291689002	SAMPLE		BAL216	13-DEC-2011 10:23	AAL	0.07	60.9093	60.9413	60.9417			462.85714	mg/L

Comments: **All Weights are in Grams**

A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Time In: 14-DEC-11 10:59:49
Time Out: 15-DEC-11 08:50:49
Time In: 15-DEC-11 10:10:49
Time Out: 15-DEC-11 11:30:49
Temperature: 182 C
Temperature: 182 C
Temperature: 182 Celsius
Temperature: 182 Celsius

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Total Kjeldahl Nitrogen Raw Data

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **1169323.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555222	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555218	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555219	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555220	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555221	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202555215 MB	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555222 LCS	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555216 DUP (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555218 MS (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555220 MSD (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524003	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524004	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524005	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524006	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524007	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524008	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525003	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291602001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291602002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291687001	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
291689001	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555217 DUP (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555219 MS (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555221 MSD (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
291689002	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2

Prep Logbook

Batch ID: **1169323.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555222	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555218	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555219	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555220	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555221	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check

Reagent/Solvent Lot ID	Description	Amount
1589866-C	TKN/PO4 Digestion Solution	4 mL
WTR111213-12	TKN,TP Working Standard 5ppm	20 mL
WTR111213-13	TKN, TP Working Standard 3ppm	20 mL
WTR111213-14	TKN,TP Working Standard 1ppm CCV	20 mL
WTR111213-15	TKN, TP Working Standard 0.5ppm	20 mL
WTR111213-16	TKN, TP Working Standard 0.1ppm	20 mL
WTR111213-17	TKN, TP Working Standard 0.05ppm	20 mL
WTR111213-18	TKN, TP Standard 1ppm ICV	20 mL
WTR111213-19	TKN, TP Working Standard 0ppm	20 mL

Comments:

Digestion Start Date: 13-DEC-11 06:00:46

Digestion Stop Date: 13-DEC-11 12:00:46

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	klp1	12/14/2011 13:44:51	OM_12-14-2011_13-44-06
3.0 ppm Std.		1	klp1	12/14/2011 13:45:39	OM_12-14-2011_13-44-06
1.0 ppm Std.		1	klp1	12/14/2011 13:46:27	OM_12-14-2011_13-44-06
0.5 ppm Std		1	klp1	12/14/2011 13:47:17	OM_12-14-2011_13-44-06
0.1 ppm Std		1	klp1	12/14/2011 13:48:07	OM_12-14-2011_13-44-06
ICAL-00		1	klp1	12/14/2011 13:48:59	OM_12-14-2011_13-44-06
ICV		1	klp1	12/14/2011 13:50:51	OM_12-14-2011_13-44-06
ICB		1	klp1	12/14/2011 13:52:42	OM_12-14-2011_13-44-06
1202555215*	1169324	1	klp1	12/14/2011 13:54:33	OM_12-14-2011_13-44-06
1202555222*	1169324	1	klp1	12/14/2011 13:55:24	OM_12-14-2011_13-44-06
291524001*	1169324	1	klp1	12/14/2011 13:56:14	OM_12-14-2011_13-44-06
1202555216*	1169324	1	klp1	12/14/2011 13:57:05	OM_12-14-2011_13-44-06
1202555215*	1169324	1	klp1	12/14/2011 13:57:56	OM_12-14-2011_13-44-06
1202555222	1169324	1	klp1	12/14/2011 13:58:47	OM_12-14-2011_13-44-06
291524001	1169324	1	klp1	12/14/2011 13:59:38	OM_12-14-2011_13-44-06
1202555216	1169324	1	klp1	12/14/2011 14:00:28	OM_12-14-2011_13-44-06
1202555218	1169324	1	klp1	12/14/2011 14:01:18	OM_12-14-2011_13-44-06
1202555220	1169324	1	klp1	12/14/2011 14:02:09	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:02:58	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:04:49	OM_12-14-2011_13-44-06
1202555215	1169324	1	klp1	12/14/2011 14:06:41	OM_12-14-2011_13-44-06
291524002	1169324	1	klp1	12/14/2011 14:07:31	OM_12-14-2011_13-44-06
291524003	1169324	1	klp1	12/14/2011 14:08:20	OM_12-14-2011_13-44-06
291524004	1169324	1	klp1	12/14/2011 14:09:10	OM_12-14-2011_13-44-06
291524005	1169324	1	klp1	12/14/2011 14:09:58	OM_12-14-2011_13-44-06
291524006	1169324	1	klp1	12/14/2011 14:10:47	OM_12-14-2011_13-44-06
291524007	1169324	1	klp1	12/14/2011 14:11:35	OM_12-14-2011_13-44-06
291524008	1169324	1	klp1	12/14/2011 14:12:23	OM_12-14-2011_13-44-06
291525001	1169324	1	klp1	12/14/2011 14:13:11	OM_12-14-2011_13-44-06
291525002	1169324	1	klp1	12/14/2011 14:13:58	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:14:46	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:16:38	OM_12-14-2011_13-44-06
291525003	1169324	1	klp1	12/14/2011 14:18:29	OM_12-14-2011_13-44-06
291602001	1169324	1	klp1	12/14/2011 14:19:20	OM_12-14-2011_13-44-06
291602002	1169324	1	klp1	12/14/2011 14:20:12	OM_12-14-2011_13-44-06
291687001	1169324	1	klp1	12/14/2011 14:21:02	OM_12-14-2011_13-44-06
291689001	1169324	1	klp1	12/14/2011 14:21:53	OM_12-14-2011_13-44-06
1202555217	1169324	1	klp1	12/14/2011 14:22:44	OM_12-14-2011_13-44-06
1202555219	1169324	1	klp1	12/14/2011 14:23:34	OM_12-14-2011_13-44-06
1202555221	1169324	1	klp1	12/14/2011 14:24:24	OM_12-14-2011_13-44-06
291689002	1169324	1	klp1	12/14/2011 14:25:13	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:27:03	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:28:55	OM_12-14-2011_13-44-06

Author: klp1 Date : 12/14/2011

Original Run Filename: OM_12-14-2011_13-44-06.OMN created 12/14/2011 13:44:06
Original Run Author's Signature: [klp1]
Current Run Filename: OM_12-14-2011_13-44-06.OMN last modified 12/14/2011 14:30:00
Current Run Author's Signature: [klp1]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111214-12	1	S1	5.00	5.42	12/14/2011@13:44:51			5.0 ppm Std.
WTR111214-13	1	S2	3.00	3.06	12/14/2011@13:45:39			3.0 ppm Std.
WTR111214-14	1	S3	1.00	0.934	12/14/2011@13:46:27			1.0 ppm Std.
WTR111214-15	1	S4	0.500	0.420	12/14/2011@13:47:17			0.5 ppm Std
WTR111214-16	1	S5	0.100	0.0815	12/14/2011@13:48:07			0.1 ppm Std
WTR111214-19 0.0 ppm	1	S7	0.00	-0.0130	12/14/2011@13:48:59			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99930 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111214-18 ICV	1	S8	1.02	1.02	12/14/2011@13:50:51			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR111214-19 ICB	1	S7	0.0509	-0.0328	12/14/2011@13:52:42			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0509 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0509 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202555215|1169324|MB	1	1	0.131	0.0548	12/14/2011@13:54:33			
1202555222||LCS	1	2	1.22	1.24	12/14/2011@13:55:24			
291524001	1	3	0.896	0.885	12/14/2011@13:56:14			
1202555216||DUP	1	4	0.955	0.950	12/14/2011@13:57:05			
1202555215|1169324|MB	1	1	0.126	0.0488	12/14/2011@13:57:56			
1202555222||LCS	1	2	1.07	1.07	12/14/2011@13:58:47			
291524001	1	3	1.04	1.04	12/14/2011@13:59:38			
1202555216||DUP	1	4	0.962	0.957	12/14/2011@14:00:28			
1202555218||MS	1	5	2.13	2.23	12/14/2011@14:01:18			
1202555220||MSD	1	6	1.58	1.63	12/14/2011@14:02:09			
WTR111214-14 CCV	1	S3	0.981	0.978	12/14/2011@14:02:58			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.981 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.981 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0616	-0.0212	12/14/2011@14:04:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0616 < 0.100					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0616 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202555215|1169324|MB	1	1	0.0625	-0.0201	12/14/2011@14:06:41			
291524002	1	7	1.42	1.46	12/14/2011@14:07:31			
291524003	1	8	1.31	1.34	12/14/2011@14:08:20			
291524004	1	9	1.35	1.38	12/14/2011@14:09:10			
291524005	1	10	0.888	0.877	12/14/2011@14:09:58			
291524006	1	11	0.473	0.426	12/14/2011@14:10:47			
291524007	1	12	0.406	0.354	12/14/2011@14:11:35			
291524008	1	13	0.533	0.491	12/14/2011@14:12:23			
291525001	1	14	0.468	0.421	12/14/2011@14:13:11			
291525002	1	15	0.592	0.555	12/14/2011@14:13:58			
WTR111214-14 CCV	1	S3	0.941	0.934	12/14/2011@14:14:46			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.941 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.941 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0553	-0.0280	12/14/2011@14:16:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0553 < 0.100					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0553 > -0.100					
		Message	CCB Passed					
		Action	Continue					
291525003	1	16	0.490	0.445	12/14/2011@14:18:29			
291602001	1	17	0.152	0.0772	12/14/2011@14:19:20			
291602002	1	18	0.784	0.764	12/14/2011@14:20:12			
291687001	1	19	1.26	1.29	12/14/2011@14:21:02			
291689001	1	20	0.852	0.838	12/14/2011@14:21:53			
1202555217||DUP	1	21	0.606	0.570	12/14/2011@14:22:44			
1202555219||MS	1	22	1.74	1.80	12/14/2011@14:23:34			
1202555221||MSD	1	23	1.74	1.81	12/14/2011@14:24:24			
291689002	1	24	1.01	1.00	12/14/2011@14:25:13			
WTR111214-14 CCV	1	S3	0.951	0.946	12/14/2011@14:27:03			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.951 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.951 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0293	-0.0562	12/14/2011@14:28:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0293 < 0.100					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0293 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Author: klp1 Date : 12/14/2011

Channel 1 (TKN) : Current View

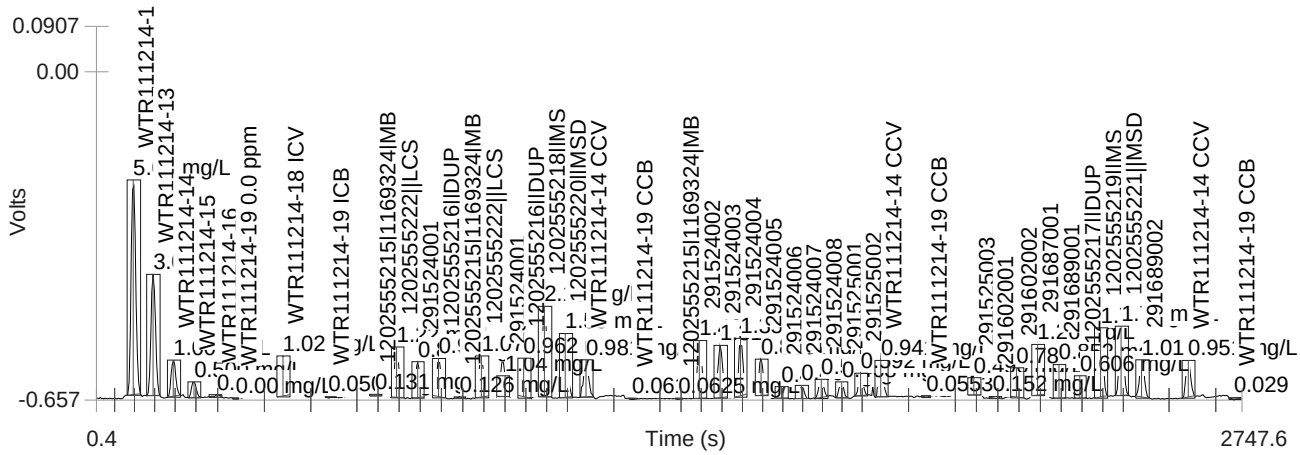
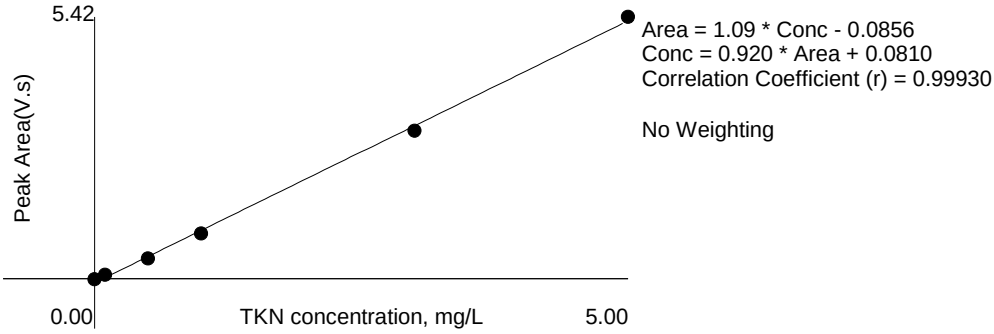


Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.00	1	5.42	0.429	-1.5	12/14/2011	13:45:55
2	3.00	1	3.06	0.242	3.4	12/14/2011	13:46:43
3	1.00	1	0.934	0.0724	6.6	12/14/2011	13:47:31
4	0.500	1	0.420	0.0315	8.2	12/14/2011	13:48:21
5	0.100	1	0.0815	0.00539	-255.8	12/14/2011	13:49:11
6	0.00	1	-0.0130	-0.00227		12/14/2011	13:50:03

Figure 1: TKN



Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, ORNL, UDSL, URSC
Batch ID:	**Sample Numbers:**		
1169314	See Below		

Potentially affected work order(s)(SDG): 291296,291534,291535,291687(12-485),291689(12-484),291703(12-482),291796(12-491),291797(12-495)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202555181MSD	1. The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Kristen Parson 13-DEC-11

Data Validator/Group Leader:

Elzbieta Szulc 13-DEC-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL, WETL
Batch ID:	**Sample Numbers:**		
1169324	See Below		

Potentially affected work order(s)(SDG): 291524,291525,291602,291687(12-485),291689(12-484)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202555219MS, 1202555221MSD	1. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.
2. Failed RPD for DUP: QC 1202555217DUP	2. The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
3. Failed RPD for MS/MSD: QC 1202555220MSD	3. The Relative Percent Difference (RPD) between the spike and spike duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
4. Failed Recovery for MSD: QC 1202555220MSD	4. The spike duplicate recovery falls outside of the established acceptance limits due sample non-homogenity.

Originator's Name:

Kristen Parson 14-DEC-11

Data Validator/Group Leader:

Elzbieta Szulc 15-DEC-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1169336	See below.		

Potentially affected work order(s)(SDG): 291687(12-485),291689(12-484)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202555252PS	1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Mary Sherwood 15-DEC-11

Data Validator/Group Leader:

Julia Hamilton 16-DEC-11

Monday, September 19, 2011

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3620
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/19/2011
TURNAROUND/REPORT DUE: 10/19/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:624	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
	SW-846:8081A	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		3	NPDES13S-11-26994	WOE	9/16/2011	

Final Page of REQUEST NUMBER 11-3620

Monday, September 19, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3620C

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/19/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Signature	9/19/11	1400	Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES13S-11-26994 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		9/16/11	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	OTHER	
PRS ID:	TA-03		SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall SSS13S		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WQE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: 24hr COMPOSITE TIME INTERVAL: 9 pulses WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		NPDES-TTO 2 -CVE (624)	40 ML SEPTUM AMBER GLASS	Ice	Y	
2		NPDES-TTO VOA HCl(624)	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) B. Gray REVIEWED BY (PRINT) B. Gray

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray	9/16/11	(Printed Name) K. Greek	9/16/11
(Signature) Beth Gray	1340	(Signature)	1:40
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3620 VALIDATION DATE: 10/12/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☒ **OTHER (DESCRIBE):** VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that acrolein and acrylonitrile were not represented in the MS/MSD spiking solution. However, MS/MSD analyses were not required for this method and, thus, no sample data were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 10/13/11

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 10/12/11

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☐	☒	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171001**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 14:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 14:06**				
Data File:	**092211V9\9E412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0234	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0535	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0936	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0386	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.2	50.0	ug/L	110	(79%-124%)
Bromofluorobenzene	50.0	50.0	ug/L	100	(80%-120%)
Toluene-d8	55.7	50.0	ug/L	111	(80%-120%)

ETM
10/12/11

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3620 VALIDATION DATE: 10/12/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ **TPH-GRO**	☐ **HIGH EXPLOSIVES**	☐ **DIOXIN FURANS**	☐ **LCMSMS PERCHLORATES**
☐ **TPH-DRO**	☐ **METALS**	☐ **PCB CONGENERS**	☒ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
☐ **GENERAL CHEMISTRY**	☐ **RADIOCHEMISTRY**	☐ **LCMSMS HIGH EXPLOSIVES**	

☒ **OTHER (DESCRIBE):** Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >15% on one column only for 4,4'-DDE; 4,4'-DDD and 4,4'-DDT. The associated sample results were NDs and, thus, were not qualified.
2. The 4CMX and DCB surrogate %Rs for the sample were > the laboratory's UALs on one column only. The associated sample results were NDs and, thus, were not qualified. One or more surrogate %Rs were > the laboratory's UALs for the MB, LCS and MSD. Since these are QC samples, no sample data were qualified.
3. The LCS %Rs were > the laboratory's UALs for heptachlor, aldrin and alpha-chlordane. The associated sample results were NDs and, thus, were not qualified.
4. It should be noted that several MS/MSD %Rs and RPDs were outside the laboratory's acceptance limits. It should be noted that toxaphene was not represented in the MS/MSD spiking solution. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 10/13/11

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 10/12/11

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.**	**UJ, P13a**	**J+, P13a**
☐	☐	☒	**12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, P13b**	**R, P13b**
☐	☒	☐	**13. The sample result is ≤5X the concentration of the related analyte in the method blank.**	**U, P4**	**N/A**
☐	☒	☐	**14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.**	**N/A**	**J, P4a**
☐	☐	☒	**15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.**	**UJ, P4b**	**N/A**
☐	☐	☒	**16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.**	**UJ, P4d**	**N/A**
☐	☒	☐	**17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, P4e**	**R, P4e**
☐	☒	☐	**18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.**	**R, P0**	**J, P0**
☐	☒	☐	**19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, P0b**	**R, P0b**
☐	☒	☐	**20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.**	**R, P3**	**J-, P3**

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☒	☐	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171002**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 21:10**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**960 mL**	**Final Volume:**	**5 mL**
Data File:	**025F2501.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	025B2501.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0208	ug/L	0.00693	0.0208	1
58-89-9	gamma-BHC (Lindane)	U	0.0208	ug/L	0.00693	0.0208	1
319-85-7	beta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
72-43-5	Methoxychlor	U	0.208	ug/L	0.0521	0.208	1
319-86-8	delta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
76-44-8	Heptachlor	U	0.0208	ug/L	0.00693	0.0208	1
309-00-2	Aldrin	U	0.0208	ug/L	0.00693	0.0208	1
1024-57-3	Heptachlor epoxide	U	0.0208	ug/L	0.00693	0.0208	1
5103-74-2	gamma-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
5103-71-9	alpha-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
959-98-8	Endosulfan I	U	0.0208	ug/L	0.00693	0.0208	1
72-55-9	4,4'-DDE	U	0.0417	ug/L	0.0104	0.0417	1
60-57-1	Dieldrin	U	0.0417	ug/L	0.0104	0.0417	1
72-20-8	Endrin	U	0.0417	ug/L	0.0104	0.0417	1
72-54-8	4,4'-DDD	U	0.0417	ug/L	0.0104	0.0417	1
33213-65-9	Endosulfan II	U	0.0417	ug/L	0.0104	0.0417	1
7421-93-4	Endrin aldehyde	U	0.0417	ug/L	0.00693	0.0417	1
50-29-3	4,4'-DDT	U	0.0417	ug/L	0.0104	0.0417	1
1031-07-8	Endosulfan sulfate	U	0.0417	ug/L	0.0104	0.0417	1
53494-70-5	Endrin ketone	U	0.0417	ug/L	0.0104	0.0417	1
8001-35-2	Toxaphene	U	0.521	ug/L	0.156	0.521	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.09	1.04	ug/L	105	(23%-119%)
4cmx	1.14	1.04	ug/L	109	(21%-109%)

ETM
10/12/11

Monday, September 19, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3620C

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/19/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 086171 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	9/19/11	1400	P. Dent	9/20/11	09:05
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Signature

Monday, September 19, 2011

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3620
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/19/2011
TURNAROUND/REPORT DUE: 10/19/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:624	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
	SW-846:8081A	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		3	NPDES13S-11-26994	WOE	9/16/2011	

Final Page of REQUEST NUMBER 11-3620

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

September 21, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH NPDES 13S
Work Order: 286171
SDG: 11-3620

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on September 20, 2011, and analyzed for GC Semivolatile Pesticide and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 11-3620
Enclosures

ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 286171
SDG # : 11-3620

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....4

Data Review Qualifier Flag Definition Sheet.....9

Volatile Analysis.....11

Case Narrative.....12

Sample Data Summary.....17

Quality Control Summary.....19

Sample Data.....39

Standards.....49

Quality Control Data.....153

Miscellaneous.....200

GC Semivolatile Pesticide Analysis.....205

Case Narrative.....206

Sample Data Summary.....213

QC Summary.....216

Sample Data.....223

Standard Data.....229

QC Data.....367

Miscellaneous Data.....413

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 286171
SDG # : 11-3620

September 21, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 20, 2011 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
286171001	NPDES13S-11-26994
286171002	NPDES13S-11-26994

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile Pesticide and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

List of current GEL Certifications as of 21 September 2011

State	Certification
Arizona	AZ0766
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH−0169
DoD ELAP − A2LA	2567.01
Florida − NELAP	E87156
Foreign Soils Permit USDA	P330−09−00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046 (Al33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M−SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey − NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−11−4
Utah − NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780−11
Wisconsin	999887790

Chain of Custody and Supporting Documentation

Monday, September 19, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3620C

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/19/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 086171 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES13S-11-26994	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES13S-11-26994	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES13S-11-26994	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	9/19/11	1400	P. Dent	9/20/11	09:05
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Signature

Monday, September 19, 2011

REQUEST NUMBER: 11-3620

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3620
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/19/2011
TURNAROUND/REPORT DUE: 10/19/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:624	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
	SW-846:8081A	1	NPDES13S-11-26994	WOE	9/16/2011	
		2	NPDES13S-11-26994	WOE	9/16/2011	
		3	NPDES13S-11-26994	WOE	9/16/2011	

Final Page of REQUEST NUMBER 11-3620

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/AR/COC/Work Order: 11-3620**
Received By: Patricia Dent	**Date Received: September 20, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags **Blue ice** Dry ice **None** Other (describe) **6,C**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: **61524646** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**Client Labels**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			Circle Applicable: **FedEx Air** FedEx Ground UPS Field Services Courier Other **7209 7855 5334 6C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials HA Date 092111 Page 1 of 1

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 19SEP11
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWH0

6e

FedEx Express

1 of 3

TRK# 0201 7209 7855 5334

TUE - 20 SEP A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 156148-434 RIT2 08/10

5B5C2/4288/DA47

NPDES

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Volatile Analysis

Case Narrative

ChemStation Case Narrative
ARS International (ARSL)
SDG 11-3620

Method/Analysis Information

Procedure:	**Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method:	EPA 624 DOE-AL
Analytical Batch Number:	1143643

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
286171001	NPDES13S-11-26994
1202492555	Method Blank (MB)
1202492556	286171001(NPDES13S-11-26994) Post Spike (PS)
1202492557	286171001(NPDES13S-11-26994) Post Spike Duplicate (PSD)
1202492558	Laboratory Control Sample (LCS)
1202492559	Laboratory Control Sample (LCS)
1202493528	Method Blank (MB)
1202493529	Laboratory Control Sample (LCS)
1202493530	Laboratory Control Sample (LCS)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-026 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the

Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 286171001 (NPDES13S-11-26994) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
Preservation was not indicated on the sample vials. Samples 1202492556 (NPDES13S-11-26994), 1202492557 (NPDES13S-11-26994) and 286171001 (NPDES13S-11-26994) were analyzed within 7 days.

Sample Dilutions/Methanol Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 286171001 (NPDES13S-11-26994) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA9.I	Agilent 6890/5973 GC/MS w/ OI Eclipse/Archon Autosampler	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3620 GEL Work Order: 286171

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 27 SEP 2011 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171001**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 14:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 14:06**				
Data File:	**092211V9\9E412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0234	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0535	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0936	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0386	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.2	50.0	ug/L	110	(79%-124%)
Bromofluorobenzene	50.0	50.0	ug/L	100	(80%-120%)
Toluene-d8	55.7	50.0	ug/L	111	(80%-120%)

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 11-3620

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202492558	LCS for batch 1143643	103	106	99
1202492559	LCS for batch 1143643	103	102	107
1202492555	MB for batch 1143643	109	108	99
1202492556	NPDES13S-11-26994PS	107	107	93
1202492557	NPDES13S-11-26994PSD	108	105	98
1202493529	LCS for batch 1143643	107	105	101
1202493530	LCS for batch 1143643	102	105	108
1202493528	MB for batch 1143643	107	108	102
286171001	NPDES13S-11-26994	110	111	100

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(79%-124%)
TOL	= Toluene-d8	(80%-120%)
BFB	= Bromofluorobenzene	(80%-120%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994PS**
Lab Sample ID: **1202492556**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 19:36**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
74-87-3	PS	Chloromethane	0.050	0.00	U	0.0591	118	53-142
75-01-4	PS	Vinyl chloride	0.050	0.00	U	0.0549	110	53-130
74-83-9	PS	Bromomethane	0.050	0.00	U	0.0536	107	60-122
75-00-3	PS	Chloroethane	0.050	0.00	U	0.0479	96	67-131
75-35-4	PS	1,1-Dichloroethylene	0.050	0.00	U	0.0449	90	64-127
75-09-2	PS	Methylene chloride	0.050	0.00	U	0.046	92	72-123
156-60-5	PS	trans-1,2-Dichloroethylene	0.050	0.00	U	0.0378	76	69-124
75-34-3	PS	1,1-Dichloroethane	0.050	0.00	U	0.0501	100	75-123
67-66-3	PS	Chloroform	0.050	0.0234		0.0734	100	76-124
71-55-6	PS	1,1,1-Trichloroethane	0.050	0.00	U	0.0441	88	72-137
56-23-5	PS	Carbon tetrachloride	0.050	0.00	U	0.0447	89	69-141
107-06-2	PS	1,2-Dichloroethane	0.050	0.00	U	0.0499	100	72-126
71-43-2	PS	Benzene	0.050	0.00	U	0.045	90	75-118
79-01-6	PS	Trichloroethylene	0.050	0.00	U	0.0452	90	69-128
78-87-5	PS	1,2-Dichloropropane	0.050	0.00	U	0.0505	101	78-123
75-27-4	PS	Bromodichloromethane	0.050	0.0535		0.104	102	76-136
110-75-8	PS	2-Chloroethylvinyl ether	0.250	0.00	U	0.221	88	52-125
10061-01-5	PS	cis-1,3-Dichloropropylene	0.050	0.00	U	0.0463	93	77-131
108-88-3	PS	Toluene	0.050	0.00	U	0.0493	99	67-119
10061-02-6	PS	trans-1,3-Dichloropropylene	0.050	0.00	U	0.0537	107	75-128
79-00-5	PS	1,1,2-Trichloroethane	0.050	0.00	U	0.0524	105	74-120
127-18-4	PS	Tetrachloroethylene	0.050	0.00	U	0.049	98	65-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994PS**
Lab Sample ID: **1202492556**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 19:36**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
124-48-1	PS	Dibromochloromethane	0.050	0.0936		0.150	112	72-129
108-90-7	PS	Chlorobenzene	0.050	0.00	U	0.0492	98	73-123
100-41-4	PS	Ethylbenzene	0.050	0.00	U	0.052	104	69-122
75-25-2	PS	Bromoform	0.050	0.0386		0.0856	94	67-126
79-34-5	PS	1,1,2,2-Tetrachloroethane	0.050	0.00	U	0.0485	97	65-126
541-73-1	PS	1,3-Dichlorobenzene	0.050	0.00	U	0.0486	97	67-125
106-46-7	PS	1,4-Dichlorobenzene	0.050	0.00	U	0.0472	94	66-124
95-50-1	PS	1,2-Dichlorobenzene	0.050	0.00	U	0.0487	97	71-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994PSD**
Lab Sample ID: **1202492557**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 20:03**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: **1**

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
74-87-3	PSD	Chloromethane	0.050	0.00	U	0.0571	114	53-142	3	0-20
75-01-4	PSD	Vinyl chloride	0.050	0.00	U	0.0516	103	53-130	6	0-20
74-83-9	PSD	Bromomethane	0.050	0.00	U	0.0515	103	60-122	4	0-20
75-00-3	PSD	Chloroethane	0.050	0.00	U	0.0481	96	67-131	0	0-20
75-35-4	PSD	1,1-Dichloroethylene	0.050	0.00	U	0.0457	91	64-127	2	0-20
75-09-2	PSD	Methylene chloride	0.050	0.00	U	0.0464	93	72-123	1	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	0.050	0.00	U	0.0379	76	69-124	0	0-20
75-34-3	PSD	1,1-Dichloroethane	0.050	0.00	U	0.0494	99	75-123	1	0-20
67-66-3	PSD	Chloroform	0.050	0.0234		0.0737	101	76-124	0	0-20
71-55-6	PSD	1,1,1-Trichloroethane	0.050	0.00	U	0.0455	91	72-137	3	0-20
56-23-5	PSD	Carbon tetrachloride	0.050	0.00	U	0.0463	93	69-141	3	0-20
107-06-2	PSD	1,2-Dichloroethane	0.050	0.00	U	0.0502	100	72-126	0	0-20
71-43-2	PSD	Benzene	0.050	0.00	U	0.0459	92	75-118	2	0-20
79-01-6	PSD	Trichloroethylene	0.050	0.00	U	0.0462	92	69-128	2	0-20
78-87-5	PSD	1,2-Dichloropropane	0.050	0.00	U	0.0511	102	78-123	1	0-20
75-27-4	PSD	Bromodichloromethane	0.050	0.0535		0.106	106	76-136	2	0-20
110-75-8	PSD	2-Chloroethylvinyl ether	0.250	0.00	U	0.238	95	52-125	7	0-21
10061-01-5	PSD	cis-1,3-Dichloropropylene	0.050	0.00	U	0.0495	99	77-131	7	0-20
108-88-3	PSD	Toluene	0.050	0.00	U	0.0499	100	67-119	1	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	0.050	0.00	U	0.0549	110	75-128	2	0-20
79-00-5	PSD	1,1,2-Trichloroethane	0.050	0.00	U	0.0536	107	74-120	2	0-20
127-18-4	PSD	Tetrachloroethylene	0.050	0.00	U	0.0494	99	65-129	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994PSD**
Lab Sample ID: **1202492557**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 20:03**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
124-48-1	PSD	Dibromochloromethane	0.050	0.0936		0.153	118	72-129	2	0-20
108-90-7	PSD	Chlorobenzene	0.050	0.00	U	0.050	100	73-123	2	0-20
100-41-4	PSD	Ethylbenzene	0.050	0.00	U	0.0526	105	69-122	1	0-20
75-25-2	PSD	Bromoform	0.050	0.0386		0.0945	112	67-126	10	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	0.050	0.00	U	0.053	106	65-126	9	0-20
541-73-1	PSD	1,3-Dichlorobenzene	0.050	0.00	U	0.0506	101	67-125	4	0-22
106-46-7	PSD	1,4-Dichlorobenzene	0.050	0.00	U	0.0486	97	66-124	3	0-22
95-50-1	PSD	1,2-Dichlorobenzene	0.050	0.00	U	0.0506	101	71-123	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202492558**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 10:19**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
74-87-3	LCS	Chloromethane	0.050	0.0	0.063	126	63-135
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0575	115	65-125
74-83-9	LCS	Bromomethane	0.050	0.0	0.0546	109	69-120
75-00-3	LCS	Chloroethane	0.050	0.0	0.0535	107	75-129
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.051	102	73-125
75-09-2	LCS	Methylene chloride	0.050	0.0	0.0458	92	76-120
156-60-5	LCS	trans-1,2-Dichloroethylene	0.050	0.0	0.0413	83	75-123
75-34-3	LCS	1,1-Dichloroethane	0.050	0.0	0.0516	103	80-120
67-66-3	LCS	Chloroform	0.050	0.0	0.0513	103	80-120
71-55-6	LCS	1,1,1-Trichloroethane	0.050	0.0	0.0515	103	80-138
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0528	106	78-142
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.0488	98	76-120
71-43-2	LCS	Benzene	0.050	0.0	0.0484	97	80-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.0485	97	80-120
78-87-5	LCS	1,2-Dichloropropane	0.050	0.0	0.0498	100	80-120
75-27-4	LCS	Bromodichloromethane	0.050	0.0	0.0502	100	80-131
110-75-8	LCS	2-Chloroethylvinyl ether	0.250	0.0	0.209	84	53-121
10061-01-5	LCS	cis-1,3-Dichloropropylene	0.050	0.0	0.0508	102	80-130
108-88-3	LCS	Toluene	0.050	0.0	0.0531	106	77-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	0.050	0.0	0.0558	112	80-125
79-00-5	LCS	1,1,2-Trichloroethane	0.050	0.0	0.0513	103	78-120
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0526	105	78-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202492558**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 10:19**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
124-48-1	LCS	Dibromochloromethane	0.050	0.0	0.052	104	76-125
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0522	104	80-120
100-41-4	LCS	Ethylbenzene	0.050	0.0	0.0545	109	80-120
75-25-2	LCS	Bromoform	0.050	0.0	0.0495	99	72-123
79-34-5	LCS	1,1,2,2-Tetrachloroethane	0.050	0.0	0.052	104	72-120
541-73-1	LCS	1,3-Dichlorobenzene	0.050	0.0	0.0527	105	79-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.0509	102	78-120
95-50-1	LCS	1,2-Dichlorobenzene	0.050	0.0	0.0518	104	79-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202492559**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/21/2011 11:42**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	0.250	0.0	0.256	102	57-143
107-13-1	LCS	Acrylonitrile	0.250	0.0	0.237	95	62-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202493529**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 09:55**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
74-87-3	LCS	Chloromethane	0.050	0.0	0.0619	124	63-135
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0571	114	65-125
74-83-9	LCS	Bromomethane	0.050	0.0	0.0538	108	69-120
75-00-3	LCS	Chloroethane	0.050	0.0	0.0532	106	75-129
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.0519	104	73-125
75-09-2	LCS	Methylene chloride	0.050	0.0	0.0457	91	76-120
156-60-5	LCS	trans-1,2-Dichloroethylene	0.050	0.0	0.0417	83	75-123
75-34-3	LCS	1,1-Dichloroethane	0.050	0.0	0.0518	104	80-120
67-66-3	LCS	Chloroform	0.050	0.0	0.0518	104	80-120
71-55-6	LCS	1,1,1-Trichloroethane	0.050	0.0	0.0511	102	80-138
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0528	106	78-142
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.0501	100	76-120
71-43-2	LCS	Benzene	0.050	0.0	0.0485	97	80-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.0484	97	80-120
78-87-5	LCS	1,2-Dichloropropane	0.050	0.0	0.0503	101	80-120
75-27-4	LCS	Bromodichloromethane	0.050	0.0	0.0505	101	80-131
110-75-8	LCS	2-Chloroethylvinyl ether	0.250	0.0	0.227	91	53-121
10061-01-5	LCS	cis-1,3-Dichloropropylene	0.050	0.0	0.0506	101	80-130
108-88-3	LCS	Toluene	0.050	0.0	0.0523	105	77-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	0.050	0.0	0.0561	112	80-125
79-00-5	LCS	1,1,2-Trichloroethane	0.050	0.0	0.052	104	78-120
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0531	106	78-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202493529**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 09:55**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
124-48-1	LCS	Dibromochloromethane	0.050	0.0	0.0529	106	76-125
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0511	102	80-120
100-41-4	LCS	Ethylbenzene	0.050	0.0	0.0532	106	80-120
75-25-2	LCS	Bromoform	0.050	0.0	0.0498	100	72-123
79-34-5	LCS	1,1,2,2-Tetrachloroethane	0.050	0.0	0.0532	106	72-120
541-73-1	LCS	1,3-Dichlorobenzene	0.050	0.0	0.0522	104	79-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.0505	101	78-120
95-50-1	LCS	1,2-Dichlorobenzene	0.050	0.0	0.0521	104	79-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143643**
Lab Sample ID: **1202493530**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 11:18**
Prep Batch ID: **1143643**
Batch ID: **1143643**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	0.250	0.0	0.235	94	57-143
107-13-1	LCS	Acrylonitrile	0.250	0.0	0.221	88	62-124

Method Blank Summary

SDG Number:	**11-3620**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1143643**	**Instrument ID:**	**VOA9.I**	**Data File:**	**092111V9\9E308B1.D**
Lab Sample ID:	**1202492555**	**Prep Date:**	**09/21/2011 12:38**	**Analyzed:**	**09/21/11 12:38**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1143643	1202492558	092111V9\9E303L1.D	09/21/11	1019
02 LCS for batch 1143643	1202492559	092111V9\9E306L.D	09/21/11	1142
03 NPDES13S-11-26994PS	1202492556	092111V9\9E323.D	09/21/11	1936
04 NPDES13S-11-26994PSD	1202492557	092111V9\9E324.D	09/21/11	2003

Method Blank Summary

SDG Number:	**11-3620**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1143643**	**Instrument ID:**	**VOA9.I**	**Data File:**	**092211V9\9E408B.D**
Lab Sample ID:	**1202493528**	**Prep Date:**	**09/22/2011 12:15**	**Analyzed:**	**09/22/11 12:15**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1143643	1202493529	092211V9\9E403L.D	09/22/11	0955
02 LCS for batch 1143643	1202493530	092211V9\9E406L.D	09/22/11	1118
03 NPDES13S-11-26994	286171001	092211V9\9E412.D	09/22/11	1406

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3620

Instrument ID: VOA9.I **Injection Date/Time:** 06-SEP-11 14:18

Column Description: DB-624 **Lab File ID** 090611V9\9C208.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	44.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	72.7
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.5
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W9VM110906-03	090611V9\9C209.D	06-SEP-11 14:43
ICALMIX[A]	W9VM110906-04	090611V9\9C210.D	06-SEP-11 15:10
ICALMIX[A]	W9VM110906-05	090611V9\9C211.D	06-SEP-11 15:37
ICALMIX[A]	W9VM110906-06	090611V9\9C212.D	06-SEP-11 16:04
ICALMIX[A]	W9VM110906-07	090611V9\9C213.D	06-SEP-11 16:31
ICALMIX[A]	W9VM110906-08	090611V9\9C214.D	06-SEP-11 16:58
ICALMIX[A]	W9VM110906-09	090611V9\9C215.D	06-SEP-11 17:25
ICALMIX[B]	W9VM110906-10	090611V9\9C217.D	06-SEP-11 18:19
ICALMIX[B]	W9VM110906-11	090611V9\9C218.D	06-SEP-11 18:46
ICALMIX[B]	W9VM110906-12	090611V9\9C219.D	06-SEP-11 19:13
ICALMIX[B]	W9VM110906-13	090611V9\9C220.D	06-SEP-11 19:40
ICALMIX[B]	W9VM110906-14	090611V9\9C221.D	06-SEP-11 20:07
ICALMIX[B]	W9VM110906-15	090611V9\9C222.D	06-SEP-11 20:34

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3620

Instrument ID: VOA9.I **Injection Date/Time:** 07-SEP-11 09:26

Column Description: DB-624 **Lab File ID** 090711V9\9C301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	75.4
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	95.6
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[B]	W9VM110907-01	090711V9\9C302.D	07-SEP-11 09:51
ICVMIX[A]01	W9VM110907-03	090711V9\9C305ICV.D	07-SEP-11 11:14
ICVMIX[B]02	W9VM110907-04	090711V9\9C306ICV.D	07-SEP-11 11:42

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3620

Instrument ID: VOA9.I **Injection Date/Time:** 21-SEP-11 09:26

Column Description: DB-624 **Lab File ID** 092111V9\9E301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	23.4
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	72.5
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	98.3
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]05	W9VM110921-02	092111V9\9E303.D	21-SEP-11 10:19
BLK01LCS	1202492558	092111V9\9E303L1.D	21-SEP-11 10:19
CCVMIX[B]06	W9VM110921-05	092111V9\9E306.D	21-SEP-11 11:42
BLK01SLCS	1202492559	092111V9\9E306L.D	21-SEP-11 11:42
BLK01	1202492555	092111V9\9E308B1.D	21-SEP-11 12:38
NPDES13S-11-26994MS	1202492556	092111V9\9E323.D	21-SEP-11 19:36
NPDES13S-11-26994MSD	1202492557	092111V9\9E324.D	21-SEP-11 20:03

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3620

Instrument ID: VOA9.I **Injection Date/Time:** 22-SEP-11 09:02

Column Description: DB-624 **Lab File ID** 092211V9\9E401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	23.1
75	30.0 - 60.0% of mass 95	46.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	73.4
175	5.0 -9.0% of mass 174	6.6
176	95.0 - 101.0% of mass 174	96.3
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]07	W9VM110922-01	092211V9\9E402.D	22-SEP-11 09:27
BLK02LCS	1202493529	092211V9\9E403L.D	22-SEP-11 09:55
CCVMIX[B]08	W9VM110922-04	092211V9\9E405.D	22-SEP-11 10:50
BLK02SLCS	1202493530	092211V9\9E406L.D	22-SEP-11 11:18
BLK02	1202493528	092211V9\9E408B.D	22-SEP-11 12:15
NPDES13S-11-26994	286171001	092211V9\9E412.D	22-SEP-11 14:06

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 11-3620

Instrument: VOA9.I

STD Analysis Time: 21-SEP-11 10:19

GC Column: DB-624

Data File: 092111V9\9E303.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1140288		10.6	833737		13.8	442648		16.2
Upper Limit	2280576		11.1	1667474		14.3	885296		16.7
Lower Limit	570144		10.1	416869		13.3	221324		15.7
Sample ID									
BLK01LCS	1140288		10.6	833737		13.8	442648		16.2
BLK01SLCS	1192587		10.6	915794		13.8	461729		16.2
BLK01	1075556		10.6	764593		13.8	415683		16.2
NPDES13S-11-26994MS	844936		10.6	610945		13.8	364597		16.2
NPDES13S-11-26994MSD	955110		10.6	712954		13.8	392535		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 11-3620

Instrument: VOA9.I

STD Analysis Time: 22-SEP-11 09:27

GC Column: DB-624

Data File: 092211V9\9E402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1137880		10.6	817225		13.8	434998		16.2
Upper Limit	2275760		11.1	1634450		14.3	869996		16.7
Lower Limit	568940		10.1	408613		13.3	217499		15.7
Sample ID									
BLK02LCS	1139066		10.6	833599		13.8	445842		16.2
BLK02SLCS	1202499		10.6	901157		13.8	447013		16.2
BLK02	1136281		10.6	811709		13.8	429909		16.2
NPDES13S-11-26994	975462		10.6	677518		13.8	362719		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171001**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 14:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 14:06**				
Data File:	**092211V9\9E412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0234	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0535	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0936	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0386	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.2	50.0	ug/L	110	(79%-124%)
Bromofluorobenzene	50.0	50.0	ug/L	100	(80%-120%)
Toluene-d8	55.7	50.0	ug/L	111	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E412.D
Acq On : 22 Sep 2011 14:06
Operator : RXY1
InstName : VOA9
Sample : |286171001|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 22 14:27:25 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	975462	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	677518	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	362719	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	975462	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	677518	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	362719	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	284499	55.23	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	974823	55.67	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	349071	50.02	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	110.46%
43) Toluene-d8	50.000	80 - 120	111.34%
61) Bromofluorobenzene	50.000	80 - 120	100.04%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane	50	5.084	5.112	0.480	874	N.D.		
4) Vinyl chloride		0.000	5.350	0.000	0	N.D.		
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether	59	6.874	6.874	0.649	1129	N.D.		
9) Acetone	43	7.277	7.265	0.687	7379	Below Cal		95
10) 1,1-Dichloroethylene		0.000	7.277	0.000	0	N.D.		
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile	41	7.644	7.644	0.722	6119	N.D.		
13) Methyl acetate	43	7.668	7.668	0.724	205	N.D.		
14) Carbon disulfide	76	7.680	7.680	0.726	794	N.D.		
15) Methylene chloride	84	7.870	7.870	0.743	8899	N.D.		
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		0.000	8.641	0.000	0	N.D.		
19) 1,1-Dichloroethane		0.000	8.700	0.000	0	N.D.		
20) 2-Butanone	43	9.293	9.281	0.878	5849	N.D.		
21) cis-1,2-Dichloroethylene		0.000	9.340	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform	83	9.649	9.649	0.911	278282	23.44	ug/L	97
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		0.000	10.028	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	10.313	0.000	0	N.D.		
31) Benzene		0.000	10.336	0.000	0	N.D.		
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	10.657	0.000	0	N.D.		
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E412.D
Acq On : 22 Sep 2011 14:06
Operator : RXY1
InstName : VOA9
Sample : |286171001|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 22 14:27:25 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane		0.000	11.214	0.000	0	N.D.		
37) Dibromomethane		0.000	11.356	0.000	0m	N.D. d		
38) Bromodichloromethane	83	11.463	11.463	1.083	452451	53.54	ug/L	99
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene	91	12.293	12.293	0.894	1292	N.D.		
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone	43	12.850	12.839	0.934	414	N.D.		
48) 1,3-Dichloropropane		0.000	12.862	0.000	0	N.D.		
49) Tetrachloroethylene		0.000	12.886	0.000	0	N.D.		
50) Dibromochloromethane	129	13.135	13.135	0.955	470671	93.57	ug/L	99
51) 1,2-Dibromoethane		0.000	13.313	0.000	0	N.D.		
52) Chlorobenzene		0.000	13.787	0.000	0	N.D.		
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene	91	13.847	13.846	1.007	969	N.D.		
55) m,p-Xylenes	106	13.953	13.953	1.015	295	N.D.		
56) o-Xylene		0.000	14.380	0.000	0	N.D.		
57) Styrene	104	14.392	14.392	1.047	665	N.D.		
59) Bromoform	173	14.665	14.665	0.906	130037	38.61	ug/L	96
60) Isopropylbenzene		0.000	14.736	0.000	0	N.D.		
62) 1,1,2,2-Tetrachloroethane		0.000	15.020	0.000	0	N.D.		
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		0.000	15.163	0.000	0	N.D.		
65) n-Propylbenzene		0.000	15.163	0.000	0	N.D.		
66) 1,3,5-Trimethylbenzene		0.000	15.317	0.000	0	N.D.		
67) 2-Chlorotoluene		0.000	15.329	0.000	0	N.D.		
68) 4-Chlorotoluene	91	15.424	15.424	0.953	792	N.D.		
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	419	N.D.		
71) sec-Butylbenzene		0.000	15.922	0.000	0	N.D.		
72) 4-Isopropyltoluene		0.000	16.040	0.000	0	N.D.		
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	486	N.D.		
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	1050	N.D.		
75) n-Butylbenzene	91	16.503	16.491	1.020	185	N.D.		
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	181	N.D.		
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	976	N.D.		
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.		
80) Naphthalene	128	19.100	19.088	1.180	1995	N.D.		
81) 1,2,3-Trichlorobenzene		0.000	19.456	0.000	0	N.D.		
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		0.000	7.087	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	7.348	0.000	0	N.D.		
88) Allyl chloride	41	7.644	7.716	0.722	6119	N.D.		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.		
90) Acrylonitrile		0.000	8.131	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.664	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E412.D
Acq On : 22 Sep 2011 14:06
Operator : RXY1
InstName : VOA9
Sample : |286171001|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 22 14:27:25 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

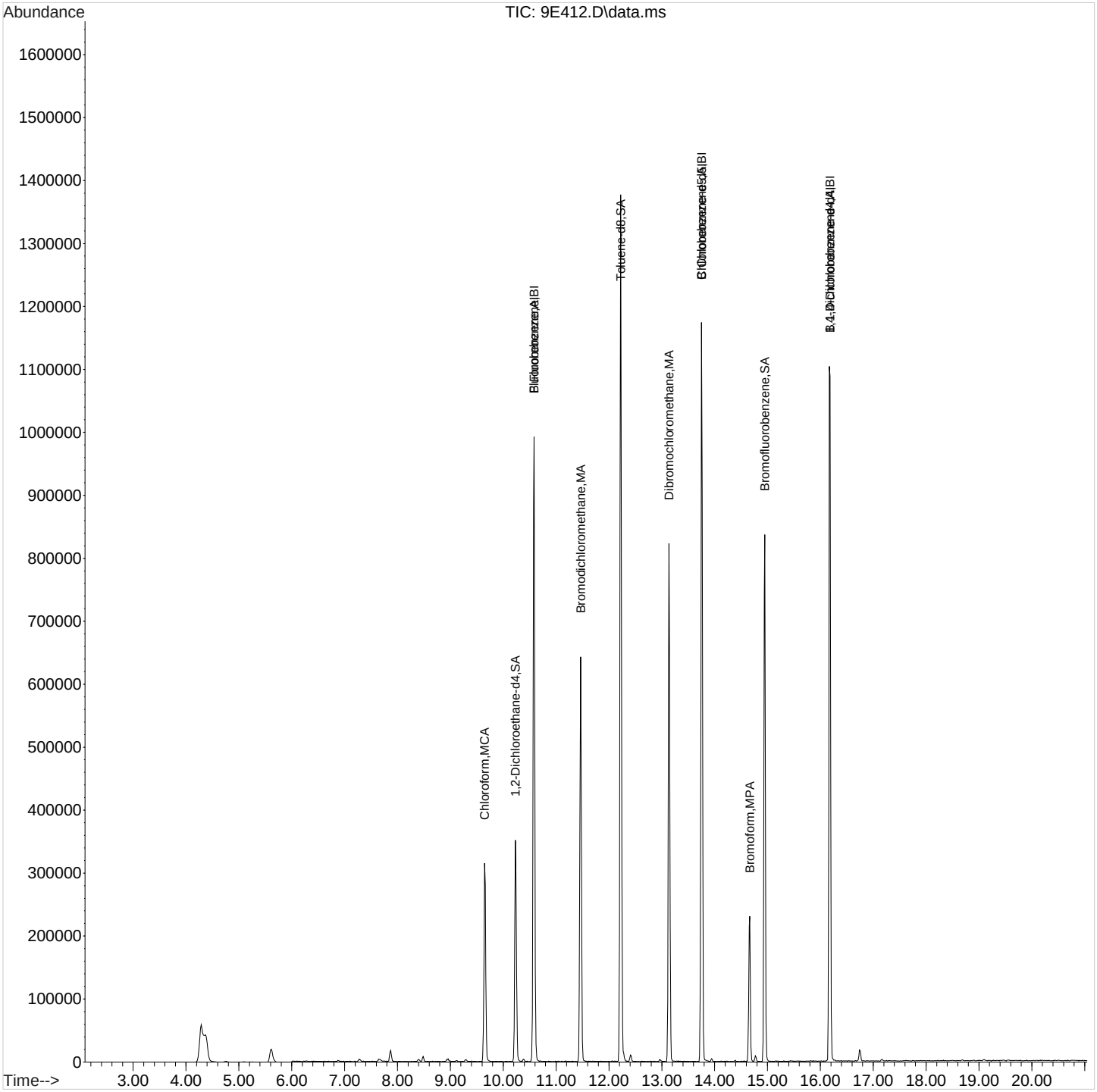
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.	
94)	Ethyl acetate	43	9.293	9.281	0.878	5849	N.D.	
95)	Propionitrile		0.000	9.364	0.000	0	N.D.	
96)	Methacrylonitrile	41	9.672	9.542	0.914	2740	N.D.	
97)	Tetrahydrofuran		0.000	9.661	0.000	0m	N.D.	d
98)	Isobutyl alcohol		0.000	9.969	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.178	0.000	0	N.D.	
101)	1,4-Dioxane	88	11.309	11.297	1.068	223	N.D.	
102)	2-Nitropropane		0.000	11.665	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.633	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.783	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.914	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	15.068	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.768	0.000	0	N.D.	
111)	Benzyl chloride	91	16.325	16.325	1.009	216	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.740	16.728	1.034	1346	N.D.	

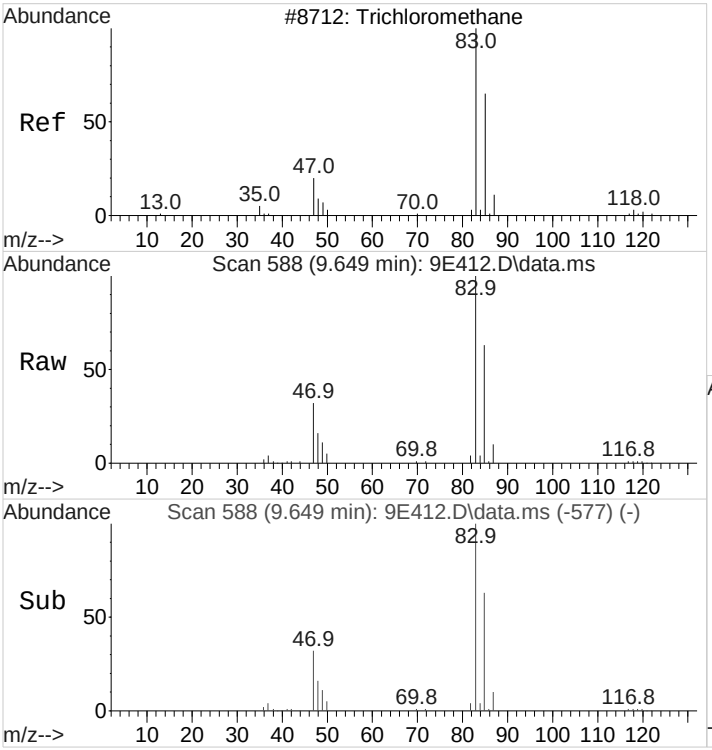
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E412.D
Acq On : 22 Sep 2011 14:06
Operator : RXY1
InstName : VOA9
Sample : |286171001|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 22 14:27:25 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

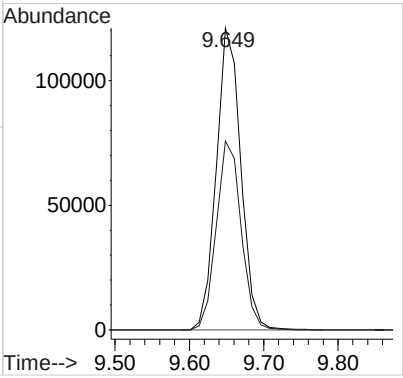


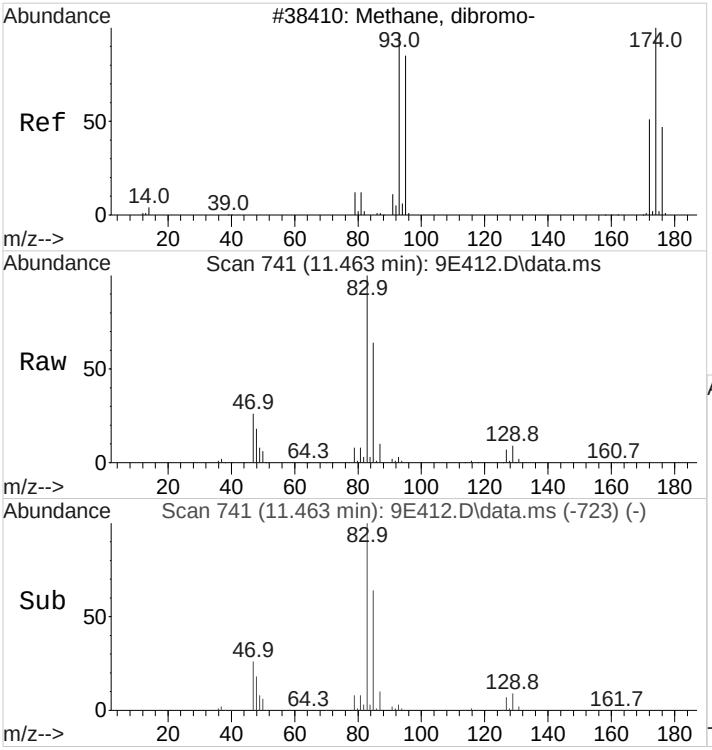


#24
Chloroform
Concen: 23.44 ug/L
RT: 9.649 min Scan# 588
Delta R.T. -0.000 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion: 83 Resp: 278282

Ion	Ratio	Lower	Upper
83	100		
85	63.3	35.8	95.8

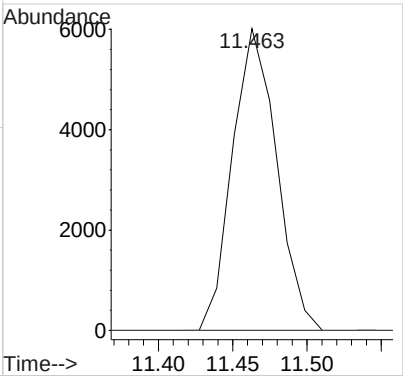


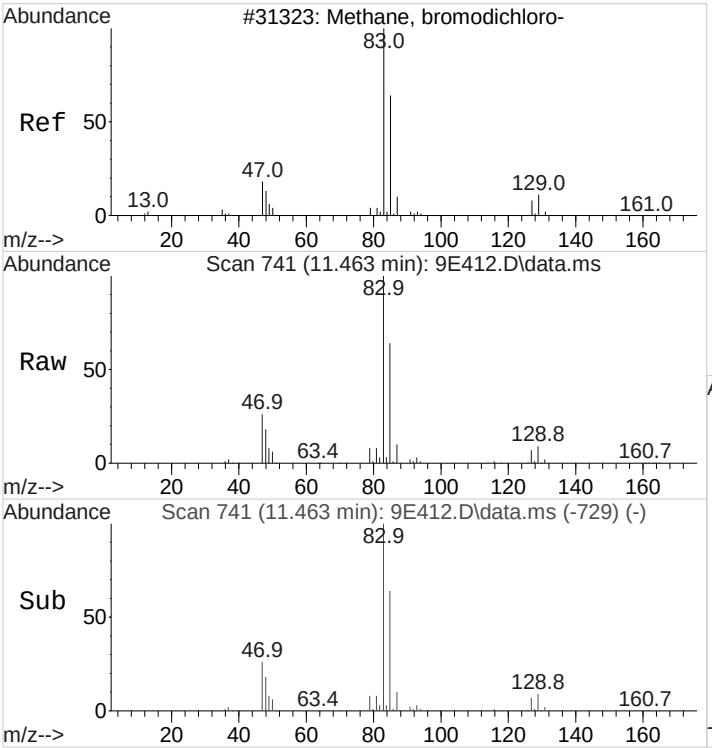


#37 BEFORE analyst DELETION
Dibromomethane
Concen: 3.43 ug/L
RT: 11.463 min Scan# 741
Delta R.T. 0.107 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion: 93 Resp: 12461

Ion	Ratio	Lower	Upper
93	100		
95	0.0	54.7	114.7#
174	0.0	72.6	132.6#

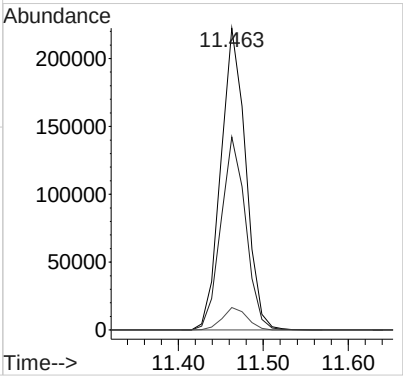


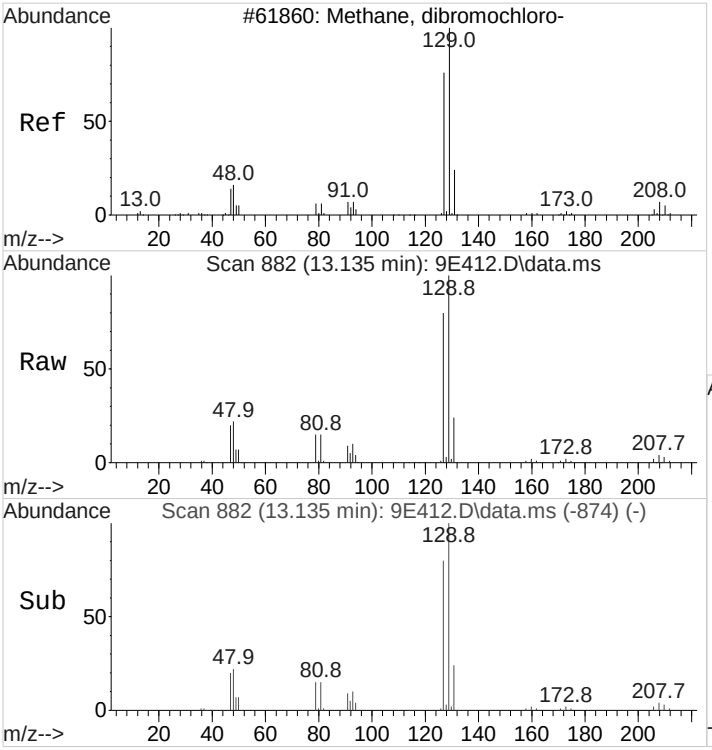


#38
Bromodichloromethane
Concen: 53.54 ug/L
RT: 11.463 min Scan# 741
Delta R.T. -0.000 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion: 83 Resp: 452451

Ion	Ratio	Lower	Upper
83	100		
85	64.0	35.0	95.0
127	7.5	0.0	28.2

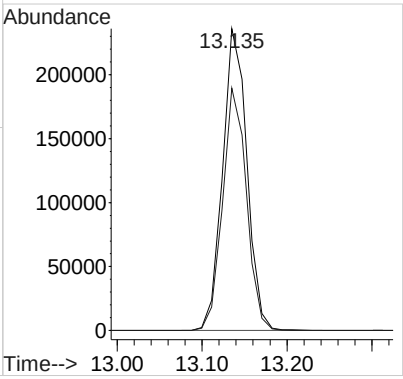


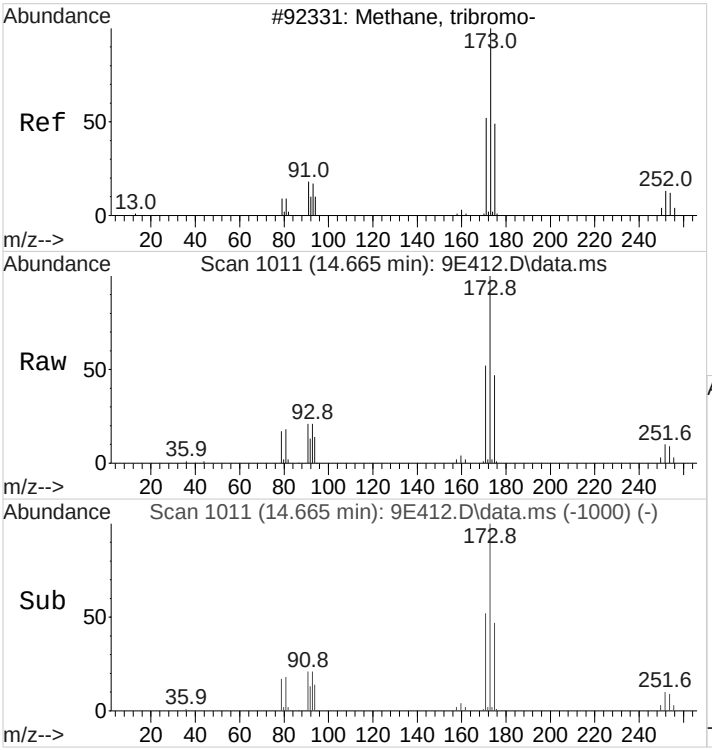


#50
Dibromochloromethane
Concen: 93.57 ug/L
RT: 13.135 min Scan# 882
Delta R.T. -0.000 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion:129 Resp: 470671

Ion	Ratio	Lower	Upper
129	100		
127	78.6	47.3	107.3

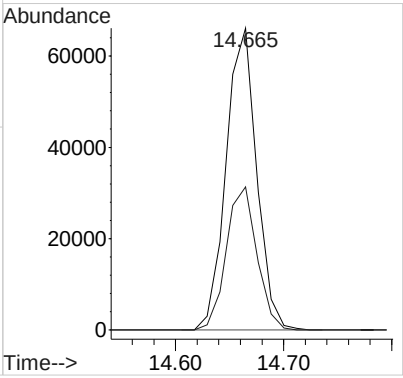


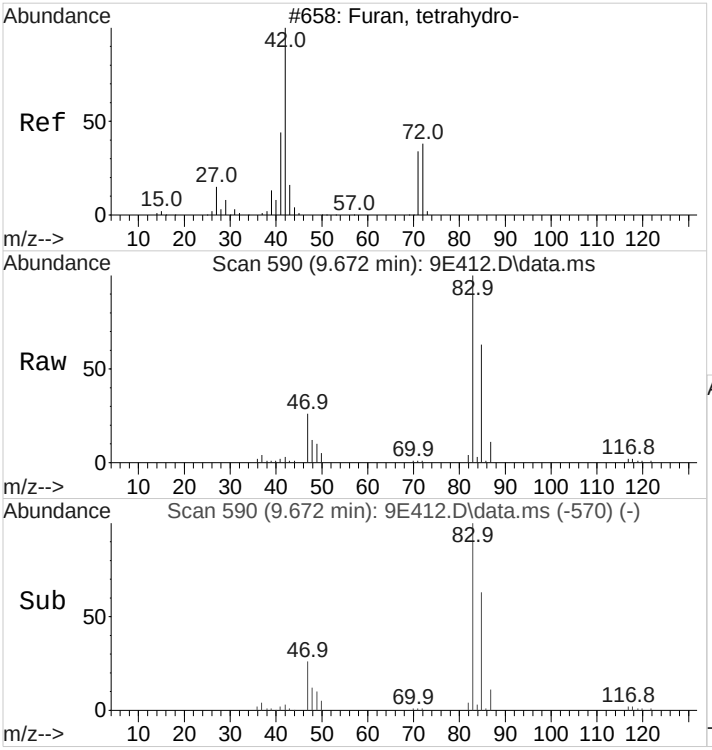


#59
Bromoform
Concen: 38.61 ug/L
RT: 14.665 min Scan# 1011
Delta R.T. -0.000 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion:173 Resp: 130037

Ion	Ratio	Lower	Upper
173	100		
175	47.5	20.3	80.3

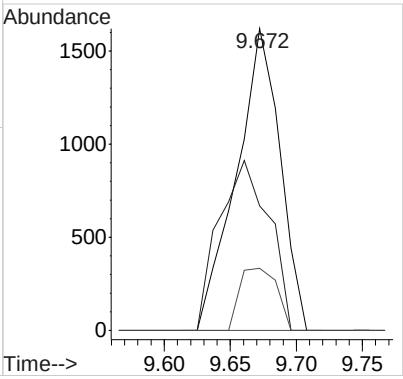


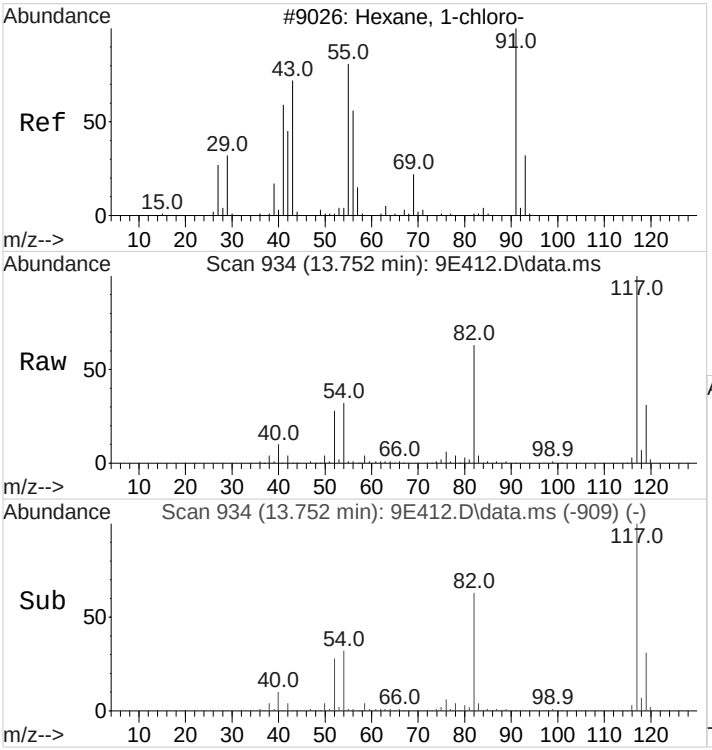


#97 BEFORE analyst DELETION
Tetrahydrofuran
Concen: 1.67 ug/L
RT: 9.672 min Scan# 590
Delta R.T. 0.011 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion: 42 Resp: 3744

Ion	Ratio	Lower	Upper
42	100		
72	64.2	5.4	65.4
71	17.6	3.2	63.2

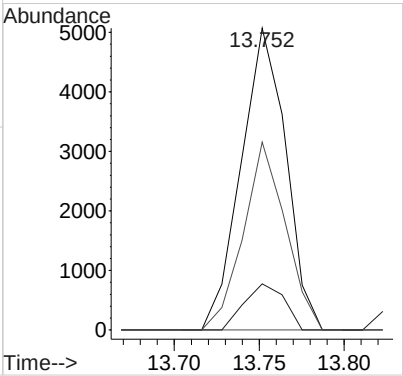




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.17 ug/L
RT: 13.752 min Scan# 934
Delta R.T. 0.119 min
Lab File: 9E412.D
Acq: 22 Sep 2011 14:06

Tgt Ion: 55 Resp: 9339

Ion	Ratio	Lower	Upper
55	100		
91	13.6	99.8	159.8#
56	58.7	32.0	92.0



Standards

Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6 #	Level 7 !	Level 7a
Fluorobenzene (IS)	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
1,2-Dichloroethane-d4(surr)		20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol		50	100	200	500	1000	2000	5000	10000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane		2	5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	150	200
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	150	200
Tetrahydrofuran			5	10	25	50	100	250	500
tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Toluene-d8 (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromofluorobenzene (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
Cyclohexanone			25	50	125	250	500	1250	2500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range		
SW 846 8260B low level	Level 1 &1a	Levels 1-> 7a	IS/SS @ 20 ppb	
EPA 524.2	Level 1a	Levels 1a-> 7a	IS/SS @ 20 ppb	
SW846 8260B/624	Level 2	Levels 1a-> 7a	IS/SS @ 50 ppb	n-butyl alchol only in 1a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA9
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:0.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C209.D

Injection Date	Mix	Calibration File
06 Sep 2011 14:43	A	C:\msdchem\1\DATA\090611V9\9C209.D

Cal Lvl:1 Amt:1.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C217.D

Injection Date	Mix	Calibration File
06 Sep 2011 15:10	A	C:\msdchem\1\DATA\090611V9\9C210.D
06 Sep 2011 18:19	B	C:\msdchem\1\DATA\090611V9\9C217.D

Cal Lvl:2 Amt:2.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C211.D

Injection Date	Mix	Calibration File
06 Sep 2011 15:37	A	C:\msdchem\1\DATA\090611V9\9C211.D

Cal Lvl:3 Amt:5.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C218.D

Injection Date	Mix	Calibration File
06 Sep 2011 18:46	B	C:\msdchem\1\DATA\090611V9\9C218.D

Cal Lvl:4 Amt:10.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C219.D

Injection Date	Mix	Calibration File
06 Sep 2011 16:04	A	C:\msdchem\1\DATA\090611V9\9C212.D
06 Sep 2011 19:13	B	C:\msdchem\1\DATA\090611V9\9C219.D

Cal Lvl:5 Amt:20.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C220.D

Injection Date	Mix	Calibration File
06 Sep 2011 19:40	B	C:\msdchem\1\DATA\090611V9\9C220.D

Cal Lvl:6 Amt:50.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C221.D

Injection Date	Mix	Calibration File
06 Sep 2011 16:31	A	C:\msdchem\1\DATA\090611V9\9C213.D
06 Sep 2011 20:07	B	C:\msdchem\1\DATA\090611V9\9C221.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\DATA\090611V9\9C222.D

Injection Date	Mix	Calibration File
06 Sep 2011 17:25	A	C:\msdchem\1\DATA\090611V9\9C215.D
06 Sep 2011 20:34	B	C:\msdchem\1\DATA\090611V9\9C222.D

Cal Lvl:9 Amt:80.00 Last Updated with: C:\msdchem\1\DATA\090711V9\9C302.D

Injection Date	Mix	Calibration File
06 Sep 2011 16:58	A	C:\msdchem\1\DATA\090611V9\9C214.D
07 Sep 2011 09:51	B	C:\msdchem\1\DATA\090711V9\9C302.D

Calibration History Report VOA9
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

+----------+---+----------+

VOA9-8260-090611.M Tue Sep 27 09:00:05 2011

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.3549993	0.2942135		0.2634642					
	0.3883966	0.3701224	0.3524290				0.3373	AVRG		14.2433
3)MPA Chloromethane		0.5863066	0.5141121		0.4977073					
	0.5893630	0.5519545	0.5333415				0.5455	AVRG		6.8830
4)MCA Vinyl chloride		0.5167504	0.4545868		0.4281465					
	0.4925331	0.4699920	0.4493883				0.4686	AVRG		6.8127
5)MA Bromomethane		0.2800477	0.2656986		0.2666361					
	0.2854675	0.2766804	0.2618521				0.2727	AVRG		3.4251
6)MA Chloroethane		0.3290798	0.3174805		0.3117809					
	0.3195971	0.3206053	0.3076650				0.3177	AVRG		2.3442
7)MA Trichlorofluoromethane		0.5462060	0.5071761		0.5294599					
	0.5497381	0.5580862	0.5285529				0.5365	AVRG		3.4448
8)MA Ethyl ether		0.3130031	0.3227834		0.3394143					
	0.3253612	0.3486083	0.3232795				0.3287	AVRG		3.9264
9)MA Acetone		46736	83606		306034					
0.0132 | 0.2193 | 0.00	1419622	2704574	2326504					LINR	#	0.9991
10)MCA 1,1-Dichloroethylene		0.6192620	0.6848528		0.6770626					
	0.6970838	0.6646001	0.6973193				0.6734	AVRG		4.3480
11)MA Iodomethane		0.5431001	0.5563817		0.5741697					
	0.5668170	0.5193769	0.5587386				0.5531	AVRG		3.5355
12)MA Acetonitrile		0.0592453	0.0618997		0.0560557					
	0.0548269	0.0570621	0.0574473				0.0578	AVRG		4.3414
13)MA Methyl acetate		0.2979544	0.3266515		0.3249534					
	0.2941294	0.3041390	0.3104009				0.3097	AVRG		4.4080
14)MA Carbon disulfide		1.2660767	1.3098207		1.3731920					
	1.2847098	1.0462669	1.1846184				1.2441	AVRG		9.2202
15)MA Methylene chloride			0.5198188		0.4083499					
	0.3852879	0.3811736	0.3934567				0.4176	AVRG		13.9049
16)MA tert-Butyl methyl ether		0.9413059	1.0358025		1.0250489					
	1.0466873	1.0896273	1.0834324				1.0370	AVRG		5.1610

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.6223607	0.6422089		0.6399100					
	0.6532212	0.6320207	0.6557482				0.6409	AVRG		1.9706
18)MA Vinyl acetate		0.6538797	0.6915687		0.7006291					
	0.7395743	0.7229267	0.6877736				0.6994	AVRG		4.2596
19)MPA 1,1-Dichloroethane		0.6921356	0.7429285		0.7569462					
	0.7705727	0.7501747	0.7691900				0.7470	AVRG		3.8724
20)MA 2-Butanone		0.2839047	0.2850241		0.2411704					
	0.2584808	0.2706306	0.2654812				0.2674	AVRG		6.1771
21)MA cis-1,2-Dichloroethylene		0.6586334	0.7155146		0.6860439					
	0.7232496	0.7132874	0.7236440				0.7034	AVRG		3.6819
22)MA 2,2-Dichloropropane		0.5674958	0.5788119		0.5789210					
	0.6070315	0.5856479	0.5968734				0.5858	AVRG		2.4197
23)MA Bromochloromethane		0.1376178	0.1698599		0.1589789					
	0.1570756	0.1631889	0.1630629				0.1583	AVRG		6.9772
24)MCA Chloroform		0.5956756	0.6174006		0.5998014					
	0.6108402	0.6071798	0.6200897				0.6085	AVRG		1.5778
25)MA 1,1,1-Trichloroethane		0.5672406	0.5714171		0.5666694					
	0.5901828	0.5784062	0.5969560				0.5785	AVRG		2.1784
26)MA Cyclohexane		0.9645642	0.9949752		0.9275894					
	0.9557749	0.9181664	0.9463588				0.9512	AVRG		2.8935
27)MA 1,1-Dichloropropene		0.4725304	0.5004419		0.4941793					
	0.5066792	0.4861503	0.4950409				0.4925	AVRG		2.4238
28)MA Carbon tetrachloride		0.4376064	0.4672112		0.4577049					
	0.4854059	0.4691719	0.4838954				0.4668	AVRG		3.8069
29)SA 1,2-Dichloroethane-d4		0.2593784	0.2695564		0.2741902					
	0.2578500	0.2622658	0.2611134				0.2641	AVRG		2.4261
30)MA 1,2-Dichloroethane		0.4730043	0.5039282		0.4778122					
	0.4950610	0.4999090	0.5020029				0.4920	AVRG		2.6911
31)MA Benzene		1.4932719	1.5531625		1.4280328					
	1.4714239	1.4077839	1.4434333				1.4662	AVRG		3.5715

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.8039433	0.8257208		0.8130429					
	0.8324006	0.7901259	0.8202900				0.8143	AVRG		1.8924
33)MA n-Butyl alcohol	0.0092170	0.0084237	0.0073017		0.0090403					
	0.0094244	0.0097901	0.0097652				0.0090	AVRG	#	9.7923
34)MA Trichloroethylene		0.3631652	0.3754277		0.3496688					
	0.3629307	0.3513424	0.3588138				0.3602	AVRG		2.6024
35)MCA 1,2-Dichloropropane		0.3953550	0.4435038		0.4126775					
	0.4311387	0.4194342	0.4190663				0.4202	AVRG		3.8937
36)MA Methylcyclohexane		0.7225027	0.7310932		0.7244964					
	0.7335672	0.6854016	0.7103304				0.7179	AVRG		2.4900
37)MA Dibromomethane		0.1831137	0.1894937		0.1767519					
	0.1879805	0.1899249	0.1897199				0.1862	AVRG		2.8329
38)MA Bromodichloromethane		0.3764349	0.4218332		0.4172288					
	0.4593332	0.4619395	0.4621106				0.4331	AVRG		7.9650
39)MA 2-Chloroethylvinyl ether		0.2086833	0.2154177		0.2278357					
	0.2225303	0.2258357	0.2115630				0.2186	AVRG		3.6075
40)MA cis-1,3-Dichloropropylen		0.4980489	0.5513797		0.5407793					
	0.5935662	0.5885604	0.5957747				0.5614	AVRG		6.8961
42)MA 4-Methyl-2-pentanone		0.1685477	0.2048903		0.1908428					
	0.1856392	0.1900687	0.1924093				0.1887	AVRG		6.2595
43)SA Toluene-d8		1.3091413	1.3594358		1.2993299					
	1.2595528	1.2545141	1.2716465				1.2923	AVRG		3.0499
44)MCA Toluene		2.0854669	2.1327194		1.8992466					
	1.9104038	1.8059648	1.8842850				1.9530	AVRG		6.5127
45)MA trans-1,3-Dichloropropyl		0.5208883	0.5863716		0.5951888					
	0.6317859	0.6372573	0.6396365				0.6019	AVRG		7.5837
46)MA 1,1,2-Trichloroethane		0.3022916	0.3357247		0.3011362					
	0.3006049	0.3055478	0.3078164				0.3089	AVRG		4.3553
47)MA 2-Hexanone		0.4381735	0.5039826		0.4711820					
	0.5038036	0.4794070	0.4838721				0.4801	AVRG		5.0890

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.6043032	0.6712067		0.6316626					
	0.6218007	0.5986253	0.6098880				0.6229	AVRG		4.2570
49)MA Tetrachloroethylene		0.3800585	0.3718815		0.3432787					
	0.3441452	0.3232198	0.3371788				0.3500	AVRG		6.1860
50)MA Dibromochloromethane		0.3204030	0.3528082		0.3576685					
	0.3953899	0.3988244	0.4021494				0.3712	AVRG		8.8595
51)MA 1,2-Dibromoethane		0.3057926	0.3643347		0.3399113					
	0.3646184	0.3597862	0.3681807				0.3504	AVRG		6.8728
52)MPA Chlorobenzene		1.3015905	1.3666070		1.2531408					
	1.2989612	1.2247668	1.2658512				1.2852	AVRG		3.8341
53)MA 1,1,1,2-Tetrachloroethan		0.3875271	0.4305818		0.4044236					
	0.4163481	0.3976472	0.4148990				0.4086	AVRG		3.7350
54)MCA Ethylbenzene		2.3471481	2.4023668		2.2319921					
	2.2906598	2.0330053	2.1452083				2.2417	AVRG		6.0605
55)MA m,p-Xylenes		0.9153938	0.8984731		0.8606822					
	0.8616731	0.7742782	0.8271533				0.8563	AVRG		5.9310
56)MA o-Xylene		0.8430184	0.9487893		0.8725551					
	0.8615895	0.7875776	0.8367713				0.8584	AVRG		6.1867
57)MA Styrene		1.3549444	1.4714133		1.4086291					
	1.4863588	1.3291461	1.4207863				1.4119	AVRG		4.3968
59)MPA Bromoform		4096	9221		44799			1/x^2		
-0.0026 | 0.4676 | 0.00	276621	554194	440534					LINR	#	0.9908
60)MA Isopropylbenzene		4.2390696	4.5334343		4.1310606					
	4.2518401	4.0808467	4.2593663				4.2493	AVRG		3.6956
61)SA Bromofluorobenzene		0.9571446	0.9650641		0.9371656					
	0.9485927	0.9882940	0.9753052				0.9619	AVRG		1.9157
62)MPA 1,1,2,2-Tetrachloroethan		0.8042403	0.9614735		0.8721533					
	0.9358065	0.9893303	0.9774794				0.9234	AVRG		7.7640
63)MA 1,2,3-Trichloropropane		0.2132726	0.2419605		0.2229788					
	0.2369319	0.2526534	0.2501397				0.2363	AVRG		6.5530

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.9444078	0.9697915		0.9164635					
	0.9409997	0.9184440	0.9428625				0.9388	AVRG		2.0908
65)MA n-Propylbenzene		5.1352230	5.4037989		5.0775088					
	5.1450156	4.6459619	4.9597667				5.0612	AVRG		4.9423
66)MA 1,3,5-Trimethylbenzene		3.5220617	3.8436844		3.6206549					
	3.6583925	3.4132377	3.5951976				3.6089	AVRG		3.9910
67)MA 2-Chlorotoluene		0.9870453	1.0495064		0.9593805					
	0.9539833	0.8889617	0.9319790				0.9618	AVRG		5.6166
68)MA 4-Chlorotoluene		3.3110018	3.2510220		3.0434247					
	3.2151201	3.0616361	3.1829016				3.1775	AVRG		3.3328
69)MA tert-Butylbenzene		0.6565835	0.7522654		0.7127252					
	0.7255716	0.6928504	0.7229252				0.7105	AVRG		4.6037
70)MA 1,2,4-Trimethylbenzene		3.7140581	3.8778665		3.7711166					
	3.8745218	3.5941306	3.7475941				3.7632	AVRG		2.8334
71)MA sec-Butylbenzene		5.0345440	5.3031590		5.0445154					
	5.2394489	4.8402226	5.0632413				5.0875	AVRG		3.2415
72)MA 4-Isopropyltoluene		4.0524348	4.1129386		4.0119169					
	4.1916649	3.8853977	4.0385518				4.0488	AVRG		2.5357
73)MA 1,3-Dichlorobenzene		1.9911117	2.0062143		1.8480903					
	1.9522662	1.8777945	1.9104706				1.9310	AVRG		3.2629
74)MA 1,4-Dichlorobenzene		2.1237049	2.1026519		1.9097093					
	1.9598826	1.8807275	1.9401830				1.9861	AVRG		5.1471
75)MA n-Butylbenzene		4.3362592	4.5291886		4.2640683					
	4.4775439	4.1357197	4.3420358				4.3475	AVRG		3.2836
76)MA 1,2-Dichlorobenzene		1.7820092	2.0096802		1.8143362					
	1.8931470	1.8668043	1.9080803				1.8790	AVRG		4.2483
77)MA 1,2-Dibromo-3-chloroprop -0.0068 | 0.2031 | 0.00	108902	1595 221723	3491 176947		18120			LINR	#	0.9977
78)MA 1,2,4-Trichlorobenzene		1.4900147	1.6069470		1.4740942					
	1.4773916	1.5263182	1.5806465				1.5259	AVRG		3.6945

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.9756413	1.0008977		0.9732104					
	0.9728529	0.9696048	0.9988013				0.9818	AVRG		1.4362
80)MA Naphthalene		3.1161970	3.3174366		3.0833501					
	3.0598204	3.2454306	3.3099143				3.1887	AVRG		3.6424
81)MA 1,2,3-Trichlorobenzene		1.3832081	1.3724814		1.3083495					
	1.2731247	1.2938252	1.3286399				1.3266	AVRG		3.2997
83)B Chlorotrifluoroethylene		0.2637883		0.1742856	0.1967645	0.2429662				
	0.2368489	0.2779982	0.2877220				0.2401	AVRG	#	17.4212
84)B 2-Chloro-1,1,1-trifluoro		0.4324633		0.3717507	0.4673025	0.4878076				
	0.4454056	0.4498073	0.4785954				0.4476	AVRG		8.6325
85)B Acrolein		0.0506444		0.0485563	0.0573806	0.0520618				
	0.0593305	0.0685804	0.0693725				0.0580	AVRG		14.4618
86)B Trichlorotrifluoroethane		0.1306296		0.1317332	0.1437760	0.1371285				
	0.1372476	0.1482814	0.1624583				0.1416	AVRG		7.8482
87)B Isopropyl Alcohol		0.0272477		0.0252621	0.0287543	0.0275857				
	0.0289325	0.0292605	0.0355078				0.0289	AVRG		11.0641
88)B Allyl chloride		0.7499760		0.6960015	0.7629032	0.7446084				
	0.7385473	0.7457810	0.8388829				0.7538	AVRG		5.6952
89)B tert-Butyl Alcohol		0.0406342		0.0406715	0.0448474	0.0422541				
	0.0446453	0.0445089	0.0533194				0.0444	AVRG		9.7507
90)B Acrylonitrile		0.1340742		0.1170214	0.1348710	0.1233219				
	0.1258595	0.1407019	0.1248823				0.1287	AVRG		6.3371
91)B Isopropyl ether		1.6567261		1.5379629	1.7146873	1.7177032				
	1.6730717	1.7307872	1.7216521				1.6789	AVRG		4.0466
92)B 2-Chloro-1,3-butadiene		0.5719215		0.5406976	0.5926399	0.5909421				
	0.5828524	0.6542496	0.5219540				0.5793	AVRG		7.3155
93)B Ethyl tert-butyl ether		1.3983838		1.3132130	1.4469241	1.4869644				
	1.4359571	1.4723016	1.4527114				1.4295	AVRG		4.0899
94)B Ethyl acetate		0.3775365		0.3227401	0.3419447	0.3116437				
	0.3312183	0.3473091	0.3213837				0.3363	AVRG		6.5310

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0483402		0.0464067	0.0501091	0.0457633				
	0.0477262	0.0512890	0.0463035				0.0480	AVRG		4.3272
96)B Methacrylonitrile		0.2262085		0.2091049	0.2270970	0.2099509				
	0.2183995	0.2309088	0.2154607				0.2196	AVRG		3.9420
97)B Tetrahydrofuran		0.1364947		0.1102707	0.1194325	0.1052259				
	0.1090616	0.1178648	0.1067331				0.1150	AVRG		9.4674
98)B Isobutyl alcohol		0.0145649		0.0136257	0.0145406	0.0131628				
	0.0140038	0.0149395	0.0132324				0.0140	AVRG		4.9824
99)B Methyl tert-amyl ether		1.0935711		0.9974192	1.0908088	1.1076876				
	1.0625390	1.1001608	1.0588963				1.0730	AVRG		3.5492
100)B Methyl methacrylate		0.1817705		0.1919601	0.2071839	0.1859810				
	0.1966074	0.2013679	0.1882550				0.1933	AVRG		4.6393
101)B 1,4-Dioxane		0.0026664		0.0025934	0.0028349	0.0025757				
	0.0027403	0.0028783	0.0027498				0.0027	AVRG	#	4.2259
102)B 2-Nitropropane		0.0828945		0.0841917	0.0955894	0.0904537				
	0.1005205	0.1091619	0.0962294				0.0941	AVRG		9.8103
104)B Ethyl methacrylate		0.4927831		0.5170566	0.5465281	0.5062223				
	0.5119518	0.5056868	0.5026096				0.5118	AVRG		3.3350
106)B 1-Chlorohexane		1.0218839		0.9983302	1.1433977	1.1758020				
	1.1270299	1.1281584	1.1368623				1.1045	AVRG		6.0520
107)B cis-1,4-Dichloro-2-buten		0.2933408		0.3027354	0.3518185	0.3339203				
	0.3581323	0.3724994	0.3597567				0.3389	AVRG		8.9414
108)B Cyclohexanone		0.0224249		0.0220601	0.0228162	0.0210355				
	0.0239152	0.0222813	0.0219990				0.0224	AVRG		3.9207
109)B trans-1,4-Dichloro-2-but		0.2589008		0.2663840	0.3052942	0.2878696				
	0.3042915	0.3163137	0.3063790				0.2922	AVRG		7.5163
110)B Pentachloroethane		0.4599361		0.4972638	0.5591939	0.5339238				
	0.5376440	0.5293580	0.6115664				0.5327	AVRG		8.9076
111)B Benzyl chloride		1.3189020		1.4753390	1.6707544	1.6055213				
	1.6121140	1.5090419	1.8727451				1.5806	AVRG		10.9512

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Last Update : Wed Sep 07 10:19:29 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7	9							
112)B bis(2-Chloroisopropyl)et		0.5267652		0.5480135	0.5864194	0.5372093				
	0.5967863	0.6142058	0.5426593				0.5646	AVRG		6.0113

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C209.D
Acq On : 06 Sep 2011 14:43
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5ml n/a MIX[A] 0723-01B+0826-01A
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 10:20:34 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.585	10.585	1.000	1405659	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1108220	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	608208	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	361510	48.70	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1437884	50.20	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	575569	49.19	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.748	4.762	0.449	4933	0.52	ug/L	94
3) Chloromethane	50	5.084	5.112	0.480	8302	0.54	ug/L	95
4) Vinyl chloride	62	5.336	5.350	0.504	7158	0.54	ug/L	92
5) Bromomethane	94	5.966	5.980	0.564	3673	0.48	ug/L	97
6) Chloroethane	64	6.127	6.127	0.579	4004	0.45	ug/L	100
7) Trichlorofluoromethane	101	6.542	6.565	0.618	7125	0.47	ug/L	97
8) Ethyl ether	59	6.874	6.874	0.649	3866	0.42	ug/L	86
9) Acetone	43	7.277	7.265	0.687	40459	3.56	ug/L	98
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	8431	0.45	ug/L	97
11) Iodomethane	142	7.538	7.538	0.712	38893	2.50	ug/L	97
12) Acetonitrile	41	7.656	7.644	0.723	27931	17.20	ug/L	91
13) Methyl acetate	43	7.668	7.668	0.724	24646	2.83	ug/L	91
14) Carbon disulfide	76	7.668	7.680	0.724	90170	2.58	ug/L	99
15) Methylene chloride	84	7.870	7.870	0.743	13514	N.D.		
16) tert-Butyl methyl ether	73	8.154	8.166	0.770	14066	0.48	ug/L	84
17) trans-1,2-Dichloroethy...	61	8.202	8.214	0.775	8961	0.50	ug/L	93
18) Vinyl acetate	43	8.641	8.641	0.816	43458	2.21	ug/L	93
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	10547	0.50	ug/L	98
20) 2-Butanone	43	9.293	9.281	0.878	27603	3.67	ug/L	90
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	10544	0.53	ug/L	91
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	8534	0.52	ug/L #	61
23) Bromochloromethane	128	9.625	9.625	0.909	1939	0.44	ug/L #	56
24) Chloroform	83	9.649	9.649	0.911	8949	0.52	ug/L	99
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	8409	0.52	ug/L	99
26) Cyclohexane	56	10.028	10.028	0.947	14714	0.55	ug/L	89
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	6652	0.48	ug/L #	43
28) Carbon tetrachloride	117	10.123	10.123	0.956	6905	0.53	ug/L	93
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	6743	0.49	ug/L #	43
31) Benzene	78	10.336	10.336	0.976	21067	0.51	ug/L #	74
32) Cyclohexene	67	10.443	10.443	0.987	12178	0.53	ug/L	95
33) n-Butyl alcohol	41	10.668	10.657	1.008	12956	51.24	ug/L	94
34) Trichloroethylene	95	10.965	10.965	1.036	5785	0.57	ug/L	92
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	6055	0.51	ug/L	96
36) Methylcyclohexane	83	11.214	11.214	1.059	10184	0.50	ug/L	77
37) Dibromomethane	93	11.356	11.356	1.073	2832	0.54	ug/L	91
38) Bromodichloromethane	83	11.463	11.463	1.083	5898	0.48	ug/L	90
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	13670	2.22	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C209.D
Acq On : 06 Sep 2011 14:43
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5ml n/a MIX[A] 0723-01B+0826-01A
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 10:20:34 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	7187	0.46	ug/L	81
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	10457	2.50	ug/L	86
44) Toluene	91	12.293	12.293	0.894	25778	0.60	ug/L	97
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	6617	0.50	ug/L	79
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	3626	0.53	ug/L	97
47) 2-Hexanone	43	12.850	12.839	0.934	29480	2.77	ug/L	96
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	6631	0.48	ug/L #	47
49) Tetrachloroethylene	164	12.886	12.886	0.937	4276	0.55	ug/L	95
50) Dibromochloromethane	129	13.135	13.135	0.955	3918	0.48	ug/L	93
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	3757	0.48	ug/L	93
52) Chlorobenzene	112	13.787	13.787	1.003	15619	0.55	ug/L #	40
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	4848	0.54	ug/L #	61
54) Ethylbenzene	91	13.847	13.846	1.007	29029	0.58	ug/L	96
55) m,p-Xylenes	106	13.953	13.953	1.015	20205	1.06	ug/L	81
56) o-Xylene	106	14.392	14.380	1.047	10652	0.56	ug/L	87
57) Styrene	104	14.392	14.392	1.047	17485	0.56	ug/L	93
59) Bromoform	173	14.665	14.665	0.906	2049	0.63	ug/L	77
60) Isopropylbenzene	105	14.736	14.736	0.911	27383	0.53	ug/L	94
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	5258	0.47	ug/L	95
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	1229	0.43	ug/L #	1
64) Bromobenzene	156	15.163	15.163	0.937	6421	0.56	ug/L #	84
65) n-Propylbenzene	91	15.163	15.163	0.937	32629	0.53	ug/L	91
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	23792	0.54	ug/L	93
67) 2-Chlorotoluene	126	15.329	15.329	0.947	6067	0.52	ug/L #	62
68) 4-Chlorotoluene	91	15.424	15.424	0.953	22434	0.58	ug/L	89
69) tert-Butylbenzene	134	15.696	15.685	0.970	4233	0.49	ug/L #	71
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	23101	0.50	ug/L	92
71) sec-Butylbenzene	105	15.922	15.922	0.984	32199	0.52	ug/L	94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	25112	0.51	ug/L	93
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	13282	0.57	ug/L	98
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	13968	0.58	ug/L #	63
75) n-Butylbenzene	91	16.491	16.491	1.019	26719	0.51	ug/L	94
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	12836	0.56	ug/L	94
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	830	2.01	ug/L #	37
78) 1,2,4-Trichlorobenzene	180	18.685	18.673	1.155	10718	0.58	ug/L	92
79) Hexachlorobutadiene	225	18.851	18.851	1.165	6033	0.51	ug/L	96
80) Naphthalene	128	19.100	19.088	1.180	22257	0.57	ug/L	97
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	8973	0.56	ug/L	99
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		7.099	7.087	0.671	0m	N.D. d		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		7.348	7.348	0.694	0m	N.D. d		
88) Allyl chloride		7.656	7.716	0.723	0m	N.D. d		
89) tert-Butyl Alcohol		7.858	7.858	0.742	0m	N.D. d		
90) Acrylonitrile		0.000	8.131	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.664	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate		9.293	9.281	0.878	0m	N.D. d		
95) Propionitrile		0.000	9.364	0.000	0	N.D.		
96) Methacrylonitrile		9.506	9.542	0.898	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C209.D
Acq On : 06 Sep 2011 14:43
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5ml n/a MIX[A] 0723-01B+0826-01A
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 10:20:34 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

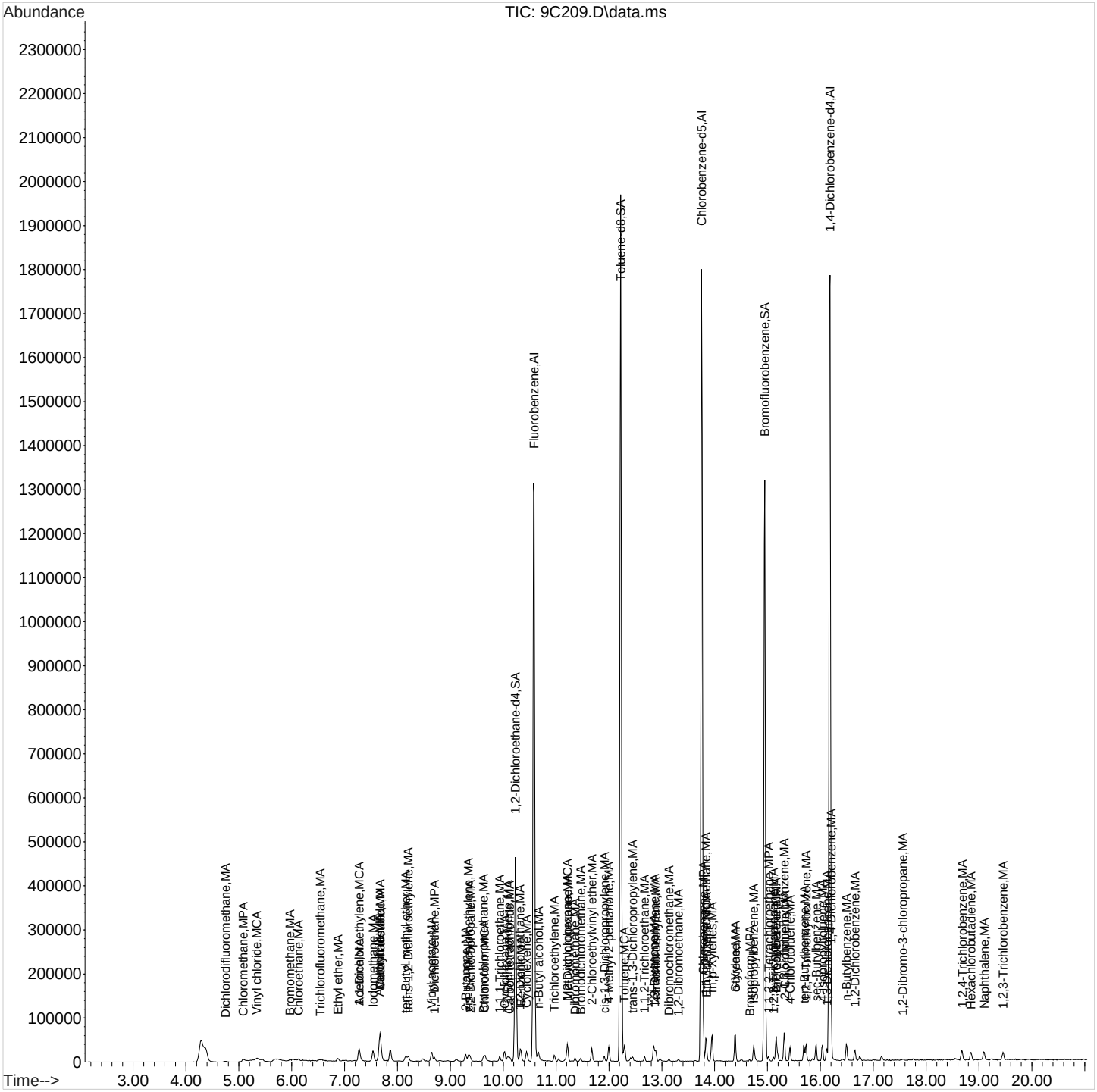
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.297	0.000	0	N.D.	
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		13.633	13.633	0.842	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.748	14.914	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110)	Pentachloroethane		0.000	15.768	0.000	0	N.D.	
111)	Benzyl chloride		16.325	16.325	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.752	16.728	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C209.D
Acq On : 06 Sep 2011 14:43
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5ml n/a MIX[A] 0723-01B+0826-01A
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 10:20:34 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C210.D
Acq On : 06 Sep 2011 15:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5ml n/a MIX[A] 0723-02B+0826-02A
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 10:20:36 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.585	10.585	1.000	1371552	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1071151	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	587511	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	355751	49.11	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1402288	50.65	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	562333	49.75	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.748	4.762	0.449	9738	1.05	ug/L	96
3) Chloromethane	50	5.084	5.112	0.480	16083	1.07	ug/L	96
4) Vinyl chloride	62	5.336	5.350	0.504	14175	1.10	ug/L	98
5) Bromomethane	94	5.966	5.980	0.564	7682	1.03	ug/L	94
6) Chloroethane	64	6.127	6.127	0.579	9027	1.04	ug/L	99
7) Trichlorofluoromethane	101	6.542	6.565	0.618	14983	1.02	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	8586	0.95	ug/L	95
9) Acetone	43	7.277	7.265	0.687	46736	4.76	ug/L	98
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	16987	0.92	ug/L	97
11) Iodomethane	142	7.538	7.538	0.712	74489	4.91	ug/L	99
12) Acetonitrile	41	7.656	7.644	0.723	40629	25.64	ug/L	94
13) Methyl acetate	43	7.668	7.668	0.724	40866	4.81	ug/L	95
14) Carbon disulfide	76	7.668	7.680	0.724	173649	5.09	ug/L	98
15) Methylene chloride	84	7.858	7.870	0.742	18405	N.D.		
16) tert-Butyl methyl ether	73	8.154	8.166	0.770	25821	0.91	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.202	8.214	0.775	17072	0.97	ug/L	90
18) Vinyl acetate	43	8.641	8.641	0.816	89683	4.67	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	18986	0.93	ug/L	99
20) 2-Butanone	43	9.293	9.281	0.878	38939	5.31	ug/L	92
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	18067	0.94	ug/L	95
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	15567	0.97	ug/L	77
23) Bromochloromethane	128	9.625	9.625	0.909	3775	0.87	ug/L #	71
24) Chloroform	83	9.649	9.649	0.911	16340	0.98	ug/L	99
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	15560	0.98	ug/L	97
26) Cyclohexane	56	10.028	10.028	0.947	26459	1.01	ug/L	90
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	12962	0.96	ug/L	88
28) Carbon tetrachloride	117	10.123	10.123	0.956	12004	0.94	ug/L	99
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	12975	0.96	ug/L	100
31) Benzene	78	10.336	10.336	0.976	40962	1.02	ug/L	96
32) Cyclohexene	67	10.443	10.443	0.987	22053	0.99	ug/L	96
33) n-Butyl alcohol	41	10.668	10.657	1.008	23107	93.65	ug/L	91
34) Trichloroethylene	95	10.965	10.965	1.036	9962	1.01	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	10845	0.94	ug/L	96
36) Methylcyclohexane	83	11.214	11.214	1.059	19819	1.01	ug/L	88
37) Dibromomethane	93	11.356	11.356	1.073	5023	0.98	ug/L	85
38) Bromodichloromethane	83	11.463	11.463	1.083	10326	0.87	ug/L	99
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	28622	4.77	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C210.D
Acq On : 06 Sep 2011 15:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5ml n/a MIX[A] 0723-02B+0826-02A
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 10:20:36 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	13662	0.89	ug/L	91
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	18054	4.47	ug/L	89
44) Toluene	91	12.293	12.293	0.894	44677	1.07	ug/L	100
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	11159	0.87	ug/L	83
46) 1,1,2-Trichloroethane	83	12.672	12.672	0.922	6476	0.98	ug/L	96
47) 2-Hexanone	43	12.839	12.839	0.934	46935	4.56	ug/L	97
48) 1,3-Dichloropropane	76	12.874	12.862	0.936	12946	0.97	ug/L #	70
49) Tetrachloroethylene	164	12.886	12.886	0.937	8142	1.09	ug/L	96
50) Dibromochloromethane	129	13.135	13.135	0.955	6864	0.86	ug/L	96
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	6551	0.87	ug/L	96
52) Chlorobenzene	112	13.787	13.787	1.003	27884	1.01	ug/L #	67
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	8302	0.95	ug/L #	64
54) Ethylbenzene	91	13.847	13.846	1.007	50283	1.05	ug/L	94
55) m,p-Xylenes	106	13.953	13.953	1.015	39221	2.14	ug/L	89
56) o-Xylene	106	14.380	14.380	1.046	18060	0.98	ug/L	81
57) Styrene	104	14.392	14.392	1.047	29027	0.96	ug/L	95
59) Bromoform	173	14.653	14.665	0.905	4096	1.02	ug/L	83
60) Isopropylbenzene	105	14.736	14.736	0.911	49810	1.00	ug/L	96
62) 1,1,2,2-Tetrachloroethane	83	15.020	15.020	0.928	9450	0.87	ug/L	100
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	2506	0.90	ug/L #	45
64) Bromobenzene	156	15.163	15.163	0.937	11097	1.01	ug/L #	83
65) n-Propylbenzene	91	15.163	15.163	0.937	60340	1.01	ug/L	95
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	41385	0.98	ug/L	95
67) 2-Chlorotoluene	126	15.329	15.329	0.947	11598	1.03	ug/L #	73
68) 4-Chlorotoluene	91	15.424	15.424	0.953	38905	1.04	ug/L	94
69) tert-Butylbenzene	134	15.696	15.685	0.970	7715	0.92	ug/L #	67
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	43641	0.99	ug/L	92
71) sec-Butylbenzene	105	15.922	15.922	0.984	59157	0.99	ug/L	96
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	47617	1.00	ug/L	95
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	23396	1.03	ug/L	94
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	24954	1.07	ug/L	81
75) n-Butylbenzene	91	16.491	16.491	1.019	50952	1.00	ug/L	92
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	20939	0.95	ug/L	96
77) 1,2-Dibromo-3-chloropr...	157	17.570	17.558	1.086	1595	2.35	ug/L	92
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	17508	0.98	ug/L	95
79) Hexachlorobutadiene	225	18.851	18.851	1.165	11464	0.99	ug/L	99
80) Naphthalene	128	19.088	19.088	1.180	36616	0.98	ug/L	98
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	16253	1.04	ug/L	97
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		0.000	7.087	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		7.336	7.348	0.693	0m	N.D. d		
88) Allyl chloride		7.656	7.716	0.723	0m	N.D. d		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.		
90) Acrylonitrile		0.000	8.131	0.000	0	N.D.		
91) Isopropyl ether		8.652	8.664	0.817	0m	N.D. d		
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate		9.293	9.281	0.878	0m	N.D. d		
95) Propionitrile		0.000	9.364	0.000	0	N.D.		
96) Methacrylonitrile		9.554	9.542	0.903	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C210.D
Acq On : 06 Sep 2011 15:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5ml n/a MIX[A] 0723-02B+0826-02A
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 10:20:36 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

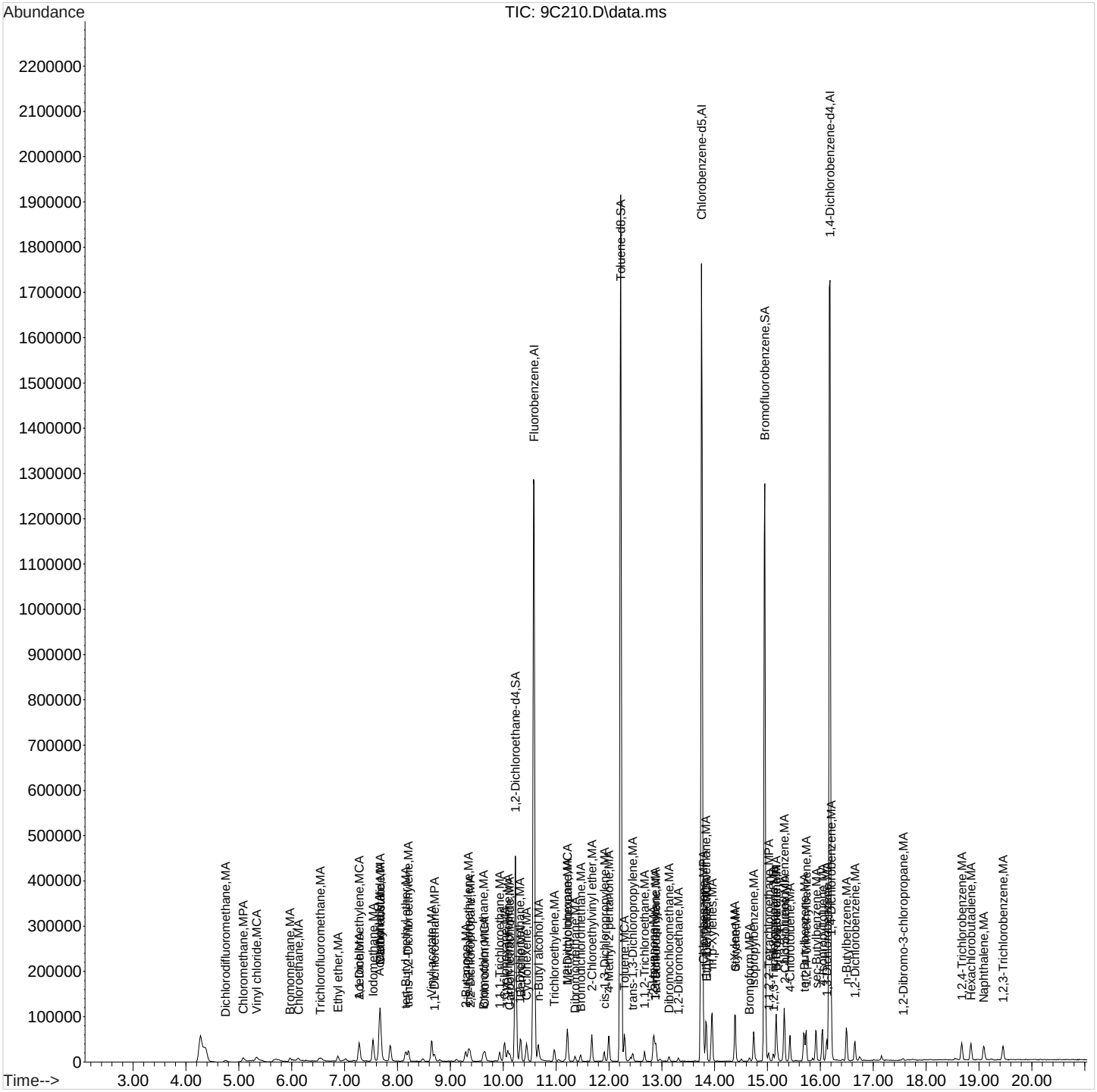
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.660	9.661	0.913	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.297	0.000	0	N.D.	
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		13.633	13.633	0.842	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.926	14.914	0.922	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		0.000	15.068	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.768	0.000	0	N.D.	
111)	Benzyl chloride		16.408	16.325	1.014	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C210.D
Acq On : 06 Sep 2011 15:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5ml n/a MIX[A] 0723-02B+0826-02A
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 10:20:36 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C211.D
Acq On : 06 Sep 2011 15:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5ml n/a MIX[A] 0723-03B+0826-03A
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 10:20:38 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1362446	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1030234	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	577057	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	367256	51.04	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1400537	52.60	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	556897	50.16	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.748	4.762	0.449	16034	1.74	ug/L	93
3) Chloromethane	50	5.084	5.112	0.480	28018	1.89	ug/L	98
4) Vinyl chloride	62	5.336	5.350	0.504	24774	1.94	ug/L	96
5) Bromomethane	94	5.966	5.980	0.564	14480	1.95	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	17302	2.00	ug/L	98
7) Trichlorofluoromethane	101	6.553	6.565	0.619	27640	1.89	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	17591	1.96	ug/L	95
9) Acetone	43	7.265	7.265	0.686	83606	10.98	ug/L	100
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	37323	2.03	ug/L	97
11) Iodomethane	142	7.538	7.538	0.712	151608	10.06	ug/L	100
12) Acetonitrile	41	7.644	7.644	0.722	84335	53.59	ug/L	97
13) Methyl acetate	43	7.668	7.668	0.724	89009	10.55	ug/L	95
14) Carbon disulfide	76	7.668	7.680	0.724	356912	10.53	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	28329	2.49	ug/L	92
16) tert-Butyl methyl ether	73	8.154	8.166	0.770	56449	2.00	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.202	8.214	0.775	34999	2.00	ug/L	94
18) Vinyl acetate	43	8.641	8.641	0.816	188445	9.89	ug/L	97
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	40488	1.99	ug/L	98
20) 2-Butanone	43	9.281	9.281	0.877	77666	10.66	ug/L	92
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	38994	2.03	ug/L	91
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	31544	1.98	ug/L	89
23) Bromochloromethane	128	9.625	9.625	0.909	9257	2.15	ug/L	86
24) Chloroform	83	9.649	9.649	0.911	33647	2.03	ug/L	97
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	31141	1.98	ug/L	97
26) Cyclohexane	56	10.028	10.028	0.947	54224	2.09	ug/L	91
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	27273	2.03	ug/L	96
28) Carbon tetrachloride	117	10.123	10.123	0.956	25462	2.00	ug/L	97
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	27463	2.05	ug/L	99
31) Benzene	78	10.336	10.336	0.976	84644	2.12	ug/L	97
32) Cyclohexene	67	10.443	10.443	0.987	45000	2.03	ug/L	94
33) n-Butyl alcohol	41	10.657	10.657	1.007	49741	202.95	ug/L	96
34) Trichloroethylene	95	10.965	10.965	1.036	20460	2.08	ug/L	97
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	24170	2.11	ug/L	96
36) Methylcyclohexane	83	11.214	11.214	1.059	39843	2.04	ug/L	92
37) Dibromomethane	93	11.356	11.356	1.073	10327	2.04	ug/L	93
38) Bromodichloromethane	83	11.463	11.463	1.083	22989	1.95	ug/L	96
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	58699	9.85	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C211.D
Acq On : 06 Sep 2011 15:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5ml n/a MIX[A] 0723-03B+0826-03A
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 10:20:38 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	30049	1.96	ug/L	94
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	42217	10.86	ug/L	91
44) Toluene	91	12.293	12.293	0.894	87888	2.18	ug/L	99
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	24164	1.95	ug/L	91
46) 1,1,2-Trichloroethane	83	12.672	12.672	0.922	13835	2.17	ug/L	94
47) 2-Hexanone	43	12.839	12.839	0.934	103844	10.50	ug/L	99
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	27660	2.16	ug/L	82
49) Tetrachloroethylene	164	12.898	12.886	0.938	15325	2.13	ug/L	90
50) Dibromochloromethane	129	13.135	13.135	0.955	14539	1.90	ug/L	97
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	15014	2.08	ug/L	98
52) Chlorobenzene	112	13.787	13.787	1.003	56317	2.13	ug/L	84
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	17744	2.11	ug/L	97
54) Ethylbenzene	91	13.835	13.846	1.006	99000	2.14	ug/L	96
55) m,p-Xylenes	106	13.953	13.953	1.015	74051	4.20	ug/L	84
56) o-Xylene	106	14.380	14.380	1.046	39099	2.21	ug/L	86
57) Styrene	104	14.392	14.392	1.047	60636	2.08	ug/L	99
59) Bromoform	173	14.665	14.665	0.906	9221	1.98	ug/L	91
60) Isopropylbenzene	105	14.736	14.736	0.911	104642	2.13	ug/L	93
62) 1,1,2,2-Tetrachloroethane	83	15.020	15.020	0.928	22193	2.08	ug/L	95
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	5585	2.05	ug/L #	73
64) Bromobenzene	156	15.163	15.163	0.937	22385	2.07	ug/L	87
65) n-Propylbenzene	91	15.163	15.163	0.937	124732	2.14	ug/L	94
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	88721	2.13	ug/L	94
67) 2-Chlorotoluene	126	15.329	15.329	0.947	24225	2.18	ug/L #	79
68) 4-Chlorotoluene	91	15.424	15.424	0.953	75041	2.05	ug/L	97
69) tert-Butylbenzene	134	15.685	15.685	0.969	17364	2.12	ug/L #	79
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	89510	2.06	ug/L	93
71) sec-Butylbenzene	105	15.922	15.922	0.984	122409	2.08	ug/L	94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	94936	2.03	ug/L	96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	46308	2.08	ug/L	97
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	48534	2.12	ug/L	91
75) n-Butylbenzene	91	16.491	16.491	1.019	104544	2.08	ug/L	93
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	46388	2.14	ug/L	95
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	3491	3.17	ug/L	81
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	37092	2.11	ug/L	96
79) Hexachlorobutadiene	225	18.851	18.851	1.165	23103	2.04	ug/L	98
80) Naphthalene	128	19.088	19.088	1.180	76574	2.08	ug/L	98
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	31680	2.07	ug/L	96
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		7.052	7.087	0.666	0m	N.D.	d	
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	7.348	0.000	0	N.D.		
88) Allyl chloride		7.644	7.716	0.722	0m	N.D.	d	
89) tert-Butyl Alcohol		7.870	7.858	0.743	0m	N.D.	d	
90) Acrylonitrile		8.166	8.131	0.771	0m	N.D.	d	
91) Isopropyl ether		8.652	8.664	0.817	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d	
95) Propionitrile		0.000	9.364	0.000	0	N.D.		
96) Methacrylonitrile		9.672	9.542	0.914	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C211.D
Acq On : 06 Sep 2011 15:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5ml n/a MIX[A] 0723-03B+0826-03A
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 10:20:38 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

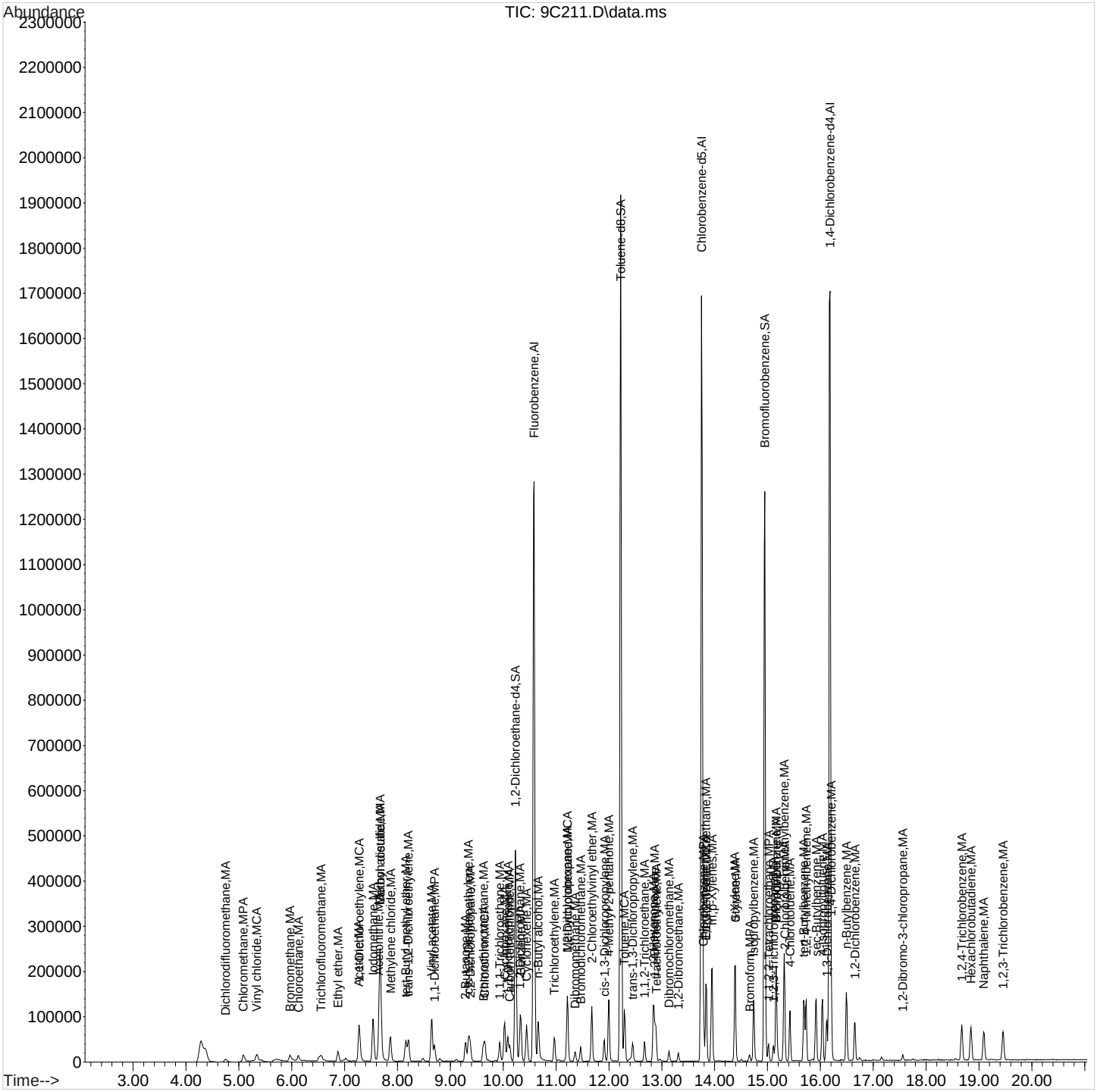
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98) Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.325	10.337	0.975	0m	N.D.	d
100) Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.297	0.000	0	N.D.	
102) 2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106) 1-Chlorohexane		13.645	13.633	0.843	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108) Cyclohexanone		14.902	14.914	0.921	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110) Pentachloroethane		0.000	15.768	0.000	0	N.D.	
111) Benzyl chloride		16.408	16.325	1.014	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C211.D
Acq On : 06 Sep 2011 15:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5ml n/a MIX[A] 0723-03B+0826-03A
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 10:20:38 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C212.D
Acq On : 06 Sep 2011 16:04
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5ml n/a MIX[A] 0723-05B+0826-05A
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 07 10:20:40 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.574	10.585	1.000	1319420	50.00	ug/L	-0.01
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1031975	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	584966	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.574	10.585	1.000	0m	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.967	361772	51.92	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1340876	50.27	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	548210	48.71	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.748	4.762	0.449	69524	7.81	ug/L	99
3) Chloromethane	50	5.084	5.112	0.481	131337	9.12	ug/L	97
4) Vinyl chloride	62	5.336	5.350	0.505	112981	9.14	ug/L	97
5) Bromomethane	94	5.966	5.980	0.564	70361	9.78	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	82274	9.81	ug/L	95
7) Trichlorofluoromethane	101	6.554	6.565	0.620	139716	9.87	ug/L	98
8) Ethyl ether	59	6.874	6.874	0.650	89566	10.32	ug/L	100
9) Acetone	43	7.265	7.265	0.687	306034	49.88	ug/L	97
10) 1,1-Dichloroethylene	61	7.277	7.277	0.688	178666	10.05	ug/L	95
11) Iodomethane	142	7.538	7.538	0.713	757571	51.90	ug/L	99
12) Acetonitrile	41	7.645	7.644	0.723	369805	242.64	ug/L	96
13) Methyl acetate	43	7.668	7.668	0.725	428750	52.46	ug/L	97
14) Carbon disulfide	76	7.668	7.680	0.725	1811817	55.19	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.744	107757	9.78	ug/L	91
16) tert-Butyl methyl ether	73	8.155	8.166	0.771	270494	9.88	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.202	8.214	0.776	168862	9.98	ug/L	91
18) Vinyl acetate	43	8.641	8.641	0.817	924424	50.09	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.823	199746	10.13	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.878	318205	45.09	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.883	181036	9.75	ug/L	93
22) 2,2-Dichloropropane	77	9.376	9.376	0.887	152768	9.88	ug/L	95
23) Bromochloromethane	128	9.625	9.625	0.910	41952	10.04	ug/L #	86
24) Chloroform	83	9.649	9.649	0.913	158278	9.86	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.939	149535	9.80	ug/L	98
26) Cyclohexane	56	10.028	10.028	0.948	244776	9.75	ug/L	93
27) 1,1-Dichloropropene	75	10.087	10.087	0.954	130406	10.03	ug/L	97
28) Carbon tetrachloride	117	10.123	10.123	0.957	120781	9.80	ug/L	100
30) 1,2-Dichloroethane	62	10.313	10.313	0.975	126087	9.71	ug/L	99
31) Benzene	78	10.336	10.336	0.978	376835	9.74	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.988	214549	9.99	ug/L	93
33) n-Butyl alcohol	41	10.657	10.657	1.008	238560	1005.08	ug/L	98
34) Trichloroethylene	95	10.965	10.965	1.037	92272	9.71	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.061	108899	9.82	ug/L	100
36) Methylcyclohexane	83	11.214	11.214	1.061	191183	10.09	ug/L	89
37) Dibromomethane	93	11.356	11.356	1.074	46642	9.49	ug/L	97
38) Bromodichloromethane	83	11.463	11.463	1.084	110100	9.63	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.104	300611	52.10	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C212.D
Acq On : 06 Sep 2011 16:04
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5ml n/a MIX[A] 0723-05B+0826-05A
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 07 10:20:40 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.127	142703	9.63	ug/L	95
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	196945	50.56	ug/L	95
44) Toluene	91	12.293	12.293	0.894	391995	9.72	ug/L	97
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	122844	9.89	ug/L	95
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	62153	9.75	ug/L	98
47) 2-Hexanone	43	12.839	12.839	0.934	486248	49.07	ug/L	98
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	130372	10.14	ug/L	80
49) Tetrachloroethylene	164	12.886	12.886	0.937	70851	9.81	ug/L	94
50) Dibromochloromethane	129	13.135	13.135	0.955	73821	9.64	ug/L	98
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	70156	9.70	ug/L	100
52) Chlorobenzene	112	13.787	13.787	1.003	258642	9.75	ug/L	97
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	83471	9.90	ug/L	96
54) Ethylbenzene	91	13.835	13.846	1.006	456289	9.86	ug/L	96
55) m,p-Xylenes	106	13.953	13.953	1.015	355281	20.10	ug/L	85
56) o-Xylene	106	14.380	14.380	1.046	180091	10.17	ug/L	87
57) Styrene	104	14.392	14.392	1.047	290734	9.98	ug/L	97
59) Bromoform	173	14.665	14.665	0.906	44799	8.46	ug/L	99
60) Isopropylbenzene	105	14.736	14.736	0.911	483306	9.72	ug/L	95
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	102036	9.44	ug/L	97
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	26087	9.44	ug/L #	68
64) Bromobenzene	156	15.163	15.163	0.937	107220	9.76	ug/L	86
65) n-Propylbenzene	91	15.163	15.163	0.937	594034	10.03	ug/L	95
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	423592	10.03	ug/L	95
67) 2-Chlorotoluene	126	15.317	15.329	0.947	112241	9.97	ug/L #	76
68) 4-Chlorotoluene	91	15.424	15.424	0.953	356060	9.58	ug/L	95
69) tert-Butylbenzene	134	15.697	15.685	0.970	83384	10.03	ug/L #	81
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	441195	10.02	ug/L	89
71) sec-Butylbenzene	105	15.922	15.922	0.984	590174	9.92	ug/L	94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	469367	9.91	ug/L	97
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	216214	9.57	ug/L	96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	223423	9.62	ug/L	94
75) n-Butylbenzene	91	16.491	16.491	1.019	498867	9.81	ug/L	94
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	212265	9.66	ug/L	95
77) 1,2-Dibromo-3-chloropr...	157	17.570	17.558	1.086	18120	9.30	ug/L	92
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	172459	9.66	ug/L	99
79) Hexachlorobutadiene	225	18.851	18.851	1.165	113859	9.91	ug/L	99
80) Naphthalene	128	19.088	19.088	1.180	360731	9.67	ug/L	99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	153068	9.86	ug/L	98
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		0.000	7.087	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		7.253	7.348	0.686	0m	N.D.	d	
88) Allyl chloride		7.645	7.716	0.723	0m	N.D.	d	
89) tert-Butyl Alcohol		7.846	7.858	0.742	0m	N.D.	d	
90) Acrylonitrile		8.155	8.131	0.771	0m	N.D.	d	
91) Isopropyl ether		8.641	8.664	0.817	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.795	8.807	0.832	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate		9.281	9.281	0.878	0m	N.D.	d	
95) Propionitrile		9.281	9.364	0.878	0m	N.D.	d	
96) Methacrylonitrile		9.661	9.542	0.914	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C212.D
Acq On : 06 Sep 2011 16:04
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5ml n/a MIX[A] 0723-05B+0826-05A
ALS Vial : 12 Sample Multiplier: 1

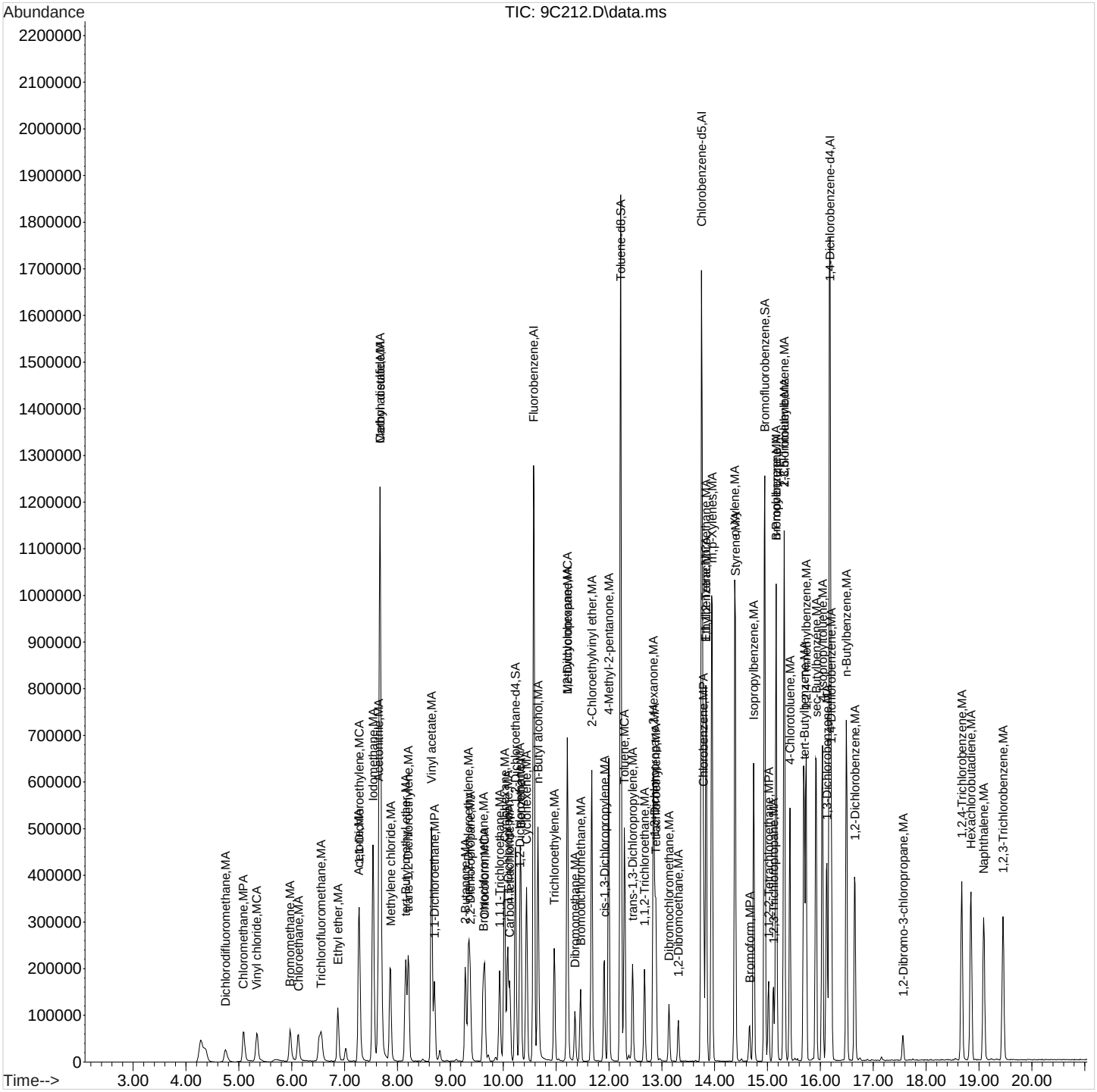
Quant Time: Sep 07 10:20:40 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.672	9.661	0.915	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.948	0m	N.D.	d
99)	Methyl tert-amyl ether		10.325	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.061	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.297	0.000	0	N.D.	
102)	2-Nitropropane		11.676	11.665	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		13.633	13.633	0.842	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.914	14.914	0.922	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110)	Pentachloroethane		0.000	15.768	0.000	0	N.D.	
111)	Benzyl chloride		16.325	16.325	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.752	16.728	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C212.D
Acq On    : 06 Sep 2011  16:04
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110906-06|ICAL|1|VOA|1|VOA8260BL|
Misc      : GEL10 5ml n/a MIX[A] 0723-05B+0826-05A
ALS Vial  : 12   Sample Multiplier: 1

Quant Time: Sep 07 10:20:40 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C213.D
Acq On : 06 Sep 2011 16:31
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[A] 0723-07B+0826-07A
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 07 10:20:42 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1310184	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1070179	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	597522	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	337831	48.82	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1347947	48.73	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	566805	49.31	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	508871	57.58	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	772174	54.02	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	645309	52.56	ug/L	95
5) Bromomethane	94	5.980	5.980	0.565	374015	52.34	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	418731	50.30	ug/L	99
7) Trichlorofluoromethane	101	6.565	6.565	0.620	720258	51.23	ug/L	98
8) Ethyl ether	59	6.874	6.874	0.649	426283	49.49	ug/L	98
9) Acetone	43	7.265	7.265	0.686	1419622	244.04	ug/L	96
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	913308	51.76	ug/L	96
11) Iodomethane	142	7.538	7.538	0.712	3713173	256.20	ug/L	98
12) Acetonitrile	41	7.644	7.644	0.722	1795832	1186.60	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1926818	237.43	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	8416031	258.16	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	504798	46.13	ug/L	89
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	1371353	50.47	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	855840	50.96	ug/L	91
18) Vinyl acetate	43	8.641	8.641	0.816	4844892	264.36	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	1009592	51.58	ug/L	96
20) 2-Butanone	43	9.281	9.281	0.877	1693287	241.62	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	947590	51.41	ug/L	91
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	795323	51.81	ug/L	97
23) Bromochloromethane	128	9.625	9.625	0.909	205798	49.61	ug/L #	82
24) Chloroform	83	9.649	9.649	0.911	800313	50.19	ug/L	99
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	773248	51.01	ug/L	98
26) Cyclohexane	56	10.028	10.028	0.947	1252241	50.24	ug/L	90
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	663843	51.44	ug/L	97
28) Carbon tetrachloride	117	10.123	10.123	0.956	635971	51.99	ug/L	98
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	648621	50.32	ug/L	96
31) Benzene	78	10.336	10.336	0.976	1927836	50.18	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	1090598	51.11	ug/L	91
33) n-Butyl alcohol	41	10.657	10.657	1.007	1234767	5238.90	ug/L	99
34) Trichloroethylene	95	10.965	10.965	1.036	475506	50.38	ug/L	97
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	564871	51.30	ug/L	99
36) Methylcyclohexane	83	11.214	11.214	1.059	961108	51.09	ug/L	87
37) Dibromomethane	93	11.356	11.356	1.073	246289	50.49	ug/L	96
38) Bromodichloromethane	83	11.463	11.463	1.083	601811	53.02	ug/L	97
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	1457778	254.44	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C213.D
Acq On : 06 Sep 2011 16:31
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[A] 0723-07B+0826-07A
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 07 10:20:42 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	777681	52.87	ug/L		98
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	993336	245.90	ug/L		92
44) Toluene	91	12.293	12.293	0.894	2044474	48.91	ug/L		96
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	676124	52.49	ug/L		96
46) 1,1,2-Trichloroethane	83	12.672	12.672	0.922	321701	48.66	ug/L		99
47) 2-Hexanone	43	12.839	12.839	0.934	2695800	262.36	ug/L		98
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	665438	49.91	ug/L	#	73
49) Tetrachloroethylene	164	12.886	12.886	0.937	368297	49.17	ug/L		95
50) Dibromochloromethane	129	13.135	13.135	0.955	423138	53.26	ug/L		100
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	390207	52.02	ug/L		96
52) Chlorobenzene	112	13.787	13.787	1.003	1390121	50.54	ug/L		99
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	445567	50.95	ug/L		97
54) Ethylbenzene	91	13.846	13.846	1.007	2435227	50.75	ug/L		96
55) m,p-Xylenes	106	13.953	13.953	1.015	1844289	100.63	ug/L		87
56) o-Xylene	106	14.380	14.380	1.046	922055	50.19	ug/L		87
57) Styrene	104	14.392	14.392	1.047	1590670	52.64	ug/L		99
59) Bromoform	173	14.665	14.665	0.906	276621	49.77	ug/L		97
60) Isopropylbenzene	105	14.736	14.736	0.911	2540568	50.03	ug/L		95
62) 1,1,2,2-Tetrachloroethane	83	15.020	15.020	0.928	559165	50.67	ug/L		96
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	141572	50.13	ug/L	#	76
64) Bromobenzene	156	15.163	15.163	0.937	562268	50.12	ug/L		86
65) n-Propylbenzene	91	15.163	15.163	0.937	3074260	50.83	ug/L		96
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	2185970	50.69	ug/L		95
67) 2-Chlorotoluene	126	15.329	15.329	0.947	570026	49.59	ug/L	#	73
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1921105	50.59	ug/L		94
69) tert-Butylbenzene	134	15.685	15.685	0.969	433545	51.06	ug/L	#	78
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	2315112	51.48	ug/L		90
71) sec-Butylbenzene	105	15.922	15.922	0.984	3130686	51.49	ug/L		94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	2504612	51.76	ug/L		96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	1166522	50.55	ug/L		96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	1171073	49.34	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	2675431	51.50	ug/L		95
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	1131197	50.38	ug/L		95
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	108902	46.54	ug/L		95
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	882774	48.41	ug/L		97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	581301	49.54	ug/L		98
80) Naphthalene	128	19.088	19.088	1.180	1828310	47.98	ug/L		99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	760720	47.98	ug/L		99
83) Chlorotrifluoroethylene		4.678	4.678	0.442	0m	N.D.	d		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		7.146	7.087	0.675	0m	N.D.	d		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.			
87) Isopropyl Alcohol		7.265	7.348	0.686	0m	N.D.	d		
88) Allyl chloride		7.644	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		7.858	7.858	0.742	0m	N.D.	d		
90) Acrylonitrile		8.154	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.			
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d		
95) Propionitrile		9.281	9.364	0.877	0m	N.D.	d		
96) Methacrylonitrile		9.637	9.542	0.910	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C213.D
Acq On : 06 Sep 2011 16:31
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[A] 0723-07B+0826-07A
ALS Vial : 13 Sample Multiplier: 1

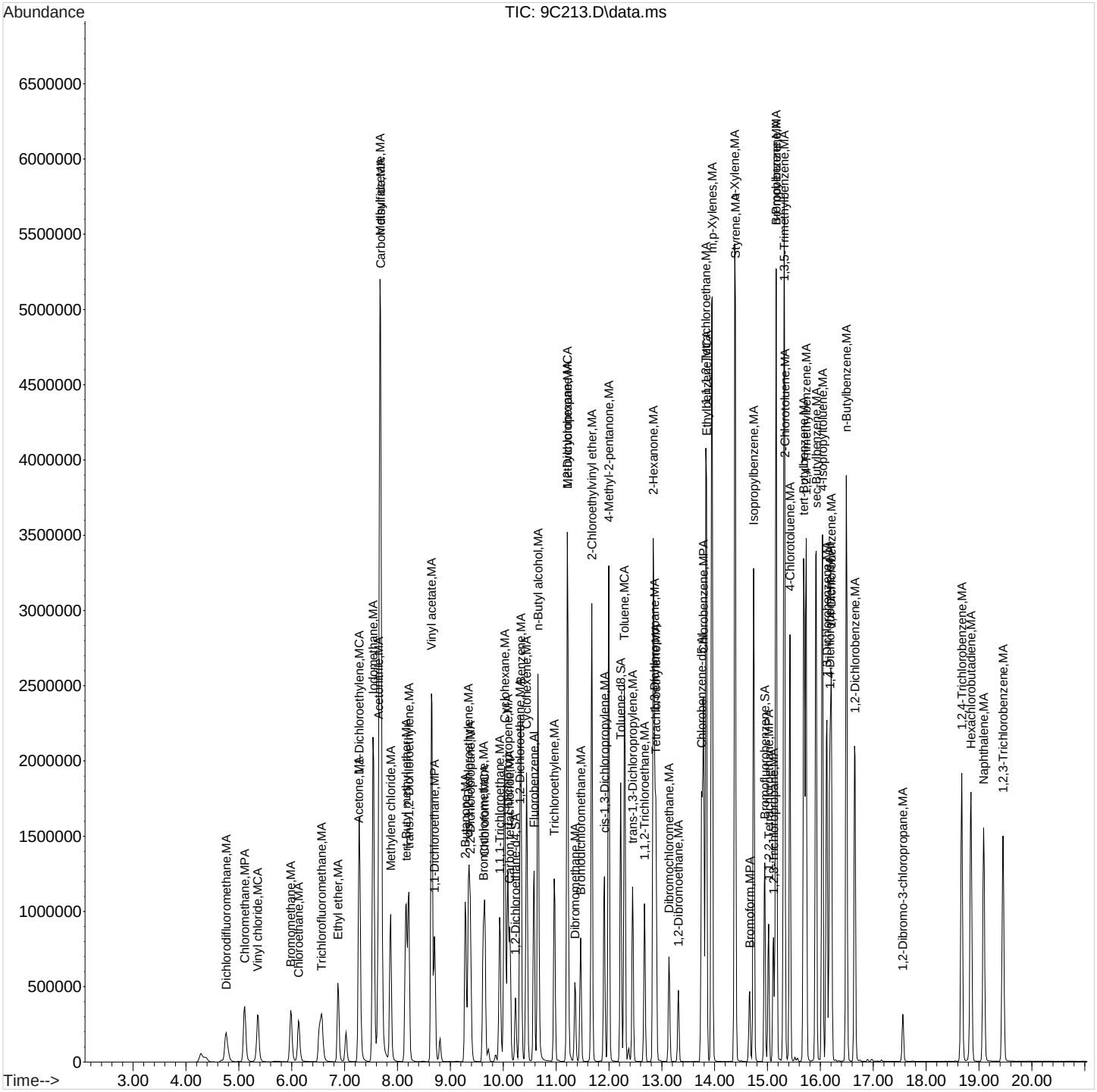
Quant Time: Sep 07 10:20:42 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98) Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100) Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101) 1,4-Dioxane		11.356	11.297	1.073	0m	N.D.	d
102) 2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104) Ethyl methacrylate		12.388	12.435	0.901	0m	N.D.	d
106) 1-Chlorohexane		13.633	13.633	0.842	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108) Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110) Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111) Benzyl chloride		16.360	16.325	1.011	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.716	16.728	1.033	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C213.D
Acq On    : 06 Sep 2011  16:31
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110906-07|ICAL|1|VOA|1|VOA8260BL|
Misc      : GEL50 5ml n/a MIX[A] 0723-07B+0826-07A
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Sep 07 10:20:42 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C214.D
Acq On : 06 Sep 2011 16:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 10:20:44 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	1278816	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1033122	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	560077	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	333916	49.44	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1313766	49.20	ug/L	0.00
61) Bromofluorobenzene	95	14.950	14.949	0.924	546246	50.70	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	721107	83.60	ug/L	98
3) Chloromethane	50	5.112	5.112	0.483	1091273	78.22	ug/L	97
4) Vinyl chloride	62	5.364	5.350	0.507	919496	76.73	ug/L	95
5) Bromomethane	94	5.980	5.980	0.565	535777	76.81	ug/L	98
6) Chloroethane	64	6.127	6.127	0.579	629515	77.47	ug/L	98
7) Trichlorofluoromethane	101	6.566	6.565	0.620	1081475	78.81	ug/L	98
8) Ethyl ether	59	6.874	6.874	0.649	661464	78.67	ug/L	98
9) Acetone	43	7.265	7.265	0.686	2326504	411.80	ug/L	96
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	1426789	82.85	ug/L	96
11) Iodomethane	142	7.538	7.538	0.712	5716191	404.08	ug/L	97
12) Acetonitrile	41	7.645	7.644	0.722	2938583	1989.31	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	3175565	400.90	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	12119272	380.87	ug/L	99
15) Methylene chloride	84	7.870	7.870	0.743	805054	75.37	ug/L	88
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	2216817	83.58	ug/L	94
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	1341730	81.85	ug/L	91
18) Vinyl acetate	43	8.641	8.641	0.816	7036287	393.36	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	1573844	82.38	ug/L	96
20) 2-Butanone	43	9.281	9.281	0.877	2716013	397.06	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	1480652	82.30	ug/L	91
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	1221266	81.51	ug/L	98
23) Bromochloromethane	128	9.625	9.625	0.909	333644	82.41	ug/L #	83
24) Chloroform	83	9.649	9.649	0.911	1268769	81.52	ug/L	99
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	1221435	82.56	ug/L	97
26) Cyclohexane	56	10.028	10.028	0.947	1936350	79.59	ug/L	90
27) 1,1-Dichloropropene	75	10.088	10.087	0.953	1012906	80.41	ug/L	97
28) Carbon tetrachloride	117	10.123	10.123	0.956	990101	82.92	ug/L	98
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	1027151	81.63	ug/L	96
31) Benzene	78	10.337	10.336	0.976	2953417	78.76	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	1678400	80.59	ug/L	90
33) n-Butyl alcohol	41	10.657	10.657	1.007	1998055	8685.33	ug/L	99
34) Trichloroethylene	95	10.965	10.965	1.036	734171	79.69	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	857454	79.78	ug/L	98
36) Methylcyclohexane	83	11.214	11.214	1.059	1453411	79.16	ug/L	86
37) Dibromomethane	93	11.356	11.356	1.073	388187	81.53	ug/L	96
38) Bromodichloromethane	83	11.463	11.463	1.083	945527	85.35	ug/L	96
39) 2-Chloroethylvinyl ether	63	11.677	11.676	1.103	2164401	387.05	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C214.D
Acq On : 06 Sep 2011 16:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 10:20:44 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	1219018	84.91	ug/L		98
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	1590258	407.79	ug/L		96
44) Toluene	91	12.293	12.293	0.894	3114714	77.18	ug/L		97
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	1057316	85.02	ug/L		97
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	508819	79.73	ug/L		98
47) 2-Hexanone	43	12.839	12.839	0.934	3999191	403.17	ug/L		99
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	1008142	78.33	ug/L	#	74
49) Tetrachloroethylene	164	12.886	12.886	0.937	557355	77.08	ug/L		95
50) Dibromochloromethane	129	13.135	13.135	0.955	664751	86.67	ug/L		98
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	608601	84.05	ug/L		97
52) Chlorobenzene	112	13.787	13.787	1.003	2092446	78.80	ug/L		99
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	685826	81.24	ug/L		97
54) Ethylbenzene	91	13.847	13.846	1.007	3526848	76.14	ug/L		97
55) m,p-Xylenes	106	13.953	13.953	1.015	2734561	154.56	ug/L		92
56) o-Xylene	106	14.380	14.380	1.046	1383179	77.99	ug/L		88
57) Styrene	104	14.392	14.392	1.047	2348553	80.50	ug/L		99
59) Bromoform	173	14.665	14.665	0.906	440534	84.38	ug/L		96
60) Isopropylbenzene	105	14.736	14.736	0.911	3816917	80.19	ug/L		96
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	875942	84.68	ug/L		96
63) 1,2,3-Trichloropropane	110	15.116	15.115	0.934	224156	84.68	ug/L	#	86
64) Bromobenzene	156	15.163	15.163	0.937	844921	80.34	ug/L		87
65) n-Propylbenzene	91	15.163	15.163	0.937	4444562	78.40	ug/L		97
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	3221740	79.70	ug/L		96
67) 2-Chlorotoluene	126	15.329	15.329	0.947	835168	77.52	ug/L	#	74
68) 4-Chlorotoluene	91	15.424	15.424	0.953	2852272	80.14	ug/L		94
69) tert-Butylbenzene	134	15.685	15.685	0.969	647830	81.40	ug/L	#	78
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	3358306	79.67	ug/L		91
71) sec-Butylbenzene	105	15.922	15.922	0.984	4537288	79.62	ug/L		94
72) 4-Isopropyltoluene	119	16.041	16.040	0.991	3619040	79.80	ug/L		96
73) 1,3-Dichlorobenzene	146	16.124	16.123	0.996	1712017	79.15	ug/L		96
74) 1,4-Dichlorobenzene	146	16.207	16.206	1.001	1738643	78.15	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	3890999	79.90	ug/L		95
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	1709875	81.24	ug/L		95
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	176947	79.44	ug/L		95
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	1416454	82.87	ug/L		97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	895049	81.38	ug/L		97
80) Naphthalene	128	19.088	19.088	1.180	2966091	83.04	ug/L		99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	1190625	80.12	ug/L		98
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		7.016	7.087	0.663	0m	N.D.	d		
86) Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d		
87) Isopropyl Alcohol		7.265	7.348	0.686	0m	N.D.	d		
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.			
90) Acrylonitrile		8.155	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.			
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d		
95) Propionitrile		9.376	9.364	0.886	0m	N.D.	d		
96) Methacrylonitrile		9.637	9.542	0.910	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C214.D
Acq On : 06 Sep 2011 16:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 10:20:44 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

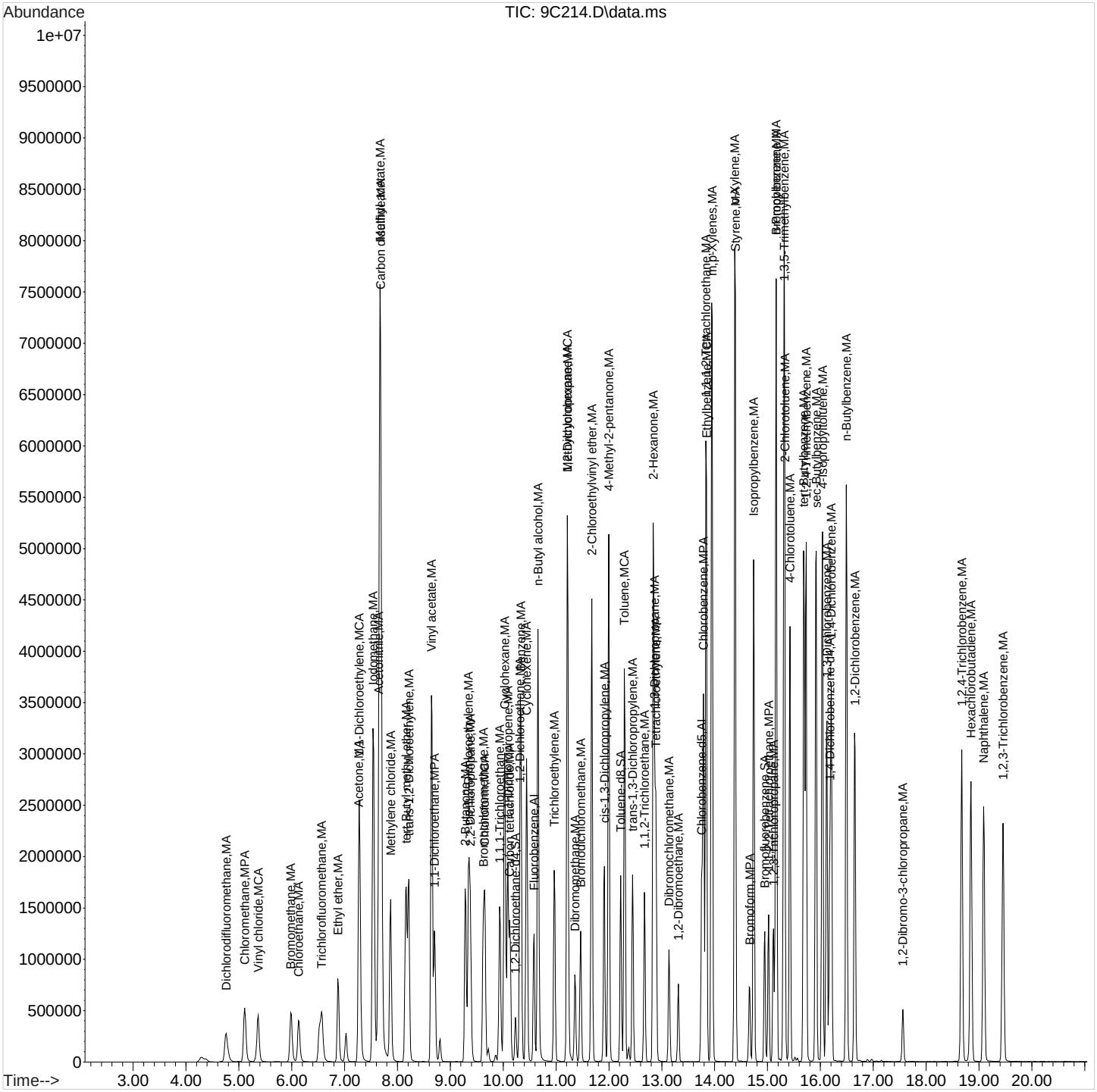
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.661	9.661	0.913	0m	N.D.	d
98) Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.337	10.337	0.976	0m	N.D.	d
100) Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101) 1,4-Dioxane		11.356	11.297	1.073	0m	N.D.	d
102) 2-Nitropropane		11.677	11.665	1.103	0m	N.D.	d
104) Ethyl methacrylate		12.388	12.435	0.901	0m	N.D.	d
106) 1-Chlorohexane		13.752	13.633	0.850	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108) Cyclohexanone		14.867	14.914	0.919	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110) Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111) Benzyl chloride		16.278	16.325	1.006	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C214.D
Acq On : 06 Sep 2011 16:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 10:20:44 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C215.D
Acq On : 06 Sep 2011 17:25
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 07 10:20:46 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1241904	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	1021472	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	542799	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	325709	49.66	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1281451	48.54	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	536445	51.37	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	919313	109.74	ug/L	99 A
3) Chloromethane	50	5.112	5.112	0.483	1370949	101.19	ug/L	96 A
4) Vinyl chloride	62	5.364	5.350	0.507	1167370	100.30	ug/L	94 A
5) Bromomethane	94	5.980	5.980	0.565	687221	101.45	ug/L	98 A
6) Chloroethane	64	6.127	6.127	0.579	796322	100.91	ug/L	98 A
7) Trichlorofluoromethane	101	6.565	6.565	0.620	1386179	104.02	ug/L	99 A
8) Ethyl ether	59	6.874	6.874	0.649	865876	106.04	ug/L	98 A
9) Acetone	43	7.265	7.265	0.686	2704574	493.54	ug/L	96
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	1650739	98.70	ug/L	95
11) Iodomethane	142	7.538	7.538	0.712	6450163	469.52	ug/L	97
12) Acetonitrile	41	7.645	7.644	0.722	3543282	2469.96	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	3777115	491.01	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	12993631	420.49	ug/L	100
15) Methylene chloride	84	7.870	7.870	0.743	946762	91.27	ug/L	87
16) tert-Butyl methyl ether	73	8.154	8.166	0.770	2706425	105.08	ug/L	95 A
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	1569818	98.61	ug/L	91
18) Vinyl acetate	43	8.641	8.641	0.816	8978056	516.83	ug/L	97 A
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	1863290	100.43	ug/L	96 A
20) 2-Butanone	43	9.281	9.281	0.877	3360972	505.95	ug/L	95 A
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	1771669	101.41	ug/L	91 A
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	1454637	99.97	ug/L	98
23) Bromochloromethane	128	9.625	9.625	0.909	405330	103.09	ug/L #	84 A
24) Chloroform	83	9.649	9.649	0.911	1508118	99.78	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	1436650	99.99	ug/L	97
26) Cyclohexane	56	10.028	10.028	0.947	2280549	96.52	ug/L	90
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	1207504	98.71	ug/L	97
28) Carbon tetrachloride	117	10.123	10.123	0.956	1165333	100.50	ug/L	97 A
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	1241678	101.62	ug/L	97 A
31) Benzene	78	10.336	10.336	0.976	3496665	96.02	ug/L	97
32) Cyclohexene	67	10.443	10.443	0.987	1962521	97.04	ug/L	90
33) n-Butyl alcohol	41	10.657	10.657	1.007	2431667	10884.36	ug/L	98 A
34) Trichloroethylene	95	10.965	10.965	1.036	872667	97.53	ug/L	97
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	1041794	99.82	ug/L	99
36) Methylcyclohexane	83	11.214	11.214	1.059	1702406	95.47	ug/L	86
37) Dibromomethane	93	11.356	11.356	1.073	471737	102.02	ug/L	96 A
38) Bromodichloromethane	83	11.463	11.463	1.083	1147369	106.65	ug/L	97 A
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	2804662	516.45	ug/L	96 A

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C215.D
Acq On : 06 Sep 2011 17:25
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 07 10:20:46 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	1461871	104.85	ug/L		98 A
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	1941499	503.54	ug/L		98 A
44) Toluene	91	12.293	12.293	0.894	3689485	92.47	ug/L		97
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	1301881	105.88	ug/L		97 A
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	624217	98.93	ug/L		98
47) 2-Hexanone	43	12.839	12.839	0.934	4897008	499.31	ug/L		98
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	1222958	96.10	ug/L	#	72
49) Tetrachloroethylene	164	12.886	12.886	0.937	660320	92.36	ug/L		96
50) Dibromochloromethane	129	13.135	13.135	0.955	814776	107.44	ug/L		98 A
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	735023	102.67	ug/L		97 A
52) Chlorobenzene	112	13.787	13.787	1.003	2502130	95.30	ug/L		99
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	812371	97.33	ug/L		97
54) Ethylbenzene	91	13.847	13.846	1.007	4128592	90.15	ug/L		97
55) m,p-Xylenes	106	13.953	13.953	1.015	3163614	180.85	ug/L		92
56) o-Xylene	106	14.380	14.380	1.046	1608977	91.75	ug/L		90
57) Styrene	104	14.392	14.392	1.047	2715371	94.14	ug/L		99
59) Bromoform	173	14.665	14.665	0.906	554194	109.44	ug/L		95 A
60) Isopropylbenzene	105	14.736	14.736	0.911	4430159	96.04	ug/L		96
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	1074015	107.14	ug/L		96 A
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	274280	106.91	ug/L		94 A
64) Bromobenzene	156	15.163	15.163	0.937	997061	97.83	ug/L		88
65) n-Propylbenzene	91	15.163	15.163	0.937	5043647	91.80	ug/L		97
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	3705404	94.58	ug/L		96
67) 2-Chlorotoluene	126	15.329	15.329	0.947	965055	92.43	ug/L	#	76
68) 4-Chlorotoluene	91	15.424	15.424	0.953	3323706	96.35	ug/L		94
69) tert-Butylbenzene	134	15.685	15.685	0.969	752157	97.52	ug/L	#	78
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	3901781	95.51	ug/L		91
71) sec-Butylbenzene	105	15.922	15.922	0.984	5254536	95.14	ug/L		95
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	4217980	95.96	ug/L		96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	2038530	97.25	ug/L		96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	2041714	94.69	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	4489729	95.13	ug/L		96
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	2026599	99.35	ug/L		96
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	221723	102.22	ug/L		95 A
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	1656968	100.03	ug/L		97 A
79) Hexachlorobutadiene	225	18.851	18.851	1.165	1052601	98.75	ug/L		97
80) Naphthalene	128	19.088	19.088	1.180	3523233	101.78	ug/L		99 A
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	1404574	97.53	ug/L		98
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		7.028	7.087	0.664	0m	N.D.	d		
86) Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d		
87) Isopropyl Alcohol		7.265	7.348	0.686	0m	N.D.	d		
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.			
90) Acrylonitrile		8.154	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.			
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d		
95) Propionitrile		9.364	9.364	0.885	0m	N.D.	d		
96) Methacrylonitrile		9.637	9.542	0.910	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C215.D
Acq On : 06 Sep 2011 17:25
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial : 15 Sample Multiplier: 1

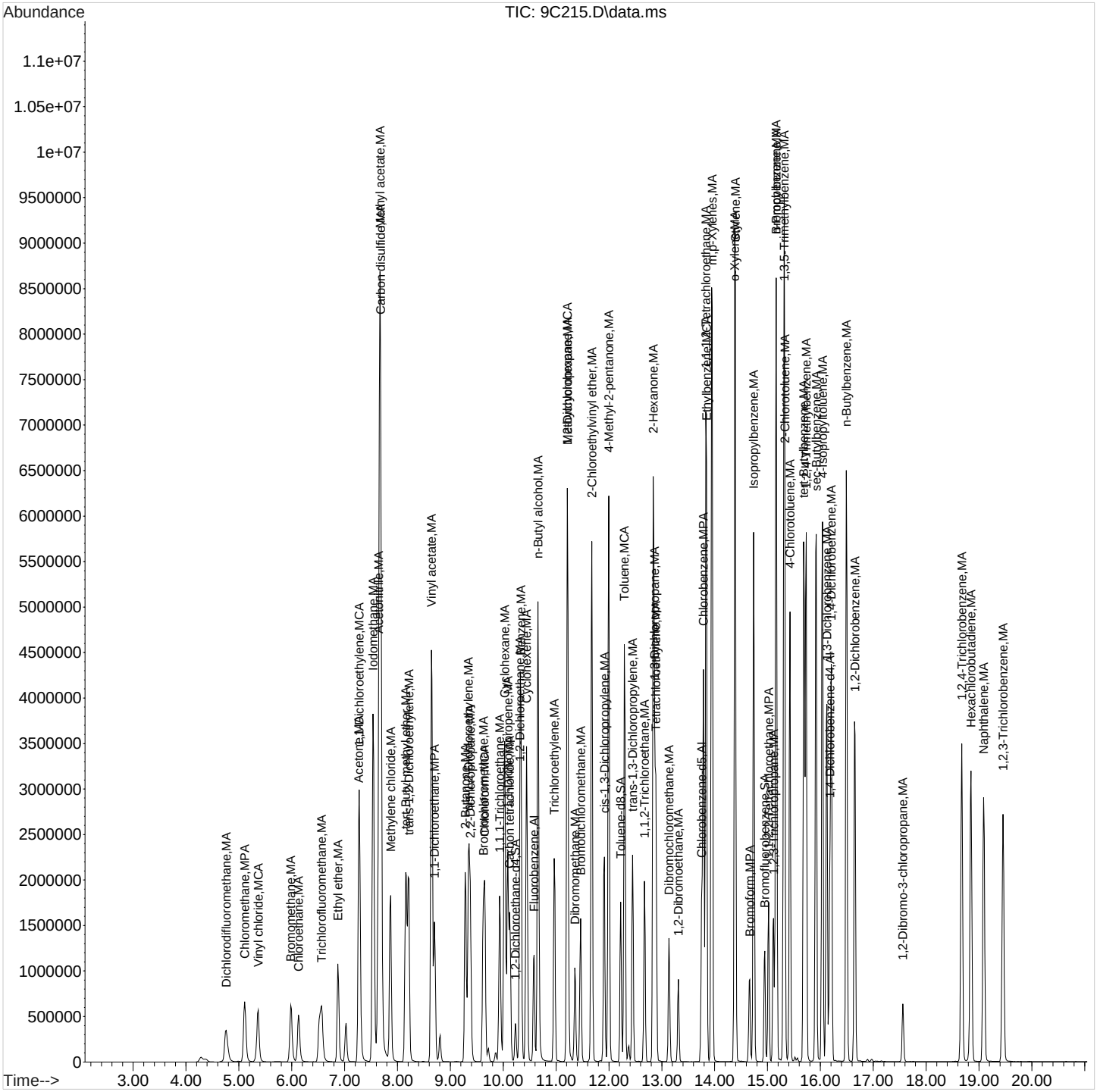
Quant Time: Sep 07 10:20:46 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.637	9.661	0.910	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.368	11.297	1.074	0m	N.D.	d
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		12.376	12.435	0.900	0m	N.D.	d
106)	1-Chlorohexane		13.621	13.633	0.842	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.843	14.914	0.917	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.289	16.325	1.007	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.728	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C215.D
Acq On    : 06 Sep 2011  17:25
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110906-09|ICAL|1|VOA|1|VOA8260BL|
Misc      : GEL100 5ml n/a MIX[A] 0723-08B+0826-08A
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Sep 07 10:20:46 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C217.D
Acq On : 06 Sep 2011 18:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-10|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5ml n/a MIX[B]0830-01+0830-09+0729-01B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 10:20:48 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1288988	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	1015193	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	565622	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.938	14.949	0.923	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.277	7.265	0.687	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.277	0.000	0	N.D.		
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.214	8.214	0.776	0m	N.D.	d	
18) Vinyl acetate		8.665	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		0.000	8.700	0.000	0	N.D.		
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		0.000	9.649	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.313	10.313	0.974	0m	N.D.	d	
31) Benzene		10.325	10.336	0.975	0m	N.D.	d	
32) Cyclohexene		10.586	10.443	1.000	0m	N.D.	d	
33) n-Butyl alcohol		10.669	10.657	1.008	0m	N.D.	d	
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		0.000	11.214	0.000	0	N.D.		
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C217.D
Acq On : 06 Sep 2011 18:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-10|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5ml n/a MIX[B]0830-01+0830-09+0729-01B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 10:20:48 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		11.902	11.914	1.124	0m	N.D.	d	
42) 4-Methyl-2-pentanone		11.997	11.997	0.872	0m	N.D.	d	
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.874	12.862	0.936	0m	N.D.	d	
49) Tetrachloroethylene		12.898	12.886	0.938	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		0.000	13.313	0.000	0	N.D.		
52) Chlorobenzene		13.776	13.787	1.002	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.835	13.846	1.006	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.392	14.380	1.047	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		0.000	15.020	0.000	0	N.D.		
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.720	15.732	0.971	0m	N.D.	d	
71) sec-Butylbenzene		15.910	15.922	0.983	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.124	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.207	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		16.503	16.491	1.020	0m	N.D.	d	
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.088	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.664	4.678	0.441	34000	5.49	ug/L	97
84) 2-Chloro-1,1,1-trifluo...	118	5.490	5.504	0.519	55744	4.83	ug/L	97
85) Acrolein	56	7.099	7.087	0.671	6528	4.37	ug/L	88
86) Trichlorotrifluoroethane	85	7.241	7.253	0.684	16838	4.61	ug/L	93
87) Isopropyl Alcohol	45	7.348	7.348	0.694	35122	47.08	ug/L #	54
88) Allyl chloride	41	7.716	7.716	0.729	96671	4.97	ug/L	96
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	52377	45.75	ug/L	83
90) Acrylonitrile	53	8.131	8.131	0.768	17282	5.21	ug/L	94
91) Isopropyl ether	45	8.665	8.664	0.819	42710	0.99	ug/L	90
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	14744	0.99	ug/L	92
93) Ethyl tert-butyl ether	59	9.080	9.080	0.858	36050	0.98	ug/L	94
94) Ethyl acetate	43	9.293	9.281	0.878	48664	5.61	ug/L	93
95) Propionitrile	54	9.376	9.364	0.886	6231	5.04	ug/L	79
96) Methacrylonitrile	41	9.554	9.542	0.903	29158	5.15	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C217.D
Acq On : 06 Sep 2011 18:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-10|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5ml n/a MIX[B]0830-01+0830-09+0729-01B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 10:20:48 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

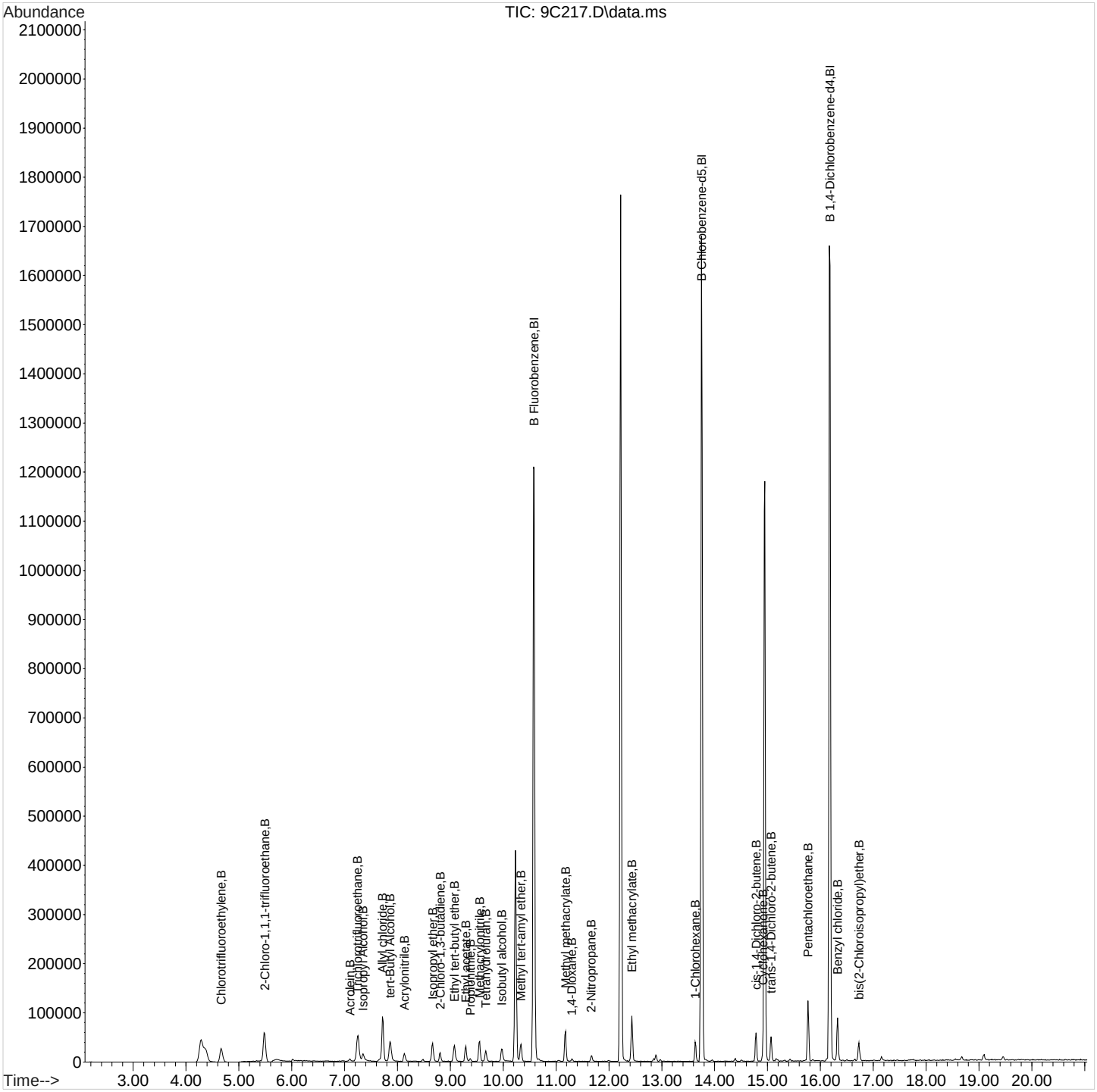
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
97)	Tetrahydrofuran	42	9.672	9.661	0.914	17594	5.93	ug/L		95
98)	Isobutyl alcohol	41	9.969	9.969	0.942	18774	51.98	ug/L		95
99)	Methyl tert-amyl ether	73	10.337	10.337	0.976	28192	1.02	ug/L		91
100)	Methyl methacrylate	69	11.179	11.178	1.056	23430	4.70	ug/L	#	78
101)	1,4-Dioxane	88	11.297	11.297	1.067	3437	49.02	ug/L		91
102)	2-Nitropropane	43	11.665	11.665	1.102	10685	4.40	ug/L		90
104)	Ethyl methacrylate	69	12.435	12.435	0.904	50027	4.81	ug/L		91
106)	1-Chlorohexane	55	13.633	13.633	0.842	11560	0.93	ug/L		94
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	16592	4.33	ug/L		79
108)	Cyclohexanone	42	14.914	14.914	0.922	6342	25.07	ug/L		89
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	14644	4.43	ug/L		76
110)	Pentachloroethane	167	15.768	15.768	0.974	26015	4.32	ug/L		85
111)	Benzyl chloride	91	16.325	16.325	1.009	74600	4.17	ug/L		96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	29795	4.67	ug/L		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C217.D
Acq On : 06 Sep 2011 18:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-10|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5ml n/a MIX[B]0830-01+0830-09+0729-01B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 10:20:48 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C218.D
Acq On : 06 Sep 2011 18:46
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5ml n/a MIX[B]0830-03+0830-11+0729-03B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 10:20:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1298822	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	1008234	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	561738	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.950	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.084	5.112	0.480	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.277	7.265	0.687	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.912	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	10.313	0.000	0	N.D.		
31) Benzene		10.337	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.574	10.443	0.999	0m	N.D.	d	
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.167	11.214	1.055	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C218.D
Acq On : 06 Sep 2011 18:46
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5ml n/a MIX[B]0830-03+0830-11+0729-03B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 10:20:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.862	12.862	0.935	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		0.000	13.313	0.000	0	N.D.		
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.835	13.846	1.006	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.380	14.380	1.046	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.748	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.056	15.020	0.930	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.910	15.922	0.983	0m	N.D.	d	
72) 4-Isopropyltoluene		16.029	16.040	0.990	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.664	4.678	0.441	112865	18.10	ug/L	98
84) 2-Chloro-1,1,1-trifluo...	118	5.490	5.504	0.519	241419	20.76	ug/L #	96
85) Acrolein	56	7.087	7.087	0.670	31533	20.93	ug/L	80
86) Trichlorotrifluoroethane	85	7.241	7.253	0.684	85549	23.26	ug/L	95
87) Isopropyl Alcohol	45	7.348	7.348	0.694	164055	218.26	ug/L	93
88) Allyl chloride	41	7.716	7.716	0.729	451991	23.08	ug/L	97
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	264125	228.95	ug/L	96
90) Acrylonitrile	53	8.131	8.131	0.768	75995	22.74	ug/L	99
91) Isopropyl ether	45	8.664	8.664	0.819	199754	4.58	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	70227	4.67	ug/L	94
93) Ethyl tert-butyl ether	59	9.068	9.080	0.857	170563	4.59	ug/L	96
94) Ethyl acetate	43	9.293	9.281	0.878	209591	24.00	ug/L	97
95) Propionitrile	54	9.376	9.364	0.886	30137	24.17	ug/L	96
96) Methacrylonitrile	41	9.542	9.542	0.901	135795	23.81	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C218.D
Acq On : 06 Sep 2011 18:46
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5ml n/a MIX[B]0830-03+0830-11+0729-03B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 10:20:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

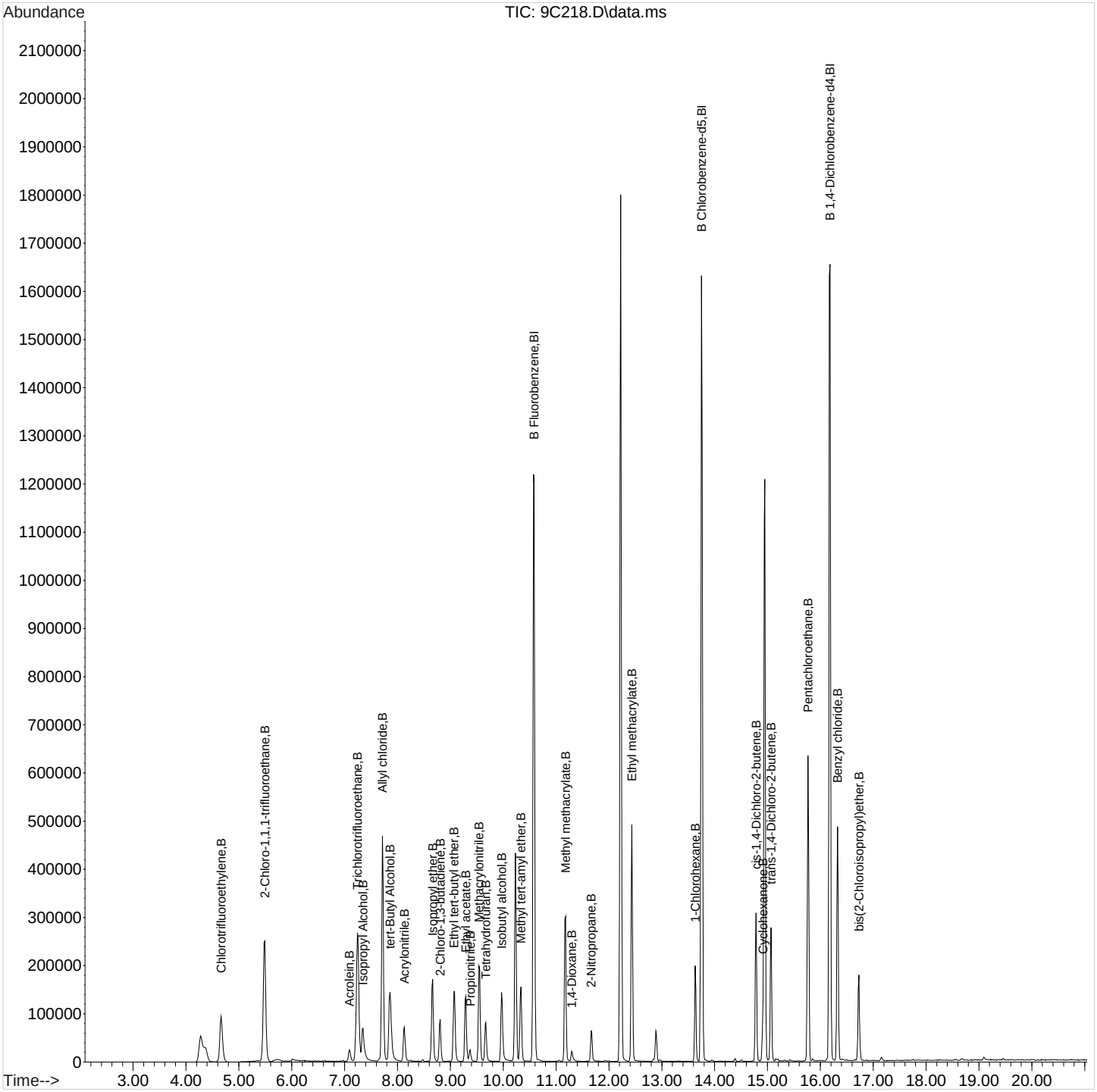
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.672	9.661	0.914	71611	23.97	ug/L	94
98)	Isobutyl alcohol	41	9.969	9.969	0.942	88487	243.14	ug/L	92
99)	Methyl tert-amyl ether	73	10.337	10.337	0.976	129547	4.65	ug/L	93
100)	Methyl methacrylate	69	11.178	11.178	1.056	124661	24.83	ug/L	86
101)	1,4-Dioxane	88	11.297	11.297	1.067	16842	238.38	ug/L	85
102)	2-Nitropropane	43	11.665	11.665	1.102	54675	22.36	ug/L	91
104)	Ethyl methacrylate	69	12.435	12.435	0.904	260657	25.26	ug/L	93
106)	1-Chlorohexane	55	13.633	13.633	0.842	56080	4.52	ug/L	90
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	85029	22.33	ug/L	83
108)	Cyclohexanone	42	14.914	14.914	0.922	30980	123.31	ug/L	92
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	74819	22.79	ug/L	85
110)	Pentachloroethane	167	15.768	15.768	0.974	139666	23.34	ug/L	95
111)	Benzyl chloride	91	16.325	16.325	1.009	414377	23.33	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	153920	24.27	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C218.D
Acq On : 06 Sep 2011 18:46
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5ml n/a MIX[B]0830-03+0830-11+0729-03B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 10:20:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C219.D
Acq On : 06 Sep 2011 19:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[B]0830-04+0830-12+0729-04B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 10:20:53 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1224926	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	988198	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	537547	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.949	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.277	7.265	0.687	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.277	7.277	0.687	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.637	9.649	0.910	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		10.064	10.028	0.951	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	10.313	0.000	0	N.D.		
31) Benzene		10.325	10.336	0.975	0m	N.D.	d	
32) Cyclohexene		10.585	10.443	1.000	0m	N.D.	d	
33) n-Butyl alcohol		10.668	10.657	1.008	0m	N.D.	d	
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C219.D
Acq On : 06 Sep 2011 19:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[B]0830-04+0830-12+0729-04B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 10:20:53 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.850	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		0.000	12.862	0.000	0	N.D.		
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.835	13.846	1.006	0m	N.D.	d	
55) m,p-Xylenes		13.941	13.953	1.014	0m	N.D.	d	
56) o-Xylene		14.380	14.380	1.046	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.748	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.305	15.317	0.946	0m	N.D.	d	
67) 2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		16.586	16.491	1.025	0m	N.D.	d	
76) 1,2-Dichlorobenzene		16.645	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.		
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.678	4.678	0.442	241032	40.99	ug/L	97
84) 2-Chloro-1,1,1-trifluo...	118	5.490	5.504	0.519	572401	52.20	ug/L #	96
85) Acrolein	56	7.099	7.087	0.671	70287	49.47	ug/L	79
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	176115	50.77	ug/L	95
87) Isopropyl Alcohol	45	7.348	7.348	0.694	352704	497.55	ug/L	96
88) Allyl chloride	41	7.716	7.716	0.729	934500	50.60	ug/L	97
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	549348	504.91	ug/L	99
90) Acrylonitrile	53	8.131	8.131	0.768	165207	52.41	ug/L	98
91) Isopropyl ether	45	8.664	8.664	0.819	420073	10.21	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	145188	10.23	ug/L	92
93) Ethyl tert-butyl ether	59	9.079	9.080	0.858	354475	10.12	ug/L	96
94) Ethyl acetate	43	9.293	9.281	0.878	418857	50.85	ug/L	97
95) Propionitrile	54	9.376	9.364	0.886	61380	52.21	ug/L	100
96) Methacrylonitrile	41	9.542	9.542	0.901	278177	51.71	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C219.D
Acq On : 06 Sep 2011 19:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[B]0830-04+0830-12+0729-04B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 10:20:53 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

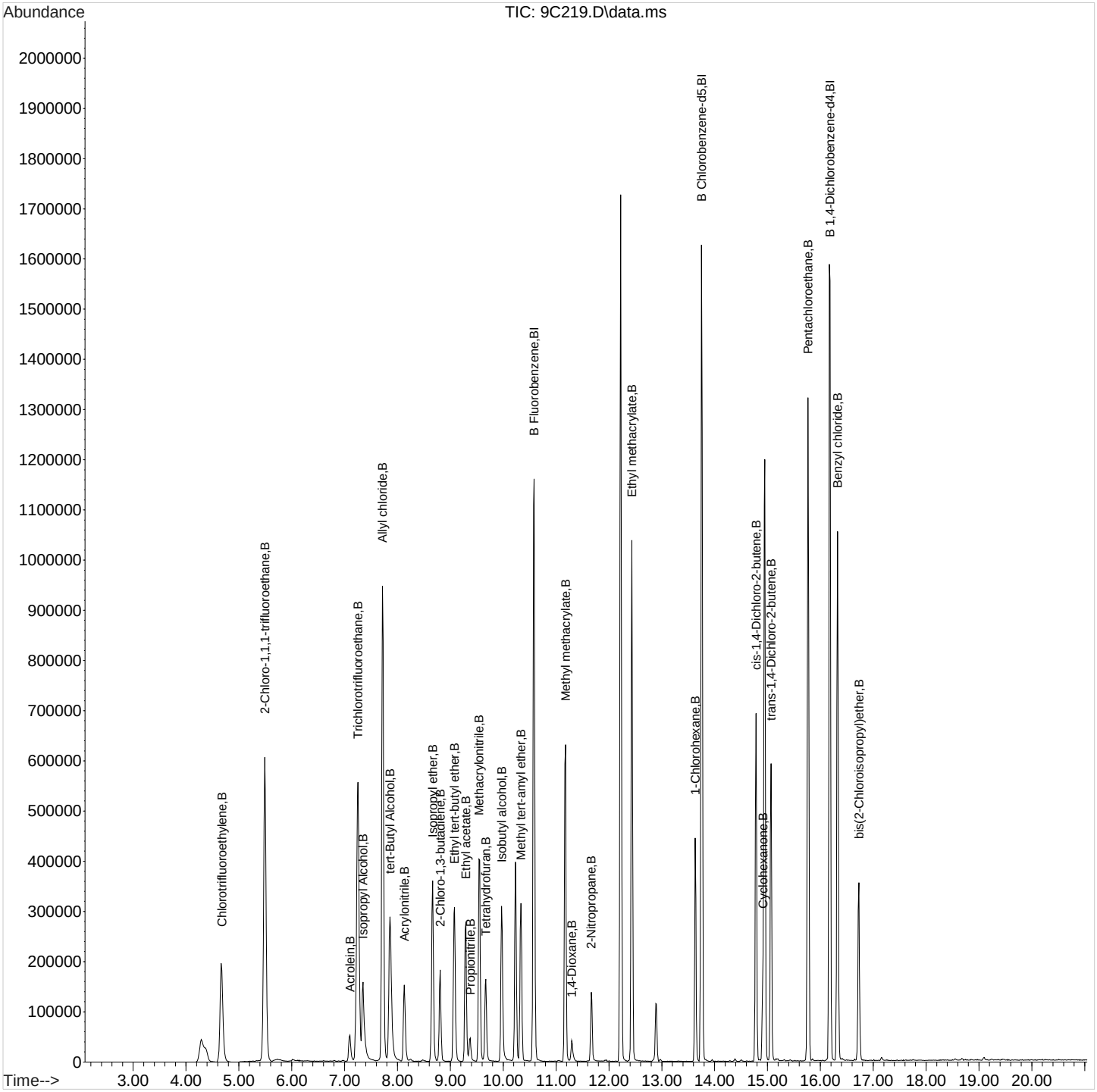
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.672	9.661	0.914	146296	51.92	ug/L	92
98)	Isobutyl alcohol	41	9.969	9.969	0.942	178111	518.94	ug/L	95
99)	Methyl tert-amyl ether	73	10.336	10.337	0.976	267232	10.17	ug/L	95
100)	Methyl methacrylate	69	11.178	11.178	1.056	253774	53.59	ug/L	85
101)	1,4-Dioxane	88	11.297	11.297	1.067	34725	521.15	ug/L	89
102)	2-Nitropropane	43	11.665	11.665	1.102	117090	50.77	ug/L	93
104)	Ethyl methacrylate	69	12.435	12.435	0.904	540078	53.39	ug/L	91
106)	1-Chlorohexane	55	13.633	13.633	0.842	122926	10.35	ug/L	92
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	189119	51.91	ug/L	85
108)	Cyclohexanone	42	14.914	14.914	0.922	61324	255.08	ug/L	94
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	164110	52.24	ug/L	87
110)	Pentachloroethane	167	15.768	15.768	0.974	300593	52.49	ug/L	97
111)	Benzyl chloride	91	16.325	16.325	1.009	898109	52.85	ug/L	95
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	315228	51.93	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C219.D
Acq On : 06 Sep 2011 19:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5ml n/a MIX[B]0830-04+0830-12+0729-04B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 10:20:53 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C220.D
Acq On : 06 Sep 2011 19:40
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[B]0830-05+0830-13+0729-05B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 10:20:56 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1244665	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	1002676	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	543748	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.949	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.084	5.112	0.480	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		6.886	6.874	0.650	0m	N.D.	d	
9) Acetone		7.277	7.265	0.687	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.325	10.313	0.975	0m	N.D.	d	
31) Benzene		10.325	10.336	0.975	0m	N.D.	d	
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		10.669	10.657	1.008	0m	N.D.	d	
34) Trichloroethylene		10.965	10.965	1.036	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C220.D
Acq On : 06 Sep 2011 19:40
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[B]0830-05+0830-13+0729-05B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 10:20:56 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.305	12.293	0.895	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.835	13.846	1.006	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		0.000	14.380	0.000	0	N.D.		
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.305	15.317	0.946	0m	N.D.	d	
67) 2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.645	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.		
80) Naphthalene		19.088	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.678	4.678	0.442	598277	100.12	ug/L	98
84) 2-Chloro-1,1,1-trifluo...	118	5.504	5.504	0.520	1214361	108.99	ug/L #	96
85) Acrolein	56	7.099	7.087	0.671	129599	89.78	ug/L	78
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	341358	96.84	ug/L	96
87) Isopropyl Alcohol	45	7.348	7.348	0.694	688188	955.41	ug/L	93
88) Allyl chloride	41	7.716	7.716	0.729	1853576	98.78	ug/L	97
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	1051844	951.42	ug/L	99
90) Acrylonitrile	53	8.131	8.131	0.768	306989	95.84	ug/L	99
91) Isopropyl ether	45	8.664	8.664	0.819	855186	20.46	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	294210	20.40	ug/L	93
93) Ethyl tert-butyl ether	59	9.079	9.080	0.858	740309	20.80	ug/L	96
94) Ethyl acetate	43	9.293	9.281	0.878	775784	92.68	ug/L	97
95) Propionitrile	54	9.376	9.364	0.886	113920	95.36	ug/L	99
96) Methacrylonitrile	41	9.542	9.542	0.901	522637	95.61	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C220.D
Acq On : 06 Sep 2011 19:40
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[B]0830-05+0830-13+0729-05B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 10:20:56 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

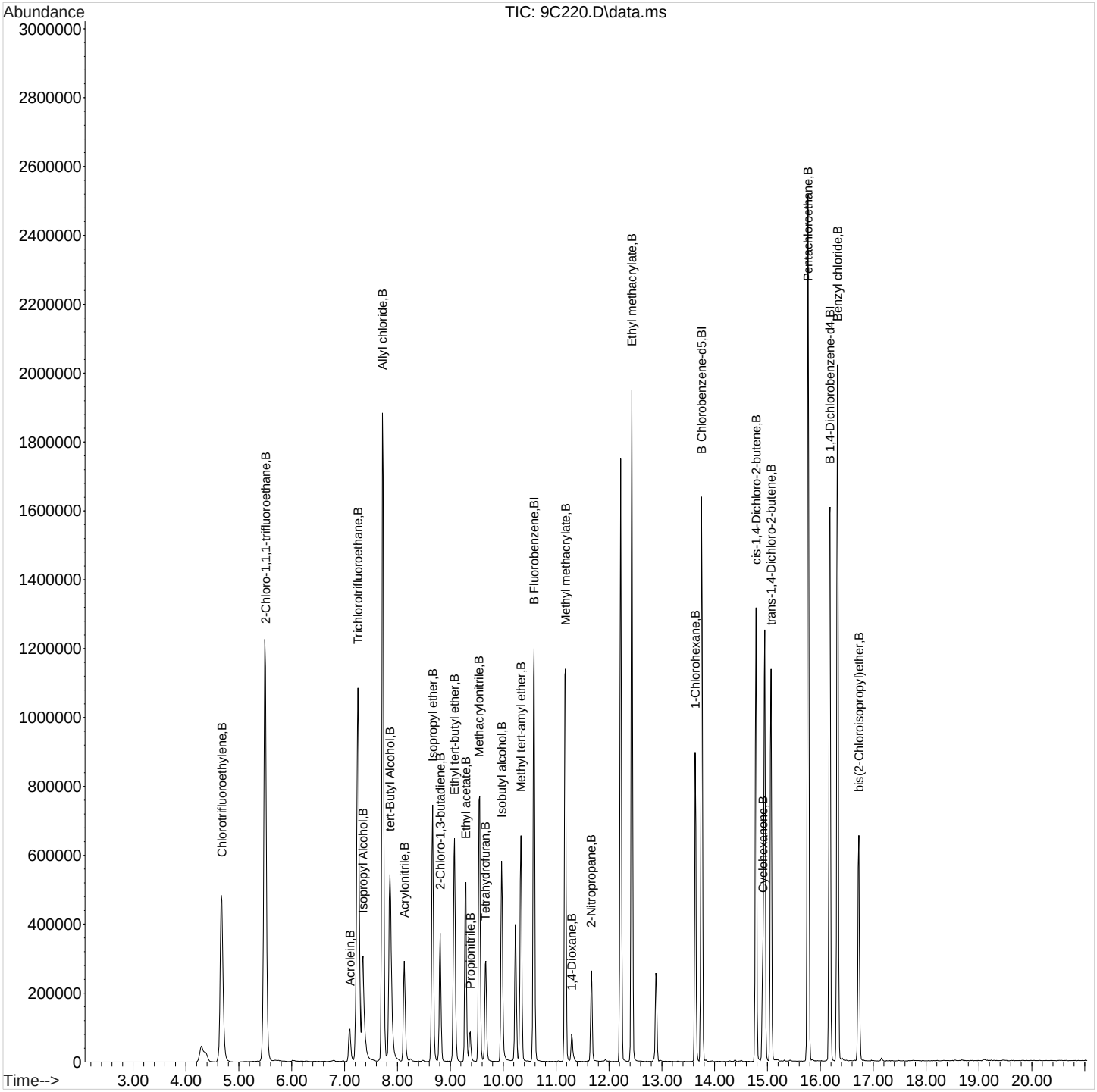
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97) Tetrahydrofuran	42	9.661	9.661	0.913	261942	91.49	ug/L	94
98) Isobutyl alcohol	41	9.969	9.969	0.942	327666	939.53	ug/L	94
99) Methyl tert-amyl ether	73	10.336	10.337	0.976	551480	20.65	ug/L	95
100) Methyl methacrylate	69	11.178	11.178	1.056	462968	96.21	ug/L	83
101) 1,4-Dioxane	88	11.297	11.297	1.067	64118	947.01	ug/L	89
102) 2-Nitropropane	43	11.665	11.665	1.102	225169	96.08	ug/L	97
104) Ethyl methacrylate	69	12.435	12.435	0.904	1015154	98.90	ug/L	91
106) 1-Chlorohexane	55	13.633	13.633	0.842	255736	21.29	ug/L	89
107) cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	363137	98.53	ug/L	88
108) Cyclohexanone	42	14.914	14.914	0.922	114380	470.35	ug/L	94
109) trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	313057	98.52	ug/L	89
110) Pentachloroethane	167	15.768	15.768	0.974	580640	100.23	ug/L	98
111) Benzyl chloride	91	16.325	16.325	1.009	1745998	101.57	ug/L	95
112) bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	584213	95.15	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C220.D
Acq On : 06 Sep 2011 19:40
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5ml n/a MIX[B]0830-05+0830-13+0729-05B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 10:20:56 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C221.D
Acq On : 06 Sep 2011 20:07
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5ml n/a MIX[B]0830-06+0830-14+0729-06B
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 10:20:58 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1208589	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	942686	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	510565	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.949	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.350	5.350	0.505	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		6.874	6.874	0.649	0m	N.D.	d	
9) Acetone		7.253	7.265	0.685	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.241	7.277	0.684	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.281	9.281	0.877	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.912	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.325	10.313	0.975	0m	N.D.	d	
31) Benzene		10.325	10.336	0.975	0m	N.D.	d	
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		10.977	10.965	1.037	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C221.D
Acq On : 06 Sep 2011 20:07
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5ml n/a MIX[B]0830-06+0830-14+0729-06B
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 10:20:58 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.847	13.846	1.007	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		0.000	14.380	0.000	0	N.D.		
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		0.000	14.736	0.000	0	N.D.		
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		0.000	15.163	0.000	0	N.D.		
66) 1,3,5-Trimethylbenzene		15.305	15.317	0.946	0m	N.D.	d	
67) 2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		0.000	15.922	0.000	0	N.D.		
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.685	18.673	1.155	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.		
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.678	4.678	0.442	856781	147.66	ug/L	97
84) 2-Chloro-1,1,1-trifluo...	118	5.504	5.504	0.520	1614910	149.27	ug/L #	96
85) Acrolein	56	7.087	7.087	0.670	358531	255.78	ug/L	79
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	829380	242.30	ug/L	95
87) Isopropyl Alcohol	45	7.348	7.348	0.694	1749466	2501.27	ug/L	92
88) Allyl chloride	41	7.716	7.716	0.729	4463001	244.94	ug/L	96
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	2697888	2513.16	ug/L	98
90) Acrylonitrile	53	8.131	8.131	0.768	760562	244.53	ug/L	99
91) Isopropyl ether	45	8.664	8.664	0.819	2022056	49.83	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	704429	50.30	ug/L	93
93) Ethyl tert-butyl ether	59	9.080	9.080	0.858	1735728	50.23	ug/L	96
94) Ethyl acetate	43	9.281	9.281	0.877	2001534	246.26	ug/L	97
95) Propionitrile	54	9.364	9.364	0.885	288407	248.62	ug/L	100
96) Methacrylonitrile	41	9.542	9.542	0.901	1319776	248.64	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C221.D
Acq On : 06 Sep 2011 20:07
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5ml n/a MIX[B]0830-06+0830-14+0729-06B
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 10:20:58 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

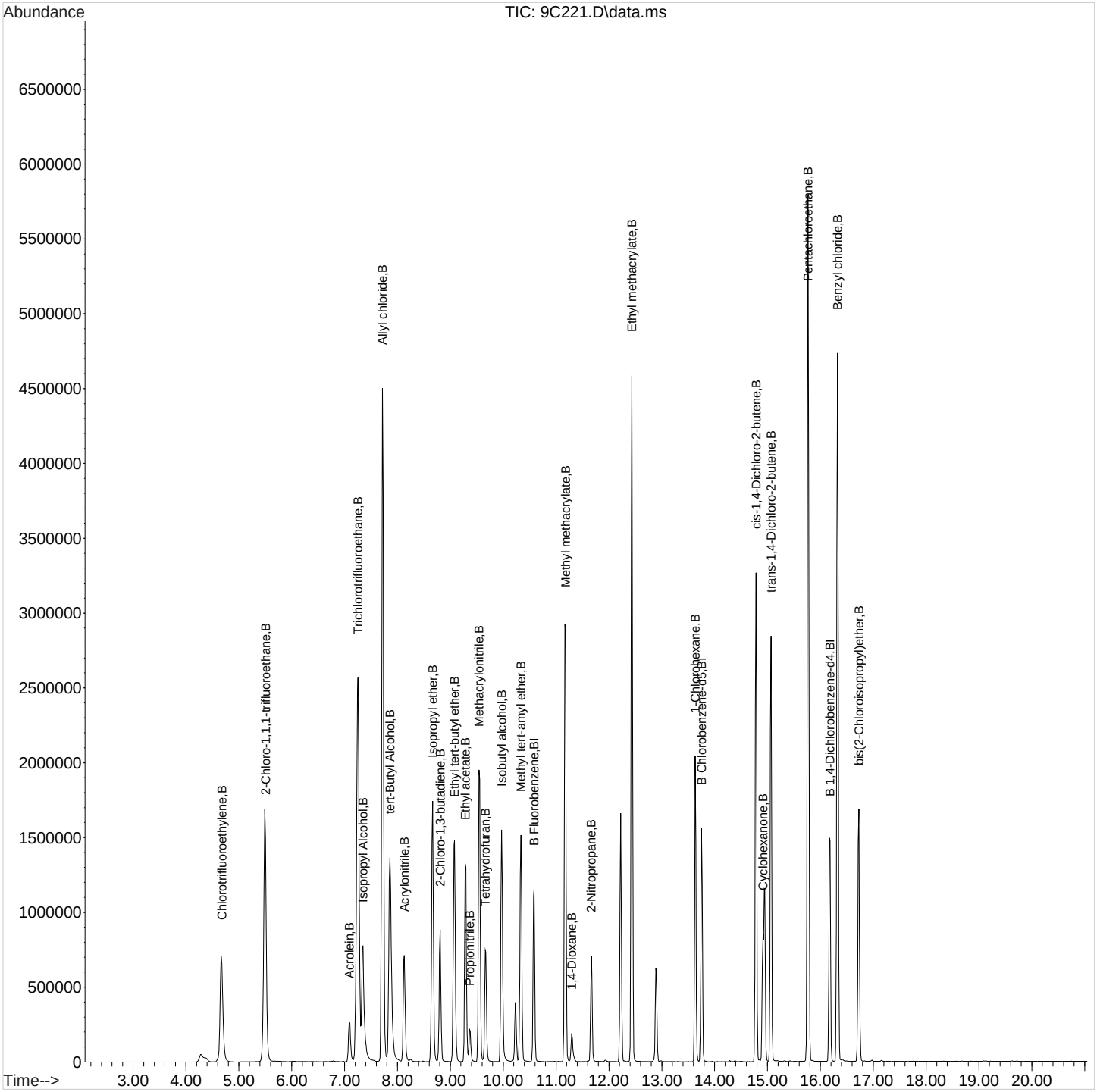
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.661	9.661	0.913	659053	237.07	ug/L	93
98)	Isobutyl alcohol	41	9.969	9.969	0.942	846243	2498.90	ug/L	96
99)	Methyl tert-amyl ether	73	10.337	10.337	0.976	1284173	49.51	ug/L	96
100)	Methyl methacrylate	69	11.178	11.178	1.056	1188557	254.37	ug/L	84
101)	1,4-Dioxane	88	11.297	11.297	1.067	165594	2518.80	ug/L	92
102)	2-Nitropropane	43	11.665	11.665	1.102	607440	266.92	ug/L	98
104)	Ethyl methacrylate	69	12.435	12.435	0.904	2413049	250.06	ug/L	90
106)	1-Chlorohexane	55	13.633	13.633	0.842	575422	51.02	ug/L	88
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	914249	264.20	ug/L	89
108)	Cyclohexanone	42	14.914	14.914	0.922	305257	1336.84	ug/L	97
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	776803	260.34	ug/L	89
110)	Pentachloroethane	167	15.768	15.768	0.974	1372511	252.32	ug/L	96
111)	Benzyl chloride	91	16.325	16.325	1.009	4115445	254.98	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1523491	264.26	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C221.D
Acq On : 06 Sep 2011 20:07
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5ml n/a MIX[B]0830-06+0830-14+0729-06B
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 10:20:58 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C222.D
Acq On : 06 Sep 2011 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 10:21:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1166369	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	920968	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	511687	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.949	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.084	5.112	0.480	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		6.874	6.874	0.649	0m	N.D.	d	
9) Acetone		7.253	7.265	0.685	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.241	7.277	0.684	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.155	8.166	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.281	9.281	0.877	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.281	9.340	0.877	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.325	10.313	0.975	0m	N.D.	d	
31) Benzene		10.336	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		10.657	10.657	1.007	0m	N.D.	d	
34) Trichloroethylene		10.977	10.965	1.037	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C222.D
Acq On : 06 Sep 2011 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 10:21:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.			
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.			
44) Toluene		12.305	12.293	0.895	0m	N.D.	d		
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.			
47) 2-Hexanone		12.839	12.839	0.934	0m	N.D.	d		
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d		
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d		
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.			
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d		
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d		
53) 1,1,1,2-Tetrachloroethane		13.835	13.835	1.006	0m	N.D.	d		
54) Ethylbenzene		13.847	13.846	1.007	0m	N.D.	d		
55) m,p-Xylenes		13.941	13.953	1.014	0m	N.D.	d		
56) o-Xylene		0.000	14.380	0.000	0	N.D.			
57) Styrene		14.392	14.392	1.047	0m	N.D.	d		
59) Bromoform		0.000	14.665	0.000	0	N.D.			
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d		
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d		
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.			
64) Bromobenzene		0.000	15.163	0.000	0	N.D.			
65) n-Propylbenzene		0.000	15.163	0.000	0	N.D.			
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d		
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d		
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d		
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.			
70) 1,2,4-Trimethylbenzene		15.756	15.732	0.974	0m	N.D.	d		
71) sec-Butylbenzene		15.910	15.922	0.983	0m	N.D.	d		
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d		
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d		
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d		
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.			
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.			
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d		
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.			
80) Naphthalene		19.088	19.088	1.180	0m	N.D.	d		
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d		
83) Chlorotrifluoroethylene	116	4.664	4.678	0.441	1290478	230.45	ug/L		98 A
84) 2-Chloro-1,1,1-trifluo...	118	5.490	5.504	0.519	2098905	201.02	ug/L #		96 A
85) Acrolein	56	7.087	7.087	0.670	799900	591.32	ug/L		78 A
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	1729547	523.58	ug/L		94 A
87) Isopropyl Alcohol	45	7.336	7.348	0.693	3414795	5058.98	ug/L		92 A
88) Allyl chloride	41	7.716	7.716	0.729	8698558	494.67	ug/L		98
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	5191377	5010.96	ug/L		98 A
90) Acrylonitrile	53	8.119	8.131	0.767	1641103	546.73	ug/L		99 A
91) Isopropyl ether	45	8.664	8.664	0.819	4037473	103.09	ug/L		98 A
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	1526193	112.93	ug/L		92 A
93) Ethyl tert-butyl ether	59	9.079	9.080	0.858	3434915	103.01	ug/L		95 A
94) Ethyl acetate	43	9.281	9.281	0.877	4050906	516.44	ug/L		97 A
95) Propionitrile	54	9.364	9.364	0.885	598219	534.36	ug/L		100 A
96) Methacrylonitrile	41	9.542	9.542	0.901	2693249	525.77	ug/L		99 A

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C222.D
Acq On : 06 Sep 2011 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 10:21:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

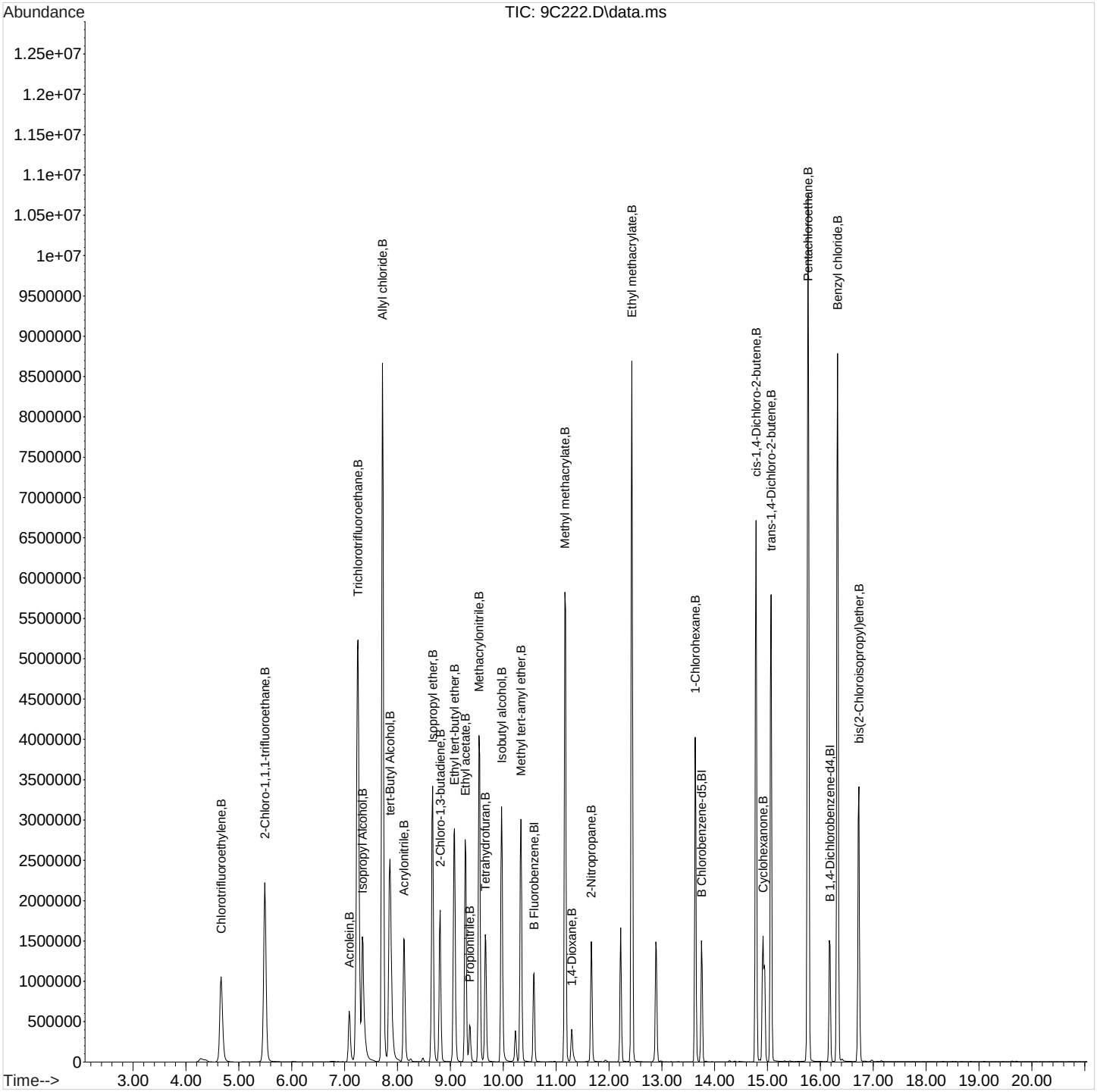
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
97)	Tetrahydrofuran	42	9.661	9.661	0.913	1374739	512.40	ug/L	93	A
98)	Isobutyl alcohol	41	9.969	9.969	0.942	1742502	5331.75	ug/L	97	A
99)	Methyl tert-amyl ether	73	10.336	10.337	0.976	2566387	102.53	ug/L	96	A
100)	Methyl methacrylate	69	11.167	11.178	1.055	2349108	520.95	ug/L	84	A
101)	1,4-Dioxane	88	11.297	11.297	1.067	335717	5291.33	ug/L	89	A
102)	2-Nitropropane	43	11.665	11.665	1.102	1273230	579.73	ug/L	97	A
104)	Ethyl methacrylate	69	12.435	12.435	0.904	4657214	493.99	ug/L	90	
106)	1-Chlorohexane	55	13.633	13.633	0.842	1154528	102.14	ug/L	88	A
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	1906031	549.59	ug/L	89	A
108)	Cyclohexanone	42	14.914	14.914	0.922	570053	2491.01	ug/L	96	
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	1618536	541.25	ug/L	89	A
110)	Pentachloroethane	167	15.768	15.768	0.974	2708656	496.86	ug/L	95	
111)	Benzyl chloride	91	16.325	16.325	1.009	7721571	477.35	ug/L	98	
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	3142811	543.95	ug/L	91	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C222.D
Acq On : 06 Sep 2011 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM110906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 10:21:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C302.D
Acq On : 07 Sep 2011 09:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 10:19:52 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1142724	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	885840	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	497817	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	0d	0.00	ug/L	
43) Toluene-d8	98	12.222	12.222	0.889	0d	0.00	ug/L	
61) Bromofluorobenzene	95	14.949	14.949	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.350	5.350	0.505	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		6.874	6.874	0.649	0m	N.D.	d	
9) Acetone		7.265	7.265	0.686	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.858	7.870	0.742	0m	N.D.	d	
16) tert-Butyl methyl ether		8.143	8.166	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.281	9.281	0.877	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.281	9.340	0.877	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.336	10.313	0.976	0m	N.D.	d	
31) Benzene		10.325	10.336	0.975	0m	N.D.	d	
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		10.668	10.657	1.008	0m	N.D.	d	
34) Trichloroethylene		10.965	10.965	1.036	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C302.D
Acq On : 07 Sep 2011 09:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 10:19:52 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.850	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		13.835	13.835	1.006	0m	N.D.	d	
54) Ethylbenzene		13.846	13.846	1.007	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		0.000	14.380	0.000	0	N.D.		
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.748	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		0.000	15.163	0.000	0	N.D.		
66) 1,3,5-Trimethylbenzene		0.000	15.317	0.000	0	N.D.		
67) 2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		0.000	15.922	0.000	0	N.D.		
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.685	18.673	1.155	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.		
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.467	19.456	1.203	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.678	4.678	0.442	1052118	191.77	ug/L	98
84) 2-Chloro-1,1,1-trifluo...	118	5.504	5.504	0.520	1750088	171.08	ug/L #	95
85) Acrolein	56	7.087	7.087	0.670	475642	358.89	ug/L	80
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	1113870	344.17	ug/L	95
87) Isopropyl Alcohol	45	7.336	7.348	0.693	2434535	3681.37	ug/L	91
88) Allyl chloride	41	7.716	7.716	0.729	5751670	333.86	ug/L	96
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	3655763	3601.73	ug/L	97
90) Acrylonitrile	53	8.131	8.131	0.768	856236	291.16	ug/L	98
91) Isopropyl ether	45	8.664	8.664	0.819	3147797	82.04	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	954319	72.08	ug/L	92
93) Ethyl tert-butyl ether	59	9.079	9.080	0.858	2656077	81.30	ug/L	96
94) Ethyl acetate	43	9.281	9.281	0.877	2203517	286.73	ug/L	97
95) Propionitrile	54	9.364	9.364	0.885	317473	289.45	ug/L	99
96) Methacrylonitrile	41	9.542	9.542	0.901	1477273	294.36	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C302.D
Acq On : 07 Sep 2011 09:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 10:19:52 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

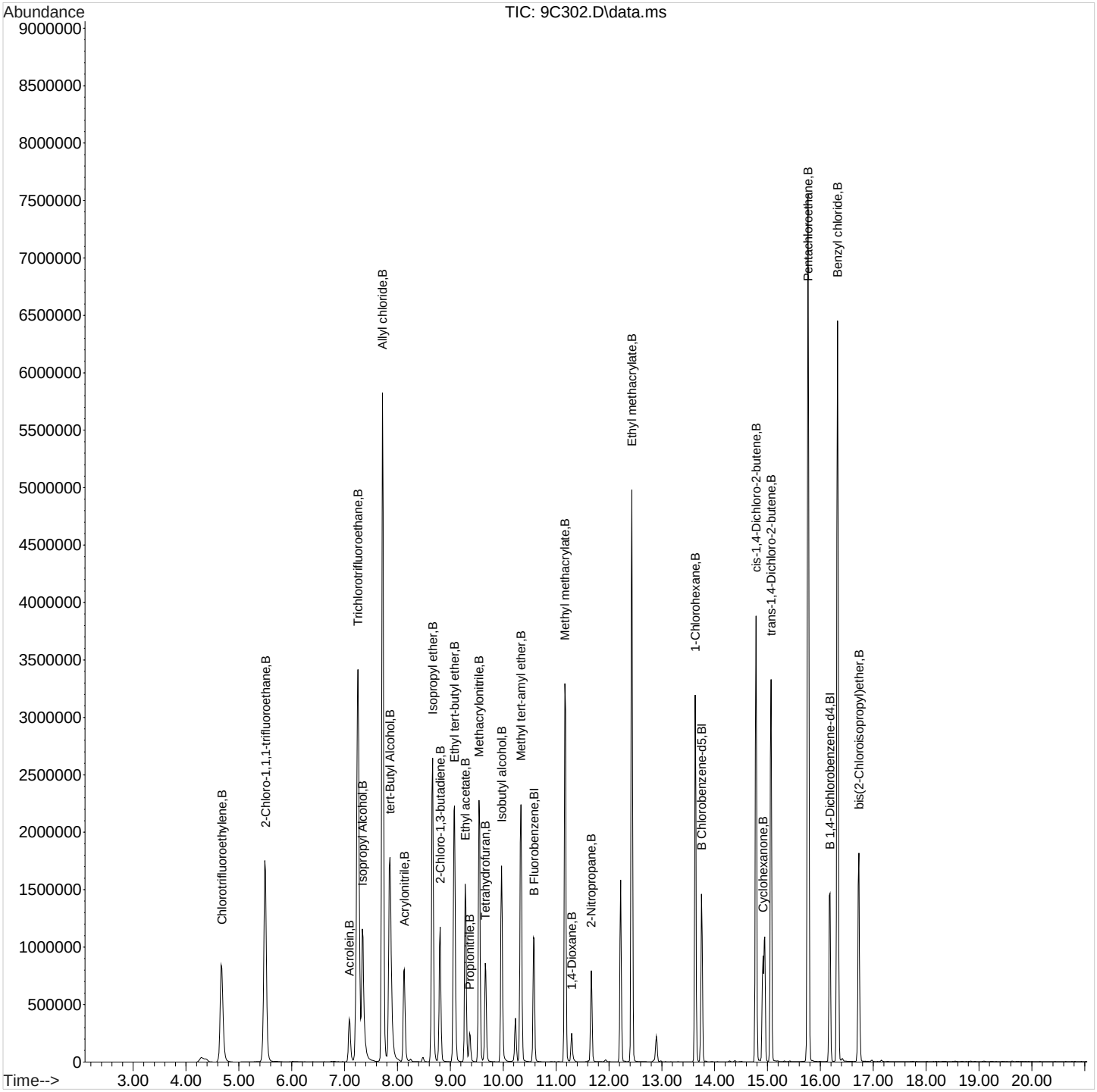
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.660	9.661	0.913	731799	278.41	ug/L	92
98)	Isobutyl alcohol	41	9.969	9.969	0.942	907260	2833.50	ug/L	96
99)	Methyl tert-amyl ether	73	10.336	10.337	0.976	1936042	78.95	ug/L	96
100)	Methyl methacrylate	69	11.166	11.178	1.055	1290741	292.16	ug/L	83
101)	1,4-Dioxane	88	11.297	11.297	1.067	188537	3033.07	ug/L	89
102)	2-Nitropropane	43	11.665	11.665	1.102	659782	306.63	ug/L	97
104)	Ethyl methacrylate	69	12.435	12.435	0.904	2671390	294.59	ug/L	90
106)	1-Chlorohexane	55	13.633	13.633	0.842	905519	82.34	ug/L	88
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	1074558	318.48	ug/L	90
108)	Cyclohexanone	42	14.914	14.914	0.922	328544	1475.67	ug/L	96
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	915124	314.55	ug/L	90
110)	Pentachloroethane	167	15.768	15.768	0.974	1826689	344.42	ug/L	94
111)	Benzyl chloride	91	16.325	16.325	1.009	5593706	355.44	ug/L	97
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1620870	288.35	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C302.D
Acq On : 07 Sep 2011 09:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5ml n/a MIX[B]0830-07+0830-15+0729-07B
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 10:19:52 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I **Injection Date:** 07-SEP-11 11:14

Data File: 090711V9\9C305ICV.D **Init. Cal. Date(s)** 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110907-03 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD **Method Update:** 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2641	0.26241		.01		-0.63991	30		Averaged	
S	Toluene-d8	1.2923	1.29042		.01		-0.14548	30		Averaged	
S	Bromofluorobenzene	0.9619	0.92047		.01		-4.3071	30		Averaged	
	Dichlorodifluoromethane	0.3373	0.2573		.01		-23.71776	30		Averaged	
	Chloromethane	0.5455	0.53405		.1		-2.09899	30		Averaged	spcc
	Vinyl chloride	0.4686	0.44469		.01		-5.10243	20		Averaged	ccc
	Bromomethane	0.2727	0.27485		.01		0.78841	30		Averaged	
	Chloroethane	0.3177	0.32796		.01		3.22946	30		Averaged	
	Trichlorofluoromethane	0.5365	0.53515		.01		-0.25163	30		Averaged	
	Ethyl ether	0.3287	0.31854		.01		-3.09096	30		Averaged	
	Acetone	250	275.24	250			10.096	40		Linear	
	1,1-Dichloroethylene	0.6734	0.65825		.01		-2.24978	20		Averaged	ccc
	Iodomethane	0.5531	0.58311		.01		5.42578	30		Averaged	
	Acetonitrile	0.0578	0.05437		.01		-5.93426	30		Averaged	
	Methyl acetate	0.3097	0.3051		.01		-1.48531	40		Averaged	
	Carbon disulfide	1.2441	1.37397		.01		10.43887	30		Averaged	
	Methylene chloride	0.4176	0.38974		.01		-6.67146	30		Averaged	
	tert-Butyl methyl ether	1.037	1.02758		.01		-0.90839	30		Averaged	
	trans-1,2-Dichloroethylene	0.6409	0.63868		.01		-0.34639	30		Averaged	
	Vinyl acetate	0.6994	0.77713		.01		11.11381	40		Averaged	
	1,1-Dichloroethane	0.747	0.76015		.1		1.76037	30		Averaged	spcc
	2-Butanone	0.2674	0.27943		.01		4.49888	40		Averaged	
	cis-1,2-Dichloroethylene	0.7034	0.71373		.01		1.46858	30		Averaged	
	2,2-Dichloropropane	0.5858	0.61807		.01		5.50871	30		Averaged	
	Bromochloromethane	0.1583	0.16125		.01		1.86355	30		Averaged	
	Chloroform	0.6085	0.62448		.01		2.62613	20		Averaged	ccc
	1,1,1-Trichloroethane	0.5785	0.59167		.01		2.27658	30		Averaged	
	Cyclohexane	0.9512	0.96439		.01		1.38667	30		Averaged	
	1,1-Dichloropropene	0.4925	0.50578		.01		2.69645	30		Averaged	
	Carbon tetrachloride	0.4668	0.49496		.01		6.03256	30		Averaged	
	1,2-Dichloroethane	0.492	0.48851		.01		-0.70935	30		Averaged	
	Benzene	1.4662	1.45059		.01		-1.06466	30		Averaged	
	Cyclohexene	0.8143	0.80178		.01		-1.53752	30		Averaged	
	n-Butyl alcohol	0.009	0.0091		.01		1.11111	40		Averaged	
	Trichloroethylene	0.3602	0.35663		.01		-0.99112	30		Averaged	
	1,2-Dichloropropane	0.4202	0.43023		.01		2.38696	20		Averaged	ccc
	Methylcyclohexane	0.7179	0.73043		.01		1.74537	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 07-SEP-11 11:14

Data File: 090711V9\9C305ICV.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110907-03 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1862	0.18494		.01		-0.67669	30		Averaged	
Bromodichloromethane	0.4331	0.45482		.01		5.01501	30		Averaged	
2-Chloroethylvinyl ether	0.2186	0.22324		.01		2.1226	30		Averaged	
cis-1,3-Dichloropropylene	0.5614	0.59268		.01		5.57178	30		Averaged	
4-Methyl-2-pentanone	0.1887	0.19652		.01		4.14414	40		Averaged	
Toluene	1.953	1.95557		.01		0.13159	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.6019	0.6334		.01		5.23343	30		Averaged	
1,1,2-Trichloroethane	0.3089	0.29714		.01		-3.80706	30		Averaged	
2-Hexanone	0.4801	0.54179		.01		12.84941	40		Averaged	
1,3-Dichloropropane	0.6229	0.61317		.01		-1.56205	30		Averaged	
Tetrachloroethylene	0.35	0.3517		.01		0.48571	30		Averaged	
Dibromochloromethane	0.3712	0.38455		.01		3.59644	30		Averaged	
1,2-Dibromoethane	0.3504	0.34958		.01		-0.23402	30		Averaged	
Chlorobenzene	1.2852	1.30148		.3		1.26673	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4086	0.42371		.01		3.69799	30		Averaged	
Ethylbenzene	2.2417	2.27538		.01		1.50243	20		Averaged	ccc
m,p-Xylenes	0.8563	0.87344		.01		2.00163	30		Averaged	
o-Xylene	0.8584	0.86629		.01		0.91915	30		Averaged	
Styrene	1.4119	1.45307		.01		2.91593	30		Averaged	
Bromoform	50	46.94	50			-6.12	30		Linear	spcc
Isopropylbenzene	4.2493	4.30668		.01		1.35034	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9234	0.87016		.3		-5.76565	30		Averaged	spcc
1,2,3-Trichloropropane	0.2363	0.22144		.01		-6.28862	30		Averaged	
Bromobenzene	0.9388	0.92051		.01		-1.94823	30		Averaged	
n-Propylbenzene	5.0612	5.10257		.01		0.8174	30		Averaged	
1,3,5-Trimethylbenzene	3.6089	3.62891		.01		0.55446	30		Averaged	
2-Chlorotoluene	0.9618	0.93125		.01		-3.17634	30		Averaged	
4-Chlorotoluene	3.1775	3.14862		.01		-0.90889	30		Averaged	
tert-Butylbenzene	0.7105	0.72484		.01		2.0183	30		Averaged	
1,2,4-Trimethylbenzene	3.7632	3.80729		.01		1.17161	30		Averaged	
sec-Butylbenzene	5.0875	5.19781		.01		2.16826	30		Averaged	
4-Isopropyltoluene	4.0488	4.10292		.01		1.33669	30		Averaged	
1,3-Dichlorobenzene	1.931	1.90912		.01		-1.13309	30		Averaged	
1,4-Dichlorobenzene	1.9861	1.91676		.01		-3.49126	30		Averaged	
n-Butylbenzene	4.3475	4.46485		.01		2.69925	30		Averaged	
1,2-Dichlorobenzene	1.879	1.85988		.01		-1.01756	30		Averaged	
1,2-Dibromo-3-chloropropane	50	43.8	50			-12.4	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 07-SEP-11 11:14

Data File: 090711V9\9C305ICV.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110907-03 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.5259	1.54761		.01		1.42277	30		Averaged
Hexachlorobutadiene	0.9818	0.98938		.01		0.77205	30		Averaged
Naphthalene	3.1887	3.11298		.01		-2.37464	30		Averaged
1,2,3-Trichlorobenzene	1.3266	1.30662		.01		-1.50611	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C305ICV.D
Acq On : 07 Sep 2011 11:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0817-01E+0906-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 07 12:20:11 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	1102550	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	889335	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	501845	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1102550	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	889335	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	501845	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	289324	49.69	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1147614	49.93	ug/L	0.00
61) Bromofluorobenzene	95	14.950	14.949	0.924	461933	47.85	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	283687	38.14	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	588818	48.95	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	490294	47.45	ug/L	95
5) Bromomethane	94	5.980	5.980	0.565	303041	50.39	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	361590	51.61	ug/L	98
7) Trichlorofluoromethane	101	6.566	6.565	0.620	590033	49.87	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	351209	48.45	ug/L	99
9) Acetone	43	7.265	7.265	0.686	1345491	275.24	ug/L	97
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	725757	48.88	ug/L	96
11) Iodomethane	142	7.538	7.538	0.712	3214553	263.57	ug/L	98
12) Acetonitrile	41	7.645	7.644	0.722	1498635	1176.71	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1681950	246.28	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	7574369	276.09	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	429712	46.66	ug/L	88
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	1132958	49.55	ug/L	94
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	704174	49.83	ug/L	91
18) Vinyl acetate	43	8.641	8.641	0.816	4284136	277.79	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	838104	50.88	ug/L	96
20) 2-Butanone	43	9.281	9.281	0.877	1540432	261.20	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	786927	50.73	ug/L	91
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	681452	52.75	ug/L	98
23) Bromochloromethane	128	9.625	9.625	0.909	177788	50.93	ug/L #	84
24) Chloroform	83	9.649	9.649	0.912	688522	51.31	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	652341	51.14	ug/L	97
26) Cyclohexane	56	10.028	10.028	0.947	1063290	50.69	ug/L	90
27) 1,1-Dichloropropene	75	10.088	10.087	0.953	557652	51.35	ug/L	97
28) Carbon tetrachloride	117	10.123	10.123	0.956	545722	53.01	ug/L	98
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	538606	49.65	ug/L	97
31) Benzene	78	10.337	10.336	0.976	1599353	49.47	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	884000	49.23	ug/L	91
33) n-Butyl alcohol	41	10.657	10.657	1.007	1003179	5057.86	ug/L	98
34) Trichloroethylene	95	10.965	10.965	1.036	393201	49.50	ug/L	98
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	474351	51.19	ug/L	99
36) Methylcyclohexane	83	11.214	11.214	1.059	805334	50.87	ug/L	87
37) Dibromomethane	93	11.356	11.356	1.073	203902	49.67	ug/L	96
38) Bromodichloromethane	83	11.463	11.463	1.083	501465	52.50	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.677	11.676	1.103	1230685	255.26	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C305ICV.D
Acq On : 07 Sep 2011 11:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0817-01E+0906-01
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 07 12:20:11 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	653457	52.79	ug/L		97
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	873861	260.31	ug/L		93
44) Toluene	91	12.293	12.293	0.894	1739154	50.07	ug/L		96
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	563307	52.62	ug/L		97
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	264255	48.10	ug/L		99
47) 2-Hexanone	43	12.839	12.839	0.934	2409149	282.14	ug/L		98
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	545310	49.22	ug/L	#	69
49) Tetrachloroethylene	164	12.886	12.886	0.937	312775	50.25	ug/L		96
50) Dibromochloromethane	129	13.135	13.135	0.955	341995	51.80	ug/L		98
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	310898	49.88	ug/L		98
52) Chlorobenzene	112	13.787	13.787	1.003	1157452	50.64	ug/L		99
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	376818	51.85	ug/L		98
54) Ethylbenzene	91	13.847	13.846	1.007	2023579	50.75	ug/L		96
55) m,p-Xylenes	106	13.953	13.953	1.015	1553554	102.00	ug/L		88
56) o-Xylene	106	14.380	14.380	1.046	770421	50.46	ug/L		87
57) Styrene	104	14.392	14.392	1.047	1292263	51.46	ug/L		99
59) Bromoform	173	14.665	14.665	0.906	219017	46.94	ug/L		97
60) Isopropylbenzene	105	14.736	14.736	0.911	2161287	50.68	ug/L		95
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	436683	47.12	ug/L		98
63) 1,2,3-Trichloropropane	110	15.116	15.115	0.934	111128	46.85	ug/L	#	70
64) Bromobenzene	156	15.163	15.163	0.937	461951	49.02	ug/L		86
65) n-Propylbenzene	91	15.163	15.163	0.937	2560698	50.41	ug/L		96
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1821148	50.28	ug/L		95
67) 2-Chlorotoluene	126	15.329	15.329	0.947	467345	48.41	ug/L	#	74
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1580121	49.55	ug/L		94
69) tert-Butylbenzene	134	15.685	15.685	0.969	363757	51.01	ug/L	#	77
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1910668	50.59	ug/L		94
71) sec-Butylbenzene	105	15.922	15.922	0.984	2608494	51.08	ug/L		94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	2059028	50.67	ug/L		96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	958082	49.43	ug/L		95
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	961915	48.25	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	2240665	51.35	ug/L		94
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	933371	49.49	ug/L		95
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	85886	43.80	ug/L		93
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	776662	50.71	ug/L		97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	496514	50.38	ug/L		98
80) Naphthalene	128	19.088	19.088	1.180	1562231	48.81	ug/L		99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	655721	49.25	ug/L		98
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		7.028	7.087	0.664	0m	N.D.	d		
86) Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d		
87) Isopropyl Alcohol		7.289	7.348	0.689	0m	N.D.	d		
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		7.858	7.858	0.742	0m	N.D.	d		
90) Acrylonitrile		8.155	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.			
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d		
95) Propionitrile		9.364	9.364	0.885	0m	N.D.	d		
96) Methacrylonitrile		9.554	9.542	0.903	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C305ICV.D
Acq On : 07 Sep 2011 11:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0817-01E+0906-01
ALS Vial : 5 Sample Multiplier: 1

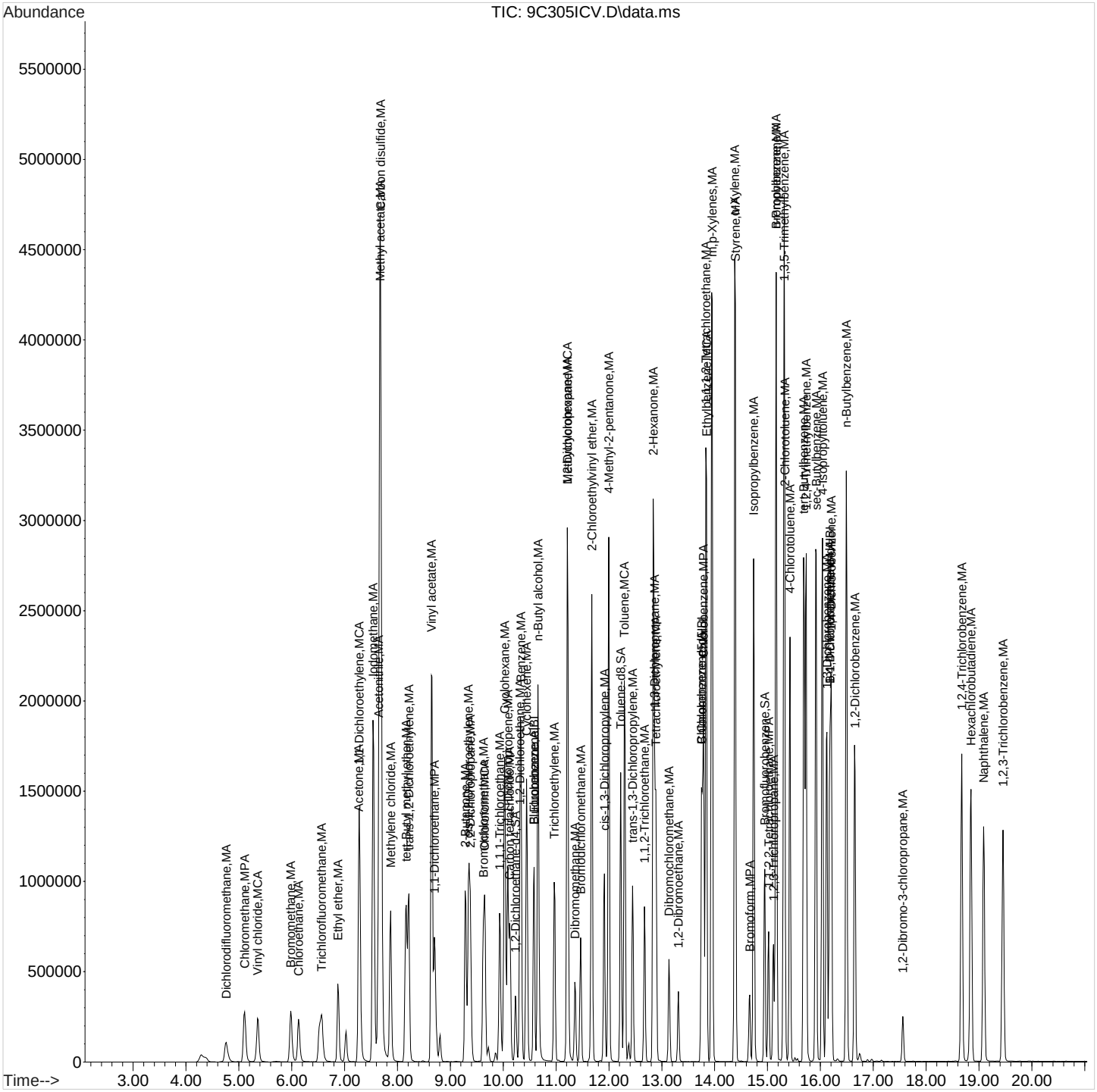
Quant Time: Sep 07 12:20:11 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.337	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.368	11.297	1.074	0m	N.D.	d
102)	2-Nitropropane		11.677	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		12.435	12.435	0.904	0m	N.D.	d
106)	1-Chlorohexane		13.633	13.633	0.842	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.914	14.914	0.922	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.068	15.068	0.931	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.325	16.325	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.728	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C305ICV.D
Acq On    : 07 Sep 2011  11:14
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110907-03|ICV|1|VOA|1|VOA8260BL|
Misc      : GEL 5ml n/a MIX[A] 0817-01E+0906-01
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Sep 07 12:20:11 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I

Injection Date: 07-SEP-11 11:42

Data File: 090711V9\9C306ICV.D

Init. Cal. Date(s) 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110907-04

Method: 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Method Update: 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2641	0.25426		.01		-3.72586	30		Averaged
S	Toluene-d8	1.2923	1.251		.01		-3.19585	30		Averaged
S	Bromofluorobenzene	0.9619	0.97134		.01		0.98139	30		Averaged
	Chlorotrifluoroethylene	0.2401	0.16595		.01		-30.88297	30	*	Averaged
	2-Chloro-1,1,1-trifluoroethane	0.4476	0.45791		.01		2.3034	30		Averaged
	Acrolein	0.058	0.06074		.01		4.72414	30		Averaged
	Trichlorotrifluoroethane	0.1416	0.14774		.01		4.33616	30		Averaged
	Isopropyl Alcohol	0.0289	0.02916		.01		0.89965	40		Averaged
	Allyl chloride	0.7538	0.66699		.01		-11.51632	30		Averaged
	tert-Butyl Alcohol	0.0444	0.04538		.01		2.20721	40		Averaged
	Acrylonitrile	0.1287	0.12184		.01		-5.33023	30		Averaged
	Isopropyl ether	1.6789	1.68119		.01		0.1364	30		Averaged
	2-Chloro-1,3-butadiene	0.5793	0.48504		.01		-16.27136	30		Averaged
	Ethyl tert-butyl ether	1.4295	1.43614		.01		0.4645	30		Averaged
	Ethyl acetate	0.3363	0.34383		.01		2.23907	40		Averaged
	Propionitrile	0.048	0.04822		.01		0.45833	30		Averaged
	Methacrylonitrile	0.2196	0.21216		.01		-3.38798	30		Averaged
	Tetrahydrofuran	0.115	0.11087		.01		-3.5913	30		Averaged
	Isobutyl alcohol	0.014	0.01434		.01		2.42857	40		Averaged
	Methyl tert-amyl ether	1.073	1.07552		.01		0.23486	30		Averaged
	Methyl methacrylate	0.1933	0.19898		.01		2.93844	30		Averaged
	1,4-Dioxane	0.0027	0.00269		.01		-0.37037	40		Averaged
	2-Nitropropane	0.0941	0.10419		.01		10.72264	30		Averaged
	Ethyl methacrylate	0.5118	0.48595		.01		-5.0508	30		Averaged
	1-Chlorohexane	1.1045	1.15266		.01		4.36034	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3389	0.35914		.01		5.97226	30		Averaged
	Cyclohexanone	0.0224	0.02189		.01		-2.27679	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2922	0.32878		.01		12.51882	30		Averaged
	Pentachloroethane	0.5327	0.55069		.01		3.37714	30		Averaged
	Benzyl chloride	1.5806	1.70435		.01		7.82931	30		Averaged
	bis(2-Chloroisopropyl)ether	0.5646	0.56726		.01		0.47113	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C306ICV.D
Acq On : 07 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-04|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0830-08A+0830-16A+0829-01A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 12:22:15 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.586	10.585	1.000	1131140	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	949256	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	513972	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1131140	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	949256	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	513972	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	287599	48.14	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1187517	48.40	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	499242	50.49	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.664	4.762	0.441	0m	N.D.	d	
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		6.115	6.127	0.578	0m	N.D.	d	
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.265	7.265	0.686	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		7.550	7.538	0.713	0m	N.D.	d	
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.155	8.166	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.202	8.214	0.775	0m	N.D.	d	
18) Vinyl acetate		8.664	8.641	0.819	0m	N.D.	d	
19) 1,1-Dichloroethane		8.700	8.700	0.822	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		9.388	9.376	0.887	0m	N.D.	d	
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		9.945	9.933	0.940	0m	N.D.	d	
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		10.087	10.087	0.953	0m	N.D.	d	
28) Carbon tetrachloride		10.123	10.123	0.956	0m	N.D.	d	
30) 1,2-Dichloroethane		10.336	10.313	0.976	0m	N.D.	d	
31) Benzene		10.336	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.431	10.443	0.985	0m	N.D.	d	
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		10.965	10.965	1.036	0m	N.D.	d	
35) 1,2-Dichloropropane		11.214	11.214	1.059	0m	N.D.	d	
36) Methylcyclohexane		11.167	11.214	1.055	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		11.463	11.463	1.083	0m	N.D.	d	
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C306ICV.D
Acq On : 07 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-04|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0830-08A+0830-16A+0829-01A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 12:22:15 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		11.914	11.914	1.125	0m	N.D.	d	
42) 4-Methyl-2-pentanone		11.997	11.997	0.872	0m	N.D.	d	
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.898	12.862	0.938	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		13.147	13.135	0.956	0m	N.D.	d	
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		13.847	13.835	1.007	0m	N.D.	d	
54) Ethylbenzene		13.835	13.846	1.006	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.380	14.380	1.046	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		16.491	16.491	1.019	0m	N.D.	d	
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		17.570	17.558	1.086	0m	N.D.	d	
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.088	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.678	4.678	0.442	563138	103.70	ug/L	98
84) 2-Chloro-1,1,1-trifluo...	118	5.504	5.504	0.520	1553896	153.46	ug/L #	95
85) Acrolein	56	7.099	7.087	0.671	343523	261.85	ug/L	78
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	835556	260.82	ug/L	95
87) Isopropyl Alcohol	45	7.348	7.348	0.694	1649026	2519.10	ug/L	92
88) Allyl chloride	41	7.716	7.716	0.729	3772284	221.20	ug/L	96
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	2566463	2554.42	ug/L	97
90) Acrylonitrile	53	8.131	8.131	0.768	689097	236.72	ug/L	99
91) Isopropyl ether	45	8.664	8.664	0.819	1901664	50.07	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	548647	41.86	ug/L	92
93) Ethyl tert-butyl ether	59	9.079	9.080	0.858	1624477	50.23	ug/L	96
94) Ethyl acetate	43	9.293	9.281	0.878	1944591	255.63	ug/L	97
95) Propionitrile	54	9.376	9.364	0.886	272690	251.17	ug/L	100
96) Methacrylonitrile	41	9.554	9.542	0.903	1199897	241.54	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C306ICV.D
Acq On : 07 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110907-04|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0830-08A+0830-16A+0829-01A
ALS Vial : 6 Sample Multiplier: 1

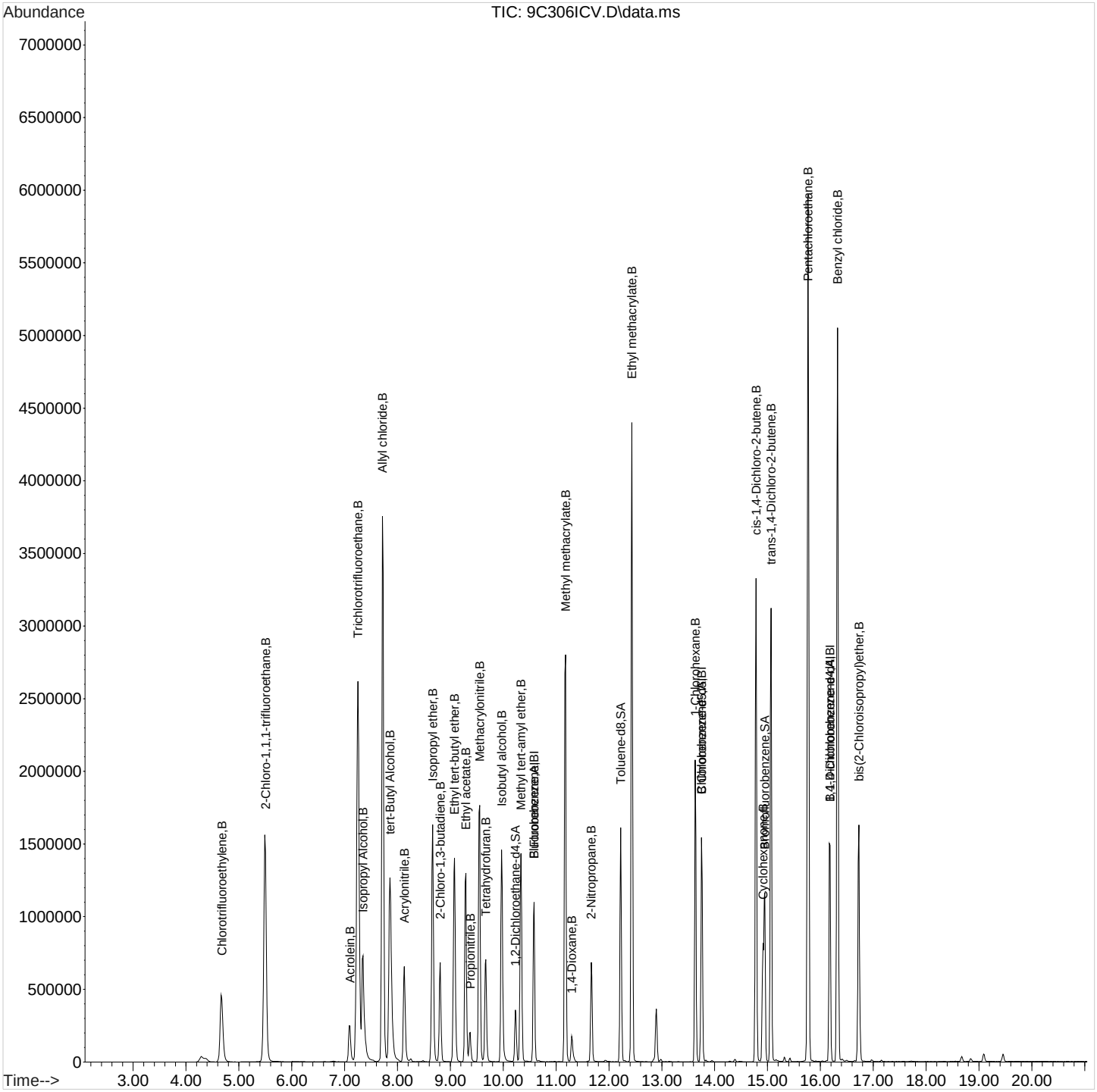
Quant Time: Sep 07 12:22:15 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97) Tetrahydrofuran	42	9.672	9.661	0.914	627071	241.01	ug/L	93
98) Isobutyl alcohol	41	9.969	9.969	0.942	810919	2558.55	ug/L	96
99) Methyl tert-amyl ether	73	10.336	10.337	0.976	1216565	50.12	ug/L	96
100) Methyl methacrylate	69	11.178	11.178	1.056	1125352	257.34	ug/L	84
101) 1,4-Dioxane	88	11.297	11.297	1.067	152073	2471.51	ug/L	90
102) 2-Nitropropane	43	11.665	11.665	1.102	589252	276.66	ug/L	97
104) Ethyl methacrylate	69	12.435	12.435	0.904	2306457	237.36	ug/L	90
106) 1-Chlorohexane	55	13.633	13.633	0.842	592433	52.18	ug/L	89
107) cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	922946	264.94	ug/L	89
108) Cyclohexanone	42	14.914	14.914	0.922	281261	1223.59	ug/L	96
109) trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	844909	281.29	ug/L	90
110) Pentachloroethane	167	15.768	15.768	0.974	1415200	258.44	ug/L	95
111) Benzyl chloride	91	16.325	16.325	1.009	4379946	269.57	ug/L	96
112) bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1457769	251.19	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C306ICV.D
Acq On    : 07 Sep 2011  11:42
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110907-04|ICV|1|VOA|1|VOA8260BL|
Misc      : GEL 5ml n/a MIX[B]0830-08A+0830-16A+0829-01A
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Sep 07 12:22:15 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I **Injection Date:** 21-SEP-11 10:19

Data File: 092111V9\9E303.D **Init. Cal. Date(s)** 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110921-02 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD **Method Update:** 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2641	0.27164		.01		2.85498	30		Averaged	
S	Toluene-d8	1.2923	1.36813		.01		5.86783	30		Averaged	
S	Bromofluorobenzene	0.9619	0.95511		.01		-0.70589	30		Averaged	
	Dichlorodifluoromethane	0.3373	0.34293		.01		1.66914	30		Averaged	
	Chloromethane	0.5455	0.68777		.1		26.08066	30		Averaged	spcc
	Vinyl chloride	0.4686	0.53894		.01		15.01067	20		Averaged	ccc
	Bromomethane	0.2727	0.29786		.01		9.22626	30		Averaged	
	Chloroethane	0.3177	0.3396		.01		6.8933	30		Averaged	
	Trichlorofluoromethane	0.5365	0.61312		.01		14.28145	30		Averaged	
	Ethyl ether	0.3287	0.29659		.01		-9.76879	30		Averaged	
	1,1-Dichloroethylene	0.6734	0.68735		.01		2.07158	20		Averaged	ccc
	Acetone	250	177.52	250			-28.992	40		Linear	
	Iodomethane	0.5531	0.5278		.01		-4.57422	30		Averaged	
	Acetonitrile	0.0578	0.05243		.01		-9.29066	30		Averaged	
	Methyl acetate	0.3097	0.26449		.01		-14.598	40		Averaged	
	Carbon disulfide	1.2441	1.25411		.01		0.8046	30		Averaged	
	Methylene chloride	0.4176	0.38279		.01		-8.33573	30		Averaged	
	tert-Butyl methyl ether	1.037	0.98868		.01		-4.65959	30		Averaged	
	trans-1,2-Dichloroethylene	0.6409	0.529		.01		-17.45982	30		Averaged	
	Vinyl acetate	0.6994	0.83938		.01		20.0143	40		Averaged	
	1,1-Dichloroethane	0.747	0.77021		.1		3.1071	30		Averaged	spcc
	2-Butanone	0.2674	0.17767		.01		-33.55647	40		Averaged	
	cis-1,2-Dichloroethylene	0.7034	0.83719		.01		19.02047	30		Averaged	
	2,2-Dichloropropane	0.5858	0.63796		.01		8.90406	30		Averaged	
	Bromochloromethane	0.1583	0.15291		.01		-3.40493	30		Averaged	
	Chloroform	0.6085	0.62468		.01		2.659	20		Averaged	ccc
	1,1,1-Trichloroethane	0.5785	0.59521		.01		2.8885	30		Averaged	
	Cyclohexane	0.9512	0.93322		.01		-1.89024	30		Averaged	
	1,1-Dichloropropene	0.4925	0.50884		.01		3.31777	30		Averaged	
	Carbon tetrachloride	0.4668	0.49285		.01		5.58055	30		Averaged	
	1,2-Dichloroethane	0.492	0.48016		.01		-2.4065	30		Averaged	
	Benzene	1.4662	1.41833		.01		-3.2649	30		Averaged	
	Cyclohexene	0.8143	0.8184		.01		0.5035	30		Averaged	
	n-Butyl alcohol	0.009	0.00851		.01		-5.44444	40		Averaged	
	Trichloroethylene	0.3602	0.34943		.01		-2.99001	30		Averaged	
	1,2-Dichloropropane	0.4202	0.41813		.01		-0.49262	20		Averaged	ccc
	Methylcyclohexane	0.7179	0.7296		.01		1.62975	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 21-SEP-11 10:19

Data File: 092111V9\9E303.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110921-02 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1862	0.1766		.01		-5.15575	30		Averaged	
Bromodichloromethane	0.4331	0.43469		.01		0.36712	30		Averaged	
2-Chloroethylvinyl ether	0.2186	0.18283		.01		-16.36322	30		Averaged	
cis-1,3-Dichloropropylene	0.5614	0.57079		.01		1.6726	30		Averaged	
4-Methyl-2-pentanone	0.1887	0.18653		.01		-1.14997	40		Averaged	
Toluene	1.953	2.07578		.01		6.28674	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.6019	0.67149		.01		11.56172	30		Averaged	
1,1,2-Trichloroethane	0.3089	0.31694		.01		2.60278	30		Averaged	
2-Hexanone	0.4801	0.4014		.01		-16.39242	40		Averaged	
1,3-Dichloropropane	0.6229	0.65858		.01		5.72805	30		Averaged	
Tetrachloroethylene	0.35	0.36823		.01		5.20857	30		Averaged	
Dibromochloromethane	0.3712	0.38607		.01		4.00593	30		Averaged	
1,2-Dibromoethane	0.3504	0.35663		.01		1.77797	30		Averaged	
Chlorobenzene	1.2852	1.34096		.3		4.33862	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4086	0.44219		.01		8.22075	30		Averaged	
Ethylbenzene	2.2417	2.44223		.01		8.94544	20		Averaged	ccc
m,p-Xylenes	0.8563	0.91829		.01		7.23929	30		Averaged	
o-Xylene	0.8584	0.94201		.01		9.74021	30		Averaged	
Styrene	1.4119	1.54227		.01		9.23366	30		Averaged	
Bromoform	50	49.46	50			-1.08	30		Linear	spcc
Isopropylbenzene	4.2493	4.89341		.01		15.15803	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9234	0.95981		.3		3.94304	30		Averaged	spcc
1,2,3-Trichloropropane	0.2363	0.24802		.01		4.9598	30		Averaged	
Bromobenzene	0.9388	1.01129		.01		7.72156	30		Averaged	
n-Propylbenzene	5.0612	5.6711		.01		12.0505	30		Averaged	
1,3,5-Trimethylbenzene	3.6089	4.15968		.01		15.26171	30		Averaged	
2-Chlorotoluene	0.9618	1.0888		.01		13.20441	30		Averaged	
4-Chlorotoluene	3.1775	3.40468		.01		7.14965	30		Averaged	
tert-Butylbenzene	0.7105	0.80359		.01		13.10204	30		Averaged	
1,2,4-Trimethylbenzene	3.7632	4.18957		.01		11.32999	30		Averaged	
sec-Butylbenzene	5.0875	5.71096		.01		12.25474	30		Averaged	
4-Isopropyltoluene	4.0488	4.64459		.01		14.71522	30		Averaged	
1,3-Dichlorobenzene	1.931	2.03412		.01		5.34024	30		Averaged	
1,4-Dichlorobenzene	1.9861	2.02185		.01		1.80001	30		Averaged	
n-Butylbenzene	4.3475	4.95794		.01		14.04117	30		Averaged	
1,2-Dichlorobenzene	1.879	1.94501		.01		3.51304	30		Averaged	
1,2-Dibromo-3-chloropropane	50	44.59	50			-10.82	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 21-SEP-11 10:19

Data File: 092111V9\9E303.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110921-02 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.5259	1.65906		.01		8.72665	30		Averaged
Hexachlorobutadiene	0.9818	1.01573		.01		3.4559	30		Averaged
Naphthalene	3.1887	3.30855		.01		3.75859	30		Averaged
1,2,3-Trichlorobenzene	1.3266	1.44697		.01		9.07357	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-02|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1140288	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	833737	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	442648	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1140288	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	833737	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	442648	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	309749	51.44	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1140660	52.94	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	422777	49.65	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	391036	50.84	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	784259	63.04	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	614547	57.51	ug/L	96
5) Bromomethane	94	5.980	5.980	0.565	339649	54.61	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	387237	53.45	ug/L	99
7) Trichlorofluoromethane	101	6.554	6.565	0.619	699131	57.14	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	338195	45.11	ug/L	99
9) Acetone	43	7.277	7.265	0.687	902834	177.52	ug/L	100
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	783781	51.04	ug/L	94
11) Iodomethane	142	7.538	7.538	0.712	3009206	238.56	ug/L	97
12) Acetonitrile	41	7.645	7.644	0.722	1494739	1134.81	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1507949	213.50	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	7150226	252.01	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	436495	45.83	ug/L	88
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	1127381	47.67	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	603209	41.27	ug/L	89
18) Vinyl acetate	43	8.641	8.641	0.816	4785654	300.04	ug/L	95
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	878257	51.55	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.877	1012960	166.08	ug/L	96
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	954642	59.51	ug/L	89
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	727454	54.45	ug/L	93
23) Bromochloromethane	128	9.625	9.625	0.909	174367	48.30	ug/L #	79
24) Chloroform	83	9.649	9.649	0.911	712312	51.33	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	678708	51.45	ug/L	96
26) Cyclohexane	56	10.028	10.028	0.947	1064136	49.05	ug/L	91
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	580225	51.66	ug/L	94
28) Carbon tetrachloride	117	10.123	10.123	0.956	561996	52.79	ug/L	99
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	547520	48.80	ug/L	98
31) Benzene	78	10.336	10.336	0.976	1617305	48.37	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	933210	50.25	ug/L	92
33) n-Butyl alcohol	41	10.657	10.657	1.007	970663	4731.96	ug/L	97
34) Trichloroethylene	95	10.965	10.965	1.036	398456	48.50	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	476792	49.75	ug/L	97
36) Methylcyclohexane	83	11.214	11.214	1.059	831953	50.81	ug/L	87
37) Dibromomethane	93	11.356	11.356	1.073	201371	47.43	ug/L	94
38) Bromodichloromethane	83	11.463	11.463	1.083	495673	50.18	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	1042407	209.05	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-02|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	650864	50.84	ug/L	95
42)	4-Methyl-2-pentanone	58	11.997	11.997	0.872	777584	247.08	ug/L	90
44)	Toluene	91	12.293	12.293	0.894	1730655	53.14	ug/L	96
45)	trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	559850	55.79	ug/L	95
46)	1,1,2-Trichloroethane	83	12.673	12.672	0.922	264241	51.31	ug/L	98
47)	2-Hexanone	43	12.839	12.839	0.934	1673309	209.03	ug/L	97
48)	1,3-Dichloropropane	76	12.862	12.862	0.935	549079	52.86	ug/L	85
49)	Tetrachloroethylene	164	12.886	12.886	0.937	307011	52.61	ug/L	93
50)	Dibromochloromethane	129	13.135	13.135	0.955	321883	52.00	ug/L	99
51)	1,2-Dibromoethane	107	13.313	13.313	0.968	297336	50.88	ug/L	98
52)	Chlorobenzene	112	13.787	13.787	1.003	1118006	52.17	ug/L	98
53)	1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	368673	54.11	ug/L	98
54)	Ethylbenzene	91	13.835	13.846	1.006	2036181	54.47	ug/L	95
55)	m,p-Xylenes	106	13.953	13.953	1.015	1531226	107.24	ug/L	85
56)	o-Xylene	106	14.380	14.380	1.046	785390	54.87	ug/L	86
57)	Styrene	104	14.392	14.392	1.047	1285850	54.62	ug/L	97
59)	Bromoform	173	14.665	14.665	0.906	203628	49.46	ug/L	98
60)	Isopropylbenzene	105	14.736	14.736	0.911	2166060	57.58	ug/L	95
62)	1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	424858	51.97	ug/L	97
63)	1,2,3-Trichloropropane	110	15.115	15.115	0.934	109787	52.48	ug/L #	66
64)	Bromobenzene	156	15.163	15.163	0.937	447647	53.86	ug/L #	83
65)	n-Propylbenzene	91	15.163	15.163	0.937	2510301	56.03	ug/L	95
66)	1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1841274	57.63	ug/L	94
67)	2-Chlorotoluene	126	15.329	15.329	0.947	481954	56.60	ug/L #	74
68)	4-Chlorotoluene	91	15.424	15.424	0.953	1507075	53.57	ug/L	93
69)	tert-Butylbenzene	134	15.685	15.685	0.969	355709	56.55	ug/L #	80
70)	1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1854505	55.66	ug/L	89
71)	sec-Butylbenzene	105	15.922	15.922	0.984	2527946	56.13	ug/L	94
72)	4-Isopropyltoluene	119	16.040	16.040	0.991	2055918	57.36	ug/L	97
73)	1,3-Dichlorobenzene	146	16.123	16.123	0.996	900400	52.67	ug/L	96
74)	1,4-Dichlorobenzene	146	16.206	16.206	1.001	894967	50.90	ug/L	96
75)	n-Butylbenzene	91	16.491	16.491	1.019	2194623	57.02	ug/L	93
76)	1,2-Dichlorobenzene	146	16.645	16.657	1.029	860953	51.76	ug/L	96
77)	1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	77168	44.59	ug/L	90
78)	1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	734378	54.36	ug/L	97
79)	Hexachlorobutadiene	225	18.851	18.851	1.165	449613	51.73	ug/L	98
80)	Naphthalene	128	19.088	19.088	1.180	1464521	51.88	ug/L	99
81)	1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	640500	54.54	ug/L	99
83)	Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85)	Acrolein		7.016	7.087	0.663	0m	N.D.	d	
86)	Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d	
87)	Isopropyl Alcohol		7.301	7.348	0.690	0m	N.D.	d	
88)	Allyl chloride		7.645	7.716	0.722	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.		
90)	Acrylonitrile		8.166	8.131	0.771	0m	N.D.	d	
91)	Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94)	Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d	
95)	Propionitrile		9.388	9.364	0.887	0m	N.D.	d	
96)	Methacrylonitrile		9.566	9.542	0.904	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-02|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

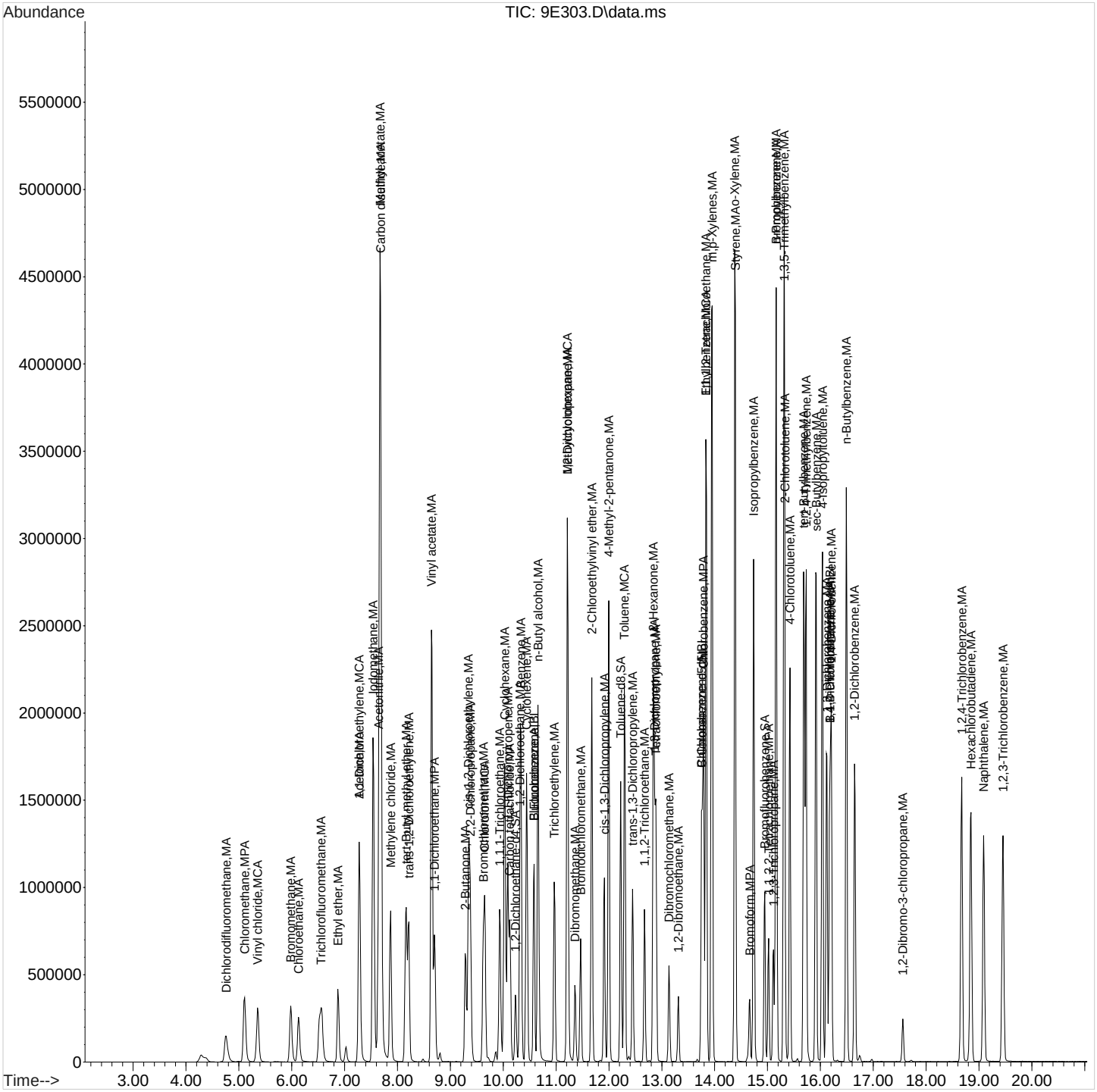
Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.368	11.297	1.074	0m	N.D.	d
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		12.435	12.435	0.904	0m	N.D.	d
106)	1-Chlorohexane		13.681	13.633	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.068	15.068	0.931	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.325	16.325	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.728	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303.D
Acq On    : 21 Sep 2011  10:19
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110921-02|CCV|1|VOA|1|VOA8260BL|
Misc      : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I

Injection Date: 21-SEP-11 11:42

Data File: 092111V9\9E306.D

Init. Cal. Date(s) 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110921-05

Method: 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Method Update: 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2641	0.27113		.01		2.66187	30		Averaged
S	Toluene-d8	1.2923	1.31653		.01		1.87495	30		Averaged
S	Bromofluorobenzene	0.9619	1.02924		.01		7.00073	30		Averaged
	Acrolein	0.058	0.05934		.01		2.31034	30		Averaged
	Trichlorotrifluoroethane	0.1416	0.17177		.01		21.3065	30		Averaged
	Allyl chloride	0.7538	0.76016		.01		0.84373	30		Averaged
	Acrylonitrile	0.1287	0.12175		.01		-5.40016	30		Averaged
	2-Chloro-1,3-butadiene	0.5793	0.54285		.01		-6.29208	30		Averaged
	Ethyl acetate	0.3363	0.35114		.01		4.41273	40		Averaged
	Propionitrile	0.048	0.04964		.01		3.41667	30		Averaged
	Methacrylonitrile	0.2196	0.22017		.01		0.25956	30		Averaged
	Tetrahydrofuran	0.115	0.11761		.01		2.26957	30		Averaged
	Isobutyl alcohol	0.014	0.01497		.01		6.92857	40		Averaged
	Methyl methacrylate	0.1933	0.20898		.01		8.11174	30		Averaged
	1,4-Dioxane	0.0027	0.00277		.01		2.59259	40		Averaged
	2-Nitropropane	0.0941	0.11114		.01		18.1084	30		Averaged
	Ethyl methacrylate	0.5118	0.56598		.01		10.58617	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3389	0.43856		.01		29.4069	30		Averaged
	Cyclohexanone	0.0224	0.0276		.01		23.21429	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2922	0.4034		.01		38.05613	30	*	Averaged
	Pentachloroethane	0.5327	0.6722		.01		26.18735	30		Averaged
	Benzyl chloride	1.5806	1.99493		.01		26.21346	30		Averaged
	bis(2-Chloroisopropyl)ether	0.5646	0.67034		.01		18.7283	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1192587	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	915794	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	461729	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1192587	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	915794	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	461729	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	323352	51.34	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1205667	50.94	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	475229	53.50	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane		5.084	5.112	0.480	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.241	7.265	0.684	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.241	7.277	0.684	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.143	8.166	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.652	8.641	0.817	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.281	9.281	0.877	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.281	9.340	0.877	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.313	10.313	0.974	0m	N.D.	d	
31) Benzene		10.336	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.574	10.443	0.999	0m	N.D.	d	
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		10.977	10.965	1.037	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		
36) Methylcyclohexane		11.166	11.214	1.055	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42)	4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44)	Toluene		12.305	12.293	0.895	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46)	1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47)	2-Hexanone		12.850	12.839	0.934	0m	N.D.	d	
48)	1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49)	Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50)	Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51)	1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52)	Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane		13.835	13.835	1.006	0m	N.D.	d	
54)	Ethylbenzene		13.846	13.846	1.007	0m	N.D.	d	
55)	m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56)	o-Xylene		14.392	14.380	1.047	0m	N.D.	d	
57)	Styrene		14.392	14.392	1.047	0m	N.D.	d	
59)	Bromoform		0.000	14.665	0.000	0	N.D.		
60)	Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63)	1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64)	Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65)	n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67)	2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68)	4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69)	tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70)	1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71)	sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72)	4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73)	1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74)	1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75)	n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76)	1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78)	1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79)	Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80)	Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83)	Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85)	Acrolein	56	7.087	7.087	0.670	353818	255.81	ug/L	78
86)	Trichlorotrifluoroethane	85	7.241	7.253	0.684	1024254	303.25	ug/L	92
87)	Isopropyl Alcohol	45	7.372	7.348	0.696	2137	N.D.		
88)	Allyl chloride	41	7.716	7.716	0.729	4532805	252.11	ug/L	96
89)	tert-Butyl Alcohol	59	7.846	7.858	0.741	218	N.D.		
90)	Acrylonitrile	53	8.119	8.131	0.767	726003	236.55	ug/L	99
91)	Isopropyl ether	45	8.795	8.664	0.831	427	N.D.		
92)	2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	647401	46.85	ug/L	91
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94)	Ethyl acetate	43	9.281	9.281	0.877	2093851	261.07	ug/L	96
95)	Propionitrile	54	9.364	9.364	0.885	295998	258.59	ug/L	99
96)	Methacrylonitrile	41	9.542	9.542	0.901	1312875	250.66	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

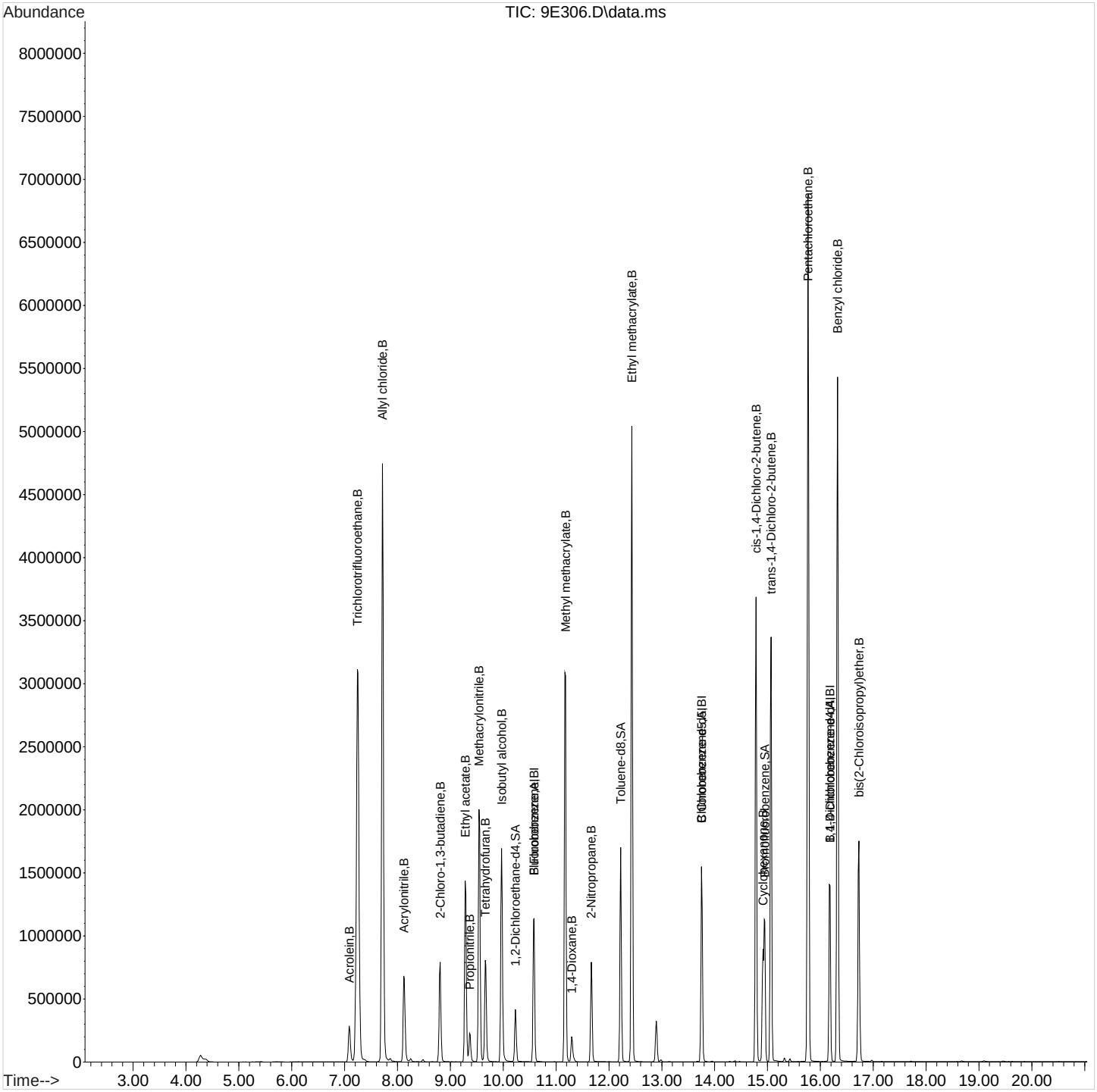
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.660	9.661	0.913	701293	255.64	ug/L	92
98)	Isobutyl alcohol	41	9.969	9.969	0.942	892420	2670.62	ug/L	96
99)	Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.		
100)	Methyl methacrylate	69	11.178	11.178	1.056	1246156	270.28	ug/L	82
101)	1,4-Dioxane	88	11.297	11.297	1.067	164969	2542.96	ug/L	89
102)	2-Nitropropane	43	11.665	11.665	1.102	662728	295.12	ug/L	96
104)	Ethyl methacrylate	69	12.435	12.435	0.904	2591586	276.44	ug/L	89
106)	1-Chlorohexane		0.000	13.633	0.000	0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	1012471	323.53	ug/L	89
108)	Cyclohexanone	42	14.914	14.914	0.922	318626	1542.97	ug/L	97
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	931306	345.13	ug/L	88
110)	Pentachloroethane	167	15.768	15.768	0.974	1551863	315.47	ug/L	98
111)	Benzyl chloride	91	16.325	16.325	1.009	4605594	315.53	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1547567	296.83	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM110921-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I **Injection Date:** 22-SEP-11 09:27

Data File: 092211V9\9E402.D **Init. Cal. Date(s)** 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110922-01 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD **Method Update:** 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2641	0.27797		.01		5.2518	30		Averaged	
S	Toluene-d8	1.2923	1.34934		.01		4.41384	30		Averaged	
S	Bromofluorobenzene	0.9619	0.9342		.01		-2.87972	30		Averaged	
	Dichlorodifluoromethane	0.3373	0.38182		.01		13.19893	30		Averaged	
	Chloromethane	0.5455	0.64929		.1		19.02658	30		Averaged	spcc
	Vinyl chloride	0.4686	0.55264		.01		17.93427	20		Averaged	ccc
	Bromomethane	0.2727	0.29655		.01		8.74587	30		Averaged	
	Chloroethane	0.3177	0.33206		.01		4.51999	30		Averaged	
	Trichlorofluoromethane	0.5365	0.56037		.01		4.44921	30		Averaged	
	Ethyl ether	0.3287	0.33627		.01		2.30301	30		Averaged	
	Acetone	250	287.44	250			14.976	40		Linear	
	1,1-Dichloroethylene	0.6734	0.72601		.01		7.81259	20		Averaged	ccc
	Iodomethane	0.5531	0.56916		.01		2.90363	30		Averaged	
	Acetonitrile	0.0578	0.0572		.01		-1.03806	30		Averaged	
	Methyl acetate	0.3097	0.30806		.01		-0.52954	40		Averaged	
	Carbon disulfide	1.2441	1.37006		.01		10.12459	30		Averaged	
	Methylene chloride	0.4176	0.38265		.01		-8.36925	30		Averaged	
	tert-Butyl methyl ether	1.037	1.03057		.01		-0.62006	30		Averaged	
	trans-1,2-Dichloroethylene	0.6409	0.66932		.01		4.43439	30		Averaged	
	Vinyl acetate	0.6994	0.81391		.01		16.37261	40		Averaged	
	1,1-Dichloroethane	0.747	0.77948		.1		4.34806	30		Averaged	spcc
	2-Butanone	0.2674	0.2816		.01		5.3104	40		Averaged	
	cis-1,2-Dichloroethylene	0.7034	0.73793		.01		4.90901	30		Averaged	
	2,2-Dichloropropane	0.5858	0.64413		.01		9.95732	30		Averaged	
	Bromochloromethane	0.1583	0.15823		.01		-0.04422	30		Averaged	
	Chloroform	0.6085	0.62519		.01		2.74281	20		Averaged	ccc
	1,1,1-Trichloroethane	0.5785	0.60393		.01		4.39585	30		Averaged	
	Cyclohexane	0.9512	0.96078		.01		1.00715	30		Averaged	
	1,1-Dichloropropene	0.4925	0.51952		.01		5.48629	30		Averaged	
	Carbon tetrachloride	0.4668	0.48881		.01		4.71508	30		Averaged	
	1,2-Dichloroethane	0.492	0.49915		.01		1.45325	30		Averaged	
	Benzene	1.4662	1.4431		.01		-1.5755	30		Averaged	
	Cyclohexene	0.8143	0.84765		.01		4.09554	30		Averaged	
	n-Butyl alcohol	0.009	0.00961		.01		6.77778	40		Averaged	
	Trichloroethylene	0.3602	0.3586		.01		-0.4442	30		Averaged	
	1,2-Dichloropropane	0.4202	0.42499		.01		1.13993	20		Averaged	ccc
	Methylcyclohexane	0.7179	0.74617		.01		3.93787	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 22-SEP-11 09:27

Data File: 092211V9\9E402.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110922-01 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1862	0.18113		.01		-2.72288	30		Averaged	
Bromodichloromethane	0.4331	0.4393		.01		1.43154	30		Averaged	
2-Chloroethylvinyl ether	0.2186	0.22335		.01		2.17292	30		Averaged	
cis-1,3-Dichloropropylene	0.5614	0.56912		.01		1.37513	30		Averaged	
4-Methyl-2-pentanone	0.1887	0.22813		.01		20.8956	40		Averaged	
Toluene	1.953	2.09499		.01		7.27035	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.6019	0.68106		.01		13.15169	30		Averaged	
1,1,2-Trichloroethane	0.3089	0.32407		.01		4.91097	30		Averaged	
2-Hexanone	0.4801	0.64917		.01		35.21558	40		Averaged	
1,3-Dichloropropane	0.6229	0.68403		.01		9.81377	30		Averaged	
Tetrachloroethylene	0.35	0.37717		.01		7.76286	30		Averaged	
Dibromochloromethane	0.3712	0.4045		.01		8.97091	30		Averaged	
1,2-Dibromoethane	0.3504	0.37036		.01		5.69635	30		Averaged	
Chlorobenzene	1.2852	1.34531		.3		4.67709	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4086	0.45413		.01		11.14293	30		Averaged	
Ethylbenzene	2.2417	2.44409		.01		9.02842	20		Averaged	ccc
m,p-Xylenes	0.8563	0.9151		.01		6.86675	30		Averaged	
o-Xylene	0.8584	0.91972		.01		7.14352	30		Averaged	
Styrene	1.4119	1.50148		.01		6.34464	30		Averaged	
Bromoform	50	50.29	50			0.58	30		Linear	spcc
Isopropylbenzene	4.2493	4.73968		.01		11.54025	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9234	1.00261		.3		8.57808	30		Averaged	spcc
1,2,3-Trichloropropane	0.2363	0.25722		.01		8.85315	30		Averaged	
Bromobenzene	0.9388	1.0034		.01		6.88112	30		Averaged	
n-Propylbenzene	5.0612	5.76077		.01		13.82222	30		Averaged	
1,3,5-Trimethylbenzene	3.6089	4.07641		.01		12.95436	30		Averaged	
2-Chlorotoluene	0.9618	1.05808		.01		10.0104	30		Averaged	
4-Chlorotoluene	3.1775	3.45029		.01		8.58505	30		Averaged	
tert-Butylbenzene	0.7105	0.81127		.01		14.18297	30		Averaged	
1,2,4-Trimethylbenzene	3.7632	4.13826		.01		9.96652	30		Averaged	
sec-Butylbenzene	5.0875	5.70081		.01		12.05523	30		Averaged	
4-Isopropyltoluene	4.0488	4.49197		.01		10.94571	30		Averaged	
1,3-Dichlorobenzene	1.931	2.01082		.01		4.13361	30		Averaged	
1,4-Dichlorobenzene	1.9861	2.03271		.01		2.34681	30		Averaged	
n-Butylbenzene	4.3475	4.86916		.01		11.99908	30		Averaged	
1,2-Dichlorobenzene	1.879	1.96737		.01		4.70303	30		Averaged	
1,2-Dibromo-3-chloropropane	50	48.32	50			-3.36	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 22-SEP-11 09:27

Data File: 092211V9\9E402.D **Init. Cal. Date(s)** 06-SEP-11 14:43 07-SEP-11 09:51

Lab Sample ID W9VM110922-01 **Method:** 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.5259	1.65067		.01		8.17681	30		Averaged
Hexachlorobutadiene	0.9818	1.05781		.01		7.7419	30		Averaged
Naphthalene	3.1887	3.41287		.01		7.03014	30		Averaged
1,2,3-Trichlorobenzene	1.3266	1.42811		.01		7.65189	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E402.D
Acq On : 22 Sep 2011 09:27
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0723-07C + 0727-07E
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 22 09:47:12 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	1137880	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	817225	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	434998	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1137880	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	817225	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	434998	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	316297	52.63	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1102713	52.21	ug/L	0.00
61) Bromofluorobenzene	95	14.950	14.949	0.924	406374	48.56	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	434462	56.60	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	738809	59.52	ug/L	97
4) Vinyl chloride	62	5.364	5.350	0.507	628842	58.97	ug/L	96
5) Bromomethane	94	5.980	5.980	0.565	337439	54.37	ug/L	98
6) Chloroethane	64	6.127	6.127	0.579	377847	52.26	ug/L	99
7) Trichlorofluoromethane	101	6.566	6.565	0.620	637634	52.22	ug/L	100
8) Ethyl ether	59	6.874	6.874	0.649	382632	51.14	ug/L	99
9) Acetone	43	7.265	7.265	0.686	1449486	287.44	ug/L	98
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	826115	53.91	ug/L	95
11) Iodomethane	142	7.538	7.538	0.712	3238151	257.26	ug/L	96
12) Acetonitrile	41	7.645	7.644	0.722	1627048	1237.87	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1752705	248.68	ug/L	95
14) Carbon disulfide	76	7.680	7.680	0.726	7794820	275.31	ug/L	98
15) Methylene chloride	84	7.870	7.870	0.743	435412	45.81	ug/L	87
16) tert-Butyl methyl ether	73	8.155	8.166	0.770	1172666	49.69	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	761602	52.22	ug/L	90
18) Vinyl acetate	43	8.641	8.641	0.816	4630677	290.94	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	886956	52.17	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.877	1602116	263.22	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	839672	52.45	ug/L	89
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	732947	54.98	ug/L	94
23) Bromochloromethane	128	9.625	9.625	0.909	180043	49.98	ug/L #	80
24) Chloroform	83	9.649	9.649	0.911	711395	51.37	ug/L	100
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	687202	52.20	ug/L	96
26) Cyclohexane	56	10.028	10.028	0.947	1093247	50.50	ug/L	91
27) 1,1-Dichloropropene	75	10.088	10.087	0.953	591156	52.74	ug/L	94
28) Carbon tetrachloride	117	10.123	10.123	0.956	556210	52.35	ug/L	99
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	567971	50.73	ug/L	97
31) Benzene	78	10.337	10.336	0.976	1642072	49.21	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	964525	52.05	ug/L	91
33) n-Butyl alcohol	41	10.657	10.657	1.007	1093448	5341.81	ug/L	98
34) Trichloroethylene	95	10.965	10.965	1.036	408047	49.77	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	483593	50.57	ug/L	99
36) Methylcyclohexane	83	11.214	11.214	1.059	849053	51.97	ug/L	88
37) Dibromomethane	93	11.356	11.356	1.073	206106	48.65	ug/L	94
38) Bromodichloromethane	83	11.463	11.463	1.083	499873	50.71	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.677	11.676	1.103	1270727	255.38	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E402.D
Acq On : 22 Sep 2011 09:27
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0723-07C + 0727-07E
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 22 09:47:12 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	647587	50.69	ug/L		95
42)	4-Methyl-2-pentanone	58	11.997	11.997	0.872	932174	302.19	ug/L		93
44)	Toluene	91	12.293	12.293	0.894	1712080	53.63	ug/L		96
45)	trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	556580	56.58	ug/L		95
46)	1,1,2-Trichloroethane	83	12.673	12.672	0.922	264840	52.46	ug/L		97
47)	2-Hexanone	43	12.839	12.839	0.934	2652574	338.06	ug/L		97
48)	1,3-Dichloropropane	76	12.862	12.862	0.935	559005	54.91	ug/L	#	63
49)	Tetrachloroethylene	164	12.886	12.886	0.937	308231	53.89	ug/L		93
50)	Dibromochloromethane	129	13.135	13.135	0.955	330567	54.48	ug/L		99
51)	1,2-Dibromoethane	107	13.313	13.313	0.968	302670	52.84	ug/L		98
52)	Chlorobenzene	112	13.787	13.787	1.003	1099423	52.34	ug/L		97
53)	1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	371125	55.58	ug/L		99
54)	Ethylbenzene	91	13.835	13.846	1.006	1997375	54.51	ug/L		95
55)	m,p-Xylenes	106	13.953	13.953	1.015	1495693	106.87	ug/L		85
56)	o-Xylene	106	14.380	14.380	1.046	751615	53.57	ug/L		86
57)	Styrene	104	14.392	14.392	1.047	1227049	53.17	ug/L		96
59)	Bromoform	173	14.665	14.665	0.906	203469	50.29	ug/L		98
60)	Isopropylbenzene	105	14.736	14.736	0.911	2061751	55.77	ug/L		95
62)	1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	436135	54.29	ug/L		97
63)	1,2,3-Trichloropropane	110	15.116	15.115	0.934	111890	54.42	ug/L	#	74
64)	Bromobenzene	156	15.163	15.163	0.937	436478	53.44	ug/L	#	84
65)	n-Propylbenzene	91	15.163	15.163	0.937	2505923	56.91	ug/L		95
66)	1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1773232	56.48	ug/L		94
67)	2-Chlorotoluene	126	15.329	15.329	0.947	460264	55.00	ug/L	#	73
68)	4-Chlorotoluene	91	15.424	15.424	0.953	1500870	54.29	ug/L		93
69)	tert-Butylbenzene	134	15.685	15.685	0.969	352901	57.09	ug/L	#	81
70)	1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1800133	54.98	ug/L		90
71)	sec-Butylbenzene	105	15.922	15.922	0.984	2479840	56.03	ug/L		94
72)	4-Isopropyltoluene	119	16.040	16.040	0.991	1953996	55.47	ug/L		96
73)	1,3-Dichlorobenzene	146	16.124	16.123	0.996	874704	52.07	ug/L		96
74)	1,4-Dichlorobenzene	146	16.206	16.206	1.001	884223	51.17	ug/L		96
75)	n-Butylbenzene	91	16.491	16.491	1.019	2118076	56.00	ug/L		94
76)	1,2-Dichlorobenzene	146	16.657	16.657	1.029	855802	52.35	ug/L		96
77)	1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	82444	48.32	ug/L		94
78)	1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	718040	54.09	ug/L		98
79)	Hexachlorobutadiene	225	18.851	18.851	1.165	460144	53.87	ug/L		98
80)	Naphthalene	128	19.088	19.088	1.180	1484593	53.52	ug/L		99
81)	1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	621225	53.83	ug/L		98
83)	Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84)	2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85)	Acrolein		7.016	7.087	0.663	0m	N.D.	d		
86)	Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d		
87)	Isopropyl Alcohol		7.265	7.348	0.686	0m	N.D.	d		
88)	Allyl chloride		7.645	7.716	0.722	0m	N.D.	d		
89)	tert-Butyl Alcohol		7.870	7.858	0.743	0m	N.D.	d		
90)	Acrylonitrile		8.166	8.131	0.771	0m	N.D.	d		
91)	Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.			
94)	Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d		
95)	Propionitrile		9.281	9.364	0.877	0m	N.D.	d		
96)	Methacrylonitrile		9.637	9.542	0.910	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E402.D
Acq On : 22 Sep 2011 09:27
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A] 0723-07C + 0727-07E
ALS Vial : 2 Sample Multiplier: 1

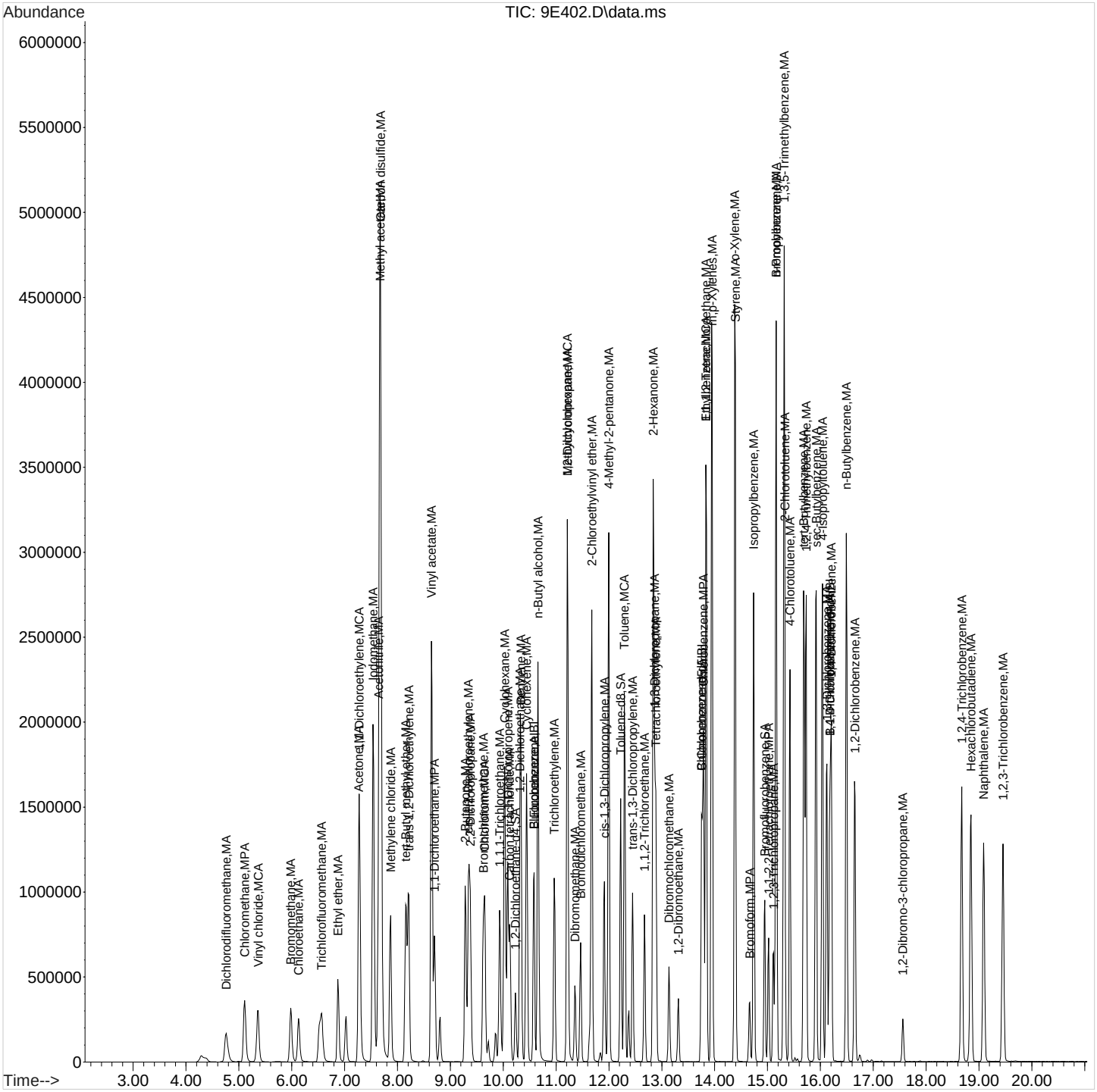
Quant Time: Sep 22 09:47:12 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.661	9.661	0.913	0m	N.D.	d
98) Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.337	10.337	0.976	0m	N.D.	d
100) Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101) 1,4-Dioxane		11.345	11.297	1.072	0m	N.D.	d
102) 2-Nitropropane		11.677	11.665	1.103	0m	N.D.	d
104) Ethyl methacrylate		12.376	12.435	0.900	0m	N.D.	d
106) 1-Chlorohexane		13.752	13.633	0.850	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108) Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110) Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111) Benzyl chloride		16.290	16.325	1.007	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E402.D
Acq On    : 22 Sep 2011  09:27
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM110922-01|CCV|1|VOA|1|VOA8260BL|
Misc      : GEL 5ml n/a MIX[A] 0723-07C + 0727-07E
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Sep 22 09:47:12 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: VOA9.I

Injection Date: 22-SEP-11 10:50

Data File: 092211V9\9E405.D

Init. Cal. Date(s) 06-SEP-11 14:43 - 07-SEP-11 09:51

Lab Sample ID W9VM110922-04

Method: 090611V9\VOA9-8260-090611.M

Quant Type ISTD

Method Update: 07-SEP-11 10:19

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2641	0.27411		.01		3.79023	30		Averaged
S	Toluene-d8	1.2923	1.37552		.01		6.43968	30		Averaged
S	Bromofluorobenzene	0.9619	0.99405		.01		3.34234	30		Averaged
	Acrolein	0.058	0.05898		.01		1.68966	30		Averaged
	Trichlorotrifluoroethane	0.1416	0.16734		.01		18.17797	30		Averaged
	Allyl chloride	0.7538	0.84597		.01		12.22738	30		Averaged
	Acrylonitrile	0.1287	0.12459		.01		-3.19347	30		Averaged
	2-Chloro-1,3-butadiene	0.5793	0.69374		.01		19.75488	30		Averaged
	Ethyl acetate	0.3363	0.32666		.01		-2.86649	40		Averaged
	Propionitrile	0.048	0.04758		.01		-0.875	30		Averaged
	Methacrylonitrile	0.2196	0.22039		.01		0.35974	30		Averaged
	Tetrahydrofuran	0.115	0.10921		.01		-5.03478	30		Averaged
	Isobutyl alcohol	0.014	0.01366		.01		-2.42857	40		Averaged
	Methyl methacrylate	0.1933	0.19349		.01		0.09829	30		Averaged
	1,4-Dioxane	0.0027	0.00274		.01		1.48148	40		Averaged
	2-Nitropropane	0.0941	0.10066		.01		6.97131	30		Averaged
	Ethyl methacrylate	0.5118	0.57854		.01		13.04025	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3389	0.41248		.01		21.71142	30		Averaged
	Cyclohexanone	0.0224	0.02619		.01		16.91964	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2922	0.35103		.01		20.13347	30		Averaged
	Pentachloroethane	0.5327	0.67027		.01		25.82504	30		Averaged
	Benzyl chloride	1.5806	2.05333		.01		29.90826	30		Averaged
	bis(2-Chloroisopropyl)ether	0.5646	0.61858		.01		9.56075	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E405.D
Acq On : 22 Sep 2011 10:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-06E + 0830-14E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 22 11:10:08 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	1166923	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	831844	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	447380	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1166923	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	831844	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	447380	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	319870	51.90	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1144220	53.22	ug/L	0.00
61) Bromofluorobenzene	95	14.950	14.949	0.924	444719	51.67	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		6.886	6.874	0.650	0m	N.D.	d	
9) Acetone		7.253	7.265	0.685	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		7.550	7.538	0.713	0m	N.D.	d	
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.178	8.166	0.773	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.202	8.214	0.775	0m	N.D.	d	
18) Vinyl acetate		8.653	8.641	0.817	0m	N.D.	d	
19) 1,1-Dichloroethane		8.712	8.700	0.823	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.661	9.649	0.913	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		10.088	10.087	0.953	0m	N.D.	d	
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.313	10.313	0.974	0m	N.D.	d	
31) Benzene		10.337	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.443	10.443	0.987	0m	N.D.	d	
33) n-Butyl alcohol		10.669	10.657	1.008	0m	N.D.	d	
34) Trichloroethylene		10.965	10.965	1.036	0m	N.D.	d	
35) 1,2-Dichloropropane		11.214	11.214	1.059	0m	N.D.	d	
36) Methylcyclohexane		11.179	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		11.463	11.463	1.083	0m	N.D.	d	
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E405.D
Acq On : 22 Sep 2011 10:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-06E + 0830-14E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 22 11:10:08 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		11.914	11.914	1.125	0m	N.D.	d	
42) 4-Methyl-2-pentanone		11.997	11.997	0.872	0m	N.D.	d	
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.851	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		13.835	13.835	1.006	0m	N.D.	d	
54) Ethylbenzene		13.847	13.846	1.007	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.380	14.380	1.046	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.748	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72) 4-Isopropyltoluene		16.041	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.124	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.207	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.645	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		17.570	17.558	1.086	0m	N.D.	d	
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.088	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein	56	7.099	7.087	0.671	344132	254.27	ug/L	76
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	976355	295.43	ug/L	93
87) Isopropyl Alcohol	45	7.360	7.348	0.695	1125	N.D.		
88) Allyl chloride	41	7.716	7.716	0.729	4935909	280.56	ug/L	97
89) tert-Butyl Alcohol	59	7.858	7.858	0.742	181	N.D.		
90) Acrylonitrile	53	8.131	8.131	0.768	726947	242.07	ug/L	99
91) Isopropyl ether	45	8.807	8.664	0.832	621	N.D.		
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	809537	59.87	ug/L	91
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate	43	9.293	9.281	0.878	1905934	242.87	ug/L	97
95) Propionitrile	54	9.376	9.364	0.886	277636	247.88	ug/L	100
96) Methacrylonitrile	41	9.554	9.542	0.903	1285892	250.91	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E405.D
Acq On : 22 Sep 2011 10:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-06E + 0830-14E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 22 11:10:08 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

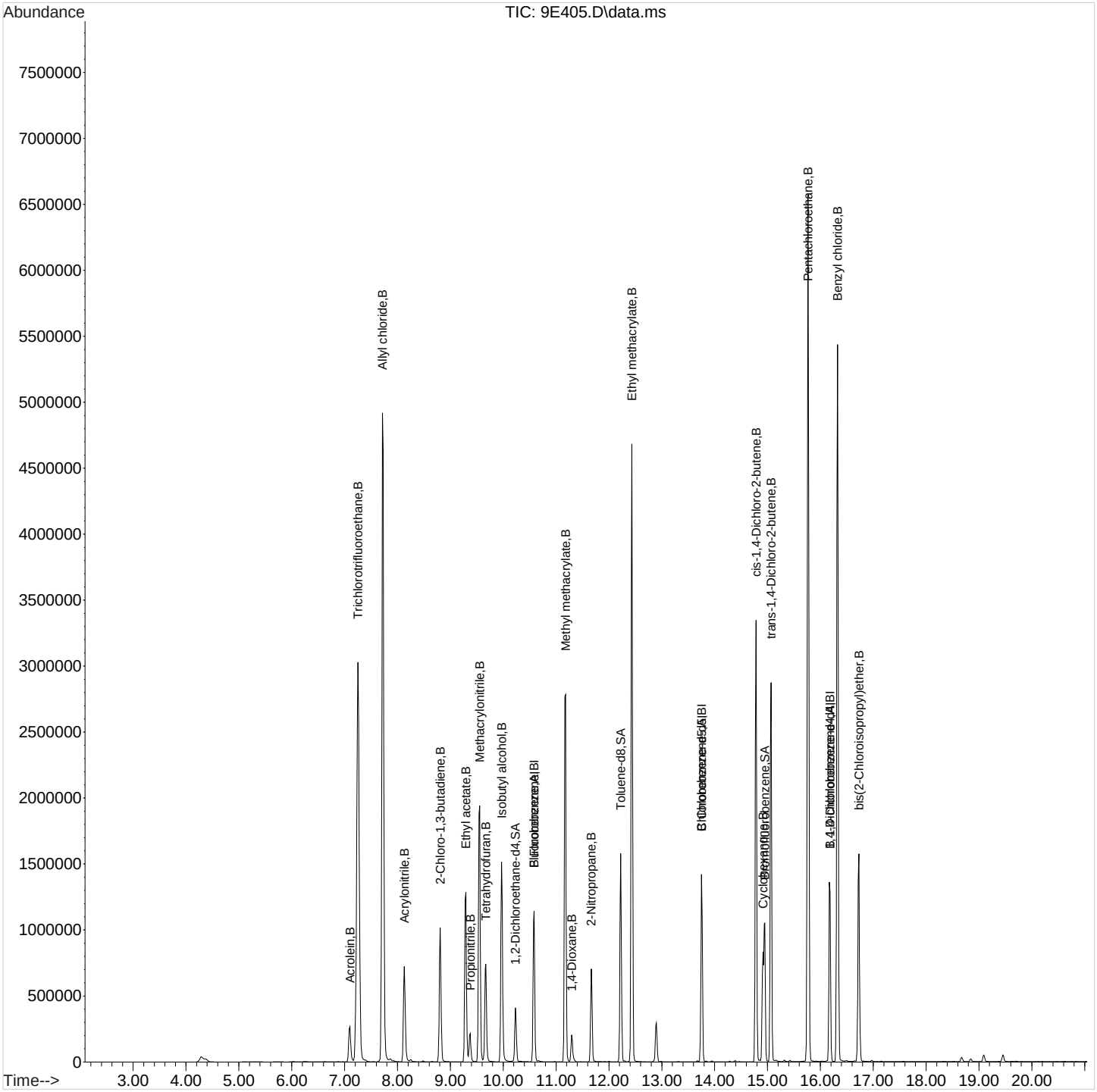
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.672	9.661	0.914	637184	237.38	ug/L	93
98)	Isobutyl alcohol	41	9.969	9.969	0.942	797076	2437.76	ug/L	96
99)	Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.		
100)	Methyl methacrylate	69	11.179	11.178	1.056	1128950	250.24	ug/L	83
101)	1,4-Dioxane	88	11.297	11.297	1.067	160048	2521.36	ug/L	88
102)	2-Nitropropane	43	11.665	11.665	1.102	587341	267.30	ug/L	98
104)	Ethyl methacrylate	69	12.436	12.435	0.904	2406275	282.58	ug/L	90
106)	1-Chlorohexane	55	13.681	13.633	0.845	377	N.D.		
107)	cis-1,4-Dichloro-2-butene	53	14.784	14.783	0.914	922671	304.29	ug/L	89
108)	Cyclohexanone	42	14.914	14.914	0.922	292949	1464.13	ug/L	97
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	785221	300.33	ug/L	89
110)	Pentachloroethane	167	15.768	15.768	0.974	1499327	314.56	ug/L	97
111)	Benzyl chloride	91	16.325	16.325	1.009	4593097	324.76	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1383705	273.91	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E405.D
Acq On : 22 Sep 2011 10:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM110922-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B] 0830-06E + 0830-14E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 22 11:10:08 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



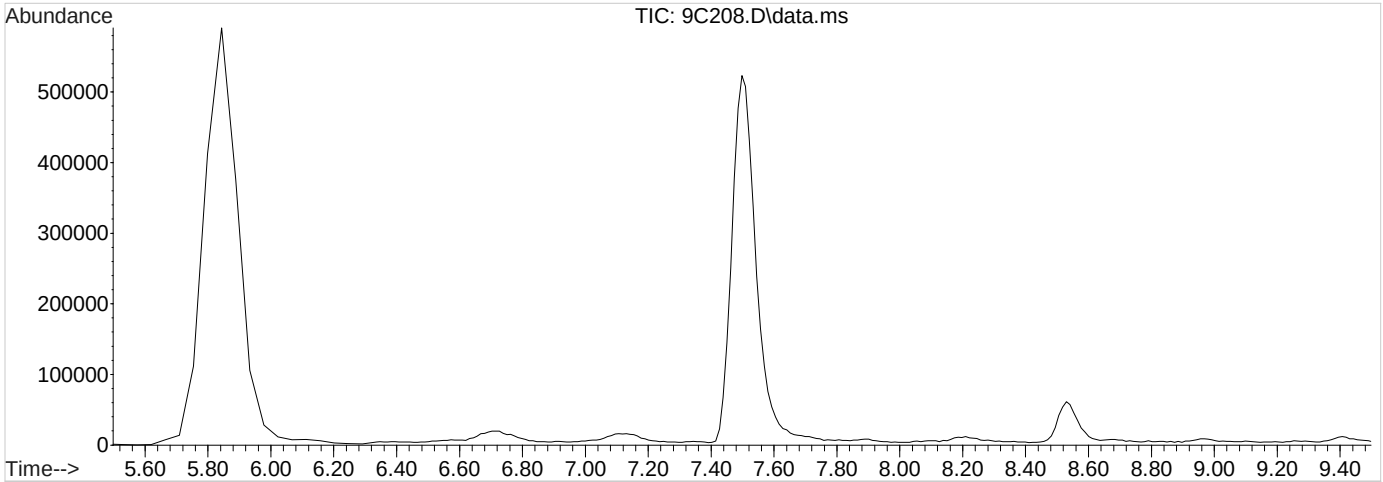
Quality Control Data

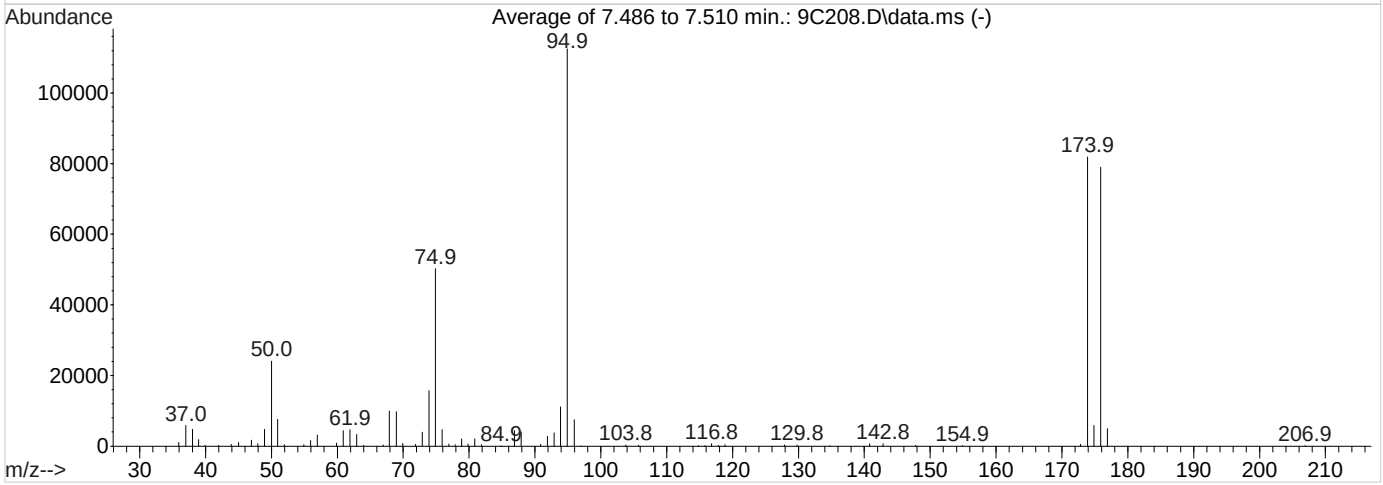
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090611V9\
Data File : 9C208.D
Acq On : 06 Sep 2011 14:18
Operator : RXY1
Sample : |IVM110902-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 07 10:19:29 2011





AutoFind: Scans 193, 194, 195; Background Corrected with Scan 184

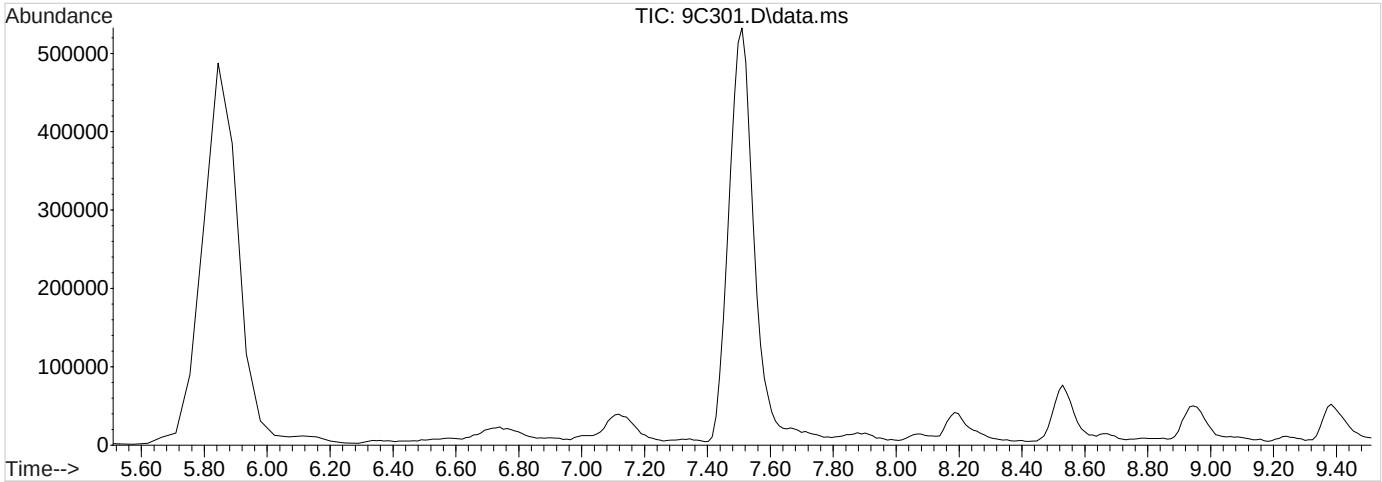
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	24035	PASS
75	95	30	60	44.6	50224	PASS
95	95	100	100	100.0	112536	PASS
96	95	5	9	6.7	7520	PASS
173	174	0.00	2	0.6	479	PASS
174	95	50	100	72.7	81869	PASS
175	174	5	9	7.1	5836	PASS
176	174	95	101	96.5	78963	PASS
177	176	5	9	6.3	4940	PASS

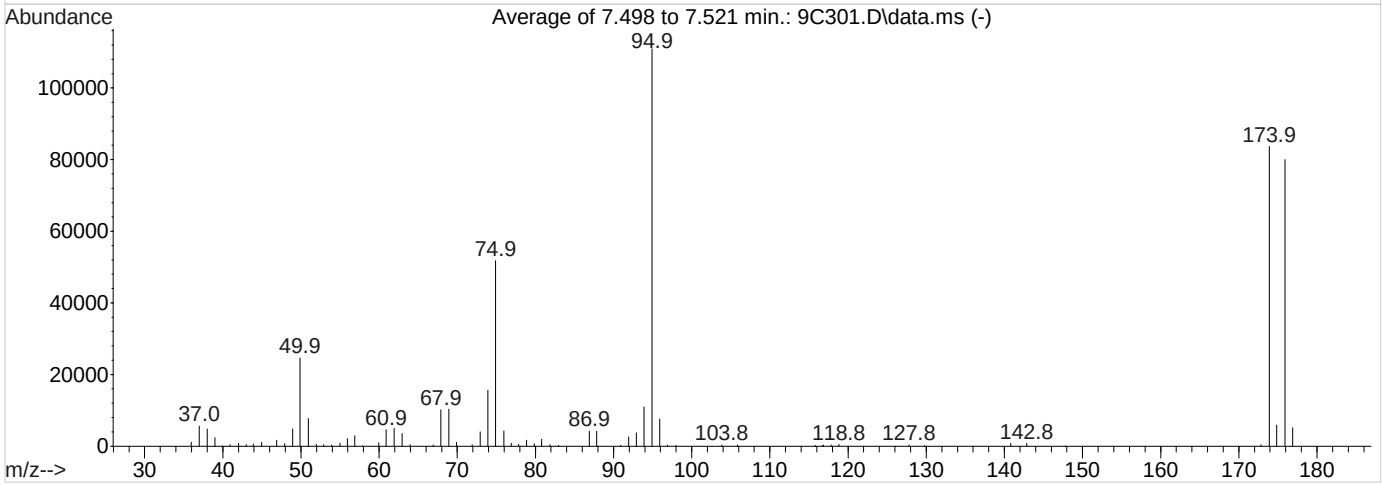
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090711V9\
Data File : 9C301.D
Acq On : 07 Sep 2011 09:26
Operator : RXY1
Sample : |IVM110902-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 1 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 07 10:19:29 2011





AutoFind: Scans 194, 195, 196; Background Corrected with Scan 184

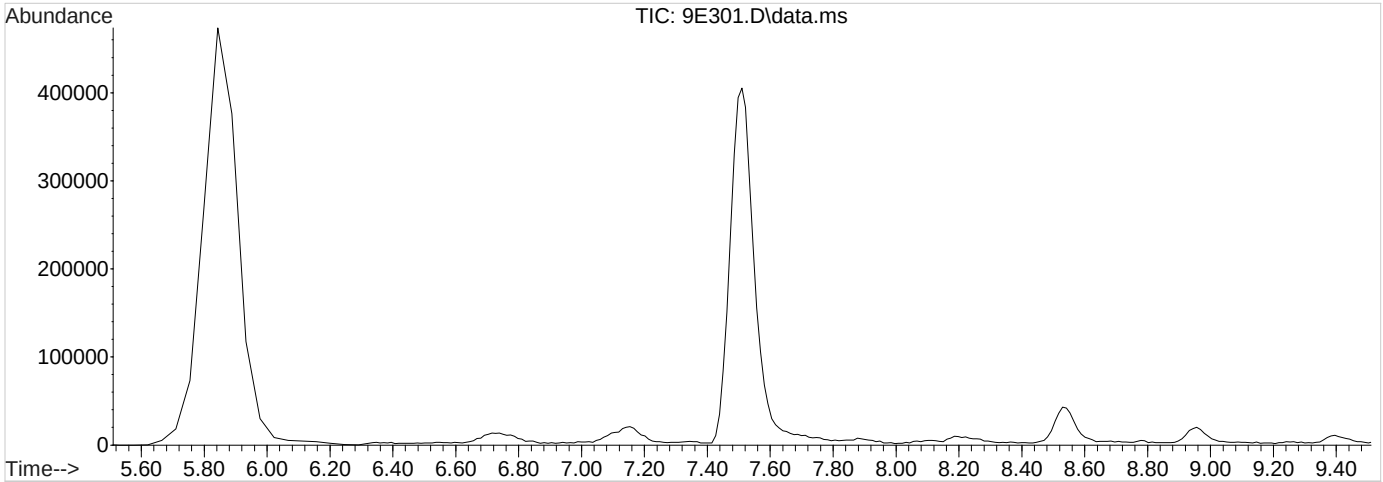
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	24637	PASS
75	95	30	60	46.6	51760	PASS
95	95	100	100	100.0	110968	PASS
96	95	5	9	6.8	7571	PASS
173	174	0.00	2	0.5	425	PASS
174	95	50	100	75.4	83707	PASS
175	174	5	9	7.0	5842	PASS
176	174	95	101	95.6	80029	PASS
177	176	5	9	6.5	5182	PASS

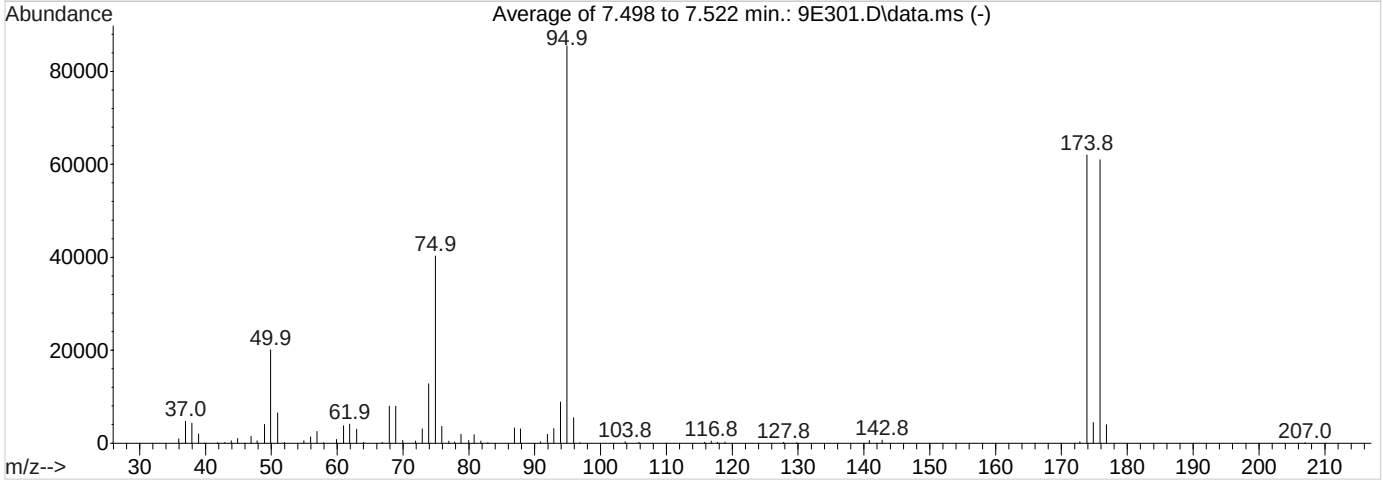
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E301.D
Acq On : 21 Sep 2011 09:26
Operator : RXY1
Sample : |IVM110902-01|BFB2|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 1 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 07 10:19:29 2011





AutoFind: Scans 194, 195, 196; Background Corrected with Scan 184

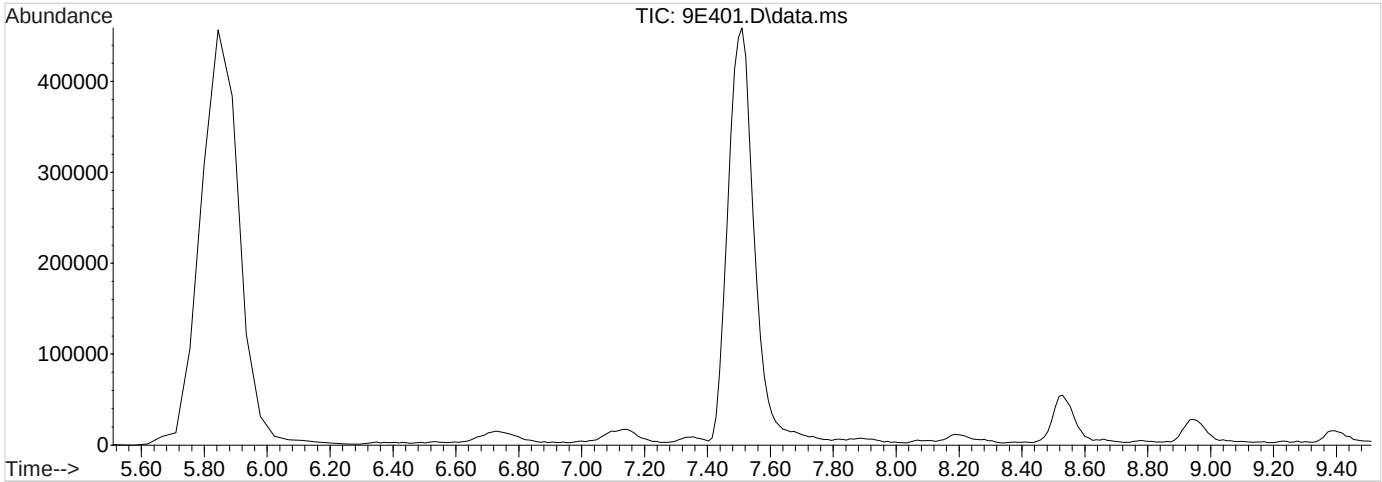
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	20045	PASS
75	95	30	60	47.1	40259	PASS
95	95	100	100	100.0	85531	PASS
96	95	5	9	6.4	5485	PASS
173	174	0.00	2	0.5	286	PASS
174	95	50	100	72.5	62035	PASS
175	174	5	9	7.2	4464	PASS
176	174	95	101	98.3	60968	PASS
177	176	5	9	6.5	3944	PASS

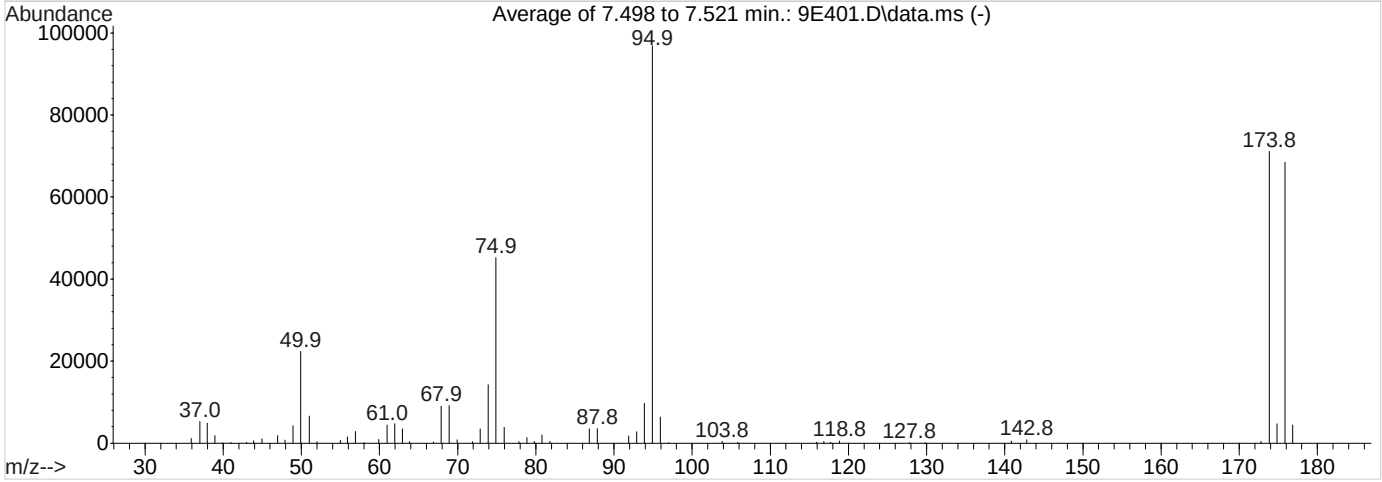
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E401.D
Acq On : 22 Sep 2011 09:02
Operator : RXY1
Sample : |IVM110902-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 1 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 07 10:19:29 2011





AutoFind: Scans 194, 195, 196; Background Corrected with Scan 184

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	22363	PASS
75	95	30	60	46.7	45240	PASS
95	95	100	100	100.0	96885	PASS
96	95	5	9	6.6	6374	PASS
173	174	0.00	2	0.6	420	PASS
174	95	50	100	73.4	71107	PASS
175	174	5	9	6.6	4723	PASS
176	174	95	101	96.3	68480	PASS
177	176	5	9	6.4	4381	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202492555**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/21/2011 12:38**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/21/2011 12:38**				
Data File:	**092111V9\9E308B1.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.6	50.0	ug/L	109	(79%-124%)
Bromofluorobenzene	49.5	50.0	ug/L	98.9	(80%-120%)
Toluene-d8	54.2	50.0	ug/L	108	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E308B1.D
Acq On : 21 Sep 2011 12:38
Operator : RXY1
InstName : VOA9
Sample : |1202492555|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 21 12:58:31 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.586	10.585	1.000	1075556	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	764593	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	415683	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1075556	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	764593	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	415683	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	310187	54.61	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1070206	54.16	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	395427	49.45	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	109.22%
43) Toluene-d8	50.000	80 - 120	108.32%
61) Bromofluorobenzene	50.000	80 - 120	98.90%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane		0.000	5.112	0.000	0	N.D.		
4) Vinyl chloride	62	5.336	5.350	0.504	1486	N.D.		
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone	43	7.277	7.265	0.687	3378	Below Cal		81
10) 1,1-Dichloroethylene		0.000	7.277	0.000	0	N.D.		
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile	41	7.656	7.644	0.723	1996	N.D.		
13) Methyl acetate		0.000	7.668	0.000	0	N.D.		
14) Carbon disulfide	76	7.668	7.680	0.724	2067	N.D.		
15) Methylene chloride	84	7.870	7.870	0.743	5000	N.D.		
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate	43	8.653	8.641	0.817	270	N.D.		
19) 1,1-Dichloroethane		0.000	8.700	0.000	0	N.D.		
20) 2-Butanone	43	9.305	9.281	0.879	1484	N.D.		
21) cis-1,2-Dichloroethylene		0.000	9.340	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		0.000	9.649	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		0.000	10.028	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	178	N.D.		
31) Benzene	78	10.336	10.336	0.976	445	N.D.		
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	10.657	0.000	0	N.D.		
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E308B1.D
Acq On : 21 Sep 2011 12:38
Operator : RXY1
InstName : VOA9
Sample : |1202492555|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 21 12:58:31 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) Methylcyclohexane		0.000	11.214	0.000	0	N.D.	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.	
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.	
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.	
44) Toluene	91	12.293	12.293	0.894	1011	N.D.	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.	
47) 2-Hexanone	43	12.851	12.839	0.934	1056	N.D.	
48) 1,3-Dichloropropane		0.000	12.862	0.000	0	N.D.	
49) Tetrachloroethylene		0.000	12.886	0.000	0	N.D.	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.	
51) 1,2-Dibromoethane		0.000	13.313	0.000	0	N.D.	
52) Chlorobenzene	112	13.787	13.787	1.003	620	N.D.	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.	
54) Ethylbenzene	91	13.835	13.846	1.006	526	N.D.	
55) m,p-Xylenes	106	13.941	13.953	1.014	505	N.D.	
56) o-Xylene		0.000	14.380	0.000	0	N.D.	
57) Styrene	104	14.392	14.392	1.047	1105	N.D.	
59) Bromoform		0.000	14.665	0.000	0	N.D.	
60) Isopropylbenzene	105	14.736	14.736	0.911	207	N.D.	
62) 1,1,2,2-Tetrachloroethane		0.000	15.020	0.000	0	N.D.	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.	
64) Bromobenzene		0.000	15.163	0.000	0	N.D.	
65) n-Propylbenzene	91	15.163	15.163	0.937	660	N.D.	
66) 1,3,5-Trimethylbenzene		0.000	15.317	0.000	0	N.D.	
67) 2-Chlorotoluene		0.000	15.329	0.000	0	N.D.	
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1731	N.D.	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.	
70) 1,2,4-Trimethylbenzene	105	15.720	15.732	0.971	498	N.D.	
71) sec-Butylbenzene		0.000	15.922	0.000	0	N.D.	
72) 4-Isopropyltoluene		0.000	16.040	0.000	0	N.D.	
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	1247	N.D.	
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	1878	N.D.	
75) n-Butylbenzene	91	16.503	16.491	1.020	577	N.D.	
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	696	N.D.	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.	
78) 1,2,4-Trichlorobenzene	180	18.685	18.673	1.155	1513	N.D.	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.	
80) Naphthalene	128	19.100	19.088	1.180	3551	N.D.	
81) 1,2,3-Trichlorobenzene	180	19.468	19.456	1.203	1172	N.D.	
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.	
85) Acrolein		0.000	7.087	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	7.348	0.000	0	N.D.	
88) Allyl chloride	41	7.656	7.716	0.723	1996	N.D.	
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.	
90) Acrylonitrile		0.000	8.131	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.664	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E308B1.D
Acq On : 21 Sep 2011 12:38
Operator : RXY1
InstName : VOA9
Sample : |1202492555|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 21 12:58:31 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

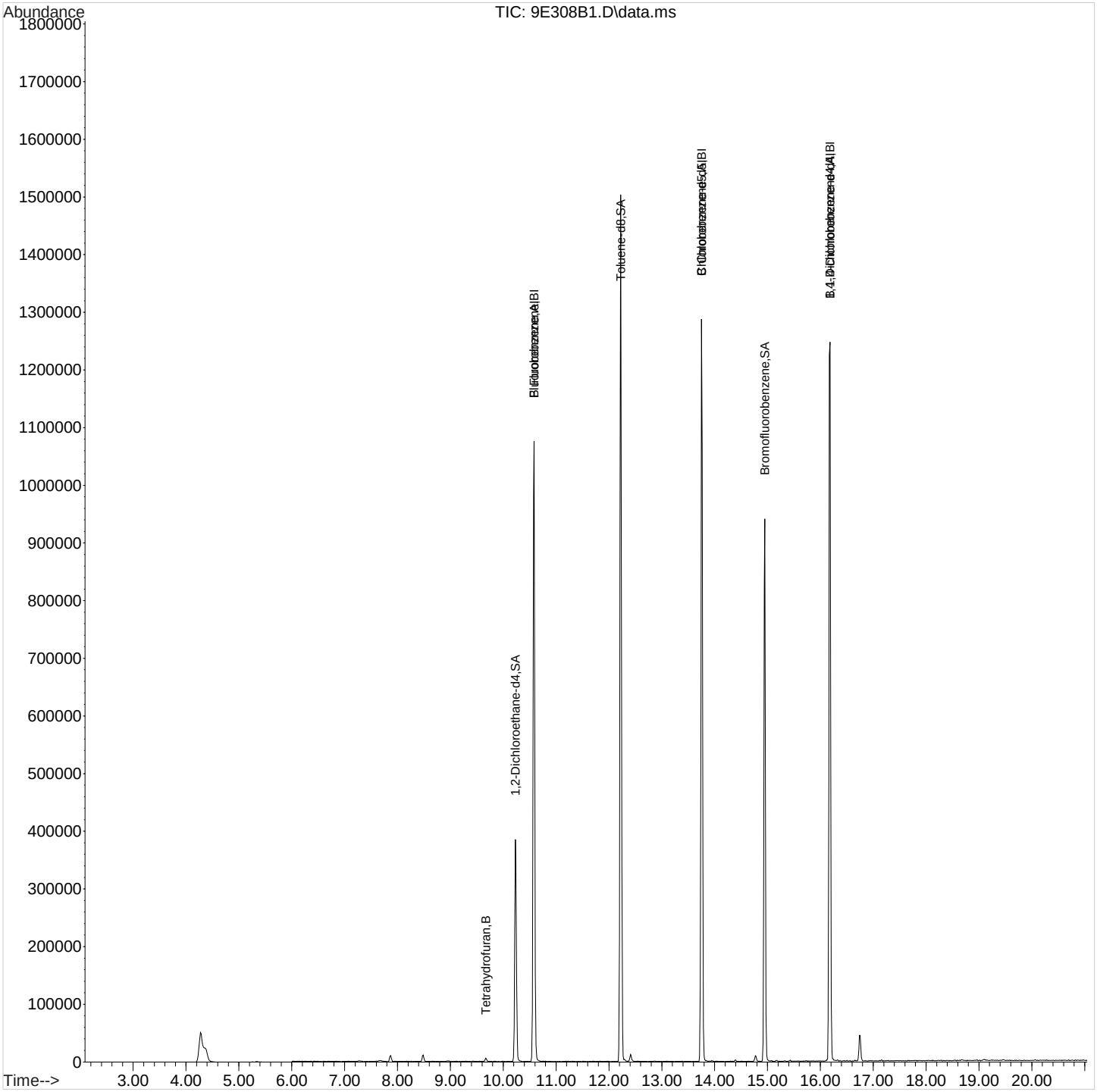
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94)	Ethyl acetate	43	9.305	9.281	0.879	1484	N.D.		
95)	Propionitrile		0.000	9.364	0.000	0	N.D.		
96)	Methacrylonitrile	41	9.672	9.542	0.914	2234	N.D.		
97)	Tetrahydrofuran	42	9.672	9.661	0.914	4311	1.74	ug/L	82
98)	Isobutyl alcohol		0.000	9.969	0.000	0	N.D.		
99)	Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.		
100)	Methyl methacrylate		0.000	11.178	0.000	0	N.D.		
101)	1,4-Dioxane		0.000	11.297	0.000	0	N.D.		
102)	2-Nitropropane		0.000	11.665	0.000	0	N.D.		
104)	Ethyl methacrylate	69	12.447	12.435	0.905	407	N.D.		
106)	1-Chlorohexane		0.000	13.633	0.000	0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	240	N.D.		
108)	Cyclohexanone		0.000	14.914	0.000	0	N.D.		
109)	trans-1,4-Dichloro-2-b...	53	15.080	15.068	0.932	425	N.D.		
110)	Pentachloroethane		0.000	15.768	0.000	0	N.D.		
111)	Benzyl chloride	91	16.325	16.325	1.009	1784	N.D.		
112)	bis(2-Chloroisopropyl)...	45	16.740	16.728	1.034	4087	N.D.		

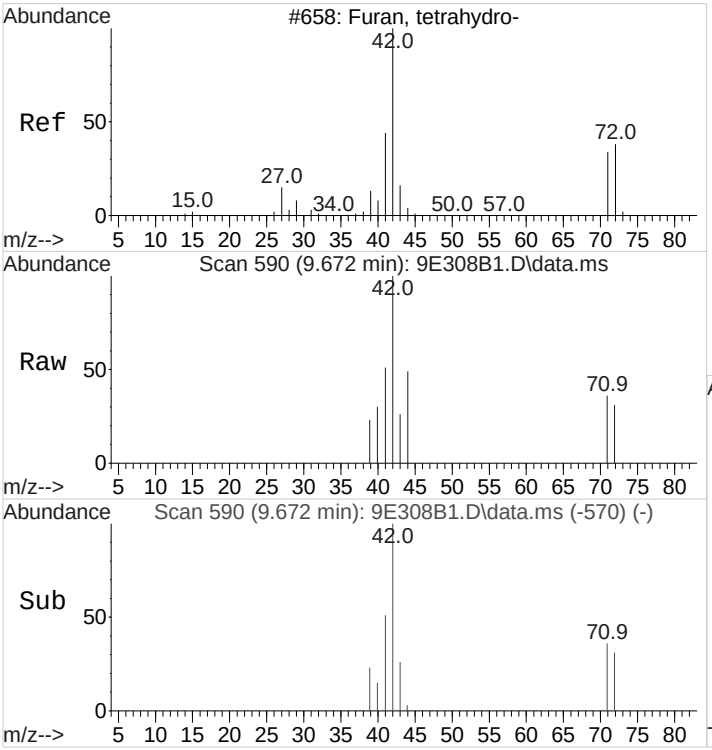
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E308B1.D
Acq On : 21 Sep 2011 12:38
Operator : RXY1
InstName : VOA9
Sample : |1202492555|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 21 12:58:31 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

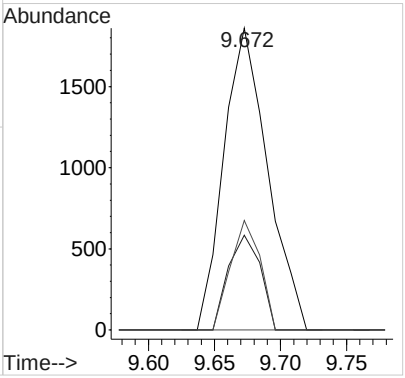


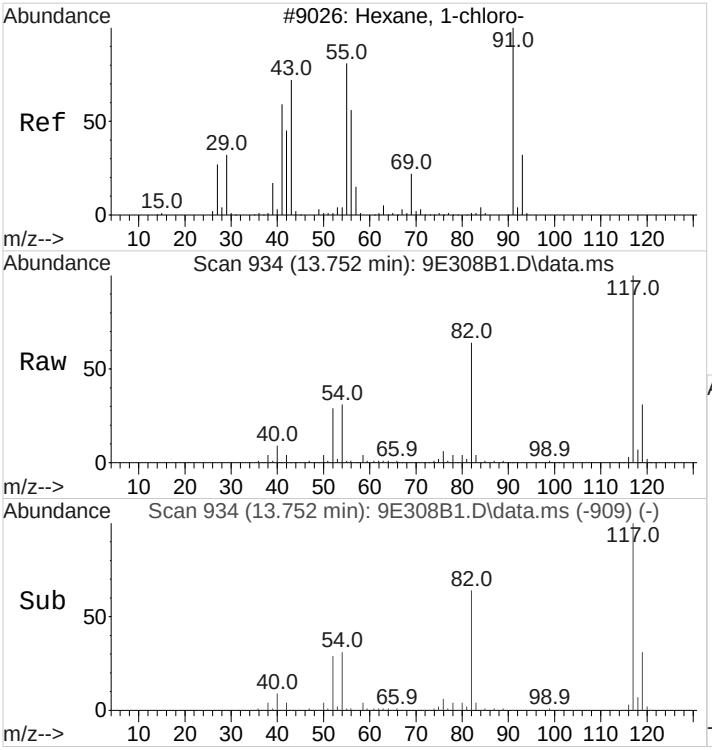


#97
Tetrahydrofuran
Concen: 1.74 ug/L
RT: 9.672 min Scan# 590
Delta R.T. 0.011 min
Lab File: 9E308B1.D
Acq: 21 Sep 2011 12:38

Tgt Ion: 42 Resp: 4311

Ion	Ratio	Lower	Upper
42	100		
72	23.1	5.4	65.4
71	24.7	3.2	63.2

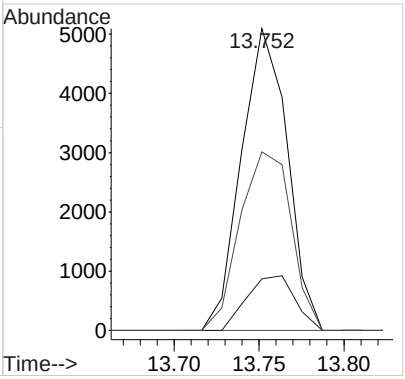




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.05 ug/L
RT: 13.752 min Scan# 934
Delta R.T. 0.119 min
Lab File: 9E308B1.D
Acq: 21 Sep 2011 12:38

Tgt Ion: 55 Resp: 9639

Ion	Ratio	Lower	Upper
55	100		
91	18.9	99.8	159.8#
56	66.1	32.0	92.0



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202493528**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 12:15**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 12:15**				
Data File:	**092211V9\9E408B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	53.3	50.0	ug/L	107	(79%-124%)
Bromofluorobenzene	50.9	50.0	ug/L	102	(80%-120%)
Toluene-d8	54.0	50.0	ug/L	108	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E408B.D
Acq On : 22 Sep 2011 12:15
Operator : RXY1
InstName : VOA9
Sample : |1202493528|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 22 12:42:57 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.585	10.585	1.000	1136281	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	811709	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	429909	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1136281	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	811709	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	429909	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	319926	53.31	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1131906	53.95	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	420746	50.87	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	106.62%
43) Toluene-d8	50.000	80 - 120	107.90%
61) Bromofluorobenzene	50.000	80 - 120	101.74%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane	50	5.098	5.112	0.482	1919	N.D.		
4) Vinyl chloride	62	5.350	5.350	0.505	1213	N.D.		
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone	43	7.277	7.265	0.687	3405	Below Cal		71
10) 1,1-Dichloroethylene		0.000	7.277	0.000	0	N.D.		
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile	41	7.668	7.644	0.724	2174	N.D.		
13) Methyl acetate		0.000	7.668	0.000	0	N.D.		
14) Carbon disulfide	76	7.680	7.680	0.726	1933	N.D.		
15) Methylene chloride	84	7.870	7.870	0.743	7317	N.D.		
16) tert-Butyl methyl ether		0.000	8.166	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate	43	8.664	8.641	0.819	218	N.D.		
19) 1,1-Dichloroethane		0.000	8.700	0.000	0	N.D.		
20) 2-Butanone	43	9.293	9.281	0.878	1326	N.D.		
21) cis-1,2-Dichloroethylene		0.000	9.340	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		0.000	9.649	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		0.000	10.028	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	10.313	0.000	0	N.D.		
31) Benzene	78	10.324	10.336	0.975	458	N.D.		
32) Cyclohexene		0.000	10.443	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	10.657	0.000	0	N.D.		
34) Trichloroethylene		0.000	10.965	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E408B.D
Acq On : 22 Sep 2011 12:15
Operator : RXY1
InstName : VOA9
Sample : |1202493528|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 22 12:42:57 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) Methylcyclohexane		0.000	11.214	0.000	0	N.D.	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.	
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.	
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.	
44) Toluene	91	12.293	12.293	0.894	1610	N.D.	
45) trans-1,3-Dichloroprop...		0.000	12.447	0.000	0	N.D.	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.	
47) 2-Hexanone	43	12.862	12.839	0.935	506	N.D.	
48) 1,3-Dichloropropane		0.000	12.862	0.000	0	N.D.	
49) Tetrachloroethylene		0.000	12.886	0.000	0	N.D.	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.	
51) 1,2-Dibromoethane		0.000	13.313	0.000	0	N.D.	
52) Chlorobenzene	112	13.787	13.787	1.003	857	N.D.	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.	
54) Ethylbenzene	91	13.846	13.846	1.007	778	N.D.	
55) m,p-Xylenes	106	13.953	13.953	1.015	861	N.D.	
56) o-Xylene		0.000	14.380	0.000	0	N.D.	
57) Styrene	104	14.392	14.392	1.047	1370	N.D.	
59) Bromoform		0.000	14.665	0.000	0	N.D.	
60) Isopropylbenzene	105	14.748	14.736	0.911	189	N.D.	
62) 1,1,2,2-Tetrachloroethane		0.000	15.020	0.000	0	N.D.	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.	
64) Bromobenzene	156	15.163	15.163	0.937	229	N.D.	
65) n-Propylbenzene	91	15.175	15.163	0.938	1137	N.D.	
66) 1,3,5-Trimethylbenzene		0.000	15.317	0.000	0	N.D.	
67) 2-Chlorotoluene		0.000	15.329	0.000	0	N.D.	
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1604	N.D.	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.	
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	737	N.D.	
71) sec-Butylbenzene	105	15.910	15.922	0.983	254	N.D.	
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	431	N.D.	
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	1227	N.D.	
74) 1,4-Dichlorobenzene	146	16.194	16.206	1.001	1804	N.D.	
75) n-Butylbenzene	91	16.503	16.491	1.020	983	N.D.	
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	888	N.D.	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.	
78) 1,2,4-Trichlorobenzene	180	18.685	18.673	1.155	1397	N.D.	
79) Hexachlorobutadiene		0.000	18.851	0.000	0	N.D.	
80) Naphthalene	128	19.100	19.088	1.180	4364	N.D.	
81) 1,2,3-Trichlorobenzene	180	19.467	19.456	1.203	1204	N.D.	
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.	
85) Acrolein		0.000	7.087	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	7.348	0.000	0	N.D.	
88) Allyl chloride	41	7.668	7.716	0.724	2174	N.D.	
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.	
90) Acrylonitrile		0.000	8.131	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.664	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.807	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E408B.D
Acq On : 22 Sep 2011 12:15
Operator : RXY1
InstName : VOA9
Sample : |1202493528|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 22 12:42:57 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

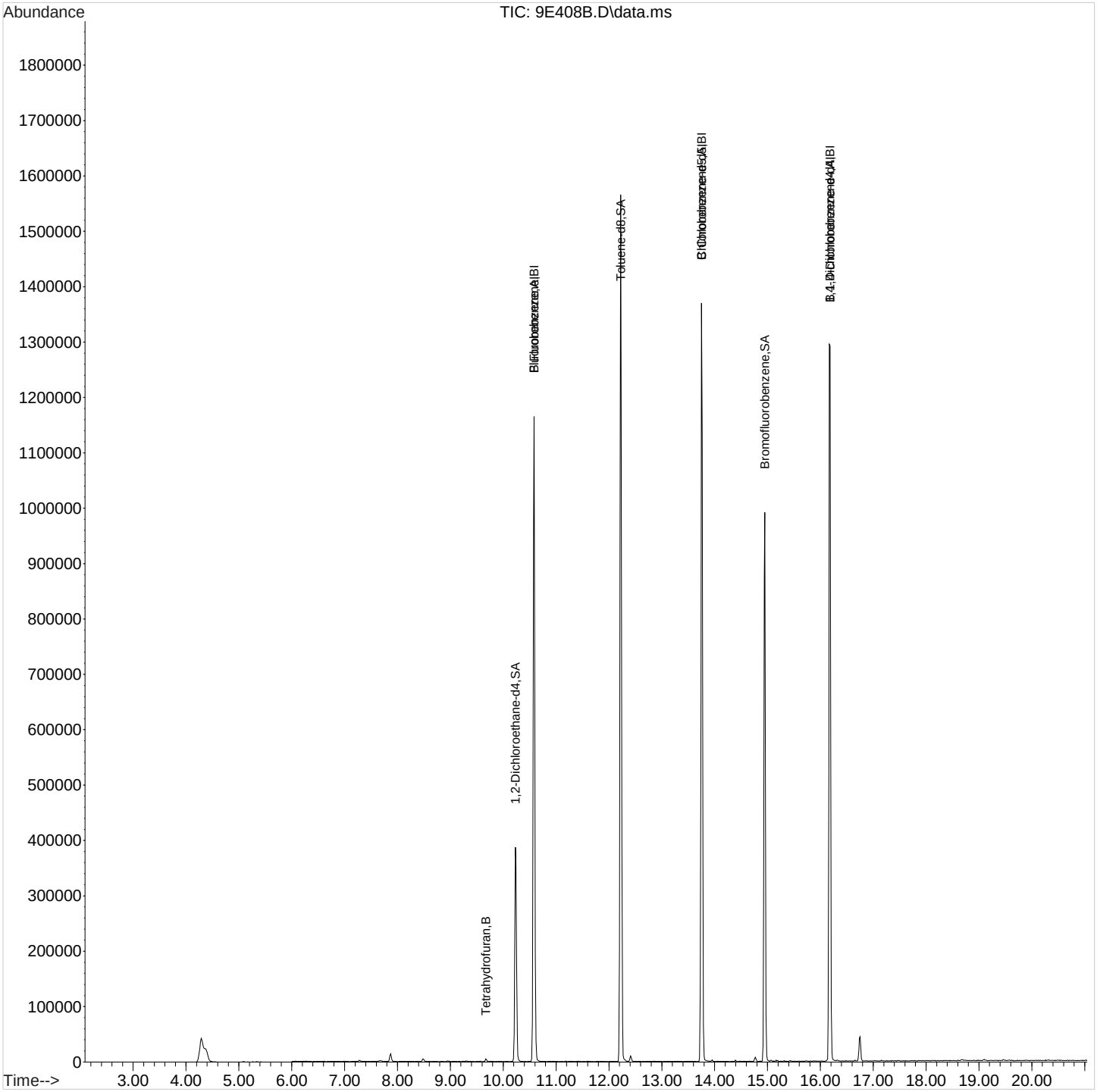
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94) Ethyl acetate	43	9.293	9.281	0.878	1326	N.D.		
95) Propionitrile		0.000	9.364	0.000	0	N.D.		
96) Methacrylonitrile	41	9.566	9.542	0.904	260	N.D.		
97) Tetrahydrofuran	42	9.672	9.661	0.914	3802	1.45	ug/L	73
98) Isobutyl alcohol		0.000	9.969	0.000	0	N.D.		
99) Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.		
100) Methyl methacrylate		0.000	11.178	0.000	0	N.D.		
101) 1,4-Dioxane		0.000	11.297	0.000	0	N.D.		
102) 2-Nitropropane		0.000	11.665	0.000	0	N.D.		
104) Ethyl methacrylate	69	12.447	12.435	0.905	179	N.D.		
106) 1-Chlorohexane		0.000	13.633	0.000	0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene		0.000	14.783	0.000	0	N.D.		
108) Cyclohexanone		0.000	14.914	0.000	0	N.D.		
109) trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	480	N.D.		
110) Pentachloroethane		0.000	15.768	0.000	0	N.D.		
111) Benzyl chloride	91	16.325	16.325	1.009	1912	N.D.		
112) bis(2-Chloroisopropyl)...	45	16.740	16.728	1.034	3782	N.D.		

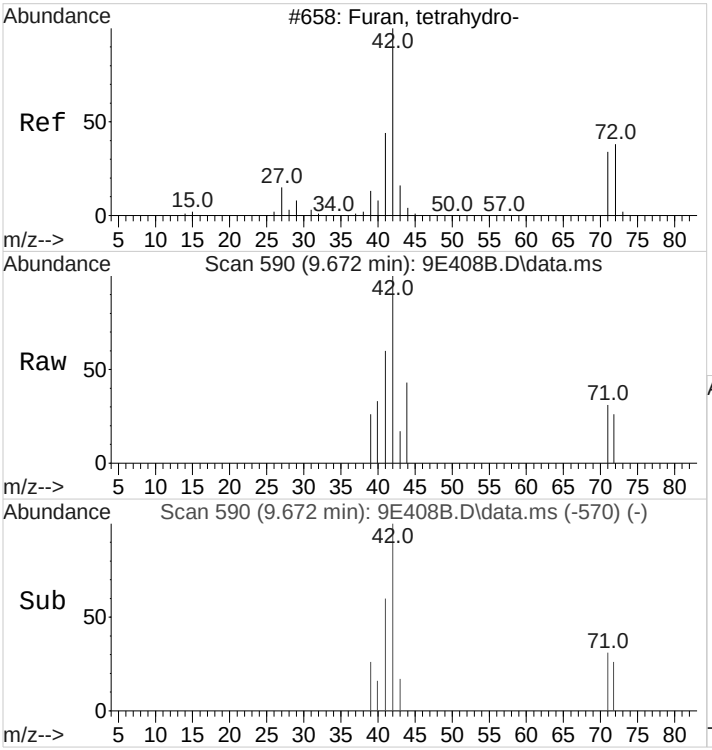
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E408B.D
Acq On : 22 Sep 2011 12:15
Operator : RXY1
InstName : VOA9
Sample : |1202493528|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 22 12:42:57 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

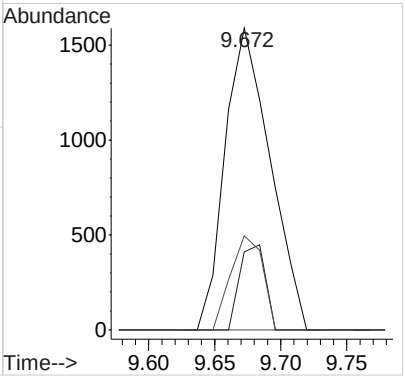


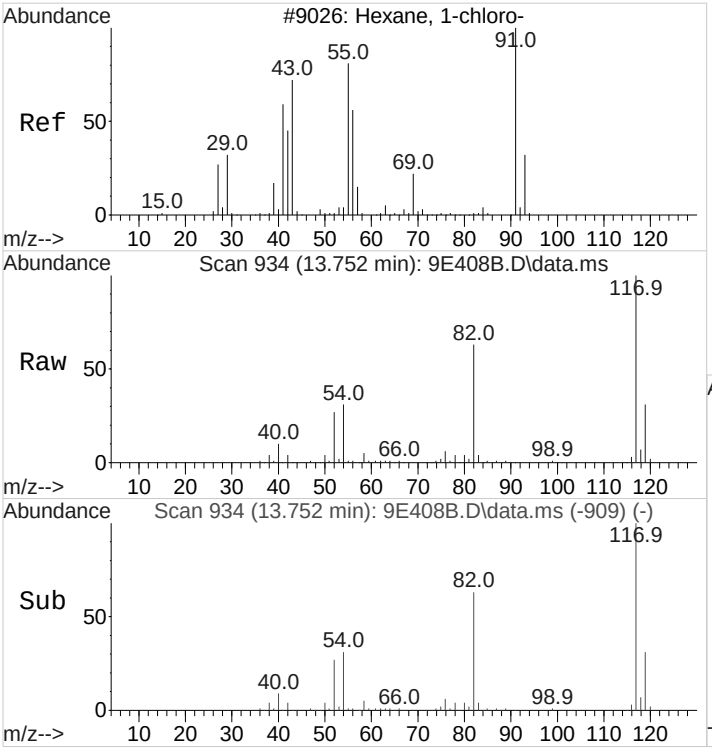


#97
Tetrahydrofuran
Concen: 1.45 ug/L
RT: 9.672 min Scan# 590
Delta R.T. 0.011 min
Lab File: 9E408B.D
Acq: 22 Sep 2011 12:15

Tgt Ion: 42 Resp: 3802

Ion	Ratio	Lower	Upper
42	100		
72	16.1	5.4	65.4
71	22.1	3.2	63.2

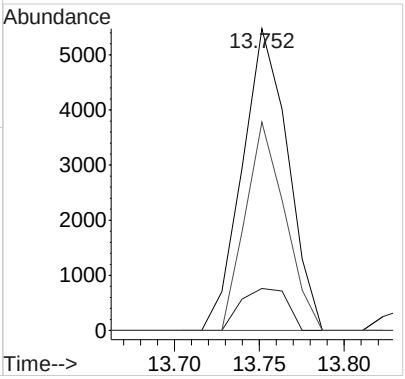




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.08 ug/L
RT: 13.752 min Scan# 934
Delta R.T. 0.119 min
Lab File: 9E408B.D
Acq: 22 Sep 2011 12:15

Tgt Ion: 55 Resp: 10275

Ion	Ratio	Lower	Upper
55	100		
91	14.2	99.8	159.8#
56	60.0	32.0	92.0



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202492558**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/21/2011 10:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/21/2011 10:19**				
Data File:	**092111V9\9E303L1.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.063	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0575	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0546	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0535	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.051	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.0458	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0413	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0516	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0513	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0515	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0528	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0488	mg/L	0.00025	0.001
71-43-2	Benzene		0.0484	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0485	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0498	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0502	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.209	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0508	mg/L	0.00025	0.001
108-88-3	Toluene		0.0531	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0558	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.0513	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0526	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.052	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0522	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.0545	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0495	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.052	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0527	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0509	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0518	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.4	50.0	ug/L	103	(79%-124%)
Bromofluorobenzene	49.7	50.0	ug/L	99.3	(80%-120%)
Toluene-d8	52.9	50.0	ug/L	106	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303L1.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |1202492558|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	1140288	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	833737	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	442648	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1140288	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	833737	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	442648	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	309749	51.44	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1140660	52.94	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	422777	49.65	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	102.88%
43) Toluene-d8	50.000	80 - 120	105.88%
61) Bromofluorobenzene	50.000	80 - 120	99.30%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	391036	50.84	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	784259	63.04	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	614547	57.51	ug/L	96
5) Bromomethane	94	5.980	5.980	0.565	339649	54.61	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	387237	53.45	ug/L	99
7) Trichlorofluoromethane	101	6.554	6.565	0.619	699131	57.14	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	338195	45.11	ug/L	99
9) Acetone	43	7.277	7.265	0.687	902834	177.52	ug/L	100
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	783781	51.04	ug/L	94
11) Iodomethane	142	7.538	7.538	0.712	3009206	238.56	ug/L	97
12) Acetonitrile	41	7.645	7.644	0.722	1494739	1134.81	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1507949	213.50	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	7150226	252.01	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	436495	45.83	ug/L	88
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	1127381	47.67	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	603209	41.27	ug/L	89
18) Vinyl acetate	43	8.641	8.641	0.816	4785654	300.04	ug/L	95
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	878257	51.55	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.877	1012960	166.08	ug/L	96
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	954642	59.51	ug/L	89
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	727454	54.45	ug/L	93
23) Bromochloromethane	128	9.625	9.625	0.909	174367	48.30	ug/L #	79
24) Chloroform	83	9.649	9.649	0.911	712312	51.33	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	678708	51.45	ug/L	96
26) Cyclohexane	56	10.028	10.028	0.947	1064136	49.05	ug/L	91
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	580225	51.66	ug/L	94
28) Carbon tetrachloride	117	10.123	10.123	0.956	561996	52.79	ug/L	99
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	547520	48.80	ug/L	98
31) Benzene	78	10.336	10.336	0.976	1617305	48.37	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	933210	50.25	ug/L	92
33) n-Butyl alcohol	41	10.657	10.657	1.007	970663	4731.96	ug/L	97
34) Trichloroethylene	95	10.965	10.965	1.036	398456	48.50	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	476792	49.75	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303L1.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |1202492558|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane	83	11.214	11.214	1.059	831953	50.81	ug/L	87
37) Dibromomethane	93	11.356	11.356	1.073	201371	47.43	ug/L	94
38) Bromodichloromethane	83	11.463	11.463	1.083	495673	50.18	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	1042407	209.05	ug/L	95
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	650864	50.84	ug/L	95
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	777584	247.08	ug/L	90
44) Toluene	91	12.293	12.293	0.894	1730655	53.14	ug/L	96
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	559850	55.79	ug/L	95
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	264241	51.31	ug/L	98
47) 2-Hexanone	43	12.839	12.839	0.934	1673309	209.03	ug/L	97
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	549079	52.86	ug/L	85
49) Tetrachloroethylene	164	12.886	12.886	0.937	307011	52.61	ug/L	93
50) Dibromochloromethane	129	13.135	13.135	0.955	321883	52.00	ug/L	99
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	297336	50.88	ug/L	98
52) Chlorobenzene	112	13.787	13.787	1.003	1118006	52.17	ug/L	98
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	368673	54.11	ug/L	98
54) Ethylbenzene	91	13.835	13.846	1.006	2036181	54.47	ug/L	95
55) m,p-Xylenes	106	13.953	13.953	1.015	1531226	107.24	ug/L	85
56) o-Xylene	106	14.380	14.380	1.046	785390	54.87	ug/L	86
57) Styrene	104	14.392	14.392	1.047	1285850	54.62	ug/L	97
59) Bromoform	173	14.665	14.665	0.906	203628	49.46	ug/L	98
60) Isopropylbenzene	105	14.736	14.736	0.911	2166060	57.58	ug/L	95
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	424858	51.97	ug/L	97
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	109787	52.48	ug/L #	66
64) Bromobenzene	156	15.163	15.163	0.937	447647	53.86	ug/L #	83
65) n-Propylbenzene	91	15.163	15.163	0.937	2510301	56.03	ug/L	95
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1841274	57.63	ug/L	94
67) 2-Chlorotoluene	126	15.329	15.329	0.947	481954	56.60	ug/L #	74
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1507075	53.57	ug/L	93
69) tert-Butylbenzene	134	15.685	15.685	0.969	355709	56.55	ug/L #	80
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1854505	55.66	ug/L	89
71) sec-Butylbenzene	105	15.922	15.922	0.984	2527946	56.13	ug/L	94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	2055918	57.36	ug/L	97
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	900400	52.67	ug/L	96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	894967	50.90	ug/L	96
75) n-Butylbenzene	91	16.491	16.491	1.019	2194623	57.02	ug/L	93
76) 1,2-Dichlorobenzene	146	16.645	16.657	1.029	860953	51.76	ug/L	96
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	77168	44.59	ug/L	90
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	734378	54.36	ug/L	97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	449613	51.73	ug/L	98
80) Naphthalene	128	19.088	19.088	1.180	1464521	51.88	ug/L	99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	640500	54.54	ug/L	99
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		7.016	7.087	0.663	0m	N.D.	d	
86) Trichlorotrifluoroethane		7.253	7.253	0.685	0m	N.D.	d	
87) Isopropyl Alcohol		7.301	7.348	0.690	0m	N.D.	d	
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.		
90) Acrylonitrile		8.166	8.131	0.771	0m	N.D.	d	
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303L1.D
Acq On : 21 Sep 2011 10:19
Operator : RXY1
InstName : VOA9
Sample : |1202492558|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

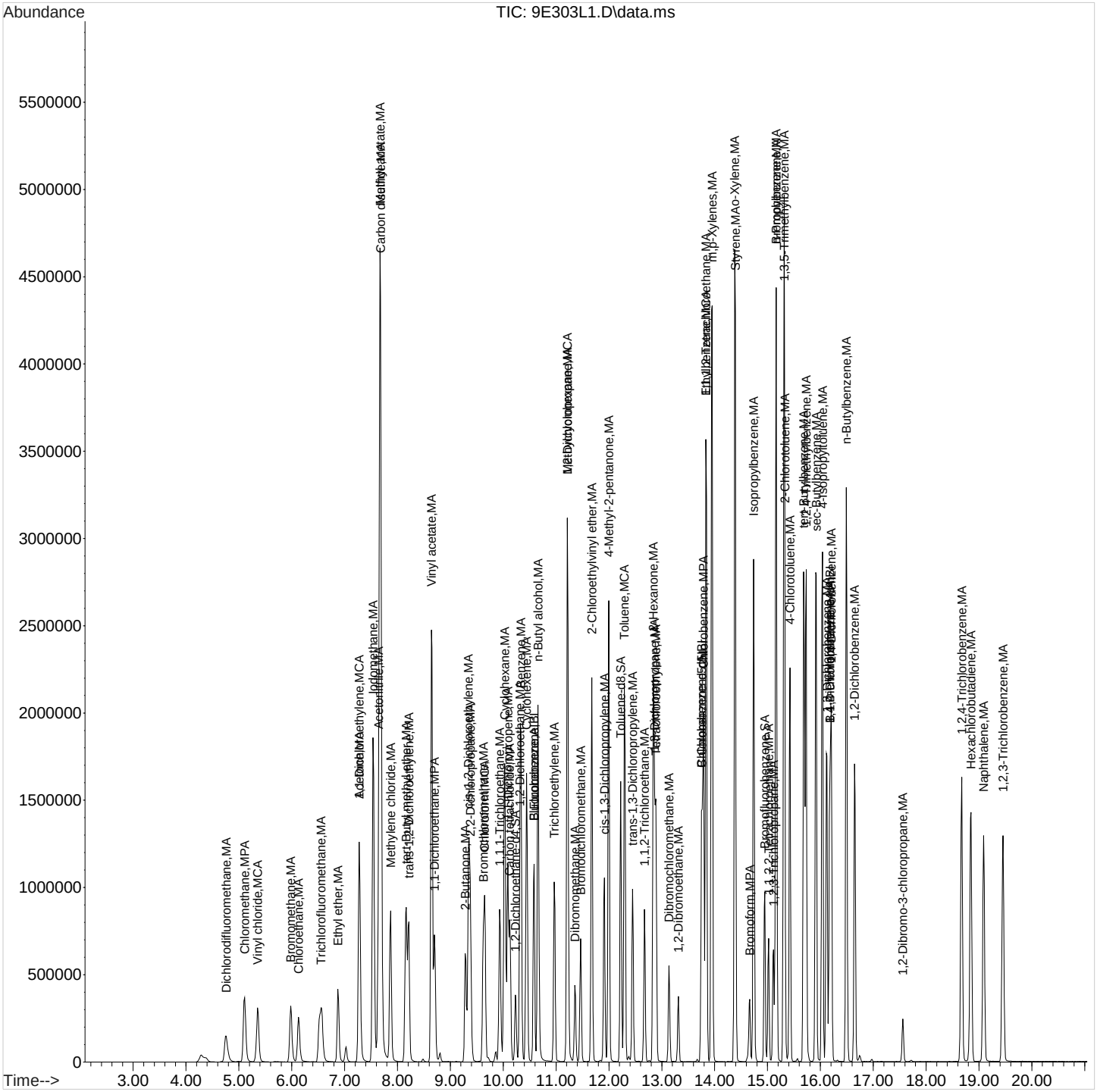
Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.	
94)	Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d
95)	Propionitrile		9.388	9.364	0.887	0m	N.D.	d
96)	Methacrylonitrile		9.566	9.542	0.904	0m	N.D.	d
97)	Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.368	11.297	1.074	0m	N.D.	d
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		12.435	12.435	0.904	0m	N.D.	d
106)	1-Chlorohexane		13.681	13.633	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.068	15.068	0.931	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.325	16.325	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.728	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E303L1.D
Acq On    : 21 Sep 2011  10:19
Operator  : RXY1
InstName  : VOA9
Sample    : |1202492558|1143643|1|VOA|1|VOA624_LFD|
Misc      : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Sep 21 10:39:14 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202492559**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/21/2011 11:42**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/21/2011 11:42**				
Data File:	**092111V9\9E306L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein		0.256	mg/L	0.00125	0.005
107-13-1	Acrylonitrile		0.237	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.3	50.0	ug/L	103	(79%-124%)
Bromofluorobenzene	53.5	50.0	ug/L	107	(80%-120%)
Toluene-d8	50.9	50.0	ug/L	102	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306L.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |1202492559|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.585	10.585	1.000	1192587	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	915794	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	461729	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	1192587	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	915794	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	461729	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	323352	51.34	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1205667	50.94	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	475229	53.50	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	102.68%
43) Toluene-d8	50.000	80 - 120	101.88%
61) Bromofluorobenzene	50.000	80 - 120	107.00%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane		5.084	5.112	0.480	0m	N.D.	d	
4) Vinyl chloride		5.336	5.350	0.504	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.241	7.265	0.684	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.241	7.277	0.684	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.143	8.166	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.652	8.641	0.817	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.281	9.281	0.877	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.281	9.340	0.877	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.911	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	10.087	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.313	10.313	0.974	0m	N.D.	d	
31) Benzene		10.336	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.574	10.443	0.999	0m	N.D.	d	
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		10.977	10.965	1.037	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306L.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |1202492559|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane		11.166	11.214	1.055	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		
40) cis-1,3-Dichloropropylene		0.000	11.914	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.305	12.293	0.895	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.850	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		13.835	13.835	1.006	0m	N.D.	d	
54) Ethylbenzene		13.846	13.846	1.007	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.392	14.380	1.047	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.317	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.922	15.922	0.984	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.673	18.673	1.154	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein	56	7.087	7.087	0.670	353818	255.81	ug/L	78
86) Trichlorotrifluoroethane	85	7.241	7.253	0.684	1024254	303.25	ug/L	92
87) Isopropyl Alcohol	45	7.372	7.348	0.696	2137	N.D.		
88) Allyl chloride	41	7.716	7.716	0.729	4532805	252.11	ug/L	96
89) tert-Butyl Alcohol	59	7.846	7.858	0.741	218	N.D.		
90) Acrylonitrile	53	8.119	8.131	0.767	726003	236.55	ug/L	99
91) Isopropyl ether	45	8.795	8.664	0.831	427	N.D.		
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	647401	46.85	ug/L	91

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306L.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |1202492559|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

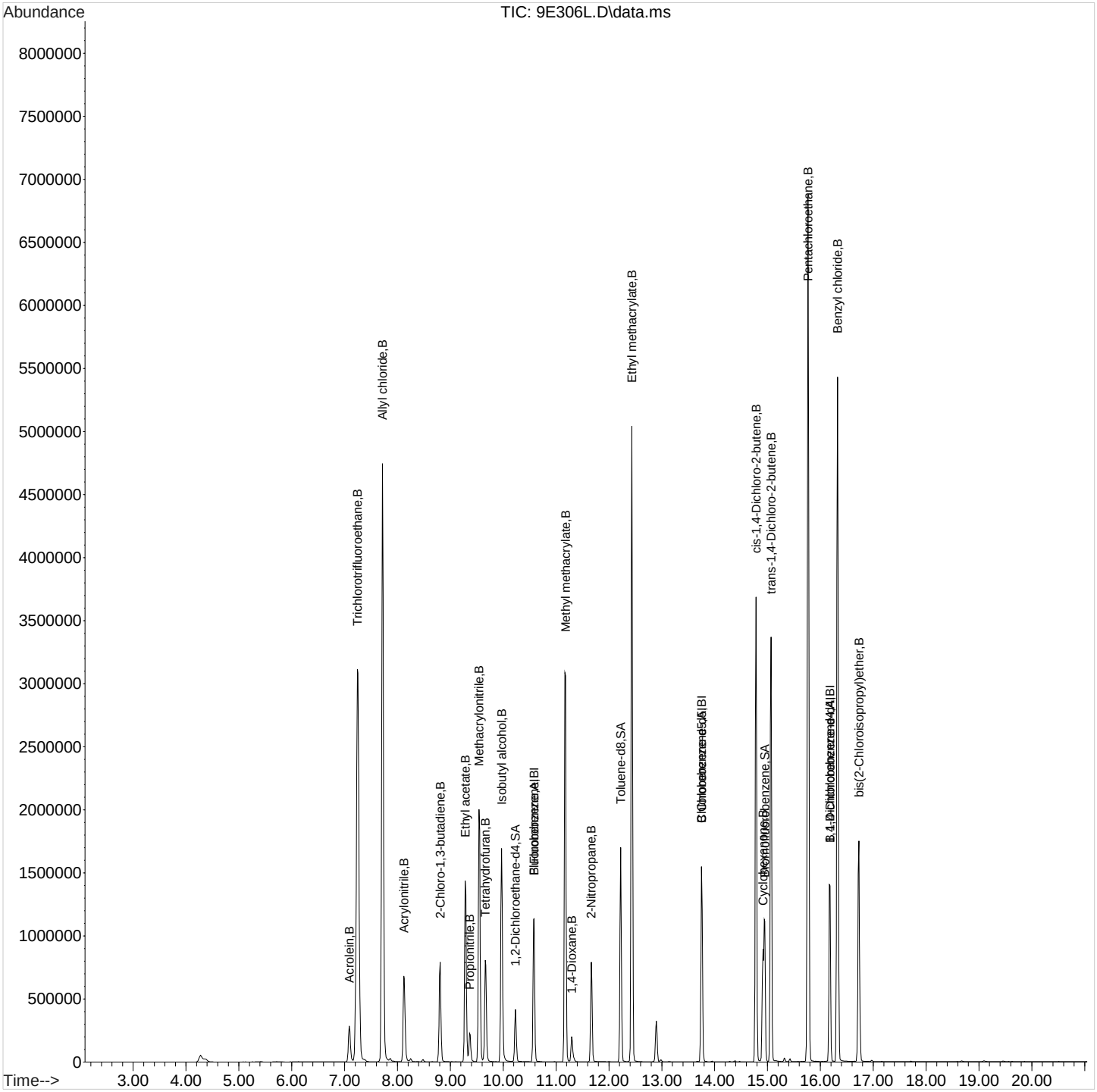
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94)	Ethyl acetate	43	9.281	9.281	0.877	2093851	261.07	ug/L	96
95)	Propionitrile	54	9.364	9.364	0.885	295998	258.59	ug/L	99
96)	Methacrylonitrile	41	9.542	9.542	0.901	1312875	250.66	ug/L	98
97)	Tetrahydrofuran	42	9.660	9.661	0.913	701293	255.64	ug/L	92
98)	Isobutyl alcohol	41	9.969	9.969	0.942	892420	2670.62	ug/L	96
99)	Methyl tert-amyl ether		0.000	10.337	0.000	0	N.D.		
100)	Methyl methacrylate	69	11.178	11.178	1.056	1246156	270.28	ug/L	82
101)	1,4-Dioxane	88	11.297	11.297	1.067	164969	2542.96	ug/L	89
102)	2-Nitropropane	43	11.665	11.665	1.102	662728	295.12	ug/L	96
104)	Ethyl methacrylate	69	12.435	12.435	0.904	2591586	276.44	ug/L	89
106)	1-Chlorohexane		0.000	13.633	0.000	0m	N.D. d		
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	1012471	323.53	ug/L	89
108)	Cyclohexanone	42	14.914	14.914	0.922	318626	1542.97	ug/L	97
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	931306	345.13	ug/L	88
110)	Pentachloroethane	167	15.768	15.768	0.974	1551863	315.47	ug/L	98
111)	Benzyl chloride	91	16.325	16.325	1.009	4605594	315.53	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1547567	296.83	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E306L.D
Acq On : 21 Sep 2011 11:42
Operator : RXY1
InstName : VOA9
Sample : |1202492559|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 21 12:41:04 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202493529**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 09:55**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 09:55**				
Data File:	**092211V9\9E403L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.0619	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0571	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0538	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0532	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.0519	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.0457	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0417	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0518	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0518	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0511	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0528	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0501	mg/L	0.00025	0.001
71-43-2	Benzene		0.0485	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0484	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0503	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0505	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.227	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0506	mg/L	0.00025	0.001
108-88-3	Toluene		0.0523	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0561	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.052	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0531	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0529	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0511	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.0532	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0498	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.0532	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0522	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0505	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0521	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	53.5	50.0	ug/L	107	(79%-124%)
Bromofluorobenzene	50.4	50.0	ug/L	101	(80%-120%)
Toluene-d8	52.3	50.0	ug/L	105	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E403L.D
Acq On : 22 Sep 2011 09:55
Operator : RXY1
InstName : VOA9
Sample : |1202493529|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 22 10:14:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	1139066	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	833599	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	445842	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1139066	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	833599	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	445842	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	321565	53.46	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1127185	52.32	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	432350	50.41	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	106.92%
43) Toluene-d8	50.000	80 - 120	104.64%
61) Bromofluorobenzene	50.000	80 - 120	100.82%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	386283	50.27	ug/L	99
3) Chloromethane	50	5.112	5.112	0.483	769061	61.89	ug/L	97
4) Vinyl chloride	62	5.364	5.350	0.507	609035	57.05	ug/L	95
5) Bromomethane	94	5.980	5.980	0.565	334508	53.84	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	384960	53.19	ug/L	99
7) Trichlorofluoromethane	101	6.566	6.565	0.620	702415	57.47	ug/L	99
8) Ethyl ether	59	6.874	6.874	0.649	347100	46.35	ug/L	99
9) Acetone	43	7.277	7.265	0.687	955613	188.28	ug/L	98
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	796483	51.92	ug/L	94
11) Iodomethane	142	7.538	7.538	0.712	3025810	240.14	ug/L	96
12) Acetonitrile	41	7.645	7.644	0.722	1573064	1195.55	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1604392	227.40	ug/L	96
14) Carbon disulfide	76	7.680	7.680	0.726	7076512	249.68	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	434801	45.70	ug/L	87
16) tert-Butyl methyl ether	73	8.166	8.166	0.771	1163000	49.23	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	608081	41.65	ug/L	90
18) Vinyl acetate	43	8.641	8.641	0.816	5040318	316.34	ug/L	96
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	881314	51.79	ug/L	98
20) 2-Butanone	43	9.281	9.281	0.877	1081277	177.47	ug/L	95
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	953640	59.51	ug/L	90
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	721025	54.03	ug/L	94
23) Bromochloromethane	128	9.625	9.625	0.909	178443	49.48	ug/L #	79
24) Chloroform	83	9.649	9.649	0.911	717474	51.76	ug/L	97
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	673177	51.08	ug/L	96
26) Cyclohexane	56	10.028	10.028	0.947	1051703	48.53	ug/L	91
27) 1,1-Dichloropropene	75	10.088	10.087	0.953	583315	51.99	ug/L	95
28) Carbon tetrachloride	117	10.123	10.123	0.956	561558	52.80	ug/L	98
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	561647	50.11	ug/L	98
31) Benzene	78	10.337	10.336	0.976	1619945	48.50	ug/L	98
32) Cyclohexene	67	10.443	10.443	0.987	935456	50.43	ug/L	92
33) n-Butyl alcohol	41	10.657	10.657	1.007	1053031	5139.01	ug/L	98
34) Trichloroethylene	95	10.965	10.965	1.036	397150	48.40	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	481116	50.26	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E403L.D
Acq On : 22 Sep 2011 09:55
Operator : RXY1
InstName : VOA9
Sample : |1202493529|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 22 10:14:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane	83	11.214	11.214	1.059	819841	50.13	ug/L	87
37) Dibromomethane	93	11.356	11.356	1.073	205323	48.41	ug/L	95
38) Bromodichloromethane	83	11.463	11.463	1.083	498307	50.50	ug/L	98
39) 2-Chloroethylvinyl ether	63	11.677	11.676	1.103	1132392	227.34	ug/L	95
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	647068	50.60	ug/L	95
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	821088	260.95	ug/L	92
44) Toluene	91	12.293	12.293	0.894	1701531	52.26	ug/L	96
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	563100	56.12	ug/L	95
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	267555	51.96	ug/L	98
47) 2-Hexanone	43	12.839	12.839	0.934	1782918	222.76	ug/L	98
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	561907	54.11	ug/L	84
49) Tetrachloroethylene	164	12.886	12.886	0.937	309840	53.10	ug/L	94
50) Dibromochloromethane	129	13.135	13.135	0.955	327150	52.86	ug/L	99
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	307293	52.60	ug/L	97
52) Chlorobenzene	112	13.787	13.787	1.003	1095827	51.14	ug/L	97
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	370932	54.46	ug/L	98
54) Ethylbenzene	91	13.835	13.846	1.006	1989804	53.24	ug/L	95
55) m,p-Xylenes	106	13.953	13.953	1.015	1508609	105.68	ug/L	85
56) o-Xylene	106	14.380	14.380	1.046	769273	53.75	ug/L	87
57) Styrene	104	14.392	14.392	1.047	1261539	53.59	ug/L	97
59) Bromoform	173	14.665	14.665	0.906	206403	49.77	ug/L	98
60) Isopropylbenzene	105	14.736	14.736	0.911	2075895	54.79	ug/L	95
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	438362	53.24	ug/L	97
63) 1,2,3-Trichloropropane	110	15.116	15.115	0.934	112328	53.31	ug/L #	71
64) Bromobenzene	156	15.163	15.163	0.937	451161	53.89	ug/L #	85
65) n-Propylbenzene	91	15.163	15.163	0.937	2477797	54.90	ug/L	95
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1815171	56.41	ug/L	95
67) 2-Chlorotoluene	126	15.317	15.329	0.947	471591	54.99	ug/L #	73
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1488569	52.54	ug/L	93
69) tert-Butylbenzene	134	15.685	15.685	0.969	347184	54.80	ug/L #	79
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1823968	54.36	ug/L	89
71) sec-Butylbenzene	105	15.922	15.922	0.984	2458031	54.18	ug/L	94
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	2041061	56.53	ug/L	96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	899246	52.23	ug/L	96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	895094	50.54	ug/L	96
75) n-Butylbenzene	91	16.491	16.491	1.019	2215571	57.15	ug/L	94
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	872917	52.10	ug/L	95
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	83609	47.83	ug/L	92
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	743823	54.67	ug/L	97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	464898	53.10	ug/L	98
80) Naphthalene	128	19.088	19.088	1.180	1535551	54.01	ug/L	99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	651229	55.05	ug/L	99
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein		0.000	7.087	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.		
87) Isopropyl Alcohol		7.289	7.348	0.689	0m	N.D.	d	
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.		
90) Acrylonitrile		8.155	8.131	0.770	0m	N.D.	d	
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.795	8.807	0.831	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E403L.D
Acq On : 22 Sep 2011 09:55
Operator : RXY1
InstName : VOA9
Sample : |1202493529|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial : 3 Sample Multiplier: 1

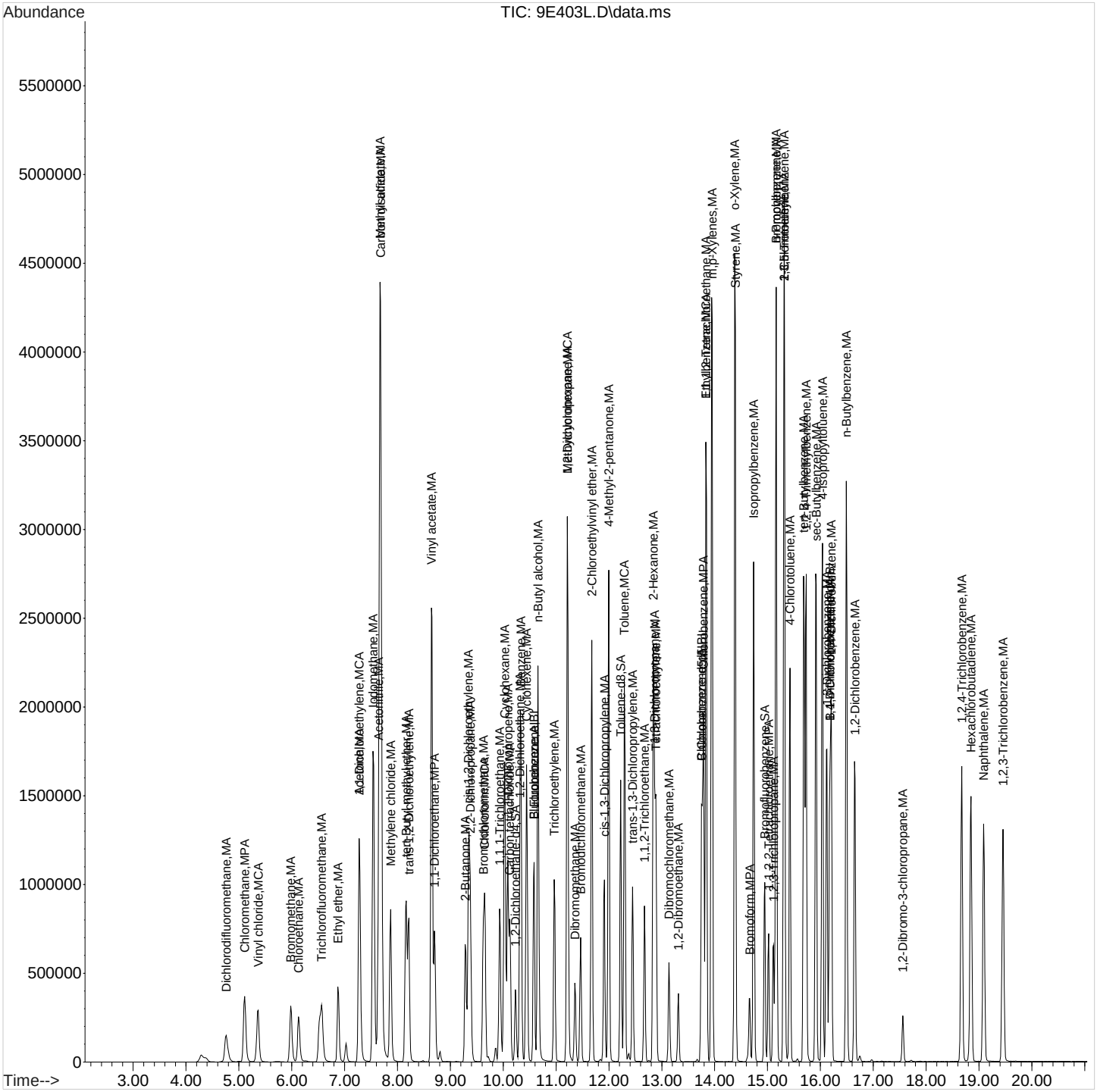
Quant Time: Sep 22 10:14:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.	
94) Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d
95) Propionitrile		9.281	9.364	0.877	0m	N.D.	d
96) Methacrylonitrile		9.649	9.542	0.911	0m	N.D.	d
97) Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98) Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.337	10.337	0.976	0m	N.D.	d
100) Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101) 1,4-Dioxane		11.356	11.297	1.073	0m	N.D.	d
102) 2-Nitropropane		11.677	11.665	1.103	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106) 1-Chlorohexane		13.669	13.633	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108) Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110) Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111) Benzyl chloride		16.384	16.325	1.012	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E403L.D
Acq On    : 22 Sep 2011  09:55
Operator  : RXY1
InstName  : VOA9
Sample    : |1202493529|1143643|1|VOA|1|VOA624_LFD|
Misc      : GEL 5ml n/a MIX[A] 0722-01C + 0918-01
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Sep 22 10:14:50 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE
```



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202493530**				
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143643**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 11:18**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/22/2011 11:18**				
Data File:	**092211V9\9E406L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein		0.235	mg/L	0.00125	0.005
107-13-1	Acrylonitrile		0.221	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.0	50.0	ug/L	102	(79%-124%)
Bromofluorobenzene	54.1	50.0	ug/L	108	(80%-120%)
Toluene-d8	52.5	50.0	ug/L	105	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E406L.D
Acq On : 22 Sep 2011 11:18
Operator : RXY1
InstName : VOA9
Sample : |1202493530|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 22 12:23:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.586	10.585	1.000	1202499	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	901157	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	447013	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	1202499	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	901157	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	447013	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	323836	50.99	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	1223646	52.54	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	465509	54.13	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	101.98%
43) Toluene-d8	50.000	80 - 120	105.08%
61) Bromofluorobenzene	50.000	80 - 120	108.26%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.762	0.000	0	N.D.		
3) Chloromethane		5.098	5.112	0.482	0m	N.D.	d	
4) Vinyl chloride		5.350	5.350	0.505	0m	N.D.	d	
5) Bromomethane		0.000	5.980	0.000	0	N.D.		
6) Chloroethane		0.000	6.127	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.565	0.000	0	N.D.		
8) Ethyl ether		0.000	6.874	0.000	0	N.D.		
9) Acetone		7.241	7.265	0.684	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.253	7.277	0.685	0m	N.D.	d	
11) Iodomethane		0.000	7.538	0.000	0	N.D.		
12) Acetonitrile		7.716	7.644	0.729	0m	N.D.	d	
13) Methyl acetate		7.668	7.668	0.724	0m	N.D.	d	
14) Carbon disulfide		7.716	7.680	0.729	0m	N.D.	d	
15) Methylene chloride		7.870	7.870	0.743	0m	N.D.	d	
16) tert-Butyl methyl ether		8.166	8.166	0.771	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.214	0.000	0	N.D.		
18) Vinyl acetate		8.653	8.641	0.817	0m	N.D.	d	
19) 1,1-Dichloroethane		8.807	8.700	0.832	0m	N.D.	d	
20) 2-Butanone		9.293	9.281	0.878	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		9.293	9.340	0.878	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	9.376	0.000	0	N.D.		
23) Bromochloromethane		0.000	9.625	0.000	0	N.D.		
24) Chloroform		9.649	9.649	0.912	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	9.933	0.000	0	N.D.		
26) Cyclohexane		9.969	10.028	0.942	0m	N.D.	d	
27) 1,1-Dichloropropene		10.087	10.087	0.953	0m	N.D.	d	
28) Carbon tetrachloride		0.000	10.123	0.000	0	N.D.		
30) 1,2-Dichloroethane		10.313	10.313	0.974	0m	N.D.	d	
31) Benzene		10.337	10.336	0.976	0m	N.D.	d	
32) Cyclohexene		10.574	10.443	0.999	0m	N.D.	d	
33) n-Butyl alcohol		10.680	10.657	1.009	0m	N.D.	d	
34) Trichloroethylene		10.977	10.965	1.037	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	11.214	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E406L.D
Acq On : 22 Sep 2011 11:18
Operator : RXY1
InstName : VOA9
Sample : |1202493530|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 22 12:23:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane		11.178	11.214	1.056	0m	N.D.	d	
37) Dibromomethane		0.000	11.356	0.000	0	N.D.		
38) Bromodichloromethane		0.000	11.463	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	11.676	0.000	0	N.D.		
40) cis-1,3-Dichloropropylene		11.914	11.914	1.125	0m	N.D.	d	
42) 4-Methyl-2-pentanone		0.000	11.997	0.000	0	N.D.		
44) Toluene		12.293	12.293	0.894	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		12.447	12.447	0.905	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	12.672	0.000	0	N.D.		
47) 2-Hexanone		12.839	12.839	0.934	0m	N.D.	d	
48) 1,3-Dichloropropane		12.910	12.862	0.939	0m	N.D.	d	
49) Tetrachloroethylene		12.886	12.886	0.937	0m	N.D.	d	
50) Dibromochloromethane		0.000	13.135	0.000	0	N.D.		
51) 1,2-Dibromoethane		13.313	13.313	0.968	0m	N.D.	d	
52) Chlorobenzene		13.787	13.787	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	13.835	0.000	0	N.D.		
54) Ethylbenzene		13.847	13.846	1.007	0m	N.D.	d	
55) m,p-Xylenes		13.953	13.953	1.015	0m	N.D.	d	
56) o-Xylene		14.380	14.380	1.046	0m	N.D.	d	
57) Styrene		14.392	14.392	1.047	0m	N.D.	d	
59) Bromoform		0.000	14.665	0.000	0	N.D.		
60) Isopropylbenzene		14.736	14.736	0.911	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		15.068	15.020	0.931	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	15.115	0.000	0	N.D.		
64) Bromobenzene		15.163	15.163	0.937	0m	N.D.	d	
65) n-Propylbenzene		15.163	15.163	0.937	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		15.317	15.317	0.947	0m	N.D.	d	
67) 2-Chlorotoluene		15.329	15.329	0.947	0m	N.D.	d	
68) 4-Chlorotoluene		15.424	15.424	0.953	0m	N.D.	d	
69) tert-Butylbenzene		0.000	15.685	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		15.732	15.732	0.972	0m	N.D.	d	
71) sec-Butylbenzene		15.910	15.922	0.983	0m	N.D.	d	
72) 4-Isopropyltoluene		16.040	16.040	0.991	0m	N.D.	d	
73) 1,3-Dichlorobenzene		16.123	16.123	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		16.206	16.206	1.001	0m	N.D.	d	
75) n-Butylbenzene		0.000	16.491	0.000	0	N.D.		
76) 1,2-Dichlorobenzene		16.657	16.657	1.029	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	17.558	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		18.685	18.673	1.155	0m	N.D.	d	
79) Hexachlorobutadiene		18.851	18.851	1.165	0m	N.D.	d	
80) Naphthalene		19.100	19.088	1.180	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		19.456	19.456	1.202	0m	N.D.	d	
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.		
85) Acrolein	56	7.099	7.087	0.671	327280	234.67	ug/L	77
86) Trichlorotrifluoroethane	85	7.253	7.253	0.685	1025407	301.09	ug/L	92
87) Isopropyl Alcohol	45	7.360	7.348	0.695	3384	N.D.		
88) Allyl chloride	41	7.716	7.716	0.729	4388280	242.06	ug/L	96
89) tert-Butyl Alcohol	59	7.870	7.858	0.743	649	N.D.		
90) Acrylonitrile	53	8.131	8.131	0.768	683110	220.74	ug/L	99
91) Isopropyl ether	45	8.664	8.664	0.819	198	N.D.		
92) 2-Chloro-1,3-butadiene	53	8.807	8.807	0.832	635386	45.60	ug/L	90

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E406L.D
Acq On : 22 Sep 2011 11:18
Operator : RXY1
InstName : VOA9
Sample : |1202493530|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 22 12:23:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

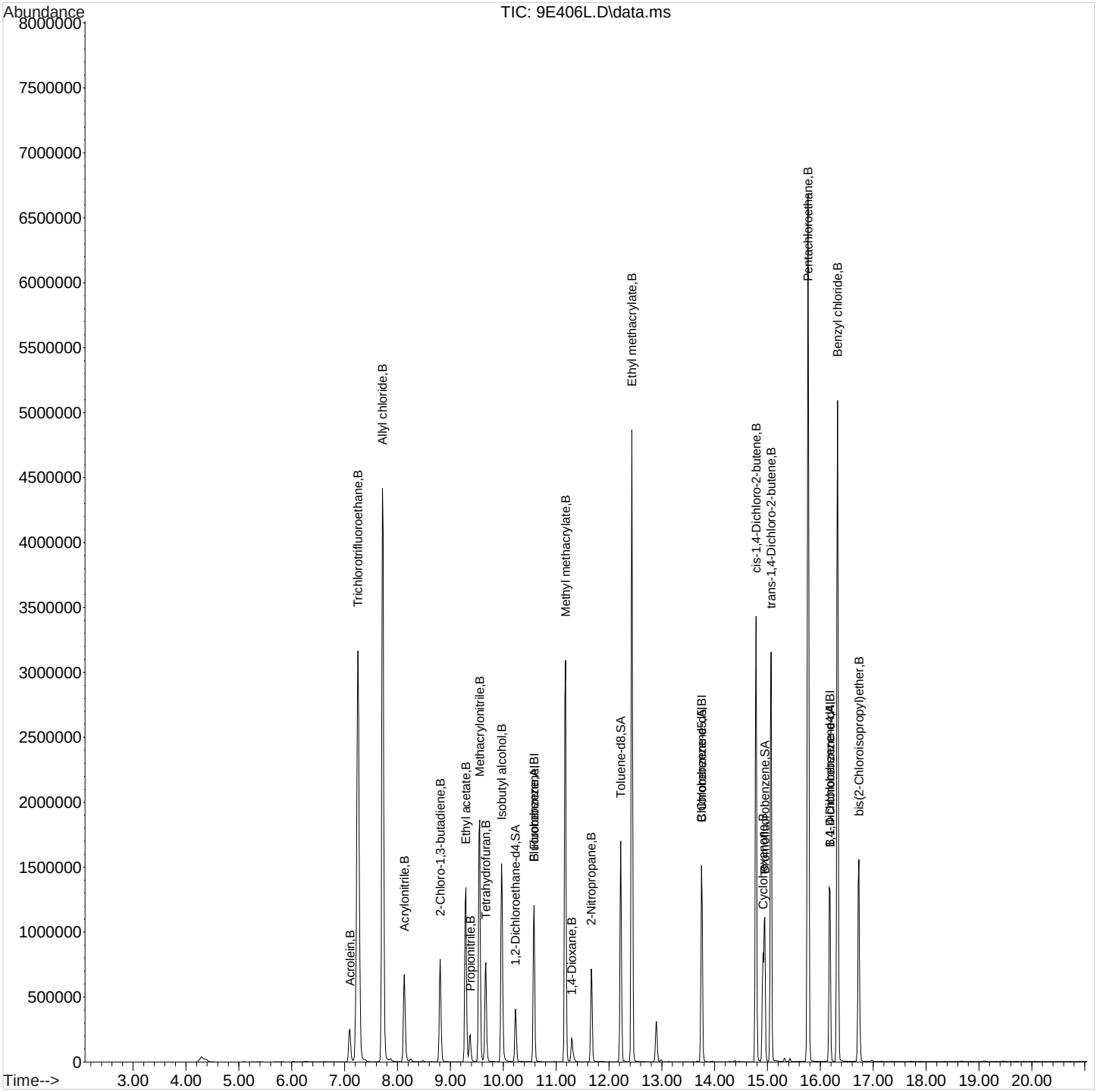
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.		
94)	Ethyl acetate	43	9.293	9.281	0.878	1966145	243.13	ug/L	97
95)	Propionitrile	54	9.376	9.364	0.886	274255	237.62	ug/L	99
96)	Methacrylonitrile	41	9.554	9.542	0.903	1240332	234.86	ug/L	98
97)	Tetrahydrofuran	42	9.672	9.661	0.914	648148	234.32	ug/L	93
98)	Isobutyl alcohol	41	9.969	9.969	0.942	832814	2471.70	ug/L	96
99)	Methyl tert-amyl ether	73	10.337	10.337	0.976	201	N.D.		
100)	Methyl methacrylate	69	11.178	11.178	1.056	1184752	254.84	ug/L	82
101)	1,4-Dioxane	88	11.297	11.297	1.067	158638	2425.21	ug/L	89
102)	2-Nitropropane	43	11.665	11.665	1.102	618085	272.97	ug/L	96
104)	Ethyl methacrylate	69	12.435	12.435	0.904	2482964	269.16	ug/L	89
106)	1-Chlorohexane	55	13.669	13.633	0.845	184	N.D.		
107)	cis-1,4-Dichloro-2-butene	53	14.783	14.783	0.914	934570	308.47	ug/L	90
108)	Cyclohexanone	42	14.914	14.914	0.922	294123	1471.20	ug/L	96
109)	trans-1,4-Dichloro-2-b...	53	15.068	15.068	0.931	866766	331.79	ug/L	87
110)	Pentachloroethane	167	15.768	15.768	0.974	1519326	319.02	ug/L	97
111)	Benzyl chloride	91	16.325	16.325	1.009	4314065	305.29	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	16.728	16.728	1.034	1393168	276.01	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092211V9\
Data File : 9E406L.D
Acq On : 22 Sep 2011 11:18
Operator : RXY1
InstName : VOA9
Sample : |1202493530|1143643|1|VOA|1|VOA624_LFD|
Misc : GEL 5ml n/a MIX[B] 0830-08B + 0830-16C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 22 12:23:00 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202492556**	**Date Received:**	**09/20/2011 09:05**		
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES13S-11-26994PS**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/21/2011 19:36**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/21/2011 19:36**				
Data File:	**092111V9\9E323.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.0591	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0549	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0536	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0479	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.0449	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.046	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0378	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0501	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0734	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0441	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0447	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0499	mg/L	0.00025	0.001
71-43-2	Benzene		0.045	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0452	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0505	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	E	0.104	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.221	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0463	mg/L	0.00025	0.001
108-88-3	Toluene		0.0493	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0537	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.0524	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.049	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	E	0.150	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0492	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.052	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0856	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.0485	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0486	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0472	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0487	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	53.7	50.0	ug/L	107	(79%-124%)
Bromofluorobenzene	46.7	50.0	ug/L	93.4	(80%-120%)
Toluene-d8	53.5	50.0	ug/L	107	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E323.D
Acq On : 21 Sep 2011 19:36
Operator : RXY1
InstName : VOA9
Sample : |1202492556|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MS 286171001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 22 08:19:19 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.586	10.585	1.000	844936	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	610945	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	364597	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.586	10.585	1.000	844936	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	610945	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	364597	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	239398	53.65	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	844859	53.51	ug/L	0.00
61) Bromofluorobenzene	95	14.950	14.949	0.924	327701	46.72	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	107.30%
43) Toluene-d8	50.000	80 - 120	107.02%
61) Bromofluorobenzene	50.000	80 - 120	93.44%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.748	4.762	0.449	233293	40.93	ug/L	99
3) Chloromethane	50	5.098	5.112	0.482	544435	59.06	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	434476	54.87	ug/L	96
5) Bromomethane	94	5.980	5.980	0.565	247140	53.62	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	257314	47.93	ug/L	97
7) Trichlorofluoromethane	101	6.554	6.565	0.619	434882	47.96	ug/L	100
8) Ethyl ether	59	6.874	6.874	0.649	246949	44.45	ug/L	97
9) Acetone	43	7.265	7.265	0.686	712204	189.18	ug/L	99
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	511163	44.92	ug/L	93
11) Iodomethane	142	7.538	7.538	0.712	2051152	219.45	ug/L	97
12) Acetonitrile	41	7.645	7.644	0.722	1257465	1288.38	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1283500	245.24	ug/L	95
14) Carbon disulfide	76	7.668	7.680	0.724	4837032	230.07	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	324590	45.99	ug/L #	82
16) tert-Butyl methyl ether	73	8.155	8.166	0.770	795587	45.40	ug/L	94
17) trans-1,2-Dichloroethy...	61	8.202	8.214	0.775	409745	37.83	ug/L	87
18) Vinyl acetate	43	8.641	8.641	0.816	3295315	278.82	ug/L	94
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	632484	50.10	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.877	839417	185.73	ug/L	92
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	680267	57.23	ug/L	88
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	446196	45.07	ug/L	83
23) Bromochloromethane	128	9.625	9.625	0.909	127294	47.59	ug/L #	63
24) Chloroform	83	9.649	9.649	0.911	754509	73.38	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	431033	44.09	ug/L	94
26) Cyclohexane	56	10.028	10.028	0.947	691293	43.01	ug/L	89
27) 1,1-Dichloropropene	75	10.088	10.087	0.953	382510	45.96	ug/L	90
28) Carbon tetrachloride	117	10.123	10.123	0.956	352859	44.73	ug/L	98
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	415102	49.93	ug/L	98
31) Benzene	78	10.337	10.336	0.976	1115172	45.01	ug/L	96
32) Cyclohexene	67	10.443	10.443	0.987	615677	44.74	ug/L	89
33) n-Butyl alcohol	41	10.657	10.657	1.007	808842	5321.41	ug/L	94
34) Trichloroethylene	95	10.965	10.965	1.036	275154	45.20	ug/L	96
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	358711	50.52	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E323.D
Acq On : 21 Sep 2011 19:36
Operator : RXY1
InstName : VOA9
Sample : |1202492556|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MS 286171001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 22 08:19:19 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
36) Methylcyclohexane	83	11.214	11.214	1.059	543664	44.81	ug/L		85
37) Dibromomethane	93	11.356	11.356	1.073	153158	48.68	ug/L		94
38) Bromodichloromethane	83	11.463	11.463	1.083	764685	104.47	ug/L		98 A
39) 2-Chloroethylvinyl ether	63	11.677	11.676	1.103	816559	221.00	ug/L		95
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	439293	46.31	ug/L		91
42) 4-Methyl-2-pentanone	58	11.997	11.997	0.872	613990	266.24	ug/L		86
44) Toluene	91	12.293	12.293	0.894	1175930	49.28	ug/L		95
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	394610	53.66	ug/L		91
46) 1,1,2-Trichloroethane	83	12.673	12.672	0.922	197915	52.44	ug/L		97
47) 2-Hexanone	43	12.839	12.839	0.934	1388966	236.79	ug/L		95
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	421182	55.34	ug/L	#	78
49) Tetrachloroethylene	164	12.886	12.886	0.937	209415	48.97	ug/L		94
50) Dibromochloromethane	129	13.135	13.135	0.955	679275	149.76	ug/L		98 A
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	223714	52.25	ug/L		96
52) Chlorobenzene	112	13.787	13.787	1.003	773264	49.24	ug/L		96
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	272266	54.54	ug/L		97
54) Ethylbenzene	91	13.835	13.846	1.006	1422954	51.95	ug/L		95
55) m,p-Xylenes	106	13.953	13.953	1.015	1092791	104.45	ug/L		84
56) o-Xylene	106	14.380	14.380	1.046	562645	53.64	ug/L		85
57) Styrene	104	14.392	14.392	1.047	921426	53.41	ug/L		96
59) Bromoform	173	14.665	14.665	0.906	291100	85.64	ug/L		97
60) Isopropylbenzene	105	14.736	14.736	0.911	1480782	47.79	ug/L		95
62) 1,1,2,2-Tetrachloroethane	83	15.021	15.020	0.928	326744	48.53	ug/L		97
63) 1,2,3-Trichloropropane	110	15.116	15.115	0.934	85154	49.41	ug/L	#	69
64) Bromobenzene	156	15.163	15.163	0.937	338567	49.46	ug/L	#	83
65) n-Propylbenzene	91	15.163	15.163	0.937	1822219	49.37	ug/L		93
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1341169	50.96	ug/L		94
67) 2-Chlorotoluene	126	15.317	15.329	0.947	357283	50.94	ug/L	#	73
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1093992	47.22	ug/L		93
69) tert-Butylbenzene	134	15.685	15.685	0.969	258887	49.97	ug/L	#	80
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1384014	50.44	ug/L		89
71) sec-Butylbenzene	105	15.922	15.922	0.984	1870151	50.41	ug/L		93
72) 4-Isopropyltoluene	119	16.041	16.040	0.991	1531473	51.87	ug/L		95
73) 1,3-Dichlorobenzene	146	16.124	16.123	0.996	684600	48.62	ug/L		97
74) 1,4-Dichlorobenzene	146	16.207	16.206	1.001	683418	47.19	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	1660939	52.39	ug/L		93
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	666815	48.67	ug/L		96
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	60143	42.28	ug/L		88
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	518474	46.60	ug/L		97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	336862	47.05	ug/L		98
80) Naphthalene	128	19.088	19.088	1.180	1126713	48.46	ug/L		99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	460361	47.59	ug/L		99
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		0.000	7.087	0.000	0	N.D.			
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.			
87) Isopropyl Alcohol		7.289	7.348	0.689	0m	N.D.	d		
88) Allyl chloride		7.645	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.			
90) Acrylonitrile		8.155	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E323.D
Acq On : 21 Sep 2011 19:36
Operator : RXY1
InstName : VOA9
Sample : |1202492556|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MS 286171001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 22 08:19:19 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

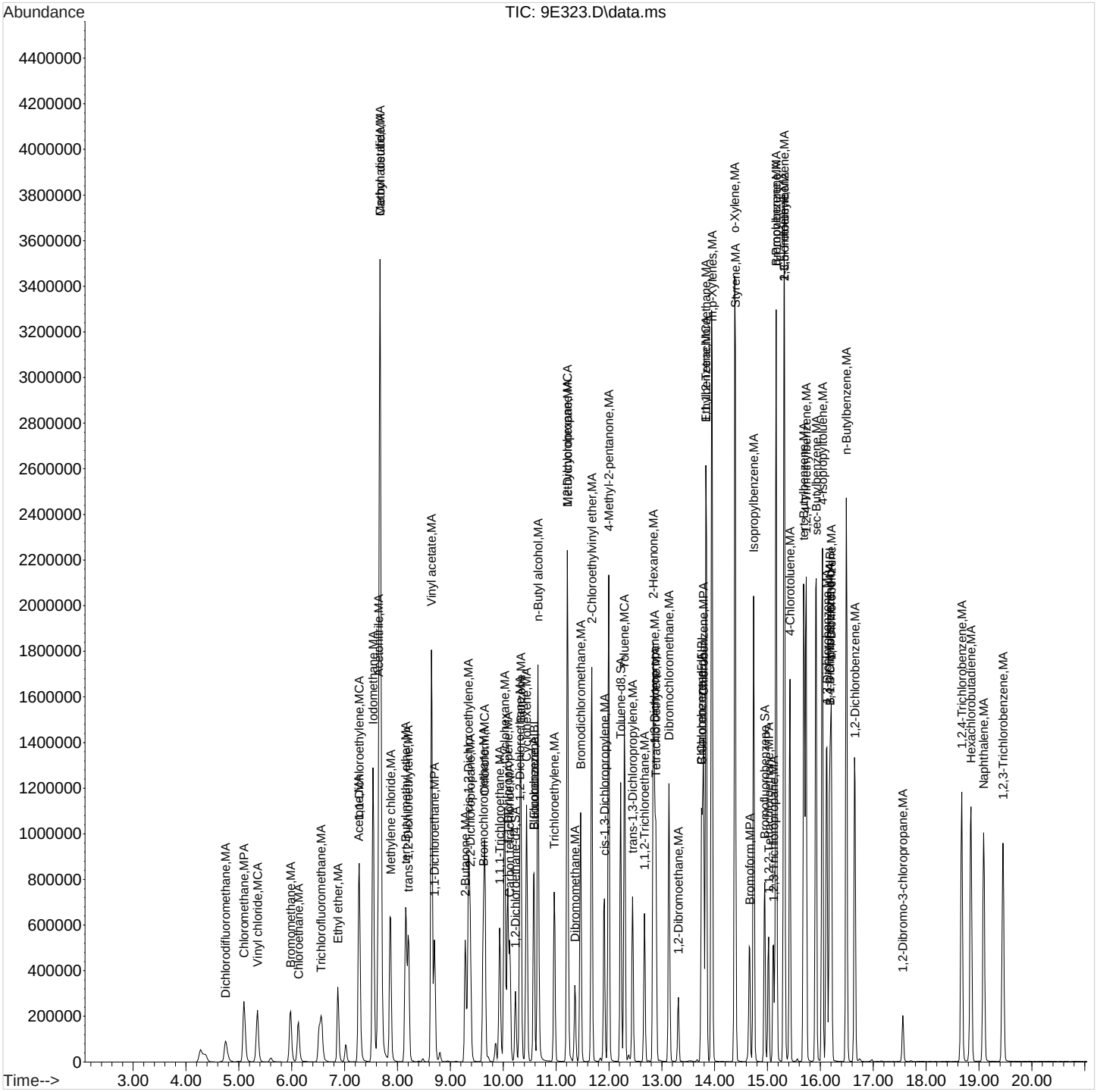
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.	
94)	Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d
95)	Propionitrile		9.376	9.364	0.886	0m	N.D.	d
96)	Methacrylonitrile		9.661	9.542	0.913	0m	N.D.	d
97)	Tetrahydrofuran		9.661	9.661	0.913	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.337	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.309	11.297	1.068	0m	N.D.	d
102)	2-Nitropropane		11.677	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		13.669	13.633	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.384	16.325	1.012	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.740	16.728	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E323.D
Acq On : 21 Sep 2011 19:36
Operator : RXY1
InstName : VOA9
Sample : |1202492556|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MS 286171001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 22 08:19:19 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202492557**	**Date Received:**	**09/20/2011 09:05**		
Client Sample:	**QC for batch 1143643**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES13S-11-26994PSD**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1143643**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**09/21/2011 20:03**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/21/2011 20:03**				
Data File:	**092111V9\9E324.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.0571	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0516	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0515	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0481	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.0457	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.0464	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0379	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0494	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0737	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0455	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0463	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0502	mg/L	0.00025	0.001
71-43-2	Benzene		0.0459	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0462	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0511	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	E	0.106	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.238	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0495	mg/L	0.00025	0.001
108-88-3	Toluene		0.0499	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0549	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.0536	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0494	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	E	0.153	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.050	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.0526	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0945	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.053	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0506	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0486	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0506	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	53.8	50.0	ug/L	108	(79%-124%)
Bromofluorobenzene	49.2	50.0	ug/L	98.4	(80%-120%)
Toluene-d8	52.7	50.0	ug/L	105	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E324.D
Acq On : 21 Sep 2011 20:03
Operator : RXY1
InstName : VOA9
Sample : |1202492557|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MSD 286171001
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 22 08:19:21 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.585	10.585	1.000	955110	50.00	ug/L	0.00
41) Chlorobenzene-d5	117	13.752	13.752	1.000	712954	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	392535	50.00	ug/L	0.00
82) B Fluorobenzene	96	10.585	10.585	1.000	955110	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.752	13.752	1.000	712954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.183	16.183	1.000	392535	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	65	10.230	10.230	0.966	271158	53.76	ug/L	0.00
43) Toluene-d8	98	12.222	12.222	0.889	971237	52.71	ug/L	0.00
61) Bromofluorobenzene	95	14.949	14.949	0.924	371416	49.18	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	107.52%
43) Toluene-d8	50.000	80 - 120	105.42%
61) Bromofluorobenzene	50.000	80 - 120	98.36%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.762	4.762	0.450	274917	42.67	ug/L	100
3) Chloromethane	50	5.112	5.112	0.483	594598	57.07	ug/L	97
4) Vinyl chloride	62	5.350	5.350	0.505	461781	51.59	ug/L	96
5) Bromomethane	94	5.980	5.980	0.565	268302	51.50	ug/L	99
6) Chloroethane	64	6.127	6.127	0.579	291730	48.07	ug/L	98
7) Trichlorofluoromethane	101	6.565	6.565	0.620	492686	48.07	ug/L	100
8) Ethyl ether	59	6.874	6.874	0.649	289886	46.16	ug/L	100
9) Acetone	43	7.265	7.265	0.686	825464	194.05	ug/L	99
10) 1,1-Dichloroethylene	61	7.277	7.277	0.687	588375	45.74	ug/L	94
11) Iodomethane	142	7.538	7.538	0.712	2360937	223.46	ug/L	96
12) Acetonitrile	41	7.644	7.644	0.722	1417687	1284.99	ug/L	99
13) Methyl acetate	43	7.668	7.668	0.724	1448782	244.89	ug/L	95
14) Carbon disulfide	76	7.680	7.680	0.726	5542040	233.20	ug/L	97
15) Methylene chloride	84	7.870	7.870	0.743	369778	46.35	ug/L	85
16) tert-Butyl methyl ether	73	8.154	8.166	0.770	932190	47.06	ug/L	94
17) trans-1,2-Dichloroethy...	61	8.214	8.214	0.776	463756	37.88	ug/L	87
18) Vinyl acetate	43	8.641	8.641	0.816	3662797	274.16	ug/L	95
19) 1,1-Dichloroethane	63	8.700	8.700	0.822	704883	49.40	ug/L	97
20) 2-Butanone	43	9.281	9.281	0.877	979339	191.69	ug/L	94
21) cis-1,2-Dichloroethylene	61	9.340	9.340	0.882	764667	56.91	ug/L	89
22) 2,2-Dichloropropane	77	9.376	9.376	0.886	521554	46.61	ug/L	89
23) Bromochloromethane	128	9.625	9.625	0.909	148021	48.95	ug/L #	69
24) Chloroform	83	9.649	9.649	0.911	857180	73.74	ug/L	98
25) 1,1,1-Trichloroethane	97	9.933	9.933	0.938	503244	45.54	ug/L	95
26) Cyclohexane	56	10.028	10.028	0.947	792028	43.59	ug/L	90
27) 1,1-Dichloropropene	75	10.087	10.087	0.953	444115	47.21	ug/L	92
28) Carbon tetrachloride	117	10.123	10.123	0.956	412982	46.31	ug/L	97
30) 1,2-Dichloroethane	62	10.313	10.313	0.974	471454	50.17	ug/L	98
31) Benzene	78	10.336	10.336	0.976	1284005	45.85	ug/L	97
32) Cyclohexene	67	10.443	10.443	0.987	706733	45.44	ug/L	92
33) n-Butyl alcohol	41	10.656	10.657	1.007	971203	5652.54	ug/L	95
34) Trichloroethylene	95	10.965	10.965	1.036	317771	46.18	ug/L	95
35) 1,2-Dichloropropane	63	11.214	11.214	1.059	410445	51.14	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E324.D
Acq On : 21 Sep 2011 20:03
Operator : RXY1
InstName : VOA9
Sample : |1202492557|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MSD 286171001
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 22 08:19:21 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
36) Methylcyclohexane	83	11.214	11.214	1.059	622772	45.41	ug/L		86
37) Dibromomethane	93	11.356	11.356	1.073	179439	50.46	ug/L		92
38) Bromodichloromethane	83	11.463	11.463	1.083	879717	106.32	ug/L		97 A
39) 2-Chloroethylvinyl ether	63	11.676	11.676	1.103	994012	238.00	ug/L		95
40) cis-1,3-Dichloropropylene	75	11.914	11.914	1.125	530624	49.48	ug/L		94
42) 4-Methyl-2-pentanone	58	11.996	11.997	0.872	746514	277.39	ug/L		89
44) Toluene	91	12.293	12.293	0.894	1388553	49.86	ug/L		96
45) trans-1,3-Dichloroprop...	75	12.447	12.447	0.905	470740	54.85	ug/L		93
46) 1,1,2-Trichloroethane	83	12.672	12.672	0.922	235894	53.56	ug/L		98
47) 2-Hexanone	43	12.838	12.839	0.934	1657710	242.17	ug/L		97
48) 1,3-Dichloropropane	76	12.862	12.862	0.935	508623	57.26	ug/L		82
49) Tetrachloroethylene	164	12.886	12.886	0.937	246395	49.38	ug/L		94
50) Dibromochloromethane	129	13.135	13.135	0.955	807301	152.52	ug/L		100 A
51) 1,2-Dibromoethane	107	13.313	13.313	0.968	269763	53.99	ug/L		96
52) Chlorobenzene	112	13.787	13.787	1.003	916138	49.99	ug/L		96
53) 1,1,1,2-Tetrachloroethane	131	13.835	13.835	1.006	314859	54.05	ug/L		97
54) Ethylbenzene	91	13.835	13.846	1.006	1682231	52.63	ug/L		94
55) m,p-Xylenes	106	13.953	13.953	1.015	1272037	104.18	ug/L		84
56) o-Xylene	106	14.380	14.380	1.046	657448	53.71	ug/L		86
57) Styrene	104	14.392	14.392	1.047	1082966	53.79	ug/L		97
59) Bromoform	173	14.665	14.665	0.906	345827	94.47	ug/L		97
60) Isopropylbenzene	105	14.736	14.736	0.911	1726919	51.77	ug/L		95
62) 1,1,2,2-Tetrachloroethane	83	15.020	15.020	0.928	384108	52.98	ug/L		97
63) 1,2,3-Trichloropropane	110	15.115	15.115	0.934	98290	52.98	ug/L	#	70
64) Bromobenzene	156	15.163	15.163	0.937	384444	52.16	ug/L	#	83
65) n-Propylbenzene	91	15.163	15.163	0.937	2060333	51.85	ug/L		94
66) 1,3,5-Trimethylbenzene	105	15.317	15.317	0.947	1515745	53.50	ug/L		94
67) 2-Chlorotoluene	126	15.317	15.329	0.947	402305	53.28	ug/L	#	72
68) 4-Chlorotoluene	91	15.424	15.424	0.953	1248867	50.06	ug/L		93
69) tert-Butylbenzene	134	15.685	15.685	0.969	285708	51.22	ug/L	#	78
70) 1,2,4-Trimethylbenzene	105	15.732	15.732	0.972	1541199	52.17	ug/L		89
71) sec-Butylbenzene	105	15.922	15.922	0.984	2068790	51.80	ug/L		93
72) 4-Isopropyltoluene	119	16.040	16.040	0.991	1700039	53.48	ug/L		96
73) 1,3-Dichlorobenzene	146	16.123	16.123	0.996	767554	50.63	ug/L		96
74) 1,4-Dichlorobenzene	146	16.206	16.206	1.001	758106	48.62	ug/L		96
75) n-Butylbenzene	91	16.491	16.491	1.019	1810496	53.05	ug/L		93
76) 1,2-Dichlorobenzene	146	16.657	16.657	1.029	746182	50.58	ug/L		96
77) 1,2-Dibromo-3-chloropr...	157	17.558	17.558	1.085	74115	48.15	ug/L		92
78) 1,2,4-Trichlorobenzene	180	18.673	18.673	1.154	577627	48.22	ug/L		97
79) Hexachlorobutadiene	225	18.851	18.851	1.165	365798	47.46	ug/L		98
80) Naphthalene	128	19.088	19.088	1.180	1287387	51.43	ug/L		99
81) 1,2,3-Trichlorobenzene	180	19.456	19.456	1.202	523275	50.24	ug/L		98
83) Chlorotrifluoroethylene		0.000	4.678	0.000	0	N.D.			
84) 2-Chloro-1,1,1-trifluo...		0.000	5.504	0.000	0	N.D.			
85) Acrolein		7.016	7.087	0.663	0m	N.D.	d		
86) Trichlorotrifluoroethane		0.000	7.253	0.000	0	N.D.			
87) Isopropyl Alcohol		7.289	7.348	0.689	0m	N.D.	d		
88) Allyl chloride		7.644	7.716	0.722	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.858	0.000	0	N.D.			
90) Acrylonitrile		8.154	8.131	0.770	0m	N.D.	d		
91) Isopropyl ether		8.641	8.664	0.816	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.807	8.807	0.832	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E324.D
Acq On : 21 Sep 2011 20:03
Operator : RXY1
InstName : VOA9
Sample : |1202492557|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MSD 286171001
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 22 08:19:21 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE

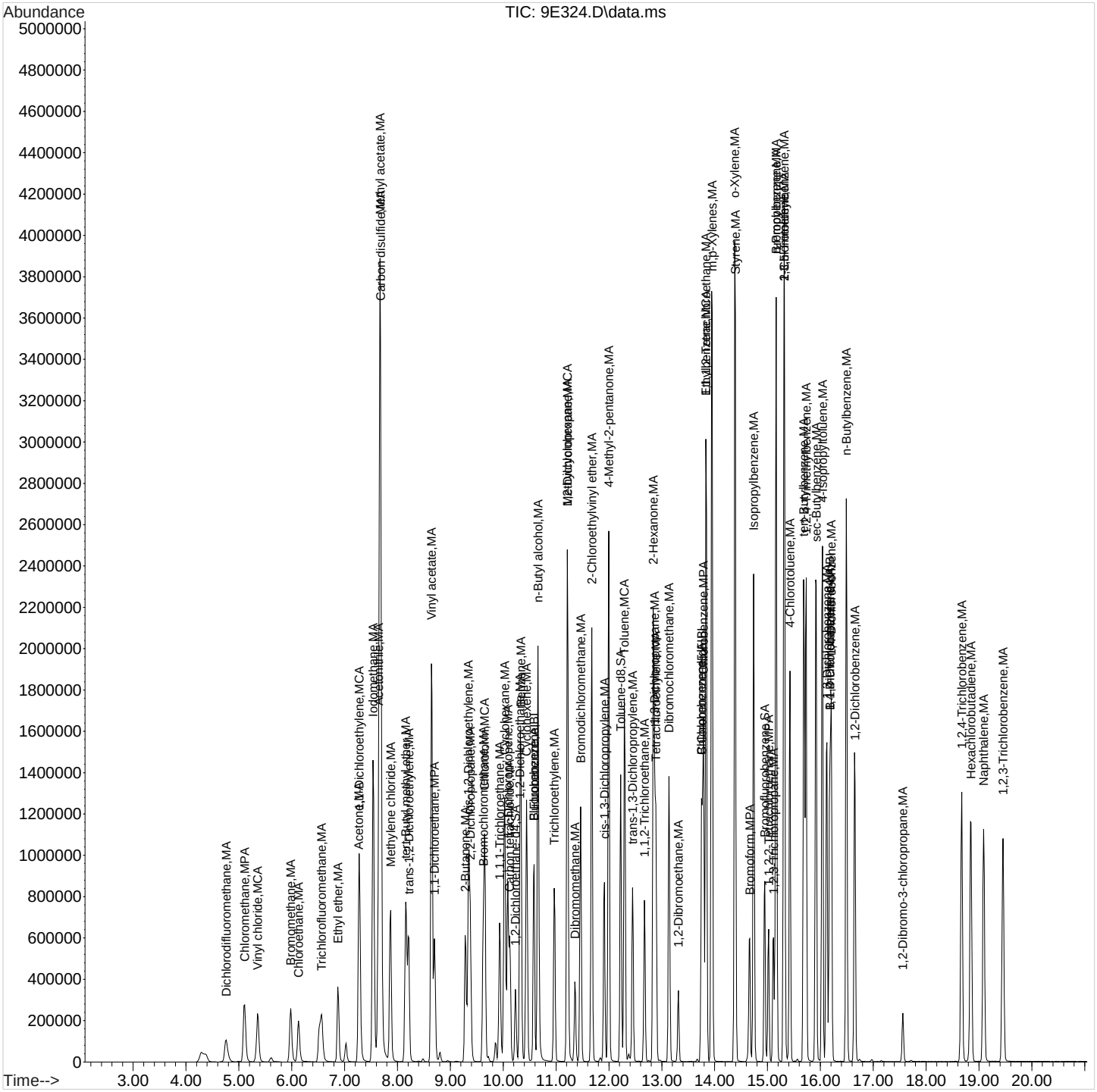
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	9.080	0.000	0	N.D.	
94)	Ethyl acetate		9.281	9.281	0.877	0m	N.D.	d
95)	Propionitrile		9.281	9.364	0.877	0m	N.D.	d
96)	Methacrylonitrile		9.649	9.542	0.911	0m	N.D.	d
97)	Tetrahydrofuran		9.672	9.661	0.914	0m	N.D.	d
98)	Isobutyl alcohol		10.028	9.969	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.336	10.337	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.214	11.178	1.059	0m	N.D.	d
101)	1,4-Dioxane		11.356	11.297	1.073	0m	N.D.	d
102)	2-Nitropropane		11.676	11.665	1.103	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.435	0.000	0	N.D.	
106)	1-Chlorohexane		13.669	13.633	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.736	14.783	0.911	0m	N.D.	d
108)	Cyclohexanone		14.736	14.914	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.163	15.068	0.937	0m	N.D.	d
110)	Pentachloroethane		15.768	15.768	0.974	0m	N.D.	d
111)	Benzyl chloride		16.313	16.325	1.008	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.752	16.728	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\092111V9\
Data File : 9E324.D
Acq On : 21 Sep 2011 20:03
Operator : RXY1
InstName : VOA9
Sample : |1202492557|1143643|1|VOA|1|VOA624_LFD|
Misc : ARSL 5ml pH7 MIX[A] MSD 286171001
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 22 08:19:21 2011
Quant Method : C:\msdchem\1\DATA\090611V9\VOA9-8260-090611.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 07 10:19:29 2011
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 9/6/2011 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2011 & 9/7/2011

(See pg. 239 & 240 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 090611V9

Daily Standard Solution ID# / Volume Added for Purge (ul)

		Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM110725-01	1	1	1	
SS	UVM110725-02	1	1	1	
BFB	IVM110902-01				1

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
6 Sep 2011	10:39	9C201.D	IVM110902-01	--------	BFB	5ml	1	--------	1	w / s	RXY1	N/A	X	
6 Sep 2011	11:25	9C202.D	W9VM110906-01	--------	CCV	5ml	1	--------	2	w	RXY1	N/A	X	MIX[A] 0808-01C+0831-02
6 Sep 2011	11:52	9C203.D	W9VM110906-02	--------	LCS	5g	1	--------	3	s	RXY1	N/A	X	MIX[A] 0808-01C+0831-02 SOIL
6 Sep 2011	12:19	9C204.D	12024----------	--------	BLANK	5ml	1	--------	4	w	RXY1	N/A	X	Instrument blank
6 Sep 2011	12:47	9C205.D	12024----------	--------	BLANK	5ml	1	--------	5	w	RXY1	N/A	X	0.5 ppb test
6 Sep 2011	13:15	9C206.D	12024----------	--------	BLANK	5ml	1	--------	6	w	RXY1	N/A	X	Instrument blank
6 Sep 2011	13:42	9C207.D	12024----------	--------	BLANK	5ml	1	--------	7	w	RXY1	N/A	X	0.5 ppb test
6 Sep 2011	**14:18**	9C208.D	IVM110902-01	--------	BFB	5ml	1	--------	8	w	RXY1	N/A	O	
6 Sep 2011	14:43	9C209.D	W9VM110906-03	GEL.5	ICAL	5ml	1	--------	9	w	RXY1	N/A	O	MIX[A] UVM110723-01B + UVM110826-01A
6 Sep 2011	15:10	9C210.D	W9VM110906-04	GEL1	ICAL	5ml	1	--------	10	w	RXY1	N/A	O	MIX[A] UVM110723-02B + UVM110826-02A
6 Sep 2011	15:37	9C211.D	W9VM110906-05	GEL2	ICAL	5ml	1	--------	11	w	RXY1	N/A	O	MIX[A] UVM110723-03B + UVM110826-03A
6 Sep 2011	16:04	9C212.D	W9VM110906-06	GEL10	ICAL	5ml	1	--------	12	w	RXY1	N/A	O	MIX[A] UVM110723-05B + UVM110826-05A
6 Sep 2011	16:31	9C213.D	W9VM110906-07	GEL50	ICAL	5ml	1	--------	13	w	RXY1	N/A	O	MIX[A] UVM110723-07B + UVM110826-07A
6 Sep 2011	16:58	9C214.D	W9VM110906-08	GEL80	ICAL	5ml	1	--------	14	w	RXY1	N/A	O	MIX[A] UVM110723-08B + UVM110826-08A
6 Sep 2011	17:25	9C215.D	W9VM110906-09	GEL100	ICAL	5ml	1	--------	15	w	RXY1	N/A	O	MIX[A] UVM110723-08B + UVM110826-08A
6 Sep 2011	17:52	9C216.D	12024----------	--------	BLANK	5ml	1	--------	16	w	RXY1	N/A	X	Instrument blank
6 Sep 2011	18:19	9C217.D	W9VM110906-10	GEL5	ICAL	5ml	1	--------	17	w	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B
6 Sep 2011	18:46	9C218.D	W9VM110906-11	GEL25	ICAL	5ml	1	--------	18	w	RXY1	N/A	O	MIX[B] UVM110830-03 + UVM110830-11 + UVM110729-03B
6 Sep 2011	19:13	9C219.D	W9VM110906-12	GEL50	ICAL	5ml	1	--------	19	w	RXY1	N/A	O	MIX[B] UVM110830-04 + UVM110830-12 + UVM110729-04B
6 Sep 2011	19:40	9C220.D	W9VM110906-13	GEL100	ICAL	5ml	1	--------	20	w	RXY1	N/A	O	MIX[B] UVM110830-05 + UVM110830-13 + UVM110729-05B
6 Sep 2011	20:07	9C221.D	W9VM110906-14	GEL250	ICAL	5ml	1	--------	21	w	RXY1	N/A	O	MIX[B] UVM110830-06 + UVM110830-14 + UVM110729-06B
6 Sep 2011	20:34	9C222.D	W9VM110906-15	GEL500	ICAL	5ml	1	--------	22	w	RXY1	N/A	O	MIX[B] UVM110830-07 + UVM110830-15 + UVM110729-07B
6 Sep 2011	21:01	9C223.D	12024----------	--------	BLANK	5ml	1	--------	23	w	RXY1	N/A	X	Instrument blank
6 Sep 2011	21:28	9C224.D	W9VM110906-16	GEL	ICV	5ml	1	--------	24	w	RXY1	N/A	X	MIX[B] UVM110830-08A + UVM110830-16A + UVM110829-01A
6 Sep 2011	21:55	9C225.D	W9VM110906-17	GEL	ICV	5ml	1	--------	25	w	RXY1	N/A	X	MIX[A] UVM110808-01E + IVM110906-01
6 Sep 2011	22:22	9C226.D	W9VM110906-18	GEL	ICV	5ml	1	--------	26	w	RXY1	N/A	X	MIX[A] UVM110817-01E + IVM110906-01
6 Sep 2011	22:49	9C227.D	12024----------	GEL	BLANK	5ml	1	--------	27	w	RXY1	N/A	X	Instrument blank

* See 9/7/2011 for MIX[B] 300ppb ICAL point and ICV's *

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 9/7/2011 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2011 & 9/7/2011

(See pg. 239 & 240 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 090711V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV/ICV	W9VM110907-03		5+5		
IS	UVM110725-01	1	1	1	
SS	UVM110725-02	1	1	1	
LCS/MS	W9VM110907-03/05			5+5	
BFB	IVM110902-01				1
SHORT/ICV	W9VM110907-04/06		5+5+5	5+5+5	
N/A					

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
7 Sep 2011 09:26	9C301.D	IVM110902-01	--------	BFB	5ml	1	--------	1	w / s	RXY1	N/A	O	
7 Sep 2011 09:51	9C302.D	W9VM110907-01	GEL300	ICAL	5ml	1	--------	2	w	RXY1	N/A	O	MIX[B] UVM110830-07 + UVM110830-15 + UVM110729-07B
7 Sep 2011 10:19	9C303.D	12024----------	--------	BLANK	5ml	1	--------	3	w	RXY1	N/A	X	Instrument blank
7 Sep 2011 10:46	9C304.D	W9VM110907-02	GEL	ICV	5ml	1	--------	4	w	RXY1	N/A	X	MIX[A] UVM110808-01E + IVM110906-01
7 Sep 2011 11:14	9C305.D	W9VM110907-03	--------	ICV/CCV/LCS	5ml	1	--------	5	w	RXY1	N/A	O	MIX[A] UVM110817-01E + IVM110906-01
7 Sep 2011 11:42	9C306.D	W9VM110907-04	--------	ICV/CCV/LCS	5ml	1	--------	6	w	RXY1	N/A	O	MIX[B] UVM110830-08A + UVM110830-16A + UVM110829-01A
7 Sep 2011 12:08	9C307.D	W9VM110907-05	--------	LCS	5g	1	--------	7	s	RXY1	N/A	O	MIX[A] UVM110808-01E + IVM110906-01 SOIL
7 Sep 2011 12:35	9C308.D	W9VM110907-06	--------	LCS	5g	1	--------	8	s	RXY1	N/A	O	SOIL
7 Sep 2011 13:03	9C309.D	12024----------	--------	BLANK	5ml	1	--------	9	w	RXY1	N/A	O	
7 Sep 2011 13:29	9C310.D	12024----------	--------	BLANK	5g	1	--------	10	s	RXY1	N/A	O	SOIL
7 Sep 2011 13:56	9C311.D	281492002	QCQA	1137211	5ml(4ul)	1	--------	11	w	RXY1	N/A	O	MIX[A] UVM110723-01B + UVM110826-01A
7 Sep 2011 14:24	9C312.D	281492002	QCQA	1137211	5ml(5ul)	1	--------	12	w	RXY1	N/A	O	MIX[A] UVM110723-01B + UVM110826-01A
7 Sep 2011 14:51	9C313.D	281558002	QCQA	1137209	5g(5ul)	1	--------	13	s	RXY1	N/A	O	MIX[A] UVM110723-01B + UVM110826-01A SOIL
7 Sep 2011 15:19	9C314.D	281483001	QCQA	1137218	5ml(1ul)	1	--------	14	w	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B
7 Sep 2011 15:47	9C315.D	281549001	QCQA	1137214	5g(1ul)	1	--------	15	s	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B SOIL
7 Sep 2011 16:15	9C316.D	281483002	QCQA	1137218	5ml(1.5ul)	1	--------	16	w	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B
7 Sep 2011 16:42	9C317.D	281549002	QCQA	1137214	5g(1.5ul)	1	--------	17	s	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B SOIL
7 Sep 2011 17:09	9C318.D	281483003	QCQA	1137218	5ml(3ul)	1	--------	18	w	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B
7 Sep 2011 17:36	9C319.D	281549003	QCQA	1137214	5g(3ul)	1	--------	19	s	RXY1	N/A	O	MIX[B] UVM110830-01 + UVM110830-09 + UVM110729-01B SOIL
7 Sep 2011 18:03	9C320.D	281483004	QCQA	1137218	5ml(5ul)	1	--------	20	w	RXY1	N/A	O	MIX[B] UVM110830-02 + UVM110830-10 + UVM110729-02B
7 Sep 2011 18:29	9C321.D	281549004	QCQA	1137214	5g(5ul)	1	--------	21	s	RXY1	N/A	O	MIX[B] UVM110830-02 + UVM110830-10 + UVM110729-02B SOIL
7 Sep 2011 18:56	9C322.D	12024----------	GEL	BLANK	5ml	1	--------	22	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 9/21/2011 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1929

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2011 & 9/7/2011

(See pg. 239 & 240 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 1177

Sequence Number: 092111V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM110921-02		5+5		
IS	UVM110818-01	1	1	1	
SS	UVM110818-02	1	1	1	
LCS/MS	W9VM110921-02			5+5	
BFB	IVM110902-01				1
SHORT	W9VM110921-05		5+5	5+5	
N/A					

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
9/21/2011	**9:26**	9E301.D	IVM110902-01	--------	BFB2	5ml	1	--------	1	w / s	RXY1	N/A	O	
9/21/2011	9:52	9E302.D	W9VM110921-01	--------	CCV	5ml	1	--------	2	w	RXY1	N/A	X	MIX[A] UVM110723-07C + UVM110727-07E
9/21/2011	10:19	9E303.D	W9VM110921-02	--------	CCV/LCS	5ml	1	--------	3	w	RXY1	N/A	O	MIX[A] UVM110722-01C + IVM110918-01
9/21/2011	10:47	9E304.D	W9VM110921-03	--------	LCS	5g	1	--------	4	s	RXY1	N/A	X	MIX[A] UVM110722-01C + IVM110918-01 SOIL
9/21/2011	11:14	9E305.D	W9VM110921-04	--------	CCV	5ml	1	--------	5	w	RXY1	N/A	X	MIX[B] UVM110830-06E + UVM110830-14E
9/21/2011	11:42	9E306.D	W9VM110921-05	--------	CCV/LCS	5ml	1	--------	6	w	RXY1	N/A	O	MIX[B] UVM110830-08B + UVM110830-16C
9/21/2011	12:10	9E307.D	12024----------	--------	BLANK	5g	1	--------	7	s	RXY1	N/A	X	SOIL
9/21/2011	12:38	9E308.D	12024----------	--------	BLANK	5ml	1	--------	8	w	RXY1	N/A	X	
9/21/2011	13:08	9E309.D	285795009	SNLS	1143647	5ml	1	pH2	9	w	RXY1	N	X	Suspect MeCl2 - Report 9E409
9/21/2011	13:36	9E310.D	285795018	SNLS	1143647	5ml	1	pH2	10	w	RXY1	N	X	Suspect MeCl2 - Report 9E410
9/21/2011	14:04	9E311.D	286171001	ARSL	1143643	5ml	1	pH7	11	w	RXY1	N	X	Suspect MeCl2 - Report 9E412
9/21/2011	14:31	9E312.D	286061002	COMM	1142301	5ml	1	pH6	12	w	RXY1	N	X	Suspect MeCl2 - Report 9E321
9/21/2011	15:00	9E313.D	285798008	SNLS	1143647	5ml	1	pH2	13	w	RXY1	N	X	Suspect MeCl2 - Report 9E411
9/21/2011	15:28	9E314.D	285798009	SNLS	1143647	5ml	1	pH2	14	w	RXY1	N	O	
9/21/2011	15:55	9E315.D	285903008	SNLS	1143647	5ml	1	pH2	15	w	RXY1	N	O	
9/21/2011	16:22	9E316.D	285903009	SNLS	1143647	5ml	1	pH2	16	w	RXY1	N	O	
9/21/2011	16:50	9E317.D	285903016	SNLS	1143647	5ml	1	pH2	17	w	RXY1	N	O	
9/21/2011	17:18	9E318.D	285903024	SNLS	1143647	5ml	1	pH2	18	w	RXY1	N	O	
9/21/2011	17:46	9E319.D	285903031	SNLS	1143647	5ml	1	pH2	19	w	RXY1	N	O	
9/21/2011	18:14	9E320.D	286175009	SNLS	1143647	5ml	1	pH2	20	w	RXY1	N	X	Suspect MeCl2 - Report 9E414
9/21/2011	18:42	9E321.D	286061002	COMM	1142301	5ml	1	pH6	21	w	RXY1	N	O	
9/21/2011	19:09	9E322.D	1202489135	COMM	1142301	5ml	1	pH6	22	w	RXY1	N	O	Dup 286061002
9/21/2011	19:36	9E323.D	1202492556	ARSL	1143643	5ml	1	pH7	23	w	RXY1	N	O	MIX[A] MS 286171001
9/21/2011	20:03	9E324.D	1202492557	ARSL	1143643	5ml	1	pH7	24	w	RXY1	N	O	MIX[A] MSD 286171001
9/21/2011	20:30	9E325.D	1202489137	COMM	1142301	5ml	1	pH6	25	w	RXY1	N	O	MIX[A] MS 286061002
9/21/2011	20:58	9E326.D	1202489136	MATL	1142301	5ml	1	pH7	26	w	RXY1	N	O	MIX[A] MS 285868001
9/21/2011	21:25	9E327.D	12024----------	GEL	BLANK	5ml	1	n/a	27	w	RXY1	N/A	X	Instrument blank
9/21/2011	21:52	9E328.D	12024----------	GEL	BLANK	5ml	1	n/a	28	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 9/22/2011 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1929

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2011 & 9/7/2011

(See pg. 239 & 240 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 1177

Sequence Number: 092211V9

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM110922-01		5+5		
IS	UVM110818-01	1	1	1	
SS	UVM110818-02	1	1	1	
LCS/MS	W9VM110922-02/03			5+5	
BFB	IVM110902-01				1
SHORT	W9VM110922-04		5+5		
SHORT	W9VM110922-05			5+5	

Purge Amount	
5	Water Purge Vol:
5.0g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
9/22/2011 9:02	9E401.D	IVM110902-01	--------	BFB	5ml	1	--------	1	w / s	RXY1	N/A	O	
9/22/2011 9:27	9E402.D	W9VM110922-01	--------	CCV	5ml	1	--------	2	w	RXY1	N/A	O	MIX[A] UVM110723-07C + UVM110727-07E
9/22/2011 9:55	9E403.D	W9VM110922-02	--------	LCS	5ml	1	--------	3	w	RXY1	N/A	O	MIX[A] UVM110722-01C + IVM110918-01
9/22/2011 10:23	9E404.D	W9VM110922-03	--------	LCS	5g	1	--------	4	s	RXY1	N/A	O	MIX[A] UVM110722-01C + IVM110918-01 SOIL
9/22/2011 10:50	9E405.D	W9VM110922-04	--------	CCV	5ml	1	--------	5	w	RXY1	N/A	O	MIX[B] UVM110830-06E + UVM110830-14E
9/22/2011 11:18	9E406.D	W9VM110922-05	--------	LCS	5ml	1	--------	6	w	RXY1	N/A	O	MIX[B] UVM110830-08B + UVM110830-16C
9/22/2011 11:46	9E407.D	12024----------	--------	BLANK	5g	1	--------	7	s	RXY1	N/A	O	SOIL
9/22/2011 12:15	9E408.D	12024----------	--------	BLANK	5ml	1	--------	8	w	RXY1	N/A	O	
9/22/2011 12:44	9E409.D	285795009	SNLS	1143647	5ml	1	pH2	9	w	RXY1	N	O	
9/22/2011 13:11	9E410.D	285795018	SNLS	1143647	5ml	1	pH2	10	w	RXY1	N	O	
9/22/2011 13:39	9E411.D	285798008	SNLS	1143647	5ml	1	pH2	11	w	RXY1	N	O	
9/22/2011 14:06	9E412.D	286171001	ARSL	1143643	5ml	1	pH7	12	w	RXY1	N	O	
9/22/2011 14:33	9E413.D	286051001	COAN	1143989	500ul	10	pH2	13	w	RXY1	N	O	
9/22/2011 15:01	9E414.D	286175009	SNLS	1143647	5ml	1	pH2	14	w	RXY1	N	O	
9/22/2011 15:28	9E415.D	285770001	WSRS	1143991	5g	1	n/a	15	s	RXY1	N/A	O	SOIL
9/22/2011 15:57	9E416.D	285770002	WSRS	1143991	5g	1	n/a	16	s	RXY1	N/A	O	SOIL
9/22/2011 16:25	9E417.D	286275001	WSRB	1143988	5ml	1	pH7	17	w	RXY1	N	O	
9/22/2011 16:54	9E418.D	286275002	WSRB	1143988	5ml	1	pH7	18	w	RXY1	N	O	
9/22/2011 17:23	9E419.D	286364001	COAN	1143989	500ul	10	pH2	19	w	RXY1	N	X	OD - See 9/23 (5x) rr
9/22/2011 17:50	9E420.D	1202492575	SNLS	1143647	5ml	1	pH2	20	w	RXY1	N	O	MIX[A] MS 285795001
9/22/2011 18:17	9E421.D	1202492576	SNLS	1143647	5ml	1	pH2	21	w	RXY1	N	O	MIX[A] MSD 285795001
9/22/2011 18:44	9E422.D	1202493265	WSRS	1143991	5g	1	n/a	22	s	RXY1	N/A	O	MIX[A]MS 285770001 SOIL
9/22/2011 19:12	9E423.D	1202493266	WSRS	1143991	5g	1	n/a	23	s	RXY1	N/A	O	MIX[A]MSD 285770001 SOIL
9/22/2011 19:39	9E424.D	1202493257	WSRB	1143988	5ml	1	pH7	24	w	RXY1	N	O	MIX[A] MS 286275001
9/22/2011 20:07	9E425.D	1202493258	WSRB	1143988	5ml	1	pH7	25	w	RXY1	N	O	MIX[A] MSD 286275001
9/22/2011 20:34	9E426.D	1202493261	COAN	1143989	500ul	10	pH2	26	w	RXY1	N	O	MIX[B] MS 286051001
9/22/2011 21:01	9E427.D	1202493262	COAN	1143989	500ul	10	pH2	27	w	RXY1	N	O	MIX[B] MSD 286051001
9/22/2011 21:28	9E428.D	12024----------	GEL	BLANK	5ml	1	n/a	28	w	RXY1	N/A	X	Instrument blank

GC Semivolatile Pesticide Analysis

Case Narrative

Pesticide Case Narrative
ARS International (ARSL)
SDG 11-3620

Method/Analysis Information

Procedure:	**Organochlorine Pesticides and Chlorinated Hydrocarbons**
Analytical Method:	SW846 3535A/8081A
Prep Method:	SW846 3535A
Analytical Batch Number:	1143361
Prep Batch Number:	1143357

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535A/8081A:

Sample ID	Client ID
286171002	NPDES13S-11-26994
1202491869	Method Blank (MB)
1202491870	Laboratory Control Sample (LCS)
1202492191	Laboratory Control Sample (TLCS) – Toxaphene Only LCS
1202491871	286171002(NPDES13S-11-26994) Matrix Spike (MS)
1202491872	286171002(NPDES13S-11-26994) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 11.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Several target analytes recovered outside of the acceptance criteria with a positive bias on one analytical column in the CCV standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the client samples; therefore, the non-compliance had no adverse effects on the data.

All analytes were within the established retention time windows for this method.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 1202491869 (MB), 1202491870 (LCS), 1202492191 (TLCS), 286171002 (NPDES13S-11-26994), and 1202491872 (NPDES13S-11-26994MSD) recovered outside of the acceptance criteria for surrogate yields with a positive bias. Target analytes were not detected above the PQL in the client sample. Therefore, the data were not adversely affected by the elevated surrogate yields. See DER #1000485 located in the Miscellaneous Data section of this package.

Laboratory Control Sample (LCS) Recovery
QC sample 1202491870 (LCS) recovered outside of the acceptance criteria for multiple spiking analytes with a positive bias. Target analytes were not detected above the PQL in the associated client sample. Therefore, the data were not adversely affected by the elevated spike recoveries. See DER #1000485 located in the Miscellaneous Data section of this package.

QC Sample Designation
Sample 286171002 (NPDES13S-11-26994) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
QC sample 1202491871 (NPDES13S-11-26994MS) did not meet the acceptance criteria for Aldrin spike. The non-compliant spike recovery was confirmed in the associated matrix spike duplicate (MSD) and was therefore attributed to sample matrix interference. See DER #1000485 located in the Miscellaneous Data section of this package.

Matrix Spike Duplicate (MSD) Recovery Statement
QC sample 1202491872 (NPDES13S-11-26994MSD) did not meet the acceptance criteria for Aldrin spike. The non-compliant spike recovery was confirmed in the associated matrix spike (MS) and was therefore attributed to sample matrix interference. See DER #1000485 located in the Miscellaneous Data section of this package.

Also, QC sample 1202491872 (NPDES13S-11-26994MSD) recovered outside of the acceptance criteria for multiple spiking analytes with a positive bias. Target analytes were not detected above the PQL in the associated client sample. Therefore, the data were not adversely affected by the elevated spike recoveries. See DER #1000485 located in the Miscellaneous Data section of this package.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between the MS and MSD were not within the acceptance limits due to relatively higher spike recoveries in the MSD in comparison with the MS. See DER #1000485 located in the Miscellaneous Data section of this package.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All reported analyte detections in client and quality control samples were within the established retention time windows. Reported analyte concentrations were confirmed on a dissimilar analytical column.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions were not required in this SDG.

Florisil
Florisil clean-up was performed on client and quality control samples in this batch.

Miscellaneous Information:

Electronic Package Comment
This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data Exception Reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER #1000485 was generated for this SDG. A copy was included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower of the results from either column have been chosen and reported in the data package for the client sample, MB, and LCS's. The matrix QC results were reported from the same analytical column as the parent sample.

The data reported on the forms I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analyte.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Ann Fry Date: 09/28/2011

Roadmap for ARSL 11-3620 PEST

This roadmap was analyzed by REB01393 on 09-24-2011, 13:05.
This roadmap was reviewed by jim01140 on 09-26-2011, 08:18.
This roadmap was packaged by hea01125 on 09-28-2011, 10:46.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/092211P.B/025F2501.D	286171002	sample	22-SEP-2011	21:10	11-3620.sub	NPDES13S-1126994	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/092211P.B/025B2501.D	286171002	sample	22-SEP-2011	21:10	11-3620.sub	NPDES13S-1126994	1.00000	1143361	

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/092211P.B/020F2001.D	1202491869	mb	22-SEP-2011	19:53	11-3620.sub	PBLK01	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.
☐	N	/chem/ecd3a.i/092211P.B/021F2101.D	1202491870	lcs	22-SEP-2011	20:08	11-3620.sub	PBLK01LCS	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.
☐	N	/chem/ecd3a.i/092211P.B/022F2201.D	1202492191	lcs	22-SEP-2011	20:24	11-3620.sub	PBLK01TLCS	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.
☐	N	/chem/ecd3a.i/092211P.B/026F2601.D	1202491871	ms	22-SEP-2011	21:26	11-3620.sub	NPDES13S-1126994MS	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.
☐	N	/chem/ecd3a.i/092211P.B/027F2701.D	1202491872	msd	22-SEP-2011	21:41	11-3620.sub	NPDES13S-1126994MSD	1.00000	1143361	USE. PASSING BOTH, UPLOAD LOWER.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/092211P.B/020B2001.D	1202491869	mb	22-SEP-2011	19:53	11-3620.sub	PBLK01	1.00000	1143361	
☐	N	/chem/ecd3a.i/092211P.B/021B2101.D	1202491870	lcs	22-SEP-2011	20:08	11-3620.sub	PBLK01LCS	1.00000	1143361	
☐	N	/chem/ecd3a.i/092211P.B/022B2201.D	1202492191	lcs	22-SEP-2011	20:24	11-3620.sub	PBLK01TLCS	1.00000	1143361	
☐	N	/chem/ecd3a.i/092211P.B/026B2601.D	1202491871	ms	22-SEP-2011	21:26	11-3620.sub	NPDES13S-1126994MS	1.00000	1143361	
☐	N	/chem/ecd3a.i/092211P.B/027B2701.D	1202491872	msd	22-SEP-2011	21:41	11-3620.sub	NPDES13S-1126994MSD	1.00000	1143361	

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3620 GEL Work Order: 286171

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Heather Ann Joy **Name: Heather Joy**

Date: 28 SEP 2011 **Title: Data Validator**

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171002**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 21:10**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**960 mL**	**Final Volume:**	**5 mL**
Data File:	**025F2501.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	025B2501.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0208	ug/L	0.00693	0.0208	1
58-89-9	gamma-BHC (Lindane)	U	0.0208	ug/L	0.00693	0.0208	1
319-85-7	beta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
72-43-5	Methoxychlor	U	0.208	ug/L	0.0521	0.208	1
319-86-8	delta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
76-44-8	Heptachlor	U	0.0208	ug/L	0.00693	0.0208	1
309-00-2	Aldrin	U	0.0208	ug/L	0.00693	0.0208	1
1024-57-3	Heptachlor epoxide	U	0.0208	ug/L	0.00693	0.0208	1
5103-74-2	gamma-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
5103-71-9	alpha-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
959-98-8	Endosulfan I	U	0.0208	ug/L	0.00693	0.0208	1
72-55-9	4,4'-DDE	U	0.0417	ug/L	0.0104	0.0417	1
60-57-1	Dieldrin	U	0.0417	ug/L	0.0104	0.0417	1
72-20-8	Endrin	U	0.0417	ug/L	0.0104	0.0417	1
72-54-8	4,4'-DDD	U	0.0417	ug/L	0.0104	0.0417	1
33213-65-9	Endosulfan II	U	0.0417	ug/L	0.0104	0.0417	1
7421-93-4	Endrin aldehyde	U	0.0417	ug/L	0.00693	0.0417	1
50-29-3	4,4'-DDT	U	0.0417	ug/L	0.0104	0.0417	1
1031-07-8	Endosulfan sulfate	U	0.0417	ug/L	0.0104	0.0417	1
53494-70-5	Endrin ketone	U	0.0417	ug/L	0.0104	0.0417	1
8001-35-2	Toxaphene	U	0.521	ug/L	0.156	0.521	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.09	1.04	ug/L	105	(23%-119%)
4cmx	1.14	1.04	ug/L	109	(21%-109%)

QC Summary

Pesticide

Surrogate Recovery Report

SDG Number: 11-3620

Matrix Type: LIQUID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202491869	MB for batch 1143357	112 *	111 *	112	145 *
1202491870	LCS for batch 1143357	104	108	104	143 *
1202492191	LCS for batch 1143357	113 *	118 *	119	159 *
286171002	NPDES13S-11-26994	148 *	109	105	150 *
1202491871	NPDES13S-11-26994MS	87	75	76	110
1202491872	NPDES13S-11-26994MSD	127 *	97	98	140 *

Surrogate		Acceptance Limits
4CMX	= 4cmx	(21%-109%)
DCB	= Decachlorobiphenyl	(23%-119%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143357**
Lab Sample ID: **1202491870**
Instrument: **ECD3A.I**
Analyst: **RXE1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 20:08**
Prep Batch ID: **1143357**
Batch ID: **1143361**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.619	124	49-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.622	124	51-134
319-85-7	LCS	beta-BHC	0.500	0.0	0.579	116	51-128
72-43-5	LCS	Methoxychlor	5.00	0.0	6.52	130	55-132
319-86-8	LCS	delta-BHC	0.500	0.0	0.645	129	53-136
76-44-8	LCS	Heptachlor	0.500	0.0	0.620	124 *	37-122
309-00-2	LCS	Aldrin	0.500	0.0	0.597	119 *	36-117
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.620	124	53-125
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.664	133	50-133
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.707	141 *	53-137
959-98-8	LCS	Endosulfan I	0.500	0.0	0.581	116	47-126
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.60	128	56-136
60-57-1	LCS	Dieldrin	1.25	0.0	1.61	129	55-134
72-20-8	LCS	Endrin	1.25	0.0	1.63	131	66-143
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.70	136	61-141
33213-65-9	LCS	Endosulfan II	1.25	0.0	1.47	118	50-131
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.52	122	55-133
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.68	134	67-143
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.70	136	59-141
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.68	134	58-135

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **LCS for batch 1143357**
Lab Sample ID: **1202492191**
Instrument: **ECD3A.I**
Analyst: **RXE1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **09/22/2011 20:24**
Prep Batch ID: **1143357**
Batch ID: **1143361**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS	Toxaphene	4.00	0.0	5.36	134	39-144

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994MS**
Lab Sample ID: **1202491871**
Instrument: **ECD3A.I**
Analyst: **RXE1**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 21:26**
Prep Batch ID: **1143357**
Batch ID: **1143361**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.515	0.00	U	0.421	82	36-124
58-89-9	MS	gamma-BHC (Lindane)	0.515	0.00	U	0.553	107	39-128
319-85-7	MS	beta-BHC	0.515	0.00	U	0.399	77	35-129
72-43-5	MS	Methoxychlor	5.15	0.00	U	4.09	79	43-135
319-86-8	MS	delta-BHC	0.515	0.00	U	0.439	85	35-137
76-44-8	MS	Heptachlor	0.515	0.00	U	0.548	106	36-116
309-00-2	MS	Aldrin	0.515	0.00	U	0.0136	3 *	31-115
1024-57-3	MS	Heptachlor epoxide	0.515	0.00	U	0.473	92	41-121
5103-74-2	MS	gamma-Chlordane	0.515	0.00	U	0.503	98	40-131
5103-71-9	MS	alpha-Chlordane	0.515	0.00	U	0.508	99	41-135
959-98-8	MS	Endosulfan I	0.515	0.00	U	0.439	85	31-128
72-55-9	MS	4,4'-DDE	1.29	0.00	U	1.12	87	40-134
60-57-1	MS	Dieldrin	1.29	0.00	U	1.23	95	38-133
72-20-8	MS	Endrin	1.29	0.00	U	1.32	102	46-150
72-54-8	MS	4,4'-DDD	1.29	0.00	U	1.24	96	41-142
33213-65-9	MS	Endosulfan II	1.29	0.00	U	1.13	87	38-128
7421-93-4	MS	Endrin aldehyde	1.29	0.00	U	0.886	69	42-128
50-29-3	MS	4,4'-DDT	1.29	0.00	U	1.33	103	40-148
1031-07-8	MS	Endosulfan sulfate	1.29	0.00	U	1.44	112	42-139
53494-70-5	MS	Endrin ketone	1.29	0.00	U	1.36	106	45-132

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3620**
Client ID: **NPDES13S-11-26994MSD**
Lab Sample ID: **1202491872**
Instrument: **ECD3A.I**
Analyst: **RXE1**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/22/2011 21:41**
Prep Batch ID: **1143357**
Batch ID: **1143361**
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.543	0.00	U	0.657	121	36-124	44 *	0-20
58-89-9	MSD gamma-BHC (Lindane)	0.543	0.00	U	0.813	150 *	39-128	38 *	0-20
319-85-7	MSD beta-BHC	0.543	0.00	U	0.628	116	35-129	45 *	0-20
72-43-5	MSD Methoxychlor	5.43	0.00	U	5.73	105	43-135	33 *	0-20
319-86-8	MSD delta-BHC	0.543	0.00	U	0.688	127	35-137	44 *	0-20
76-44-8	MSD Heptachlor	0.543	0.00	U	0.847	156 *	36-116	43 *	0-20
309-00-2	MSD Aldrin	0.543	0.00	U	0.0477	9 *	31-115	111 *	0-20
1024-57-3	MSD Heptachlor epoxide	0.543	0.00	U	0.663	122 *	41-121	34 *	0-20
5103-74-2	MSD gamma-Chlordane	0.543	0.00	U	0.718	132 *	40-131	35 *	0-20
5103-71-9	MSD alpha-Chlordane	0.543	0.00	U	0.722	133	41-135	35 *	0-20
959-98-8	MSD Endosulfan I	0.543	0.00	U	0.619	114	31-128	34 *	0-20
72-55-9	MSD 4,4'-DDE	1.36	0.00	U	1.61	118	40-134	36 *	0-20
60-57-1	MSD Dieldrin	1.36	0.00	U	1.71	126	38-133	33 *	0-20
72-20-8	MSD Endrin	1.36	0.00	U	1.83	135	46-150	33 *	0-20
72-54-8	MSD 4,4'-DDD	1.36	0.00	U	1.76	129	41-142	35 *	0-20
33213-65-9	MSD Endosulfan II	1.36	0.00	U	1.57	116	38-128	33 *	0-20
7421-93-4	MSD Endrin aldehyde	1.36	0.00	U	1.42	104	42-128	46 *	0-20
50-29-3	MSD 4,4'-DDT	1.36	0.00	U	1.85	136	40-148	33 *	0-20
1031-07-8	MSD Endosulfan sulfate	1.36	0.00	U	1.98	146 *	42-139	32 *	0-20
53494-70-5	MSD Endrin ketone	1.36	0.00	U	1.89	139 *	45-132	32 *	0-20

Method Blank Summary

SDG Number:	**11-3620**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1143357**	**Instrument ID:**	**ECD3A.I_2** **ECD3A.I_1**	**Data File:**	**020B2001.D** **020F2001.D**
Lab Sample ID:	**1202491869**				
Column:	**CLP-2** **CLP-1**	**Prep Date:**	**09/21/2011 08:50**	**Analyzed:**	**09/22/11 19:53**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1143357	**1202491870**	**021F2101.D** **021B2101.D**	**09/22/11**	**2008**
02 LCS for batch 1143357	**1202492191**	**022F2201.D** **022B2201.D**	**09/22/11**	**2024**
03 NPDES13S-11-26994	**286171002**	**025F2501.D** **025B2501.D**	**09/22/11**	**2110**
04 NPDES13S-11-26994MS	**1202491871**	**026F2601.D** **026B2601.D**	**09/22/11**	**2126**
05 NPDES13S-11-26994MSD	**1202491872**	**027F2701.D** **027B2701.D**	**09/22/11**	**2141**

Sample Data

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**286171002**	**Date Received:**	**09/20/2011 09:05**		
		Client:	**ARSL001**	**Project:**	**ESHL00610**
Client ID:	**NPDES13S-11-26994**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 21:10**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**960 mL**	**Final Volume:**	**5 mL**
Data File:	**025F2501.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	025B2501.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0208	ug/L	0.00693	0.0208	1
58-89-9	gamma-BHC (Lindane)	U	0.0208	ug/L	0.00693	0.0208	1
319-85-7	beta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
72-43-5	Methoxychlor	U	0.208	ug/L	0.0521	0.208	1
319-86-8	delta-BHC	U	0.0208	ug/L	0.00693	0.0208	1
76-44-8	Heptachlor	U	0.0208	ug/L	0.00693	0.0208	1
309-00-2	Aldrin	U	0.0208	ug/L	0.00693	0.0208	1
1024-57-3	Heptachlor epoxide	U	0.0208	ug/L	0.00693	0.0208	1
5103-74-2	gamma-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
5103-71-9	alpha-Chlordane	U	0.0208	ug/L	0.00693	0.0208	1
959-98-8	Endosulfan I	U	0.0208	ug/L	0.00693	0.0208	1
72-55-9	4,4'-DDE	U	0.0417	ug/L	0.0104	0.0417	1
60-57-1	Dieldrin	U	0.0417	ug/L	0.0104	0.0417	1
72-20-8	Endrin	U	0.0417	ug/L	0.0104	0.0417	1
72-54-8	4,4'-DDD	U	0.0417	ug/L	0.0104	0.0417	1
33213-65-9	Endosulfan II	U	0.0417	ug/L	0.0104	0.0417	1
7421-93-4	Endrin aldehyde	U	0.0417	ug/L	0.00693	0.0417	1
50-29-3	4,4'-DDT	U	0.0417	ug/L	0.0104	0.0417	1
1031-07-8	Endosulfan sulfate	U	0.0417	ug/L	0.0104	0.0417	1
53494-70-5	Endrin ketone	U	0.0417	ug/L	0.0104	0.0417	1
8001-35-2	Toxaphene	U	0.521	ug/L	0.156	0.521	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.09	1.04	ug/L	105	(23%-119%)
4cmx	1.14	1.04	ug/L	109	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/025F2501.D
Lab Smp Id: 286171002 Client Smp ID: NPDES13S-1126994
Inj Date : 22-SEP-2011 21:10
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |286171002|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|ARSL|WASTE WATER|NPDES13S-11-26
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	960.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.493	2.490	0.003	39347605	295.710	1.54	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.469	7.470	-0.001	18056041	209.187	1.09	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/025F2501.D

Page 1

Date : 22-SEP-2011 21:10

Client ID: NPDES13S-1126994

Instrument: ecd3a.i

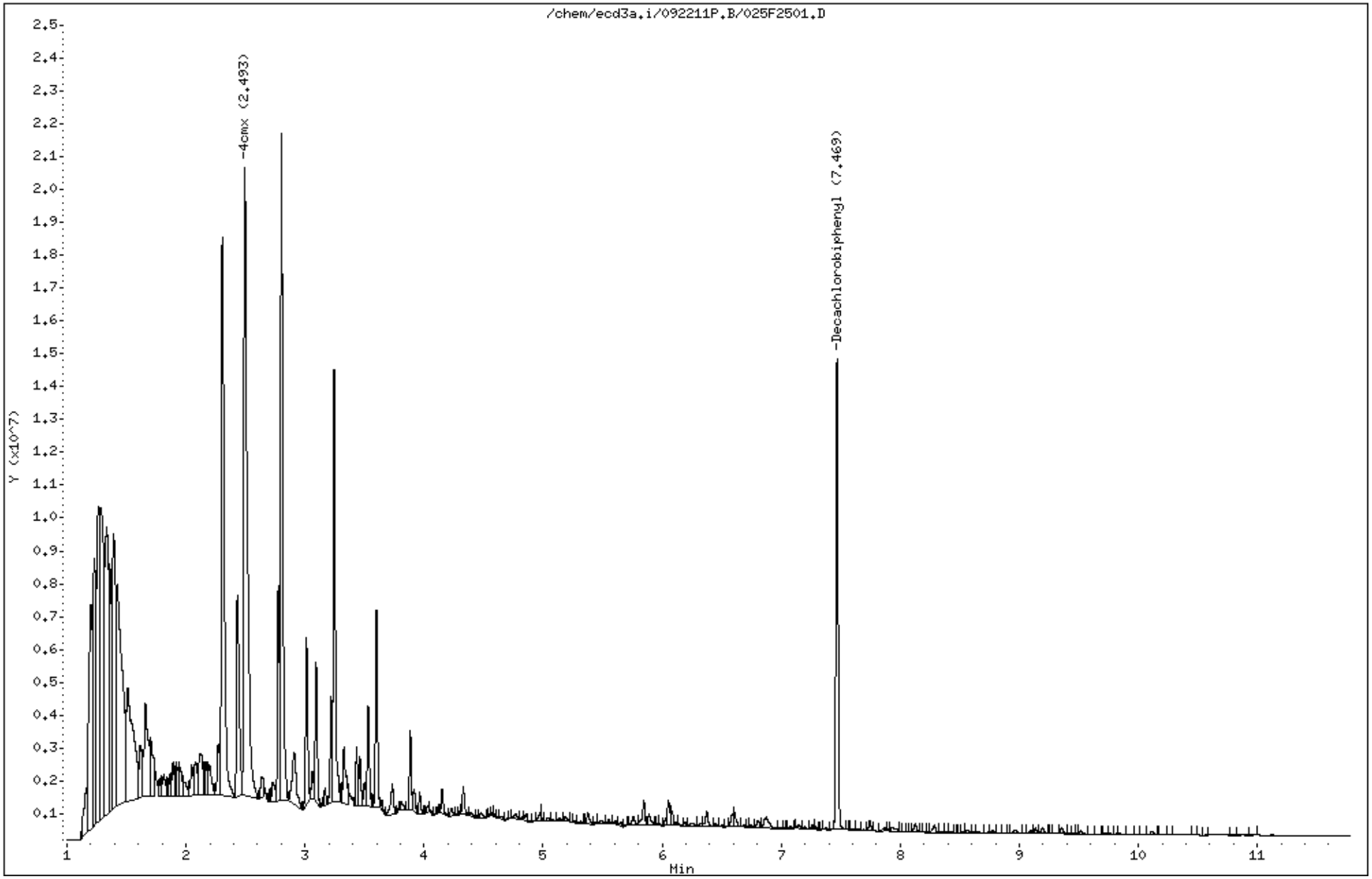
Sample Info: |286171002|1|

Volume Injected (uL): 1.0

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/025B2501.D
Lab Smp Id: 286171002 Client Smp ID: NPDES13S-1126994
Inj Date : 22-SEP-2011 21:10
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |286171002|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|ARSL|WASTE WATER|NPDES13S-11-26
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	960.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	10250801	218.237	1.14	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	9447884	299.793	1.56	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/025B2501.D

Page 1

Date : 22-SEP-2011 21:10

Client ID: NPDES13S-1126994

Instrument: ecd3a.i

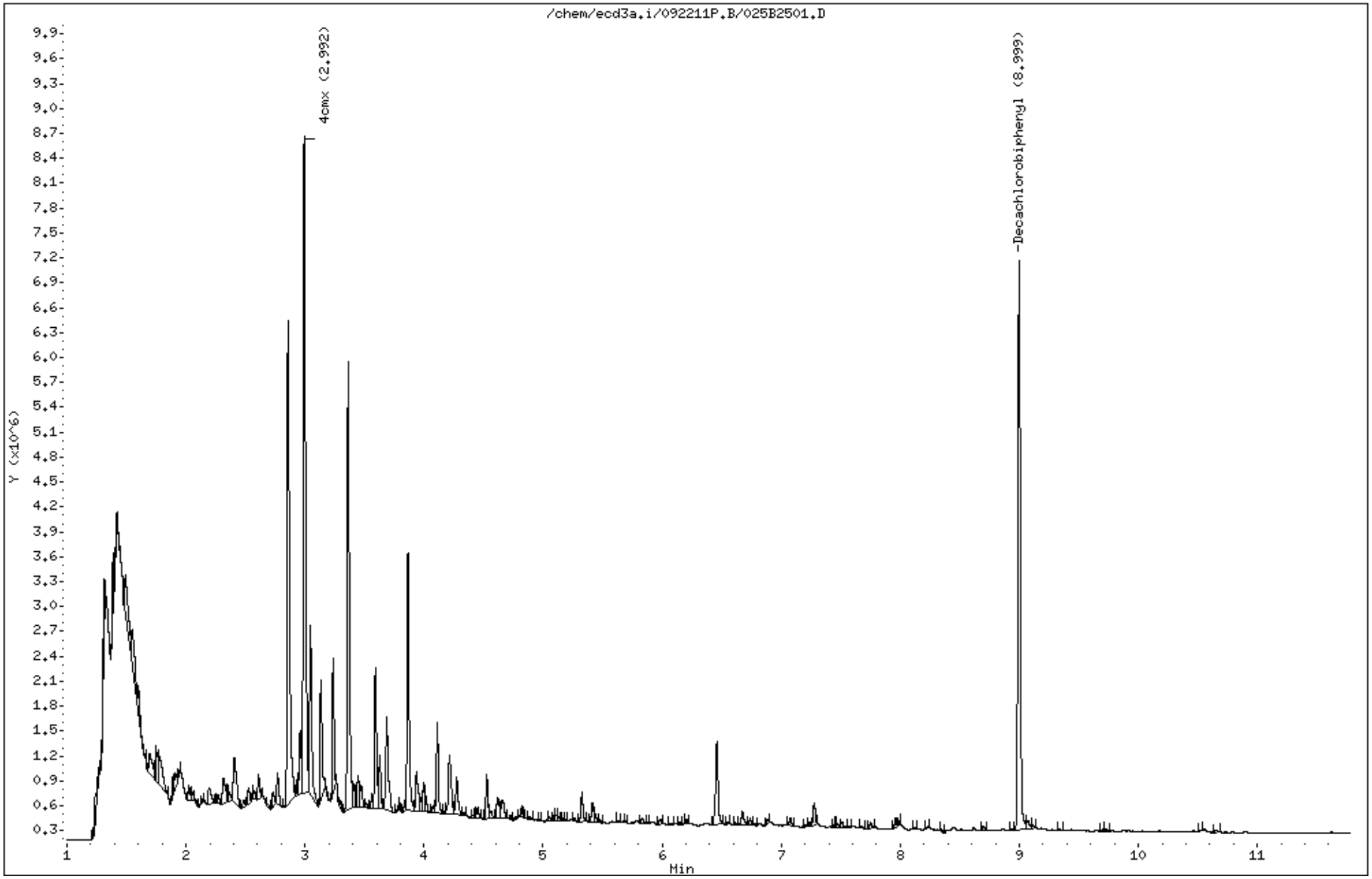
Sample Info: |286171002|1|

Volume Injected (uL): 1.0

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



Standard Data

SW846 8081

Calibration Standard Concentration Levels (ug/L)

	Level 1	Level 2	Level 3	Level 4	Level 5	CCV
Hexachlorobenzene	4	20	100	200	400	200
alpha-BHC	4	10	50	100	200	100
gamma-BHC (Lindane)	4	10	50	100	200	100
Heptachlor	4	10	50	100	200	100
Aldrin	4	10	50	100	200	100
beta-BHC	4	10	50	100	200	100
delta-BHC	4	10	50	100	200	100
Heptachlor epoxide	4	10	50	100	200	100
Endosulfan I	4	10	50	100	200	100
gamma-Chlordane	4	10	50	100	200	100
alpha-Chlordane	4	10	50	100	200	100
Mirex	4	10	50	100	200	100
c-Nonachlor	4	10	50	100	200	100
o-Chlordane	4	10	50	100	200	100
t-Nonachlor	4	10	50	100	200	100
2,4-DDD	4	10	50	100	200	100
2,4-DDE	4	10	50	100	200	100
2,4-DDT	4	10	50	100	200	100
4,4'-DDD	8	20	100	200	400	200
4,4'-DDE	8	20	100	200	400	200
4,4'-DDT	8	20	100	200	400	200
Dieldrin	8	20	100	200	400	200
Endrin	8	20	100	200	400	200
Endosulfan II	8	20	100	200	400	200
Endrin aldehyde	8	20	100	200	400	200
Endosulfan sulfate	8	20	100	200	400	200
Endrin ketone	8	20	100	200	400	200
4-CMX (surr)	8	20	100	200	400	200
DCB (surr)	8	20	100	200	400	200
1,2-Dichlorobenzene	20	50	100	150	200	150
Methoxychlor	40	100	500	1000	2000	1000
Chlordane (Technical)	50	100	500	1000	3000	1000
Aroclor 1016	100	250	500	1000	4000	1000
Aroclor 1221	100	250	500	1000	4000	1000
Aroclor 1232	100	250	500	1000	4000	1000
Aroclor 1242	100	250	500	1000	4000	1000
Aroclor 1248	100	250	500	1000	4000	1000
Aroclor 1254	100	250	500	1000	4000	1000
Aroclor 1260	100	250	500	1000	4000	1000

Aroclor 1262	100	250	500	1000	4000	1000
Aroclor 1268	100	250	500	1000	4000	1000
Toxaphene	100	500	1000	2000	3000	2000

Report Date: 23-Sep-2011 15:24

Calibration History

Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
30-NOV-2010 05:44	ar1254	/chem/ecd3a.i/112910pa-608.b/032f3201.d
24-JUL-2011 13:29	ar1660	/chem/ecd3a.i/072411p.b-608.b/013f1301.d
13-JUL-2011 10:26	gapa	/chem/ecd3a.i/071311p.b/010f1001.d
20-SEP-2011 17:44	chlor	/chem/ecd3a.i/092011P.B/015F1501.D
22-SEP-2011 17:49	tox	/chem/ecd3a.i/092211P.B/012F1201.D
22-SEP-2011 16:16	indab	/chem/ecd3a.i/092211P.B/006F0601.D
Cal Level: 2 , Cal Amount: 10.00000		
30-NOV-2010 06:00	ar1254	/chem/ecd3a.i/112910pa-608.b/033f3301.d
24-JUL-2011 13:44	ar1660	/chem/ecd3a.i/072411p.b-608.b/014f1401.d
13-JUL-2011 10:42	gapa	/chem/ecd3a.i/071311p.b/011f1101.d
20-SEP-2011 18:00	chlor	/chem/ecd3a.i/092011P.B/016F1601.D
22-SEP-2011 18:05	tox	/chem/ecd3a.i/092211P.B/013F1301.D
22-SEP-2011 16:32	indab	/chem/ecd3a.i/092211P.B/007F0701.D
Cal Level: 3 , Cal Amount: 50.00000		
30-NOV-2010 06:15	ar1254	/chem/ecd3a.i/112910pa-608.b/034f3401.d
24-JUL-2011 14:00	ar1660	/chem/ecd3a.i/072411p.b-608.b/015f1501.d
13-JUL-2011 10:57	gapa	/chem/ecd3a.i/071311p.b/012f1201.d
20-SEP-2011 18:15	chlor	/chem/ecd3a.i/092011P.B/017F1701.D
22-SEP-2011 18:20	tox	/chem/ecd3a.i/092211P.B/014F1401.D
22-SEP-2011 16:47	indab	/chem/ecd3a.i/092211P.B/008F0801.D
Cal Level: 4 , Cal Amount: 100.00000		
15-JAN-2011 12:53	ar1268	/chem/ecd3a.i/011511p.b/018f1801.d
15-JAN-2011 12:37	ar1262	/chem/ecd3a.i/011511p.b/017f1701.d
30-SEP-2010 18:18	2,4,5-TCP	/chem/ecd3a.i/093010pa.b/011f1101.d
24-JUL-2011 15:02	ar1221	/chem/ecd3a.i/072411p.b-608.b/019f1901.d
24-JUL-2011 15:17	ar1232	/chem/ecd3a.i/072411p.b-608.b/020f2001.d
24-JUL-2011 15:48	ar1248	/chem/ecd3a.i/072411p.b-608.b/022f2201.d
24-JUL-2011 15:33	ar1242	/chem/ecd3a.i/072411p.b-608.b/021f2101.d
24-JUL-2011 16:04	ar1254	/chem/ecd3a.i/072411p.b-608.b/023f2301.d
24-JUL-2011 14:15	ar1660	/chem/ecd3a.i/072411p.b-608.b/016f1601.d
15-SEP-2011 10:34	gapa	/chem/ecd3a.i/091511P.B/006F0601.D
20-SEP-2011 18:31	chlor	/chem/ecd3a.i/092011P.B/018F1801.D
22-SEP-2011 18:35	tox	/chem/ecd3a.i/092211P.B/015F1501.D
22-SEP-2011 17:03	indab	/chem/ecd3a.i/092211P.B/009F0901.D
Cal Level: 5 , Cal Amount: 200.00000		
30-NOV-2010 06:46	ar1254	/chem/ecd3a.i/112910pa-608.b/036f3601.d
24-JUL-2011 14:31	ar1660	/chem/ecd3a.i/072411p.b-608.b/017f1701.d
13-JUL-2011 11:28	gapa	/chem/ecd3a.i/071311p.b/014f1401.d
20-SEP-2011 18:46	chlor	/chem/ecd3a.i/092011P.B/019F1901.D
22-SEP-2011 18:51	tox	/chem/ecd3a.i/092211P.B/016F1601.D

```
|22-SEP-2011 17:18 |indab            |/chem/ecd3a.i/092211P.B/010F1001.D      |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|23-SEP-2011 03:23 |indab            |/chem/ecd3a.i/092211P.B/049F4901.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|23-SEP-2011 00:48 |indab            |/chem/ecd3a.i/092211P.B/039F3901.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 21:57 |indab            |/chem/ecd3a.i/092211P.B/028F2801.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 19:06 |tox              |/chem/ecd3a.i/092211P.B/017F1701.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 18:35 |tox              |/chem/ecd3a.i/092211P.B/015F1501.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 19:22 |gapa             |/chem/ecd3a.i/092211P.B/018F1801.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 17:34 |indab            |/chem/ecd3a.i/092211P.B/011F1101.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 17:03 |indab            |/chem/ecd3a.i/092211P.B/009F0901.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 15:55 |chlor            |/chem/ecd3a.i/092211P.B/005F0501.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 15:40 |tox              |/chem/ecd3a.i/092211P.B/004F0401.D      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|22-SEP-2011 15:24 |indab            |/chem/ecd3a.i/092211P.B/003F0301.D      |
+------------------+-----------------+----------------------------------------+
```

Report Date: 23-Sep-2011 15:24

Calibration History

Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
30-NOV-2010 05:44	ar1254	/chem/ecd3a.i/112910pa-608.b/032b3201.d
24-JUL-2011 13:29	ar1660	/chem/ecd3a.i/072411p.b-608.b/013b1301.d
13-JUL-2011 10:26	gapa	/chem/ecd3a.i/071311p.b/010b1001.d
20-SEP-2011 17:44	chlor	/chem/ecd3a.i/092011P.B/015B1501.D
22-SEP-2011 17:49	tox	/chem/ecd3a.i/092211P.B/012B1201.D
22-SEP-2011 16:16	indab	/chem/ecd3a.i/092211P.B/006B0601.D
Cal Level: 2 , Cal Amount: 10.00000		
21-DEC-2010 12:13	8081	/chem/ecd3a.i/122110p.b/013b1301.d
30-NOV-2010 06:00	ar1254	/chem/ecd3a.i/112910pa-608.b/033b3301.d
24-JUL-2011 13:44	ar1660	/chem/ecd3a.i/072411p.b-608.b/014b1401.d
13-JUL-2011 10:42	gapa	/chem/ecd3a.i/071311p.b/011b1101.d
20-SEP-2011 18:00	chlor	/chem/ecd3a.i/092011P.B/016B1601.D
22-SEP-2011 18:05	tox	/chem/ecd3a.i/092211P.B/013B1301.D
22-SEP-2011 16:32	indab	/chem/ecd3a.i/092211P.B/007B0701.D
Cal Level: 3 , Cal Amount: 50.00000		
30-NOV-2010 06:15	ar1254	/chem/ecd3a.i/112910pa-608.b/034b3401.d
24-JUL-2011 14:00	ar1660	/chem/ecd3a.i/072411p.b-608.b/015b1501.d
13-JUL-2011 10:57	gapa	/chem/ecd3a.i/071311p.b/012b1201.d
20-SEP-2011 18:15	chlor	/chem/ecd3a.i/092011P.B/017B1701.D
22-SEP-2011 18:20	tox	/chem/ecd3a.i/092211P.B/014B1401.D
22-SEP-2011 16:47	indab	/chem/ecd3a.i/092211P.B/008B0801.D
Cal Level: 4 , Cal Amount: 100.00000		
15-JAN-2011 12:53	ar1268	/chem/ecd3a.i/011511p.b/018b1801.d
15-JAN-2011 12:37	ar1262	/chem/ecd3a.i/011511p.b/017b1701.d
30-SEP-2010 18:18	2,4,5-TCP	/chem/ecd3a.i/093010pa.b/011b1101.d
24-JUL-2011 15:02	ar1221	/chem/ecd3a.i/072411p.b-608.b/019b1901.d
24-JUL-2011 15:17	ar1232	/chem/ecd3a.i/072411p.b-608.b/020b2001.d
24-JUL-2011 15:48	ar1248	/chem/ecd3a.i/072411p.b-608.b/022b2201.d
24-JUL-2011 15:33	ar1242	/chem/ecd3a.i/072411p.b-608.b/021b2101.d
24-JUL-2011 16:04	ar1254	/chem/ecd3a.i/072411p.b-608.b/023b2301.d
24-JUL-2011 14:15	ar1660	/chem/ecd3a.i/072411p.b-608.b/016b1601.d
15-SEP-2011 10:34	gapa	/chem/ecd3a.i/091511P.B/006B0601.D
20-SEP-2011 18:31	chlor	/chem/ecd3a.i/092011P.B/018B1801.D
22-SEP-2011 18:35	tox	/chem/ecd3a.i/092211P.B/015B1501.D
22-SEP-2011 17:03	indab	/chem/ecd3a.i/092211P.B/009B0901.D
Cal Level: 5 , Cal Amount: 200.00000		
30-NOV-2010 06:46	ar1254	/chem/ecd3a.i/112910pa-608.b/036b3601.d
24-JUL-2011 14:31	ar1660	/chem/ecd3a.i/072411p.b-608.b/017b1701.d
13-JUL-2011 11:28	gapa	/chem/ecd3a.i/071311p.b/014b1401.d
20-SEP-2011 18:46	chlor	/chem/ecd3a.i/092011P.B/019B1901.D

22-SEP-2011 18:51	tox	/chem/ecd3a.i/092211P.B/016B1601.D
22-SEP-2011 17:18	indab	/chem/ecd3a.i/092211P.B/010B1001.D

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
23-SEP-2011 03:23	indab	/chem/ecd3a.i/092211P.B/049B4901.D
Ccal Level: 4 , Ccal Amount: 100		
23-SEP-2011 00:48	indab	/chem/ecd3a.i/092211P.B/039B3901.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 21:57	indab	/chem/ecd3a.i/092211P.B/028B2801.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 19:06	tox	/chem/ecd3a.i/092211P.B/017B1701.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 18:35	tox	/chem/ecd3a.i/092211P.B/015B1501.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 19:22	gapa	/chem/ecd3a.i/092211P.B/018B1801.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 17:34	indab	/chem/ecd3a.i/092211P.B/011B1101.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 17:03	indab	/chem/ecd3a.i/092211P.B/009B0901.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 15:55	chlor	/chem/ecd3a.i/092211P.B/005B0501.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 15:40	tox	/chem/ecd3a.i/092211P.B/004B0401.D
Ccal Level: 4 , Ccal Amount: 100		
22-SEP-2011 15:24	indab	/chem/ecd3a.i/092211P.B/003B0301.D

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Sep-2011 11:29 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	769.000000
Initial:End Threshold	384.500000
Initial:Area Threshold	7690.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	9.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.490	2.460-2.520	1.331e+05
63 2,4,5-Trichlorophenol	1.990	1.890-2.090	3.194e+04
59 Hexachlorobenzene	2.752	2.652-2.852	9.628e+04
2 Aroclor-1221	2.747	2.717-2.777	1.168e+03
	2.849	2.819-2.879	6.916e+02
	2.879	2.849-2.909	2.486e+03
3 Aroclor-1016	2.879	2.849-2.909	1.706e+03
	3.130	3.100-3.160	3.375e+03
	3.485	3.455-3.515	4.054e+03
	3.590	3.560-3.620	2.215e+03
	3.921	3.891-3.951	1.871e+03
4 Aroclor-1232	3.130	3.100-3.160	1.709e+03
	3.468	3.438-3.498	1.228e+03
	3.485	3.455-3.515	2.039e+03
	3.590	3.560-3.620	1.328e+03
	3.920	3.890-3.950	8.547e+02
5 alpha-BHC	2.863	2.833-2.893	1.829e+05
6 Aroclor-1242	2.879	2.779-2.979	1.570e+03
	3.468	3.368-3.568	2.289e+03
	3.485	3.385-3.585	3.702e+03
	3.590	3.490-3.690	2.502e+03
	3.921	3.821-4.021	1.773e+03
7 gamma-BHC (Lindane)	3.091	3.062-3.122	1.657e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.391	3.291-3.491	5.261e+03
	4.153	4.053-4.253	3.182e+03
	4.249	4.149-4.349	3.447e+03
	4.323	4.223-4.423	1.893e+04
	4.438	4.338-4.538	2.950e+04
9 Aroclor-1248	3.468	3.368-3.568	1.572e+03
	3.733	3.633-3.833	1.971e+03
	3.920	3.820-4.020	2.647e+03
	4.282	4.182-4.382	2.810e+03
	4.843	4.743-4.943	1.639e+03
10 Heptachlor	3.454	3.424-3.484	1.313e+05
11 Aldrin	3.698	3.668-3.728	1.530e+05
12 beta-BHC	3.151	3.121-3.181	7.402e+04
13 delta-BHC	3.289	3.259-3.319	1.607e+05
14 Heptachlor epoxide	4.207	4.177-4.237	1.373e+05
15 Aroclor-1254	4.244	4.214-4.274	2.714e+03
	4.471	4.441-4.501	4.670e+03
	4.842	4.812-4.872	4.883e+03
	5.105	5.075-5.135	3.590e+03
	5.559	5.529-5.589	4.837e+03
16 Endosulfan I	4.562	4.532-4.593	1.208e+05
17 gamma-Chlordane	4.320	4.290-4.351	1.337e+05
18 alpha-Chlordane	4.439	4.410-4.470	1.310e+05
19 4,4'-DDE	4.511	4.481-4.541	1.262e+05
20 Dieldrin	4.784	4.753-4.814	1.330e+05
21 Aroclor-1260	5.012	4.912-5.112	3.575e+03
	5.279	5.179-5.379	4.751e+03
	5.558	5.458-5.658	3.751e+03
	5.923	5.823-6.023	3.089e+03
	6.242	6.142-6.342	6.064e+03
22 Endrin	5.005	4.975-5.035	1.123e+05
23 Toxaphene	5.213	5.183-5.243	5.154e+03
	5.331	5.301-5.361	4.084e+03
	5.552	5.522-5.582	3.887e+03
	5.880	5.850-5.910	2.288e+03
	5.979	5.949-6.009	3.469e+03
24 Endosulfan II	5.223	5.194-5.253	1.101e+05
25 4,4'-DDD	5.075	5.045-5.105	1.018e+05
26 4,4'-DDT	5.350	5.320-5.380	9.446e+04
27 Endrin aldehyde	5.635	5.605-5.665	9.315e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Compound	RT	RT Window	RF
28 Methoxychlor	5.853	5.823-5.883	4.441e+04
29 Endosulfan sulfate	6.075	6.045-6.105	9.131e+04
30 Aroclor-1268	6.571	6.471-6.671	1.194e+04
	6.614	6.514-6.714	1.199e+04
	6.821	6.721-6.921	9.127e+03
	7.200	7.100-7.300	4.364e+03
	7.511	7.411-7.611	3.019e+04
61 Aroclor-1262	5.012	4.912-5.112	4.307e+03
	5.276	5.176-5.376	5.868e+03
	5.669	5.569-5.769	7.406e+03
	6.237	6.137-6.337	1.491e+04
	6.572	6.472-6.672	5.745e+03
31 Endrin ketone	6.368	6.338-6.398	1.188e+05
51 Mirex	5.977	5.947-6.007	5.370e+04
52 C-Nonachlor	5.042	5.012-5.072	8.218e+04
53 O-Chlordane	4.121	4.091-4.151	6.691e+04
54 T-Nonachlor	4.425	4.395-4.455	8.084e+04
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.204	4.174-4.234	5.096e+04
58 2,4-DDD	4.674	4.644-4.704	4.369e+04
57 2,4-DDT	4.915	4.885-4.945	4.725e+04
$ 32 Decachlorobiphenyl	7.470	7.440-7.500	8.632e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Sep-2011 11:26 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.990	2.960-3.020	4.697e+04
61 2,4,5-Trichlorophenol	2.358	2.258-2.458	4.980e+05
59 Hexachlorobenzene	3.387	3.357-3.417	5.073e+04
2 Aroclor-1221	3.410	3.380-3.440	7.162e+02
	3.529	3.499-3.559	4.777e+02
	3.583	3.553-3.613	1.802e+03
3 Aroclor-1016	3.583	3.553-3.613	1.177e+03
	3.934	3.904-3.964	1.509e+03
	4.336	4.306-4.366	2.022e+03
	4.484	4.454-4.514	1.848e+03
	4.935	4.905-4.965	1.440e+03
4 Aroclor-1232	3.583	3.553-3.613	1.289e+03
	3.934	3.904-3.964	7.993e+02
	4.336	4.306-4.366	9.841e+02
	4.358	4.328-4.388	1.323e+03
	4.485	4.455-4.515	9.101e+02
5 alpha-BHC	3.497	3.467-3.527	6.446e+04
6 Aroclor-1242	3.584	3.554-3.614	1.010e+03
	3.935	3.905-3.965	1.270e+03
	4.337	4.307-4.367	1.685e+03
	4.359	4.329-4.389	2.266e+03
	4.485	4.455-4.515	1.536e+03
7 gamma-BHC (Lindane)	3.814	3.784-3.844	5.918e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.096	4.066-4.126	1.819e+03
	5.073	5.043-5.103	1.136e+03
	5.191	5.161-5.221	1.054e+03
	5.307	5.277-5.337	5.243e+03
	5.455	5.425-5.485	4.497e+03
9 Aroclor-1248	4.337	4.307-4.367	1.182e+03
	4.664	4.634-4.694	1.413e+03
	4.935	4.905-4.965	1.826e+03
	5.311	5.281-5.341	1.943e+03
	5.361	5.331-5.391	2.235e+03
10 Heptachlor	4.234	4.204-4.264	4.194e+04
11 Aldrin	4.553	4.523-4.583	5.388e+04
12 beta-BHC	3.875	3.845-3.905	2.585e+04
13 delta-BHC	4.155	4.125-4.185	5.213e+04
14 Heptachlor epoxide	5.113	5.083-5.143	4.632e+04
15 Aroclor-1254	5.356	5.326-5.386	2.066e+03
	5.542	5.512-5.572	2.169e+03
	6.034	6.004-6.064	3.004e+03
	6.270	6.240-6.300	2.218e+03
	6.855	6.825-6.885	2.314e+03
16 Endosulfan I	5.520	5.490-5.550	4.020e+04
17 gamma-Chlordane	5.306	5.276-5.336	4.559e+04
18 alpha-Chlordane	5.453	5.423-5.483	4.513e+04
19 4,4'-DDE	5.609	5.579-5.639	3.404e+04
20 Dieldrin	5.805	5.775-5.835	3.925e+04
21 Aroclor-1260	6.239	6.209-6.269	2.361e+03
	6.454	6.424-6.484	2.823e+03
	6.949	6.919-6.979	2.137e+03
	7.282	7.252-7.312	2.241e+03
	7.551	7.521-7.581	4.579e+03
22 Endrin	6.130	6.100-6.160	3.021e+04
23 Toxaphene	6.297	6.267-6.327	6.760e+02
	6.341	6.311-6.371	1.115e+03
	6.445	6.415-6.475	1.888e+03
	6.723	6.693-6.753	1.299e+03
	7.293	7.263-7.323	1.144e+03
24 Endosulfan II	6.355	6.325-6.385	3.534e+04
25 4,4'-DDD	6.223	6.193-6.253	2.296e+04
26 4,4'-DDT	6.565	6.535-6.595	2.730e+04
27 Endrin aldehyde	6.716	6.686-6.746	2.828e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.314	7.284-7.344	8.892e+03
29 Endosulfan sulfate	7.018	6.988-7.048	2.801e+04
30 Aroclor-1268	7.713	7.683-7.743	7.805e+04
	7.766	7.736-7.796	7.537e+04
	8.055	8.025-8.085	5.572e+04
	8.368	8.338-8.398	2.753e+04
	8.743	8.713-8.773	1.813e+05
60 Aroclor-1262	6.013	5.913-6.113	3.007e+04
	6.228	6.128-6.328	3.673e+04
	7.042	6.942-7.142	4.881e+04
	7.311	7.211-7.411	1.025e+05
	7.716	7.616-7.816	6.886e+04
31 Endrin ketone	7.620	7.590-7.650	3.601e+04
51 Mirex	7.590	7.560-7.620	2.491e+04
52 C-Nonachlor	6.211	6.181-6.241	3.536e+04
53 O-Chlordane	5.021	4.991-5.051	2.684e+04
54 T-Nonachlor	5.399	5.369-5.429	3.474e+04
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.291	5.261-5.321	2.153e+04
58 2,4-DDD	5.824	5.794-5.854	1.421e+04
57 2,4-DDT	6.153	6.123-6.183	1.913e+04
$ 32 Decachlorobiphenyl	8.999	8.969-9.029	3.151e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Cal Date : 23-Sep-2011 11:29 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/112910pa-608.b/032f3201.d
Level 2: /chem/ecd3a.i/112910pa-608.b/033f3301.d
Level 3: /chem/ecd3a.i/112910pa-608.b/034f3401.d
Level 4: /chem/ecd3a.i/011511p.b/018f1801.d
Level 5: /chem/ecd3a.i/112910pa-608.b/036f3601.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	31937	+++++	31937	0.000
59 Hexachlorobenzene	+++++	+++++	+++++	96281	+++++	96281	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	1168	+++++	1168	0.000
(2)	+++++	+++++	+++++	692	+++++	692	0.000
(3)	+++++	+++++	+++++	2486	+++++	2486	0.000
3 Aroclor-1016(1)	2028	1800	1738	1565	1398	1706	14.008
(2)	3993	3557	3435	3096	2793	3375	13.536
(3)	4545	4113	4115	3869	3626	4054	8.418
(4)	2499	2292	2228	2080	1975	2215	9.093
(5)	2079	1950	1875	1724	1726	1871	8.103
4 Aroclor-1232(1)	+++++	+++++	+++++	1709	+++++	1709	0.000
(2)	+++++	+++++	+++++	1228	+++++	1228	0.000
(3)	+++++	+++++	+++++	2039	+++++	2039	0.000
(4)	+++++	+++++	+++++	1328	+++++	1328	0.000
(5)	+++++	+++++	+++++	855	+++++	855	0.000
5 alpha-BHC	161438	172104	191317	192439	197015	182863	8.375
6 Aroclor-1242(1)	+++++	+++++	+++++	1570	+++++	1570	0.000
(2)	+++++	+++++	+++++	2289	+++++	2289	0.000
(3)	+++++	+++++	+++++	3702	+++++	3702	0.000
(4)	+++++	+++++	+++++	2502	+++++	2502	0.000
(5)	+++++	+++++	+++++	1773	+++++	1773	0.000
7 gamma-BHC (Lindane)	152044	158513	171064	171110	175954	165737	6.043
8 Chlordane (tech.)(1)	4719	4977	5258	5541	5808	5261	8.240
(2)	2995	3049	3138	3207	3520	3182	6.466
(3)	3149	3232	3377	3532	3942	3447	9.089
(4)	16973	17618	18942	20279	20852	18933	8.785
(5)	26833	27693	29483	31337	32137	29497	7.713

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Cal Date : 23-Sep-2011 11:29 reb01393
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	1572	+++++	1572	0.000
(2)	+++++	+++++	+++++	1971	+++++	1971	0.000
(3)	+++++	+++++	+++++	2647	+++++	2647	0.000
(4)	+++++	+++++	+++++	2810	+++++	2810	0.000
(5)	+++++	+++++	+++++	1639	+++++	1639	0.000
10 Heptachlor	122894	124310	133823	135279	140029	131267	5.623
11 Aldrin	138673	146662	159285	159288	161155	153013	6.461
12 beta-BHC	77266	75745	72995	72076	72010	74019	3.196
13 delta-BHC	142530	151017	167115	168765	173952	160676	8.267
14 Heptachlor epoxide	131433	134000	140460	139539	140925	137271	3.122
15 Aroclor-1254(1)	+++++	+++++	+++++	2714	+++++	2714	0.000
(2)	+++++	+++++	+++++	4670	+++++	4670	0.000
(3)	+++++	+++++	+++++	4883	+++++	4883	0.000
(4)	+++++	+++++	+++++	3590	+++++	3590	0.000
(5)	+++++	+++++	+++++	4837	+++++	4837	0.000
16 Endosulfan I	116662	117417	123436	123045	123334	120779	2.837
17 gamma-Chlordane	122588	126680	137216	139149	142963	133719	6.483
18 alpha-Chlordane	124893	126490	132499	133964	136933	130956	3.891
19 4,4'-DDE	115587	123268	130993	130337	130906	126218	5.366
20 Dieldrin	123590	130903	137935	136316	136383	133025	4.443
21 Aroclor-1260(1)	3932	3597	3592	3316	3438	3575	6.470
(2)	5135	4840	4788	4468	4525	4751	5.644
(3)	3870	3730	3660	3624	3871	3751	3.075
(4)	3307	3084	3085	2926	3040	3089	4.485
(5)	6270	6059	6069	5800	6124	6064	2.806
22 Endrin	103748	110788	116389	114676	115842	112289	4.677
23 Toxaphene(1)	4891	4931	5171	5427	5349	5154	4.668
(2)	3806	3835	4132	4317	4332	4084	6.211
(3)	3562	3740	3931	4111	4089	3887	6.040
(4)	2195	2232	2243	2315	2456	2288	4.509
(5)	3244	3312	3476	3649	3665	3469	5.511
24 Endosulfan II	106653	110707	112453	110441	110069	110065	1.922
25 4,4'-DDD	92344	99402	105478	105435	106343	101800	5.864

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Cal Date : 23-Sep-2011 11:29 reb01393
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
26 4,4'-DDT	89418	92866	96539	96457	97030	94462	3.466
27 Endrin aldehyde	93851	95255	94152	92085	90427	93154	2.042
28 Methoxychlor	48482	46805	42450	41720	42572	44406	6.828
29 Endosulfan sulfate	87847	90063	92556	92528	93580	91315	2.553
30 Aroclor-1268(1)	+++++	+++++	+++++	11935	+++++	11935	0.000
(2)	+++++	+++++	+++++	11988	+++++	11988	0.000
(3)	+++++	+++++	+++++	9127	+++++	9127	0.000
(4)	+++++	+++++	+++++	4364	+++++	4364	0.000
(5)	+++++	+++++	+++++	30188	+++++	30188	0.000
61 Aroclor-1262(1)	+++++	+++++	+++++	4307	+++++	4307	0.000
(2)	+++++	+++++	+++++	5868	+++++	5868	0.000
(3)	+++++	+++++	+++++	7406	+++++	7406	0.000
(4)	+++++	+++++	+++++	14908	+++++	14908	0.000
(5)	+++++	+++++	+++++	5745	+++++	5745	0.000
31 Endrin ketone	119368	122459	119901	117045	115376	118830	2.294
51 Mirex	+++++	+++++	+++++	53698	+++++	53698	0.000
52 C-Nonachlor	+++++	+++++	+++++	82180	+++++	82180	0.000
53 O-Chlordane	+++++	+++++	+++++	66907	+++++	66907	0.000
54 T-Nonachlor	+++++	+++++	+++++	80845	+++++	80845	0.000
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	+++++	+++++	+++++	50961	+++++	50961	0.000
58 2,4-DDD	+++++	+++++	+++++	43695	+++++	43695	0.000
57 2,4-DDT	+++++	+++++	+++++	47253	+++++	47253	0.000
$ 1 4cmx	134782	134108	133581	130428	132407	133062	1.285
$ 32 Decachlorobiphenyl	97474	87342	82684	81988	82088	86315	7.671

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Cal Date : 23-Sep-2011 11:26 reb01393
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/112910pa-608.b/032b3201.d
Level 2: /chem/ecd3a.i/122110p.b/013b1301.d
Level 3: /chem/ecd3a.i/112910pa-608.b/034b3401.d
Level 4: /chem/ecd3a.i/011511p.b/018b1801.d
Level 5: /chem/ecd3a.i/112910pa-608.b/036b3601.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	498020	+++++	498020	0.000	
59 Hexachlorobenzene	+++++	+++++	+++++	50726	+++++	50726	0.000	
2 Aroclor-1221(1)	+++++	+++++	+++++	716	+++++	716	0.000	
(2)	+++++	+++++	+++++	478	+++++	478	0.000	
(3)	+++++	+++++	+++++	1802	+++++	1802	0.000	
3 Aroclor-1016(1)	1526	1310	1182	1023	845	1177	22.219	<-
(2)	1951	1664	1517	1327	1087	1509	21.743	<-
(3)	2588	2209	2020	1785	1509	2022	20.314	<-
(4)	2335	2033	1850	1644	1380	1848	19.723	<-
(5)	1811	1587	1434	1284	1084	1440	19.347	<-
4 Aroclor-1232(1)	+++++	+++++	+++++	1289	+++++	1289	0.000	
(2)	+++++	+++++	+++++	799	+++++	799	0.000	
(3)	+++++	+++++	+++++	984	+++++	984	0.000	
(4)	+++++	+++++	+++++	1323	+++++	1323	0.000	
(5)	+++++	+++++	+++++	910	+++++	910	0.000	
5 alpha-BHC	65088	66031	66277	63398	61494	64458	3.111	
6 Aroclor-1242(1)	+++++	+++++	+++++	1010	+++++	1010	0.000	
(2)	+++++	+++++	+++++	1270	+++++	1270	0.000	
(3)	+++++	+++++	+++++	1685	+++++	1685	0.000	
(4)	+++++	+++++	+++++	2266	+++++	2266	0.000	
(5)	+++++	+++++	+++++	1536	+++++	1536	0.000	
7 gamma-BHC (Lindane)	62599	61220	59785	57065	55228	59180	5.091	
8 Chlordane (tech.)(1)	1880	1845	1781	1828	1762	1819	2.638	
(2)	1227	1186	1085	1110	1074	1136	5.886	
(3)	1113	1098	1014	1035	1007	1054	4.647	
(4)	5347	5381	5248	5292	4949	5243	3.282	
(5)	4596	4570	4528	4538	4255	4497	3.075	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Cal Date : 23-Sep-2011 11:26 reb01393
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
9 Aroclor-1248(1)	+++++	+++++	+++++	1182	+++++	1182	0.000	
(2)	+++++	+++++	+++++	1413	+++++	1413	0.000	
(3)	+++++	+++++	+++++	1826	+++++	1826	0.000	
(4)	+++++	+++++	+++++	1943	+++++	1943	0.000	
(5)	+++++	+++++	+++++	2235	+++++	2235	0.000	
10 Heptachlor	45124	43702	41561	40046	39290	41945	5.839	
11 Aldrin	55822	55403	54755	52564	50863	53881	3.903	
12 beta-BHC	29158	27761	25391	23818	23128	25851	9.927	
13 delta-BHC	54111	53768	52763	50634	49388	52133	3.927	
14 Heptachlor epoxide	49165	48584	46546	44472	42815	46316	5.810	
15 Aroclor-1254(1)	+++++	+++++	+++++	2066	+++++	2066	0.000	
(2)	+++++	+++++	+++++	2169	+++++	2169	0.000	
(3)	+++++	+++++	+++++	3004	+++++	3004	0.000	
(4)	+++++	+++++	+++++	2218	+++++	2218	0.000	
(5)	+++++	+++++	+++++	2314	+++++	2314	0.000	
16 Endosulfan I	42275	41949	40321	38860	37582	40197	4.980	
17 gamma-Chlordane	47931	46752	45671	44236	43341	45586	4.064	
18 alpha-Chlordane	47721	47190	45054	43432	42240	45127	5.221	
19 4,4'-DDE	36155	36021	33902	32650	31488	34043	6.031	
20 Dieldrin	41594	41528	39700	37630	35818	39254	6.406	
21 Aroclor-1260(1)	3037	2584	2390	2053	1740	2361	21.055	<-
(2)	3582	3105	2864	2466	2099	2823	20.250	<-
(3)	2721	2358	2158	1858	1588	2137	20.530	<-
(4)	2831	2483	2264	1954	1671	2241	20.138	<-
(5)	5766	5028	4595	4000	3504	4579	19.237	<-
22 Endrin	33054	32237	30170	28399	27204	30213	8.194	
23 Toxaphene(1)	657	690	699	677	657	676	2.846	
(2)	1116	1133	1123	1127	1076	1115	2.024	
(3)	1792	1926	1926	1935	1863	1888	3.237	
(4)	1272	1293	1310	1337	1281	1299	1.989	
(5)	1125	1146	1152	1172	1126	1144	1.711	
24 Endosulfan II	37920	37418	35508	33733	32135	35343	6.910	
25 4,4'-DDD	24628	24108	22883	22037	21123	22956	6.288	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 22-SEP-2011 18:51
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Cal Date : 23-Sep-2011 11:26 reb01393
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	29023	28626	27153	26474	25233	27302	5.705
27 Endrin aldehyde	31402	30801	27886	26503	24795	28277	9.933
28 Methoxychlor	10876	10016	8426	7799	7345	8892	16.876
29 Endosulfan sulfate	30013	29351	27561	26938	26199	28012	5.768
30 Aroclor-1268(1)	+++++	+++++	+++++	78045	+++++	78045	0.000
(2)	+++++	+++++	+++++	75367	+++++	75367	0.000
(3)	+++++	+++++	+++++	55722	+++++	55722	0.000
(4)	+++++	+++++	+++++	27533	+++++	27533	0.000
(5)	+++++	+++++	+++++	181259	+++++	181259	0.000
60 Aroclor-1262(1)	+++++	+++++	+++++	30071	+++++	30071	0.000
(2)	+++++	+++++	+++++	36725	+++++	36725	0.000
(3)	+++++	+++++	+++++	48807	+++++	48807	0.000
(4)	+++++	+++++	+++++	102538	+++++	102538	0.000
(5)	+++++	+++++	+++++	68862	+++++	68862	0.000
31 Endrin ketone	40905	39485	35056	33286	31319	36010	11.312
51 Mirex	+++++	+++++	+++++	24913	+++++	24913	0.000
52 C-Nonachlor	+++++	+++++	+++++	35357	+++++	35357	0.000
53 O-Chlordane	+++++	+++++	+++++	26842	+++++	26842	0.000
54 T-Nonachlor	+++++	+++++	+++++	34738	+++++	34738	0.000
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	+++++	+++++	+++++	21534	+++++	21534	0.000
58 2,4-DDD	+++++	+++++	+++++	14212	+++++	14212	0.000
57 2,4-DDT	+++++	+++++	+++++	19134	+++++	19134	0.000
$ 1 4cmx	52444	51121	46368	43466	41455	46971	10.113
$ 32 Decachlorobiphenyl	35599	33387	30364	29309	28915	31515	9.133

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/006F0601.D
Lab Smp Id: WPE110921-01AB Client Smp ID: INDAB01
Inj Date : 22-SEP-2011 16:16
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-01AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 05:44 Cal File: 032f3201.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.866	2.863	0.003	645752	4.00000	3.56	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.095	3.091	0.004	608177	4.00000	3.68	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.155	3.151	0.004	309064	4.00000	4.37	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.458	3.454	0.004	491576	4.00000	3.53	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.293	3.289	0.004	570121	4.00000	3.53	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.702	3.698	0.004	554691	4.00000	3.51	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.213	4.207	0.006	525733	4.00000	3.69	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.327	4.320	0.007	490352	4.00000	3.54	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.445	4.439	0.006	499573	4.00000	3.70	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.570   4.562   0.008          466650 4.00000     3.77  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.519   4.511   0.008          924695 8.00000     6.95  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.789   4.784   0.005          988716 8.00000     7.13  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.012   5.005   0.007          829988 8.00000     6.96  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.084   5.075   0.009          738748 8.00000     6.76  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.233   5.223   0.010          853227 8.00000     7.44  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.645   5.635   0.010          750806 8.00000     7.58  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.358   5.350   0.008          715346 8.00000     6.95  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.084   6.075   0.009          702775 8.00000     6.86  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.862   5.853   0.009         1939267 40.0000     39.5  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.379   6.368   0.011          954948 8.00000     7.42  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.492   2.490   0.002         1078260 8.00000     8.17  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.476   7.470   0.006          779791 8.00000     8.84  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/006F0601.D

Page 1

Date : 22-SEP-2011 16:16

Client ID: INDAB01

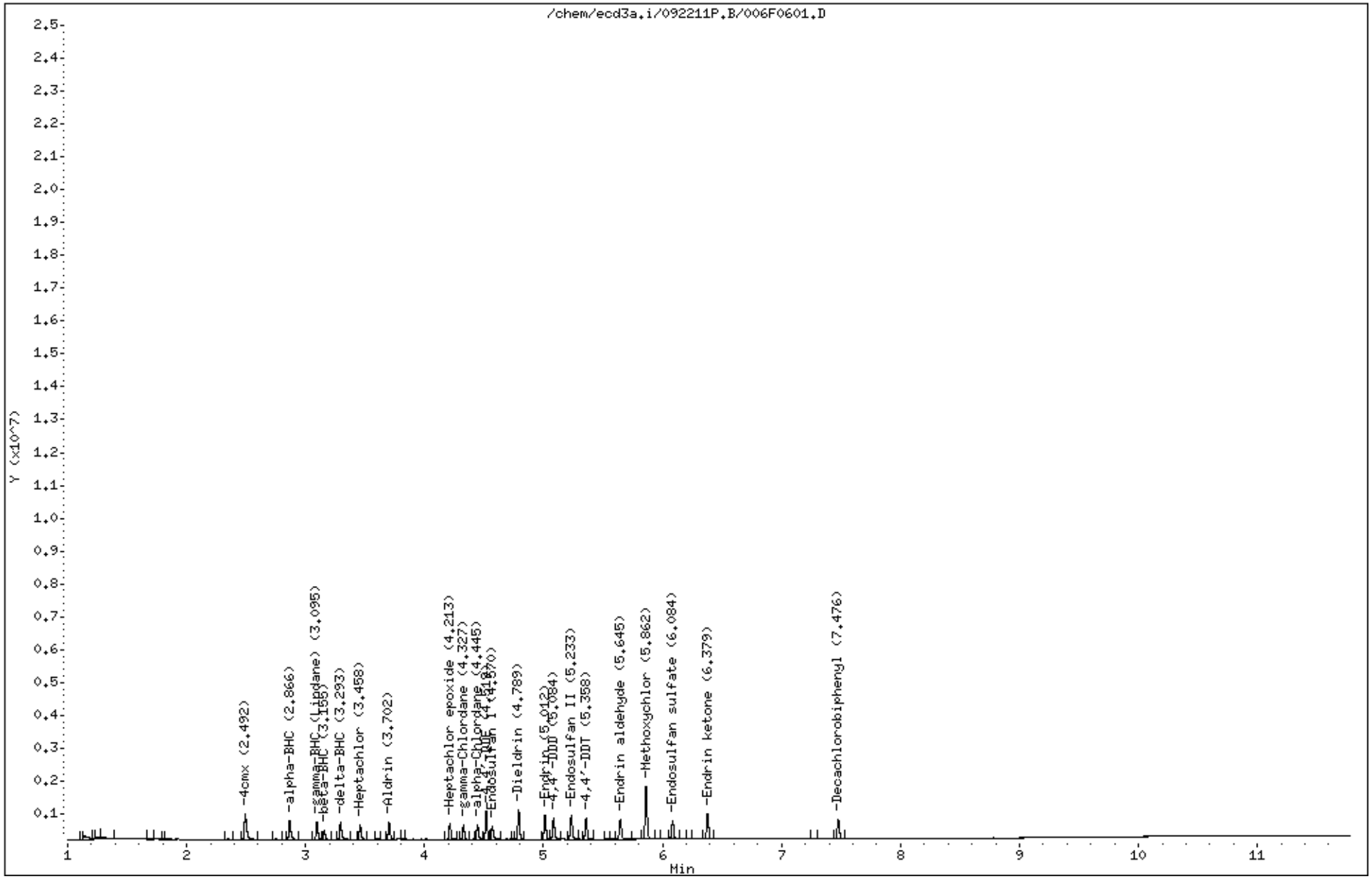
Instrument: ecd3a.i

Sample Info: IWPE110921-01AB

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/006B0601.D
Lab Smp Id: WPE110921-01AB Client Smp ID: INDAB01
Inj Date : 22-SEP-2011 16:16
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-01AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 05:44 Cal File: 032b3201.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.500	3.497	0.003	260351	4.00000	4.11	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.818	3.814	0.004	250396	4.00000	4.34	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.879	3.875	0.004	116632	4.00000	4.62	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.238	4.234	0.004	180495	4.00000	4.29	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.159	4.155	0.004	216445	4.00000	4.12	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.557	4.553	0.004	223286	4.00000	4.22	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.117	5.113	0.004	196660	4.00000	4.27	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.310	5.306	0.004	191725	4.00000	4.23	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.459	5.453	0.006	190884	4.00000	4.24	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.526	5.520	0.006	169099	4.00000	4.20	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.615	5.609	0.006	289240	8.00000	8.01	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.810	5.805	0.005	332756	8.00000	8.28	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.136	6.130	0.006	264431	8.00000	8.32	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.229	6.223	0.006	197028	8.00000	7.85	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.362	6.355	0.007	303356	8.00000	8.43	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.722	6.716	0.006	251213	8.00000	8.56	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.571	6.565	0.006	232184	8.00000	8.00	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.026	7.018	0.008	240105	8.00000	8.06	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.320	7.314	0.006	435055	40.0000	43.8	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.627	7.620	0.007	327240	8.00000	8.56	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.993	2.990	0.003	419554	8.00000	9.06	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.003	8.999	0.004	284794	8.00000	8.98	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/092211P.B/006B0601.D

Page 1

Date : 22-SEP-2011 16:16

Client ID: INDAB01

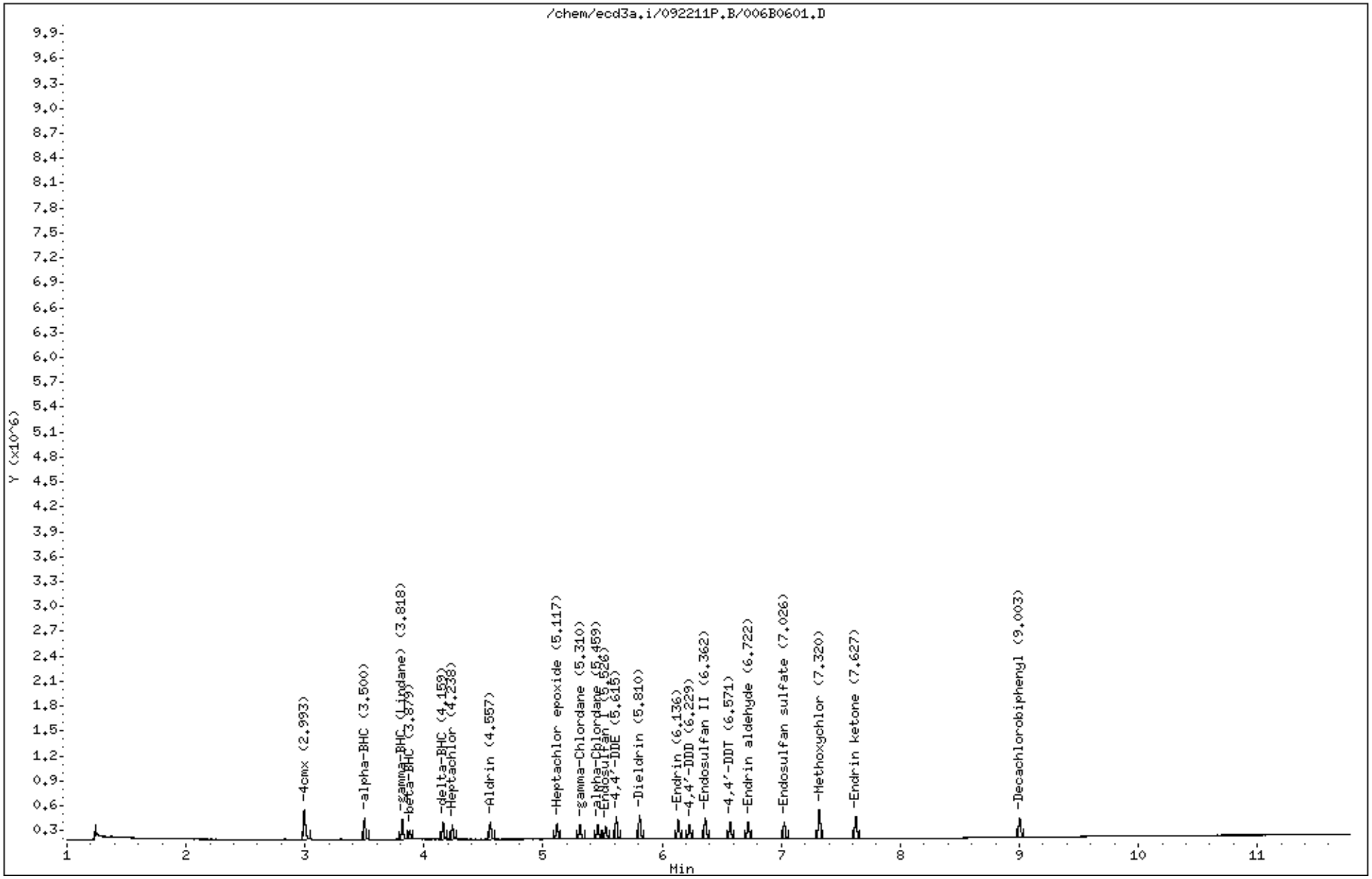
Instrument: ecd3a.i

Sample Info: IWPE110921-01AB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

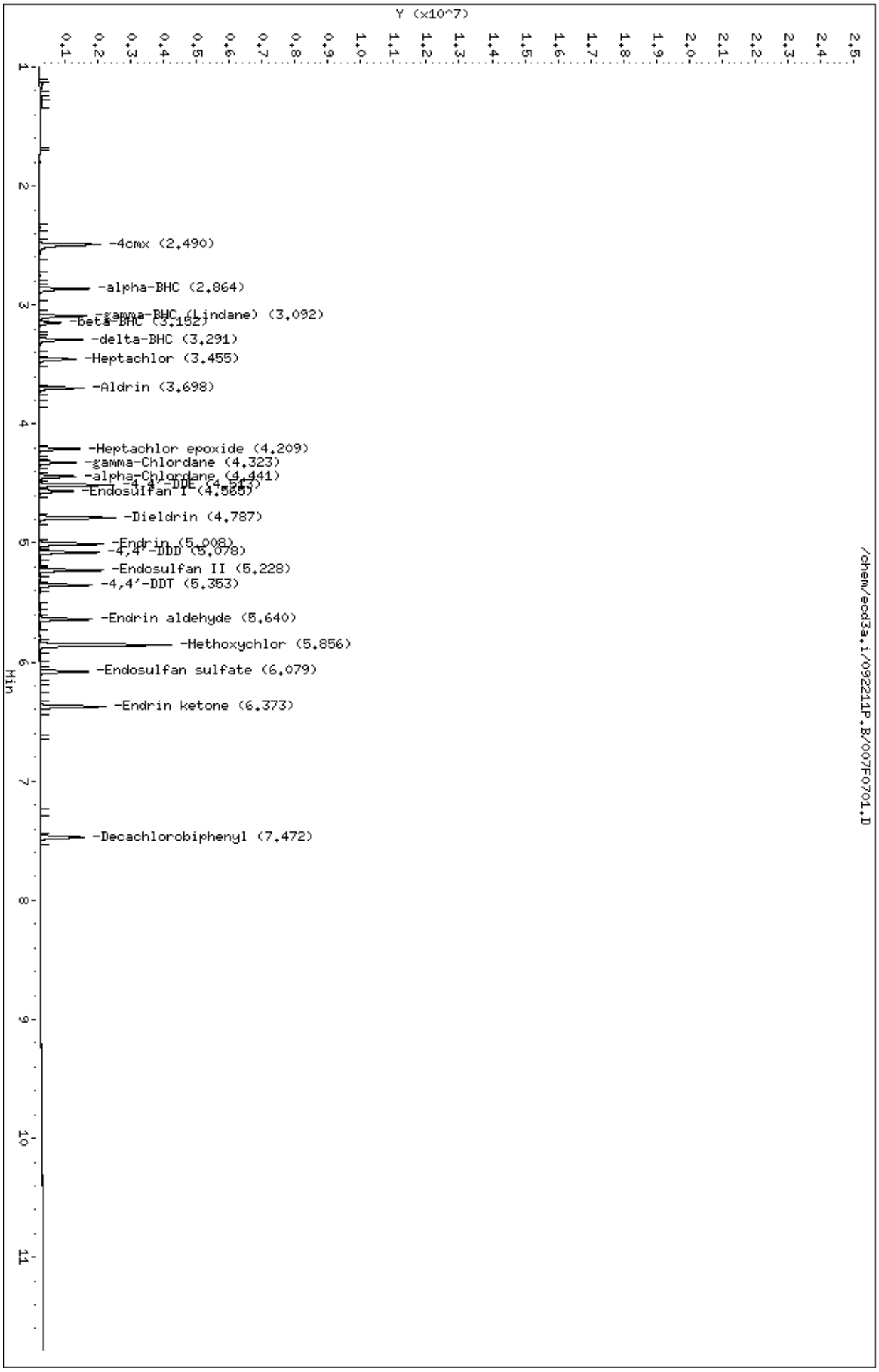
Data file : /chem/ecd3a.i/092211P.B/007F0701.D
Lab Smp Id: WPE110921-02AB Client Smp ID: INDAB02
Inj Date : 22-SEP-2011 16:32
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-02AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:00 Cal File: 033f3301.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.864	2.863	0.001	1721045	10.0000	9.31	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.092	3.091	0.001	1585134	10.0000	9.42	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.152	3.151	0.001	757454	10.0000	10.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.455	3.454	0.001	1243105	10.0000	8.94	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.291	3.289	0.002	1510171	10.0000	9.23	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.698	3.698	0.000	1466621	10.0000	9.21	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.209	4.207	0.002	1339999	10.0000	9.32	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.323	4.320	0.003	1266805	10.0000	9.07	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.441	4.439	0.002	1264902	10.0000	9.30	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.565   4.562   0.003         1174167 10.0000     9.40  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.513   4.511   0.002         2465355 20.0000     18.5  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.787   4.784   0.003         2618062 20.0000     18.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.008   5.005   0.003         2215766 20.0000     18.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.078   5.075   0.003         1988036 20.0000     18.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.228   5.223   0.005         2214143 20.0000     19.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.640   5.635   0.005         1905105 20.0000     19.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.353   5.350   0.003         1857312 20.0000     18.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.079   6.075   0.004         1801256 20.0000     17.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.856   5.853   0.003         4680458 100.000     96.3  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.373   6.368   0.005         2449186 20.0000     19.1  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.490   2.490   0.000         2682170 20.0000     19.9  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.472   7.470   0.002         1746845 20.0000     19.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/007F0701.D
Date : 22-SEP-2011 16:32
Client ID: INDAB02
Sample Info: IWPE110921-02AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/007B0701.D
Lab Smp Id: WPE110921-02AB Client Smp ID: INDAB02
Inj Date : 22-SEP-2011 16:32
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-02AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 21-DEC-2010 12:13 Cal File: 013b1301.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	660312	10.0000	10.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.814	3.814	0.000	612203	10.0000	10.4	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.875	3.875	0.000	277614	10.0000	10.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	437020	10.0000	10.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	537682	10.0000	10.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	554028	10.0000	10.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	485838	10.0000	10.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.306	5.306	0.000	467521	10.0000	10.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.454	5.453	0.001	471903	10.0000	10.3	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                   CAS #: 959-98-8
  5.522   5.520   0.002          419487 10.0000     10.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                       CAS #: 72-55-9
  5.610   5.609   0.001          720425 20.0000     20.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                       CAS #: 60-57-1
  5.806   5.805   0.001          830556 20.0000     20.4  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                         CAS #: 72-20-8
  6.132   6.130   0.002          644739 20.0000     20.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                       CAS #: 72-54-8
  6.225   6.223   0.002          482159 20.0000     19.4  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                  CAS #: 33213-65-9
  6.357   6.355   0.002          748366 20.0000     20.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                                CAS #: 7421-93-4
  6.718   6.716   0.002          616018 20.0000     20.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                       CAS #: 50-29-3
  6.567   6.565   0.002          572527 20.0000     19.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                             CAS #: 1031-07-8
  7.021   7.018   0.003          587018 20.0000     19.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                   CAS #: 72-43-5
  7.316   7.314   0.002         1001646 100.000      103  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                  CAS #: 53494-70-5
  7.622   7.620   0.002          789708 20.0000     20.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                           CAS #: 877-09-8
  2.991   2.990   0.001         1022417 20.0000     21.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  9.000   8.999   0.001          667735 20.0000     20.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/007B0701.D

Page 1

Date : 22-SEP-2011 16:32

Client ID: INDAB02

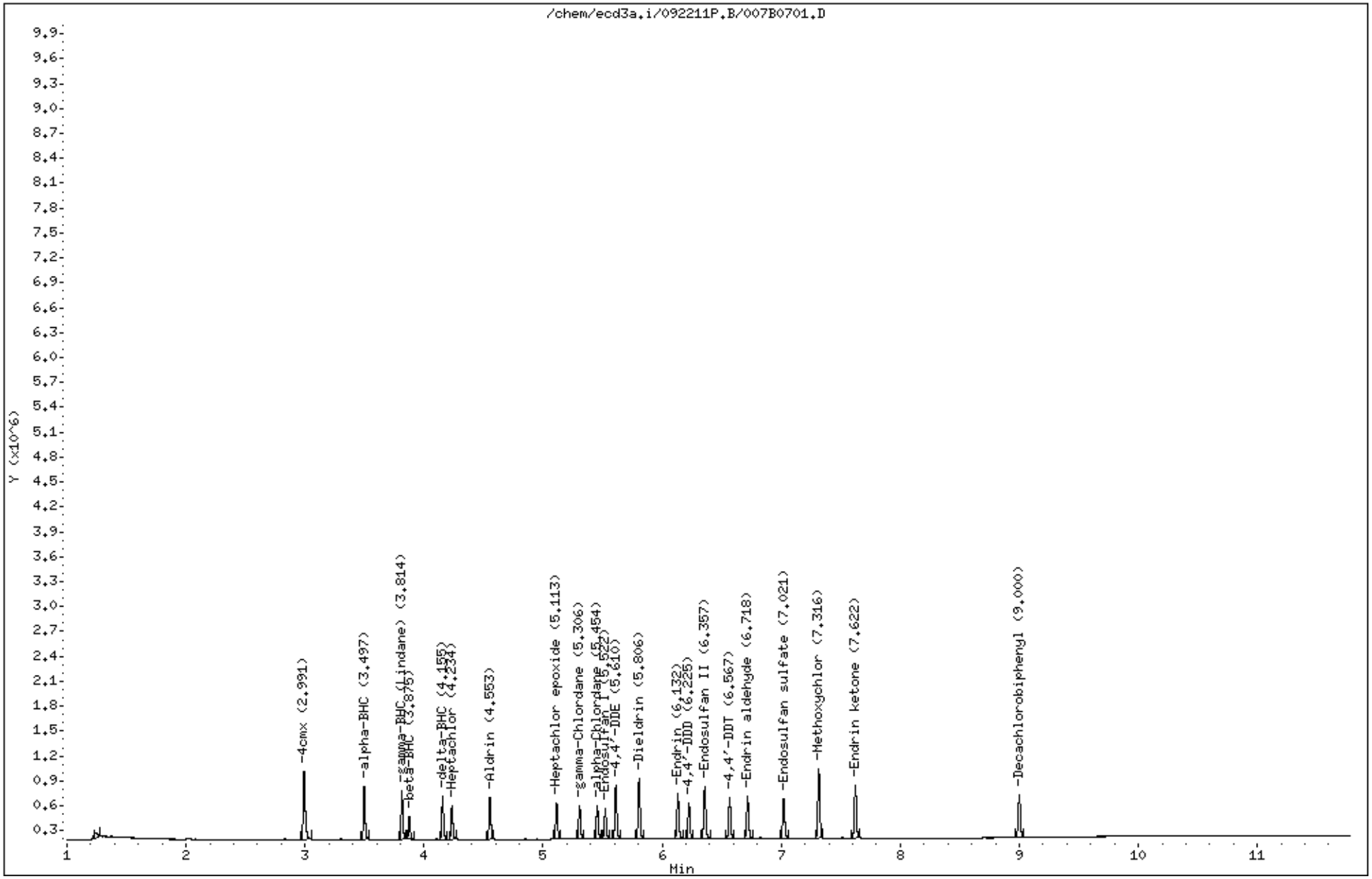
Instrument: ecd3a.i

Sample Info: IWPE110921-02AB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

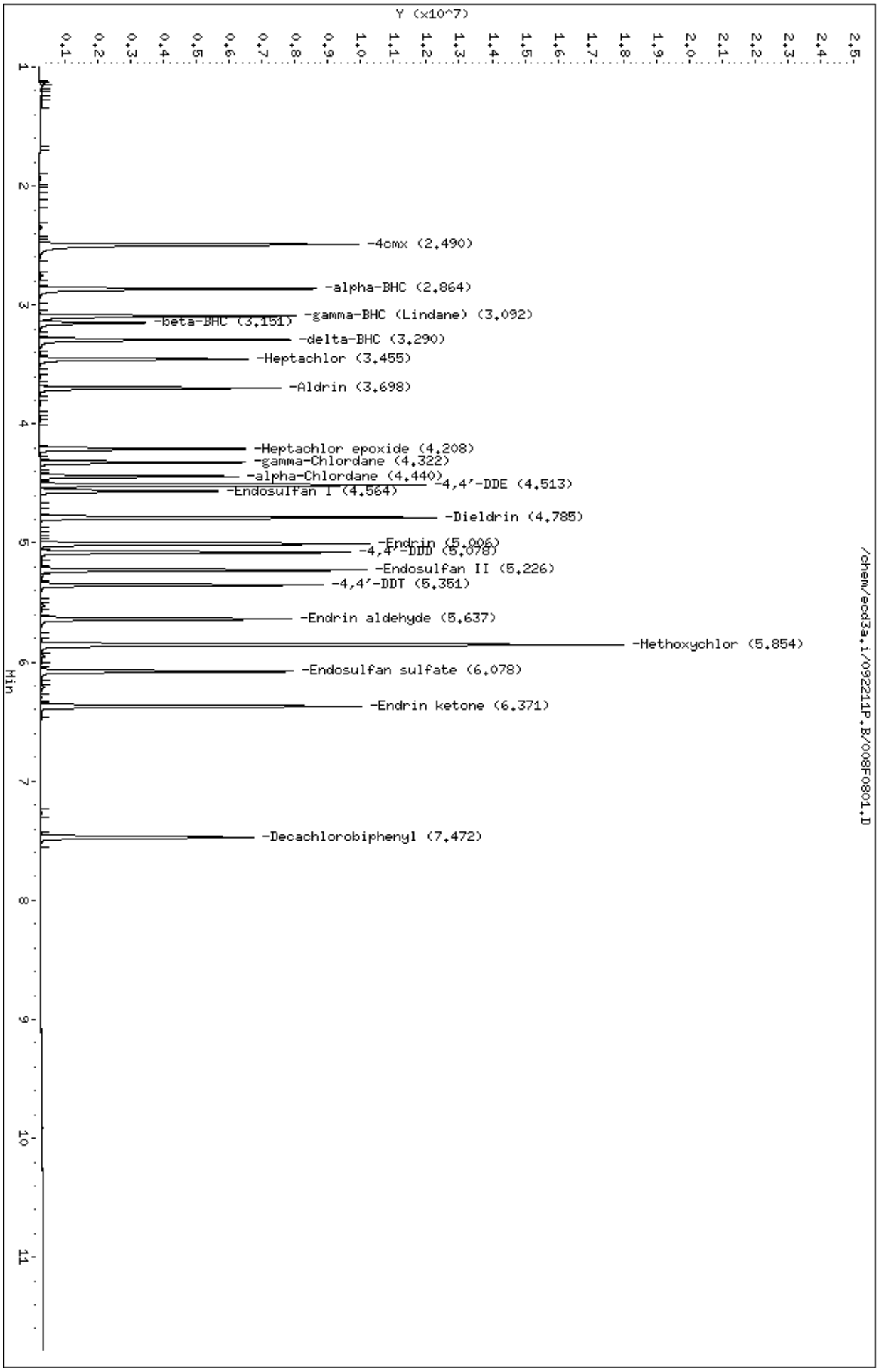
Data file : /chem/ecd3a.i/092211P.B/008F0801.D
Lab Smp Id: WPE110921-03AB Client Smp ID: INDAB03
Inj Date : 22-SEP-2011 16:47
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-03AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:15 Cal File: 034f3401.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.864	2.863	0.001	9565871	50.0000	51.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.092	3.091	0.001	8553186	50.0000	50.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.151	3.151	0.000	3649773	50.0000	49.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.455	3.454	0.001	6691142	50.0000	48.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.290	3.289	0.001	8355752	50.0000	50.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.698	3.698	0.000	7964271	50.0000	50.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	7023012	50.0000	49.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.322	4.320	0.002	6860825	50.0000	49.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.440	4.439	0.001	6624974	50.0000	48.8	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.564   4.562   0.002         6171794 50.0000     49.5  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.513   4.511   0.002        13099275 100.000     99.3  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.785   4.784   0.001        13793535 100.000     99.5  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.006   5.005   0.001        11638857 100.000     98.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.078   5.075   0.003        10547788 100.000     98.1  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.226   5.223   0.003        11245332 100.000     98.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.637   5.635   0.002         9415230 100.000     95.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.351   5.350   0.001         9653854 100.000     96.1  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.078   6.075   0.003         9255575 100.000     93.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.854   5.853   0.001        21225201 500.000      446  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.371   6.368   0.003        11990056 100.000     95.1  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.490   2.490   0.000        13358148 100.000     98.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.472   7.470   0.002         8268428 100.000     93.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/008F0801.D
Date : 22-SEP-2011 16:47
Client ID: INDAB03
Sample Info: IWPE110921-03AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/008B0801.D
Lab Smp Id: WPE110921-03AB Client Smp ID: INDAB03
Inj Date : 22-SEP-2011 16:47
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-03AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:15 Cal File: 034b3401.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	3313830	50.0000	51.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.815	3.814	0.001	2989256	50.0000	50.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.876	3.875	0.001	1269570	50.0000	48.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.235	4.234	0.001	2078056	50.0000	48.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.156	4.155	0.001	2638139	50.0000	49.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	2737758	50.0000	50.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	2327293	50.0000	49.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.306	5.306	0.000	2283569	50.0000	49.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.455	5.453	0.002	2252687	50.0000	49.0	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  5.522   5.520   0.002         2016029 50.0000     49.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  5.611   5.609   0.002         3390180 100.000     95.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  5.806   5.805   0.001         3970016 100.000     98.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  6.132   6.130   0.002         3016967 100.000     95.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  6.225   6.223   0.002         2288349 100.000     94.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  6.357   6.355   0.002         3550781 100.000     97.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  6.716   6.716   0.000         2788555 100.000     95.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  6.566   6.565   0.001         2715266 100.000     95.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  7.021   7.018   0.003         2756052 100.000     93.9  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  7.316   7.314   0.002         4212767 500.000      443  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  7.622   7.620   0.002         3505636 100.000     93.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.991   2.990   0.001         4636825 100.000     97.9  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  9.001   8.999   0.002         3036395 100.000     94.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/008B0801.D

Page 1

Date : 22-SEP-2011 16:47

Client ID: INDAB03

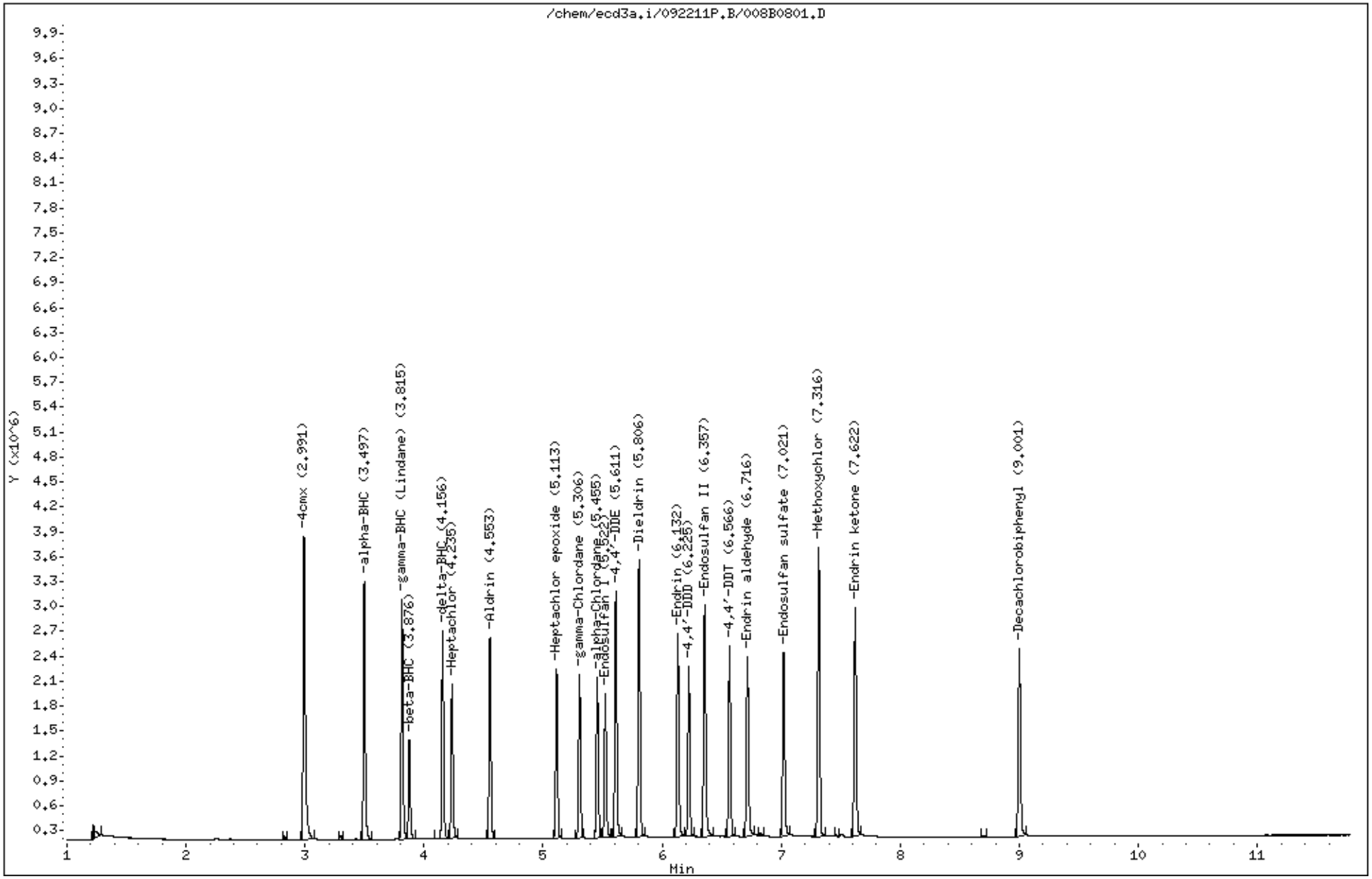
Instrument: ecd3a.i

Sample Info: IWPE110921-03AB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

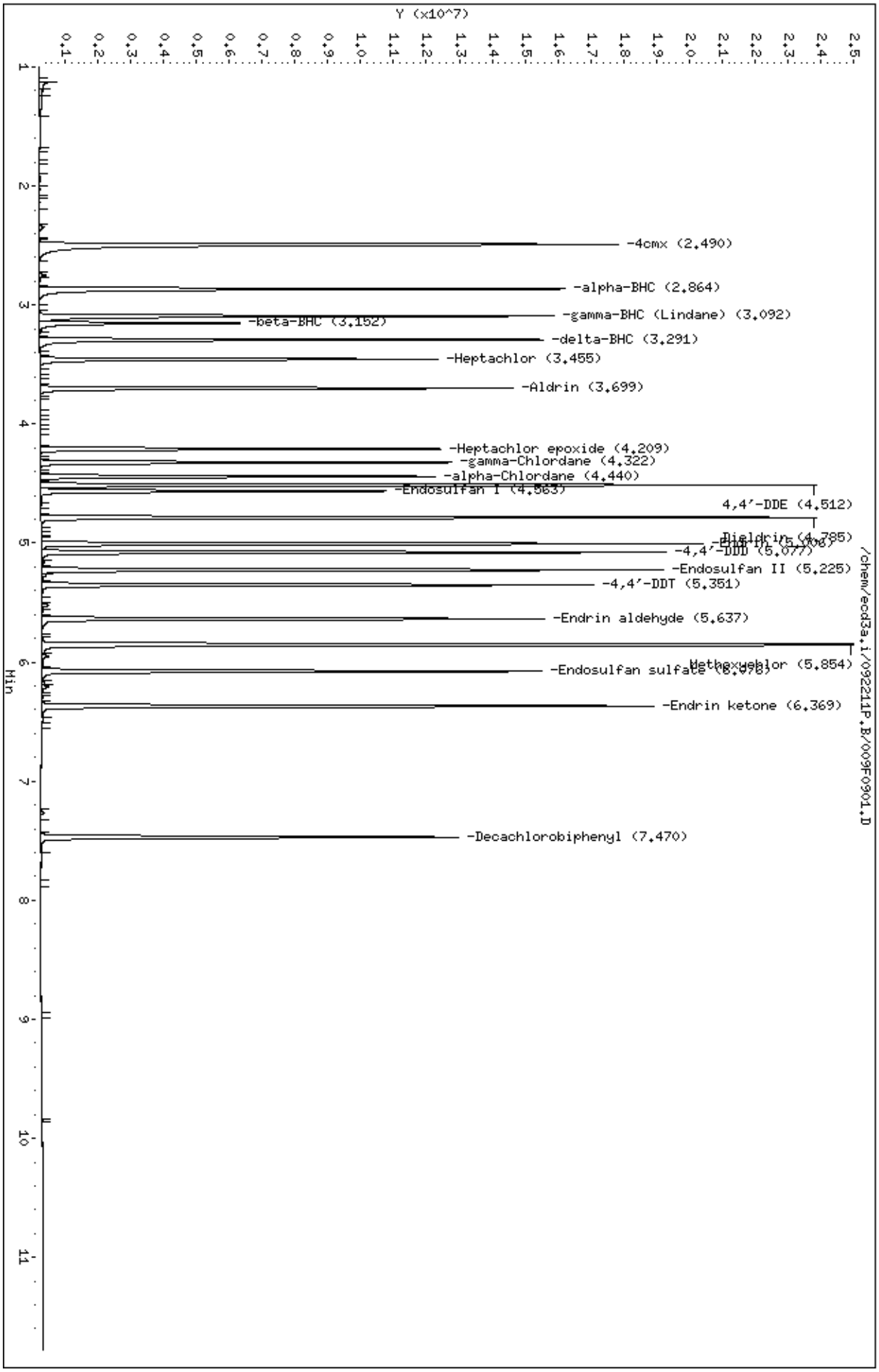
Data file : /chem/ecd3a.i/092211P.B/009F0901.D
Lab Smp Id: WPE110921-04AB Client Smp ID: INDAB04
Inj Date : 22-SEP-2011 17:03
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-04AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 15-JAN-2011 12:53 Cal File: 018f1801.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.864	2.863	0.001	19243859	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.092	3.091	0.001	17110951	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.152	3.151	0.001	7207578	100.000	97.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.455	3.454	0.001	13527909	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.291	3.289	0.002	16876491	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.699	3.698	0.001	15928778	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.209	4.207	0.002	13953911	100.000	99.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.322	4.320	0.002	13914854	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.440	4.439	0.001	13396372	100.000	100	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.563   4.562   0.001        12304508 100.000      100  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.512   4.511   0.001        26067312 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.785   4.784   0.001        27263175 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.006   5.005   0.001        22935244 200.000      199  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.077   5.075   0.002        21087098 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.225   5.223   0.002        22088220 200.000      196  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.637   5.635   0.002        18416993 200.000      192  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.351   5.350   0.001        19291381 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.076   6.075   0.001        18505692 200.000      195  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.854   5.853   0.001        41720034 1000.00      906  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.369   6.368   0.001        23408958 200.000      191  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.490   2.490   0.000        26085601 200.000      194  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.470   7.470   0.000        16397592 200.000      187  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/009F0901.D
Date : 22-SEP-2011 17:03
Client ID: INDAB04
Sample Info: IWPE110921-04AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

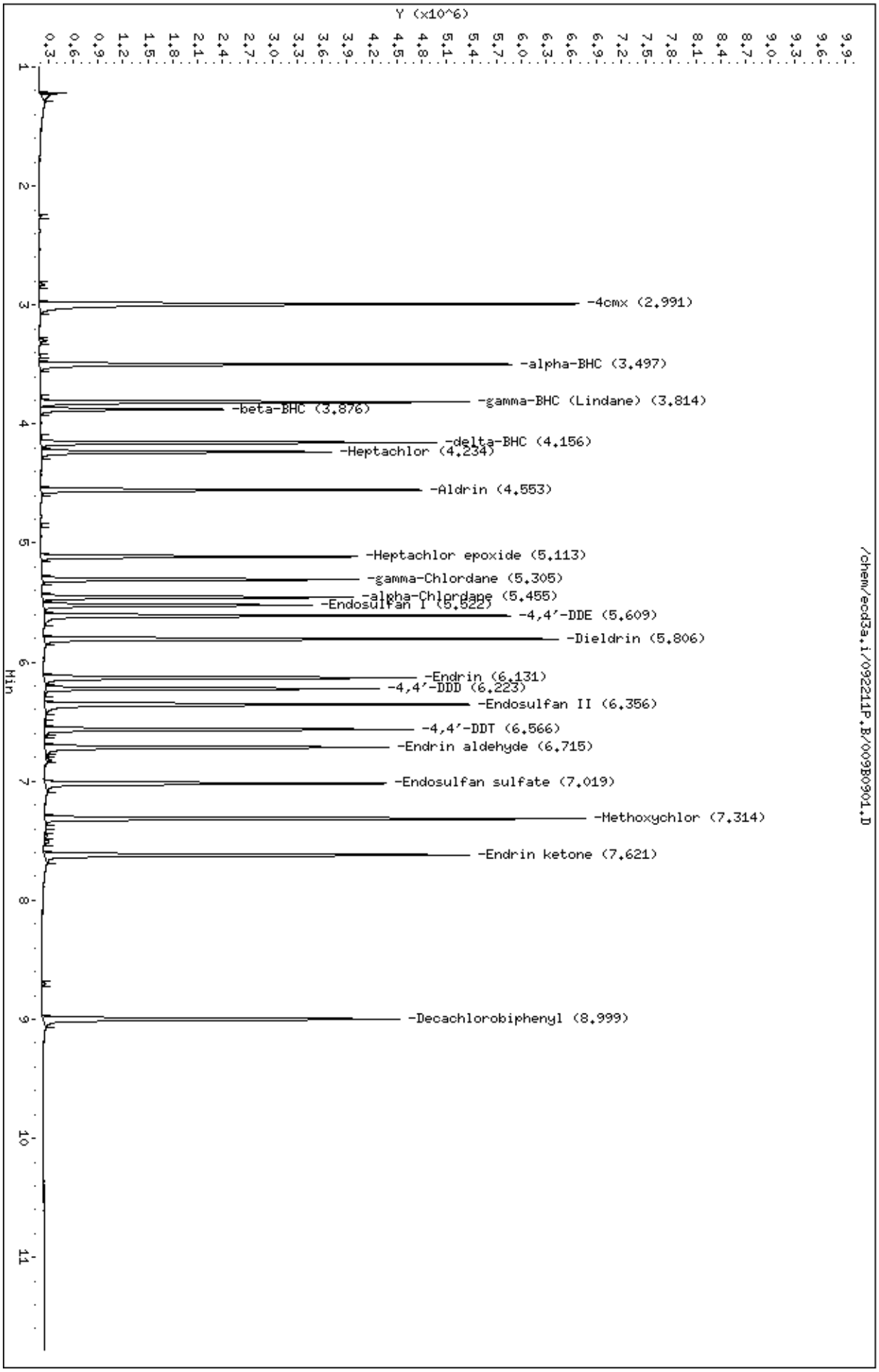
Data file : /chem/ecd3a.i/092211P.B/009B0901.D
Lab Smp Id: WPE110921-04AB Client Smp ID: INDAB04
Inj Date : 22-SEP-2011 17:03
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110921-04AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 15-JAN-2011 12:53 Cal File: 018b1801.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	6339819	100.000	98.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.814	3.814	0.000	5706536	100.000	96.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.876	3.875	0.001	2381780	100.000	92.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	4004618	100.000	94.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.156	4.155	0.001	5063375	100.000	96.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	5256435	100.000	97.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	4447190	100.000	95.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	4423638	100.000	96.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.455	5.453	0.002	4343186	100.000	95.4	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  5.522   5.520   0.002         3885962 100.000     95.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  5.609   5.609   0.000         6530062 200.000      189  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  5.806   5.805   0.001         7525922 200.000      189  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  6.131   6.130   0.001         5679850 200.000      184  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  6.223   6.223   0.000         4407461 200.000      186  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  6.356   6.355   0.001         6746506 200.000      188  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  6.715   6.716  -0.001         5300542 200.000      184  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  6.566   6.565   0.001         5294765 200.000      190  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  7.019   7.018   0.001         5387676 200.000      188  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  7.314   7.314   0.000         7799020 1000.00      848  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  7.621   7.620   0.001         6657171 200.000      180  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.991   2.990   0.001         8693282 200.000      185  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  8.999   8.999   0.000         5861734 200.000      185  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/009B0901.D
Date : 22-SEP-2011 17:03
Client ID: INDAB04
Sample Info: IWPE110921-04AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/010F1001.D
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 22-SEP-2011 17:18
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.865	2.863	0.002	39403069	200.000	215	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.092	3.091	0.001	35190837	200.000	212	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.152	3.151	0.001	14402000	200.000	194	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.455	3.454	0.001	28005849	200.000	213	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.290	3.289	0.001	34790385	200.000	216	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
3.699	3.698	0.001	32230994	200.000	211	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	28184945	200.000	205	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.321	4.320	0.001	28592557	200.000	214	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.439	4.439	0.000	27386562	200.000	209	80.00- 120.00	100.00(A)

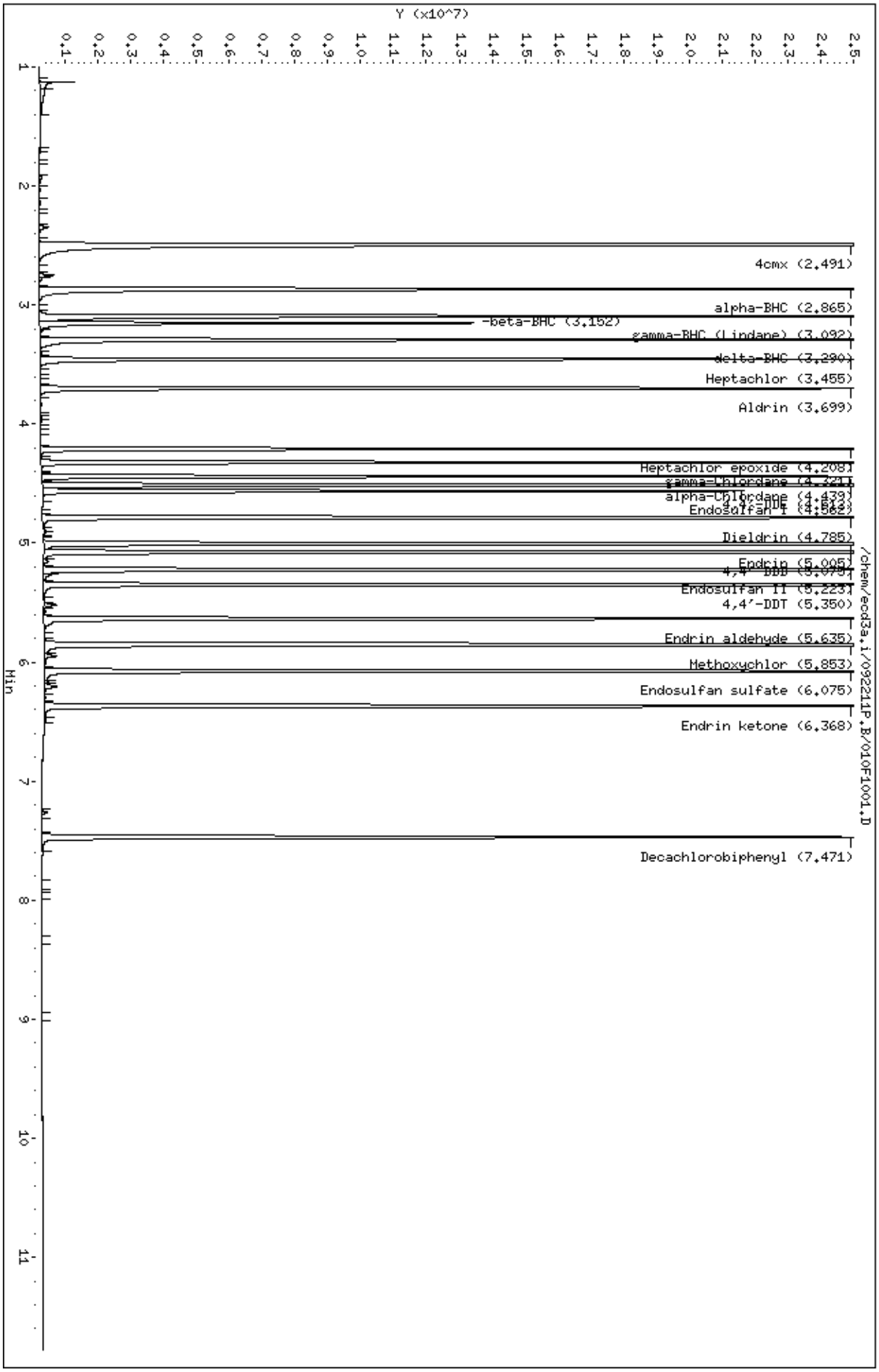
```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                   CAS #: 959-98-8
  4.562   4.562   0.000        24666787 200.000      204  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   19 4,4'-DDE                                       CAS #: 72-55-9
  4.512   4.511   0.001        52362509 400.000      415  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   20 Dieldrin                                       CAS #: 60-57-1
  4.785   4.784   0.001        54553267 400.000      410  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   22 Endrin                                         CAS #: 72-20-8
  5.005   5.005   0.000        46336794 400.000      413  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   25 4,4'-DDD                                       CAS #: 72-54-8
  5.075   5.075   0.000        42537118 400.000      418  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   24 Endosulfan II                                  CAS #: 33213-65-9
  5.223   5.223   0.000        44027723 400.000      400  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   27 Endrin aldehyde                                CAS #: 7421-93-4
  5.635   5.635   0.000        36170794 400.000      388  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                       CAS #: 50-29-3
  5.350   5.350   0.000        38812123 400.000      411  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                             CAS #: 1031-07-8
  6.075   6.075   0.000        37431805 400.000      410  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   28 Methoxychlor                                   CAS #: 72-43-5
  5.853   5.853   0.000        85143299 2000.00     1920  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                  CAS #: 53494-70-5
  6.368   6.368   0.000        46150589 400.000      388  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                           CAS #: 877-09-8
  2.491   2.490   0.001        52962938 400.000      398  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.471   7.470   0.001        32835383 400.000      380  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd3a.i/092211P.B/010F1001.D
Date : 22-SEP-2011 17:18
Client ID: INDAB05
Sample Info: IIPE110801-02AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

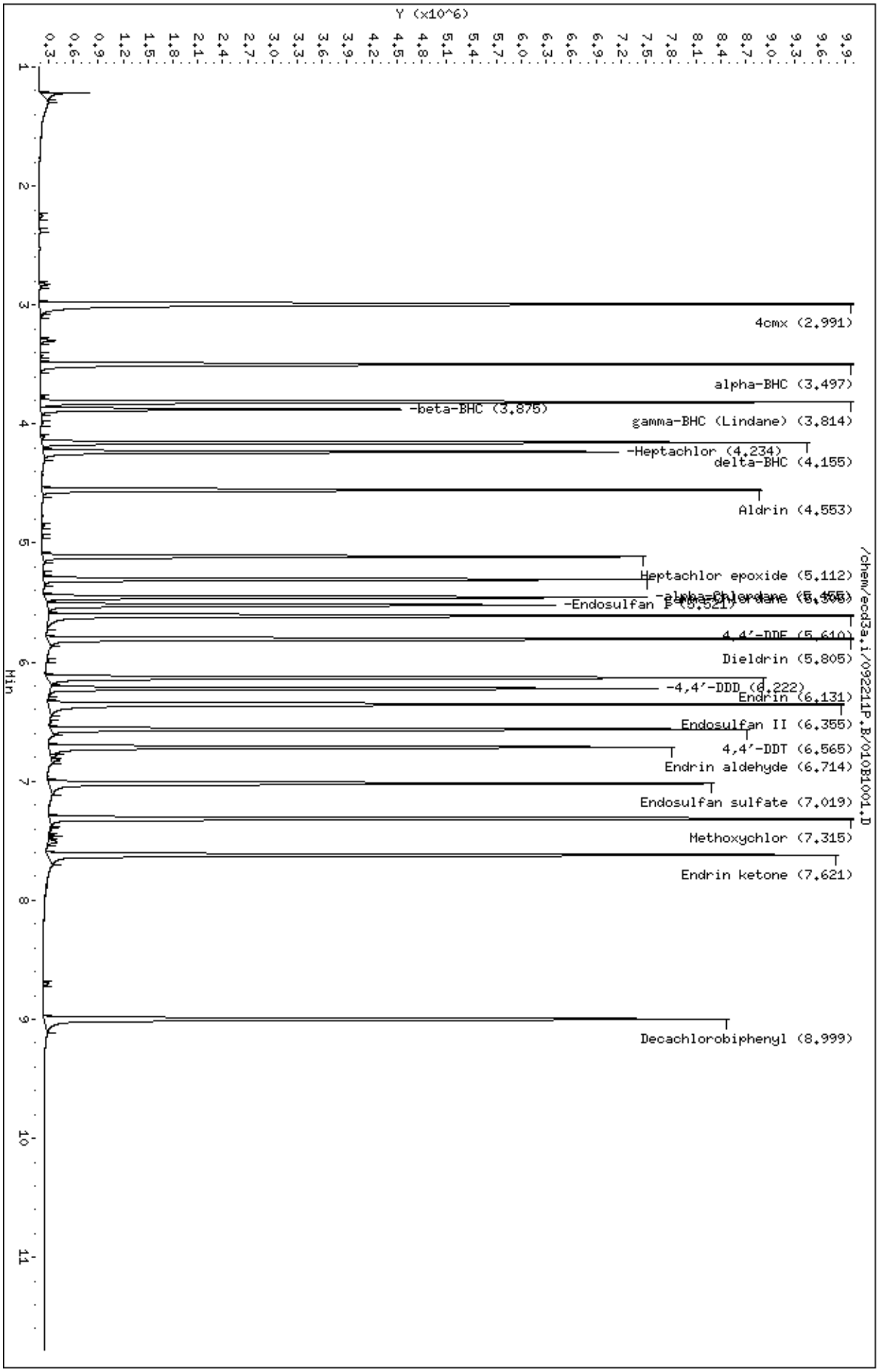
Data file : /chem/ecd3a.i/092211P.B/010B1001.D
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 22-SEP-2011 17:18
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	12298839	200.000	191	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.814	3.814	0.000	11045571	200.000	187	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.875	3.875	0.000	4625653	200.000	179	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	7858052	200.000	187	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	9877654	200.000	189	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	10172626	200.000	189	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.112	5.113	-0.001	8563049	200.000	185	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	8668186	200.000	190	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.455	5.453	0.002	8447925	200.000	187	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                   CAS #: 959-98-8
  5.521   5.520   0.001         7516402 200.000      187  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                       CAS #: 72-55-9
  5.610   5.609   0.001        12595177 400.000      370  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                       CAS #: 60-57-1
  5.805   5.805   0.000        14327068 400.000      365  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                         CAS #: 72-20-8
  6.131   6.130   0.001        10881448 400.000      360  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                       CAS #: 72-54-8
  6.222   6.223  -0.001         8449185 400.000      368  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                  CAS #: 33213-65-9
  6.355   6.355   0.000        12854017 400.000      364  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                                CAS #: 7421-93-4
  6.714   6.716  -0.002         9917981 400.000      351  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                       CAS #: 50-29-3
  6.565   6.565   0.000        10093156 400.000      370  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                             CAS #: 1031-07-8
  7.019   7.018   0.001        10479497 400.000      374  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                   CAS #: 72-43-5
  7.315   7.314   0.001        14689806 2000.00     1650  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                  CAS #: 53494-70-5
  7.621   7.620   0.001        12527603 400.000      348  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                           CAS #: 877-09-8
  2.991   2.990   0.001        16581865 400.000      353  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                             CAS #: 2051-24-3
  8.999   8.999   0.000        11566027 400.000      367  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/010B1001.D
Date : 22-SEP-2011 17:18
Client ID: INDAB05
Sample Info: IIPE110801-02AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/012F1201.D
Lab Smp Id: WPE110922-11TX Client Smp ID: TOXAPH01
Inj Date : 22-SEP-2011 17:49
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-11TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 05:44 Cal File: 032f3201.d
Als bottle: 12 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.217	5.213	0.004	489136	100.000	94.9	80.00- 120.00	100.00(M)
5.336	5.331	0.005	380597	100.000	93.2	61.38- 101.38	77.81
5.555	5.552	0.003	356163	100.000	91.6	59.42- 99.42	72.81
5.883	5.880	0.003	219512	100.000	95.9	24.06- 64.06	44.88
5.982	5.979	0.003	324392	100.000	93.5	48.21- 88.21	66.32
Average of Peak Amounts =					93.8		
$ 1 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	1560535	8.00000	11.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.472	7.470	0.002	1055387	8.00000	12.2	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/012F1201.D

Page 1

Date : 22-SEP-2011 17:49

Client ID: TOXAPH01

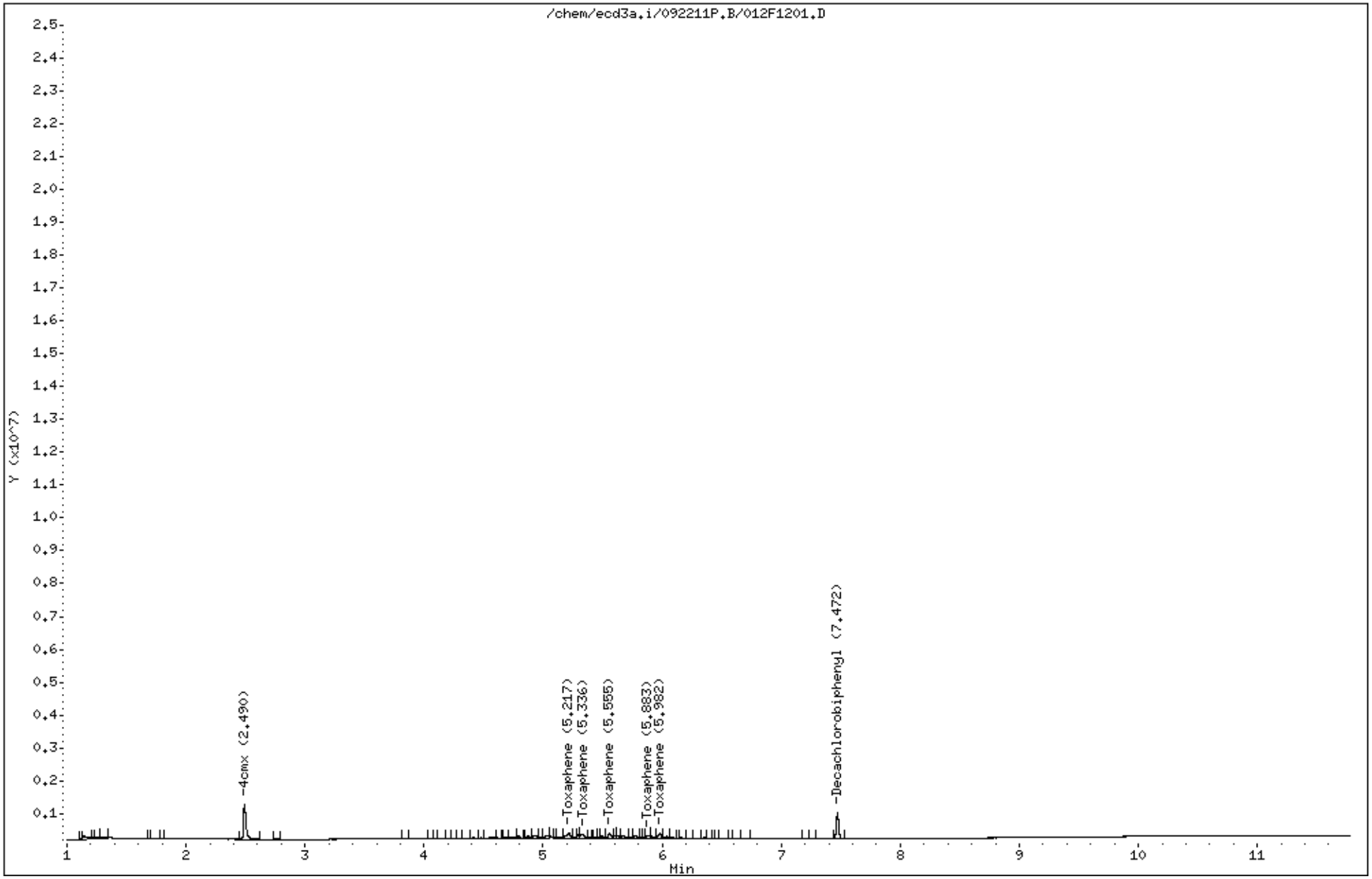
Instrument: ecd3a.i

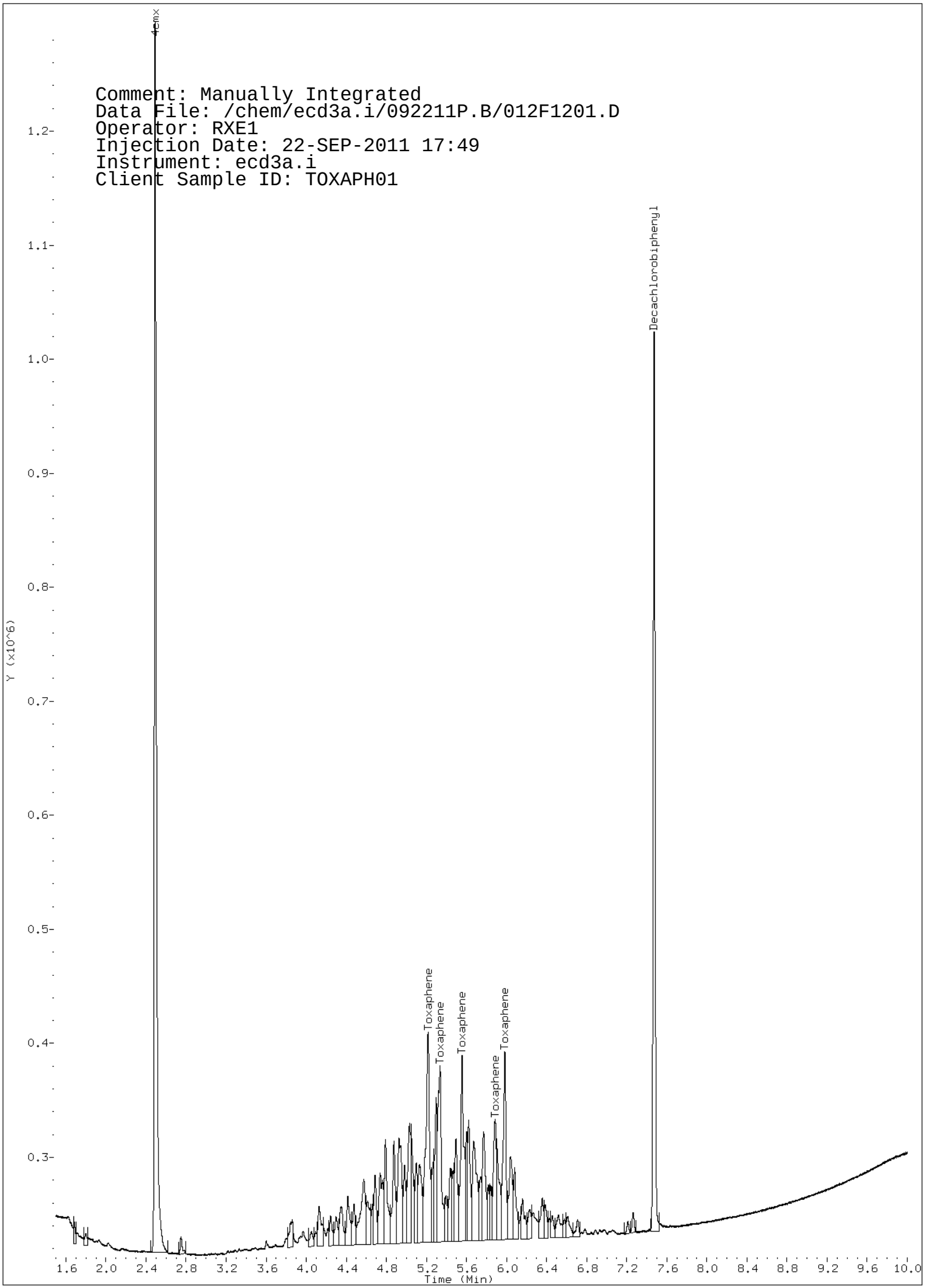
Sample Info: IWPE110922-11TX

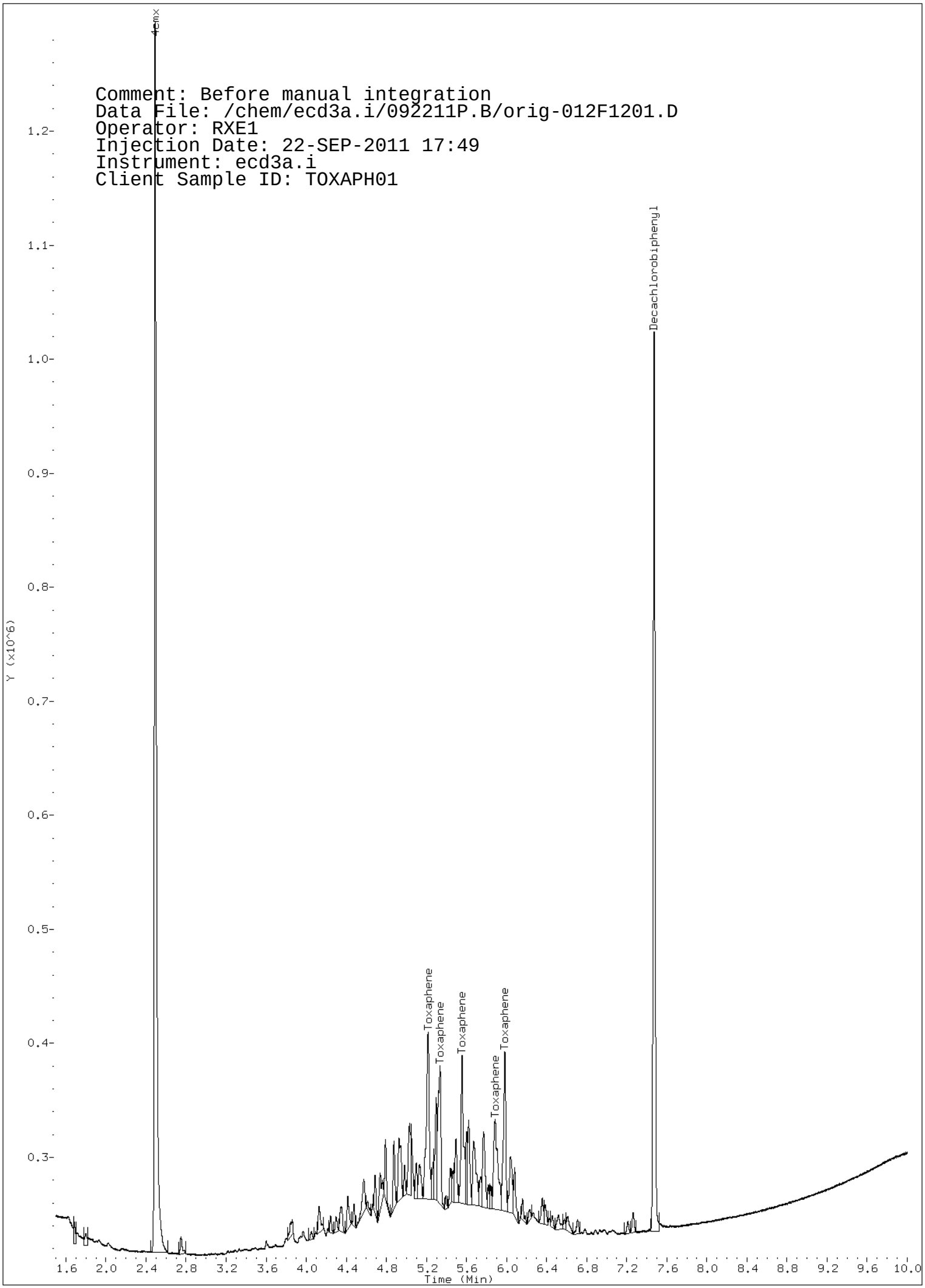
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/012F1201.D
Operator: RXE1
Injection Date: 22-SEP-2011 17:49
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-012F1201.D
Operator: RXE1
Injection Date: 22-SEP-2011 17:49
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/012B1201.D
Lab Smp Id: WPE110922-11TX Client Smp ID: TOXAPH01
Inj Date : 22-SEP-2011 17:49
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-11TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 05:44 Cal File: 032b3201.d
Als bottle: 12 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.298	6.297	0.001	65690	100.000	97.2	80.00- 120.00	100.00(M)
6.343	6.341	0.002	111558	100.000	100	142.02- 182.02	169.82
6.446	6.445	0.001	179196	100.000	94.9	263.94- 303.94	272.79
6.725	6.723	0.002	127241	100.000	98.0	176.00- 216.00	193.70
7.296	7.293	0.003	112482	100.000	98.3	146.81- 186.81	171.23
Average of Peak Amounts =					97.7		
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	606312	8.00000	12.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.000	8.999	0.001	404435	8.00000	12.8	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/012B1201.D

Page 1

Date : 22-SEP-2011 17:49

Client ID: TOXAPH01

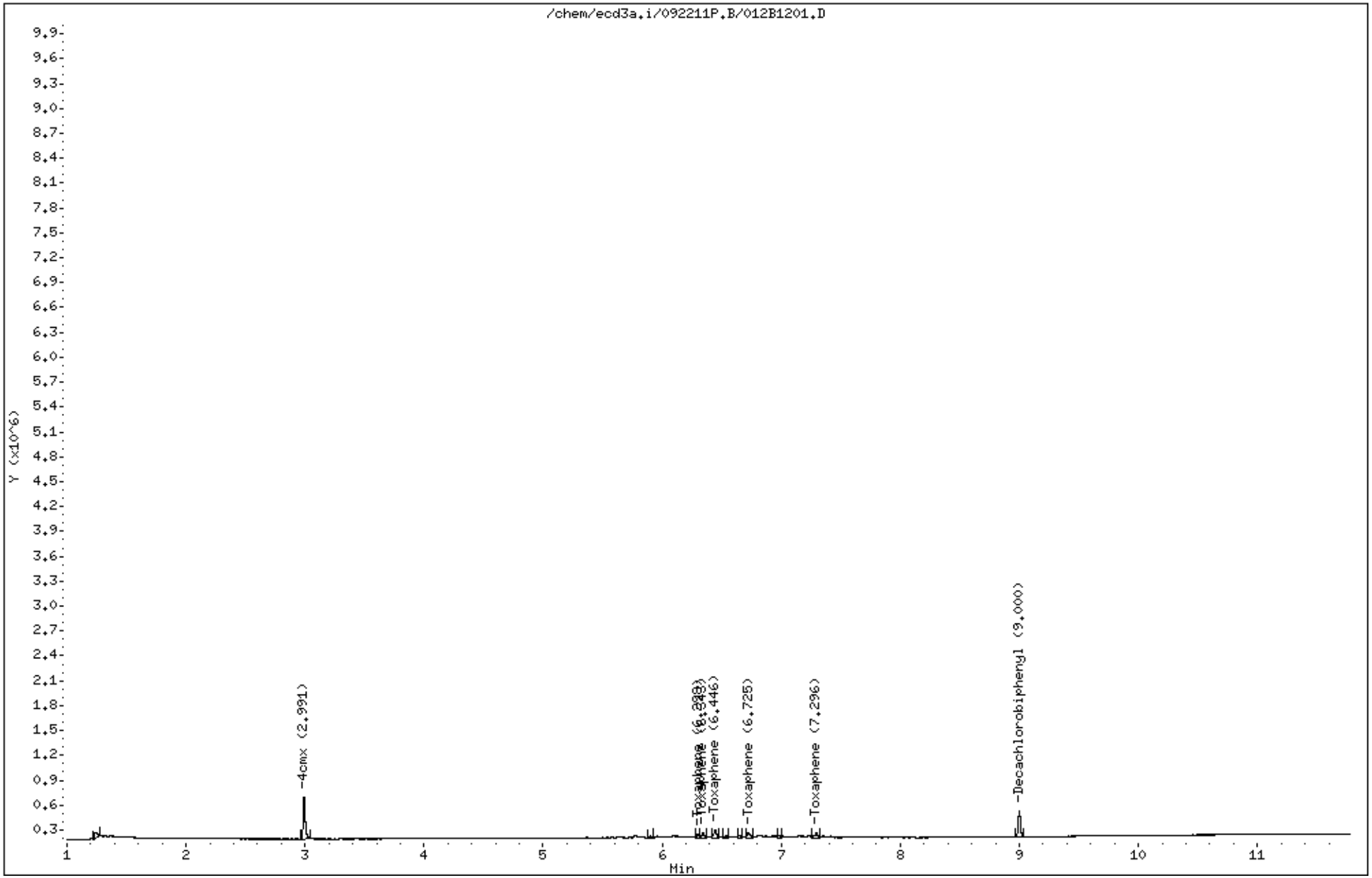
Instrument: ecd3a.i

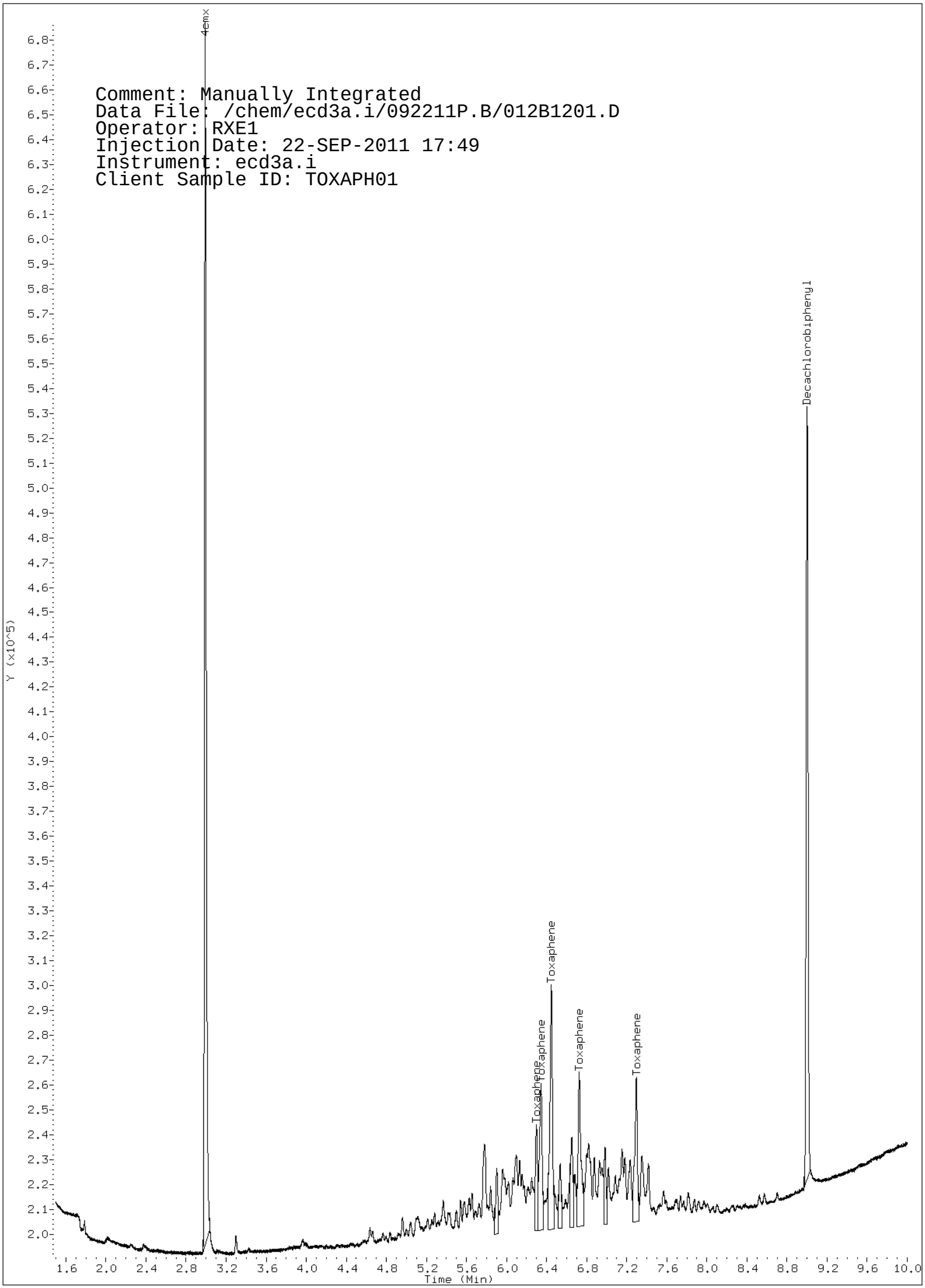
Sample Info: IWPE110922-11TX

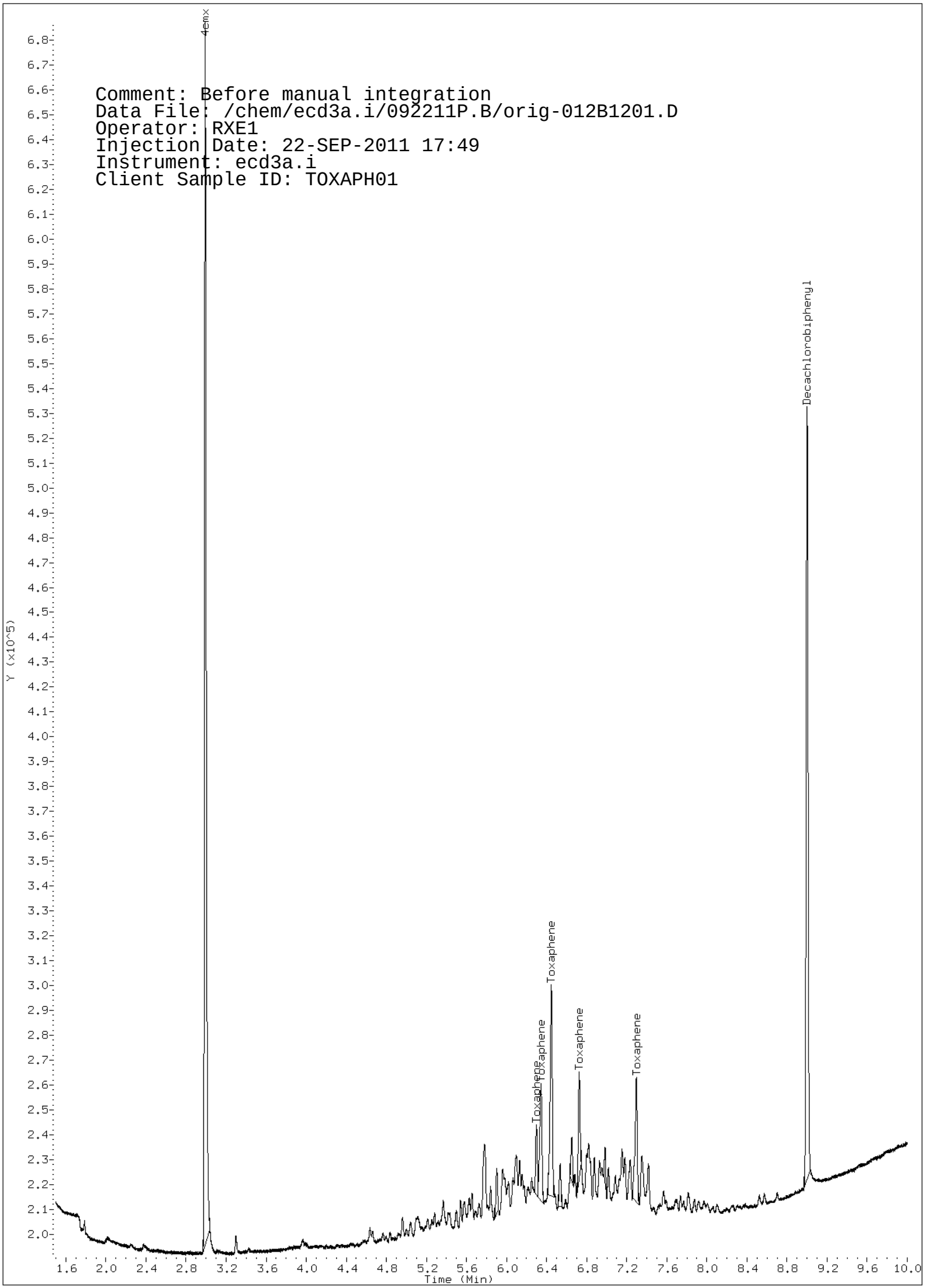
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/012B1201.D
Operator: RXE1
Injection Date: 22-SEP-2011 17:49
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^5)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-012B1201.D
Operator: RXE1
Injection Date: 22-SEP-2011 17:49
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^5)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/013F1301.D
Lab Smp Id: WPE110922-12TX Client Smp ID: TOXAPH02
Inj Date : 22-SEP-2011 18:05
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-12TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:00 Cal File: 033f3301.d
Als bottle: 13 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.214	5.213	0.001	2465400	500.000	478	80.00- 120.00	100.00(M)
5.334	5.331	0.003	1917463	500.000	469	61.38- 101.38	77.77
5.553	5.552	0.001	1869836	500.000	481	59.42- 99.42	75.84
5.884	5.880	0.004	1115892	500.000	488	24.06- 64.06	45.26
5.981	5.979	0.002	1655796	500.000	477	48.21- 88.21	67.16
Average of Peak Amounts =					479		
$ 1 4cmx					CAS #: 877-09-8		
2.491	2.490	0.001	8197890	20.0000	61.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.472	7.470	0.002	5239382	20.0000	60.7	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/013F1301.D

Page 1

Date : 22-SEP-2011 18:05

Client ID: TOXAPH02

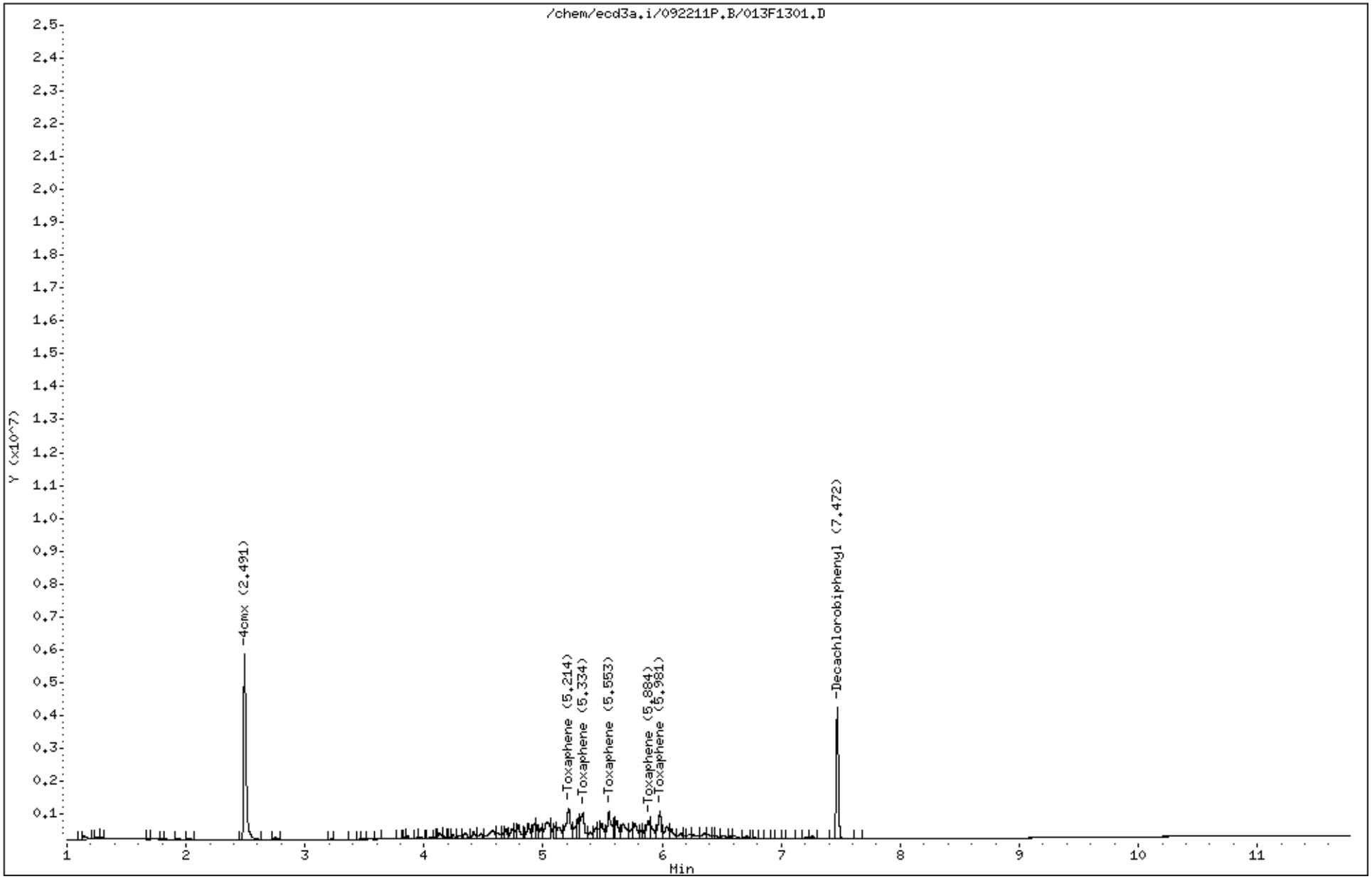
Instrument: ecd3a.i

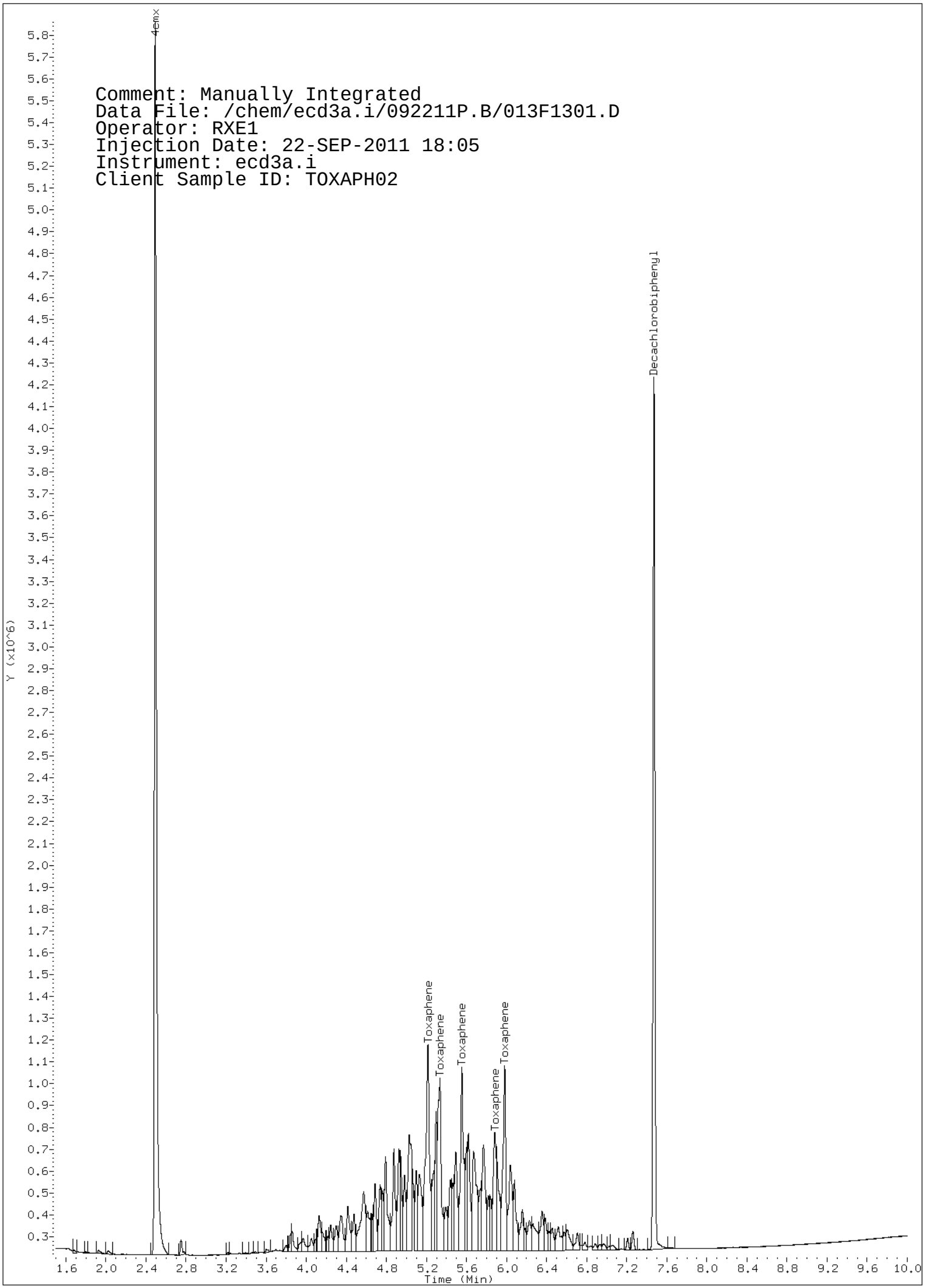
Sample Info: IWPE110922-12TX

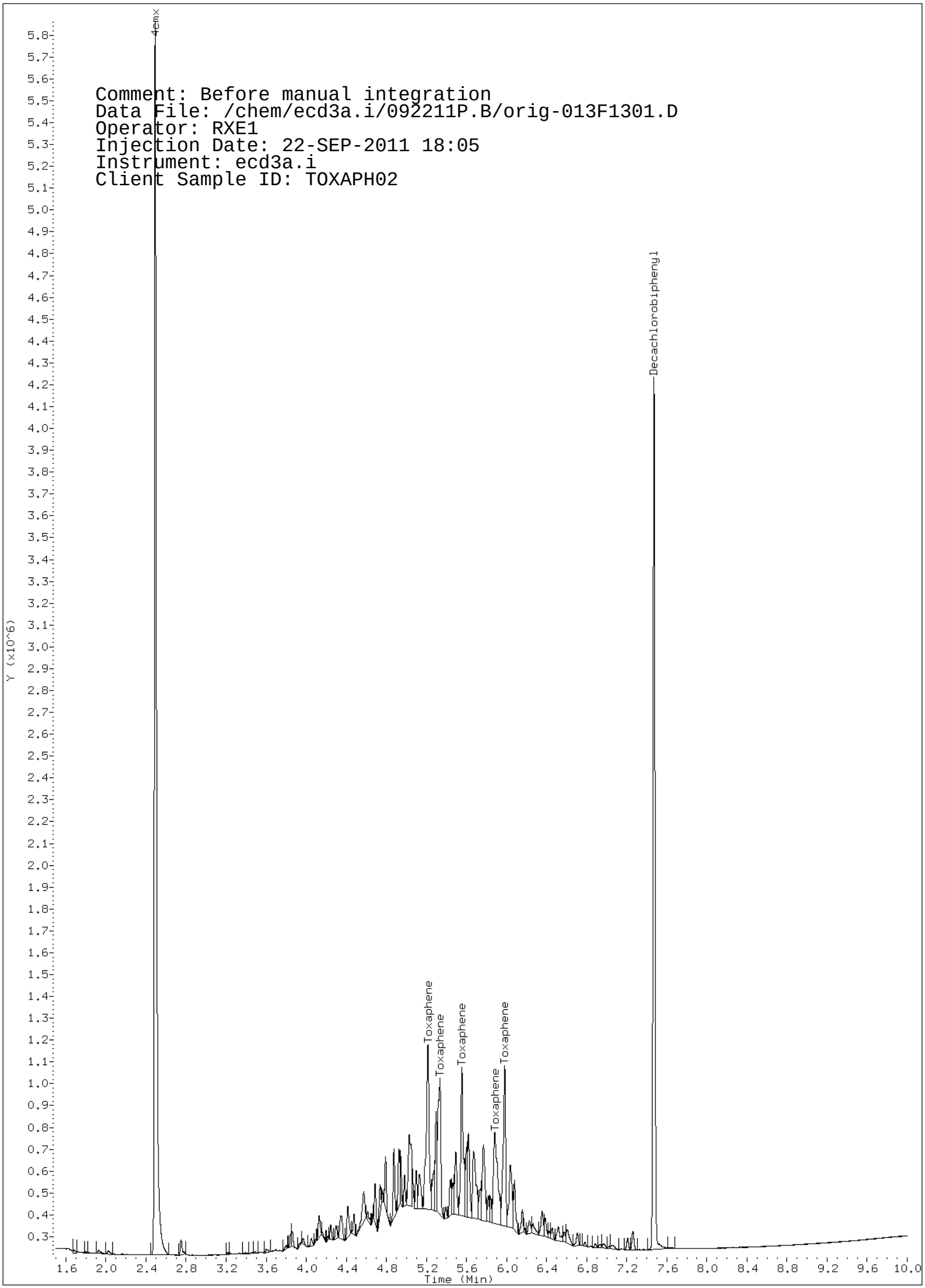
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/013F1301.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:05
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-013F1301.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:05
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/013B1301.D
Lab Smp Id: WPE110922-12TX Client Smp ID: TOXAPH02
Inj Date : 22-SEP-2011 18:05
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-12TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 21-DEC-2010 12:13 Cal File: 013b1301.d
Als bottle: 13 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.298	6.297	0.001	345149	500.000	511	80.00- 120.00	100.00(M)
6.343	6.341	0.002	566601	500.000	508	142.02- 182.02	164.16
6.446	6.445	0.001	963181	500.000	510	263.94- 303.94	279.06
6.724	6.723	0.001	646719	500.000	498	176.00- 216.00	187.37
7.294	7.293	0.001	572805	500.000	501	146.81- 186.81	165.96
Average of Peak Amounts =					505		
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	2948729	20.0000	62.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.000	8.999	0.001	1964348	20.0000	62.3	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/013B1301.D

Page 1

Date : 22-SEP-2011 18:05

Client ID: TOXAPH02

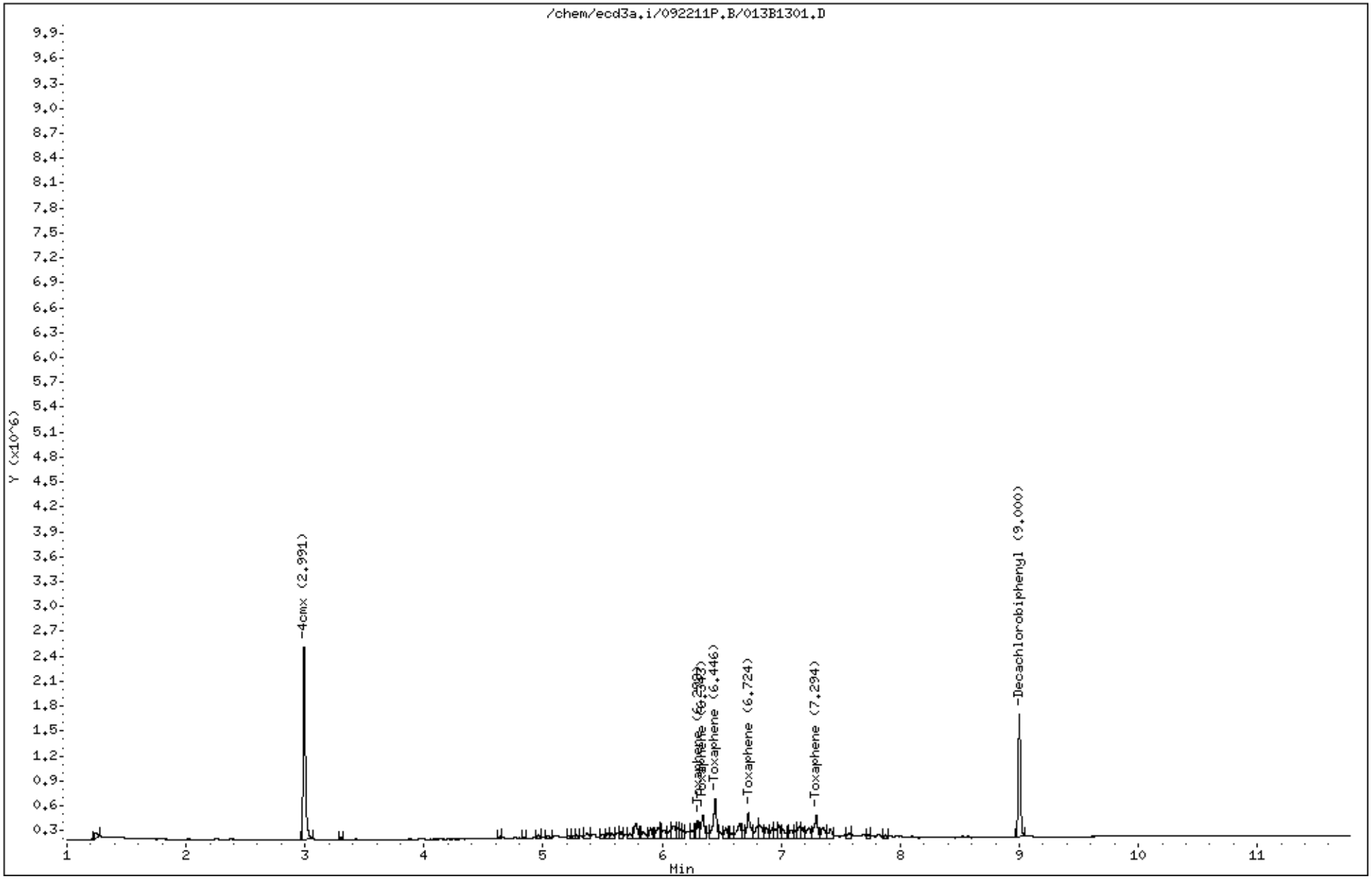
Instrument: ecd3a.i

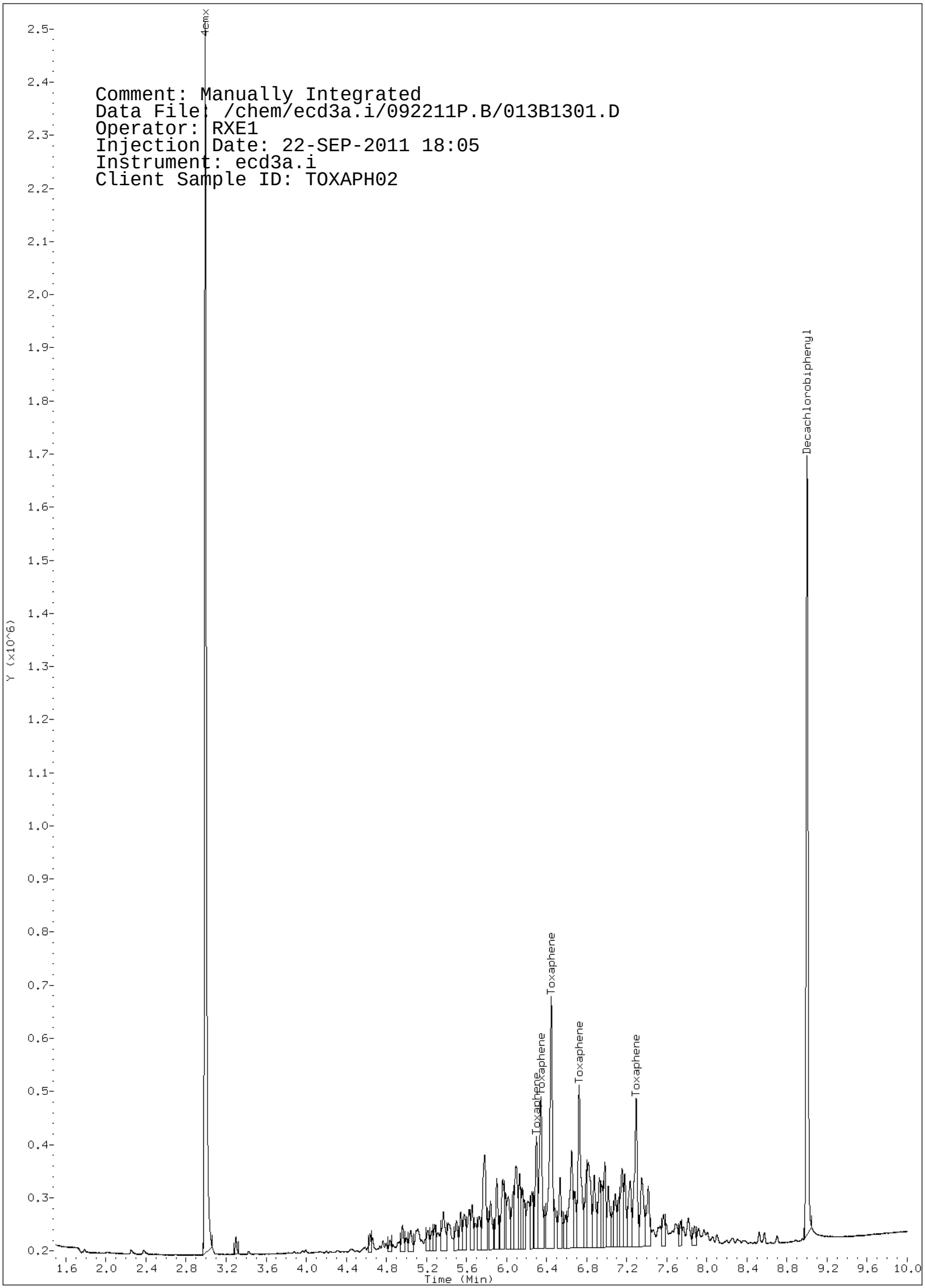
Sample Info: IWPE110922-12TX

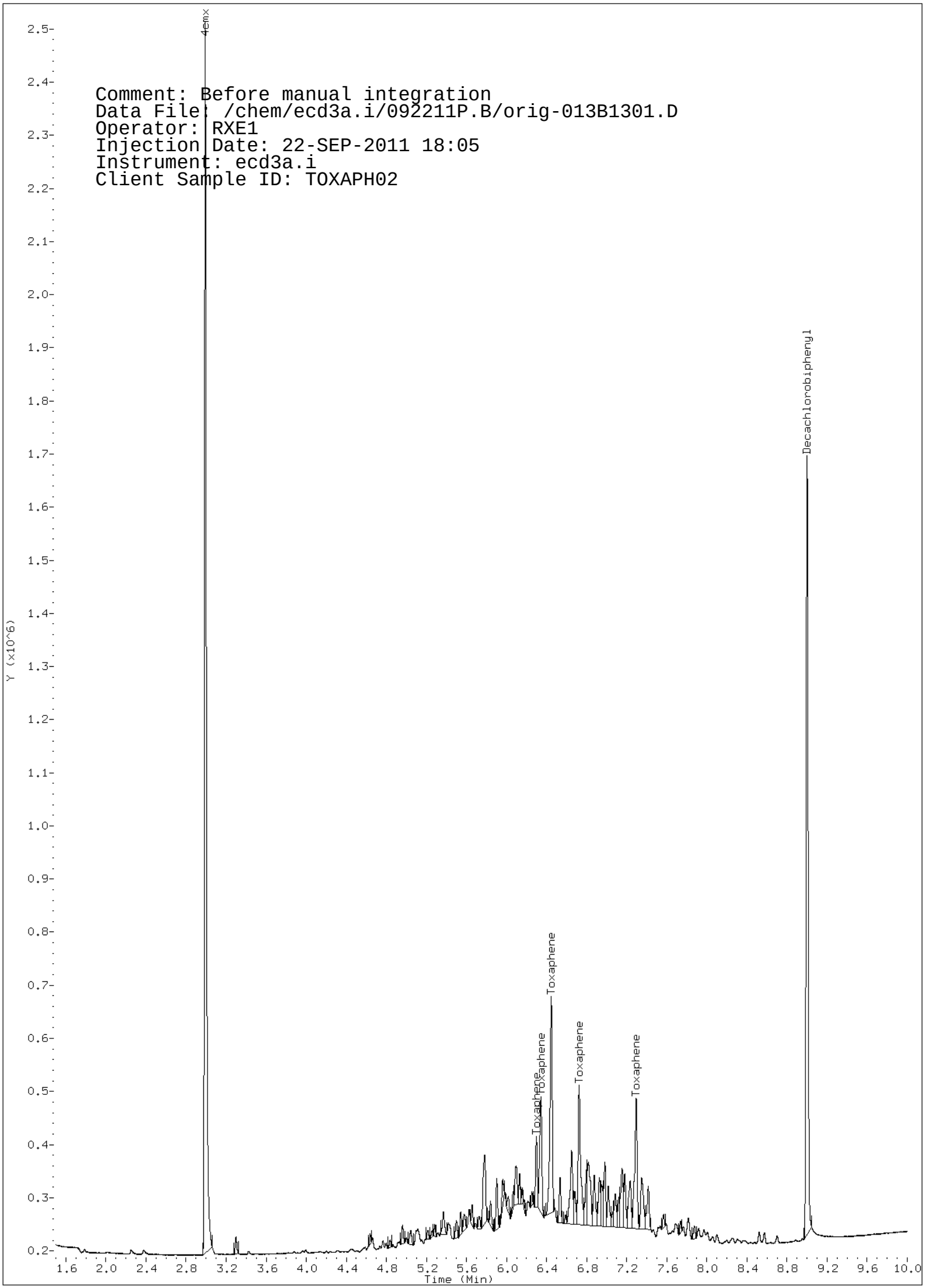
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/013B1301.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:05
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-013B1301.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:05
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/014F1401.D
Lab Smp Id: WPE110922-13TX Client Smp ID: TOXAPH03
Inj Date : 22-SEP-2011 18:20
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-13TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:15 Cal File: 034f3401.d
Als bottle: 14 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.214	5.213	0.001	5170706	1000.00	1000	80.00- 120.00	100.00(M)
5.333	5.331	0.002	4131879	1000.00	1010	61.38- 101.38	79.91
5.552	5.552	0.000	3931464	1000.00	1010	59.42- 99.42	76.03
5.883	5.880	0.003	2243474	1000.00	980	24.06- 64.06	43.39
5.980	5.979	0.001	3476093	1000.00	1000	48.21- 88.21	67.23
Average of Peak Amounts =					1e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	16921532	100.000	127	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.471	7.470	0.001	10498808	100.000	122	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/014F1401.D

Page 1

Date : 22-SEP-2011 18:20

Client ID: TOXAPH03

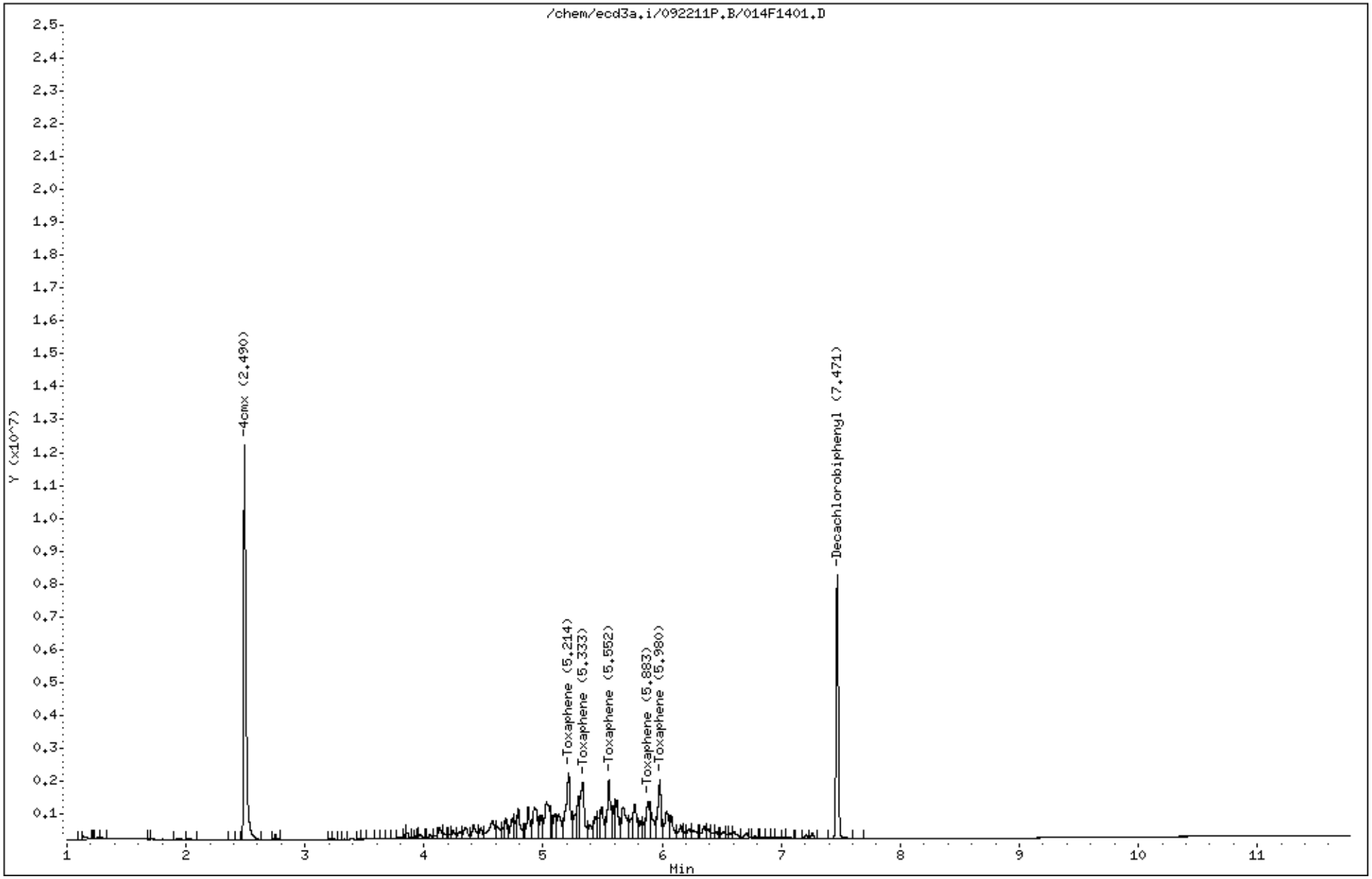
Instrument: ecd3a.i

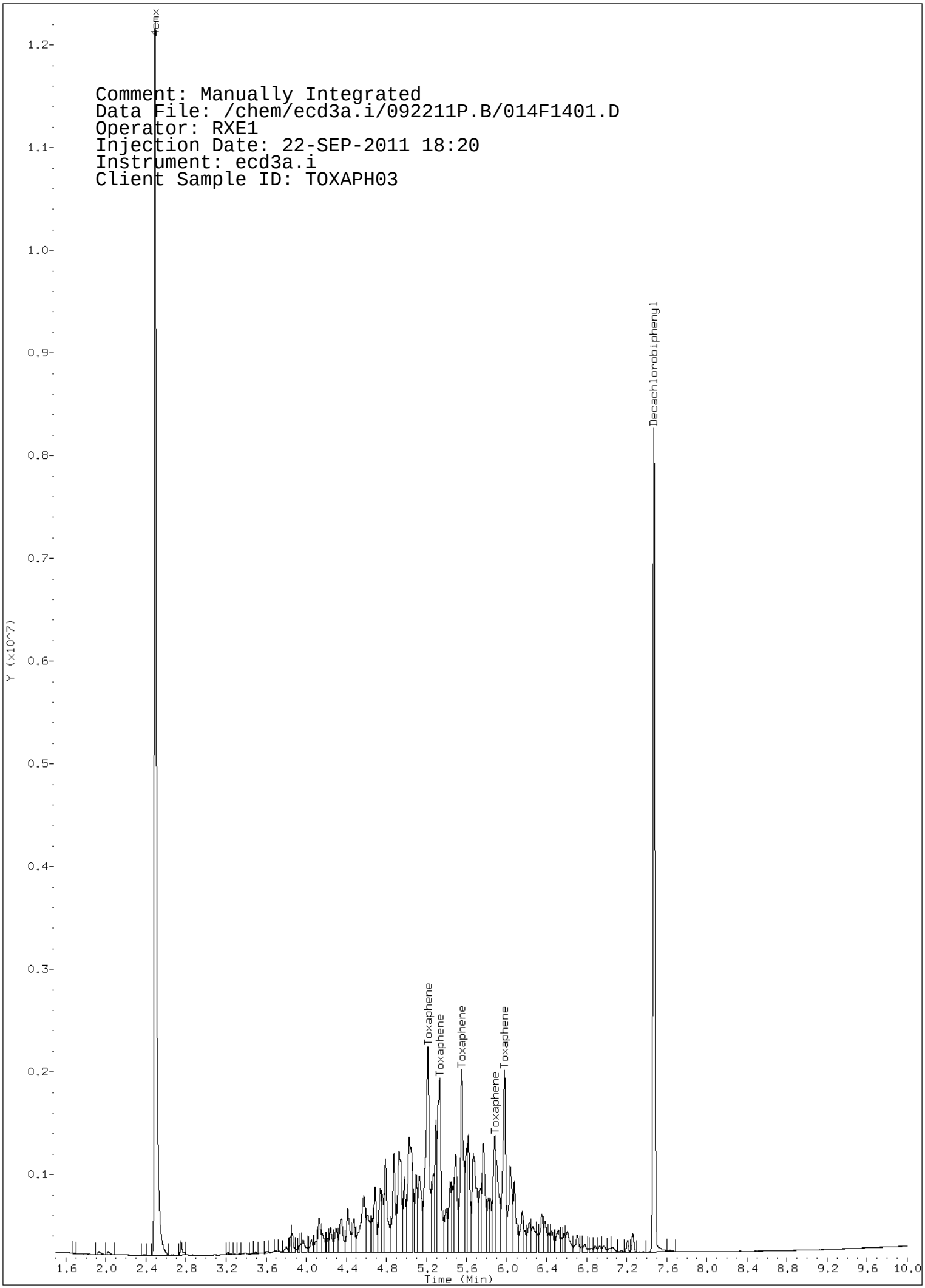
Sample Info: IWPE110922-13TX

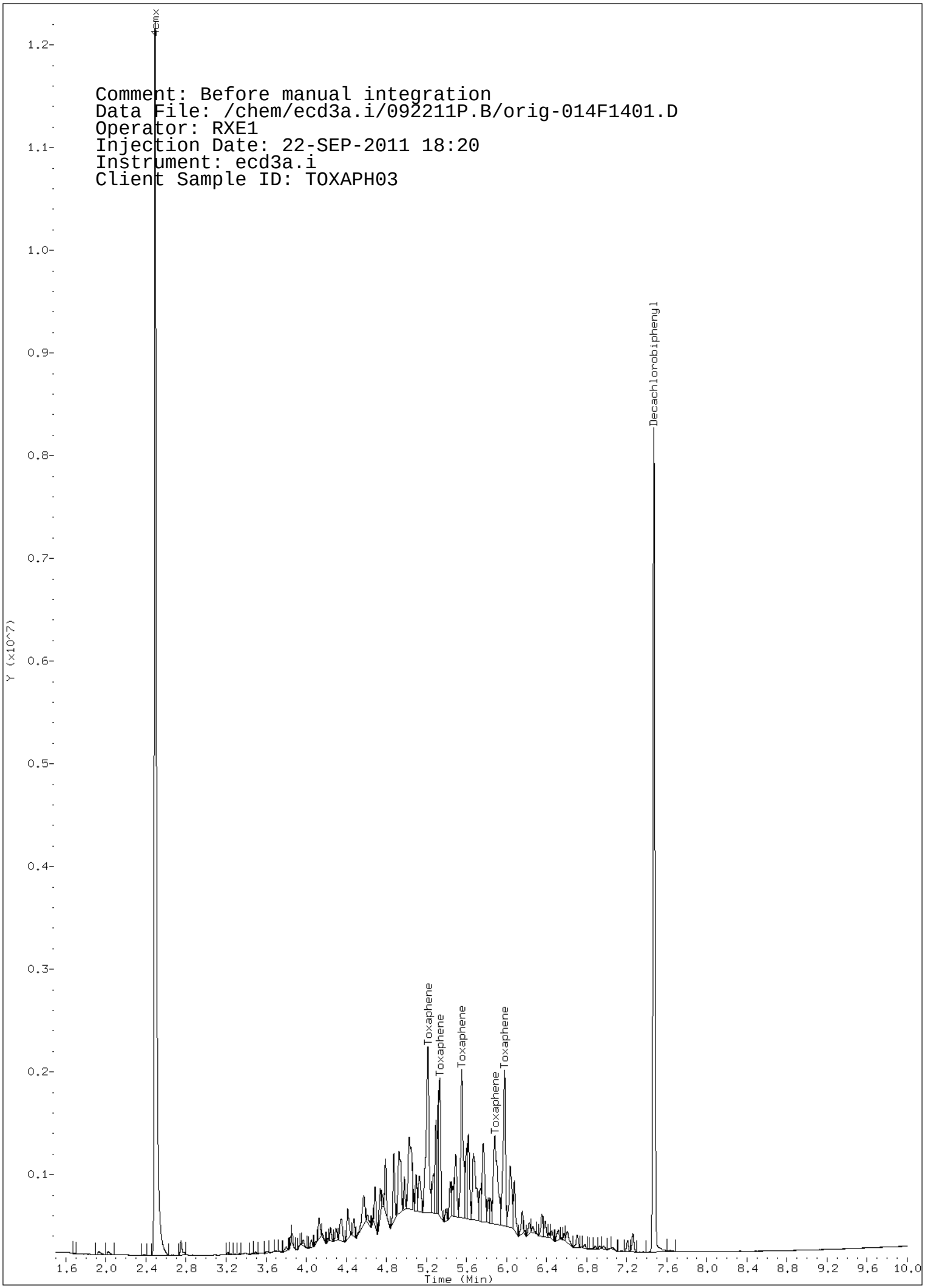
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/014F1401.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:20
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-014F1401.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:20
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/014B1401.D
Lab Smp Id: WPE110922-13TX Client Smp ID: TOXAPH03
Inj Date : 22-SEP-2011 18:20
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-13TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:15 Cal File: 034b3401.d
Als bottle: 14 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.297	6.297	0.000	699038	1000.00	1030	80.00- 120.00	100.00(M)
6.342	6.341	0.001	1122783	1000.00	1010	142.02- 182.02	160.62
6.446	6.445	0.001	1926231	1000.00	1020	263.94- 303.94	275.55
6.723	6.723	0.000	1310010	1000.00	1010	176.00- 216.00	187.40
7.294	7.293	0.001	1151645	1000.00	1010	146.81- 186.81	164.75
Average of Peak Amounts =				1.02e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	5870619	100.000	125	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.000	8.999	0.001	3861104	100.000	122	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/014B1401.D

Page 1

Date : 22-SEP-2011 18:20

Client ID: TOXAPH03

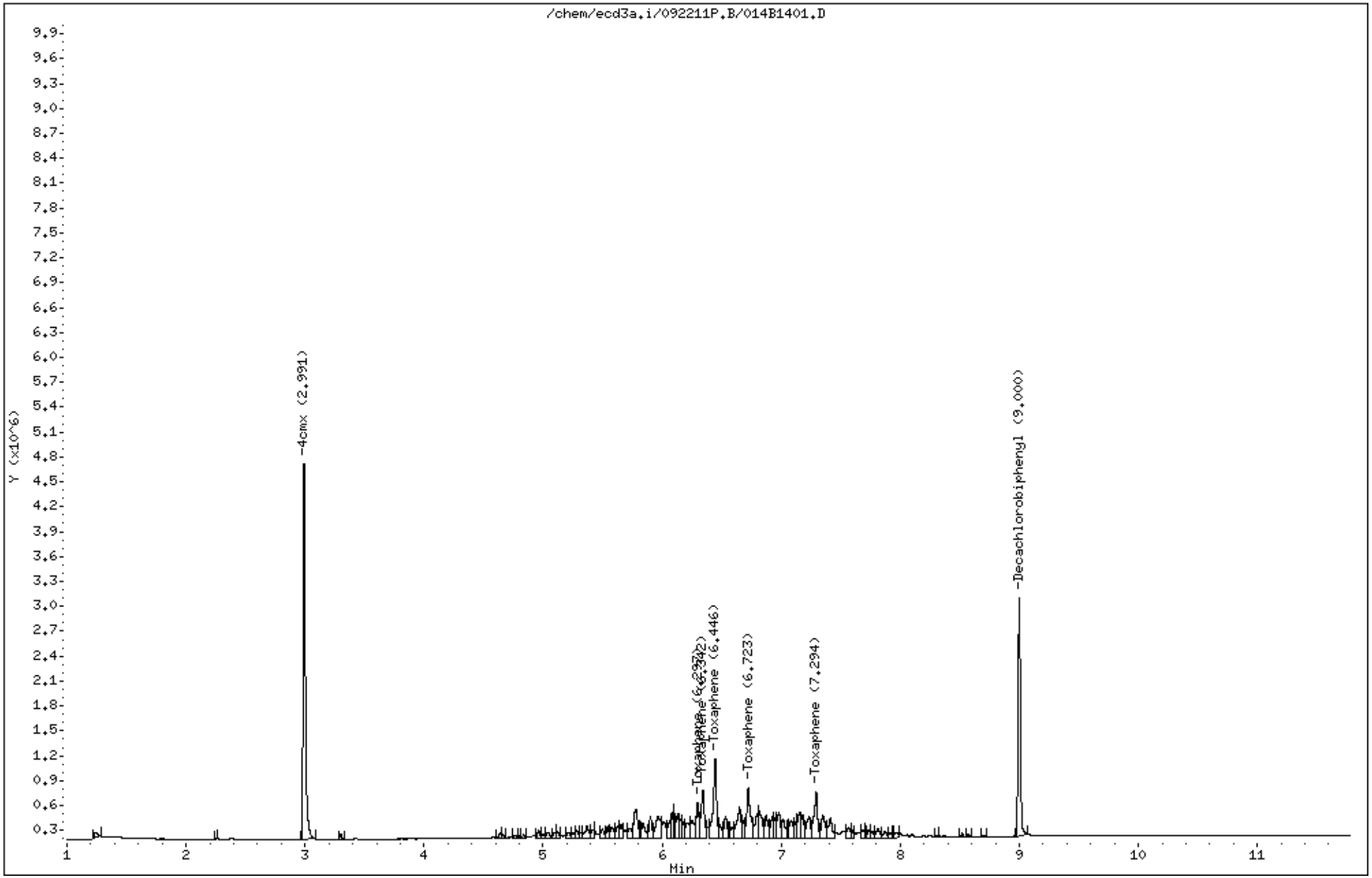
Instrument: ecd3a.i

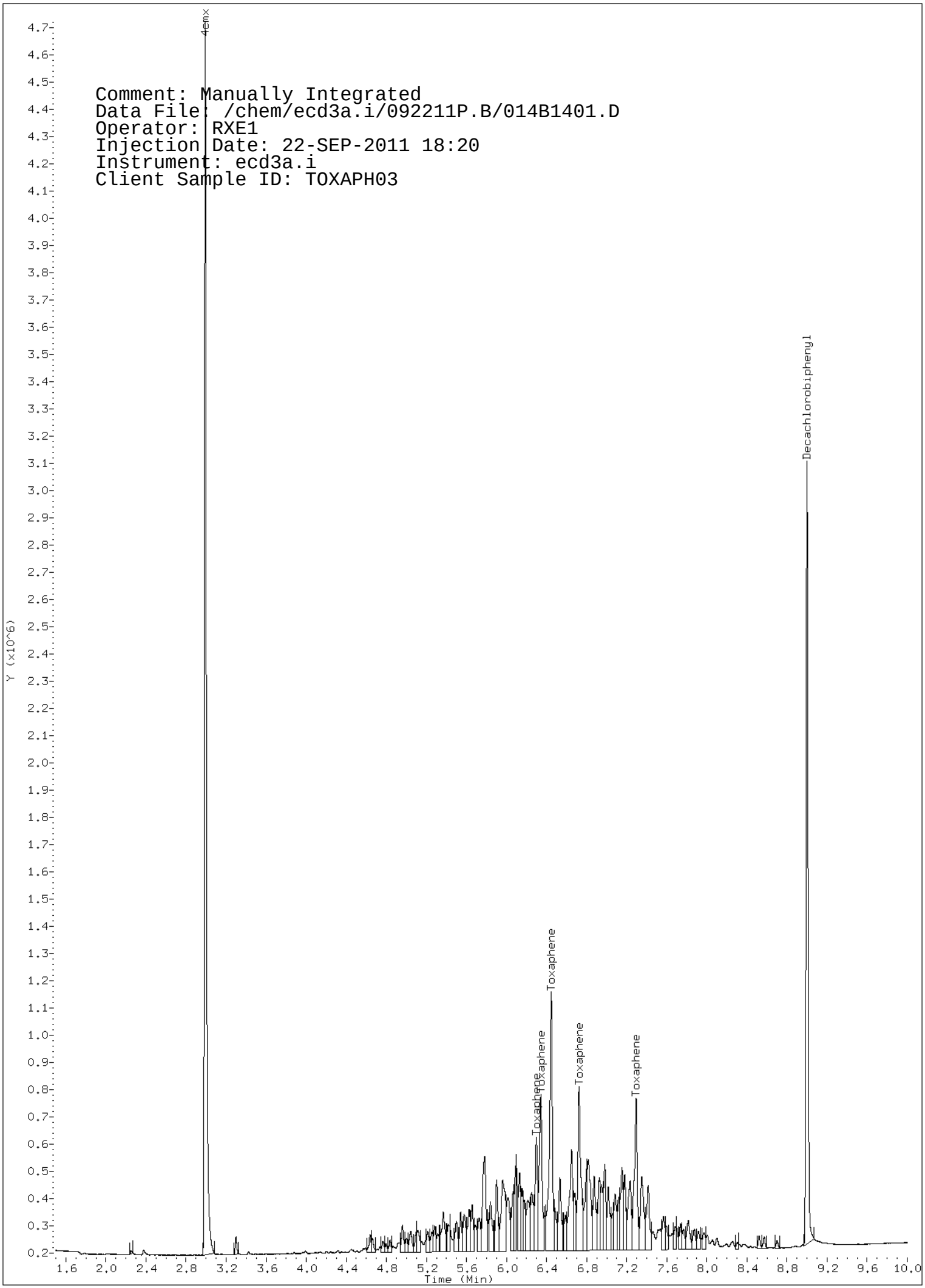
Sample Info: IWPE110922-13TX

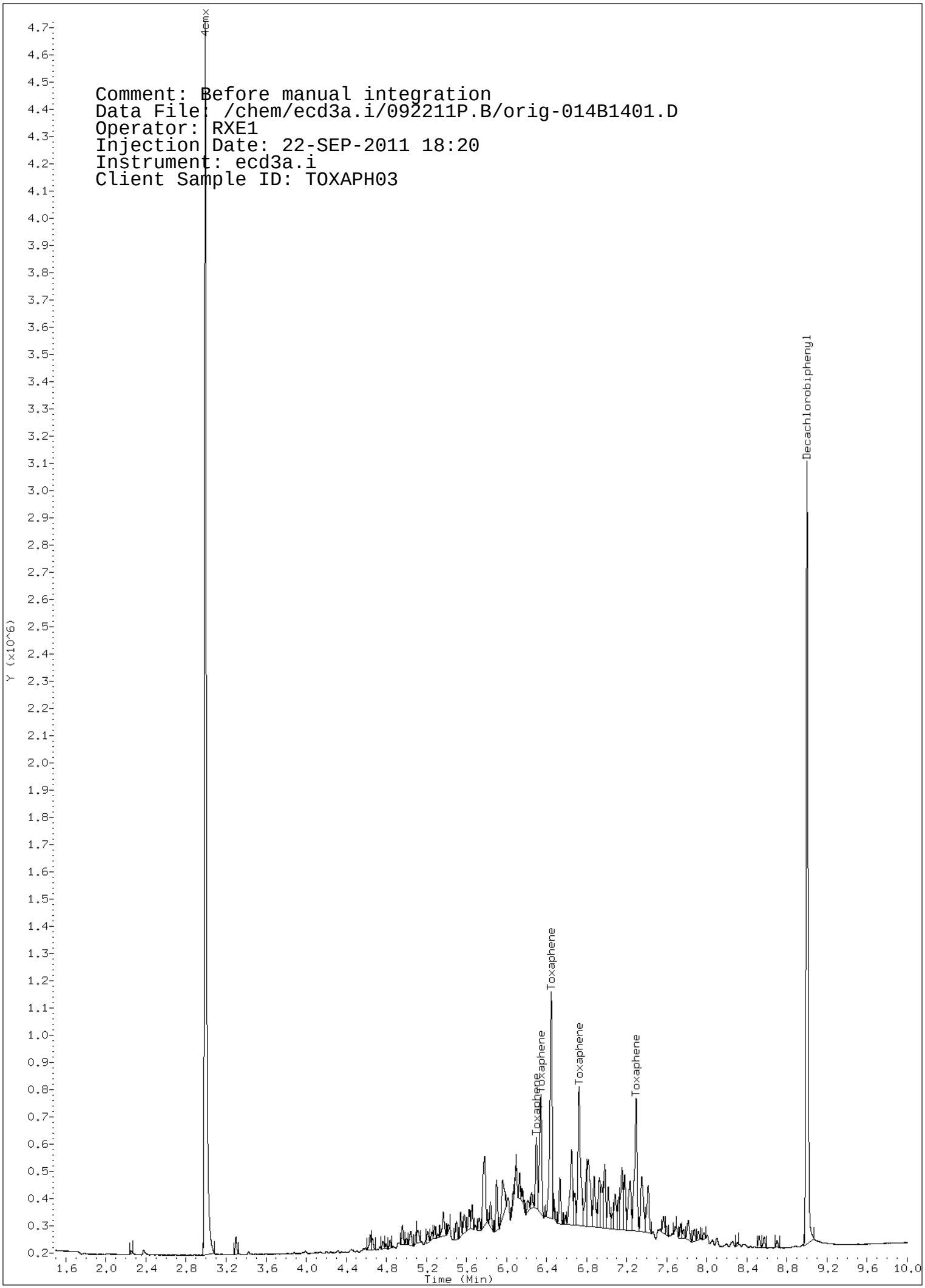
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/014B1401.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:20
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
4emx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-014B1401.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:20
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
4emx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/015F1501.D
Lab Smp Id: WPE110922-14TX Client Smp ID: TOXAPH04
Inj Date : 22-SEP-2011 18:35
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-14TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 15-JAN-2011 12:53 Cal File: 018f1801.d
Als bottle: 15 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.212	5.213	-0.001	10853246	2000.00	2100	80.00- 120.00	100.00(M)
5.332	5.331	0.001	8633604	2000.00	2110	61.38- 101.38	79.55
5.550	5.552	-0.002	8221920	2000.00	2120	59.42- 99.42	75.76
5.880	5.880	0.000	4629811	2000.00	2020	24.06- 64.06	42.66
5.979	5.979	0.000	7298232	2000.00	2100	48.21- 88.21	67.24
Average of Peak Amounts =				2.09e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.491	2.490	0.001	34111737	200.000	256	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.470	7.470	0.000	21050459	200.000	244	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/015F1501.D

Page 1

Date : 22-SEP-2011 18:35

Client ID: TOXAPH04

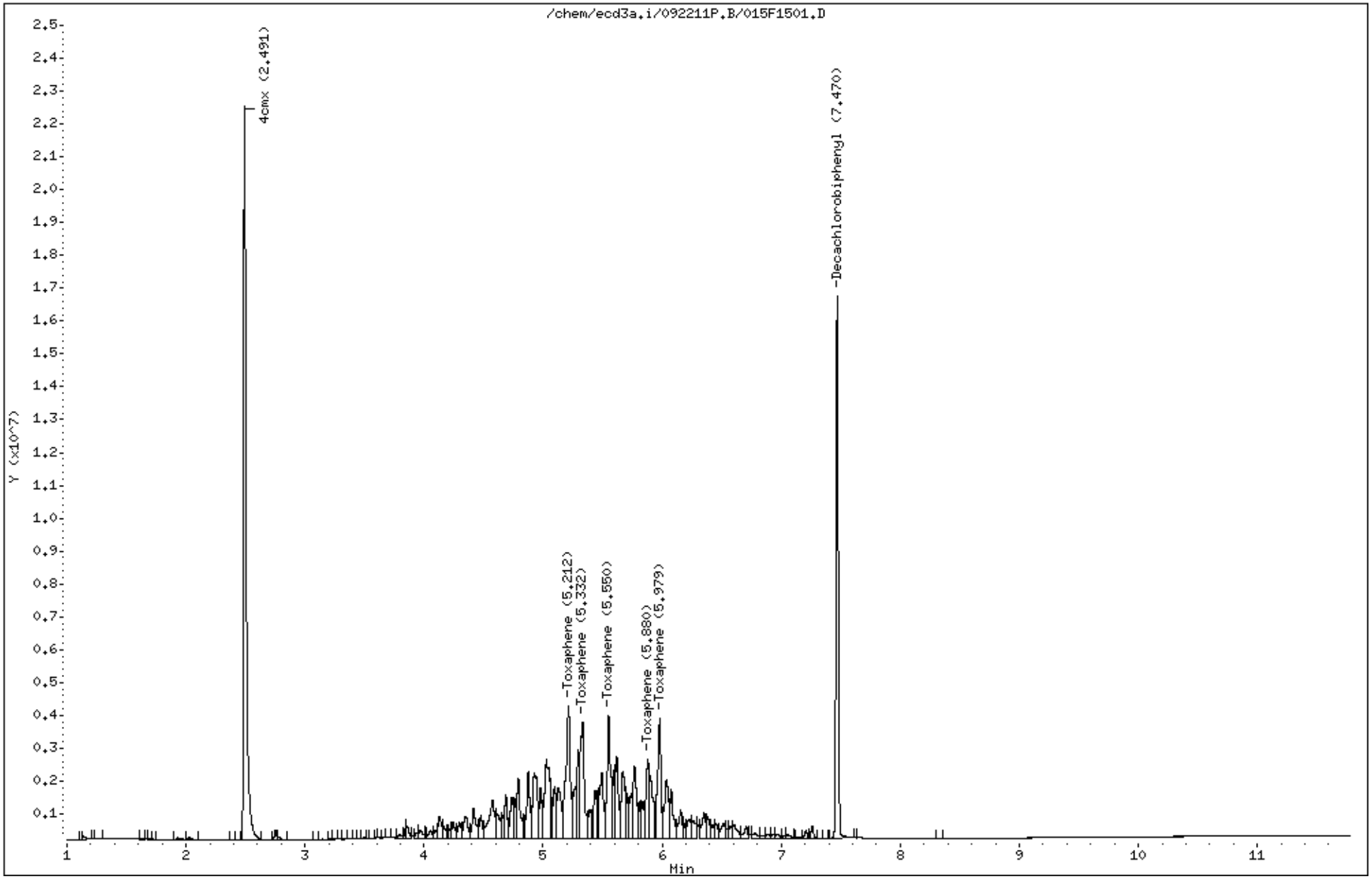
Instrument: ecd3a.i

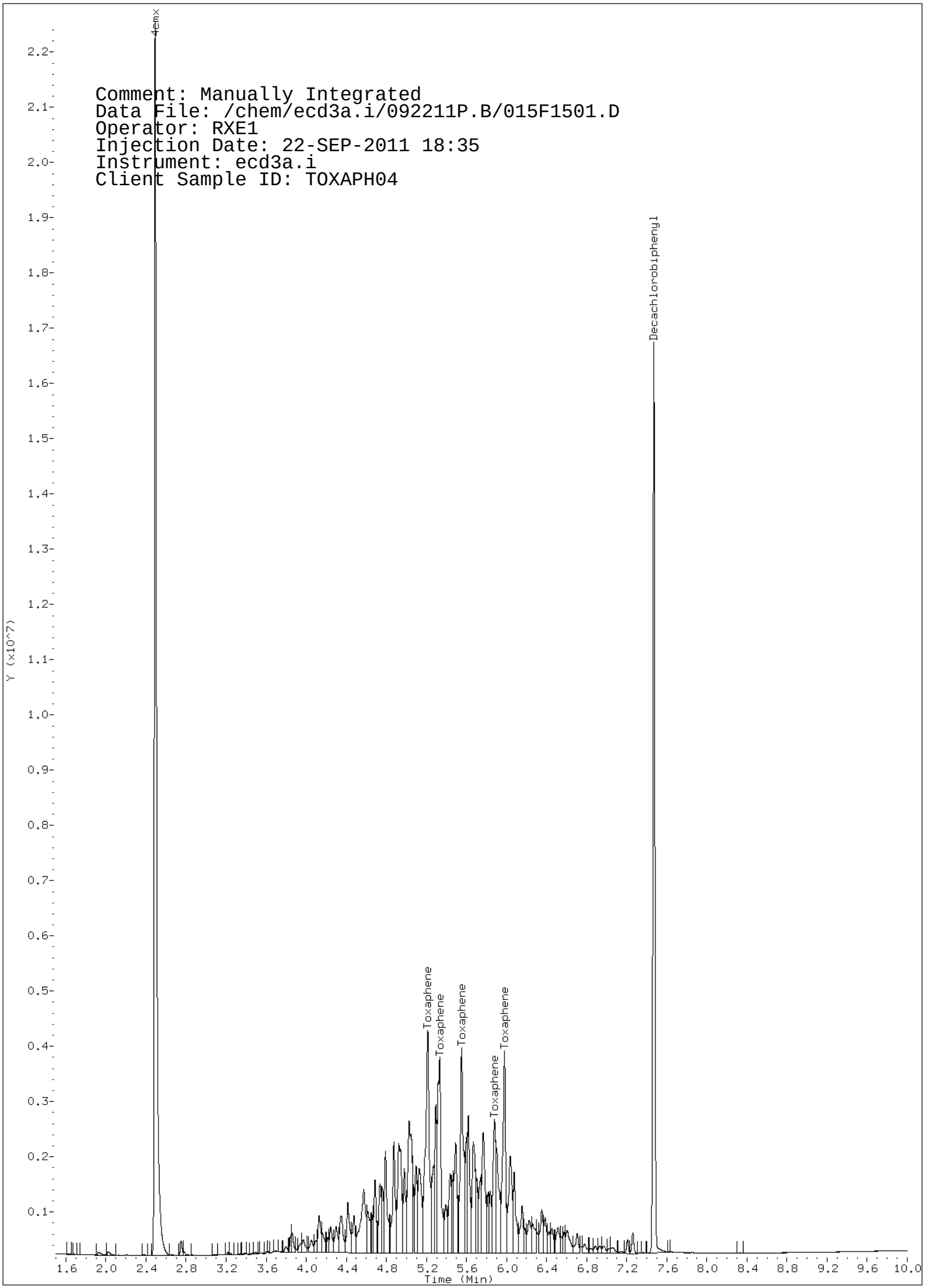
Sample Info: IWPE110922-14TX

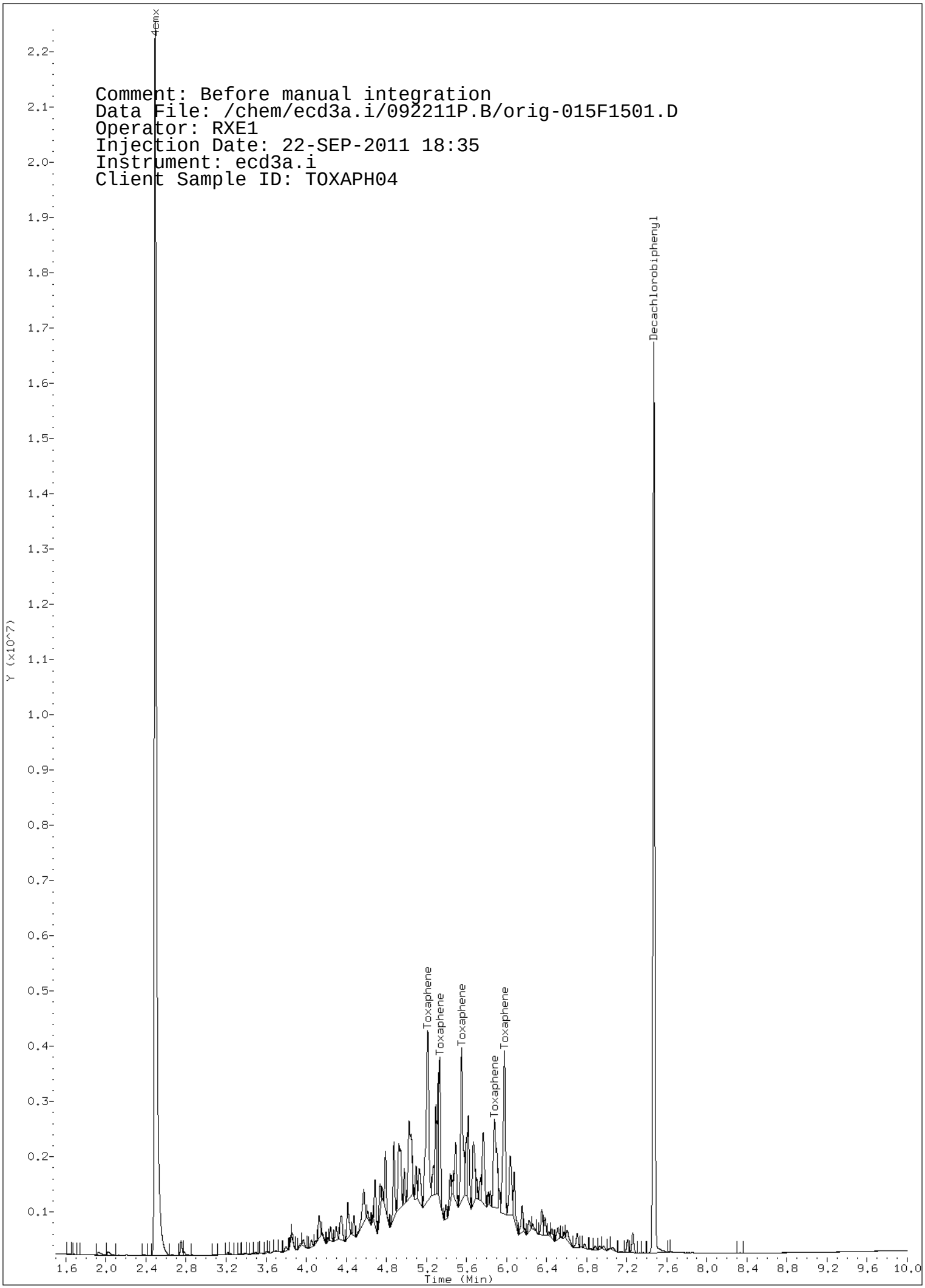
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/015F1501.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:35
Instrument: ecd3a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-015F1501.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:35
Instrument: ecd3a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/015B1501.D
Lab Smp Id: WPE110922-14TX Client Smp ID: TOXAPH04
Inj Date : 22-SEP-2011 18:35
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110922-14TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 15-JAN-2011 12:53 Cal File: 018b1801.d
Als bottle: 15 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.297	6.297	0.000	1354128	2000.00	2000	80.00- 120.00	100.00(M)
6.342	6.341	0.001	2254978	2000.00	2020	142.02- 182.02	166.53
6.446	6.445	0.001	3869014	2000.00	2050	263.94- 303.94	285.72
6.723	6.723	0.000	2674841	2000.00	2060	176.00- 216.00	197.53
7.294	7.293	0.001	2344190	2000.00	2050	146.81- 186.81	173.11
Average of Peak Amounts =				2.04e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	11178811	200.000	238	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	7579865	200.000	240	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/015B1501.D

Page 1

Date : 22-SEP-2011 18:35

Client ID: TOXAPH04

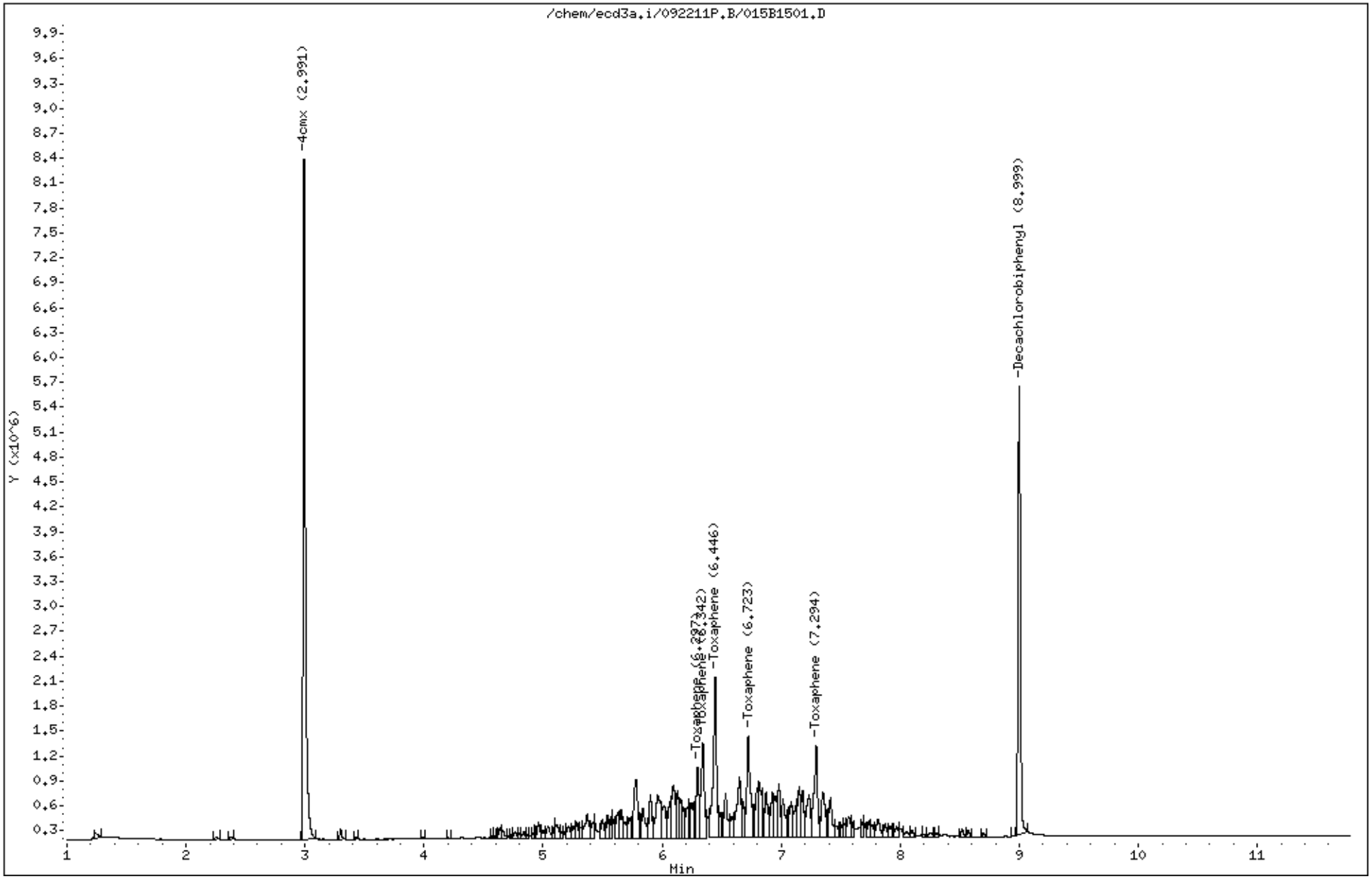
Instrument: ecd3a.i

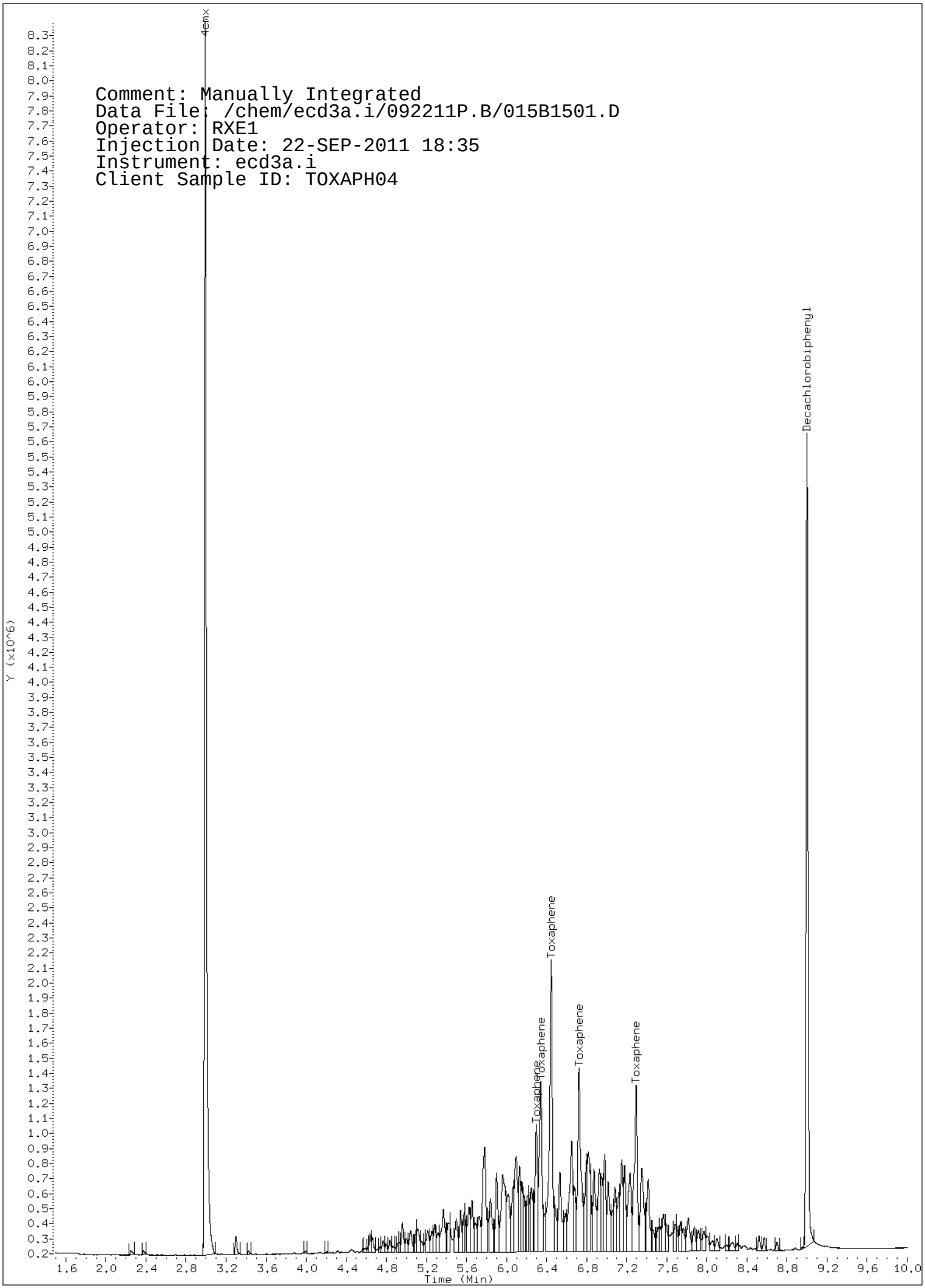
Sample Info: IWPE110922-14TX

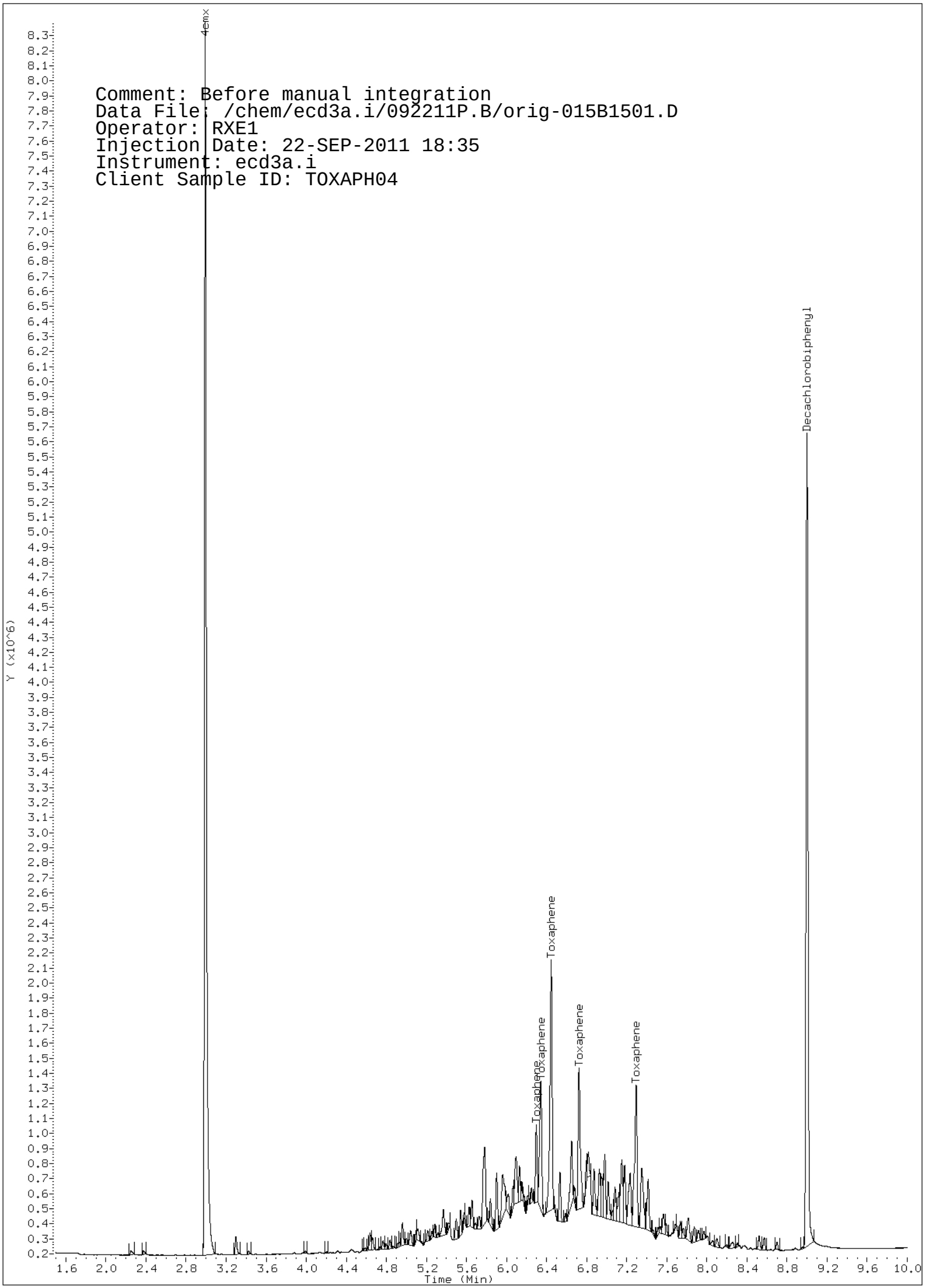
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/015B1501.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:35
Instrument: ecd3a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-015B1501.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:35
Instrument: ecd3a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/016F1601.D
Lab Smp Id: IPE110818-40TX Client Smp ID: TOXAPH05
Inj Date : 22-SEP-2011 18:51
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |IPE110818-40TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 16 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.212	5.213	-0.001	16047275	3000.00	3110	80.00- 120.00	100.00(AM)
5.331	5.331	0.000	12996277	3000.00	3180	61.38- 101.38	80.99
5.550	5.552	-0.002	12266348	3000.00	3160	59.42- 99.42	76.44
5.879	5.880	-0.001	7366747	3000.00	3220	24.06- 64.06	45.91
5.977	5.979	-0.002	10993966	3000.00	3170	48.21- 88.21	68.51
Average of Peak Amounts =				3.17e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.491	2.490	0.001	48626085	400.000	365	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.470	7.470	0.000	30969740	400.000	359	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/016F1601.D

Page 1

Date : 22-SEP-2011 18:51

Client ID: TOXAPH05

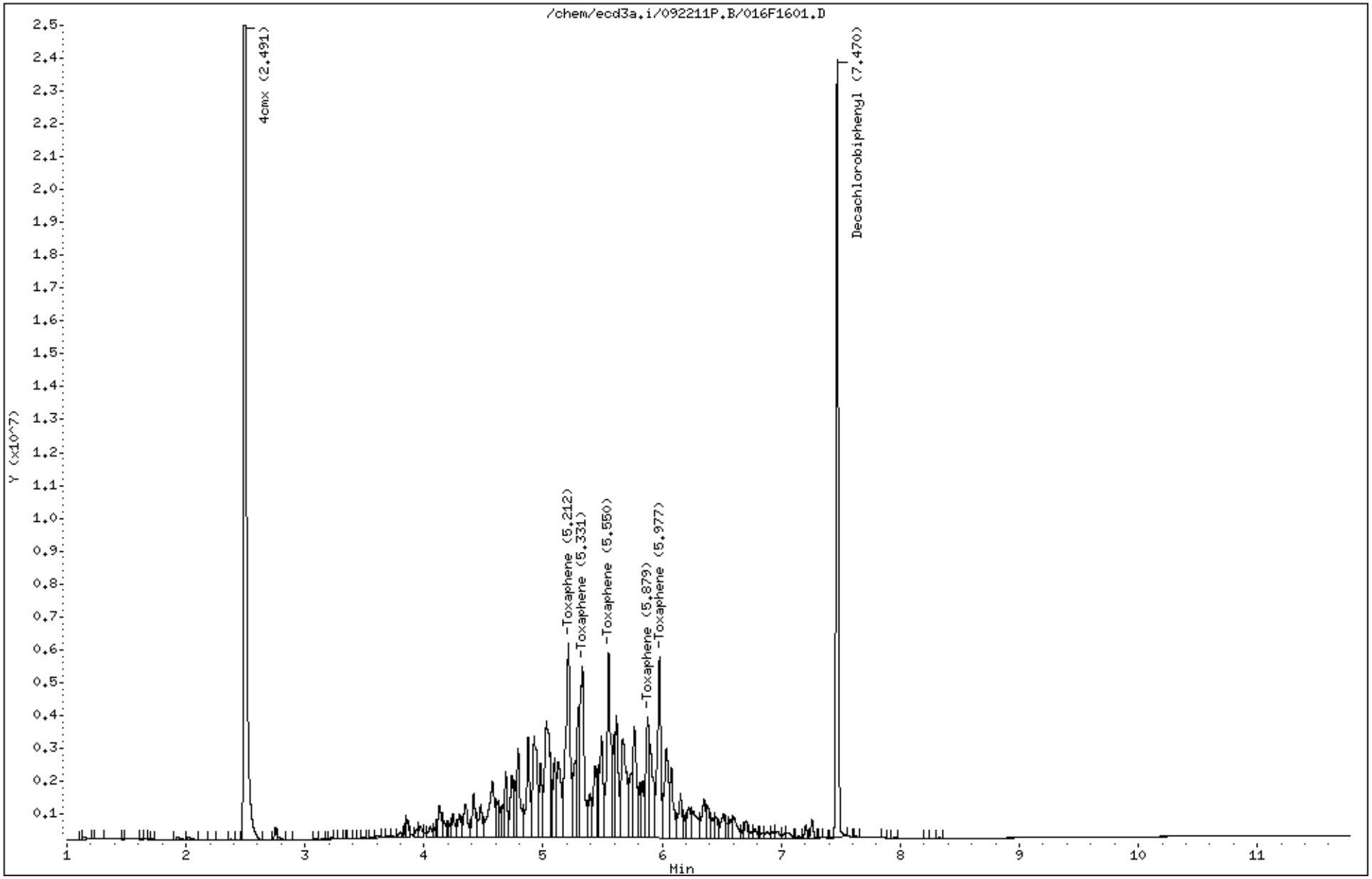
Instrument: ecd3a.i

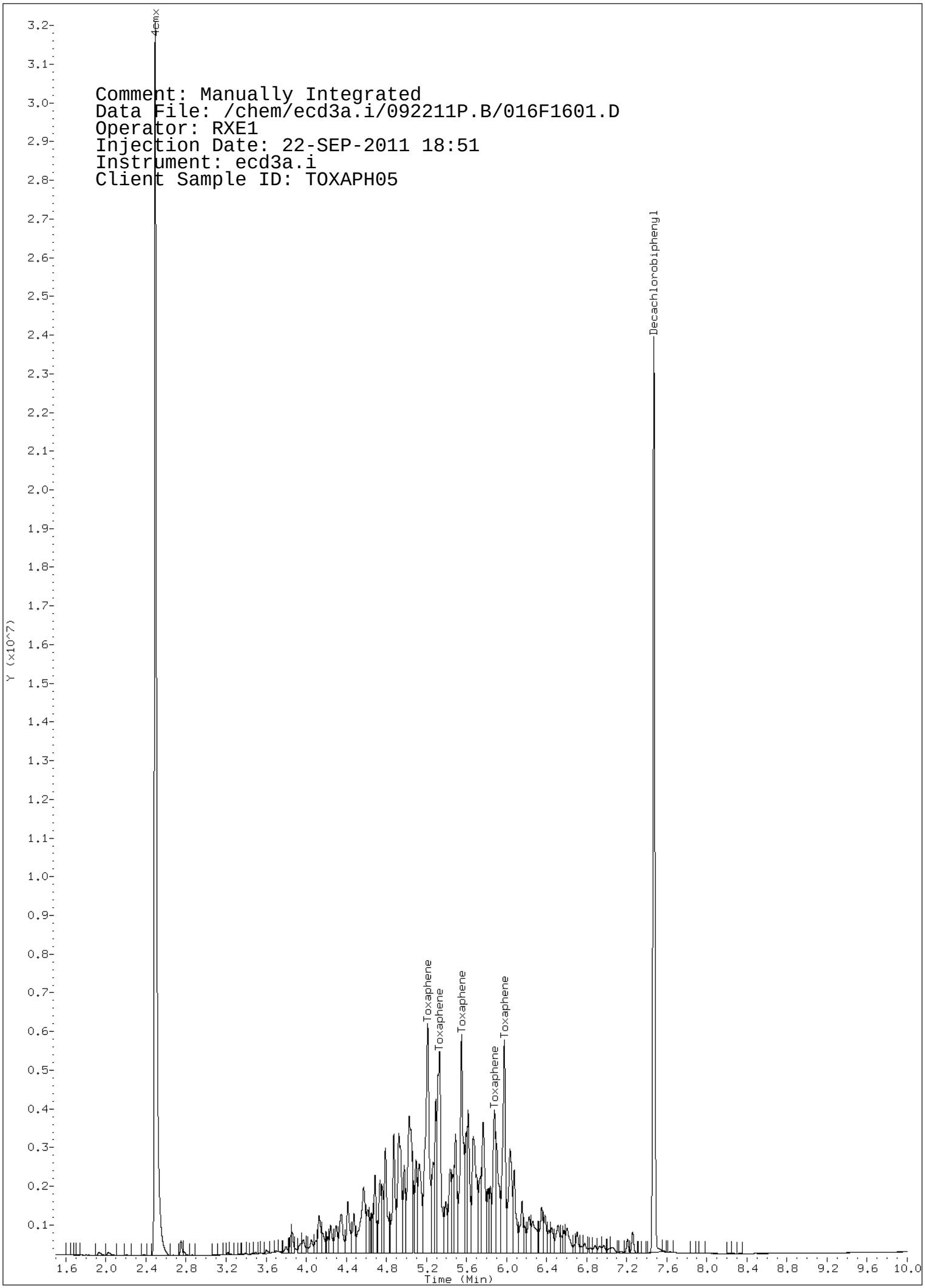
Sample Info: IIPE110818-40TX

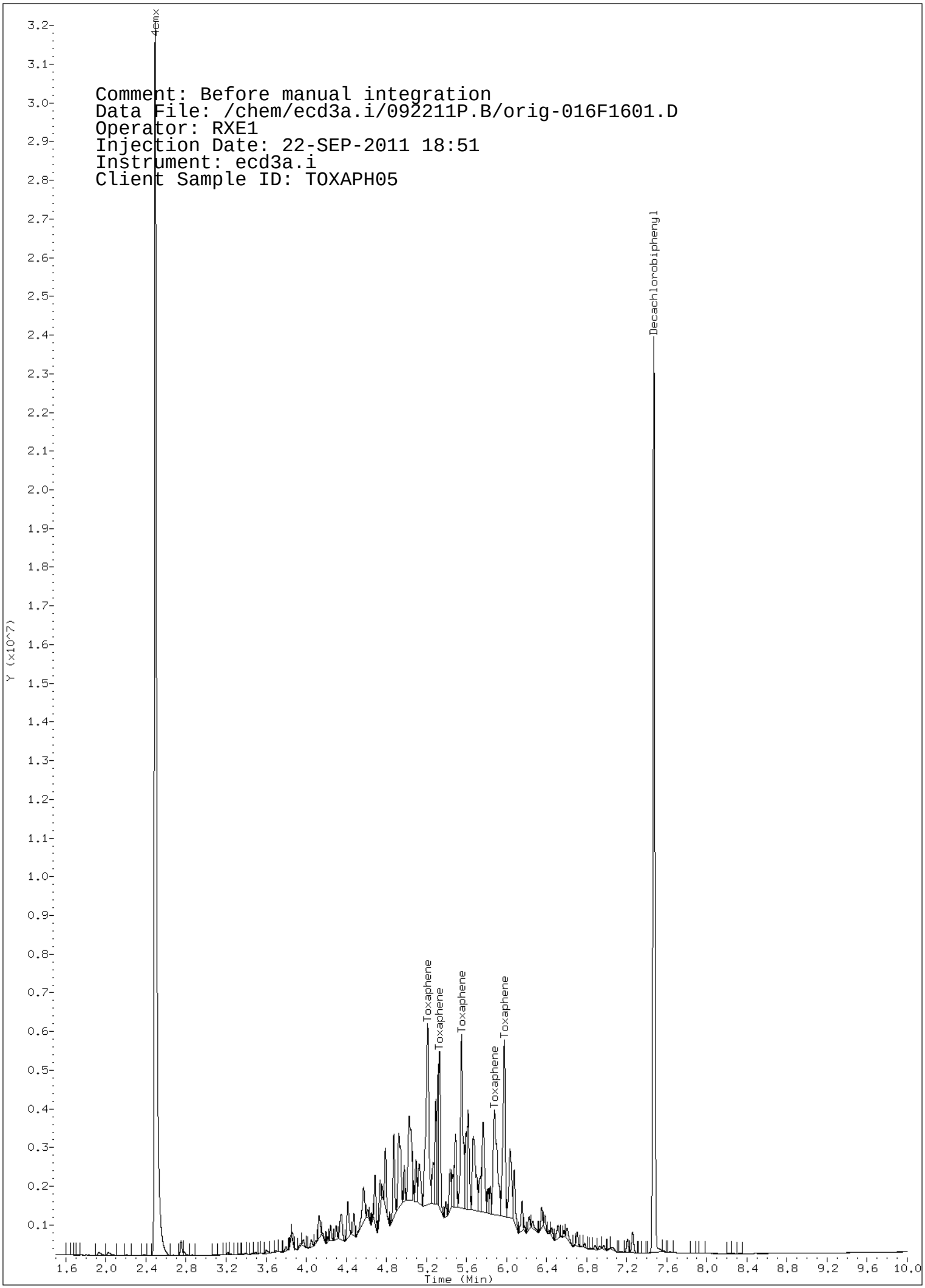
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/016F1601.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:51
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-016F1601.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:51
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/016B1601.D
Lab Smp Id: IPE110818-40TX Client Smp ID: TOXAPH05
Inj Date : 22-SEP-2011 18:51
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |IPE110818-40TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 16 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.296	6.297	-0.001	1969548	3000.00	2910	80.00- 120.00	100.00(M)
6.342	6.341	0.001	3229234	3000.00	2900	142.02- 182.02	163.96
6.444	6.445	-0.001	5588685	3000.00	2960	263.94- 303.94	283.75
6.723	6.723	0.000	3842213	3000.00	2960	176.00- 216.00	195.08
7.293	7.293	0.000	3378835	3000.00	2950	146.81- 186.81	171.55
Average of Peak Amounts =				2.94e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	15509670	400.000	330	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	10810476	400.000	343	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/016B1601.D

Page 1

Date : 22-SEP-2011 18:51

Client ID: TOXAPH05

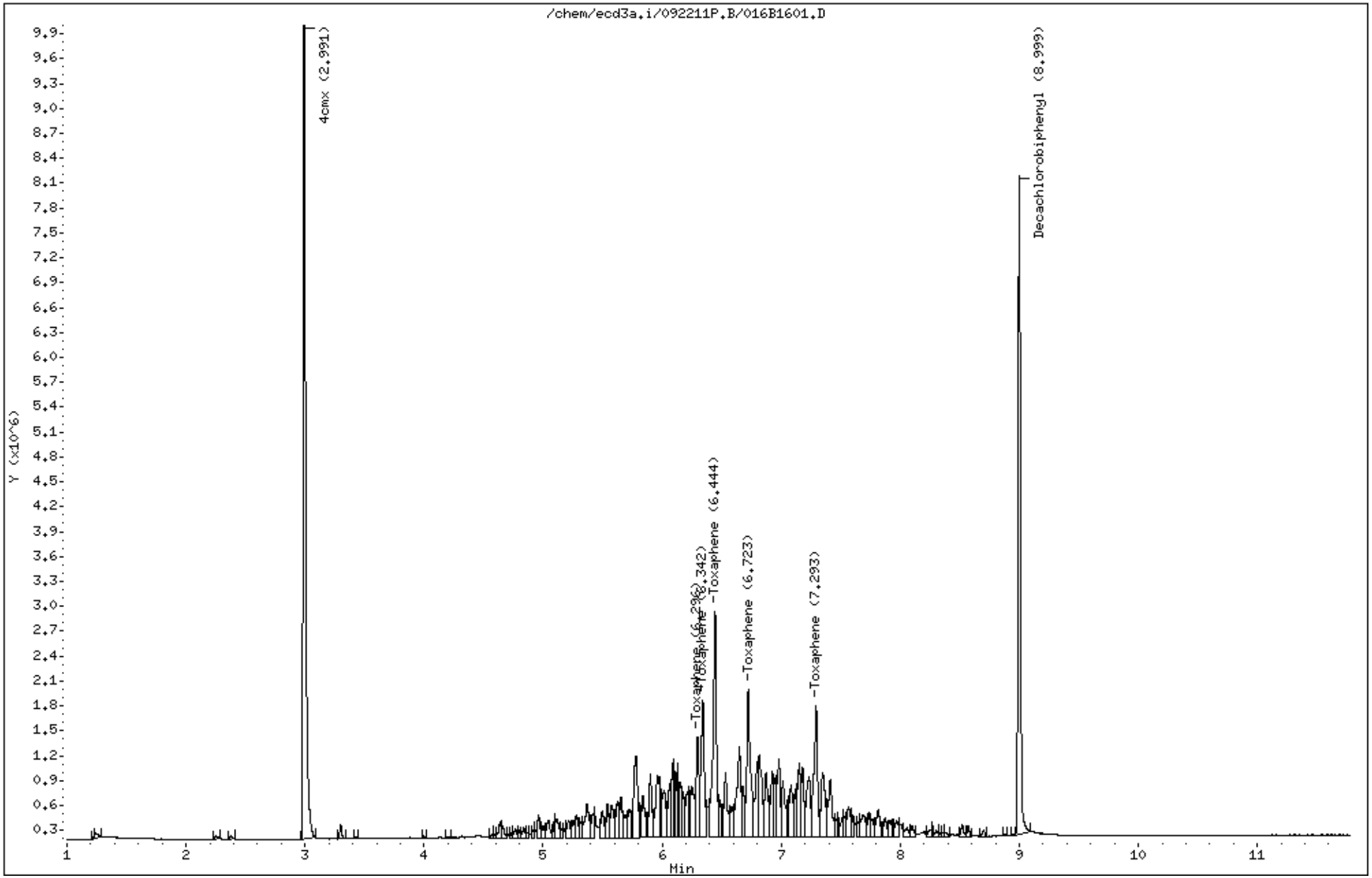
Instrument: ecd3a.i

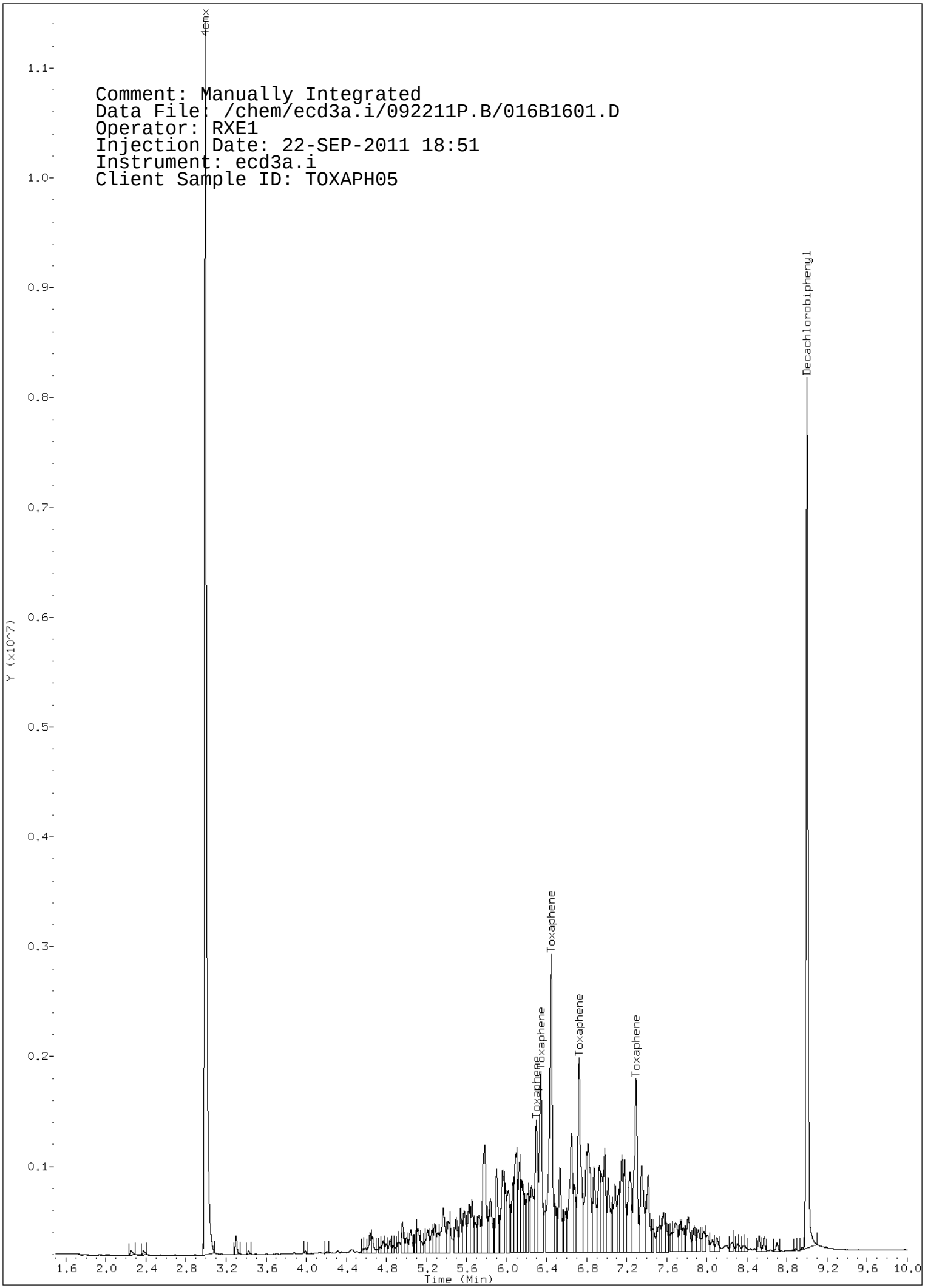
Sample Info: IIPE110818-40TX

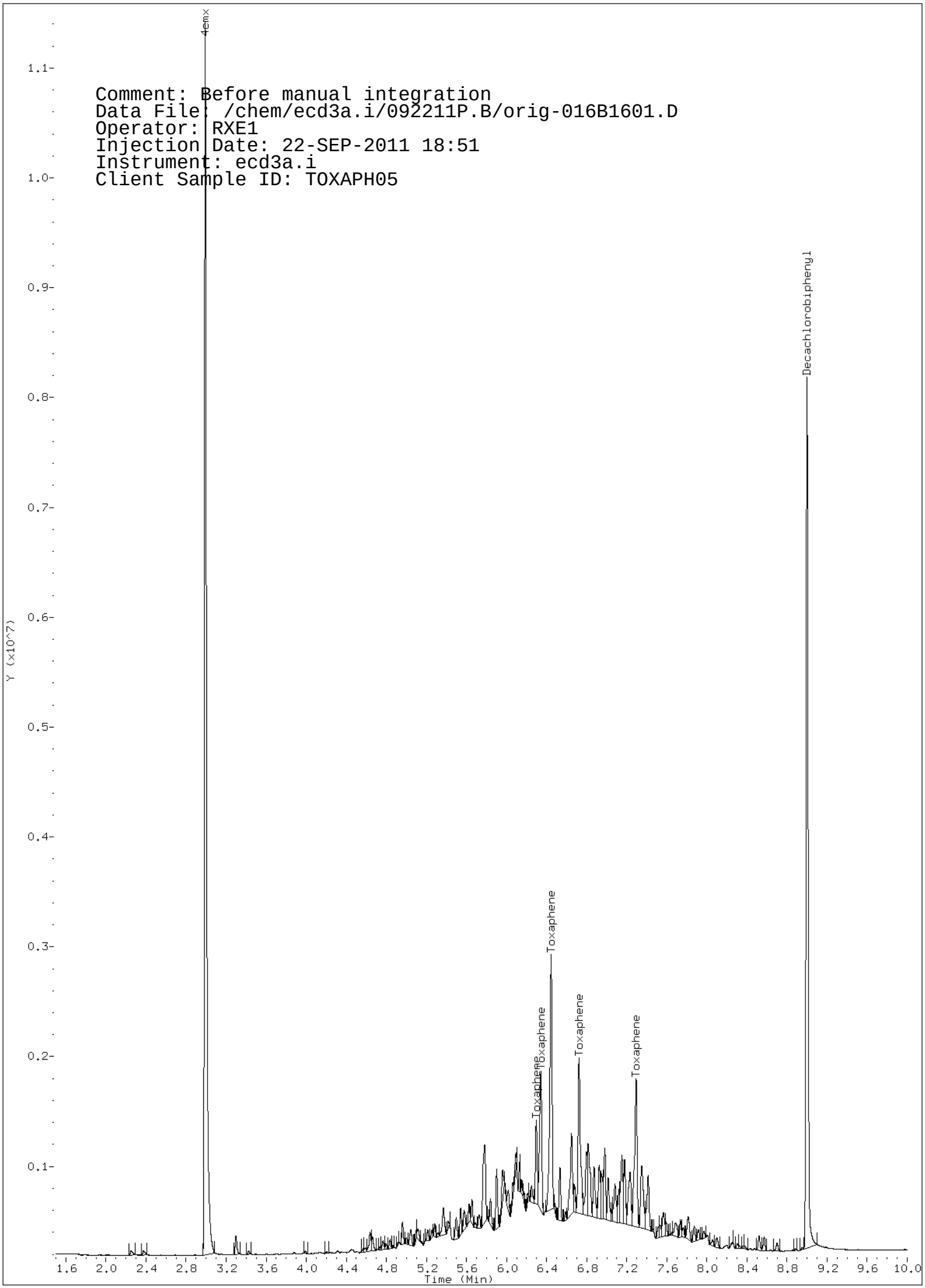
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/016B1601.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:51
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-016B1601.D
Operator: RXE1
Injection Date: 22-SEP-2011 18:51
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

Pesticide Breakdown Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_1

Injection Date: 22-SEP-11 15:09

Data File: /chem/ecd3a.i/092211P.B/002F0201.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 18:51

Lab Sample ID WPE110829-99DG

Method: /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	3.67	3.73	0	100	-100
4,4'-DDE	4.52	4.48	4.54	0.597	0	
Endrin	5.01	4.98	5.04	104	100	4
4,4'-DDD	5.08	5.05	5.11	0.861	0	
4,4'-DDT	5.35	5.32	5.38	180	100	80
Endrin aldehyde	5.64	5.61	5.67	2.37	0	
Endrin ketone	6.38	6.34	6.4	1.6	0	

4,4'-DDT % Breakdown .92 Endin % Breakdown : 3.44 Combined % Breakdown 4.36

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_2

Injection Date: 22-SEP-11 15:09

Data File: /chem/ecd3a.i/092211P.B/002B0201.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 18:51

Lab Sample ID WPE110829-99DG

Method: /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.52	4.58	0	100	-100
4,4'-DDE	5.61	5.58	5.64	0.815	0	
Endrin	6.13	6.1	6.16	108	100	8
4,4'-DDD	6.22	6.19	6.25	0.669	0	
4,4'-DDT	6.57	6.54	6.6	195	100	95
Endrin aldehyde	6.72	6.69	6.75	2.42	0	
Endrin ketone	7.62	7.59	7.65	1.98	0	

4,4'-DDT % Breakdown .8 Endin % Breakdown : 4.1 Combined % Breakdown 4.9

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_1

Injection Date: 22-SEP-11 17:34

Data File: /chem/ecd3a.i/092211P.B/011F1101.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 17:18

Lab Sample ID WPE110812-10AB

Method: /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	182862.77	200594.86	100	9.7	15		Averaged
gamma-BHC (Lindane)	165737.01	182325.35	100	10.01	15		Averaged
beta-BHC	74018.53	72641.92	100	-1.86	15		Averaged
Methoxychlor	44405.67	43442.68	1000	-2.17	15		Averaged
delta-BHC	160675.85	175193.37	100	9.04	15		Averaged
Heptachlor	131267.14	139624.35	100	6.37	15		Averaged
Aldrin	153012.6	158623.69	100	3.67	15		Averaged
Heptachlor epoxide	137271.45	138230.59	100	0.7	15		Averaged
gamma-Chlordane	133719.27	145525.71	100	8.83	15		Averaged
alpha-Chlordane	130955.89	135551.72	100	3.51	15		Averaged
Endosulfan I	120778.82	126708.42	100	4.91	15		Averaged
4,4'-DDE	126218.04	134049.58	200	6.2	15		Averaged
Dieldrin	133025.4	140513.57	200	5.63	15		Averaged
Endrin	112288.72	125312.7	200	11.6	15		Averaged
4,4'-DDD	101800.29	108895.23	200	6.97	15		Averaged
Endosulfan II	110064.85	114654.28	200	4.17	15		Averaged
Endrin aldehyde	93154.05	94412.86	200	1.35	15		Averaged
4,4'-DDT	94461.92	101792.96	200	7.76	15		Averaged
Endosulfan sulfate	91314.68	95706.97	200	4.81	15		Averaged
Endrin ketone	118829.92	119906.91	200	0.91	15		Averaged
4cmx(Surr)	133061.57	134195.51	200	0.85	15		Averaged
Decachlorobiphenyl(Surr)	86315.36	83351.13	200	-3.43	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_2

Injection Date: 22-SEP-11 17:34

Data File: /chem/ecd3a.i/092211P.B/011B1101.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 17:18

Lab Sample ID WPE110812-10AB

Method: /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	64457.59	66538.07	100	3.23	15		Averaged
gamma-BHC (Lindane)	59179.53	61164.08	100	3.35	15		Averaged
beta-BHC	25851.37	24043.8	100	-6.99	15		Averaged
Methoxychlor	8892.46	8228.05	1000	-7.47	15		Averaged
delta-BHC	52132.85	52734.46	100	1.15	15		Averaged
Heptachlor	41944.66	41364.2	100	-1.38	15		Averaged
Aldrin	53881.39	52885.85	100	-1.85	15		Averaged
Heptachlor epoxide	46316.36	45046.89	100	-2.74	15		Averaged
gamma-Chlordane	45586.41	46972.61	100	3.04	15		Averaged
alpha-Chlordane	45127.31	45107.61	100	-0.04	15		Averaged
Endosulfan I	40197.13	40514.95	100	0.79	15		Averaged
4,4'-DDE	34043.26	33944.83	200	-0.29	15		Averaged
Dieldrin	39253.95	39791.14	200	1.37	15		Averaged
Endrin	30212.67	31449.87	200	4.09	15		Averaged
4,4'-DDD	22956.04	22982.15	200	0.11	15		Averaged
Endosulfan II	35342.64	35347.08	200	0.01	15		Averaged
Endrin aldehyde	28277.15	27792.8	200	-1.71	15		Averaged
4,4'-DDT	27301.75	28587.12	200	4.71	15		Averaged
Endosulfan sulfate	28012.33	28061.04	200	0.17	15		Averaged
Endrin ketone	36010.32	34231.64	200	-4.94	15		Averaged
4cmx(Surr)	46970.88	44874.8	200	-4.46	15		Averaged
Decachlorobiphenyl(Surr)	31514.74	30746.25	200	-2.44	15		Averaged

Continuing Calibration Summary

Instrument ID: ECD3A.I_1

Client SDG: 11-3620

Injection Date: 22-SEP-11 19:06

Data File: /chem/ecd3a.i/092211P.B/017F1701.D

Init. Cal. Date(s): 22-SEP-11 17:49 - 22-SEP-11 18:51

Lab Sample ID WPE110906-52TX

Method: /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	5153.72	5150.14	2000	-0.07	15		Averaged
Toxaphene(2)	4084.33	4191.12	2000	2.61	15		Averaged
Toxaphene(3)	3886.5	4090.27	2000	5.24	15		Averaged
Toxaphene(4)	2288.17	2269.28	2000	-0.83	15		Averaged
Toxaphene(5)	3469.08	3512.74	2000	1.26	15		Averaged
4cmx(Surr)	133061.57	127837.36	200	-3.93	15		Averaged
Decachlorobiphenyl(Surr)	86315.36	78169.43	200	-9.44	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_2

Injection Date: 22-SEP-11 19:06

Data File: /chem/ecd3a.i/092211P.B/017B1701.D

Init. Cal. Date(s): 22-SEP-11 17:49 - 22-SEP-11 18:51

Lab Sample ID WPE110906-52TX

Method: /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	675.96	657.37	2000	-2.75	15		Averaged
Toxaphene(2)	1115.09	1065.08	2000	-4.48	15		Averaged
Toxaphene(3)	1888.39	1866.51	2000	-1.16	15		Averaged
Toxaphene(4)	1298.8	1288.45	2000	-0.8	15		Averaged
Toxaphene(5)	1144.09	1096.58	2000	-4.15	15		Averaged
4cmx(Surr)	46970.88	42957.19	200	-8.55	15		Averaged
Decachlorobiphenyl(Surr)	31514.74	28736.86	200	-8.81	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_1

Injection Date: 22-SEP-11 21:57

Data File: /chem/ecd3a.i/092211P.B/028F2801.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 17:18

Lab Sample ID WPE110812-10AB

Method: /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	182862.77	194946.27	100	6.61	15		Averaged
gamma-BHC (Lindane)	165737.01	179185.9	100	8.11	15		Averaged
beta-BHC	74018.53	68266.57	100	-7.77	15		Averaged
Methoxychlor	44405.67	45263.94	1000	1.93	15		Averaged
delta-BHC	160675.85	172177.32	100	7.16	15		Averaged
Heptachlor	131267.14	148867.52	100	13.41	15		Averaged
Aldrin	153012.6	155119.33	100	1.38	15		Averaged
Heptachlor epoxide	137271.45	134907.54	100	-1.72	15		Averaged
gamma-Chlordane	133719.27	141646.91	100	5.93	15		Averaged
alpha-Chlordane	130955.89	133810.73	100	2.18	15		Averaged
Endosulfan I	120778.82	123577.99	100	2.32	15		Averaged
4,4'-DDE	126218.04	132457.35	200	4.94	15		Averaged
Dieldrin	133025.4	137876.35	200	3.65	15		Averaged
Endrin	112288.72	125414.98	200	11.69	15		Averaged
4,4'-DDD	101800.29	108412.2	200	6.49	15		Averaged
Endosulfan II	110064.85	113325.64	200	2.96	15		Averaged
Endrin aldehyde	93154.05	92250.44	200	-0.97	15		Averaged
4,4'-DDT	94461.92	105450.6	200	11.63	15		Averaged
Endosulfan sulfate	91314.68	97372.01	200	6.63	15		Averaged
Endrin ketone	118829.92	120196.44	200	1.15	15		Averaged
4cmx(Surr)	133061.57	129834.71	200	-2.43	15		Averaged
Decachlorobiphenyl(Surr)	86315.36	80363.71	200	-6.9	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3620

Instrument ID: ECD3A.I_2

Injection Date: 22-SEP-11 21:57

Data File: /chem/ecd3a.i/092211P.B/028B2801.D

Init. Cal. Date(s): 22-SEP-11 16:16 - 22-SEP-11 17:18

Lab Sample ID WPE110812-10AB

Method: /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	64457.59	70849.97	100	9.92	15		Averaged
gamma-BHC (Lindane)	59179.53	64685.78	100	9.3	15		Averaged
beta-BHC	25851.37	26346.3	100	1.91	15		Averaged
Methoxychlor	8892.46	9905.79	1000	11.4	15		Averaged
delta-BHC	52132.85	59106.68	100	13.38	15		Averaged
Heptachlor	41944.66	46358.56	100	10.52	15		Averaged
Aldrin	53881.39	54487.95	100	1.13	15		Averaged
Heptachlor epoxide	46316.36	46616.51	100	0.65	15		Averaged
gamma-Chlordane	45586.41	48493.88	100	6.38	15		Averaged
alpha-Chlordane	45127.31	46614.47	100	3.3	15		Averaged
Endosulfan I	40197.13	42110.24	100	4.76	15		Averaged
4,4'-DDE	34043.26	41669.37	200	22.4	15	*	Averaged
Dieldrin	39253.95	41984.7	200	6.96	15		Averaged
Endrin	30212.67	34098.88	200	12.86	15		Averaged
4,4'-DDD	22956.04	27946.6	200	21.74	15	*	Averaged
Endosulfan II	35342.64	37157.38	200	5.13	15		Averaged
Endrin aldehyde	28277.15	29284.88	200	3.56	15		Averaged
4,4'-DDT	27301.75	33333.34	200	22.09	15	*	Averaged
Endosulfan sulfate	28012.33	30175.7	200	7.72	15		Averaged
Endrin ketone	36010.32	36474.17	200	1.29	15		Averaged
4cmx(Surr)	46970.88	48943.53	200	4.2	15		Averaged
Decachlorobiphenyl(Surr)	31514.74	32689.04	200	3.73	15		Averaged

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/002F0201.D
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 22-SEP-2011 15:09
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
4.516	4.511	0.005	78622	0.59734	0.597	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.008	5.005	0.003	12279759	103.634	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.081	5.075	0.006	93727	0.86147	0.861	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.642	5.635	0.007	232775	2.37344	2.37	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.352	5.350	0.002	18585968	180.383	180	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.375	6.368	0.007	204946	1.59586	1.60	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.492	2.490	0.002	26286250	204.462	204	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.470	7.470	0.000	16125638	187.916	188	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/002F0201.D

Page 1

Date : 22-SEP-2011 15:09

Client ID: PEM01

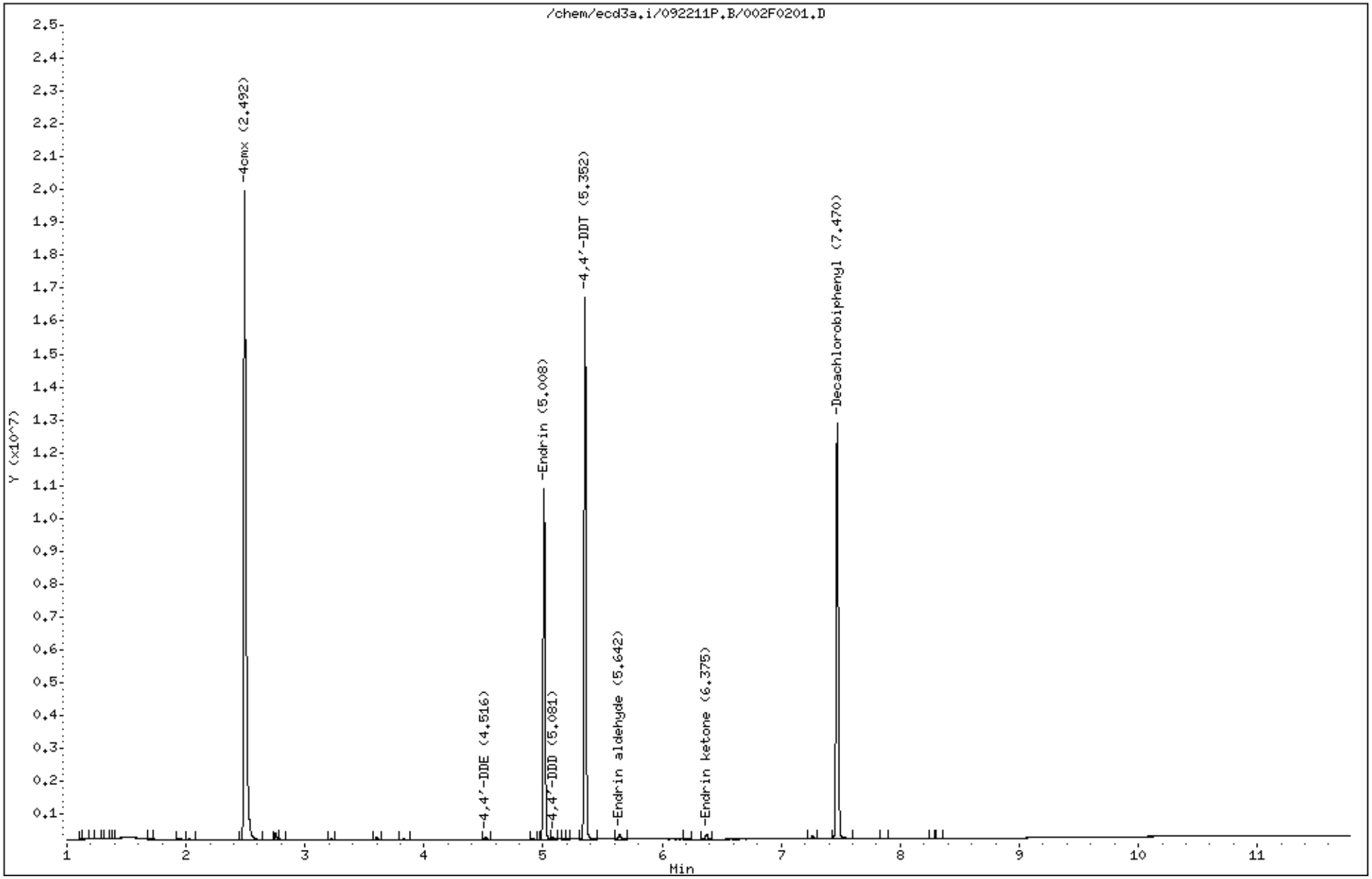
Instrument: ecd3a.i

Sample Info: IWPE110829-99DG

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/002B0201.D
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 22-SEP-2011 15:09
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.614	5.609	0.005	27739	0.81482	0.815	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.133	6.130	0.003	3267427	108.148	108	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.224	6.223	0.001	15368	0.66949	0.669	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.720	6.716	0.004	68524	2.42330	2.42	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.567	6.565	0.002	5323534	194.989	195	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.622	7.620	0.002	71261	1.97890	1.98	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	8894258	189.357	189	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	5862074	186.011	186	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/002B0201.D

Page 1

Date : 22-SEP-2011 15:09

Client ID: PEM01

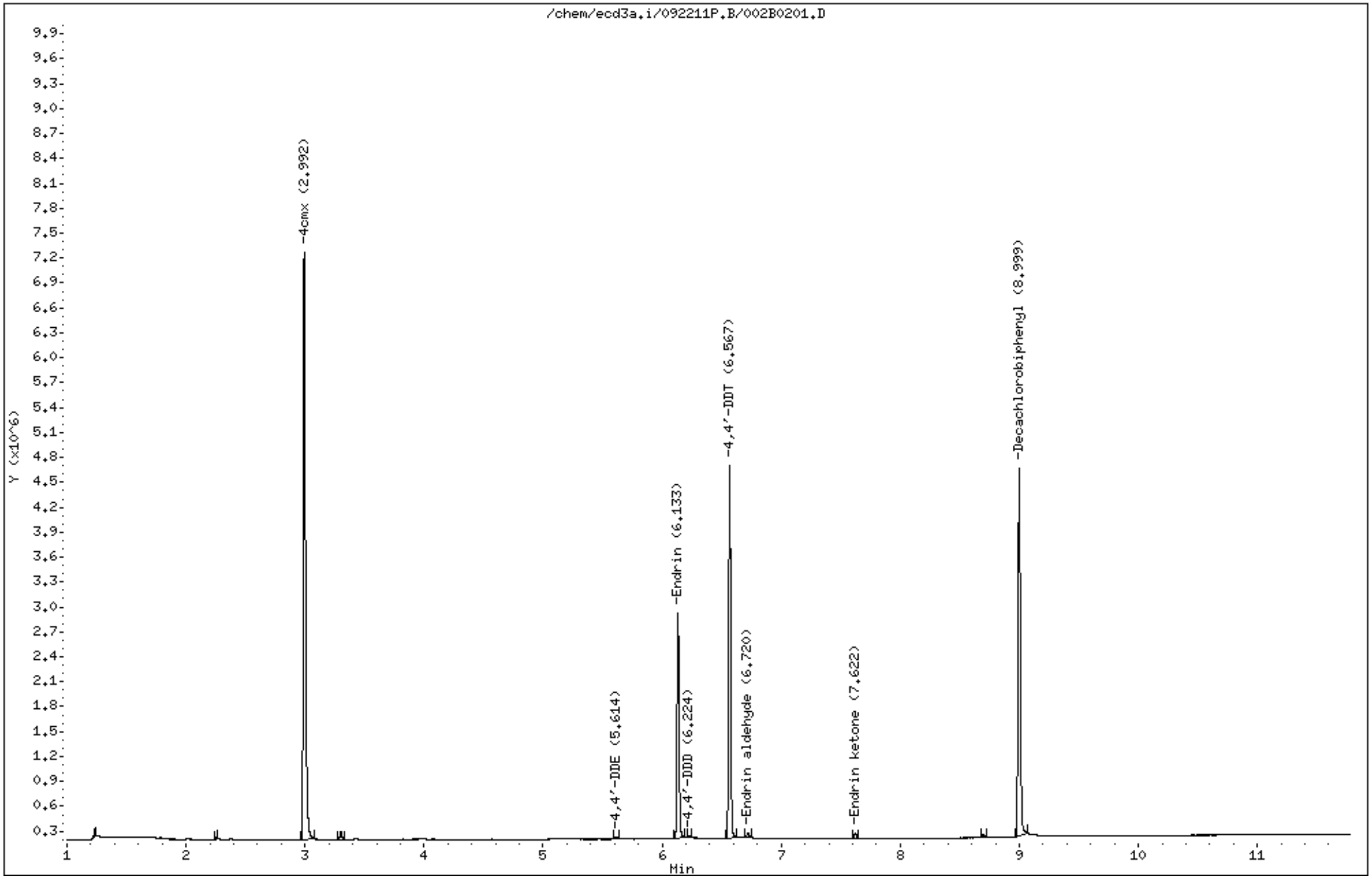
Instrument: ecd3a.i

Sample Info: IWPE110829-99DG

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

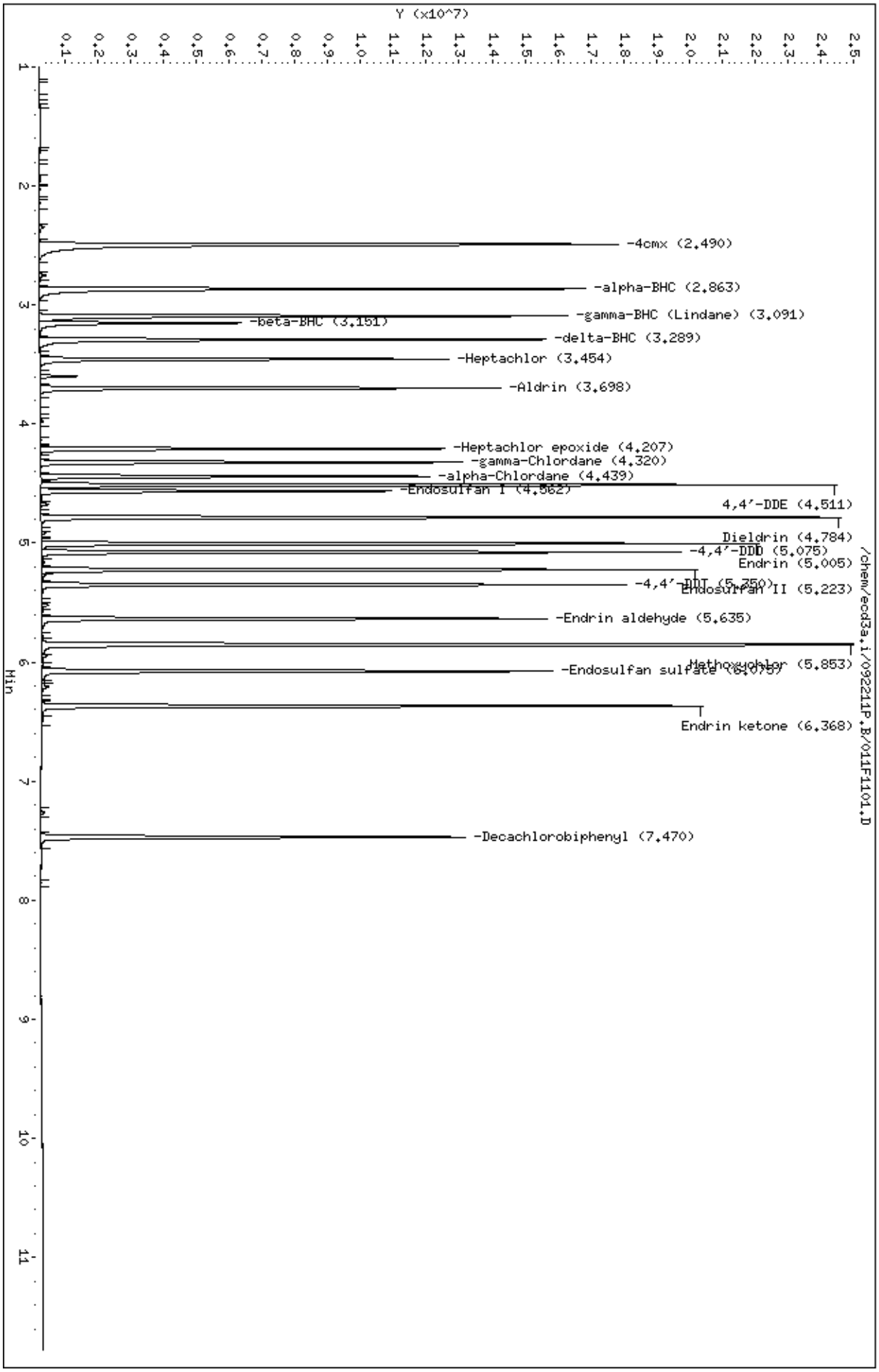
Data file : /chem/ecd3a.i/092211P.B/011F1101.D
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 22-SEP-2011 17:34
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.863	2.863	0.000	20059486	100.000	110	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.091	3.091	0.000	18232535	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.151	3.151	0.000	7264192	100.000	98.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.454	3.454	0.000	13962435	100.000	106	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.289	3.289	0.000	17519337	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.698	3.698	0.000	15862369	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.207	4.207	0.000	13823059	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.320	4.320	0.000	14552571	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.439	4.439	0.000	13555172	100.000	104	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.562   4.562   0.000        12670842 100.000      105  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.511   4.511   0.000        26809915 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.784   4.784   0.000        28102713 200.000      211  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.005   5.005   0.000        25062539 200.000      223  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.075   5.075   0.000        21779045 200.000      214  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.223   5.223   0.000        22930856 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.635   5.635   0.000        18882571 200.000      203  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.350   5.350   0.000        20358592 200.000      216  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.075   6.075   0.000        19141394 200.000      210  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.853   5.853   0.000        43442676 1000.00      978  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.368   6.368   0.000        23981381 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.490   2.490   0.000        26839102 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.470   7.470   0.000        16670226 200.000      193  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/011F1101.D
Date : 22-SEP-2011 17:34
Client ID: INDAB01
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/011B1101.D
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 22-SEP-2011 17:34
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	6653807	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.814	3.814	0.000	6116408	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.875	3.875	0.000	2404380	100.000	93.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	4136420	100.000	98.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	5273446	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	5288585	100.000	98.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	4504689	100.000	97.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.306	5.306	0.000	4697261	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.453	5.453	0.000	4510761	100.000	100	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.520   5.520   0.000         4051495 100.000      101  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.609   5.609   0.000         6788965 200.000      199  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.805   5.805   0.000         7958228 200.000      203  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  6.130   6.130   0.000         6289974 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  6.223   6.223   0.000         4596429 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.355   6.355   0.000         7069416 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.716   6.716   0.000         5558560 200.000      196  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.565   6.565   0.000         5717423 200.000      209  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  7.018   7.018   0.000         5612207 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.314   7.314   0.000         8228053 1000.00      925  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.620   7.620   0.000         6846328 200.000      190  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.990   2.990   0.000         8974959 200.000      191  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.999   8.999   0.000         6149250 200.000      195  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/011B1101.D

Page 1

Date : 22-SEP-2011 17:34

Client ID: INDAB01

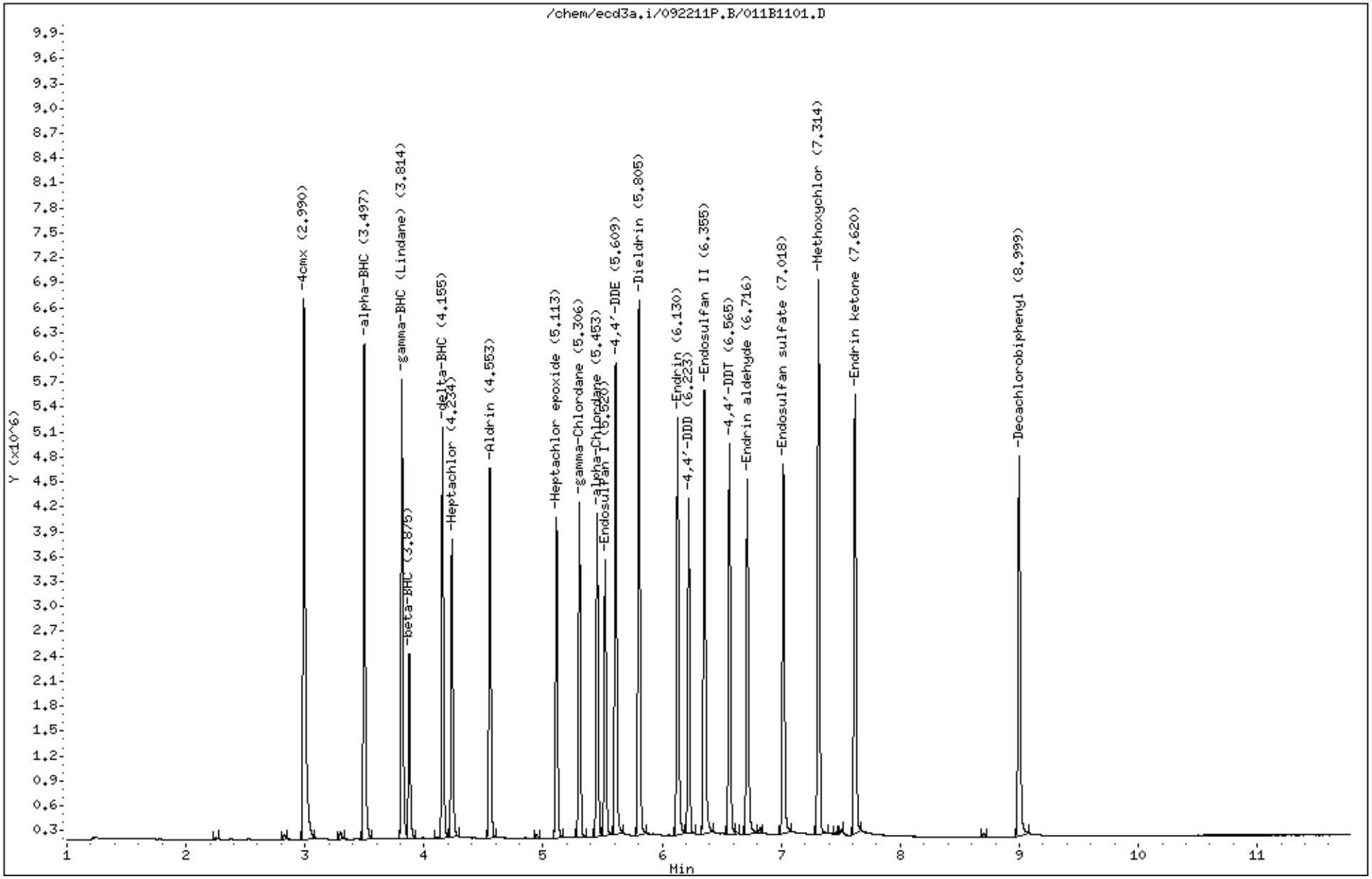
Instrument: ecd3a.i

Sample Info: IWPE110812-10AB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/017F1701.D
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 22-SEP-2011 19:06
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.213	5.213	0.000	10300280	2000.00	2000	80.00- 120.00	100.00(M)
5.331	5.331	0.000	8382240	2000.00	2050	61.38- 101.38	81.38
5.552	5.552	0.000	8180538	2000.00	2100	59.42- 99.42	79.42
5.880	5.880	0.000	4538554	2000.00	1980	24.06- 64.06	44.06
5.979	5.979	0.000	7025480	2000.00	2020	48.21- 88.21	68.21
Average of Peak Amounts =				2.03e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	25567471	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.471	7.470	0.001	15633885	200.000	181	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/017F1701.D

Page 1

Date : 22-SEP-2011 19:06

Client ID: TOXAPH01

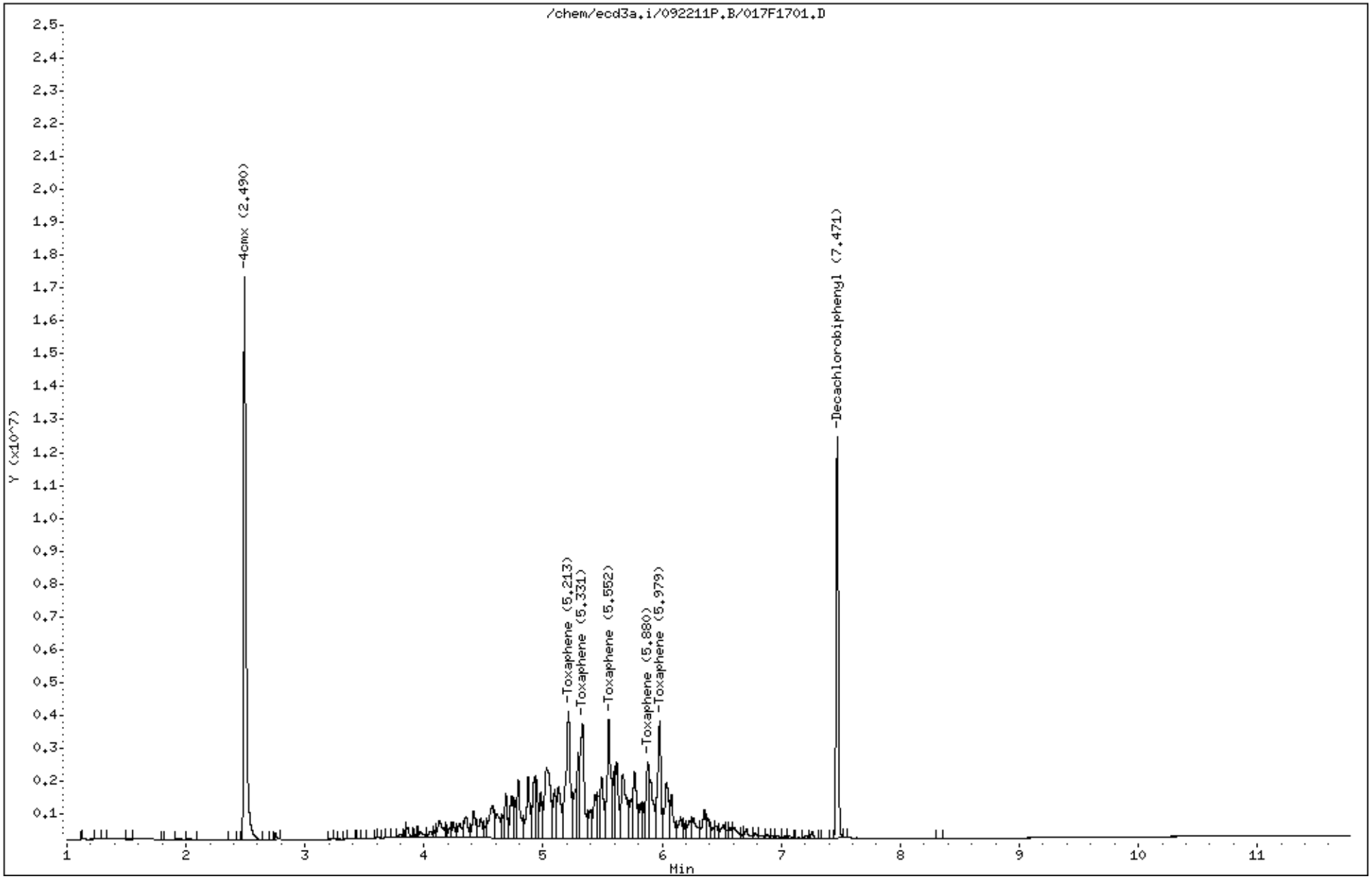
Instrument: ecd3a.i

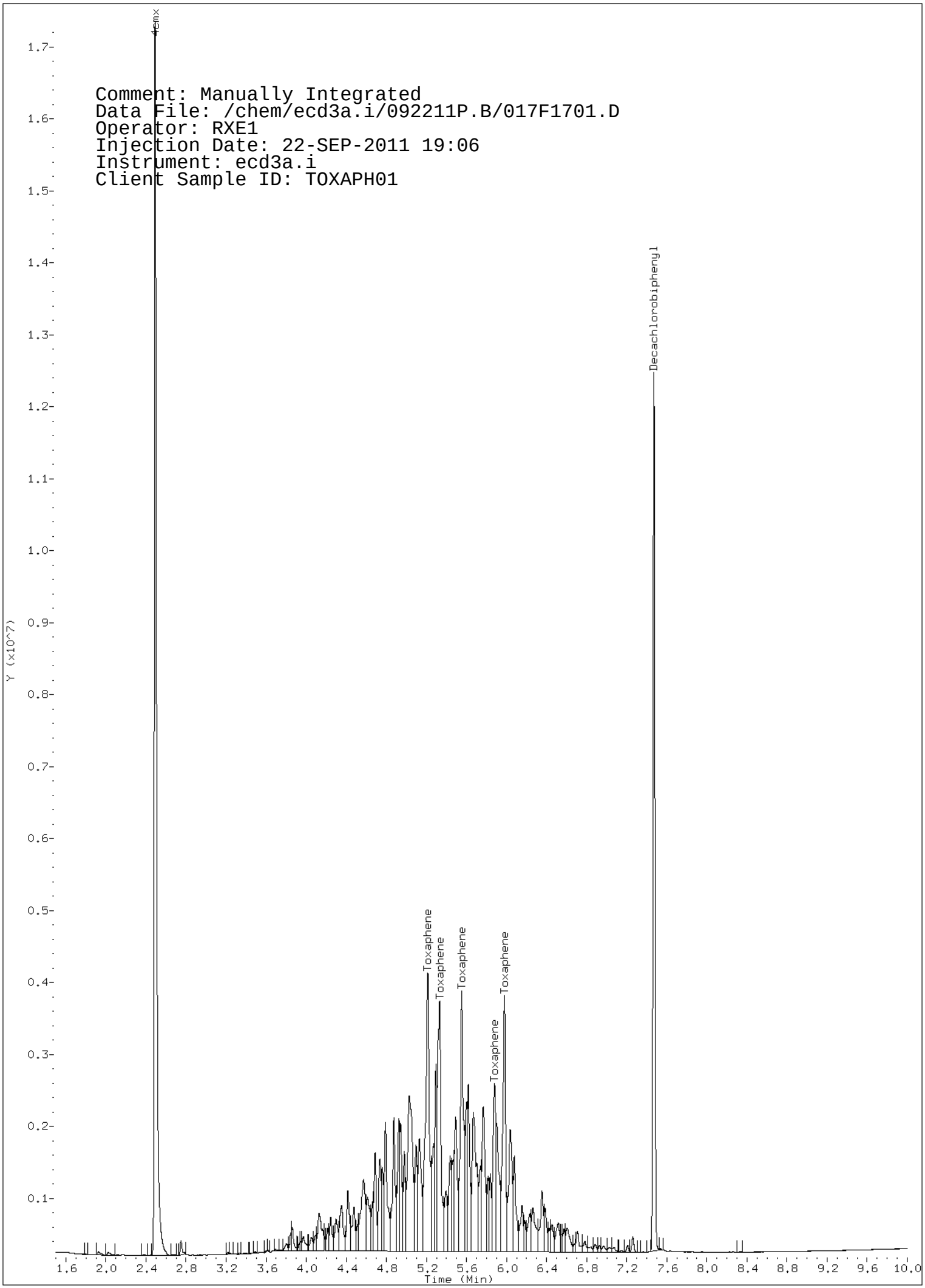
Sample Info: IWPE110906-52TX

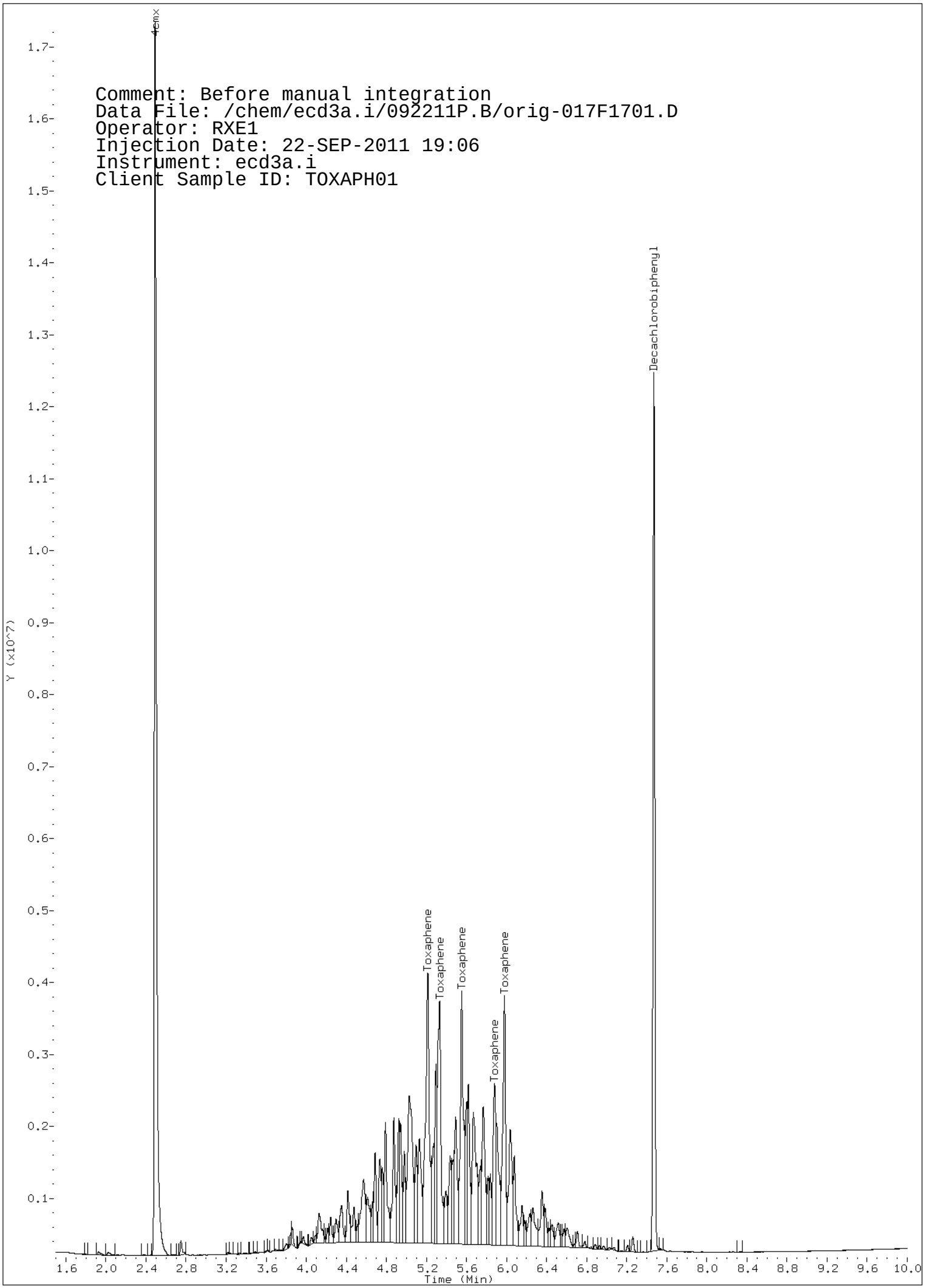
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/017F1701.D
Operator: RXE1
Injection Date: 22-SEP-2011 19:06
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-017F1701.D
Operator: RXE1
Injection Date: 22-SEP-2011 19:06
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/017B1701.D
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 22-SEP-2011 19:06
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.297	6.297	0.000	1314737	2000.00	1940	80.00- 120.00	100.00(M)
6.341	6.341	0.000	2130153	2000.00	1910	142.02- 182.02	162.02
6.445	6.445	0.000	3733012	2000.00	1980	263.94- 303.94	283.94
6.723	6.723	0.000	2576890	2000.00	1980	176.00- 216.00	196.00
7.293	7.293	0.000	2193164	2000.00	1920	146.81- 186.81	166.81
Average of Peak Amounts =				1.95e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.991	2.990	0.001	8591437	200.000	183	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	5747371	200.000	182	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/017B1701.D

Page 1

Date : 22-SEP-2011 19:06

Client ID: TOXAPH01

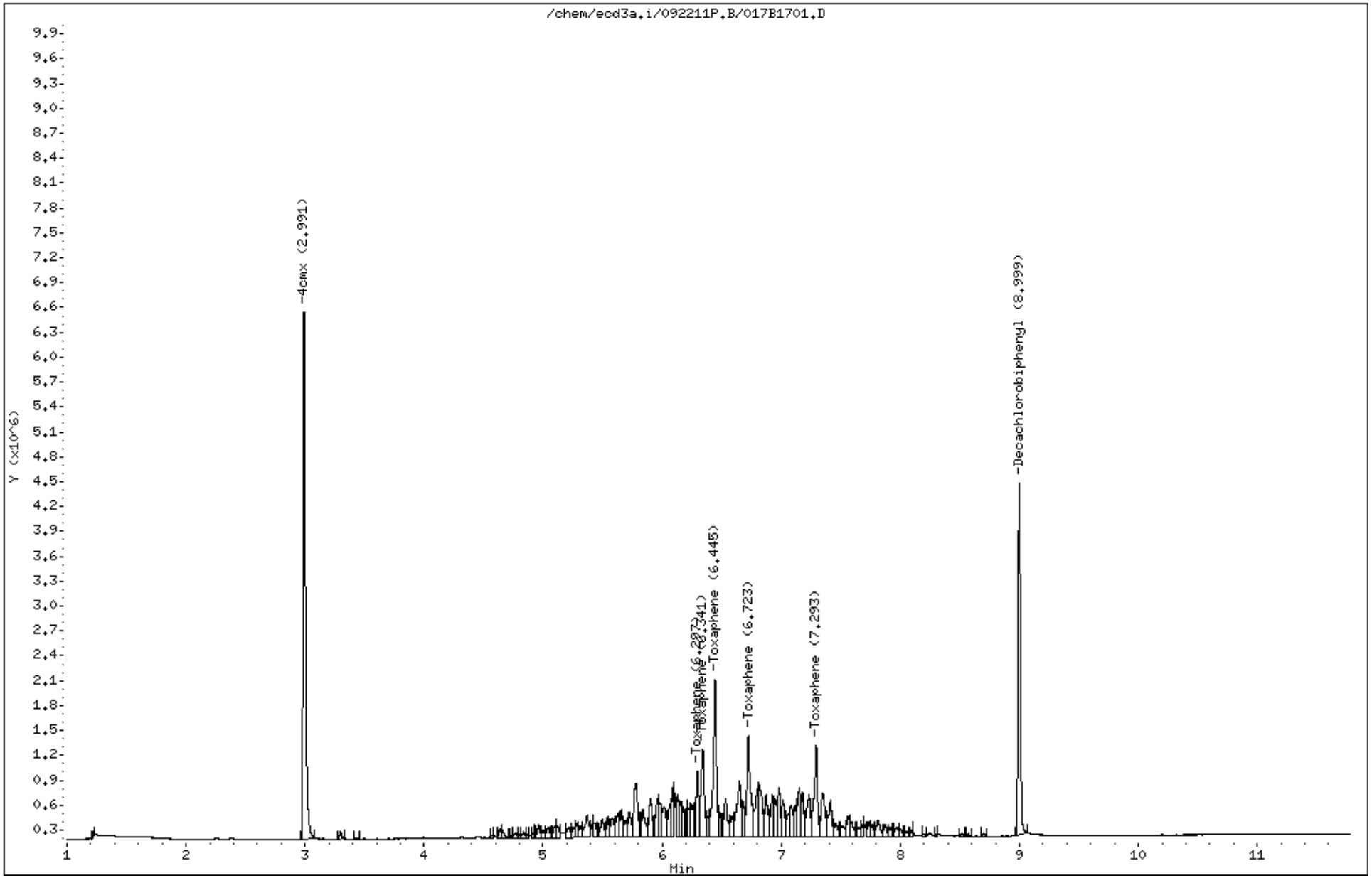
Instrument: ecd3a.i

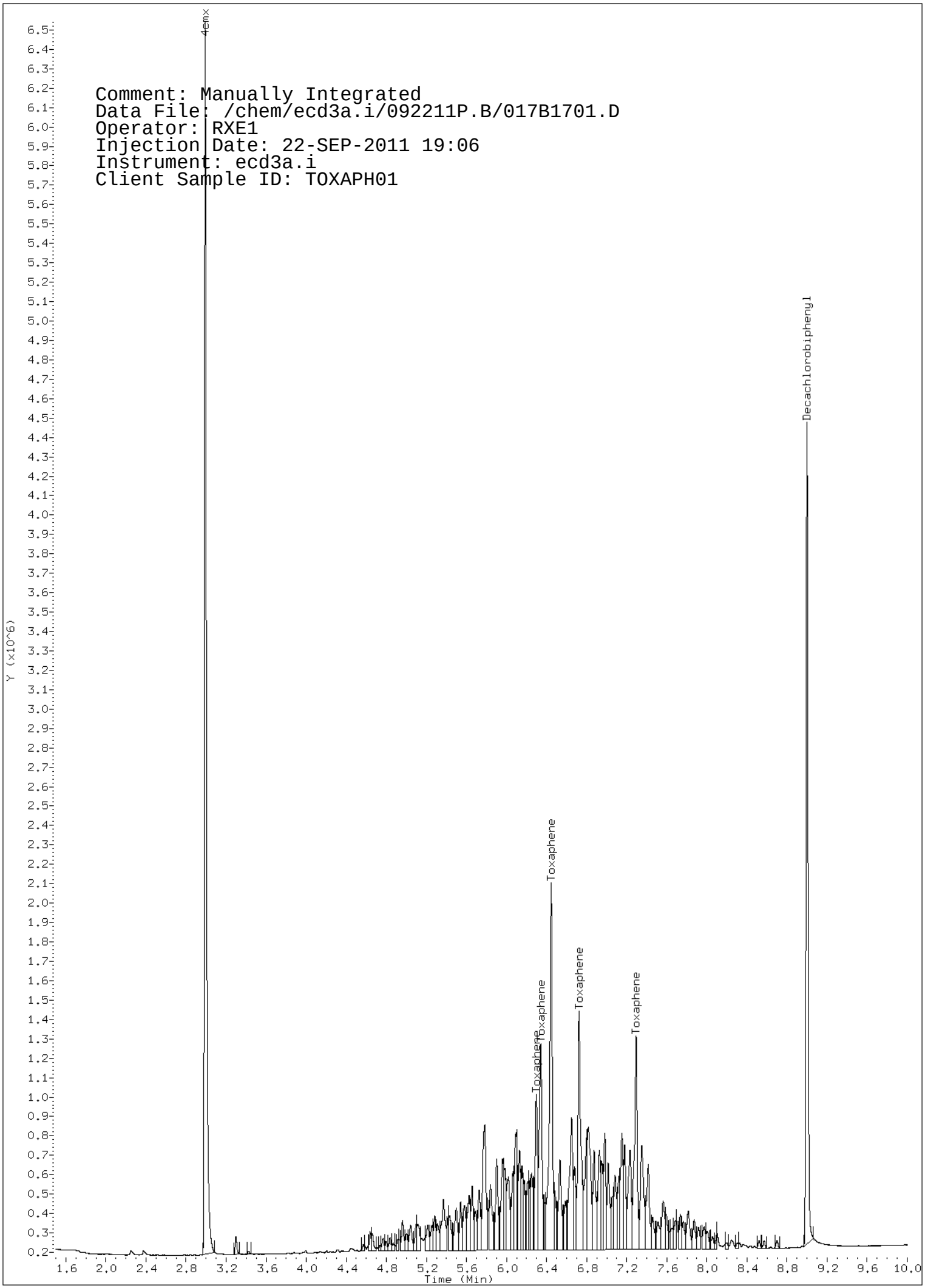
Sample Info: IWPE110906-52TX

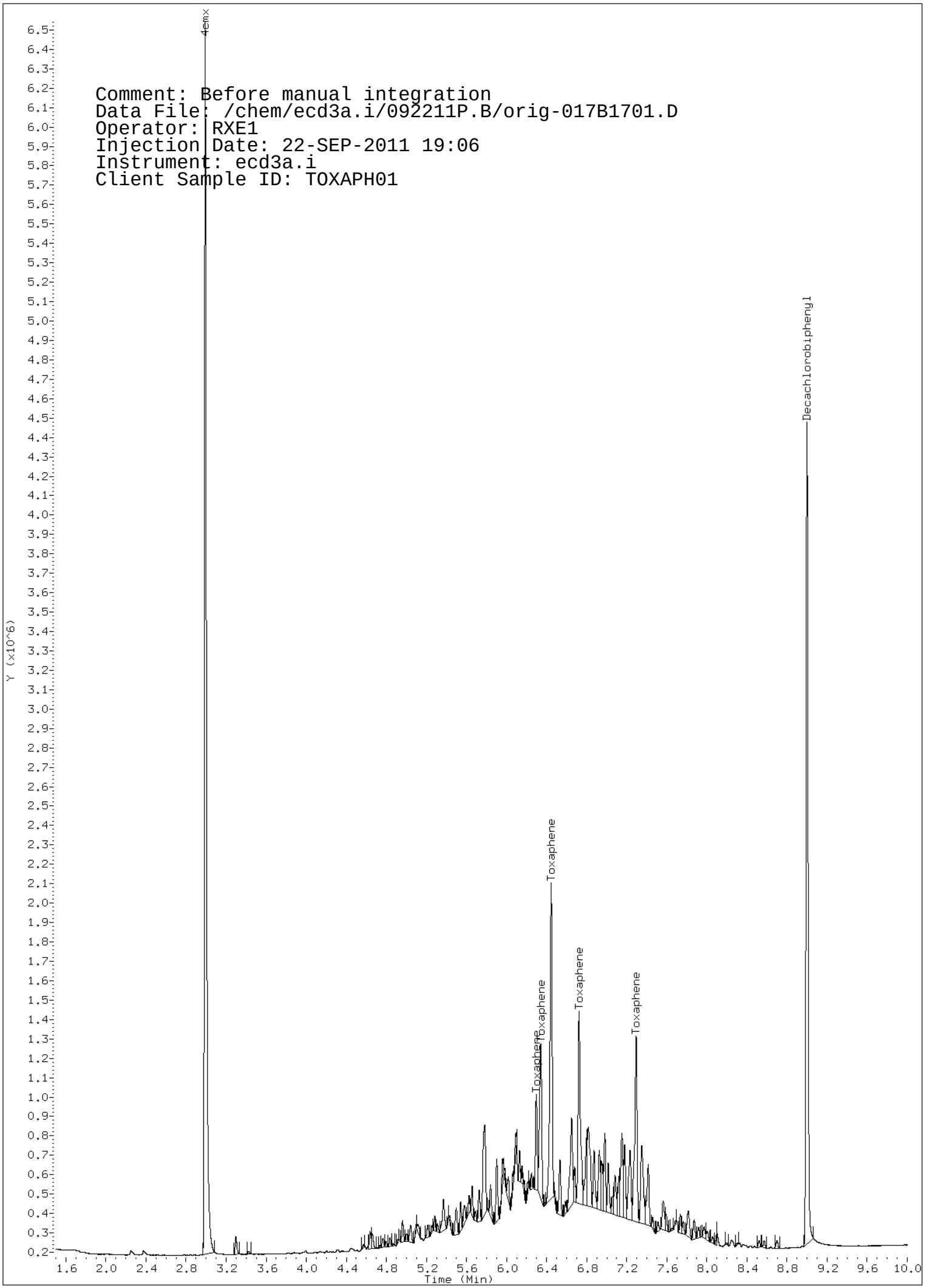
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/017B1701.D
Operator: RXE1
Injection Date: 22-SEP-2011 19:06
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-017B1701.D
Operator: RXE1
Injection Date: 22-SEP-2011 19:06
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
4emx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-1

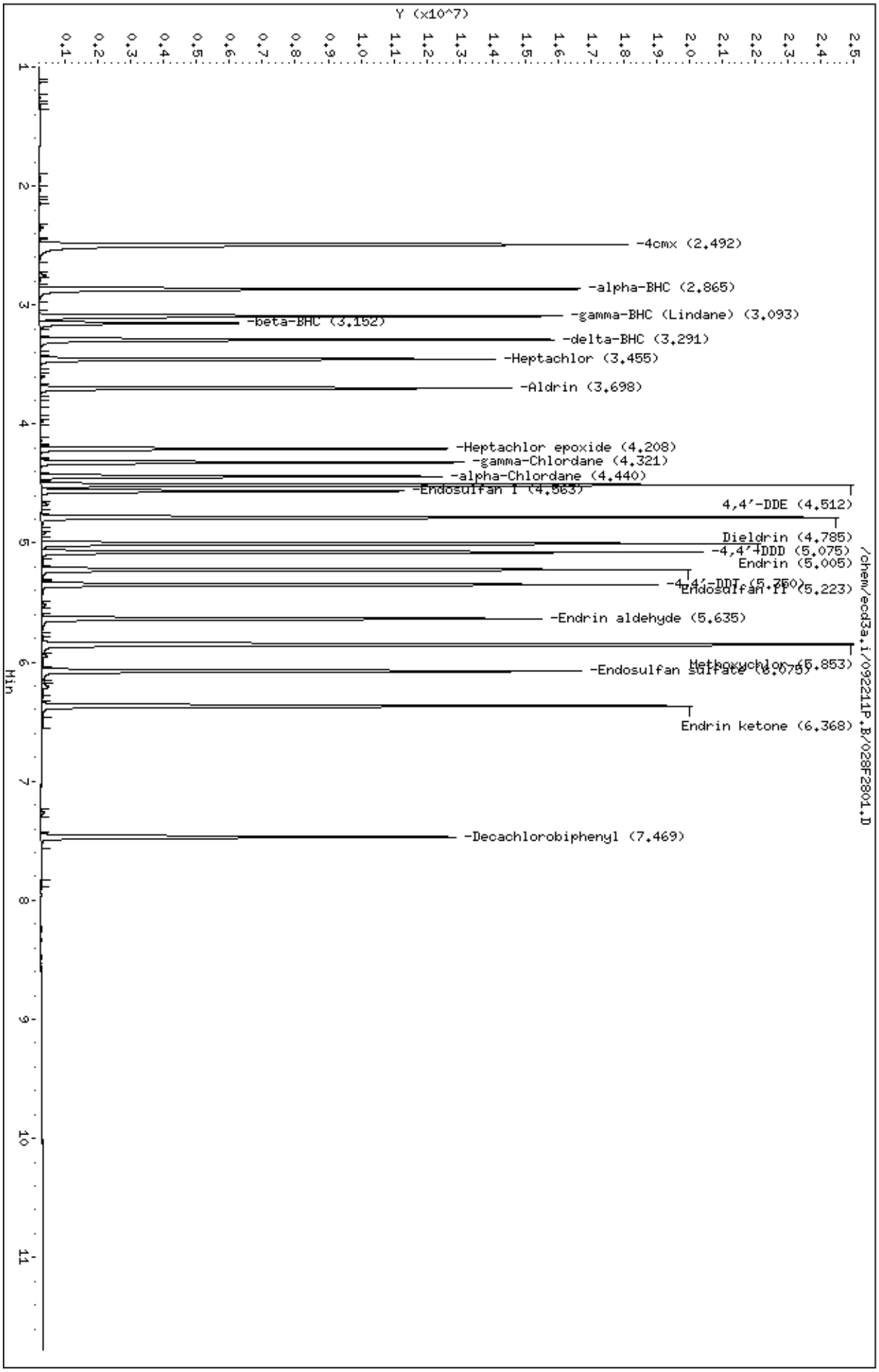
Data file : /chem/ecd3a.i/092211P.B/028F2801.D
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 22-SEP-2011 21:57
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.865	2.863	0.002	19494627	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.093	3.091	0.002	17918590	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.152	3.151	0.001	6826657	100.000	92.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.455	3.454	0.001	14886752	100.000	113	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.291	3.289	0.002	17217732	100.000	107	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.698	3.698	0.000	15511933	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	13490754	100.000	98.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.321	4.320	0.001	14164691	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.440	4.439	0.001	13381073	100.000	102	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  4.563   4.562   0.001        12357799 100.000      102  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  4.512   4.511   0.001        26491470 200.000      210  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  4.785   4.784   0.001        27575269 200.000      207  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.005   5.005   0.000        25082996 200.000      223  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  5.075   5.075   0.000        21682439 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  5.223   5.223   0.000        22665127 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  5.635   5.635   0.000        18450087 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  5.350   5.350   0.000        21090120 200.000      223  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.075   6.075   0.000        19474401 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  5.853   5.853   0.000        45263941 1000.00     1020  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  6.368   6.368   0.000        24039288 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.492   2.490   0.002        25966942 200.000      195  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  7.469   7.470  -0.001        16072741 200.000      186  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/092211P.B/028F2801.D
Date : 22-SEP-2011 21:57
Client ID: INDAB02
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/028B2801.D
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 22-SEP-2011 21:57
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.497	3.497	0.000	7084997	100.000	110	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.815	3.814	0.001	6468578	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.876	3.875	0.001	2634630	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.233	4.234	-0.001	4635856	100.000	110	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.155	4.155	0.000	5910668	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.553	4.553	0.000	5448795	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.112	5.113	-0.001	4661651	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	4849388	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.454	5.453	0.001	4661447	100.000	103	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.521	5.520	0.001	4211024	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.609	5.609	0.000	8333873	200.000	245	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.805	5.805	0.000	8396940	200.000	214	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.130	6.130	0.000	6819775	200.000	226	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.223	6.223	0.000	5589320	200.000	243	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.354	6.355	-0.001	7431476	200.000	210	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.715	6.716	-0.001	5856975	200.000	207	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.565	6.565	0.000	6666668	200.000	244	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.018	7.018	0.000	6035139	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.315	7.314	0.001	9905794	1000.00	1110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.620	7.620	0.000	7294834	200.000	202	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	9788705	200.000	208	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.997	8.999	-0.002	6537808	200.000	207	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/092211P.B/028B2801.D

Page 1

Date : 22-SEP-2011 21:57

Client ID: INDAB02

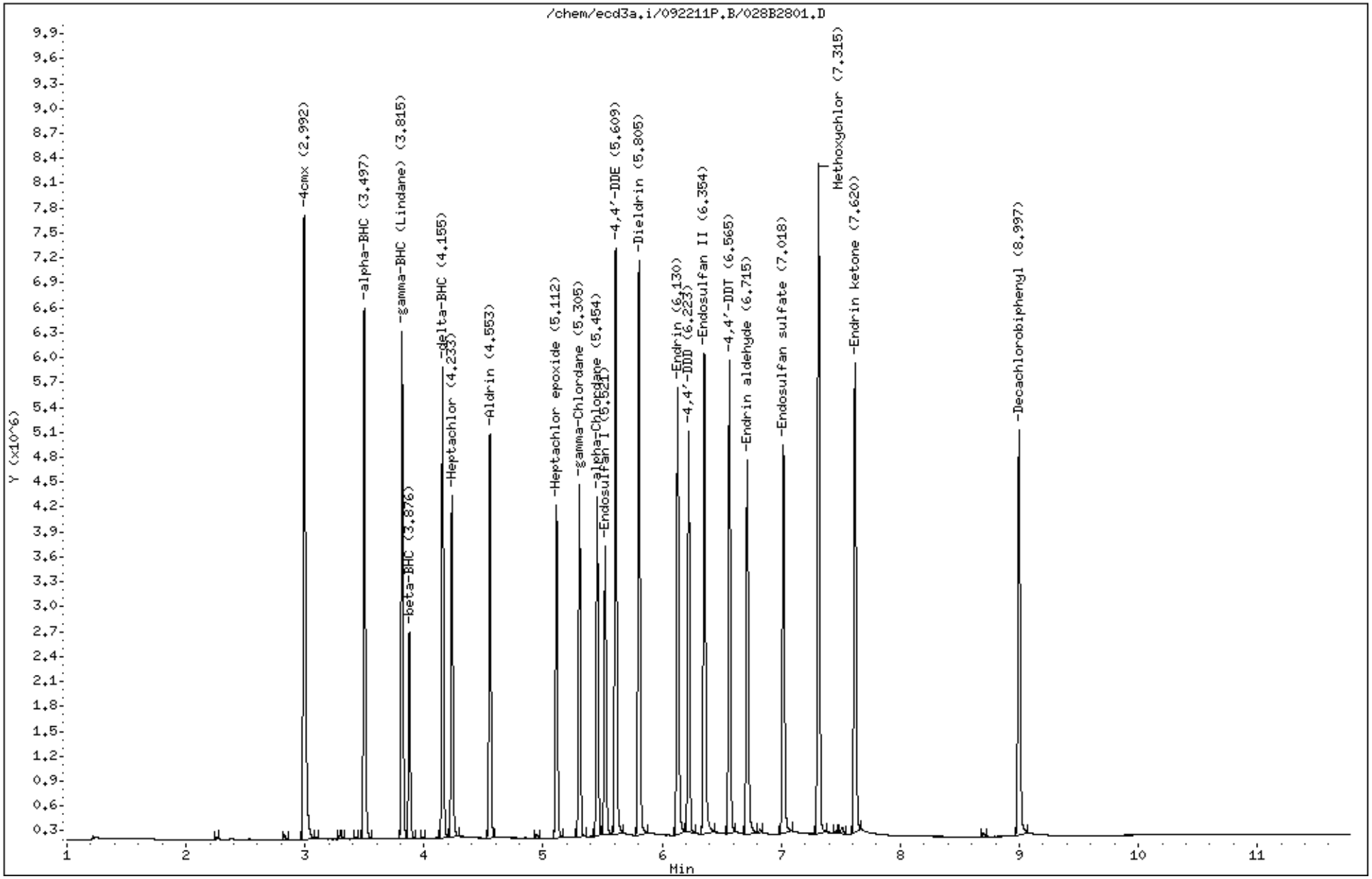
Instrument: ecd3a.i

Sample Info: IWPE110812-10AB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3620

GC Column: CLP-1

Instrument ID: ECD3A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.49 2.46 2.52 #	7.47 7.44 7.5 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001F0101.D	PIBLK01	WAR110902-99IB	22-SEP-11 14:53	2.49	7.47
002F0201.D	PEM01	WPE110829-99DG	22-SEP-11 15:09	2.49	7.47
003F0301.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 15:24	2.49	7.47
004F0401.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 15:40	2.49	7.47
005F0501.D	CHLOR01	WPE110724-00CL	22-SEP-11 15:55	2.49	7.47
006F0601.D	INDAB01	WPE110921-01AB	22-SEP-11 16:16	2.49	7.48
007F0701.D	INDAB02	WPE110921-02AB	22-SEP-11 16:32	2.49	7.47
008F0801.D	INDAB03	WPE110921-03AB	22-SEP-11 16:47	2.49	7.47
009F0901.D	INDAB04	WPE110921-04AB	22-SEP-11 17:03	2.49	7.47
010F1001.D	INDAB05	IPE110801-02AB	22-SEP-11 17:18	2.49	7.47
011F1101.D	INDAB01	WPE110812-10AB	22-SEP-11 17:34	2.49	7.47
012F1201.D	TOXAPH01	WPE110922-11TX	22-SEP-11 17:49	2.49	7.47
013F1301.D	TOXAPH02	WPE110922-12TX	22-SEP-11 18:05	2.49	7.47
014F1401.D	TOXAPH03	WPE110922-13TX	22-SEP-11 18:20	2.49	7.47
015F1501.D	TOXAPH04	WPE110922-14TX	22-SEP-11 18:35	2.49	7.47
016F1601.D	TOXAPH05	IPE110818-40TX	22-SEP-11 18:51	2.49	7.47
017F1701.D	TOXAPH01	WPE110906-52TX	22-SEP-11 19:06	2.49	7.47
018F1801.D	GAPA01	WPE110809-05GA	22-SEP-11 19:22	2.49	7.47
019F1901.D	PIBLK02	WAR110902-99IB	22-SEP-11 19:37	2.49	7.47
020F2001.D	PBLK01	1202491869	22-SEP-11 19:53	2.49	7.47
021F2101.D	BLK01LCS	1202491870	22-SEP-11 20:08	2.49	7.47
022F2201.D	BLK01TLCS	1202492191	22-SEP-11 20:24	2.49	7.47
023F2301.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 20:39	2.49	7.47
024F2401.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 20:55	2.49	7.47
025F2501.D	NPDES13S-11-26994	286171002	22-SEP-11 21:10	2.49	7.47
026F2601.D	NPDES13S-11-26994MS	1202491871	22-SEP-11 21:26	2.5	7.47
027F2701.D	NPDES13S-11-26994MS	1202491872	22-SEP-11 21:41	2.49	7.47
028F2801.D	INDAB02	WPE110812-10AB	22-SEP-11 21:57	2.49	7.47
029F2901.D	PIBLK03	WAR110902-99IB	22-SEP-11 22:12	2.49	7.47

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3620

GC Column: CLP-2

Instrument ID: ECD3A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				2.99	9
RT Range Based on Calibration Verification:				2.96 3.02 #	8.97 9.03 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001B0101.D	PIBLK01	WAR110902-99IB	22-SEP-11 14:53	2.99	9
002B0201.D	PEM01	WPE110829-99DG	22-SEP-11 15:09	2.99	9
003B0301.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 15:24	2.99	9
004B0401.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 15:40	2.99	9
005B0501.D	CHLOR01	WPE110724-00CL	22-SEP-11 15:55	2.99	9
006B0601.D	INDAB01	WPE110921-01AB	22-SEP-11 16:16	2.99	9
007B0701.D	INDAB02	WPE110921-02AB	22-SEP-11 16:32	2.99	9
008B0801.D	INDAB03	WPE110921-03AB	22-SEP-11 16:47	2.99	9
009B0901.D	INDAB04	WPE110921-04AB	22-SEP-11 17:03	2.99	9
010B1001.D	INDAB05	IPE110801-02AB	22-SEP-11 17:18	2.99	9
011B1101.D	INDAB01	WPE110812-10AB	22-SEP-11 17:34	2.99	9
012B1201.D	TOXAPH01	WPE110922-11TX	22-SEP-11 17:49	2.99	9
013B1301.D	TOXAPH02	WPE110922-12TX	22-SEP-11 18:05	2.99	9
014B1401.D	TOXAPH03	WPE110922-13TX	22-SEP-11 18:20	2.99	9
015B1501.D	TOXAPH04	WPE110922-14TX	22-SEP-11 18:35	2.99	9
016B1601.D	TOXAPH05	IPE110818-40TX	22-SEP-11 18:51	2.99	9
017B1701.D	TOXAPH01	WPE110906-52TX	22-SEP-11 19:06	2.99	9
018B1801.D	GAPA01	WPE110809-05GA	22-SEP-11 19:22	2.99	9
019B1901.D	PIBLK02	WAR110902-99IB	22-SEP-11 19:37	2.99	9
020B2001.D	PBLK01	1202491869	22-SEP-11 19:53	2.99	9
021B2101.D	BLK01LCS	1202491870	22-SEP-11 20:08	2.99	9
022B2201.D	BLK01TLCS	1202492191	22-SEP-11 20:24	2.99	9
023B2301.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 20:39	2.99	9
024B2401.D	ZZZZZZZ	ZZZZZZZ	22-SEP-11 20:55	2.99	9
025B2501.D	NPDES13S-11-26994	286171002	22-SEP-11 21:10	2.99	9
026B2601.D	NPDES13S-11-26994MS	1202491871	22-SEP-11 21:26	2.99	9
027B2701.D	NPDES13S-11-26994MS	1202491872	22-SEP-11 21:41	2.99	9
028B2801.D	INDAB02	WPE110812-10AB	22-SEP-11 21:57	2.99	9
029B2901.D	PIBLK03	WAR110902-99IB	22-SEP-11 22:12	2.99	9

Column used to flag retention time values with an asterisk.

Identification Summary

SDG Number: 11-3620 **Client ID:** LCS for batch 1143357

Lab Sample ID: 1202491870

Data File:	021F2101.d	**Data File:**	021B2101.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 20:08	**Analyzed:**	22-SEP-11 20:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							5.86
Column 1	1	2.87	2.83 - 2.89	.656		ug/L	
Column 2	1	3.5	3.47 - 3.53	.619		ug/L	
gamma-BHC (Lindane)							6.09
Column 1	1	3.09	3.06 - 3.12	.661		ug/L	
Column 2	1	3.81	3.78 - 3.84	.622		ug/L	
beta-BHC							2.96
Column 1	1	3.15	3.12 - 3.18	.596		ug/L	
Column 2	1	3.88	3.84 - 3.9	.579		ug/L	
Methoxychlor							.471
Column 1	1	5.85	5.82 - 5.88	6.55		ug/L	
Column 2	1	7.31	7.28 - 7.34	6.52		ug/L	
delta-BHC							1.23
Column 1	1	3.29	3.26 - 3.32	.653		ug/L	
Column 2	1	4.16	4.12 - 4.18	.645		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** LCS for batch 1143357

Lab Sample ID: 1202491870

Data File:	021F2101.d	**Data File:**	021B2101.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 20:08	**Analyzed:**	22-SEP-11 20:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Heptachlor							13.1
Column 1	1	3.46	3.42 - 3.48	.707		ug/L	
Column 2	1	4.23	4.2 - 4.26	.62		ug/L	
Aldrin							5.04
Column 1	1	3.7	3.67 - 3.73	.628		ug/L	
Column 2	1	4.55	4.52 - 4.58	.597		ug/L	
Heptachlor epoxide							4.11
Column 1	1	4.21	4.18 - 4.24	.647		ug/L	
Column 2	1	5.11	5.08 - 5.14	.62		ug/L	
gamma-Chlordane							3.12
Column 1	1	4.32	4.29 - 4.35	.685		ug/L	
Column 2	1	5.3	5.28 - 5.34	.664		ug/L	
alpha-Chlordane							2
Column 1	1	4.44	4.41 - 4.47	.722		ug/L	
Column 2	1	5.45	5.42 - 5.48	.707		ug/L	

Identification Summary

SDG Number: **11-3620** **Client ID:** **LCS for batch 1143357**

Lab Sample ID: **1202491870**

Data File:	**021F2101.d**	**Data File:**	**021B2101.d**
Inst:	**ECD3A.I_1**	**Inst:**	**ECD3A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**22-SEP-11 20:08**	**Analyzed:**	**22-SEP-11 20:08**

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan I								2.23
	Column 1	1	4.56	4.53 - 4.59	.594		ug/L	
	Column 2	1	5.52	5.49 - 5.55	.581		ug/L	
4,4'-DDE								3.69
	Column 1	1	4.51	4.48 - 4.54	1.6		ug/L	
	Column 2	1	5.61	5.58 - 5.64	1.66		ug/L	
Dieldrin								3.01
	Column 1	1	4.78	4.75 - 4.81	1.66		ug/L	
	Column 2	1	5.81	5.78 - 5.84	1.61		ug/L	
Endrin								6.65
	Column 1	1	5	4.98 - 5.04	1.75		ug/L	
	Column 2	1	6.13	6.1 - 6.16	1.63		ug/L	
4,4'-DDD								.306
	Column 1	1	5.07	5.05 - 5.11	1.7		ug/L	
	Column 2	1	6.22	6.19 - 6.25	1.71		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** LCS for batch 1143357

Lab Sample ID: 1202491870

Data File:	021F2101.d	**Data File:**	021B2101.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 20:08	**Analyzed:**	22-SEP-11 20:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan II							4
Column 1	1	5.22	5.19 - 5.25	1.53		ug/L	
Column 2	1	6.35	6.32 - 6.38	1.47		ug/L	
Endrin aldehyde							.565
Column 1	1	5.63	5.61 - 5.67	1.53		ug/L	
Column 2	1	6.71	6.69 - 6.75	1.52		ug/L	
4,4'-DDT							4.21
Column 1	1	5.35	5.32 - 5.38	1.75		ug/L	
Column 2	1	6.56	6.54 - 6.6	1.68		ug/L	
Endosulfan sulfate							7.73
Column 1	1	6.07	6.05 - 6.11	1.84		ug/L	
Column 2	1	7.02	6.99 - 7.05	1.7		ug/L	
Endrin ketone							7.58
Column 1	1	6.37	6.34 - 6.4	1.81		ug/L	
Column 2	1	7.62	7.59 - 7.65	1.68		ug/L	

Identification Summary

SDG Number: **11-3620**

Client ID: **LCS for batch 1143357**

Lab Sample ID: **1202492191**

Data File:	**022F2201.d**	**Data File:**	**022B2201.d**
Inst:	**ECD3A.I_1**	**Inst:**	**ECD3A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**22-SEP-11 20:24**	**Analyzed:**	**22-SEP-11 20:24**

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							1.1
Column 1	1	5.21	5.18 - 5.24	5.48		ug/L	
	2	5.33	5.3 - 5.36	5.41		ug/L	
	3	5.55	5.52 - 5.58	5.46		ug/L	
	4	5.88	5.85 - 5.91	5.18		ug/L	
	5	5.98	5.95 - 6.01	5.58		ug/L	
					5.42		
Column 2	1	6.3	6.27 - 6.33	5.23		ug/L	
	2	6.34	6.31 - 6.37	5.45		ug/L	
	3	6.44	6.41 - 6.47	5.36		ug/L	
	4	6.72	6.69 - 6.75	5.45		ug/L	
	5	7.29	7.26 - 7.32	5.32		ug/L	
					5.36		

Identification Summary

SDG Number: 11-3620 **Client ID:** NPDES13S-11-26994MS

Lab Sample ID: 1202491871

Data File:	026F2601.d	**Data File:**	026B2601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 21:26	**Analyzed:**	22-SEP-11 21:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							14.4
Column 1	1	2.87	2.83 - 2.89	.421		ug/L	
Column 2	1	3.5	3.47 - 3.53	.486		ug/L	
gamma-BHC (Lindane)							11.4
Column 1	1	3.09	3.06 - 3.12	.552		ug/L	
Column 2	1	3.81	3.78 - 3.84	.493		ug/L	
beta-BHC							83.8
Column 1	1	3.15	3.12 - 3.18	.398		ug/L	
Column 2	1	3.87	3.84 - 3.9	.973		ug/L	
Methoxychlor							13.5
Column 1	1	5.85	5.82 - 5.88	4.08		ug/L	
Column 2	1	7.31	7.28 - 7.34	4.68		ug/L	
delta-BHC							18.5
Column 1	1	3.29	3.26 - 3.32	.438		ug/L	
Column 2	1	4.16	4.12 - 4.18	.528		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** NPDES13S-11-26994MS

Lab Sample ID: 1202491871

Data File:	026F2601.d	**Data File:**	026B2601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 21:26	**Analyzed:**	22-SEP-11 21:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Heptachlor							8.37
Column 1	1	3.46	3.42 - 3.48	.547		ug/L	
Column 2	1	4.23	4.2 - 4.26	.595		ug/L	
Aldrin							80.5
Column 1	1	3.7	3.67 - 3.73	.0136		ug/L	
Column 2	1	4.55	4.52 - 4.58	.0318		ug/L	
Heptachlor epoxide							3.61
Column 1	1	4.21	4.18 - 4.24	.472		ug/L	
Column 2	1	5.11	5.08 - 5.14	.49		ug/L	
gamma-Chlordane							7.25
Column 1	1	4.32	4.29 - 4.35	.503		ug/L	
Column 2	1	5.31	5.28 - 5.34	.541		ug/L	
alpha-Chlordane							5.32
Column 1	1	4.44	4.41 - 4.47	.508		ug/L	
Column 2	1	5.45	5.42 - 5.48	.535		ug/L	

Identification Summary

SDG Number: **11-3620** **Client ID:** **NPDES13S-11-26994MS**

Lab Sample ID: **1202491871**

Data File:	**026F2601.d**	**Data File:**	**026B2601.d**
Inst:	**ECD3A.I_1**	**Inst:**	**ECD3A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**22-SEP-11 21:26**	**Analyzed:**	**22-SEP-11 21:26**

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan I								.537
	Column 1	1	4.56	4.53 - 4.59	.439		ug/L	
	Column 2	1	5.52	5.49 - 5.55	.436		ug/L	
4,4'-DDE								17.3
	Column 1	1	4.51	4.48 - 4.54	1.12		ug/L	
	Column 2	1	5.61	5.58 - 5.64	1.33		ug/L	
Dieldrin								1.73
	Column 1	1	4.78	4.75 - 4.81	1.23		ug/L	
	Column 2	1	5.81	5.78 - 5.84	1.25		ug/L	
Endrin								1.77
	Column 1	1	5	4.98 - 5.04	1.31		ug/L	
	Column 2	1	6.13	6.1 - 6.16	1.34		ug/L	
4,4'-DDD								14.7
	Column 1	1	5.07	5.05 - 5.11	1.24		ug/L	
	Column 2	1	6.22	6.19 - 6.25	1.43		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** NPDES13S-11-26994MS

Lab Sample ID: 1202491871

Data File:	026F2601.d	**Data File:**	026B2601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 21:26	**Analyzed:**	22-SEP-11 21:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan II							2.51
Column 1	1	5.22	5.19 - 5.25	1.12		ug/L	
Column 2	1	6.35	6.32 - 6.38	1.15		ug/L	
Endrin aldehyde							1.78
Column 1	1	5.63	5.61 - 5.67	.886		ug/L	
Column 2	1	6.71	6.69 - 6.75	.902		ug/L	
4,4'-DDT							5.23
Column 1	1	5.35	5.32 - 5.38	1.33		ug/L	
Column 2	1	6.56	6.54 - 6.6	1.4		ug/L	
Endosulfan sulfate							6.89
Column 1	1	6.07	6.05 - 6.11	1.44		ug/L	
Column 2	1	7.02	6.99 - 7.05	1.34		ug/L	
Endrin ketone							.0566
Column 1	1	6.37	6.34 - 6.4	1.36		ug/L	
Column 2	1	7.62	7.59 - 7.65	1.36		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** NPDES13S-11-26994MSD

Lab Sample ID: 1202491872

Data File:	027F2701.d	**Data File:**	027B2701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 21:41	**Analyzed:**	22-SEP-11 21:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							1.71
Column 1	1	2.87	2.83 - 2.89	.656		ug/L	
Column 2	1	3.5	3.47 - 3.53	.645		ug/L	
gamma-BHC (Lindane)							23
Column 1	1	3.09	3.06 - 3.12	.813		ug/L	
Column 2	1	3.82	3.78 - 3.84	.645		ug/L	
beta-BHC							65.6
Column 1	1	3.15	3.12 - 3.18	.628		ug/L	
Column 2	1	3.87	3.84 - 3.9	1.24		ug/L	
delta-BHC							4.25
Column 1	1	3.29	3.26 - 3.32	.688		ug/L	
Column 2	1	4.16	4.12 - 4.18	.717		ug/L	
Methoxychlor							17.1
Column 1	1	5.85	5.82 - 5.88	5.72		ug/L	
Column 2	1	7.31	7.28 - 7.34	6.79		ug/L	

Identification Summary

SDG Number: **11-3620** **Client ID:** **NPDES13S-11-26994MSD**

Lab Sample ID: **1202491872**

Data File:	**027F2701.d**	**Data File:**	**027B2701.d**
Inst:	**ECD3A.I_1**	**Inst:**	**ECD3A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**22-SEP-11 21:41**	**Analyzed:**	**22-SEP-11 21:41**

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Heptachlor							3.3
Column 1	1	3.46	3.42 - 3.48	.846		ug/L	
Column 2	1	4.23	4.2 - 4.26	.819		ug/L	
Aldrin							28.1
Column 1	1	3.7	3.67 - 3.73	.0477		ug/L	
Column 2	1	4.55	4.52 - 4.58	.0633		ug/L	
Heptachlor epoxide							.599
Column 1	1	4.21	4.18 - 4.24	.663		ug/L	
Column 2	1	5.11	5.08 - 5.14	.659		ug/L	
gamma-Chlordane							1.21
Column 1	1	4.32	4.29 - 4.35	.717		ug/L	
Column 2	1	5.3	5.28 - 5.34	.726		ug/L	
alpha-Chlordane							2.12
Column 1	1	4.44	4.41 - 4.47	.721		ug/L	
Column 2	1	5.45	5.42 - 5.48	.737		ug/L	

Identification Summary

SDG Number: **11-3620** **Client ID:** **NPDES13S-11-26994MSD**

Lab Sample ID: **1202491872**

Data File:	**027F2701.d**	**Data File:**	**027B2701.d**
Inst:	**ECD3A.I_1**	**Inst:**	**ECD3A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**22-SEP-11 21:41**	**Analyzed:**	**22-SEP-11 21:41**

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan I								4.23
	Column 1	1	4.56	4.53 - 4.59	.619		ug/L	
	Column 2	1	5.52	5.49 - 5.55	.593		ug/L	
4,4'-DDE								15.5
	Column 1	1	4.51	4.48 - 4.54	1.6		ug/L	
	Column 2	1	5.61	5.58 - 5.64	1.87		ug/L	
Dieldrin								.748
	Column 1	1	4.78	4.75 - 4.81	1.71		ug/L	
	Column 2	1	5.81	5.78 - 5.84	1.72		ug/L	
Endrin								.385
	Column 1	1	5	4.98 - 5.04	1.83		ug/L	
	Column 2	1	6.13	6.1 - 6.16	1.82		ug/L	
4,4'-DDD								13.5
	Column 1	1	5.07	5.05 - 5.11	1.76		ug/L	
	Column 2	1	6.22	6.19 - 6.25	2.01		ug/L	

Identification Summary

SDG Number: 11-3620 **Client ID:** NPDES13S-11-26994MSD

Lab Sample ID: 1202491872

Data File:	027F2701.d	**Data File:**	027B2701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	22-SEP-11 21:41	**Analyzed:**	22-SEP-11 21:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan II							.0446
Column 1	1	5.22	5.19 - 5.25	1.57		ug/L	
Column 2	1	6.35	6.32 - 6.38	1.57		ug/L	
Endrin aldehyde							7.65
Column 1	1	5.63	5.61 - 5.67	1.42		ug/L	
Column 2	1	6.71	6.69 - 6.75	1.53		ug/L	
4,4'-DDT							3.8
Column 1	1	5.35	5.32 - 5.38	1.85		ug/L	
Column 2	1	6.56	6.54 - 6.6	1.92		ug/L	
Endosulfan sulfate							5.8
Column 1	1	6.07	6.05 - 6.11	1.98		ug/L	
Column 2	1	7.02	6.99 - 7.05	1.86		ug/L	
Endrin ketone							2.03
Column 1	1	6.36	6.34 - 6.4	1.88		ug/L	
Column 2	1	7.62	7.59 - 7.65	1.85		ug/L	

QC Data

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202491869**				
Client Sample:	**QC for batch 1143357**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1143357**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 19:53**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**020F2001.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	020B2001.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.00665	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.00665	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.00665	0.020	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
319-86-8	delta-BHC	U	0.020	ug/L	0.00665	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.00665	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.00665	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.00665	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.00665	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.00665	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.00665	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.010	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.00665	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
Decachlorobiphenyl	1.12	1.00	ug/L	112		(23%-119%)
4cmx	1.11	1.00	ug/L	111	*	(21%-109%)

GEL Laboratories LLC

CLP-1

```
Data file : /chem/ecd3a.i/092211P.B/020F2001.D
Lab Smp Id: 1202491869                    Client Smp ID: PBLK01
Inj Date  : 22-SEP-2011 19:53
Operator  : RXE1                          Inst ID: ecd3a.i
Smp Info  : |1202491869|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MB|||
Comment   :
Method    : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393    Quant Type: ESTD
Cal Date  : 30-NOV-2010 06:46             Cal File: 036f3601.d
Als bottle: 20                            QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3620.sub
Target Version:  3.50                     Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.492	2.490	0.002	29844274	224.289	1.12	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.468	7.470	-0.002	19339814	224.060	1.12	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/020F2001.D

Page 1

Date : 22-SEP-2011 19:53

Client ID: PBLK01

Instrument: ecd3a.i

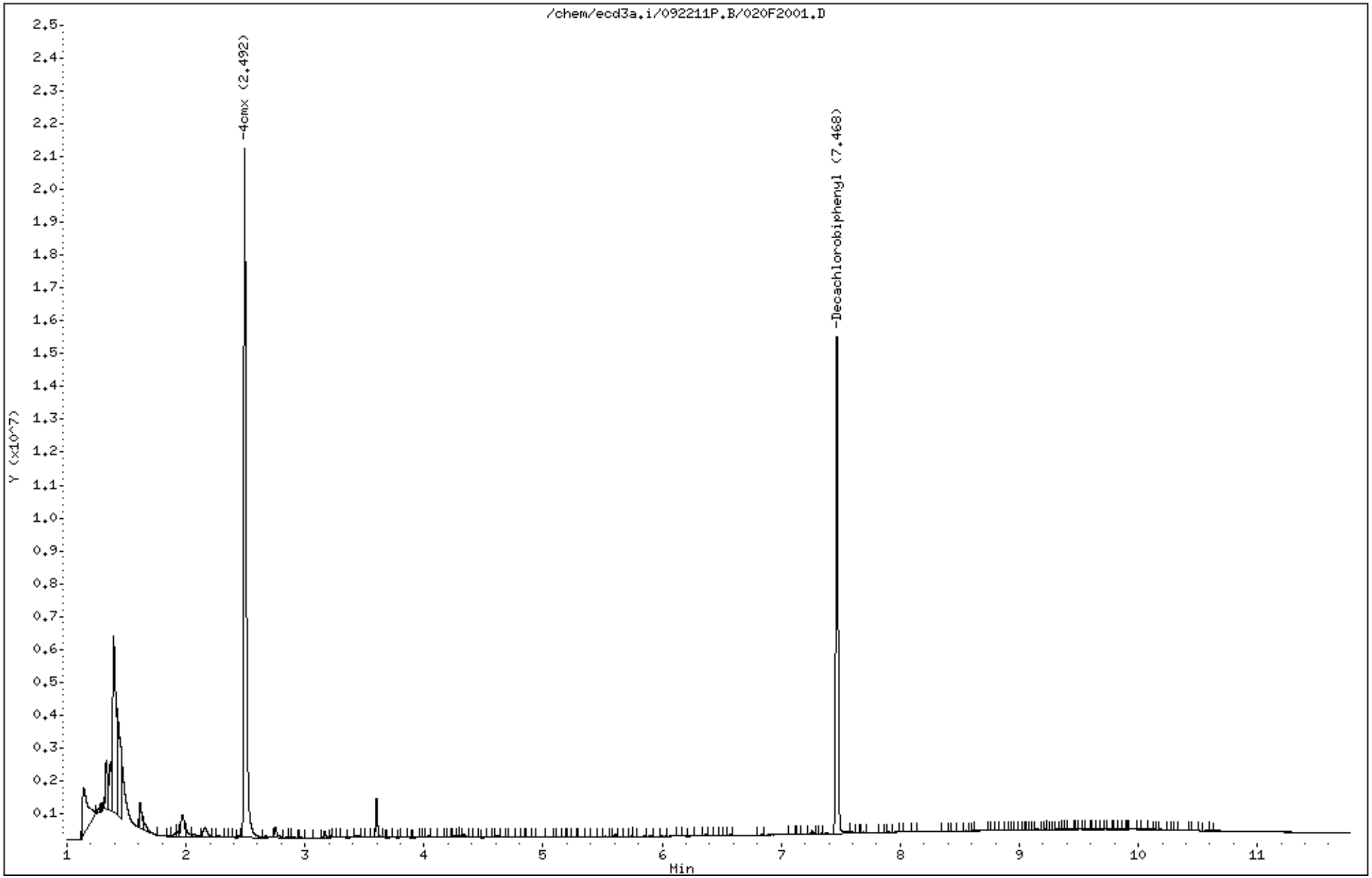
Sample Info: |1202491869|1|

Volume Injected (uL): 1.0

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

```
Data file : /chem/ecd3a.i/092211P.B/020B2001.D
Lab Smp Id: 1202491869                    Client Smp ID: PBLK01
Inj Date  : 22-SEP-2011 19:53
Operator  : RXE1                          Inst ID: ecd3a.i
Smp Info  : |1202491869|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MB|||
Comment   :
Method    : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393    Quant Type: ESTD
Cal Date  : 30-NOV-2010 06:46             Cal File: 036b3601.d
Als bottle: 20                            QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3620.sub
Target Version:  3.50                     Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	10438158	222.226	1.11	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.997	8.999	-0.002	9123706	289.506	1.45	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/020B2001.D

Page 1

Date : 22-SEP-2011 19:53

Client ID: PBLK01

Instrument: ecd3a.i

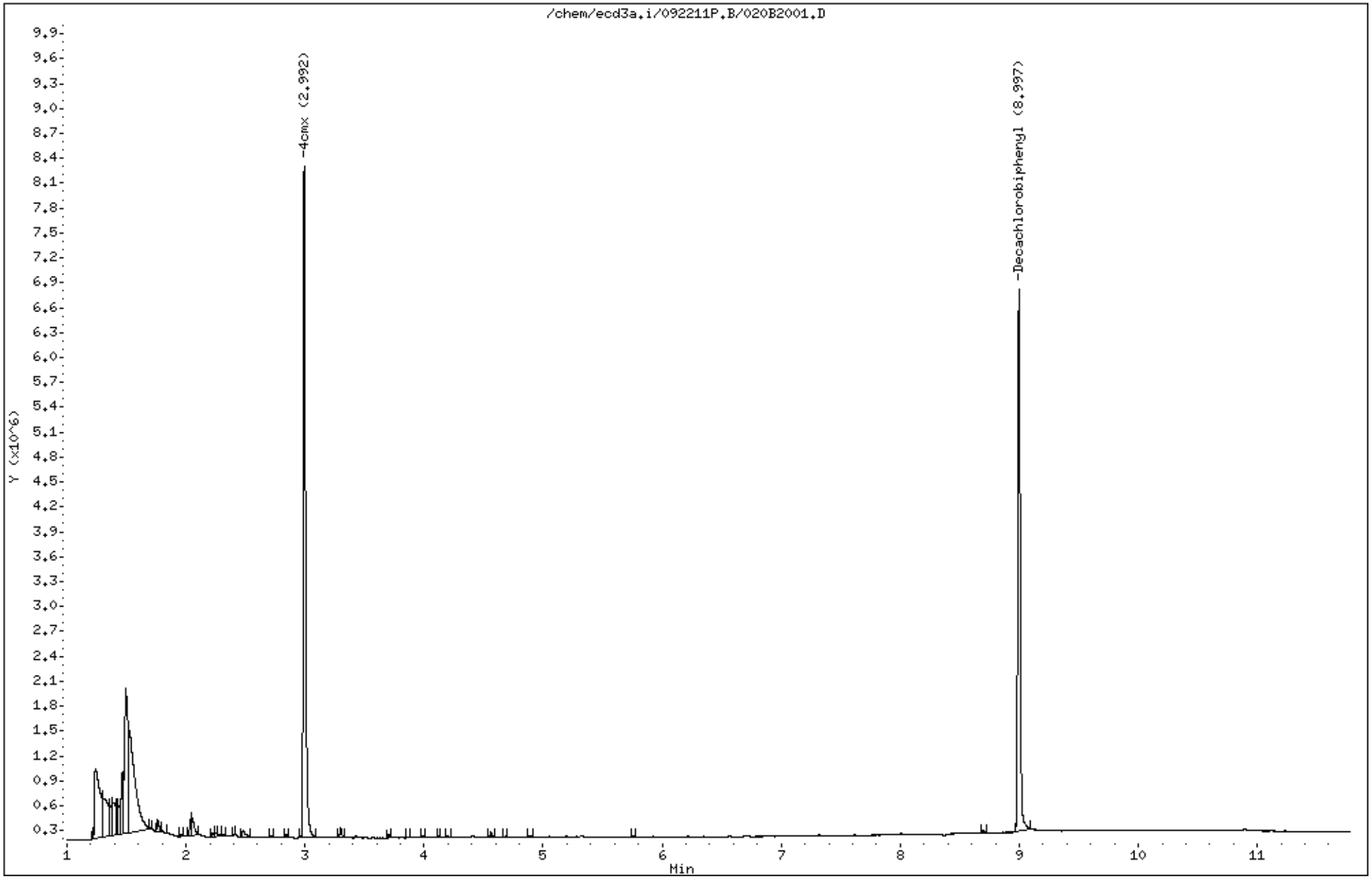
Sample Info: |1202491869|1|

Volume Injected (uL): 1.0

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202491870**				
Client Sample:	**QC for batch 1143357**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143357**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 20:08**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**021F2101.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	021B2101.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.619	ug/L	0.00665	0.020	2
58-89-9	gamma-BHC (Lindane)		0.622	ug/L	0.00665	0.020	2
319-85-7	beta-BHC		0.579	ug/L	0.00665	0.020	2
72-43-5	Methoxychlor		6.52	ug/L	0.050	0.200	2
319-86-8	delta-BHC		0.645	ug/L	0.00665	0.020	2
76-44-8	Heptachlor		0.620	ug/L	0.00665	0.020	2
309-00-2	Aldrin		0.597	ug/L	0.00665	0.020	2
1024-57-3	Heptachlor epoxide		0.620	ug/L	0.00665	0.020	2
5103-74-2	gamma-Chlordane		0.664	ug/L	0.00665	0.020	2
5103-71-9	alpha-Chlordane		0.707	ug/L	0.00665	0.020	2
959-98-8	Endosulfan I		0.581	ug/L	0.00665	0.020	2
72-55-9	4,4'-DDE		1.60	ug/L	0.010	0.040	1
60-57-1	Dieldrin		1.61	ug/L	0.010	0.040	2
72-20-8	Endrin		1.63	ug/L	0.010	0.040	2
72-54-8	4,4'-DDD		1.70	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II		1.47	ug/L	0.010	0.040	2
7421-93-4	Endrin aldehyde		1.52	ug/L	0.00665	0.040	2
50-29-3	4,4'-DDT		1.68	ug/L	0.010	0.040	2
1031-07-8	Endosulfan sulfate		1.70	ug/L	0.010	0.040	2
53494-70-5	Endrin ketone		1.68	ug/L	0.010	0.040	2
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.04	1.00	ug/L	104	(21%-109%)
Decachlorobiphenyl	1.04	1.00	ug/L	104	(23%-119%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/021F2101.D
Lab Smp Id: 1202491870 Client Smp ID: PBLK01LCS
Inj Date : 22-SEP-2011 20:08
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491870|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 21 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.492	2.490	0.002	27752456	208.569	1.04	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.469	7.470	-0.001	17881953	207.170	1.04	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.866	2.863	0.003	23993731	131.212	0.656	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.093	3.091	0.002	21926078	132.294	0.661	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.152	3.151	0.001	8826177	119.243	0.596	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.851	5.853	-0.002	58158723	1309.71	6.55	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.291	3.289	0.002	20994805	130.666	0.653	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.456	3.454	0.002	18573418	141.493	0.707	80.00- 120.00	100.00(R)
11 Aldrin					CAS #: 309-00-2		
3.699	3.698	0.001	19218699	125.602	0.628	80.00- 120.00	100.00(R)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	17750299	129.308	0.646	80.00- 120.00	100.00(R)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.321	4.320	0.001	18327049	137.056	0.685	80.00- 120.00	100.00(R)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.439	4.439	0.000	18898103	144.309	0.722	80.00- 120.00	100.00(R)
16 Endosulfan I					CAS #: 959-98-8		
4.562	4.562	0.000	14349562	118.809	0.594	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.511	4.511	0.000	40291072	319.218	1.60	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.784	4.784	0.000	44150835	331.898	1.66	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.004	5.005	-0.001	39240589	349.462	1.75	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.073	5.075	-0.002	34710689	340.968	1.70	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.221	5.223	-0.002	33668918	305.901	1.53	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.632	5.635	-0.003	28523846	306.201	1.53	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.348	5.350	-0.002	33043926	349.812	1.75	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.073	6.075	-0.002	33640540	368.402	1.84	80.00- 120.00	100.00(R)

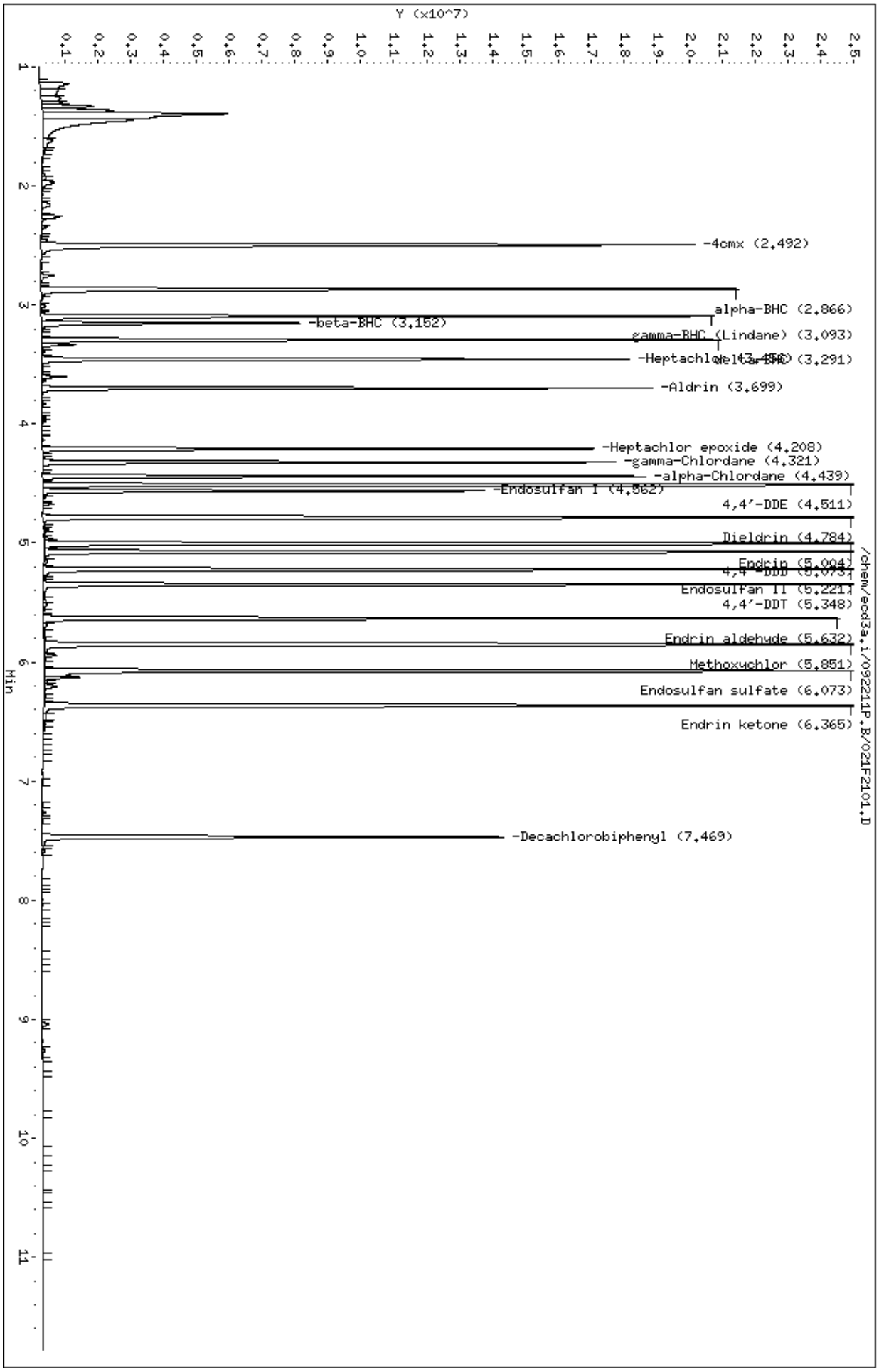
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
6.365	6.368	-0.003	43050332	362.285	1.81	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/021F2101.D
Date : 22-SEP-2011 20:08
Client ID: PBLK01LCS
Sample Info: 1120249187011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/021B2101.D
Lab Smp Id: 1202491870 Client Smp ID: PBLK01LCS
Inj Date : 22-SEP-2011 20:08
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491870|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 21 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.993	2.990	0.003	10157883	216.259	1.08	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.998	8.999	-0.001	9001819	285.638	1.43	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.498	3.497	0.001	7976273	123.745	0.619	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.815	3.814	0.001	7366534	124.478	0.622	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.876	3.875	0.001	2992536	115.759	0.579	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.313	7.314	-0.001	11591843	1303.56	6.52	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.156	4.155	0.001	6728431	129.063	0.645	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	5203239	124.050	0.620	80.00- 120.00	100.00(R)
11 Aldrin					CAS #: 309-00-2		
4.554	4.553	0.001	6434931	119.428	0.597	80.00- 120.00	100.00(R)
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	5747787	124.098	0.620	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	6055877	132.844	0.664	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.454	5.453	0.001	6383457	141.454	0.707	80.00- 120.00	100.00(R)
16 Endosulfan I					CAS #: 959-98-8		
5.521	5.520	0.001	4670222	116.183	0.581	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.610	5.609	0.001	11276104	331.229	1.66	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.805	5.805	0.000	12642364	322.066	1.61	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.130	6.130	0.000	9878311	326.959	1.63	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.221	6.223	-0.002	7851278	342.014	1.71	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.354	6.355	-0.001	10387203	293.900	1.47	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.713	6.716	-0.003	8609725	304.476	1.52	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.564	6.565	-0.001	9156311	335.375	1.68	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.018	7.018	0.000	9551799	340.986	1.70	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.619	7.620	-0.001	12093212	335.826	1.68	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/021B2101.D

Date : 22-SEP-2011 20:08

Client ID: PBLK01LCS

Sample Info: |1202491870|1|

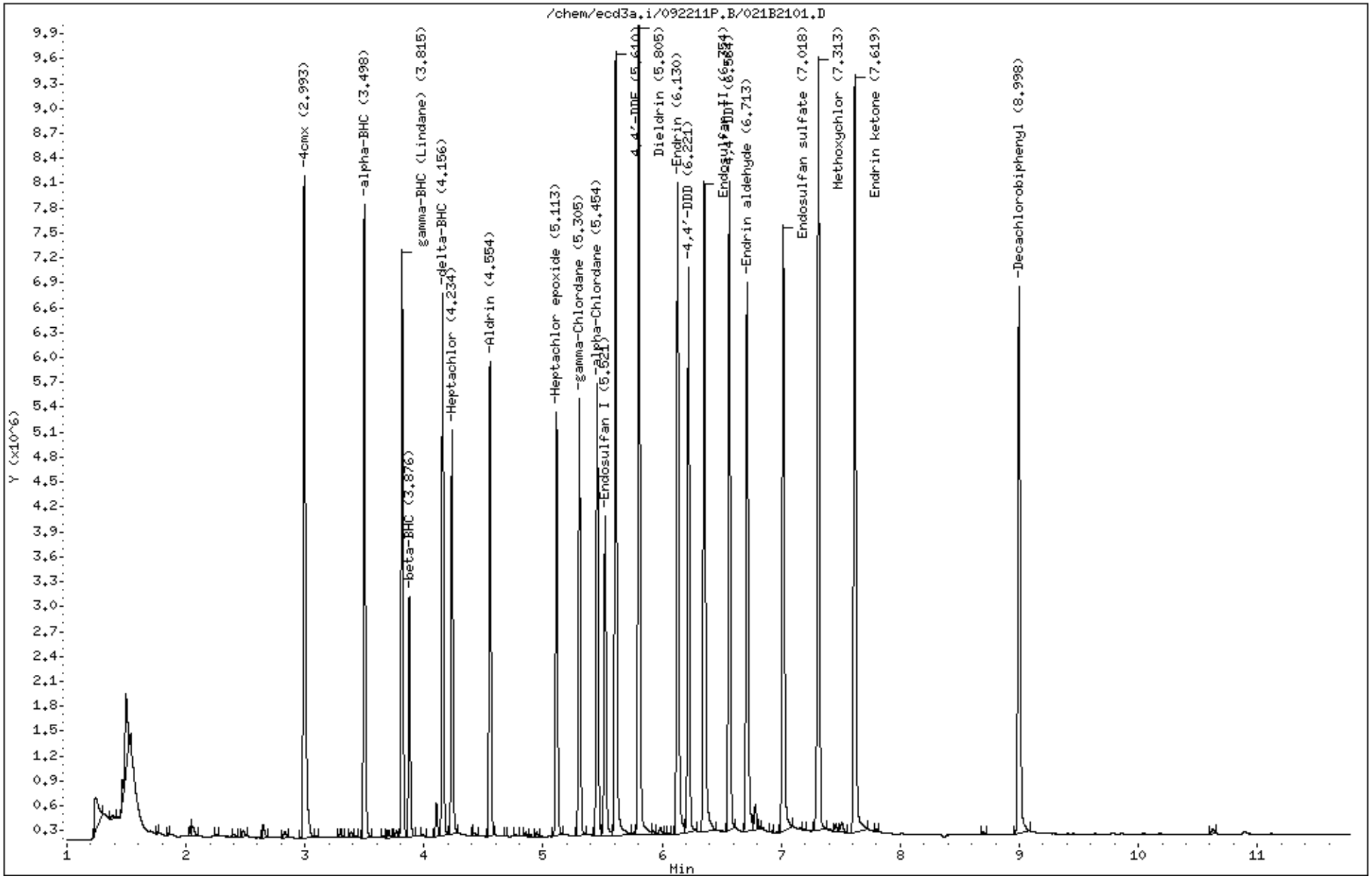
Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: RXE1

Column diameter: 0.25



Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**			**Matrix:**	**WATER**
Lab Sample ID:	**1202492191**				
Client Sample:	**QC for batch 1143357**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1143357**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 20:24**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**022F2201.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022B2201.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.00665	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.00665	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.00665	0.020	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
319-86-8	delta-BHC	U	0.020	ug/L	0.00665	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.00665	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.00665	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.00665	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.00665	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.00665	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.00665	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.010	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.00665	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		5.36	ug/L	0.150	0.500	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
4cmx	1.13	1.00	ug/L	113	*	(21%-109%)
Decachlorobiphenyl	1.19	1.00	ug/L	119		(23%-119%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/022F2201.D
Lab Smp Id: 1202492191 Client Smp ID: PBLK01TLCS
Inj Date : 22-SEP-2011 20:24
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202492191|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.492	2.490	0.002	30073750	226.014	1.13	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.468	7.470	-0.002	20521361	237.749	1.19	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.212	5.213	-0.001	5653001	1096.88	5.48	80.00- 120.00	100.00(M)
5.330	5.331	-0.001	4417162	1081.49	5.41	61.38- 101.38	78.14
5.549	5.552	-0.003	4241389	1091.31	5.46	59.42- 99.42	75.03
5.881	5.880	0.001	2369088	1035.36	5.18	24.06- 64.06	41.91
5.977	5.979	-0.002	3870865	1115.82	5.58	48.21- 88.21	68.47
Average of Peak Concentrations =					5.42		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/022F2201.D

Page 1

Date : 22-SEP-2011 20:24

Client ID: PBLK01TLCS

Instrument: ecd3a.i

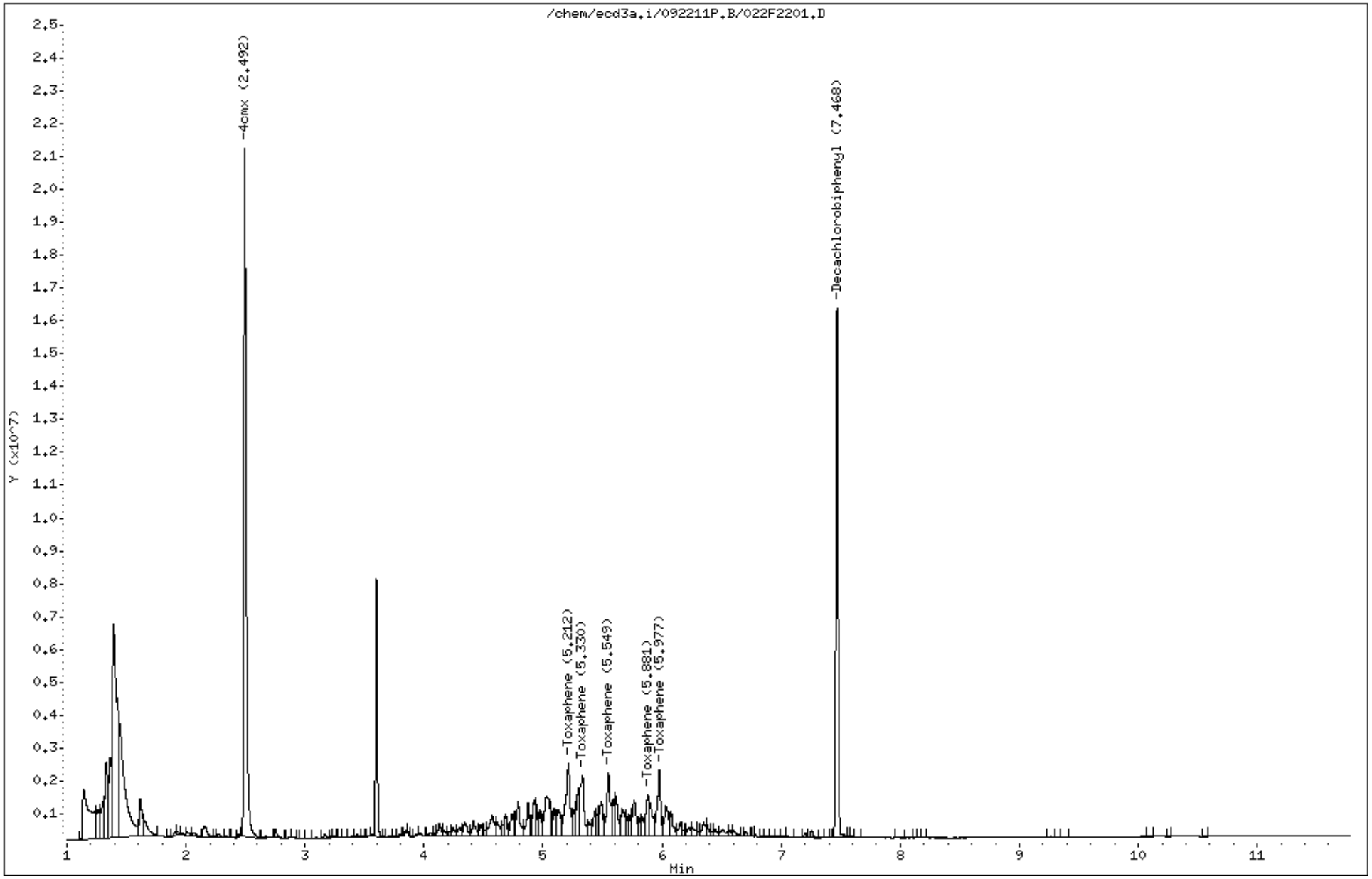
Sample Info: |1202492191|1|

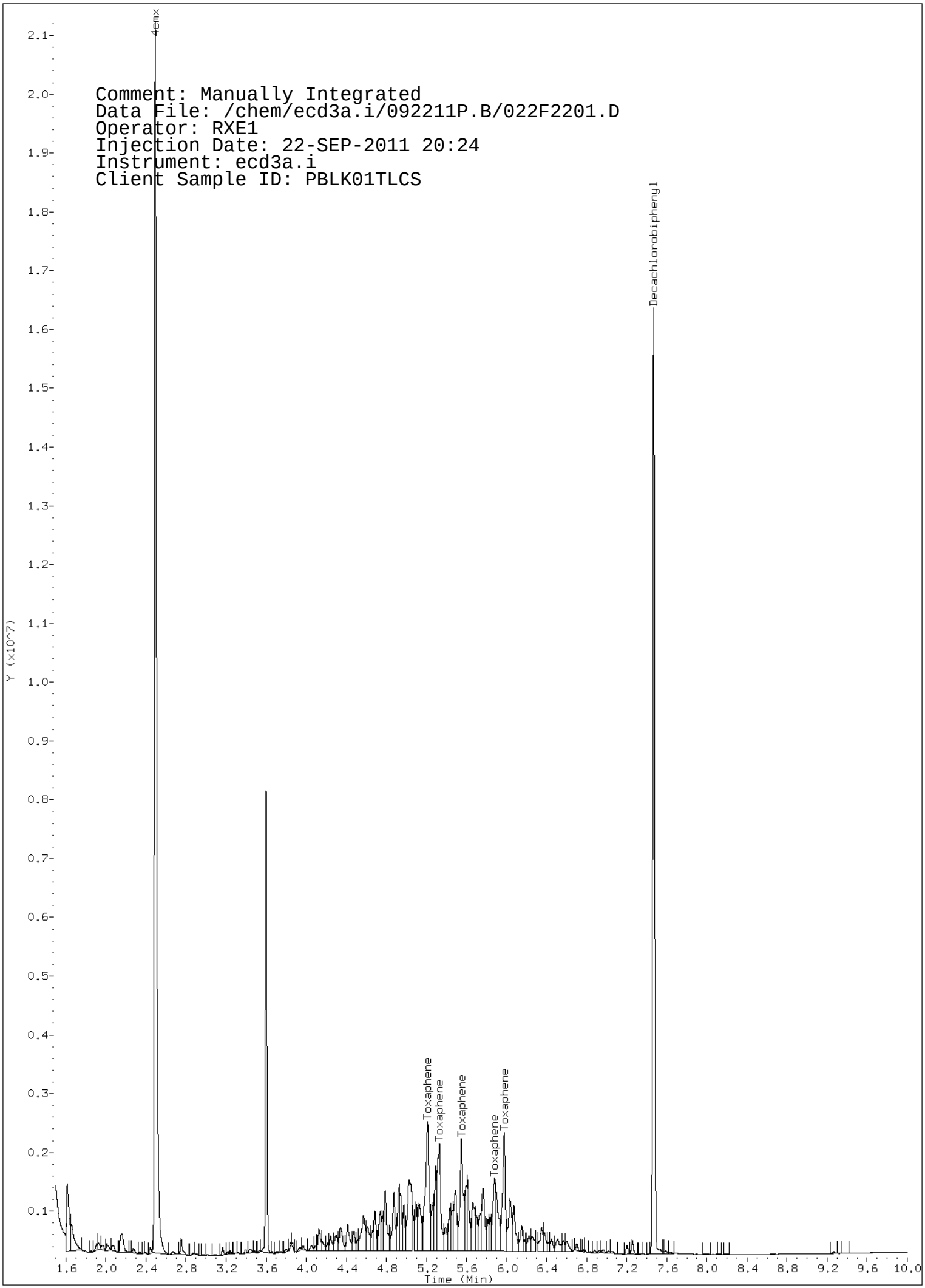
Volume Injected (uL): 1.0

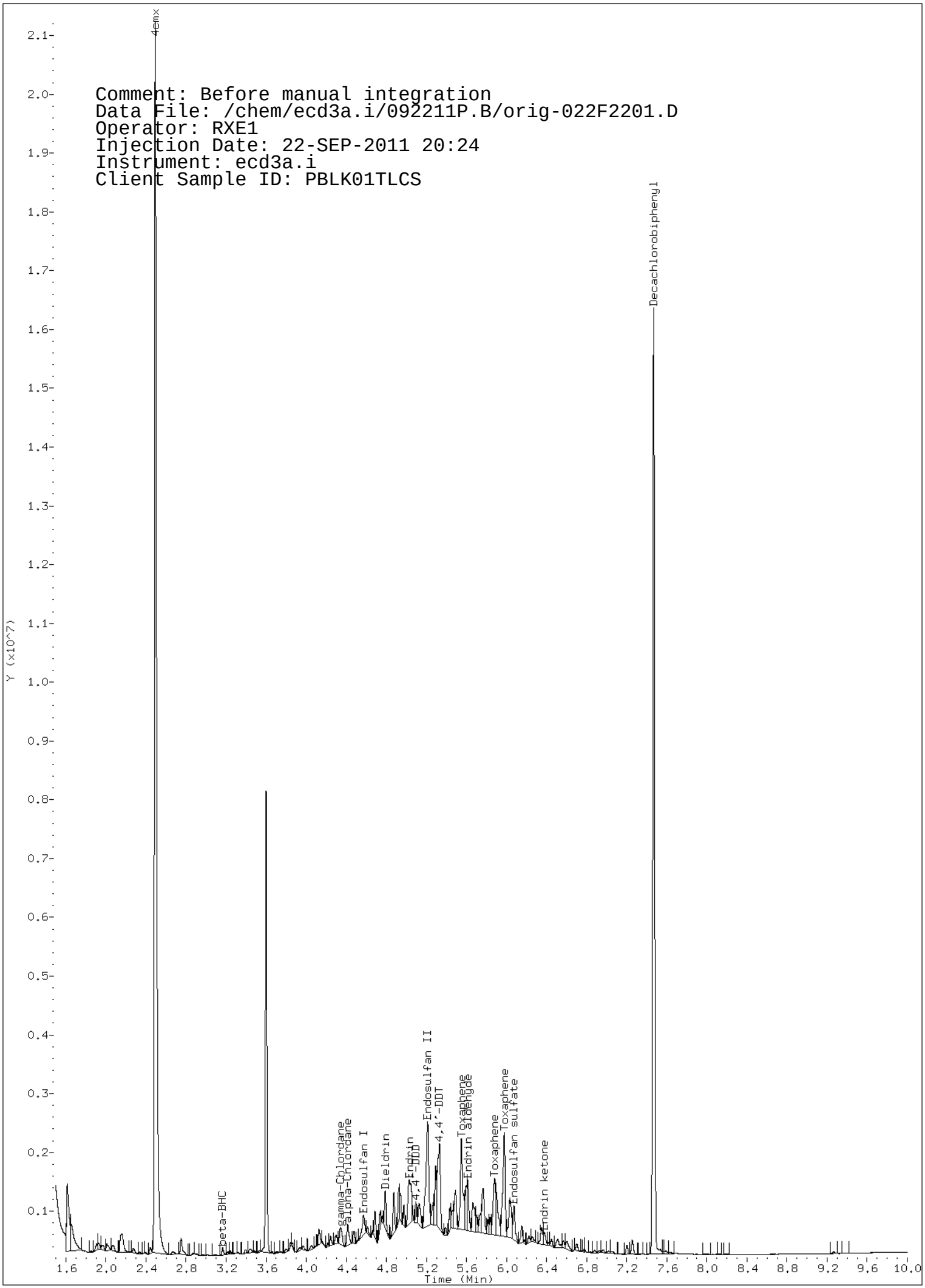
Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/022F2201.D
Operator: RXE1
Injection Date: 22-SEP-2011 20:24
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-022F2201.D
Operator: RXE1
Injection Date: 22-SEP-2011 20:24
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
4emx
Decachlorobiphenyl
beta-BHC
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Toxaphene
Endrin aldehyde
Toxaphene
Toxaphene
Endosulfan sulfate
Endrin ketone
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/022B2201.D
Lab Smp Id: 1202492191 Client Smp ID: PBLK01TLCS
Inj Date : 22-SEP-2011 20:24
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202492191|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	11073888	235.761	1.18	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.998	8.999	-0.001	10004902	317.467	1.59	80.00- 120.00	100.00(R)
23 Toxaphene					CAS #: 8001-35-2		
6.296	6.297	-0.001	707523	1046.69	5.23	80.00- 120.00	100.00(M)
6.341	6.341	0.000	1214932	1089.53	5.45	142.02- 182.02	171.72
6.444	6.445	-0.001	2024441	1072.05	5.36	263.94- 303.94	286.13
6.721	6.723	-0.002	1415893	1090.15	5.45	176.00- 216.00	200.12
7.292	7.293	-0.001	1216505	1063.30	5.32	146.81- 186.81	171.94

Average of Peak Concentrations = 5.36

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/092211P.B/022B2201.D

Page 1

Date : 22-SEP-2011 20:24

Client ID: PBLK01TLCS

Instrument: ecd3a.i

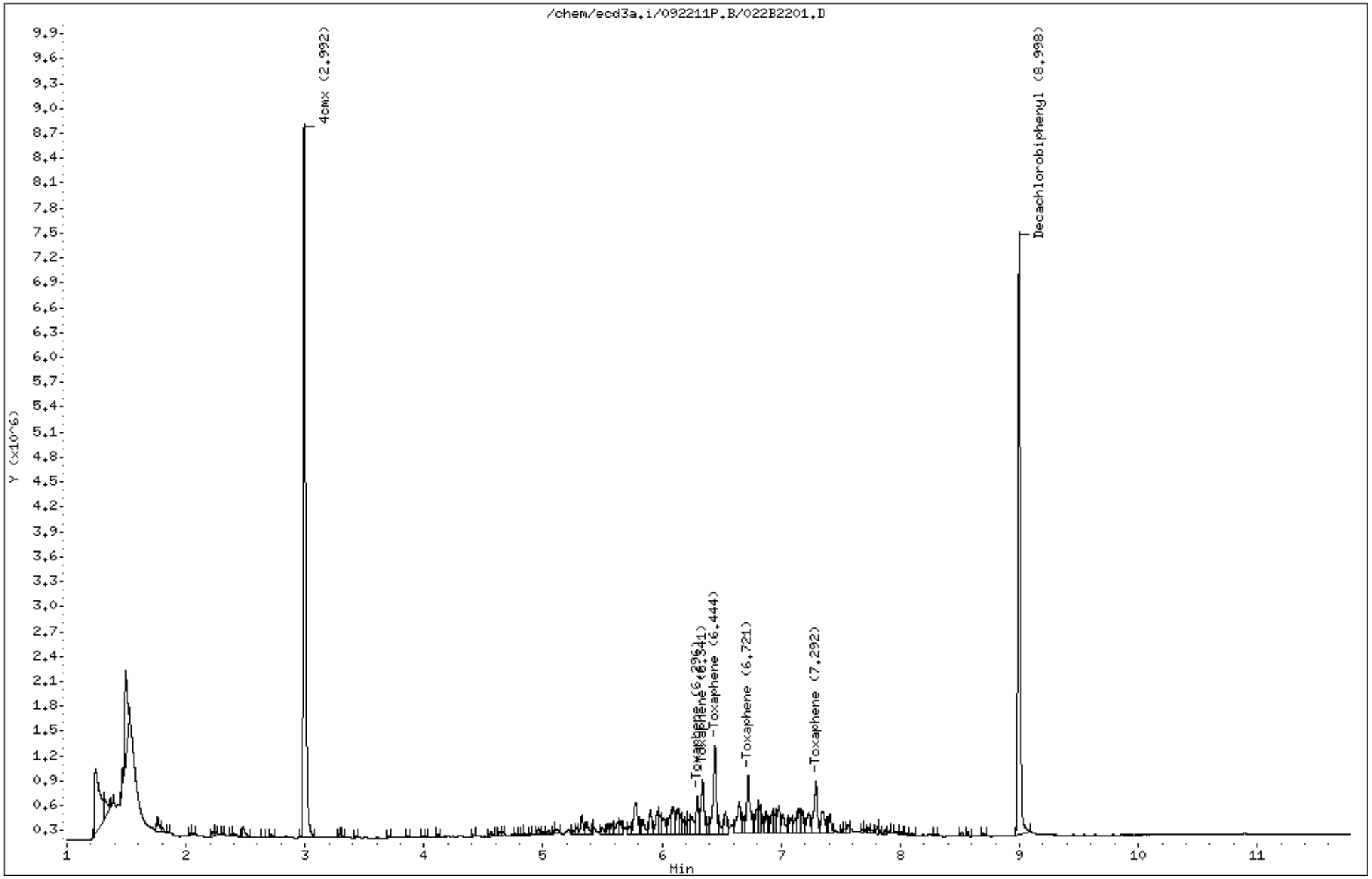
Sample Info: |1202492191|1|

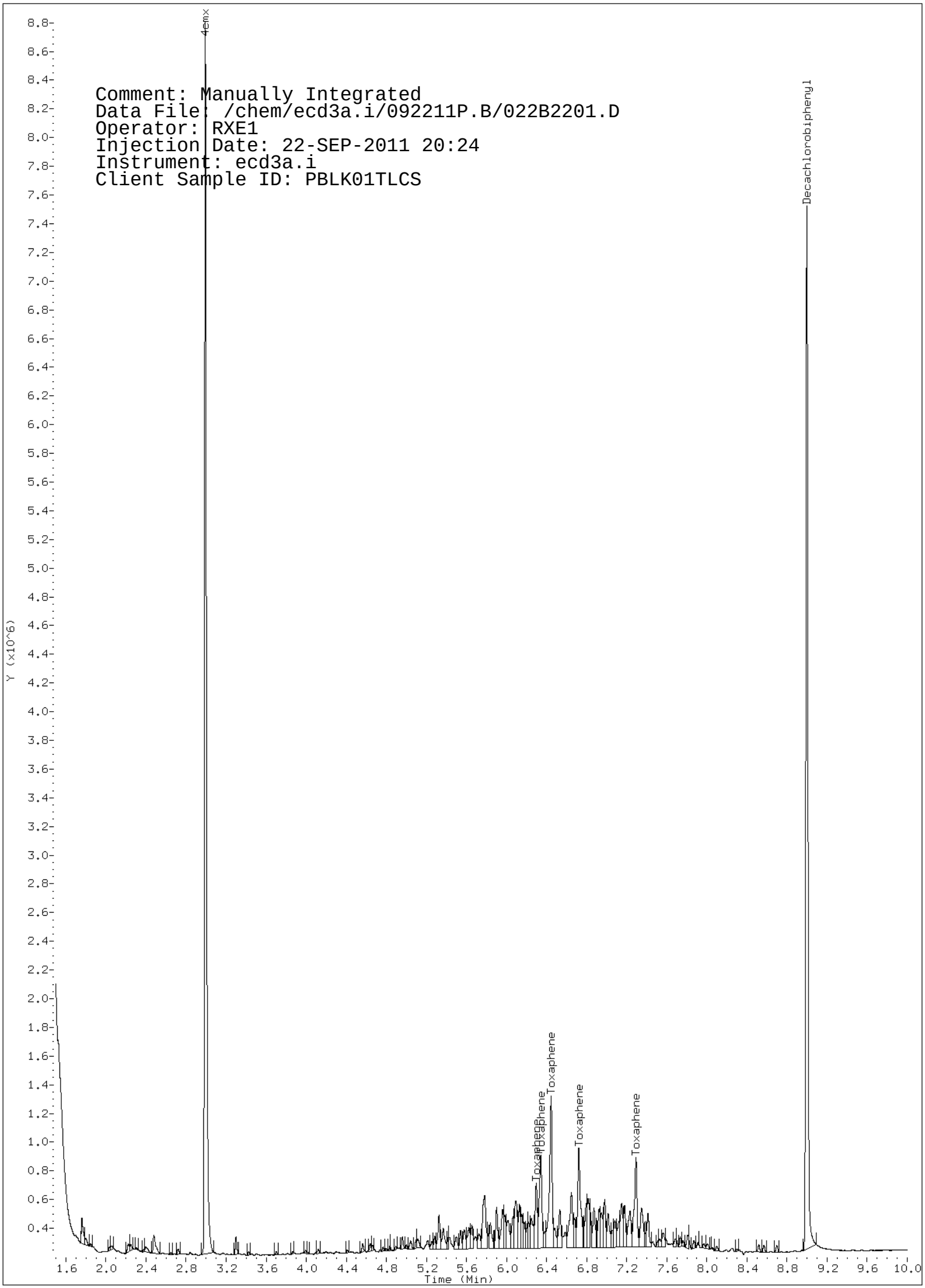
Volume Injected (uL): 1.0

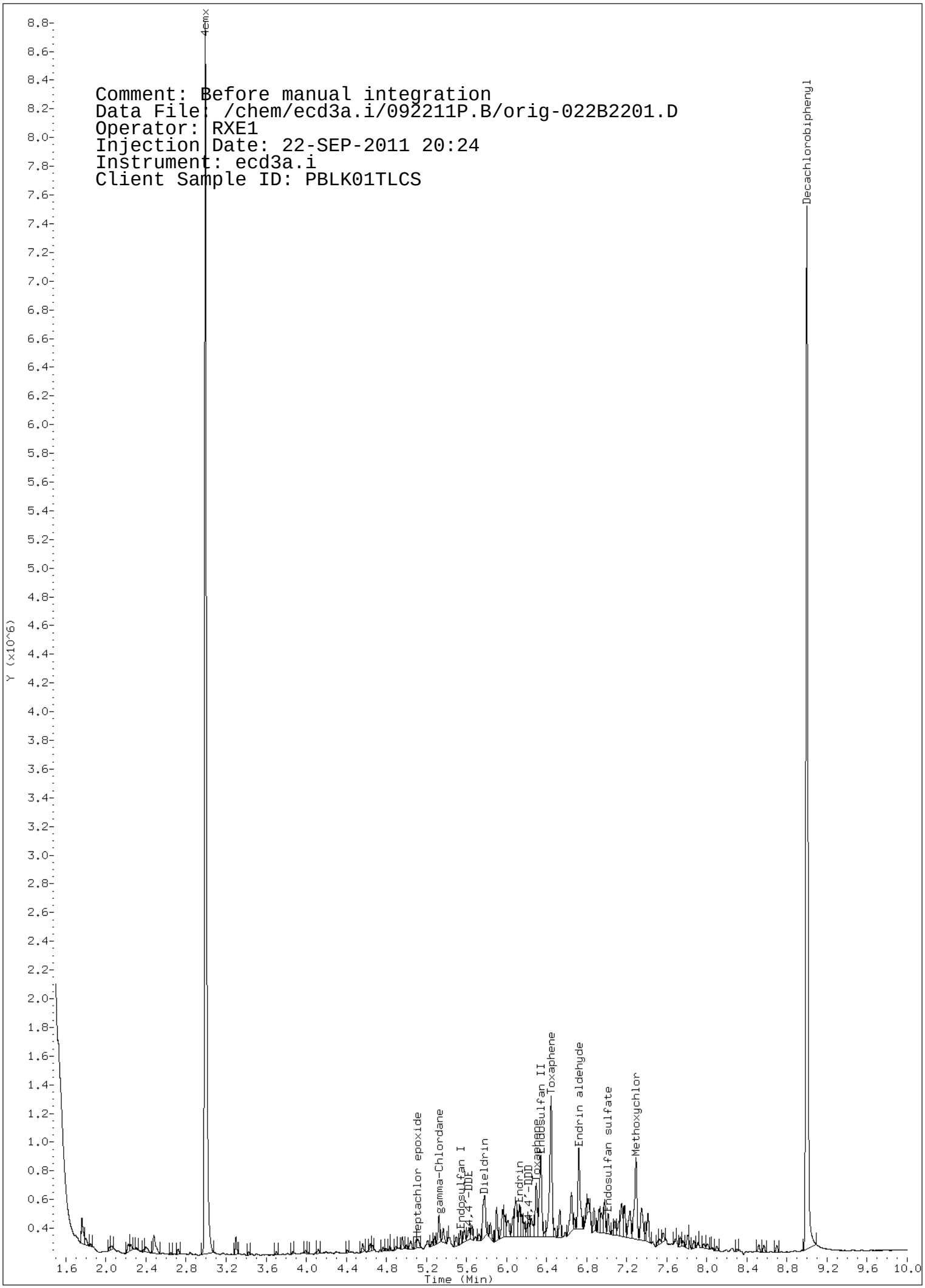
Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/022B2201.D
Operator: RXE1
Injection Date: 22-SEP-2011 20:24
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-022B2201.D
Operator: RXE1
Injection Date: 22-SEP-2011 20:24
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
4emx
Decachlorobiphenyl
Heptachlor epoxide
gamma-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Toxaphene
Endosulfan II
Toxaphene
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Y (x10^6)
Time (Min)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202491871**	**Date Received:**	**09/20/2011 09:15**		
Client Sample:	**QC for batch 1143357**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES13S-11-26994MS**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 21:26**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**5 mL**
Data File:	**026F2601.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	026B2601.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.421	ug/L	0.00686	0.0206	1
58-89-9	gamma-BHC (Lindane)		0.553	ug/L	0.00686	0.0206	1
319-85-7	beta-BHC	P	0.399	ug/L	0.00686	0.0206	1
72-43-5	Methoxychlor		4.09	ug/L	0.0515	0.206	1
319-86-8	delta-BHC		0.439	ug/L	0.00686	0.0206	1
76-44-8	Heptachlor		0.548	ug/L	0.00686	0.0206	1
309-00-2	Aldrin	JP	0.0136	ug/L	0.00686	0.0206	1
1024-57-3	Heptachlor epoxide		0.473	ug/L	0.00686	0.0206	1
5103-74-2	gamma-Chlordane		0.503	ug/L	0.00686	0.0206	1
5103-71-9	alpha-Chlordane		0.508	ug/L	0.00686	0.0206	1
959-98-8	Endosulfan I		0.439	ug/L	0.00686	0.0206	1
72-55-9	4,4'-DDE		1.12	ug/L	0.0103	0.0412	1
60-57-1	Dieldrin		1.23	ug/L	0.0103	0.0412	1
72-20-8	Endrin		1.32	ug/L	0.0103	0.0412	1
72-54-8	4,4'-DDD		1.24	ug/L	0.0103	0.0412	1
33213-65-9	Endosulfan II		1.13	ug/L	0.0103	0.0412	1
7421-93-4	Endrin aldehyde		0.886	ug/L	0.00686	0.0412	1
50-29-3	4,4'-DDT		1.33	ug/L	0.0103	0.0412	1
1031-07-8	Endosulfan sulfate		1.44	ug/L	0.0103	0.0412	1
53494-70-5	Endrin ketone		1.36	ug/L	0.0103	0.0412	1
8001-35-2	Toxaphene	U	0.515	ug/L	0.155	0.515	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.786	1.03	ug/L	76.3	(23%-119%)
4cmx	0.770	1.03	ug/L	74.7	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/026F2601.D
Lab Smp Id: 1202491871 Client Smp ID: NPDES13S-1126994MS
Inj Date : 22-SEP-2011 21:26
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491871|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	970.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.495	2.490	0.005	23062855	173.325	0.893	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.468	7.470	-0.002	13169352	152.573	0.786	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.866	2.863	0.003	14948111	81.7450	0.421	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.093	3.091	0.002	17768449	107.209	0.553	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.153	3.151	0.002	5726181	77.3615	0.399	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.851	5.853	-0.002	35220529	793.154	4.09	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.291	3.289	0.002	13671419	85.0870	0.438	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.456	3.454	0.002	13951293	106.282	0.548	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.699	3.698	0.001	403075	2.63426	0.0136	80.00- 120.00	100.00(aR)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	12593458	91.7413	0.473	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.321	4.320	0.001	13059994	97.6673	0.503	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.439	4.439	0.000	12909375	98.5780	0.508	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.562	4.562	0.000	10286756	85.1702	0.439	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.511	4.511	0.000	27404931	217.124	1.12	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.783	4.784	-0.001	31713204	238.400	1.23	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.004	5.005	-0.001	28663690	255.268	1.32	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.073	5.075	-0.002	24446425	240.141	1.24	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.221	5.223	-0.002	24027430	218.302	1.12	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.633	5.635	-0.002	16018616	171.958	0.886	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.347	5.350	-0.003	24335996	257.628	1.33	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.072	6.075	-0.003	25475337	278.984	1.44	80.00- 120.00	100.00

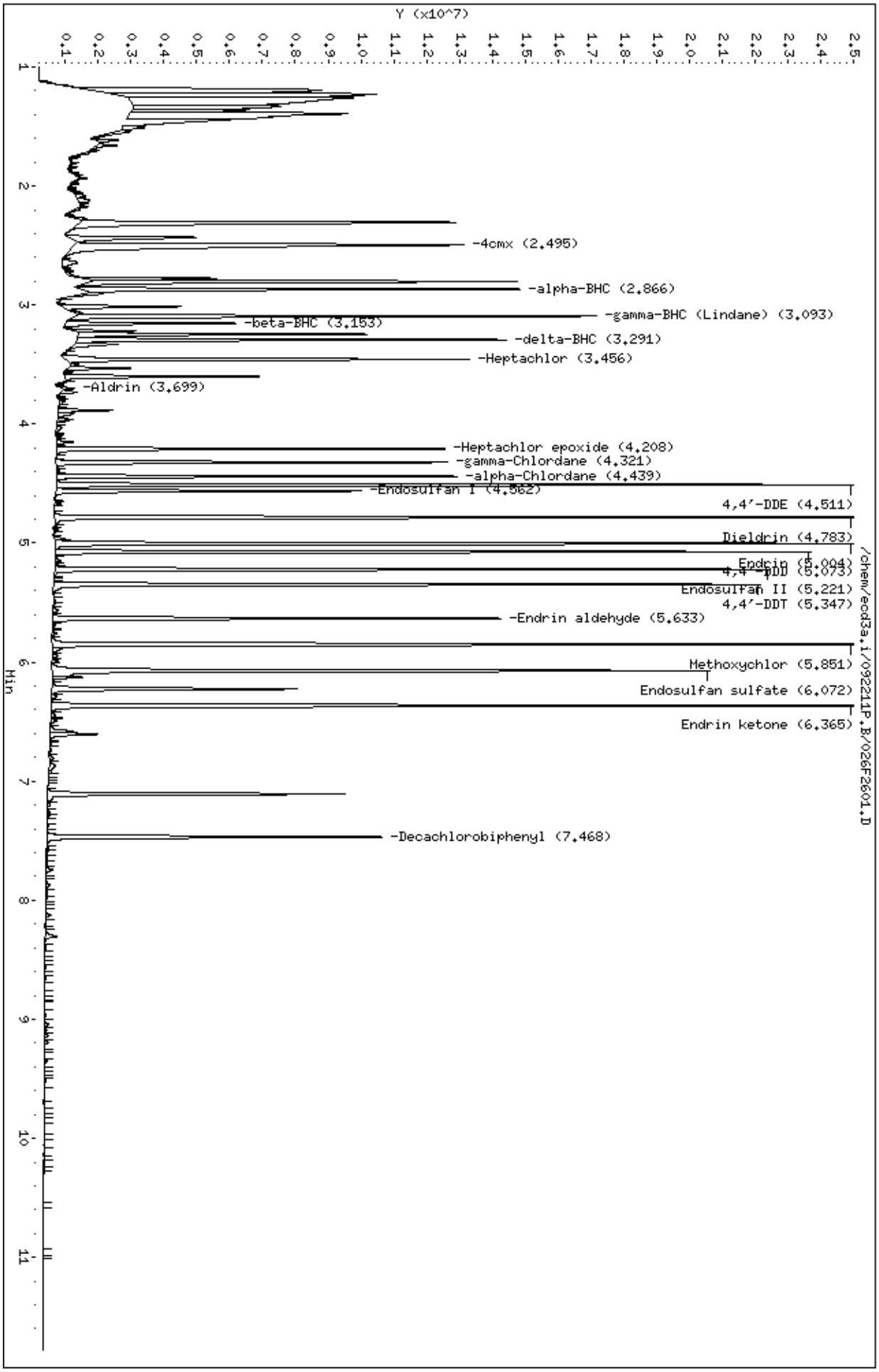
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
6.365	6.368	-0.003	31432954	264.521	1.36	80.00- 120.00	100.00

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/026F2601.D
Date : 22-SEP-2011 21:26
Client ID: NPDES13S-1126994MS
Sample Info: 1120249187111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/026B2601.D
Lab Smp Id: 1202491871 Client Smp ID: NPDES13S-1126994MS
Inj Date : 22-SEP-2011 21:26
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491871|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MS|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	970.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.993	2.990	0.003	7017258	149.396	0.770	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.998	8.999	-0.001	6908277	219.208	1.13	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.498	3.497	0.001	6084869	94.4011	0.487	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.815	3.814	0.001	5661586	95.6680	0.493	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.874	3.875	-0.001	4883234	188.897	0.974	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.314	7.314	0.000	8073215	907.872	4.68	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.157	4.155	0.002	5340827	102.446	0.528	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.235	4.234	0.001	4847521	115.569	0.596	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.554	4.553	0.001	333018	6.18059	0.0318	80.00- 120.00	100.00(R)
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	4405438	95.1163	0.490	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	4787103	105.012	0.541	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.455	5.453	0.002	4691812	103.968	0.536	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.521	5.520	0.001	3405262	84.7141	0.437	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.610	5.609	0.001	8793420	258.301	1.33	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.805	5.805	0.000	9521075	242.551	1.25	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.131	6.130	0.001	7850401	259.838	1.34	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.222	6.223	-0.001	6384153	278.103	1.43	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.353	6.355	-0.002	7911196	223.843	1.15	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.713	6.716	-0.003	4950047	175.055	0.902	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.565	6.565	0.000	7411565	271.469	1.40	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.017	7.018	-0.001	7294187	260.392	1.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.619	7.620	-0.001	9520079	264.371	1.36	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/026B2601.D

Page 1

Date : 22-SEP-2011 21:26

Client ID: NPDES13S-1126994MS

Instrument: ecd3a.i

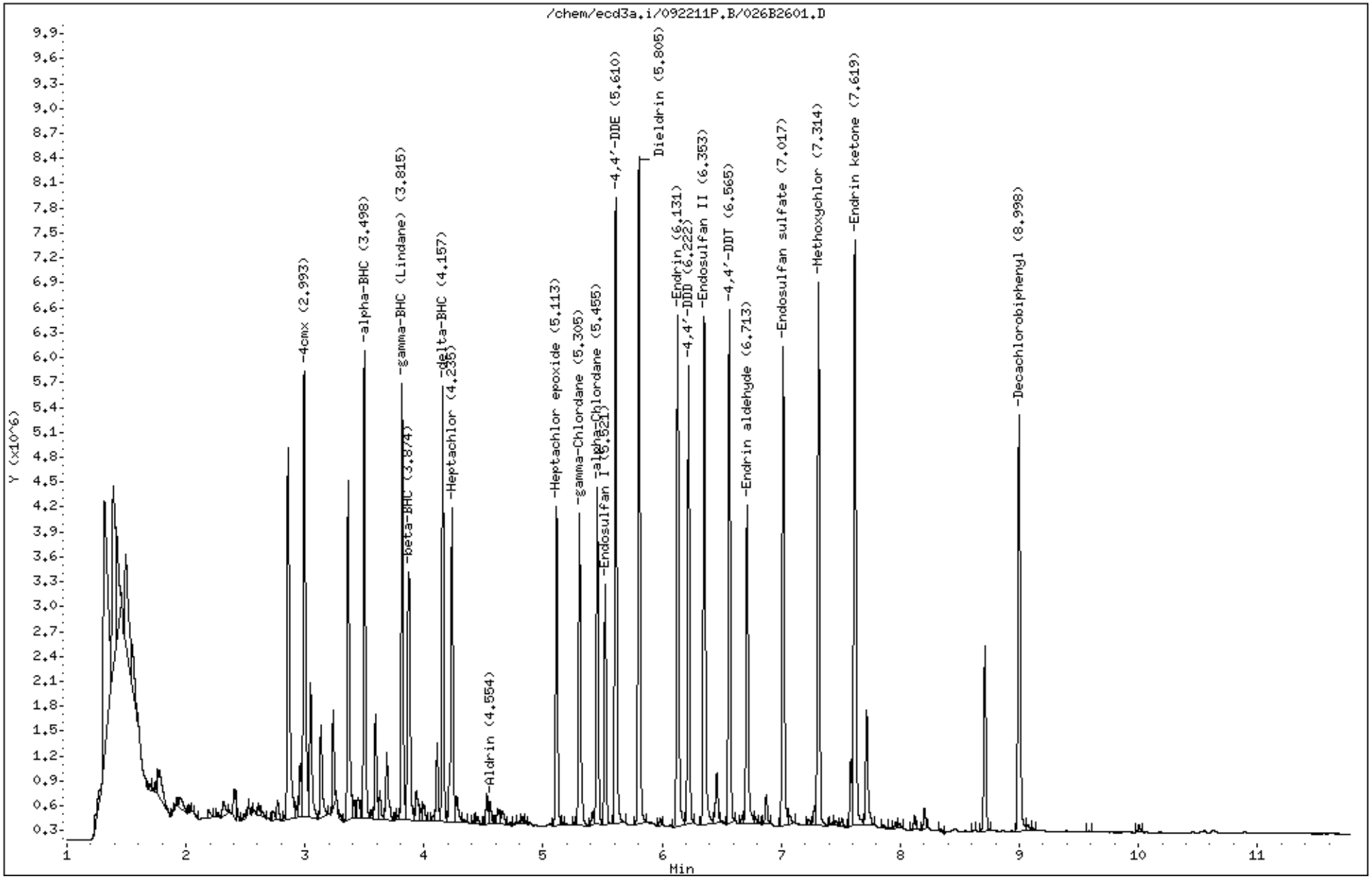
Sample Info: |1202491871|1|

Volume Injected (uL): 1.0

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3620**	**Date Collected:**	**09/16/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202491872**	**Date Received:**	**09/20/2011 09:15**		
Client Sample:	**QC for batch 1143357**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES13S-11-26994MSD**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1143361**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**09/22/2011 21:41**	**Analyst:**	**RXE1**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/21/2011 08:50**	**Aliquot:**	**920 mL**	**Final Volume:**	**5 mL**
Data File:	**027F2701.D**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	027B2701.D		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.657	ug/L	0.00723	0.0217	1
58-89-9	gamma-BHC (Lindane)		0.813	ug/L	0.00723	0.0217	1
319-85-7	beta-BHC	P	0.628	ug/L	0.00723	0.0217	1
72-43-5	Methoxychlor		5.73	ug/L	0.0543	0.217	1
319-86-8	delta-BHC		0.688	ug/L	0.00723	0.0217	1
76-44-8	Heptachlor		0.847	ug/L	0.00723	0.0217	1
309-00-2	Aldrin		0.0477	ug/L	0.00723	0.0217	1
1024-57-3	Heptachlor epoxide		0.663	ug/L	0.00723	0.0217	1
5103-74-2	gamma-Chlordane		0.718	ug/L	0.00723	0.0217	1
5103-71-9	alpha-Chlordane		0.722	ug/L	0.00723	0.0217	1
959-98-8	Endosulfan I		0.619	ug/L	0.00723	0.0217	1
72-55-9	4,4'-DDE		1.61	ug/L	0.0109	0.0435	1
60-57-1	Dieldrin		1.71	ug/L	0.0109	0.0435	1
72-20-8	Endrin		1.83	ug/L	0.0109	0.0435	1
72-54-8	4,4'-DDD		1.76	ug/L	0.0109	0.0435	1
33213-65-9	Endosulfan II		1.57	ug/L	0.0109	0.0435	1
7421-93-4	Endrin aldehyde		1.42	ug/L	0.00723	0.0435	1
50-29-3	4,4'-DDT		1.85	ug/L	0.0109	0.0435	1
1031-07-8	Endosulfan sulfate		1.98	ug/L	0.0109	0.0435	1
53494-70-5	Endrin ketone		1.89	ug/L	0.0109	0.0435	1
8001-35-2	Toxaphene	U	0.543	ug/L	0.163	0.543	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.06	1.09	ug/L	97.9	(23%-119%)
4cmx	1.05	1.09	ug/L	97.0	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/027F2701.D
Lab Smp Id: 1202491872 Client Smp ID: NPDES13S-1126994MSD
Inj Date : 22-SEP-2011 21:41
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491872|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 27 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.493	2.490	0.003	33914364	254.877	1.38	80.00- 120.00	100.00(RM)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.469	7.470	-0.001	16902071	195.818	1.06	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.866	2.863	0.003	22095418	120.831	0.657	80.00- 120.00	100.00(M)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.094	3.091	0.003	24803159	149.654	0.813	80.00- 120.00	100.00(RM)
12 beta-BHC					CAS #: 319-85-7		
3.153	3.151	0.002	8554670	115.575	0.628	80.00- 120.00	100.00(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
5.851	5.853	-0.002	46798759	1053.89	5.73	80.00- 120.00	100.00(M)
13 delta-BHC					CAS #: 319-86-8		
3.292	3.289	0.003	20344861	126.621	0.688	80.00- 120.00	100.00(M)
10 Heptachlor					CAS #: 76-44-8		
3.456	3.454	0.002	20459119	155.859	0.847	80.00- 120.00	100.00(RM)
11 Aldrin					CAS #: 309-00-2		
3.700	3.698	0.002	1342907	8.77645	0.0477	80.00- 120.00	100.00(RM)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.208	4.207	0.001	16751066	122.029	0.663	80.00- 120.00	100.00(RM)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.321	4.320	0.001	17668839	132.134	0.718	80.00- 120.00	100.00(RM)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.439	4.439	0.000	17392381	132.811	0.722	80.00- 120.00	100.00(M)
16 Endosulfan I					CAS #: 959-98-8		
4.562	4.562	0.000	13760532	113.932	0.619	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
4.510	4.511	-0.001	37286581	295.414	1.60	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
4.783	4.784	-0.001	41784687	314.111	1.71	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.003	5.005	-0.002	37812834	336.747	1.83	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.073	5.075	-0.002	32928446	323.461	1.76	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.220	5.223	-0.003	31814841	289.055	1.57	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.632	5.635	-0.003	24310927	260.976	1.42	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.347	5.350	-0.003	32227070	341.165	1.85	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.072	6.075	-0.003	33218691	363.783	1.98	80.00- 120.00	100.00(RM)

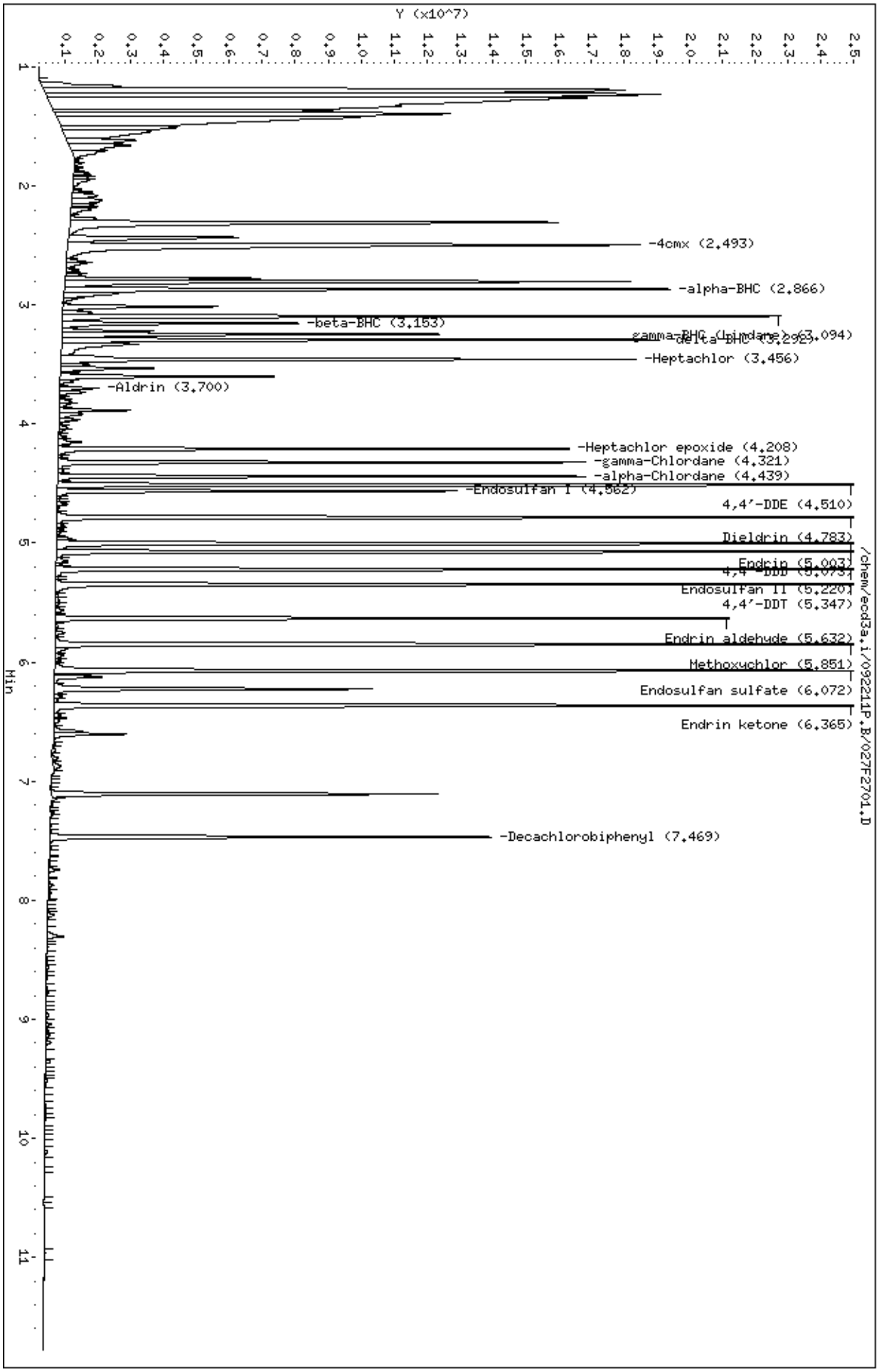
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
6.365	6.368	-0.003	41236202	347.019	1.88	80.00- 120.00	100.00(RM)

QC Flag Legend

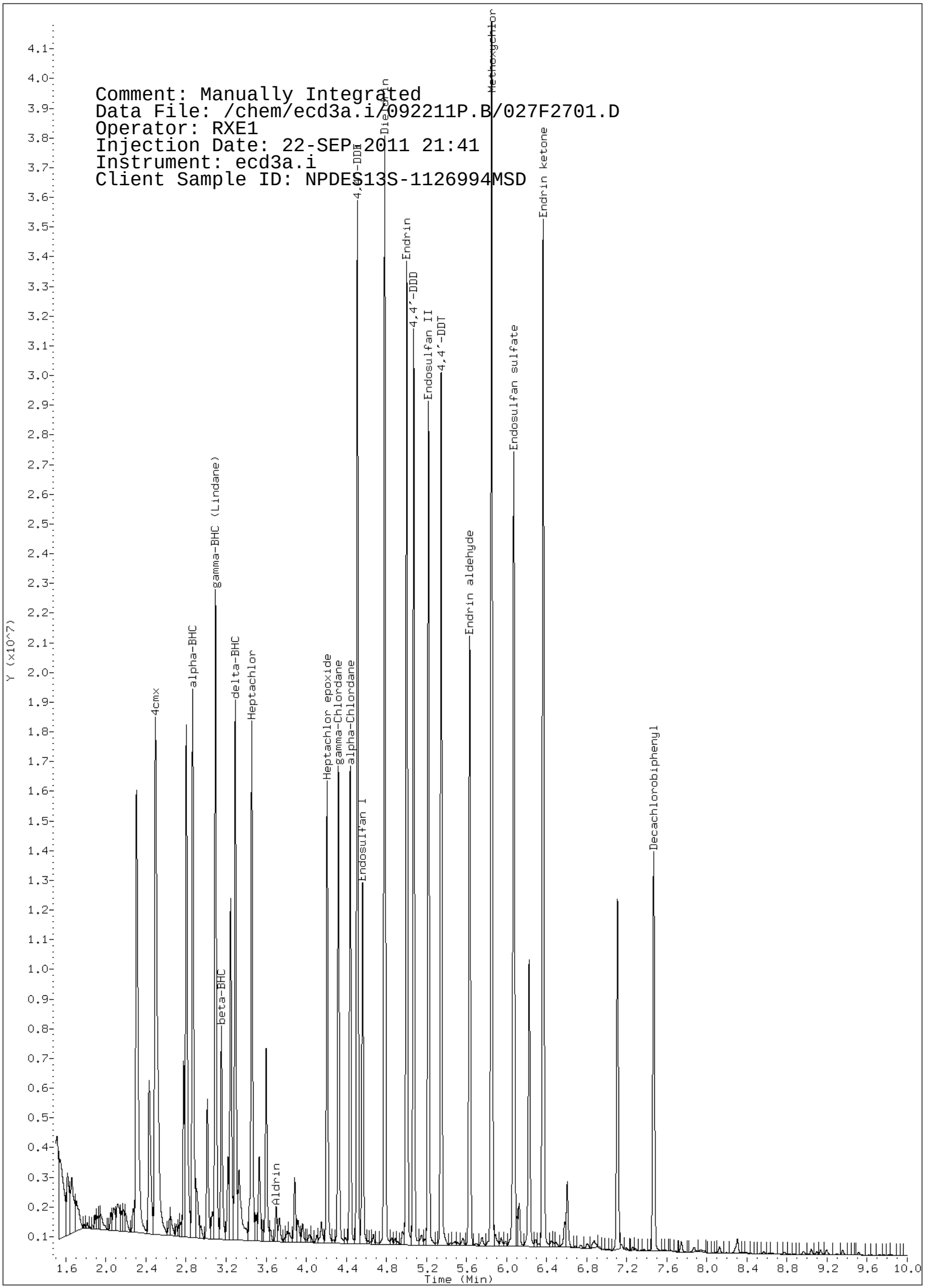
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

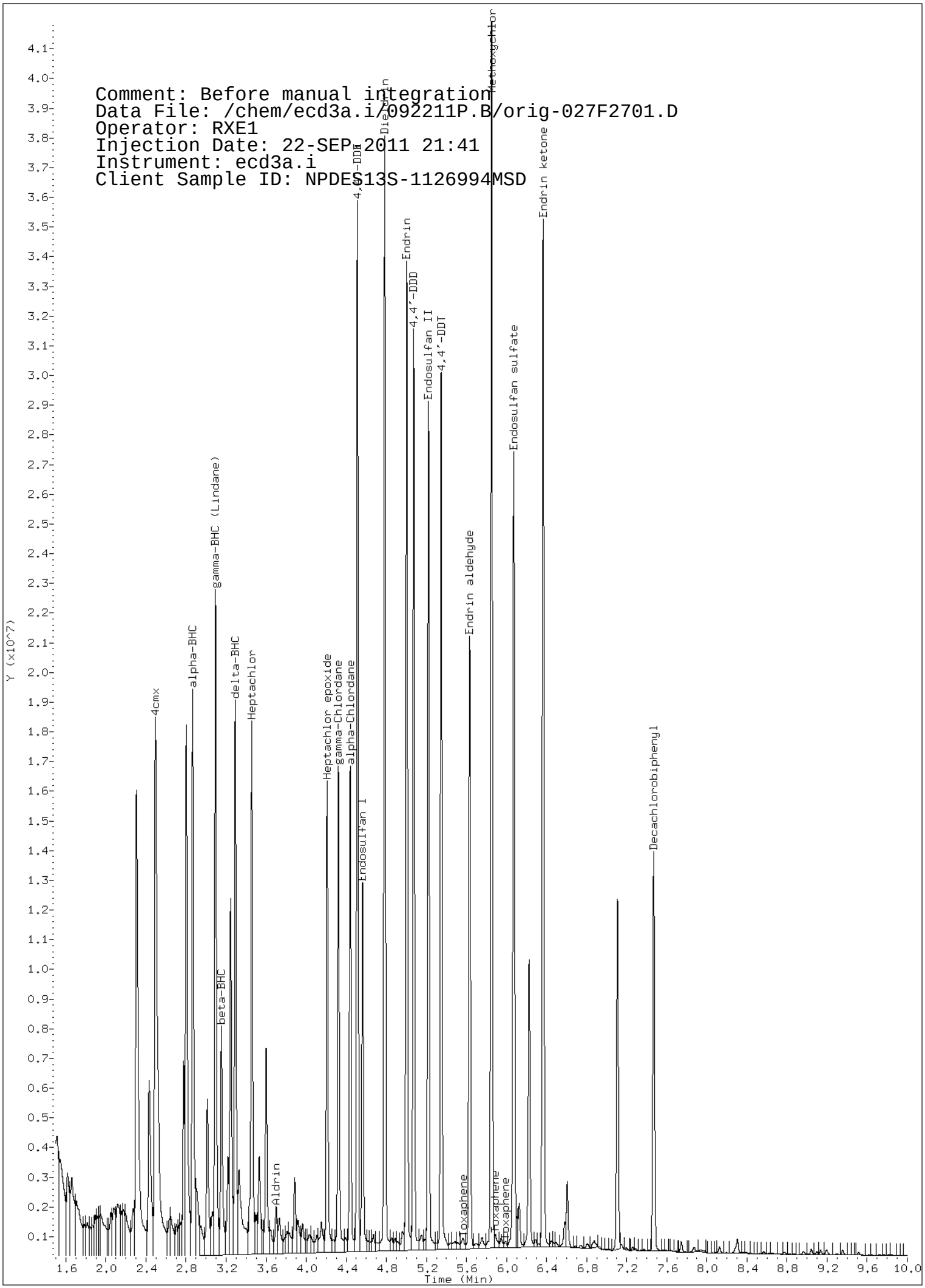
Data File: /chem/ecd3a.i/092211P.B/027F2701.D
Date : 22-SEP-2011 21:41
Client ID: NPDES13S-1126994MSD
Sample Info: 1120249187211
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd3a.i/092211P.B/027F2701.D
Operator: RXE1
Injection Date: 22-SEP-2011 21:41
Instrument: ecd3a.i
Client Sample ID: NPDES13S-1126994MSD
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd3a.i/092211P.B/orig-027F2701.D
Operator: RXE1
Injection Date: 22-SEP-2011 21:41
Instrument: ecd3a.i
Client Sample ID: NPDES13S-1126994MSD
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Toxaphene
Methoxychlor
Toxaphene
Toxaphene
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/027B2701.D
Lab Smp Id: 1202491872 Client Smp ID: NPDES13S-1126994MSD
Inj Date : 22-SEP-2011 21:41
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |1202491872|1|
Misc Info : |ECD5A1A_1L|1143361|SVP|QC A|WASTE WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 27 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3620.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.993	2.990	0.003	9110252	193.955	1.05	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.998	8.999	-0.001	8845144	280.667	1.52	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.498	3.497	0.001	7656514	118.784	0.646	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.815	3.814	0.001	7027894	118.756	0.645	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.873	3.875	-0.002	5904112	228.387	1.24	80.00- 120.00	100.00(AR)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.314	7.314	0.000	11127449	1251.34	6.80	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.156	4.155	0.001	6887857	132.121	0.718	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.234	4.234	0.000	6325196	150.799	0.820	80.00- 120.00	100.00(R)
11 Aldrin					CAS #: 309-00-2		
4.554	4.553	0.001	627766	11.6509	0.0633	80.00- 120.00	100.00(R)
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.113	5.113	0.000	5618182	121.300	0.659	80.00- 120.00	100.00(R)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.305	5.306	-0.001	6096907	133.744	0.727	80.00- 120.00	100.00(R)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.454	5.453	0.001	6121808	135.656	0.737	80.00- 120.00	100.00(R)
16 Endosulfan I					CAS #: 959-98-8		
5.520	5.520	0.000	4390057	109.213	0.594	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.610	5.609	0.001	11742185	344.920	1.87	80.00- 120.00	100.00(R)
20 Dieldrin					CAS #: 60-57-1		
5.805	5.805	0.000	12422679	316.470	1.72	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.130	6.130	0.000	10134947	335.454	1.82	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.222	6.223	-0.001	8502919	370.400	2.01	80.00- 120.00	100.00(R)
24 Endosulfan II					CAS #: 33213-65-9		
6.353	6.355	-0.002	10220538	289.184	1.57	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.713	6.716	-0.003	7966914	281.744	1.53	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.563	6.565	-0.002	9675025	354.374	1.92	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.017	7.018	-0.001	9616044	343.279	1.86	80.00- 120.00	100.00

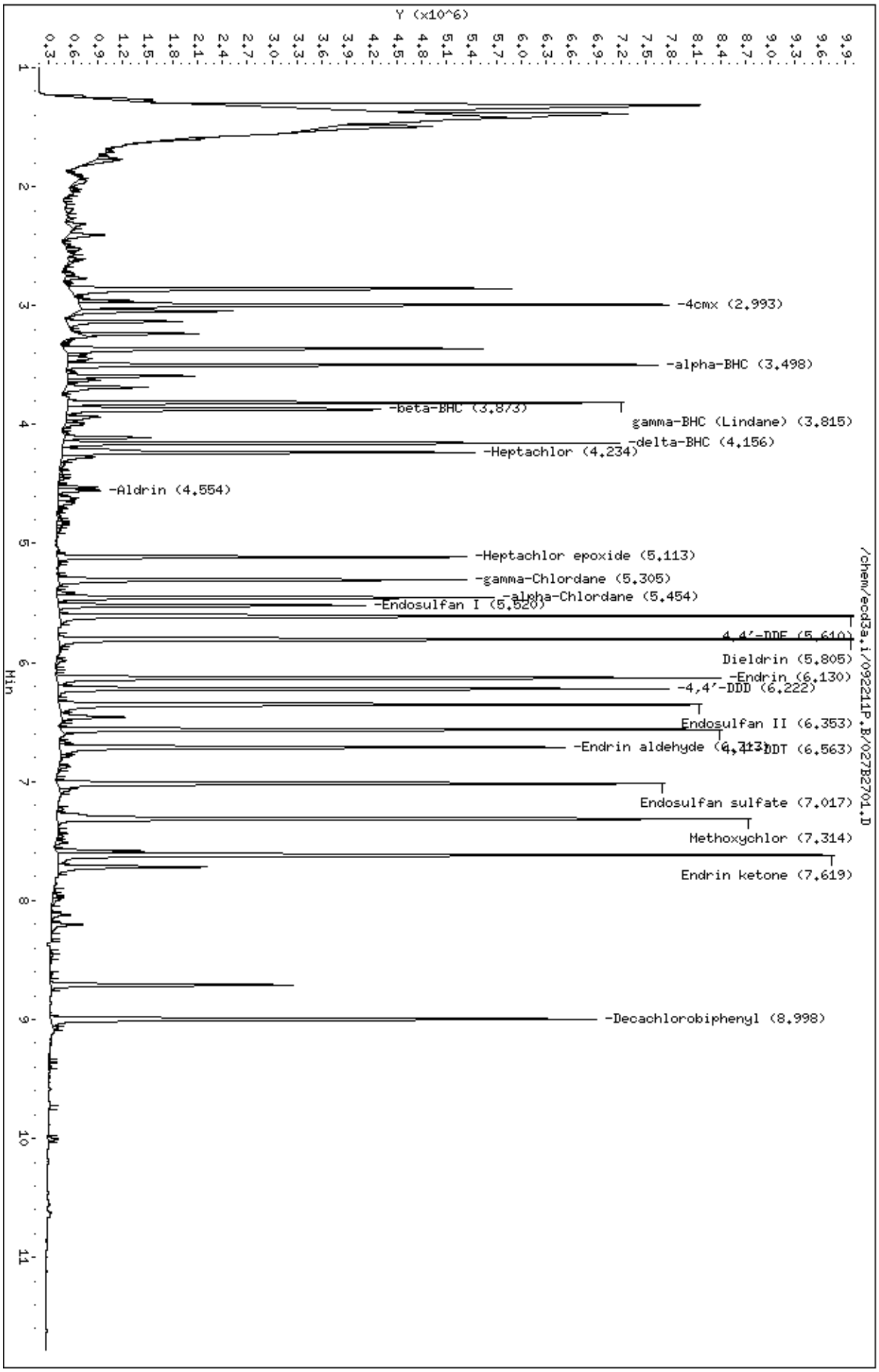
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.619	7.620	-0.001	12244933	340.040	1.85	80.00- 120.00	100.00(R)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/027B2701.D
Date : 22-SEP-2011 21:41
Client ID: NPDES13S-1126994MSD
Sample Info: |1202491872|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: RXE1
Column diameter: 0.25



Page 1

Miscellaneous Data

Prep Logbook

Solid-Phase Extraction

Batch ID: **1143357** **Verified by:** _____

Analyst: **Sophia Gathers**

Method: **SW846 3535A**

Lab SOP: **GL-OA-E-070 REV# 4**

Instrument: **Semi-Volatiles Manual**

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Ph 2	Clean Up	Amount 1 (mL)	Amount 2 (mL)	Amount 3 (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202491869 MB	21-SEP-2011 08:50:00	1000	5	1	Florisil	5	1	10	5	0.005
1202491870 LCS	21-SEP-2011 08:50:00	1000	5	1	Florisil	5	1	10	5	0.005
1202492191 LCS	21-SEP-2011 08:50:00	1000	5	1	Florisil	5	1	10	5	0.005
286033003	21-SEP-2011 08:50:00	940	6	1	Florisil	5	1	10	5	0.00532
286165014	21-SEP-2011 08:50:00	940	6	1	Florisil	5	1	10	5	0.00532
286171002	21-SEP-2011 08:50:00	960	6	1	Florisil	5	1	10	5	0.00521
1202491871 MS (286171002)	21-SEP-2011 08:50:00	970	6	1	Florisil	5	1	10	5	0.00515
1202491872 MSD (286171002)	21-SEP-2011 08:50:00	920	6	1	Florisil	5	1	10	5	0.00543

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202491870	PESTSPIKE	UE110916-04	1	mL
LCS	1202492191	Toxaphene TCLP LCS	WE110816-12	2	mL
MS	1202491871	PESTSPIKE	UE110916-04	1	mL
MSD	1202491872	PESTSPIKE	UE110916-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE110822-08	1	mL
REGNT	All	Acetone	110913-B1	5	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1606642-29	1	g
REGNT	All	Methylene Chloride	1614877-D	50	mL
REGNT	All	Hexane	1615414-B4	5	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1615972	15	mL
SOURC	All	SODIUM SULFATE	1594298	30	g

Comments:

Final Solvent: Hexane
Verified By: RLC
Cart Lot #: 93158-TT
PH2:1
Clean Up Initials: SCG
Clean Up Date: 09-21-11

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 09/23/2011 METHOD: ECD3-F-8081-092011p.m OPERATOR:RXE1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DE354

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001F0101.D	WAR110902-99IB	RXE1	22-SEP-2011 14:53		092211P	1.0		CLEAN
002F0201.D	WPE110829-99DG	RXE1	22-SEP-2011 15:09		092211P	1.0		(B)DDT:0.8, ENDRIN:4.1 (F)DDT:0.92, ENDRIN:3.4
003F0301.D	WPE110812-10AB	RXE1	22-SEP-2011 15:24		092211P	1.0		DUSE
004F0401.D	WPE110906-52TX	RXE1	22-SEP-2011 15:40		092211P	1.0		DUSE
005F0501.D	WPE110724-00CL	RXE1	22-SEP-2011 15:55		092211P	1.0		USE. PASSING ALL.
006F0601.D	WPE110921-01AB	RXE1	22-SEP-2011 16:16		092211P	1.0		INDAB ICAL 1
007F0701.D	WPE110921-02AB	RXE1	22-SEP-2011 16:32		092211P	1.0		INDAB ICAL 2
008F0801.D	WPE110921-03AB	RXE1	22-SEP-2011 16:47		092211P	1.0		INDAB ICAL 3
009F0901.D	WPE110921-04AB	RXE1	22-SEP-2011 17:03		092211P	1.0		INDAB ICAL 4
010F1001.D	IPE110801-02AB	RXE1	22-SEP-2011 17:18		092211P	1.0		INDAB ICAL 5
011F1101.D	WPE110812-10AB	RXE1	22-SEP-2011 17:34		092211P	1.0		USE. PASSING ALL.
012F1201.D	WPE110922-11TX	RXE1	22-SEP-2011 17:49		092211P	1.0		TOXAPH ICAL 1
013F1301.D	WPE110922-12TX	RXE1	22-SEP-2011 18:05		092211P	1.0		TOXAPH ICAL 2
014F1401.D	WPE110922-13TX	RXE1	22-SEP-2011 18:20		092211P	1.0		TOXAPH ICAL 3
015F1501.D	WPE110922-14TX	RXE1	22-SEP-2011 18:35		092211P	1.0		TOXAPH ICAL 4

Instrument Batch: /chem/ecd3a.i/092211P.B Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016F1601.D	IPE110818-40TX	RXE1	22-SEP-2011 18:51		092211P	1.0		TOXAPH ICAL 5

017F1701.D	WPE110906-52TX	RXE1	22-SEP-2011 19:06		092211P		1.0		USE. PASSING ALL.
018F1801.D	WPE110809-05GA	RXE1	22-SEP-2011 19:22		092211P		1.0		PATTERN ONLY.
019F1901.D	WAR110902-99IB	RXE1	22-SEP-2011 19:37		092211P		1.0		CLEAN
020F2001.D	1202491869	RXE1	22-SEP-2011 19:53	1143361	11-3620		1.0	QC A	USE. PASSING BOTH, UPLOAD LOWER.
021F2101.D	1202491870	RXE1	22-SEP-2011 20:08	1143361	11-3620		1.0	QC A	USE. PASSING BOTH, UPLOAD LOWER.
022F2201.D	1202492191	RXE1	22-SEP-2011 20:24	1143361	11-3620		1.0	QC A	USE. PASSING BOTH, UPLOAD LOWER.
023F2301.D	286033003	RXE1	22-SEP-2011 20:39	1143361	11-3588		1.0	ARSL	USE. PASSING BOTH, UPLOAD LOWER.
024F2401.D	286165014	RXE1	22-SEP-2011 20:55	1143361	11-3632		1.0	ARSL	USE. PASSING BOTH, UPLOAD LOWER.
025F2501.D	286171002	RXE1	22-SEP-2011 21:10	1143361	11-3620		1.0	ARSL	USE. PASSING BOTH, UPLOAD LOWER.
026F2601.D	1202491871	RXE1	22-SEP-2011 21:26	1143361	11-3620		1.0	QC A	USE. PASSING BOTH, UPLOAD LOWER.
027F2701.D	1202491872	RXE1	22-SEP-2011 21:41	1143361	11-3620		1.0	QC A	USE. PASSING BOTH, UPLOAD LOWER.
028F2801.D	WPE110812-10AB	RXE1	22-SEP-2011 21:57		092211P		1.0		USE. DDD/DDE/DDT HI (B), PASSING (F).
029F2901.D	WAR110902-99IB	RXE1	22-SEP-2011 22:12		092211P		1.0		CLEAN
030F3001.D	1202491490	RXE1	22-SEP-2011 22:28	1143213	11-3579		1.0	QC A	DUSE
031F3101.D	1202491491	RXE1	22-SEP-2011 22:43	1143213	11-3579		1.0	QC A	DUSE. ALDRIN LOW (F), LOWER RESULT REPORTED. RERUN.
032F3201.D	1202491494	RXE1	22-SEP-2011 22:59	1143213	11-3579		1.0	QC A	DUSE.
033F3301.D	1202491495	RXE1	22-SEP-2011 23:15	1143213	11-3579		1.0	QC A	DUSE. ALDRIN LOW (F), LOWER RESULT REPORTED. RERUN.
034F3401.D	285928003	RXE1	22-SEP-2011 23:30	1143213	11-3579		1.0	ARSL	DUSE.
035F3501.D	1202491492	RXE1	22-SEP-2011 23:46	1143213	11-3579		1.0	QC A	DUSE.

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036F3601.D	285928009	RXE1	23-SEP-2011 00:01	1143213	11-3579	1.0	ARSL	DUSE.
037F3701.D	285928011	RXE1	23-SEP-2011 00:17	1143213	11-3579	1.0	ARSL	DUSE.
038F3801.D	285928015	RXE1	23-SEP-2011 00:32	1143213	11-3579	1.0	ARSL	DUSE.
039F3901.D	WPE110812-10AB	RXE1	23-SEP-2011 00:48		092211P	1.0		USE. DDD/DDE/DDT HI (B), PASSING (F).
040F4001.D	WAR110902-99IB	RXE1	23-SEP-2011 01:03		092211P	1.0		CLEAN
041F4101.D	1202491847	RXE1	23-SEP-2011 01:19	1143354	EUI-8505	1.0	QC A	USE. PASSING BOTH, UPLOAD HIGHER.

042F4201.D	1202491848	RXE1	23-SEP-2011 01:34	1143354	EUI-8505	1.0	QC A	USE. PASSING BOTH, UPLOAD HIGHER.
043F4301.D	285464001	RXE1	23-SEP-2011 01:50	1143354	EUI-8499	1.0	CARE	USE. PASSING BOTH, UPLOAD HIGHER.
044F4401.D	285467001	RXE1	23-SEP-2011 02:05	1143354	EUI-8500	1.0	CARE	USE. PASSING BOTH, UPLOAD HIGHER.
045F4501.D	285849001	RXE1	23-SEP-2011 02:21	1143354	EUI-8505	1.0	CARE	USE. PASSING BOTH, UPLOAD HIGHER.
046F4601.D	1202491849	RXE1	23-SEP-2011 02:36	1143354	EUI-8505	1.0	QC A	USE. PASSING BOTH, UPLOAD HIGHER.
047F4701.D	1202491850	RXE1	23-SEP-2011 02:52	1143354	EUI-8505	1.0	QC A	USE. PASSING BOTH, UPLOAD HIGHER.
048F4801.D	WAR110902-99IB	RXE1	23-SEP-2011 03:07		092211P	1.0		CLEAN
049F4901.D	WPE110812-10AB	RXE1	23-SEP-2011 03:23		092211P	1.0		USE. DDT/METH LOW BOTH, CONFIRMED ON 092111
050F5001.D	WAR110902-99IB	RXE1	23-SEP-2011 03:38		092211P	1.0		CLEAN

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 3535A/8081A	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1143361	See Below		

Potentially affected work order(s)(SDG): 286033(11-3588),286165(11-3632),286171(11-3620)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. QC sample 1202491870(LCS) recovered outside of the acceptance criteria for several spiking analytes with positive bias. 2. QC sample 1202491872(MSD) recovered outside of the acceptance criteria for several spiking analytes with positive bias. QC samples 1202491871(MS) and 1202491872(MSD) both exhibited very low spike recovery for Aldrin. 3. The RPD values between QC samples 1202491871(MS) and 1202491872(MSD) did not meet the acceptance criteria. 4. Samples 286033003, 286165014, 286171002, and QC samples 1202491870(LCS), 1202492191(TLCS), 1202491869(MB), and 1202491872(MSD) did not meet the acceptance criteria for surrogate yields.	1. The positive bias for the LCS had no adverse effects on the data as there were no target analytes detected above the PQL in the associated client samples. The data were reported. 2. The positive bias for the MSD recoveries had no adverse effects on the data as there were no target analytes detected above the PQL in the associated client samples. The negative bias for Aldrin spike was attributed to sample matrix interference as the MS and MSD displayed similar spike recoveries. The data were reported. 3. The non-compliant RPD values were due to relatively higher spike recovery in the MSD in comparison with the MS. The results are reported. 4. These samples and matrix QC samples recovered outside of the acceptance criteria for surrogate yields with a positive bias. Target analytes were not detected above the PQL in the client sample. Therefore, the data were not adversely affected by the elevated surrogate yields. The data were reported.

Originator's Name:

Rebecca Enzor 24-SEP-11

Data Validator/Group Leader:

Heather Joy 28-SEP-11

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/001B0101.D
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 22-SEP-2011 14:53
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WAR110902-99IB
Misc Info : |INSTBLANK
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	10386821	229.440	229	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	6987536	225.135	225	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/001B0101.D

Page 1

Date : 22-SEP-2011 14:53

Client ID: PIBLK01

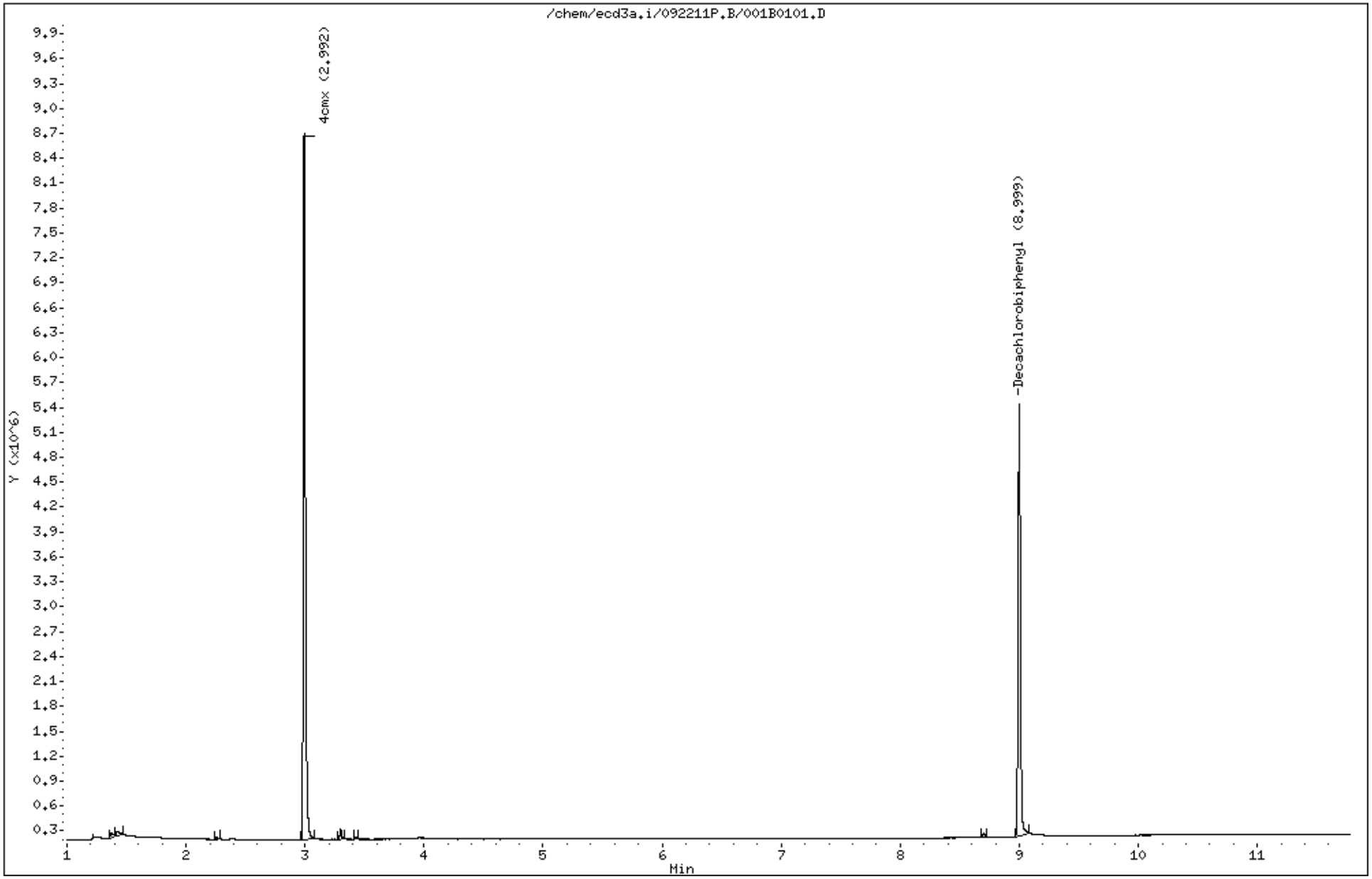
Instrument: ecd3a.i

Sample Info: IWAR110902-99IB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/001F0101.D
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 22-SEP-2011 14:53
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WAR110902-99IB
Misc Info : |INSTBLANK
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.491	2.490	0.001	30553464	237.653	238	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.469	7.470	-0.001	18978282	221.159	221	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/001F0101.D

Page 1

Date : 22-SEP-2011 14:53

Client ID: PIBLK01

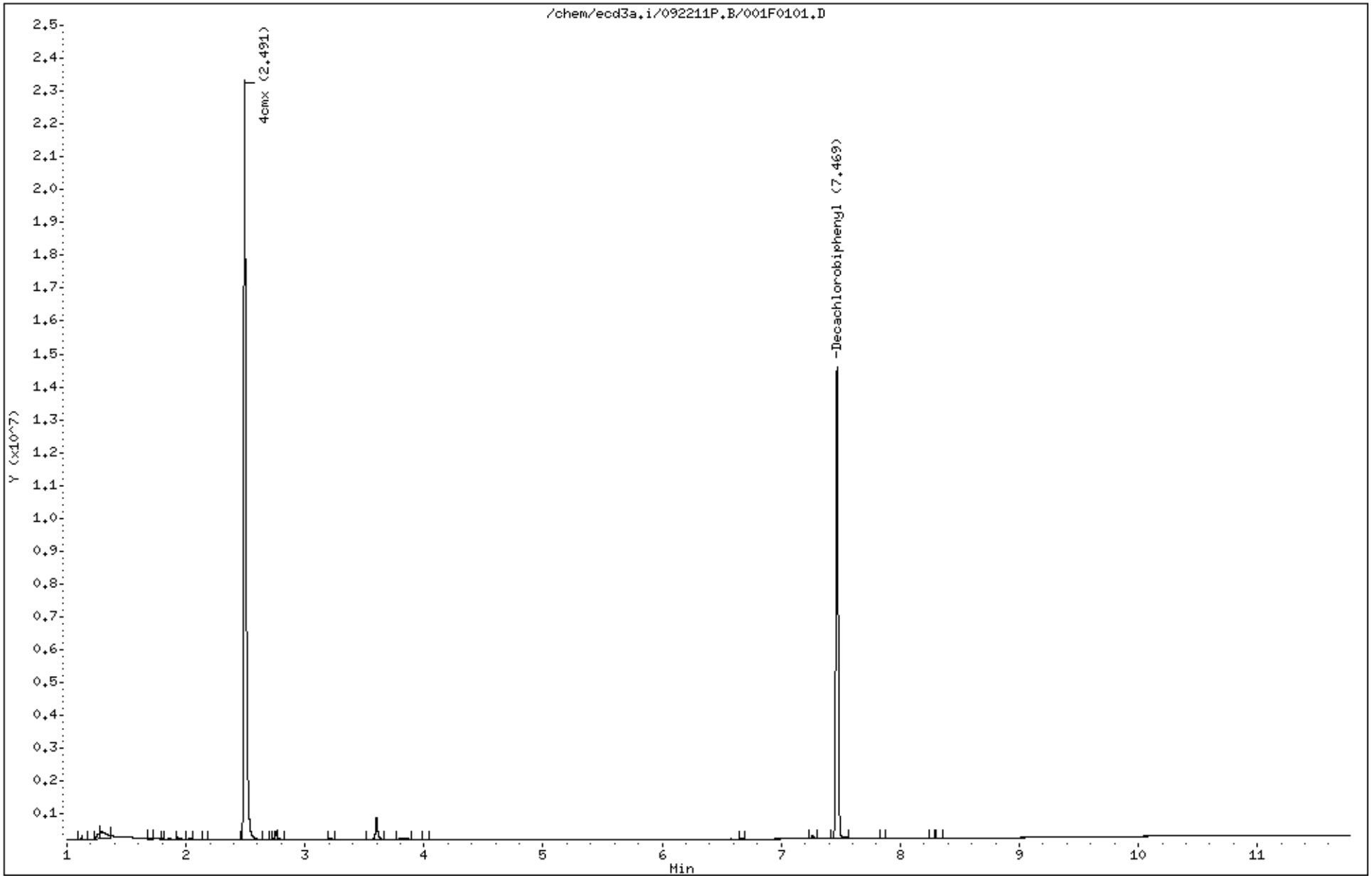
Instrument: ecd3a.i

Sample Info: IWAR110902-99IB

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/092211P.B/019B1901.D
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 22-SEP-2011 19:37
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WAR110902-99IB
Misc Info : |INSTBLANK
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-B-8081-092011p.m
Meth Date : 23-Sep-2011 11:26 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036b3601.d
Als bottle: 19 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.992	2.990	0.002	10153722	216.171	216	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.999	8.999	0.000	6903452	219.055	219	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/019B1901.D

Page 1

Date : 22-SEP-2011 19:37

Client ID: PIBLK02

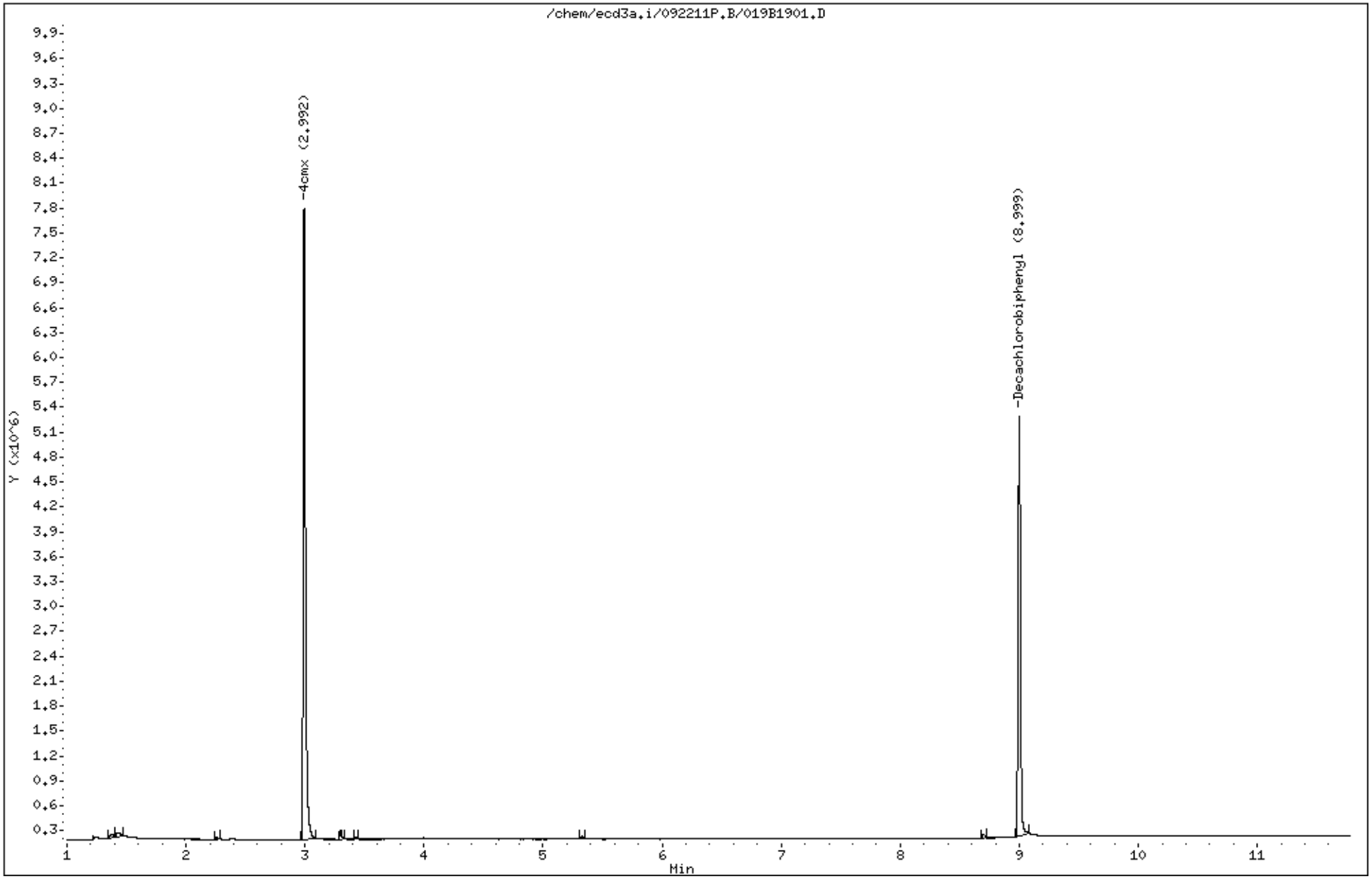
Instrument: ecd3a.i

Sample Info: IWAR110902-99IB

Operator: RXE1

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/092211P.B/019F1901.D
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 22-SEP-2011 19:37
Operator : RXE1 Inst ID: ecd3a.i
Smp Info : |WAR110902-99IB
Misc Info : |INSTBLANK
Comment :
Method : /chem/ecd3a.i/092211P.B/ECD3-F-8081-092011p.m
Meth Date : 23-Sep-2011 11:29 reb01393 Quant Type: ESTD
Cal Date : 30-NOV-2010 06:46 Cal File: 036f3601.d
Als bottle: 19 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.492	2.490	0.002	30453209	228.866	229	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.471	7.470	0.001	18704950	216.705	217	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/092211P.B/019F1901.D

Page 1

Date : 22-SEP-2011 19:37

Client ID: PIBLK02

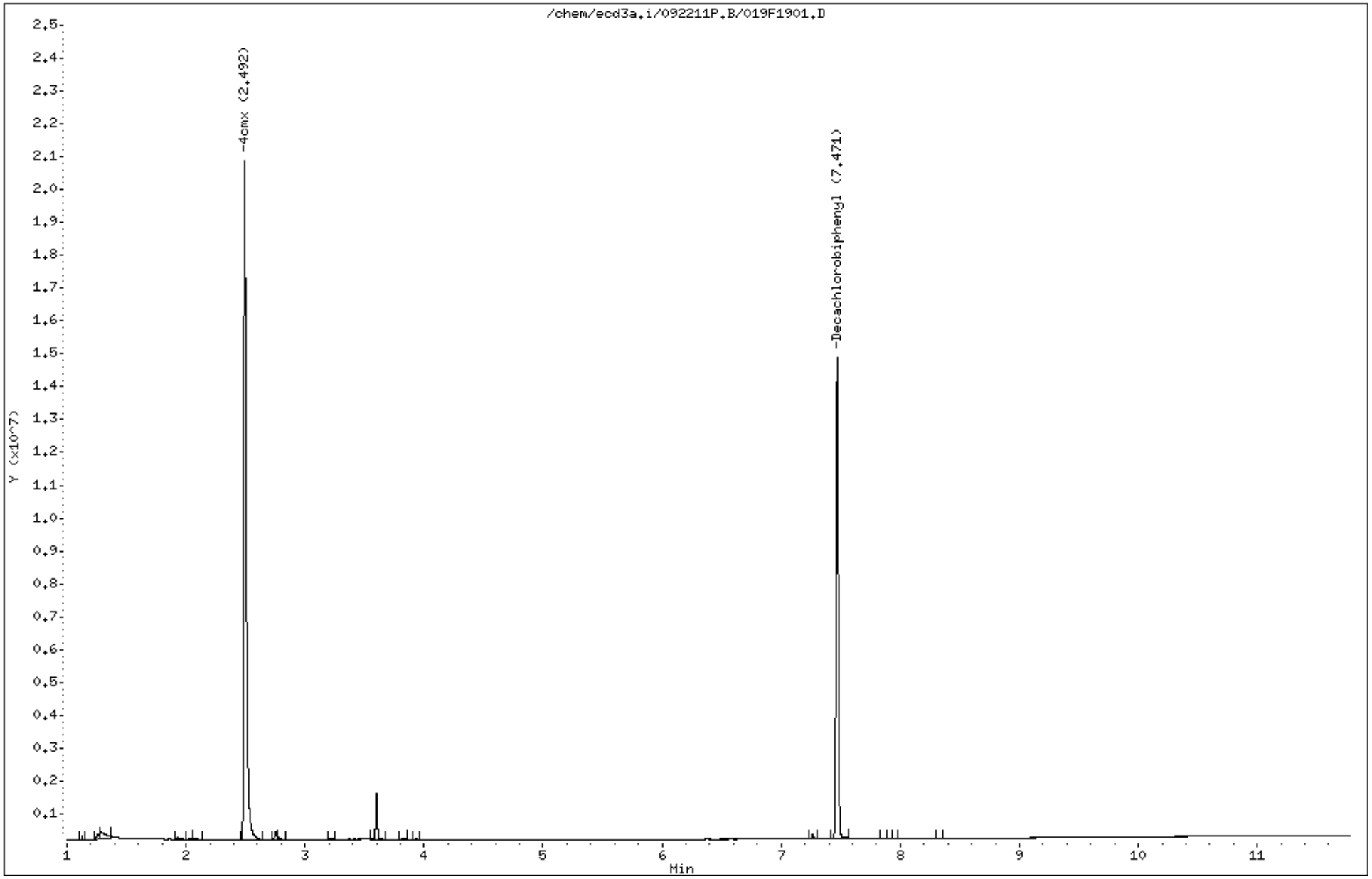
Instrument: ecd3a.i

Sample Info: IWAR110902-99IB

Operator: RXE1

Column phase: CLP-1

Column diameter: 0.25



Thursday, September 08, 2011

REQUEST NUMBER: 11-3492

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3492
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 9/8/2011
TURNAROUND/REPORT DUE: 10/8/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:903.1	1	NPDES13S-11-26992	WOE	9/8/2011	
	EPA:904	1	NPDES13S-11-26992	WOE	9/8/2011	

Final Page of REQUEST NUMBER 11-3492

Thursday, September 08, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3492C

REQUEST NUMBER: 11-3492

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/8/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26992	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES13S-11-26992 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		9/8/11	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1041	SUB-MEDIA:	OTHER	
PRS ID:			SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall SSS13S		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: 24hr COMPOSITE TIME INTERVAL: 9 pulses WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid (HNO3)		
1		NPDES-As~~+Cu~~ B	250 ML POLY	Nitric Acid (HNO3)		to SWRI
1		NPDES-Se (7742 MOD)	250 ML POLY	Nitric Acid (HNO3)		to SWRI

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) Beth Gray **REVIEWED BY (PRINT)** —

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray	9/8/11	(Printed Name) Sheri Sherwood	9/8/11
(Signature) Beth Gray	1138	(Signature) Sheri Sherwood	1138
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3492 VALIDATION DATE: 10/03/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kris Chupka ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☒ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):** Ra-228 and Ra-226 only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Susan Ball **Level:** I **Date:** 10/04/11

VALIDATOR'S SIGNATURE: DATE: 10/03/11

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	**1. The holding time was >1 and ≤2 times the applicable holding time requirement.**	**UJ, R9**	**J-, R9**
☐	☒	☐	**2. The holding time was >2 times the applicable holding time requirement.**	**R, R9a**	**J-, R9a**
☐	☐	☒	**3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.**	**U, R5**	**N/A**
☐	☐	☒	**4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.**	**R, R5a**	**R, R5a**
☐	☒	☐	**5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, R5b**	**J-, R5b**
☐	☐	☒	**6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.**	**U, R11**	**N/A**
☐	☒	☐	**7. The sample result is ≤5X the concentration of the related analyte in the method blank.**	**U, R4**	**N/A**
☐	☒	☐	**8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.**	**N/A**	**J, R4a**
☐	☐	☒	**9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.**	**U, R4d**	**N/A**
☐	☒	☐	**10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, R4e**	**R, R4e**
☐	☒	☐	**11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for**	**R, R3**	**R, R3**

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			Gamma Spectroscopy.		
☐	☒	☐	**12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.**	**UJ, R3a**	**J-, R3a**
☐	☒	☐	**13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.**	**N/A**	**J+, R3b**
☐	☒	☐	**14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.**	**R, R3d**	**R, R3d**
☐	☒	☐	**15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.**	**R, R12**	**R, R12**
☐	☒	☐	**16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.**	**UJ, R12a**	**J-, R12a**
☐	☒	☐	**17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.**	**N/A**	**J+, R12b**
☐	☒	☐	**18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, R12c**	**R, R12c**
☐	☒	☐	**19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.**	**R, R10**	**J, J10**
☐	☒	☐	**20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the**	**R, R6**	**R, R6**

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			SMO or external laboratory for information.		
☐	☒	☐	**21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.**	**R, R6**	**R, R6**
☐	☒	☐	**22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.**	**UJ, R6a**	**J-, R6a**
☐	☒	☐	**23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.**	**UJ, R6b**	**J+, R6b**
☐	☒	☐	**24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.**	**R, R6c**	**R, R6c**
☐	☒	☐	**25. Duplicate, dilution, or reanalysis.**	**UJ, R88**	**J, R88**
☐	☒	☐	**26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.**	**UJ, R, R19**	**J, R, R19**
☒	☐	☐	**27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB** **NQ, NQ**

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 15, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client Sample ID: NPDES13S-11-26992
Sample ID: 285581001
Matrix: Waste Water
Collect Date: 08-SEP-11
Receive Date: 09-SEP-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228	U	0.136	+/-0.156	0.552	+/-0.157	1.00	pCi/L		BXF1	09/15/11	1403	1140300	1
Rad Radium-226													
Ra226 "As Received"													
Radium-226		0.696	+/-0.225	0.625	+/-0.239	1.00	pCi/L		KSD1	09/15/11	1210	1140637	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1140300	80.3	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

KWC
10/03/11

Thursday, September 08, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3492C

REQUEST NUMBER: 11-3492

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/8/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 285581 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26992	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	9/8/11	1440	P. Plant	9/9/11	09:45
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Thursday, September 08, 2011

REQUEST NUMBER: 11-3492

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3492
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/8/2011
TURNAROUND/REPORT DUE: 10/8/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:903.1	1	NPDES13S-11-26992	WOE	9/8/2011	
	EPA:904	1	NPDES13S-11-26992	WOE	9/8/2011	

Final Page of REQUEST NUMBER 11-3492

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

September 19, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH NPDES 13S
Work Order: 285581
SDG: 11-3492

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on September 09, 2011, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 11-3492
Enclosures

ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 285581
SDG # : 11-3492

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....4

Data Review Qualifier Flag Definition Sheet.....9

Radiological Analysis.....11

Sample Data Summary.....17

Quality Control Data.....19

Gas Flow Raw Data.....22

Lucas Cell Raw Data.....32

Continuing Calibration Data.....39

Background and Efficiency Data.....44

Standards Data.....60

Runlogs.....73

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 285581
SDG # : 11-3492

September 19, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on September 09, 2011 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
285581001	NPDES13S-11-26992

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

List of current GEL Certifications as of 19 September 2011

State	Certification
Arizona	AZ0766
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH−0169
DoD ELAP − A2LA	2567.01
Florida − NELAP	E87156
Foreign Soils Permit USDA	P330−09−00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046 (Al33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M−SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey − NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−11−4
Utah − NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780−11
Wisconsin	999887790

Chain of Custody and Supporting Documentation

Thursday, September 08, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3492C

REQUEST NUMBER: 11-3492

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/8/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 285581 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-26992	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	9/8/11	1440	P. Plant	9/9/11	09:45
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Thursday, September 08, 2011

REQUEST NUMBER: 11-3492

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3492
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/8/2011
TURNAROUND/REPORT DUE: 10/8/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:903.1	1	NPDES13S-11-26992	WOE	9/8/2011	
	EPA:904	1	NPDES13S-11-26992	WOE	9/8/2011	

Final Page of REQUEST NUMBER 11-3492

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/AR/COC/Work Order:** ~~3492~~ 11-3492 HH 091211
Received By: Patricia Dent	**Date Received: September 9, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags **Blue ice** Dry ice **None** Other (describe) HH 091211 ~~4-6,20,21~~ 5C
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: **61524646** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**Client Labels**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			Circle Applicable: **FedEx Air** FedEx Ground UPS Field Services Courier Other **7209 7855 4246 5C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials HH Date 091211 Page 1 of 1

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08SEP11
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWESWMSGP00000

5

NPDES

FedEx Express

J1010100901010124

FRI - 09 SEP A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7855 4246

XX CHSA

29407
SC-US
CHS

Part # 156148-434 RIT2 08/10

505C2/4299/DA47

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Radiological Analysis

Radiochemistry Case Narrative
ARS International (ARSL)
SDG 11-3492
Work Order 285581

Method/Analysis Information

Product:	**Ra228**
Analytical Method:	EPA 904.0/SW846 9320 Modified
Analytical Batch Number:	1140300

Sample ID	Client ID
285581001	NPDES13S-11-26992
1202484218	Method Blank (MB)
1202484219	285581001(NPDES13S-11-26992) Sample Duplicate (DUP)
1202484220	285581001(NPDES13S-11-26992) Matrix Spike (MS)
1202484221	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-009 REV# 16.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202484218 (MB) and 1202484221 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 285581001 (NPDES13S-11-26992). The QC was from ARSL work order 285581.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprecipitated due to high relative percent difference/relative error ratio. The reprecipitated results are being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The matrix spike, 1202484220 (NPDES13S-11-26992), aliquot was reduced to conserve sample volume.

Blank Decision Level
The blank result is less than the decision level.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Ra226**
Analytical Method:	EPA 903.1 Modified
Analytical Batch Number:	1140637

Sample ID	Client ID
285581001	NPDES13S-11-26992
1202485081	Method Blank (MB)
1202485082	285581001(NPDES13S-11-26992) Sample Duplicate (DUP)
1202485083	285581001(NPDES13S-11-26992) Matrix Spike (MS)
1202485084	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in September 2010, January 2011, April 2011 and June 2011.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202485081 (MB) and 1202485084 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 285581001 (NPDES13S-11-26992). The QC was from ARSL work order 285581.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202485084 (LCS) was recounted due to high recovery. The recount is reported. Sample 1202485081 (MB) was recounted due to a suspected blank false positive. The recount is reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The matrix spike, 1202485083 (NPDES13S-11-26992), aliquot was reduced to conserve sample volume.

Blank Decision Level
The blank 1202485081 (MB) result is greater than the decision level but less than the MDC.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3492 GEL Work Order: 285581

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: **Name: Kate Gellatly**

Date: 16 SEP 2011 **Title: Analyst I**

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 15, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client Sample ID: NPDES13S-11-26992
Sample ID: 285581001
Matrix: Waste Water
Collect Date: 08-SEP-11
Receive Date: 09-SEP-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228	U	0.136	+/-0.156	0.552	+/-0.157	1.00	pCi/L		BXF1	09/15/11	1403	1140300	1
Rad Radium-226													
Ra226 "As Received"													
Radium-226		0.696	+/-0.225	0.625	+/-0.239	1.00	pCi/L		KSD1	09/15/11	1210	1140637	2

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1140300	80.3	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

Quality Control Data

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 15, 2011

Client : **Los Alamos National Laboratory**
TA-03, SM271, Drop Pt. 02U, Rm

Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **285581**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1140300										
QC1202484219 285581001 DUP										
Radium-228	U	0.136		0.522	pCi/L	0.580		(0-1)	BXF1	09/15/1114:04
Uncert:		+/-0.156		+/-0.161						
TPU:		+/-0.157		+/-0.175						
Yield:		80.3		84.1						
QC1202484221 LCS										
Radium-228	18.1			17.3	pCi/L		96	(80%-120%)		09/15/1114:04
Uncert:				+/-0.668						
TPU:				+/-2.36						
Yield:				73.5						
QC1202484218 MB										
Radium-228			U	-0.021	pCi/L					09/15/1114:04
Uncert:				+/-0.141						
TPU:				+/-0.141						
Yield:				94.9						
QC1202484220 285581001 MS										
Radium-228	90.4 U	0.136		80.4	pCi/L		89	(75%-125%)		09/15/1114:04
Uncert:		+/-0.156		+/-2.88						
TPU:		+/-0.157		+/-10.9						
Yield:		80.3		94.1						
Rad Ra-226										
Batch 1140637										
QC1202485082 285581001 DUP										
Radium-226		0.696	U	0.255	pCi/L	0.528		(0-1)	KSD1	09/15/1112:10
Uncert:		+/-0.225		+/-0.175						
TPU:		+/-0.239		+/-0.178						
QC1202485084 LCS										
Radium-226	12.4			13.8	pCi/L		112	(80%-120%)		09/15/1112:50
Uncert:				+/-0.588						
TPU:				+/-2.36						
QC1202485081 MB										
Radium-226			U	0.108	pCi/L					09/15/1114:25
Uncert:				+/-0.0649						
TPU:				+/-0.0671						
QC1202485083 285581001 MS										
Radium-226	124	0.696		131	pCi/L		105	(75%-125%)		09/15/1112:10
Uncert:		+/-0.225		+/-4.95						
TPU:		+/-0.239		+/-21.2						

Notes:
The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

QC Summary

Workorder: 285581

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Gas Flow Raw Data

Radiochemistry Batch Checklist

14-Sep-2011

Batch# 1140300 Product: Ra 228 Date: 9/15/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required). Blank correction reported included (if required).			NA
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	/		
Instrument source check is within limits. Instrument bkg check is within limits.	/		
Method RDL/ LLD has been met.	/		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	/		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).	/		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	/		
Sample was run within hold time.	/		
Sample was correctly preserved if required.	/		
Smears Taken for Radioactive batches.	/		
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	/		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	/		
Aux data is correct.			NA
Client Special requirements page has been checked.	/		
Raw Data and/ or spectrum are included and properly statused.	/		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	/		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	/		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	/		

Primary Review Performed By: [signature] 9/20 ARL FAX 9/15

Secondary Review Performed By: Amanda [signature]

Radium-228 Queue Sheet

Fax 9-15

09/10/2011

Batch #: 1140300 Analyst:BXF1 First Client Due Date:09/20/2011 Internal Due Date:09/12/2011

Spike Isotope: Radium-228 Spike Code: 1519-A Expiration Date: 5-26-12 Vol: 0.2 Ac-228 Ingrow: 9-12-11 / 1415

LCS Isotope: Radium-228 LCS Code: 1519-A Expiration Date: 5-26-12 Vol: 0.2

Tracer Isotope: Barium-133 Tracer Code: 0112-K Expiration Date: 1-7-12 Vol: 0.1 Ac-228 Separation Date/Time: 752 / 9-14-11

Prep Date: 9-10-11 Initials: BF Pipet ID: 1607295 Balance ID: 51204863 Witness: 9/10/11

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collect Date & Time	Pos. #	Vol (mL)	Det #	Ba Yield (%)	Gamma Det. #
285581001-1	NPDES13S-11-26992	SAMPLE		1 pCi/L	WASTE WATE	ARSL001	08-SEP-11 12:00 PM	1	900	2D	82.43	
1202484218-1	MB for batch 1140300	MB		1 pCi/L	WASTE WATE	QC ACCOUNT	1000	2	~~900~~ 1000	3B	94.04	
1202484219-1	NPDES13S-11-26992(285581001	DUP		1 pCi/L	WASTE WATE	QC ACCOUNT	08-SEP-11 12:00 PM	3	900	3C	86.72	
1202484220-1	NPDES13S-11-26992(285581001	MS		1 pCi/L	WASTE WATE	QC ACCOUNT	08-SEP-11 12:00 PM	4	200	3D	97.18	
1202484221-1	LCS for batch 1140300	LCS		1 pCi/L	WASTE WATE	QC ACCOUNT	1000	5	~~900~~ 1000	5B	75.66	

N 9/15/11

Data Reviewed By:

Radium 228 Re-Elute / ~~Reprecipitate~~

Batch #: 1140300
Ra 228 Spike Code 1519-A
LCS Code 1519-A
Ba-133 Tracer Code 0112-K

Prep Date 9-10-11
Spike Vol (mls) 0.2
LCS Vol (mls) 0.2
Tracer Vol (mls) 0.1

Initials DEE

Ingrow Start Time: 9-14-11 / 9:38
Seperation Time: 9-15-11 / 11:32

Sample ID	Bkr #	Vol. (mls)	Det #	% Yield	Gamma Det #
285581001	1	900	1A	80.27	
1202484218	2	1000	1D	94.86	
1202484219	3	900	2C	84.08	
1202484220	4	200	3B	94.07	
1202484221	5	1000	3C	73.51	

Blank Correction Report

Batch ID 1140300

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202484219	DUP	Radium-228	0.900 L	0.522	0.175	0.452	-.02333333	pCi/L	NO
1202484221	LCS	Radium-228	1.00 L	17.3	2.36	0.618	-.021	pCi/L	NO
1202484218	MB	Radium-228	1.00 L	-0.021	0.141	0.523	-.021	pCi/L	NO
1202484220	MS	Radium-228	0.200 L	80.4	10.9	2.23	-.105	pCi/L	NO
285581001	NPDES13S-11-26992	Radium-228	0.900 L	0.136	0.157	0.552	-.02333333	pCi/L	NO

Radium-228 Liquid

Filename : RA228.XLS
File type : Excel
Version # : 1.3.7

Batch : 1140300
Analyst : BXF1
Prep Date : 9/10/2011

Ra-228 Abundance : 1
Ra-228 Method Uncertainty : 0.1268

Geometry: CeF on 25mm Filter

Spike S/N :	1519-A
Spike Exp Date :	5/26/2012
Spike Activity (dpm/ml):	200.51
Spike Volume Added:	0.20
LCS S/N :	1519-A
LCS Exp Date :	5/26/2012
LCS Activity (dpm/ml):	200.51
LCS Volume Added:	0.20
Tracer S/N :	0112-K
Tracer Exp Date :	1/7/2012
Tracer Volume Added:	0.10

Pipet, 0.1 ml Stdev : +/-	0.000701	ml
Pipet, 0.5 ml Stdev : +/-	0.002564	ml
Pipet, 1 ml Stdev : +/-	0.005480	ml
Procedure Code :	GFC28RAL	
Parmname :	Radium-228	
Required MDC :	1	pCi/L
Halflife of Ra-228 :	5.75	years
Halflife of Ac-228 :	6.15	hours

Sample Characteristics					**Tracer Calculations**					
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Tracer Concentration (cpm) (Ba-133 Ref.)	Tracer Ref. Count Uncertainty (cpm)	Tracer Concentration (cpm) (Ba-133 Samp.)	Tracer Samp. Count Uncertainty (cpm)	Tracer Aliquot (mL)	Tracer Aliquot StDev. (mL)
1	285581001.1	0.9000	2.0768E-05	9/8/2011 12:00	278.2	3.70%	223.3	4.19%	0.1	0.000701
2	1202484218.1	1.0000	2.0399E-05	9/10/2011 0:00	278.2	3.70%	263.9	3.81%	0.1	0.000701
3	1202484219.1	0.9000	2.0768E-05	9/8/2011 12:00	278.2	3.70%	233.9	4.08%	0.1	0.000701
4	1202484220.1	0.2000	1.6007E-05	9/8/2011 12:00	278.2	3.70%	261.7	3.83%	0.1	0.000701
5	1202484221.1	1.0000	2.0399E-05	9/10/2011 0:00	278.2	3.70%	204.5	4.41%	0.1	0.000701

Analytical SOP: GL-RAD-A-009
Instrument SOP: GL-RAD-I-016

Count raw Data													Calibration Data							
Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Beta cpm	Count Start Date/Time	Separation Date/Time	Ra-228 Decay	Ac-228 Decay	Ac-228 Count Correction	Calculated Sample Recovery %	Sample Recovery Error %	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	cpm	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	1A	60	8	37	0.617	9/15/2011 14:03	9/15/2011 11:32	0.998	0.752	1.057	80.3%	2.97%	PIC	8/1/2010	9/15/2011	0.5980	0.00600	0.524	9/12/2011 4:05	500
2	1D	60	7	50	0.833	9/15/2011 14:04	9/15/2011 11:32	0.998	0.752	1.057	94.9%	2.83%	PIC	8/1/2010	9/15/2011	0.5944	0.00511	0.852	9/12/2011 3:33	500
3	2C	60	7	42	0.700	9/15/2011 14:04	9/15/2011 11:32	0.998	0.752	1.057	84.1%	2.93%	PIC	8/1/2010	9/15/2011	0.5794	0.00575	0.340	9/13/2011 5:29	500
4	3B	60	44	847	14.117	9/15/2011 14:04	9/15/2011 11:32	0.998	0.751	1.057	94.1%	2.84%	PIC	8/1/2010	9/15/2011	0.5708	0.00655	0.528	9/12/2011 4:07	500
5	3C	60	32	761	12.683	9/15/2011 14:04	9/15/2011 11:32	0.998	0.751	1.057	73.5%	3.04%	PIC	8/1/2010	9/15/2011	0.5971	0.00535	0.702	9/12/2011 4:07	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.3388	0.2392	1	0.5519	**0.1362**	1.1488	0.0927	0.1064	0.1565	0.1575		SAMPLE				
2	0.3308	0.2336	1	0.5234	**-0.0210**	6.6896	-0.0187	0.1249	0.1406	0.1406		MB				
3	0.2690	0.1899	1	0.4523	**0.5217**	0.3101	0.3600	0.1111	0.1610	0.1748	285581001.1	DUP	117.2%	0.5801		
4	1.3690	0.9665	1	2.2289	**80.4192**	0.0462	13.5887	0.4861	2.8770	10.8516	285581001.1	MS			90.3636	89.0%
5	0.3861	0.2726	1	0.6175	**17.3428**	0.0494	11.9813	0.4613	0.6677	2.3599		LCS			18.0638	96.0%

1140300rp.xls

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
285581001	1A	60	8	37	9/15/2011 14:03	9/15/2011 15:03	PIC	1140300
1202484218	1D	60	7	50	9/15/2011 14:04	9/15/2011 15:04	PIC	1140300
1202484219	2C	60	7	42	9/15/2011 14:04	9/15/2011 15:04	PIC	1140300
1202484220	3B	60	44	847	9/15/2011 14:04	9/15/2011 15:04	PIC	1140300
1202484221	3C	60	32	761	9/15/2011 14:04	9/15/2011 15:04	PIC	1140300

ASSAY 15-Sep-11 9:44:02

Protocol	id	9	228_REC2
Time	limit	180	
Count	limit	50000	
Isotope	Ba-133		
Protocol	date	9-Apr-07	10:02:22
Run	id.	33	

POS	RACK	BATCH	TIME	COUNTS	CPM	ERROR	% RECOVERY	COUNT TIME
1	68	1	180	926	278.2	3.7		09:44:09
2	68	2	180	761	223.3	4.19	80.27	09:47:20
3	68	3	180	883	263.9	3.81	94.86	09:50:32
4	68	4	180	793	233.9	4.08	84.08	09:53:43
5	68	5	180	876	261.7	3.83	94.07	09:56:54
6	70	6	180	705	204.5	4.41	73.51	10:00:13

END OF ASSAY

Lucas Cell Raw Data

Batch# 1140637 Product: Ra-226 Date: 9/15/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required). Blank correction reported included (if required).			NA
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 9-15-11

ARSL 9/20/11
FAX 9/15/11

Radium-226 Queue Sheet

12-SEP-11 fax due: 9/15/11

GEL Laboratories, Radiochemistry Division

Batch #: 1140637 **Analyst:** KSD1 **First Client Due Date:** 09/20/2011 **Internal Due Date:** 09/12/2011

Spike Isotope: Radium-226 **Spike Code:** 06038 **Expiration Date:** 9/14/11 **Vol:** 0.1 **End Initial/Degas Date/Time:** 9/12/11 1530

LCS Isotope: Radium-226 **LCS Code:** 06038 **Expiration Date:** 9/14/11 **Vol:** 0.1 **End LN De-em Date:** 9/15/11

Prep Date: 9/12/11 **Bkg Count Time:** 30 (Min) **Pipet ID:** 7716953 **Sample Count Time:** 30 (Min) **Balance ID:** 3100800009 **Initials:** KD **Start Count Date:** 9/15/11 **Witness:** MS 9/12/11

Sample I	Client Description	Type	Hazard Code	Matrix	Min CRDL	Client	Position (Label)	Aliquot (mL or g)	End LN De-em Time	Start Count Time	Cell #	Det #	Bkg counts	Total Counts
285581001-1	NPDES13S-11-26992	SAMPLE		WASTE WATE	1 pCi/L	ARSL001	1	500	0905	1210	114	1	8	26 KP 9/15/11
1202485081-1	MB for batch 1140637	MB		WASTE WATE	1 pCi/L	QC ACCOUNT	2	~~500~~ 1000 KP 9/15/11	0905	~~1210~~ 1425 1250	114	2	2	~~26~~ 7
1202485082-1	NPDES13S-11-26992(285581001DUP	DUP		WASTE WATE	1 pCi/L	QC ACCOUNT	3	500	0905 KP 9/15/11	1210	412	4	8	15
1202485083-1	NPDES13S-11-26992(285581001MS)	MS		WASTE WATE	1 pCi/L	QC ACCOUNT	4	100	0905	1210	501	5	6	719
1202485084-1	LCS for batch 1140637	LCS		WASTE WATE	1 pCi/L	QC ACCOUNT	5 KP 9/15/11	~~50~~ 1000	0905 KP 9/15/11	~~1210~~ 1250	609	6	6	~~1088~~ 570 KP 9/15/11

Comments:

Data Reviewed By: Lynnette Dare 9/15/11

Blank Correction Report

Batch ID 1140637

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202485082	DUP	Radium-226	0.500 L	0.255	0.178	0.589	.216	pCi/L	YES
1202485084	LCS	Radium-226	1.00 L	13.8	2.36	0.353	.108	pCi/L	NO
1202485081	MB	Radium-226	1.00 L	0.108	0.0671	0.207	.108	pCi/L	YES
1202485083	MS	Radium-226	0.100 L	131	21.2	2.64	1.08	pCi/L	NO
285581001	NPDES13S-11-26992	Radium-226	0.500 L	0.696	0.239	0.625	.216	pCi/L	YES

Radium-226 Liquid

Filename : RA226.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 0638-J
Spike Exp Date : 9/14/2011
Spike Activity (dpm/ml): 274.31
Spike Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Batch : 1140637
Analyst : KSD1
Prep Date : 9/12/2011
Ra-226 Abundance : 1
Ra-226 Method Uncertainty : 0.0918

LCS S/N : 0638-J
LCS Exp Date : 9/14/2011
LCS Activity (dpm/ml): 274.31
LCS Volume Added: 0.10

Procedure Code : LUC26RAL
Parmname : Radium-226
Required MDC : 1 pCi/L
Halflife of Ra-226 : 1600 years
Halflife of Rn-222: 3.8235 days
Batch counted on : LUCAS CELL DETECTOR
BKG Count time : 30 min

Sample Characteristics					Count Raw Data					Background		
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Cell Number	Counting Time (min.)	Gross Counts	Gross CPM	Counts	CPM	Count Time (min.)	Detector Efficiency (cpm/dpm)
1	285581001.1	0.5000	2.0256E-05	9/8/2011 12:00	104	30	26	0.867	8	0.267	30	2.0320
2	1202485081.1	1.0000	2.0399E-05	9/12/2011 0:00	204	30	7	0.233	2	0.067	30	1.8470
3	1202485082.1	0.5000	2.0256E-05	9/8/2011 12:00	412	30	15	0.500	8	0.267	30	2.1540
4	1202485083.1	0.1000	1.1370E-05	9/8/2011 12:00	501	30	719	23.967	6	0.200	30	2.1380
5	1202485084.1	1.0000	2.0399E-05	9/12/2011 0:00	609	30	570	19.000	6	0.200	30	1.6100

Analytical SOP: GL-RAD-A-008
Instrument SOP: GL-RAD-I-007

Detector Efficiency Error (cpm/dpm)	Cell Calibration Date	Cell Calibration Due Date	De-Gas Date/Time	Rn-222 Ingrow End Date/Time	Count Start Date/Time	Rn-222 Corrections			Ra-226 Decay
						De-Gas to Ingrowth	Ingrowth to Count	During Count	
0.06792	9/1/2010	9/30/2011	9/12/2011 15:30	9/15/2011 9:05	9/15/2011 12:10	0.391	0.977	1.002	1.000
0.13069	1/26/2011	1/26/2012	9/12/2011 15:30	9/15/2011 9:05	9/15/2011 14:25	0.391	0.961	1.002	1.000
0.10392	1/4/2011	1/4/2012	9/12/2011 15:30	9/15/2011 9:05	9/15/2011 12:10	0.391	0.977	1.002	1.000
0.12813	6/9/2011	6/8/2012	9/12/2011 15:30	9/15/2011 9:05	9/15/2011 12:10	0.391	0.977	1.002	1.000
0.13776	4/28/2011	4/27/2012	9/12/2011 15:30	9/15/2011 9:05	9/15/2011 12:50	0.391	0.972	1.002	1.000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.3602	0.2543	1	0.6245	**0.6957**	0.3310	0.6000	0.1944	0.2254	0.2389		SAMPLE				
2	0.1008	0.0711	1	0.2072	**0.1081**	0.6141	0.1667	0.1000	0.0649	0.0671		MB				
3	0.3398	0.2399	1	0.5892	**0.2552**	0.6930	0.2333	0.1599	0.1748	0.1784	285581001.1	DUP	92.6%	0.5277		
4	1.4824	1.0466	1	2.6441	**130.9479**	0.1336	23.7667	0.8975	4.9451	21.2246	285581001.1	MS			123.5655	105.4%
5	0.1978	0.1397	1	0.3529	**13.8247**	0.1442	18.8000	0.8000	0.5883	2.3630		LCS			12.3565	111.9%

Continuing Calibration Data

Gas Flow Proportional Counter Checks for 15-Sep-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100A1	need 2nd	Beta eff	07:49	5	20755	20200	22720	-1.68
LB4100A2	Below	Beta eff	07:49	5	22669	22750	25060	-3.21
LB4100B1	Above	Alpha bkg	13:45	60	0.217	-4.85E-2	0.151	+4.99
LB4100B2	Below	Beta eff	07:49	5	22576	23830	25610	-7.23
LB4100C2	Above	Alpha bkg	12:27	60	0.283	-3.05E-2	0.171	+6.37
LB4100C2	Above	Beta bkg	12:27	60	2.750	0.479	1.876	+6.75
LB4100C4	Above	Alpha bkg	12:27	60	0.367	-5.11E-2	0.201	+6.95
LB4100C4	need 2nd	Beta bkg	12:27	60	1.200	0.728	1.757	-0.25
LB4100D2	Above	Alpha bkg	11:45	60	0.183	-4.20E-2	0.180	+3.08
LB4100D3	Above	Beta bkg	11:45	60	2.083	0.564	1.600	+5.80
LB4100E1	Below	Beta eff	10:30	5	18154	18170	19660	-3.07
LB4100E3	Above	Alpha bkg	12:15	60	0.217	-3.68E-2	0.183	+3.92
LB4100E3	Above	Beta bkg	12:15	60	1.567	0.692	1.456	+3.87
LB4100E4	Above	Alpha bkg	06:09	60	0.217	-7.37E-2	0.206	+3.22
LB4100E4	Below	Beta eff	10:30	5	21108	21480	24210	-3.82
LB4100F2	need 2nd	Alpha bkg	06:10	60	0.133	-6.34E-2	0.171	+2.04
LB4100F2	Above	Beta bkg	06:10	60	1.950	0.620	1.611	+5.05
LB4100F2	Below	Beta eff	08:00	5	21823	21850	24030	-3.07
LB4100F4	Above	Alpha bkg	11:25	60	0.267	-5.46E-2	0.223	+3.93
LB4100G3	Above	Beta eff	11:03	5	24316	20310	22930	+6.17
LB4100G4	Above	Alpha bkg	06:10	60	0.450	-5.48E-2	0.122	+14.17
LB4100G4	Above	Beta bkg	06:10	60	2.033	0.490	1.442	+6.73
LB4100I1	need 2nd	Alpha bkg	06:08	60	0.183	-1.48E-1	0.329	+1.16
LB4100I1	Above	Alpha eff	07:00	5	11131	10760	11070	+4.18
LB4100I1	Above	Beta bkg	06:08	60	1.583	0.441	1.366	+4.41
LB4100I2	need 2nd	Alpha bkg	06:08	60	0.267	-1.23E-1	0.360	+1.84
LB4100I3	need 2nd	Alpha bkg	06:08	60	0.300	-3.09E-1	0.526	+1.38
LB4100I3	Above	Alpha XTalk	07:00	5	0.141	0.119	0.137	+4.51

LB4100I4	Above	Alpha bkg	06:08	60	0.867	0.225	0.847	+3.19
LB4100I4	Below	Alpha eff	07:00	5	11816	11930	12280	-4.96
LB4100I4	Above	Alpha XTalk	07:00	5	0.159	0.138	0.158	+3.50
LB4100J1	need 2nd	Alpha bkg	06:08	60	0.233	-1.27E-1	0.256	+2.64
LB4100J1	need 2nd	Beta bkg	06:08	60	1.183	0.394	1.639	+0.80
LB4100J2	need 2nd	Alpha eff	07:00	5	10690	10320	10750	+2.16
LB4100J3	need 2nd	Alpha bkg	06:08	60	0.033	-8.98E-2	0.207	-0.51
LB4100J4	need 2nd	Alpha bkg	06:08	60	0.150	-1.67E-1	0.529	-0.27
PIC1C	Above	Alpha bkg	06:52	60	0.633	-7.75E-2	0.313	+7.93
PIC1C	Above	Alpha eff	05:38	5	11571	11090	11450	+5.02
PIC1C	Above	Beta bkg	06:52	60	2.000	0.155	1.501	+5.22
PIC1C	Above	Beta eff	05:18	5	22831	22200	22750	+3.88
PIC2A	Above	Alpha bkg	09:48	60	0.167	-5.50E-2	0.163	+3.09
PIC3A	Above	Alpha bkg	07:02	60	0.267	-3.21E-2	0.238	+3.65
PIC4A	need 2nd	Alpha eff	05:50	5	10558	10250	10570	+2.77
PIC4A	Above	Beta eff	13:44	5	57802	55910	57720	+3.27
PIC4D	Above	Alpha bkg	07:03	60	0.300	-2.14E-2	0.261	+3.83
PIC4D	Above	Alpha eff	05:50	5	18267	17680	18070	+6.03
PIC4D	Below	Alpha XTalk	05:50	5	0.249	0.253	0.267	-4.67
PIC4D	Above	Beta bkg	07:03	60	2.117	0.616	1.910	+3.96
PIC5A	Above	Alpha XTalk	06:00	5	0.273	0.249	0.269	+4.28
PIC5A	Above	Beta bkg	07:15	60	29.917	-4.00E-2	1.420	+120.11
PIC5A	Below	Beta eff	05:48	5	19267	19490	20460	-4.38
PIC5C	Above	Alpha bkg	07:15	60	0.517	-1.97E-1	0.390	+4.29
PIC5C	Above	Beta bkg	07:15	60	2.950	0.024	1.083	+13.58
PIC6A	Above	Beta bkg	07:15	60	7.933	0.112	0.881	+58.02
PIC6A	Below	Beta XTalk	05:48	5	5.70E-4	0.002	0.009	-3.82
PIC6C	Below	Alpha XTalk	13:44	5	0.243	0.253	0.272	-5.98
PIC8B	Above	Beta bkg	07:29	60	1.717	0.230	1.433	+4.41
PIC8B	need 2nd	Beta XTalk	05:58	5	4.61E-4	5.80E-5	4.99E-4	+2.48
PIC11B	need 2nd	Alpha bkg	08:09	60	0.200	-8.72E-2	0.201	+2.98
PIC11B	Above	Beta bkg	08:09	60	1.967	0.258	1.485	+5.36
PIC11C	Above	Alpha bkg	08:09	60	0.783	-5.59E-1	1.284	+1.37
PIC11C	Above	Alpha eff	09:34	60	11799	11050	11370	+11.04
PIC11C	Below	Alpha XTalk	09:34	60	0.255	0.277	0.305	-7.53
PIC11C	Above	Beta bkg	08:09	60	2.600	-1.05E+0	3.580	+1.73

PIC14C	Above	Beta bkg	10:52	60	1.517	0.382	1.442	+3.42

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk

Reviewed by _____

Date 9/15/11

GEL Laboratories LLC

Ludlum Alpha Scintillation Counter Checks for 15-SEP-2011

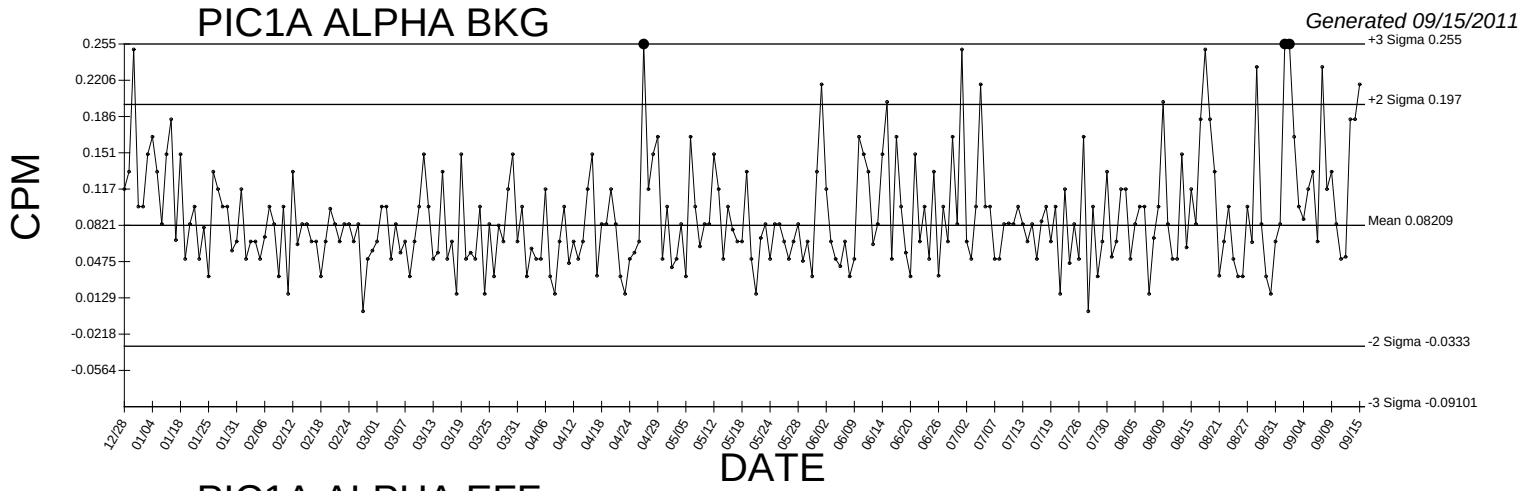
Short Name	Parmname	Run Time	Count Time	Counts	CPM	Stdev	Status	Comments
LUCAS1	EFF	08:10	1	1.45E+05	144545	0.88		
LUCAS2	EFF	08:10	1	1.09E+05	108921	-1.8		
LUCAS4	EFF	08:10	1	98771	98771	-1.9		
LUCAS5	EFF	08:10	1	1.47E+05	147196	-1.5		
LUCAS6	EFF	08:10	1	1.26E+05	126315	1.43		
LUCAS7	EFF	08:10	1	1.47E+05	147033	2.81		
LUCAS8	EFF	08:10	1	1.36E+05	135748	-0.13		

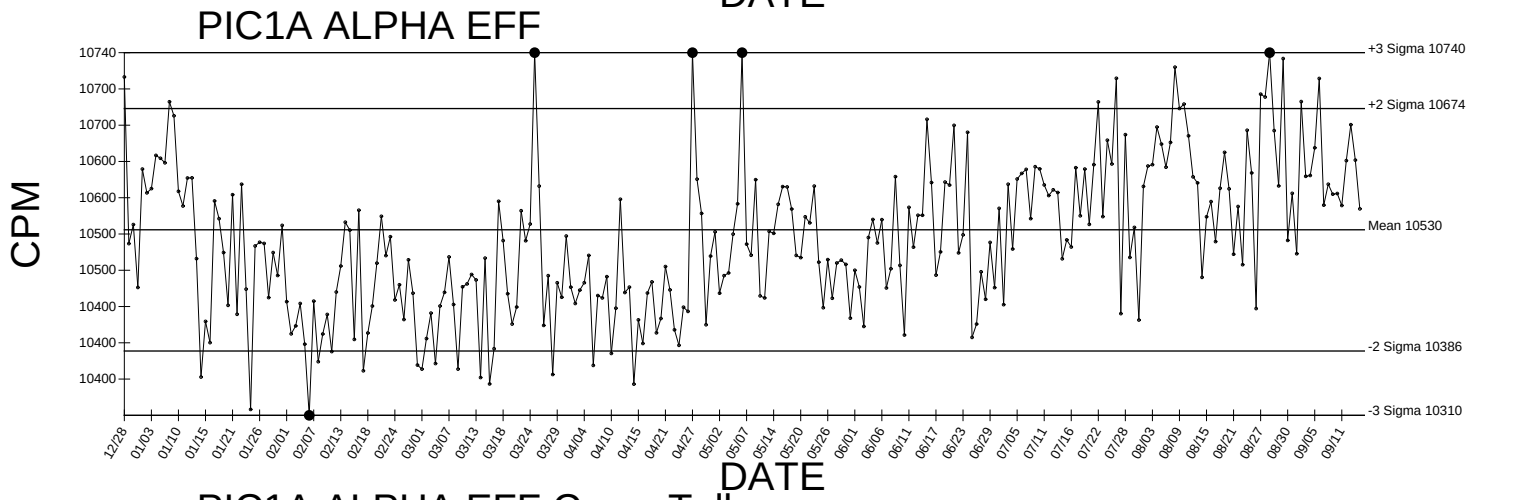
Reviewed by Lindsey Pace

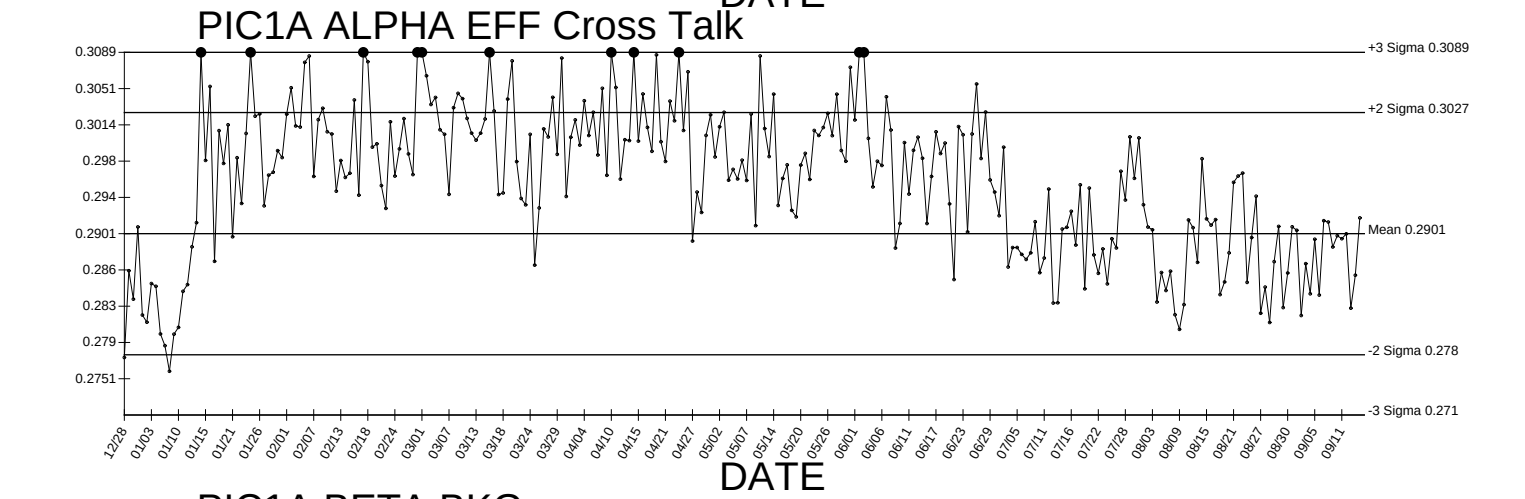
Date 9/15/11

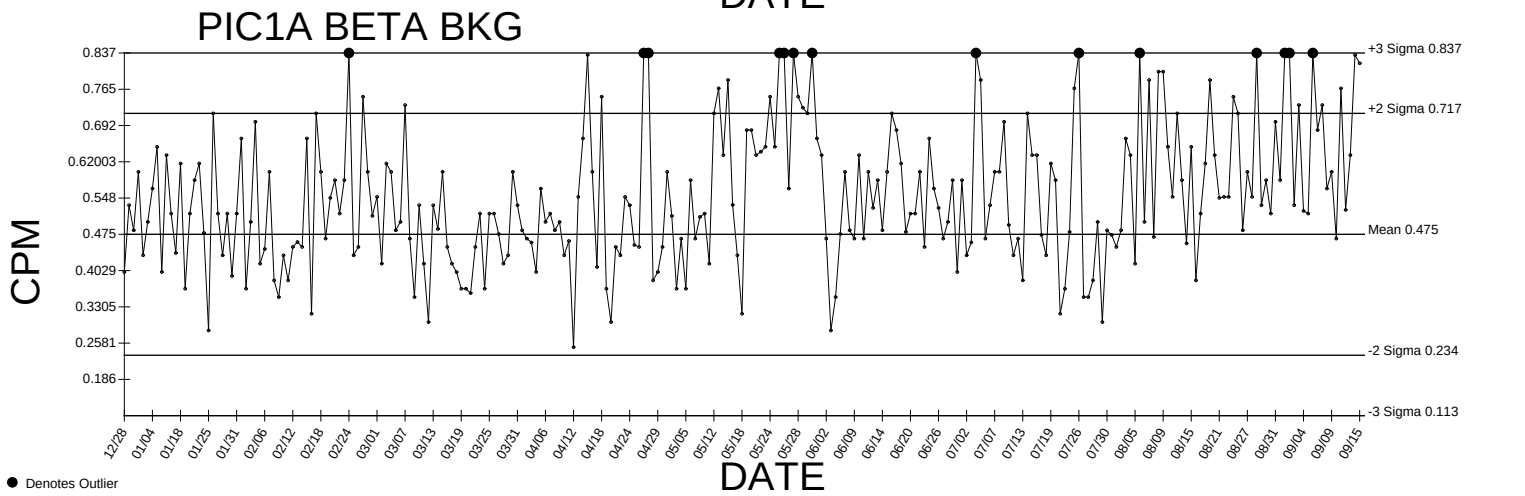
GEL Laboratories LLC

Background and Efficiency Data

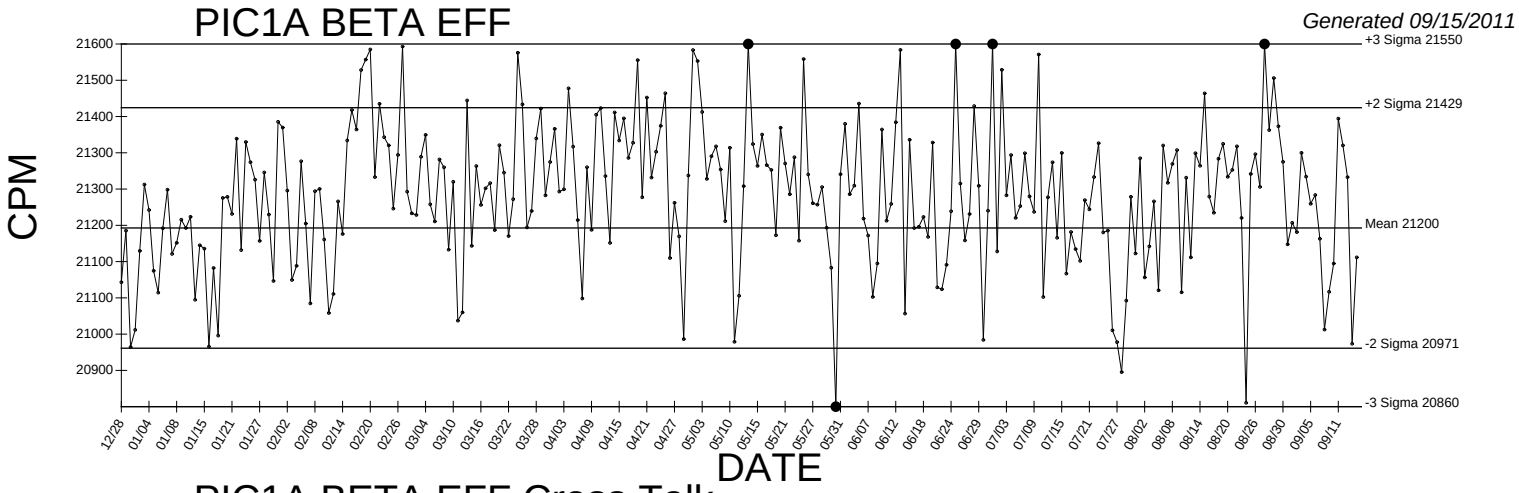


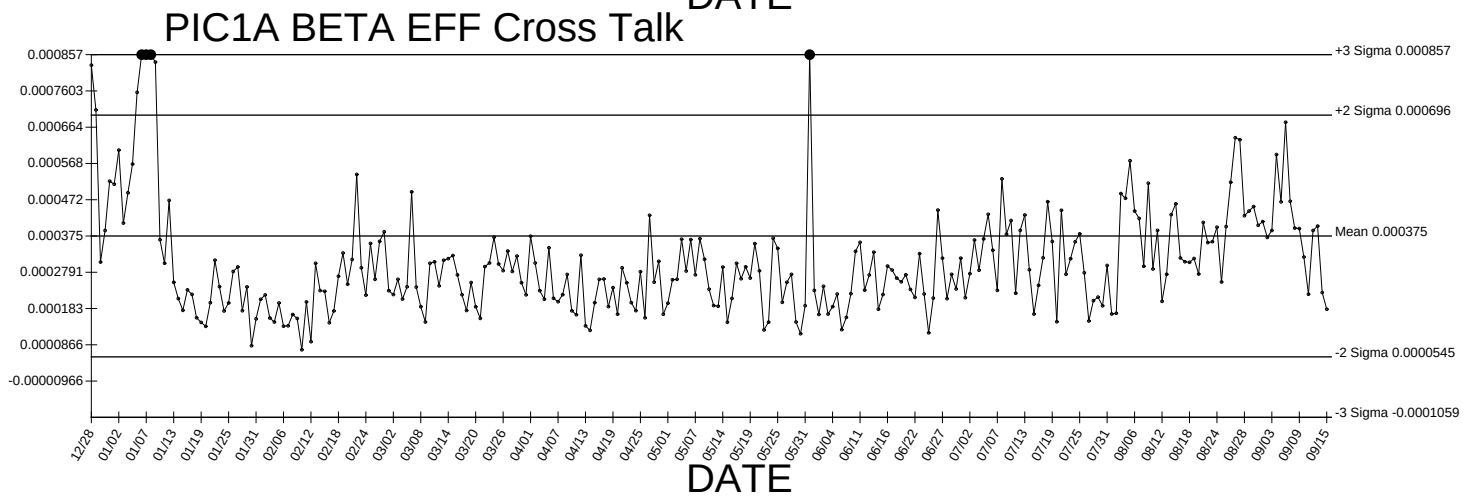




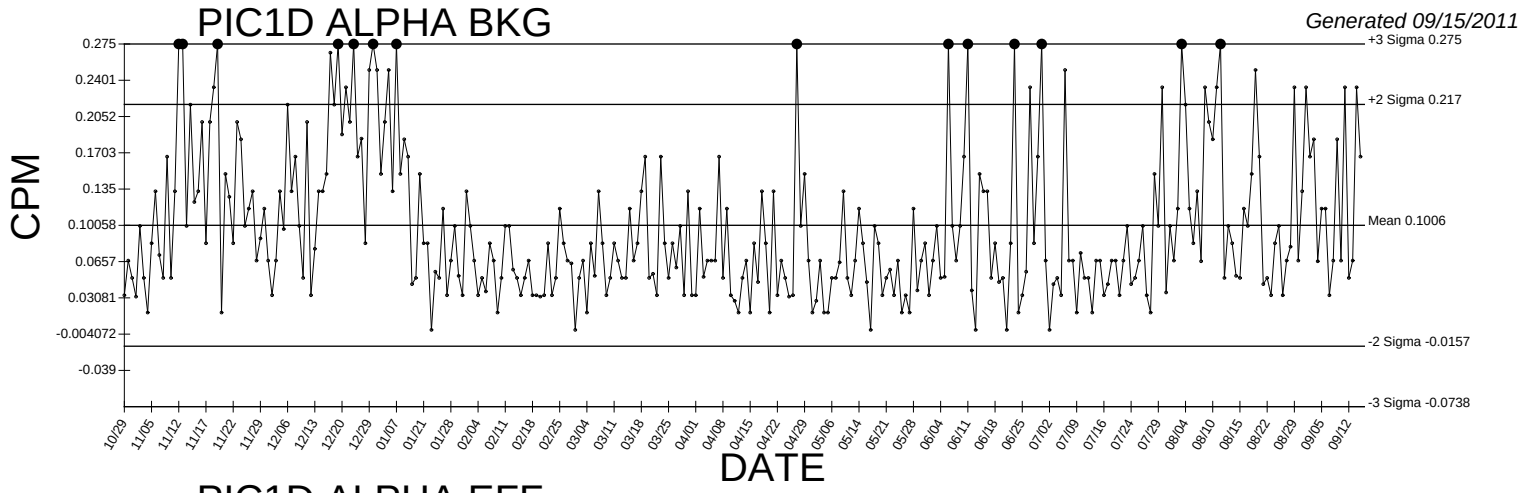


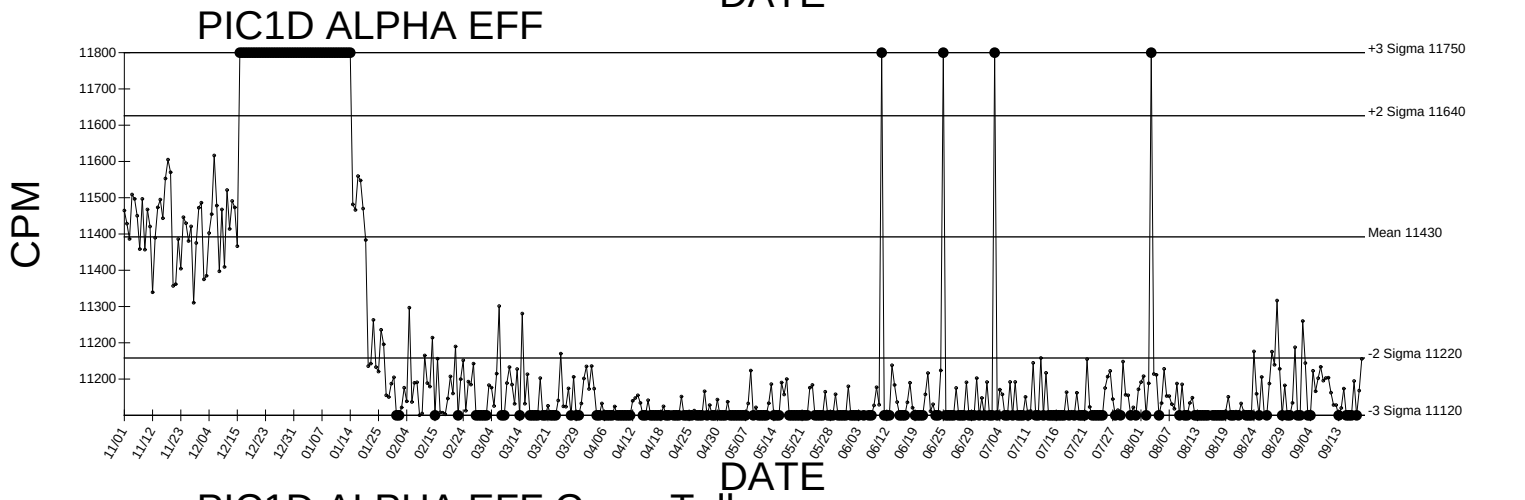
● Denotes Outlier

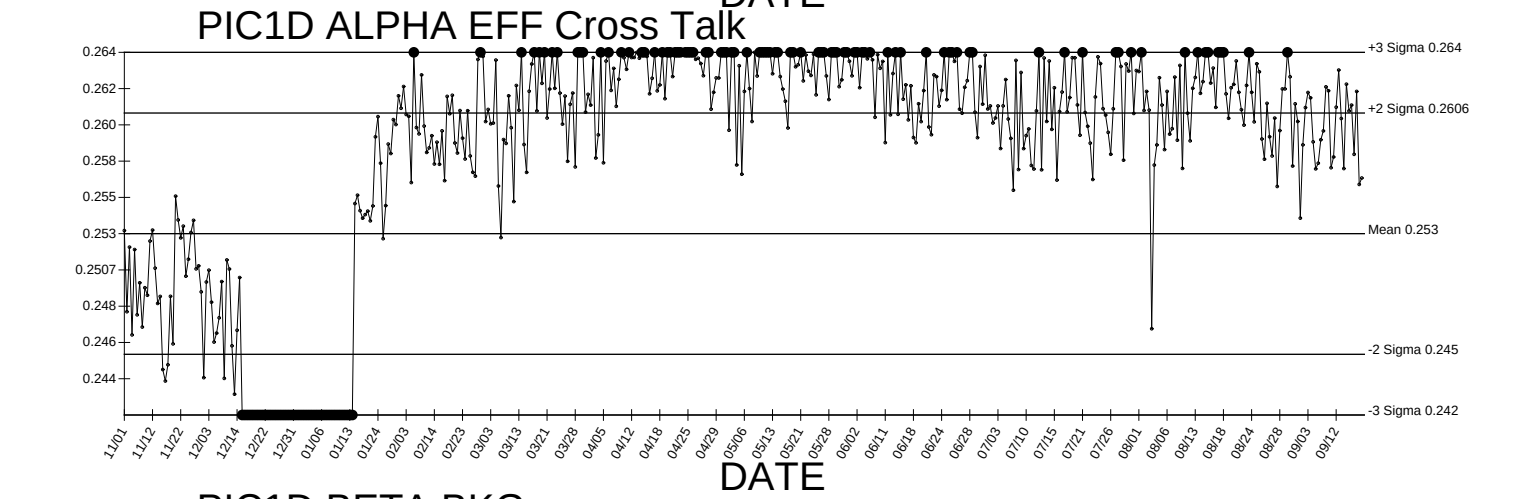


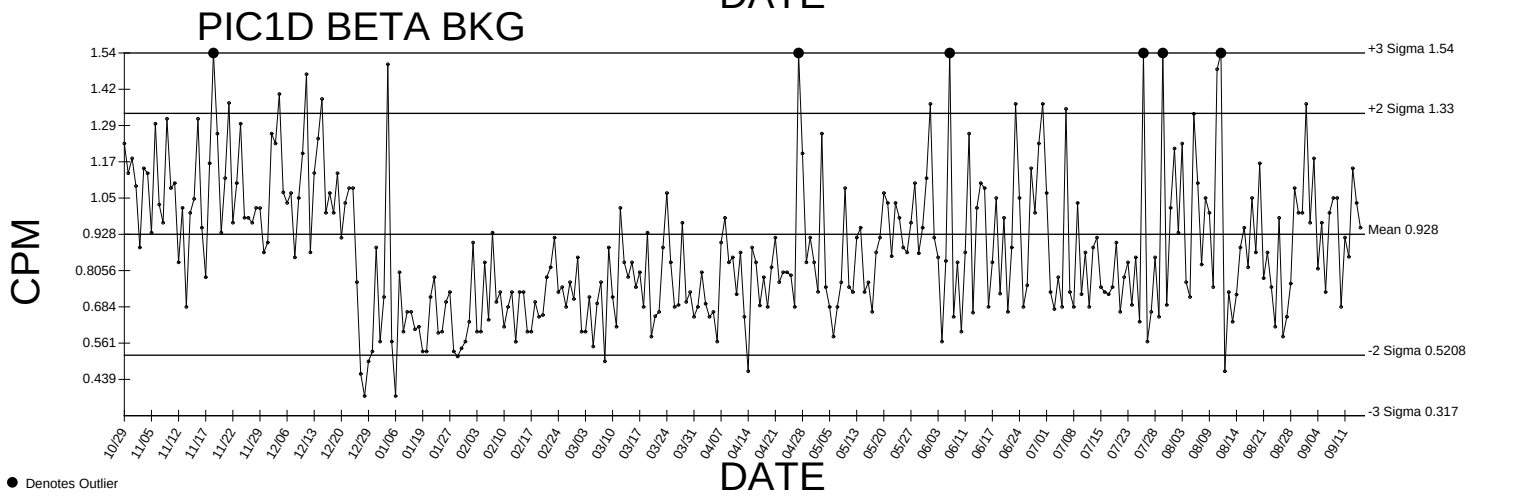


● Denotes Outlier

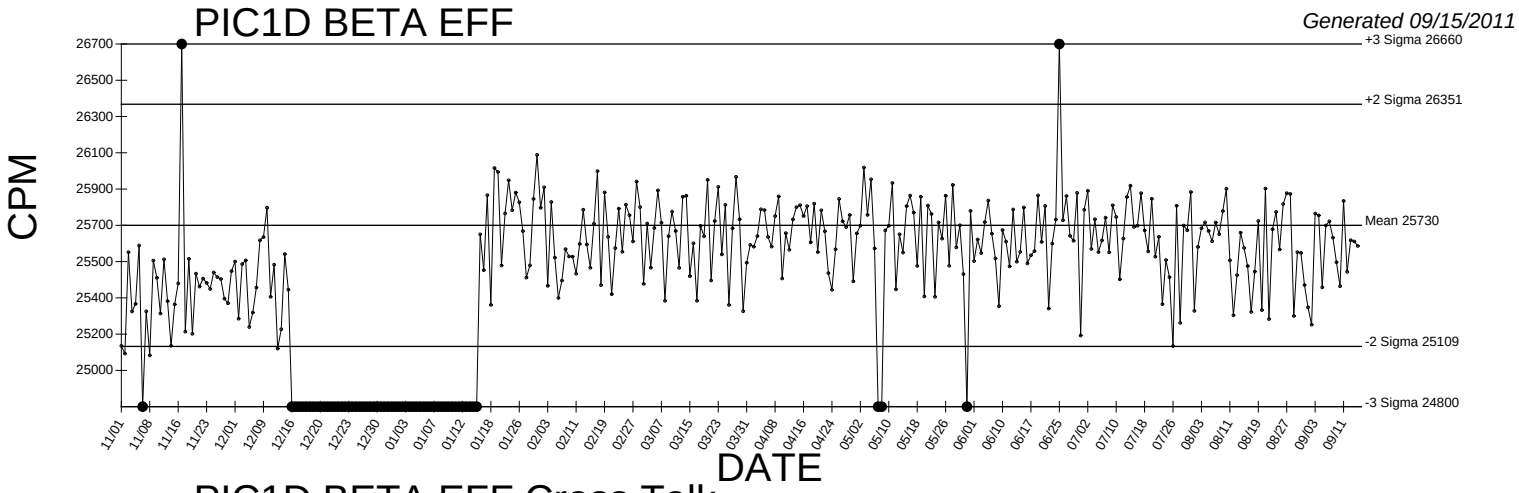


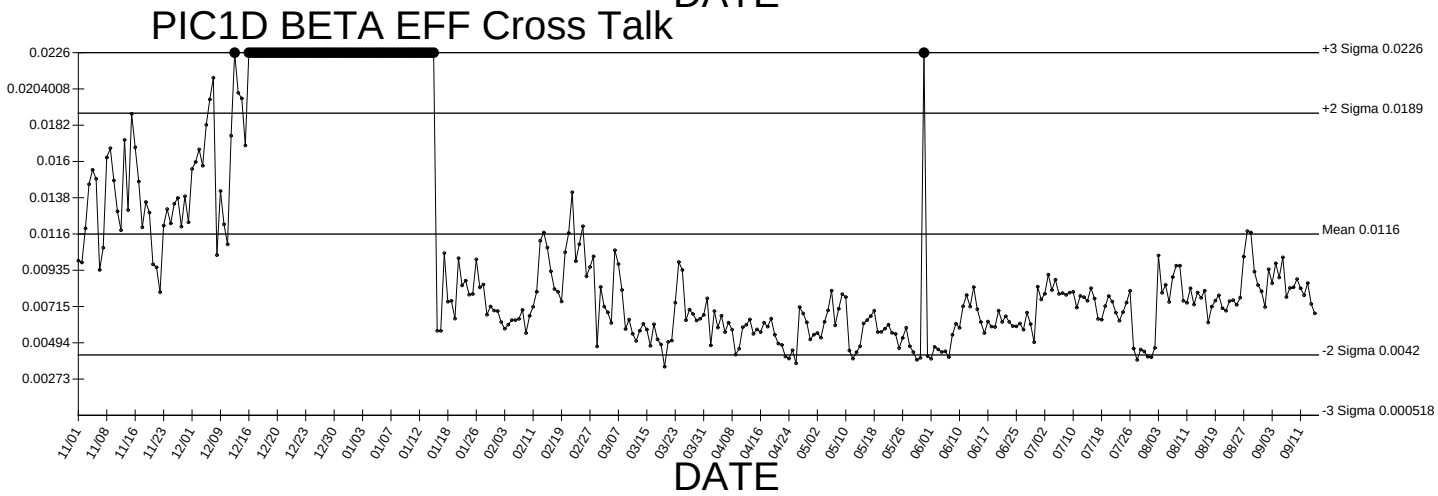






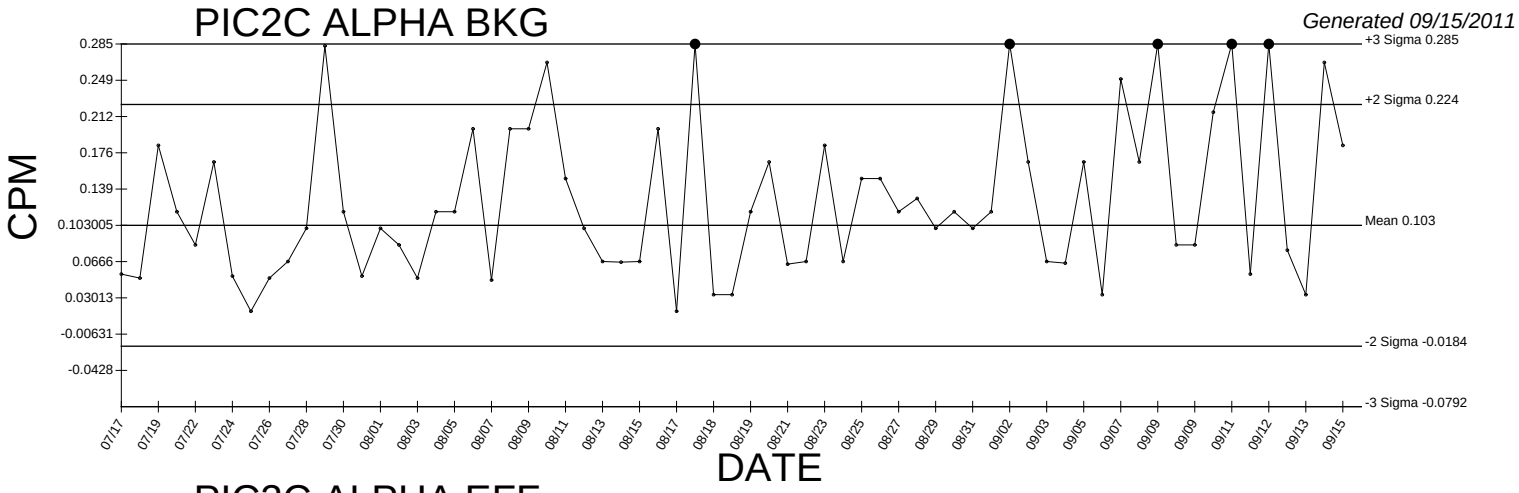
● Denotes Outlier

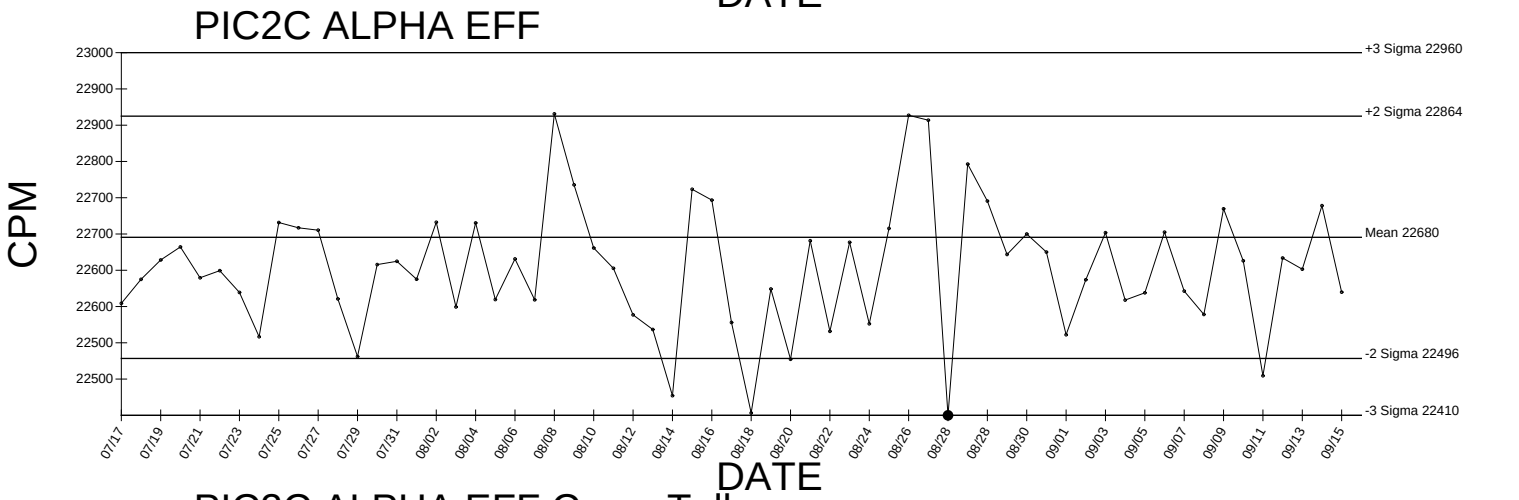


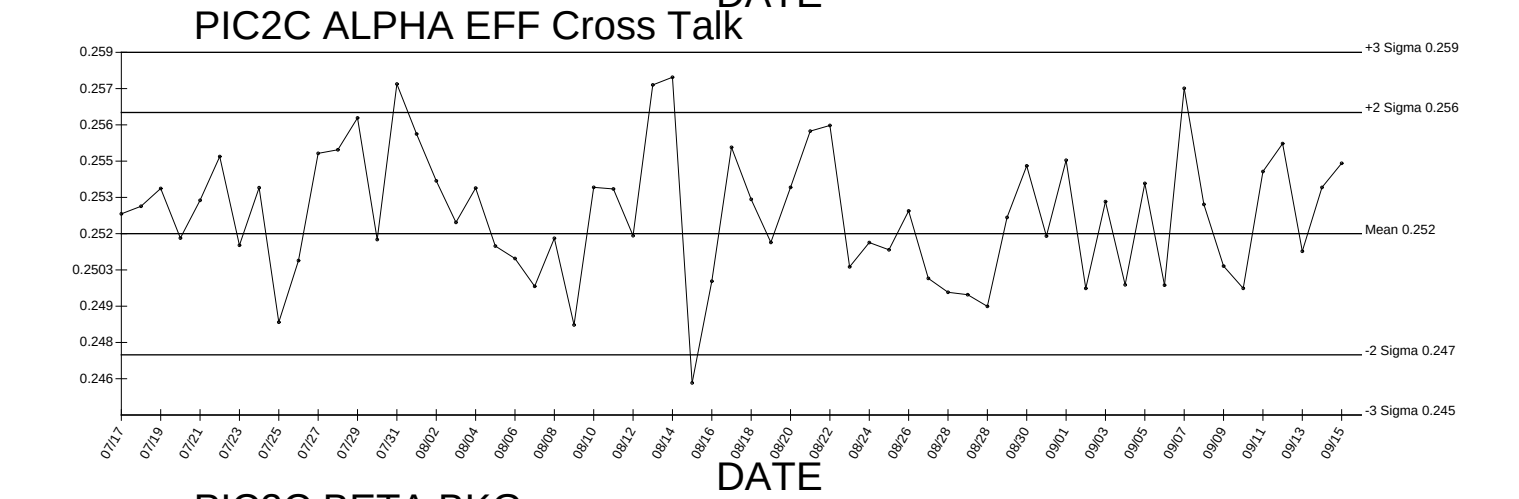


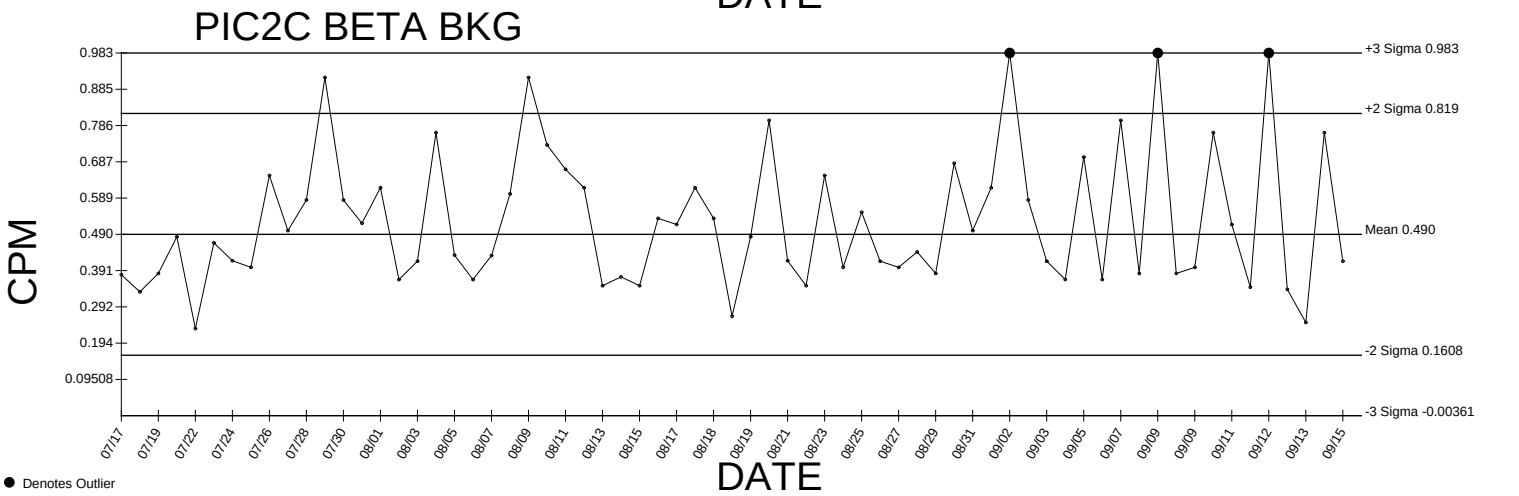
● Denotes Outlier

Generated 09/15/2011

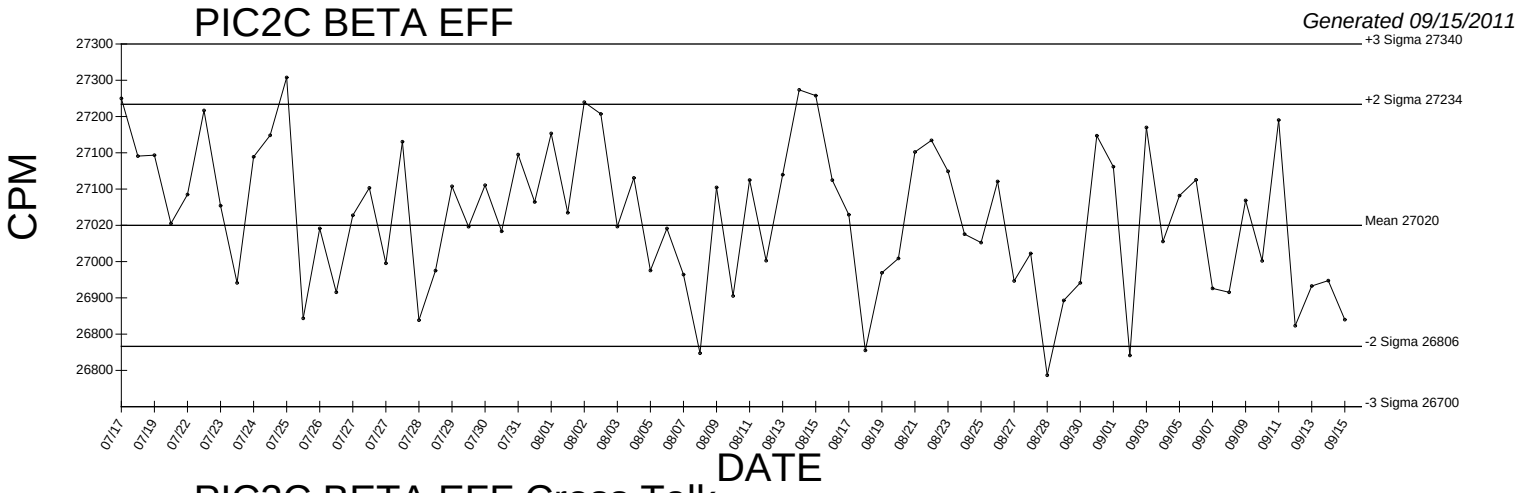


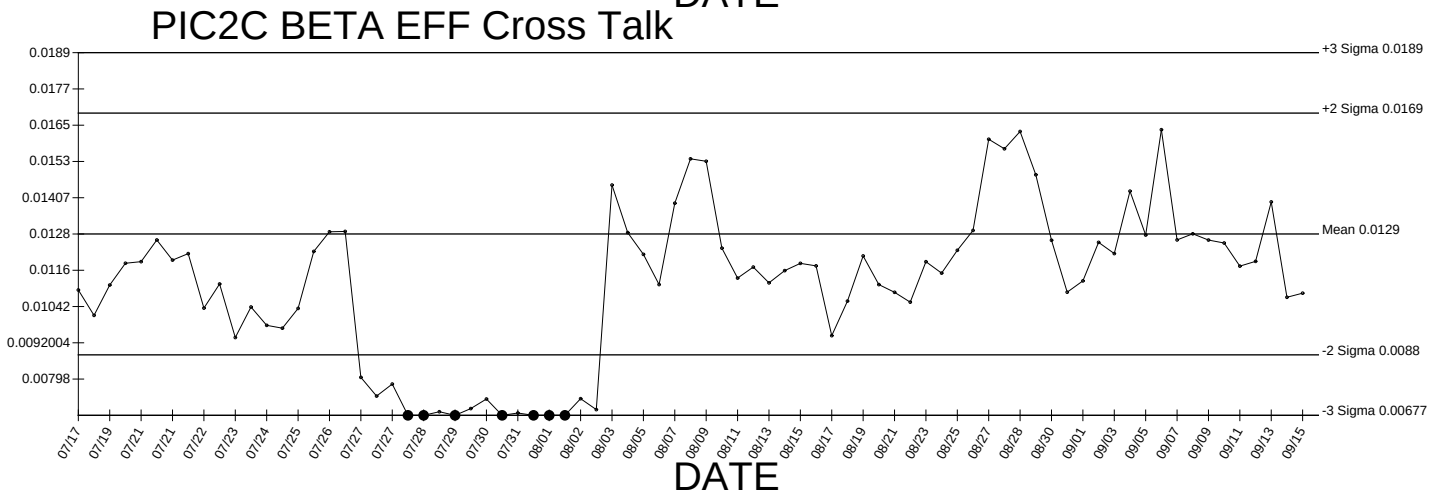




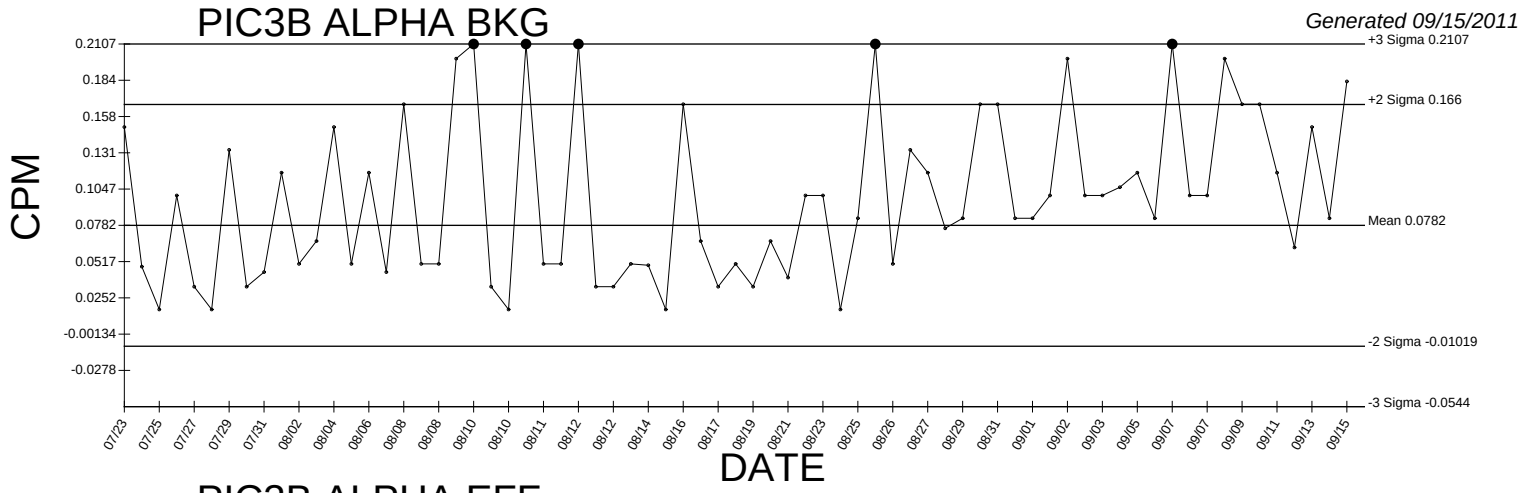


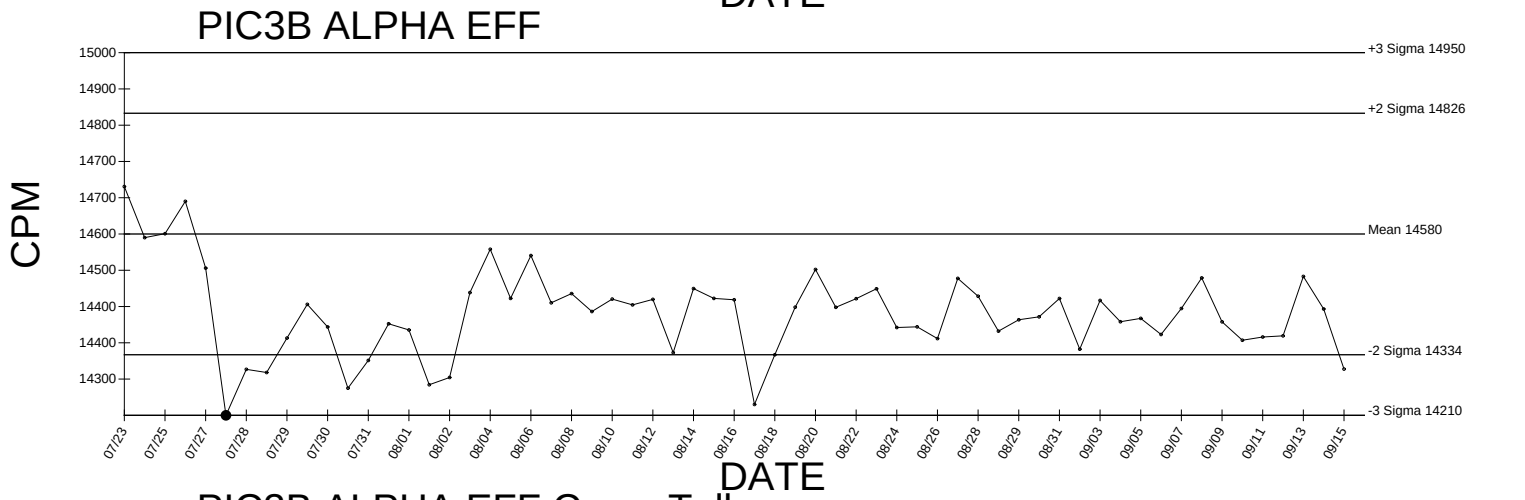
● Denotes Outlier

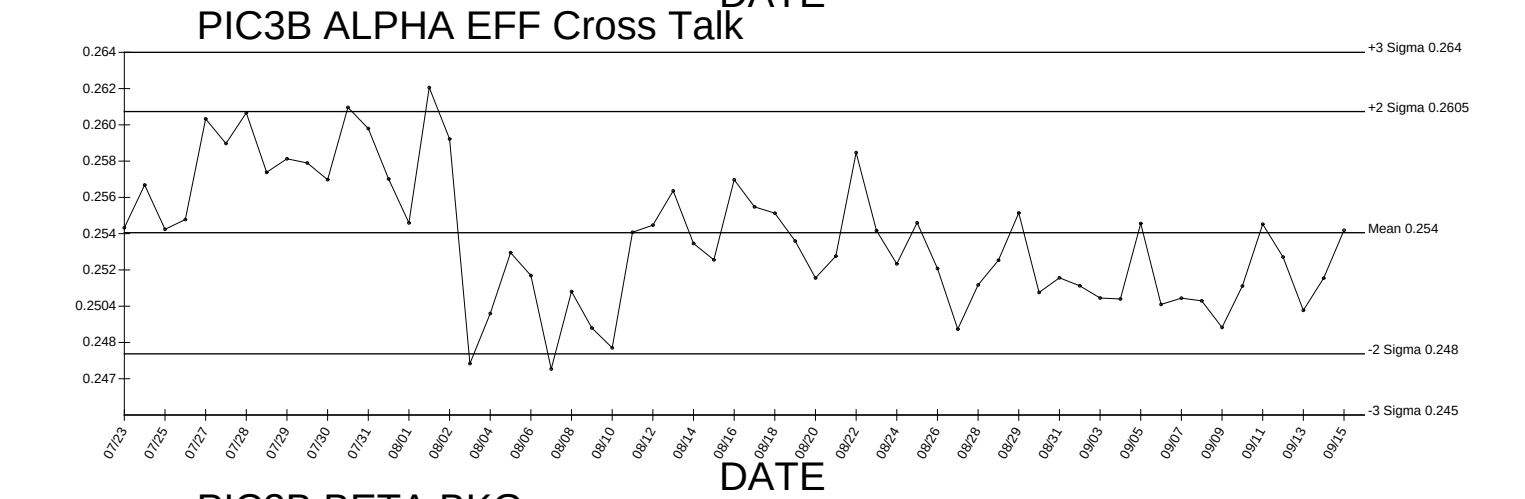


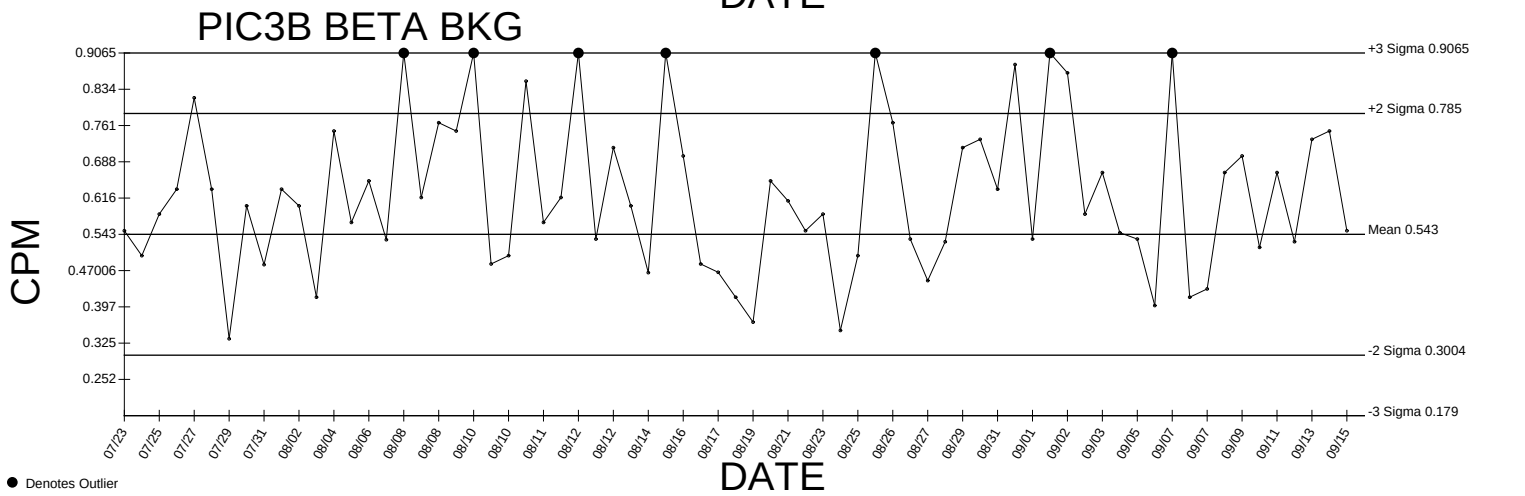


● Denotes Outlier

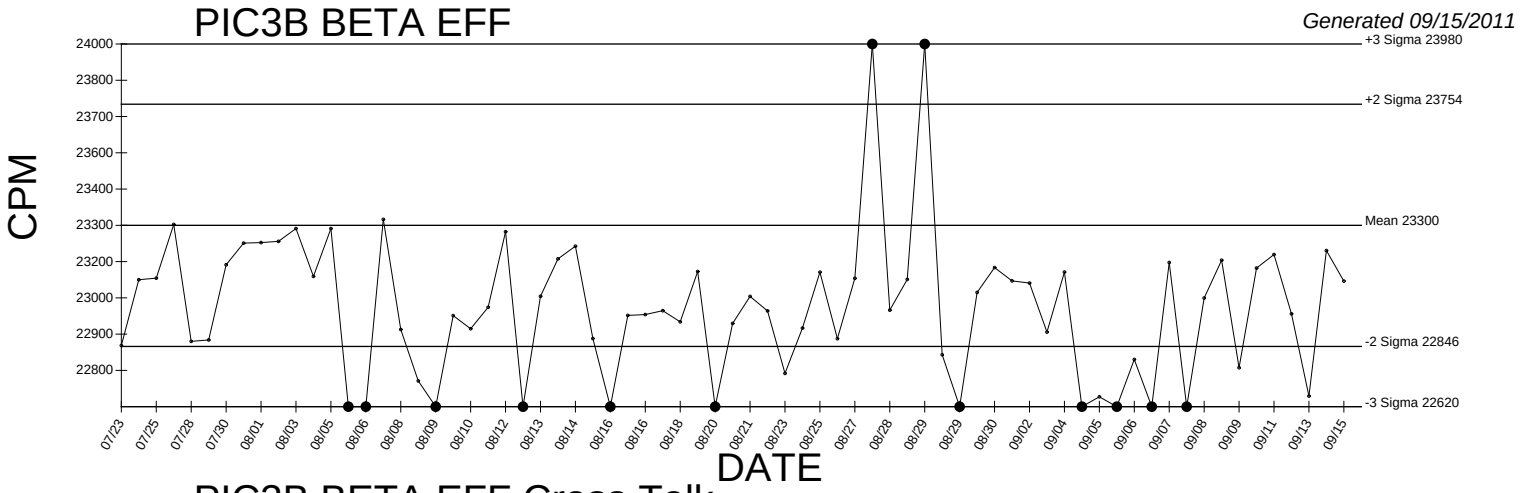


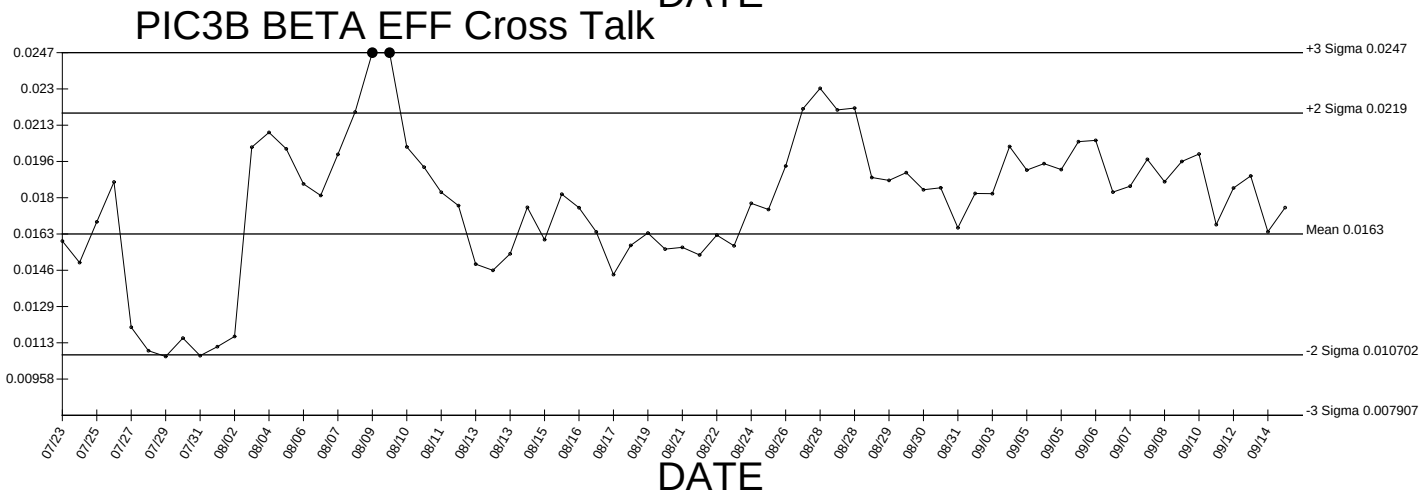






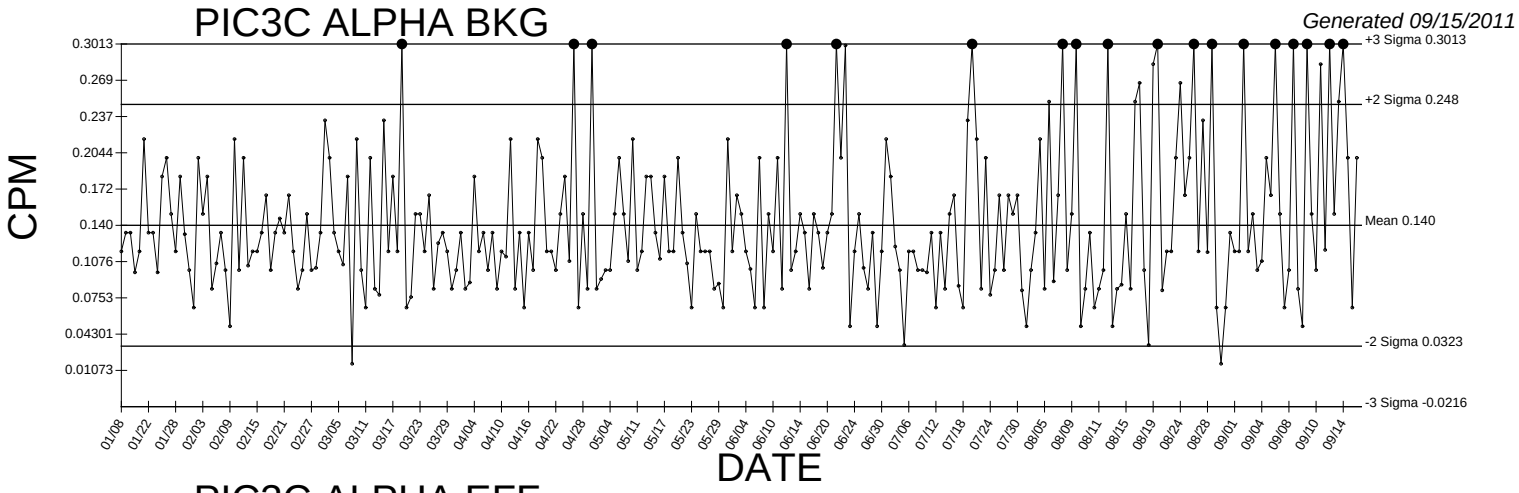
● Denotes Outlier

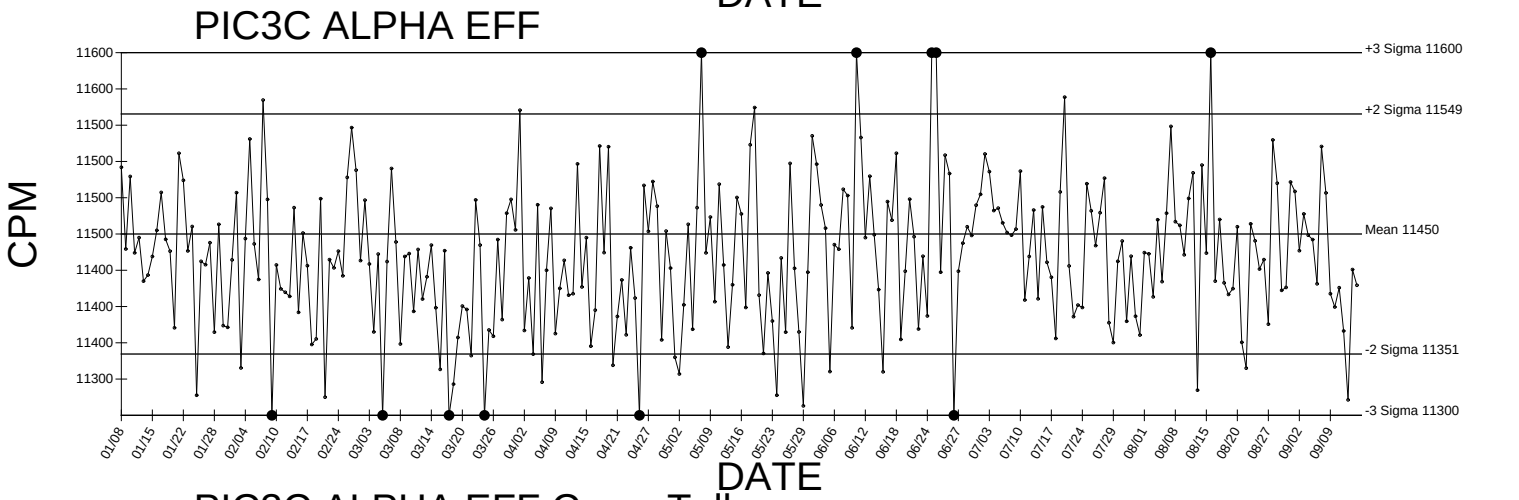


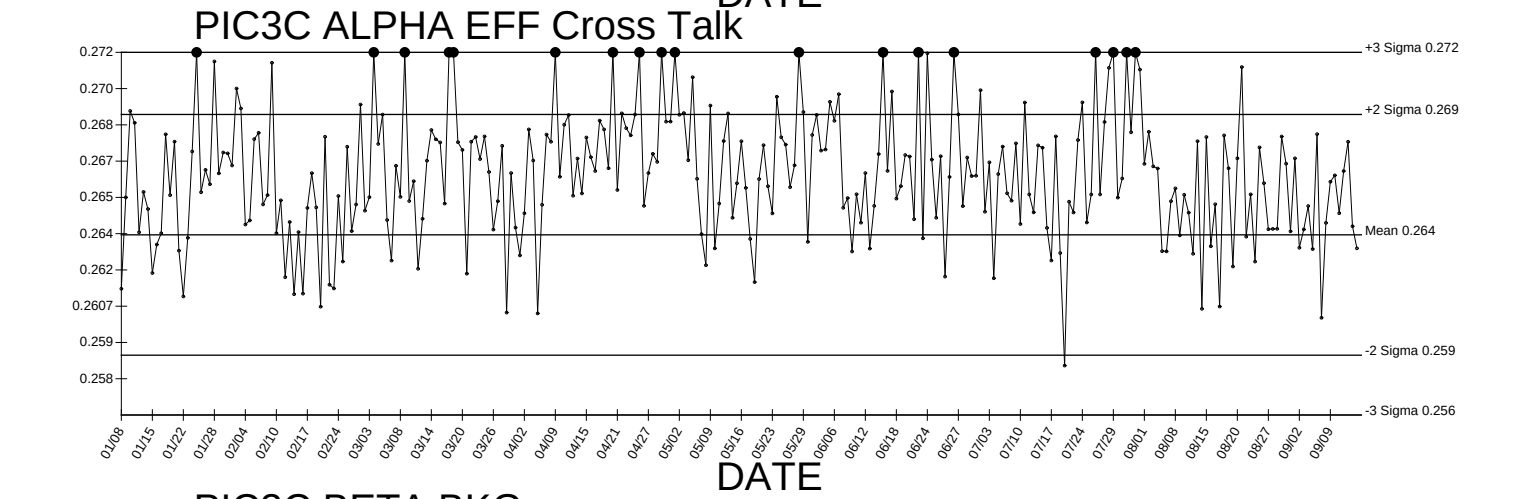


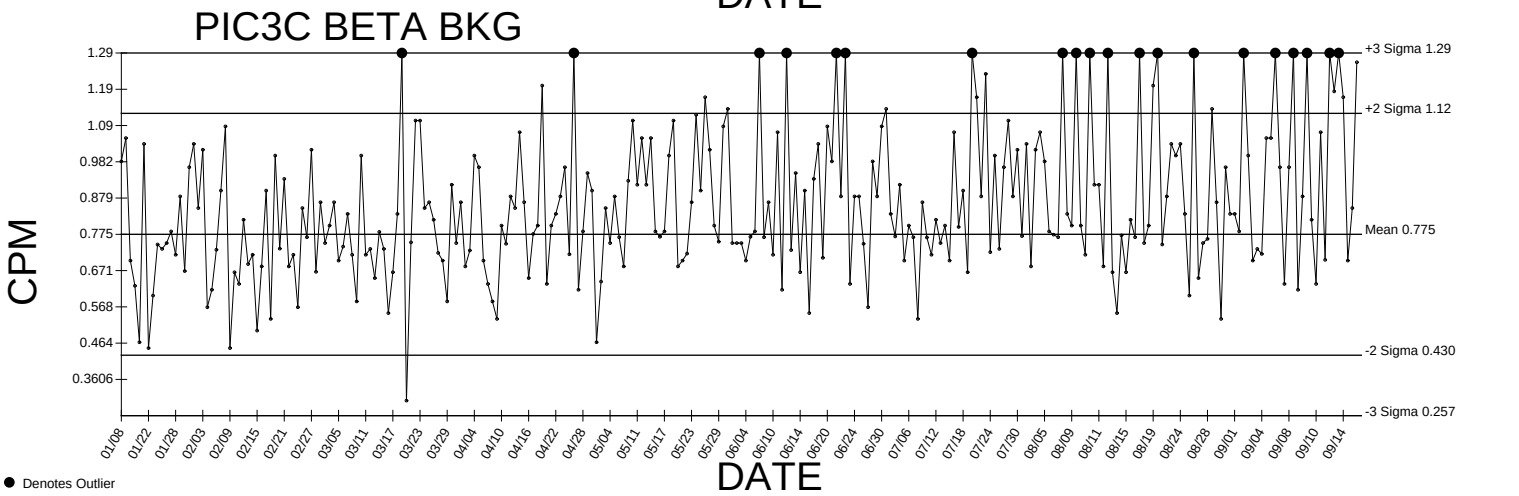
● Denotes Outlier

Generated 09/15/2011

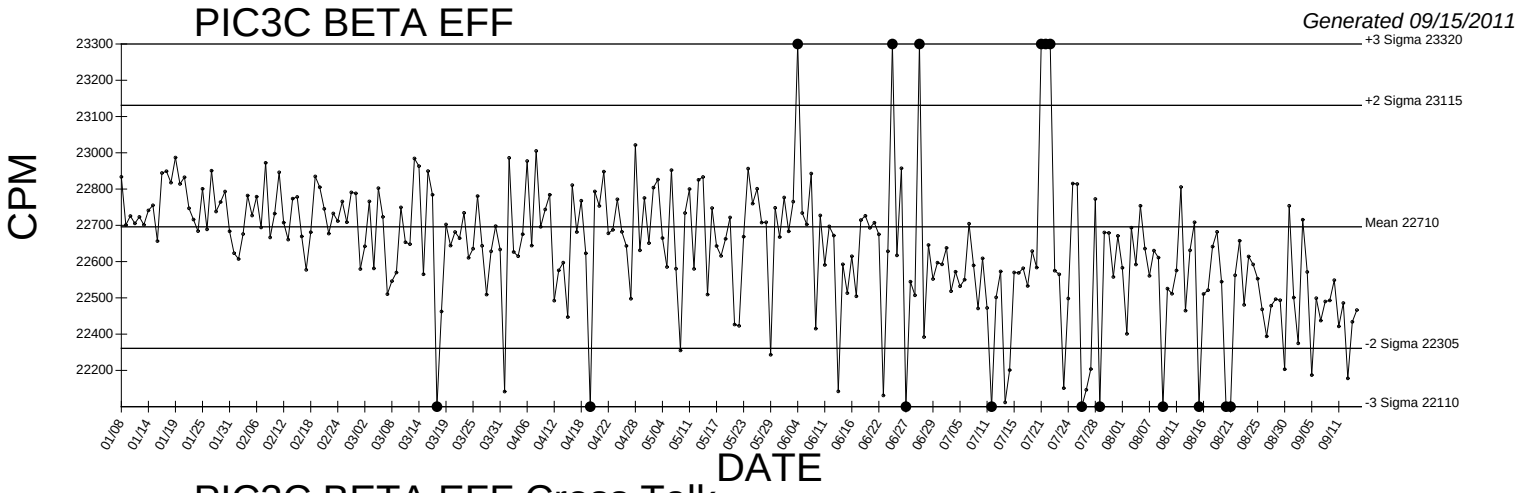


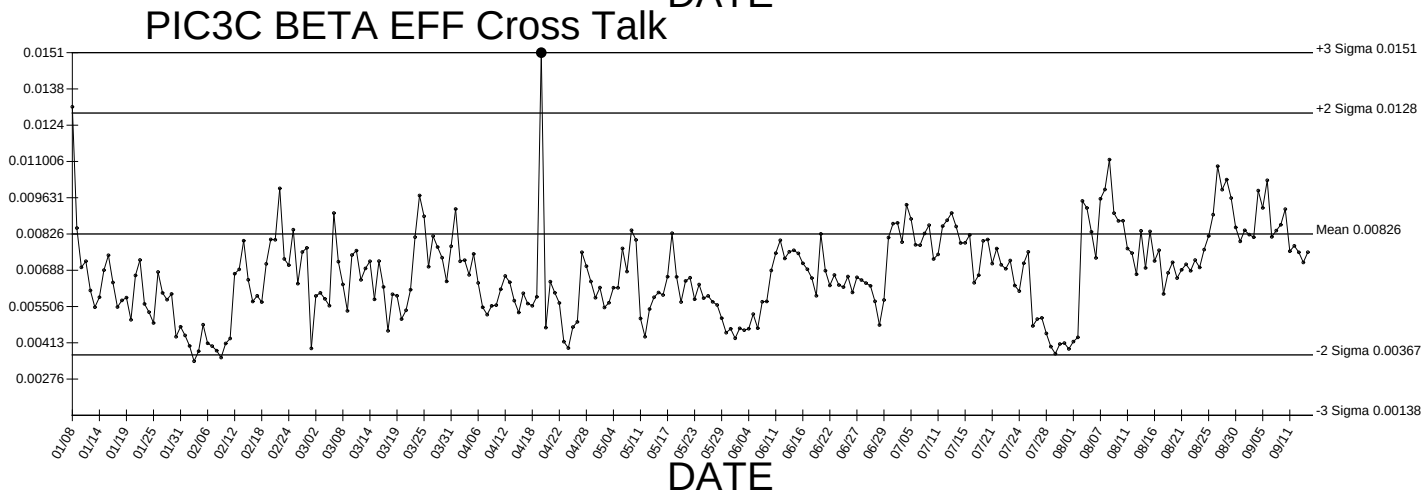




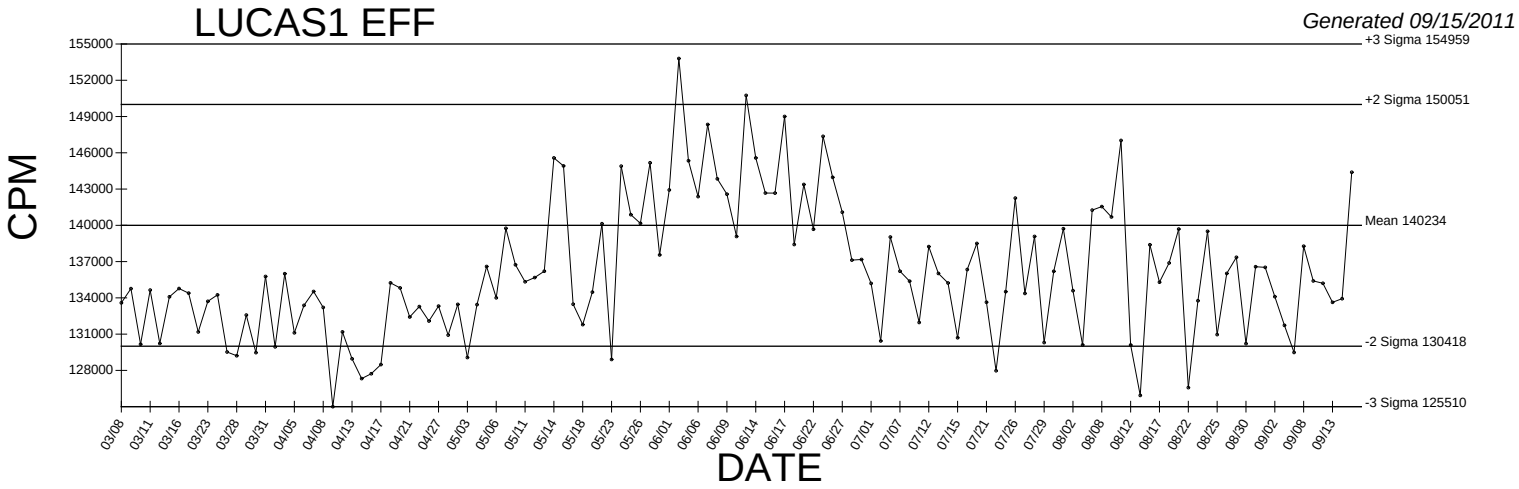


● Denotes Outlier

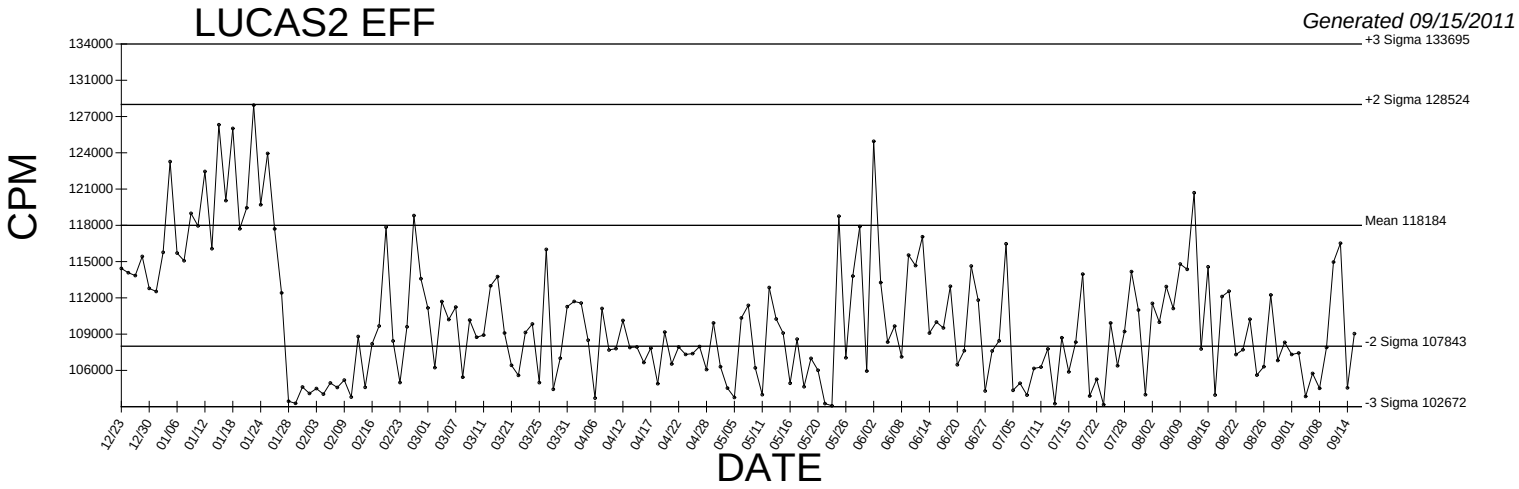




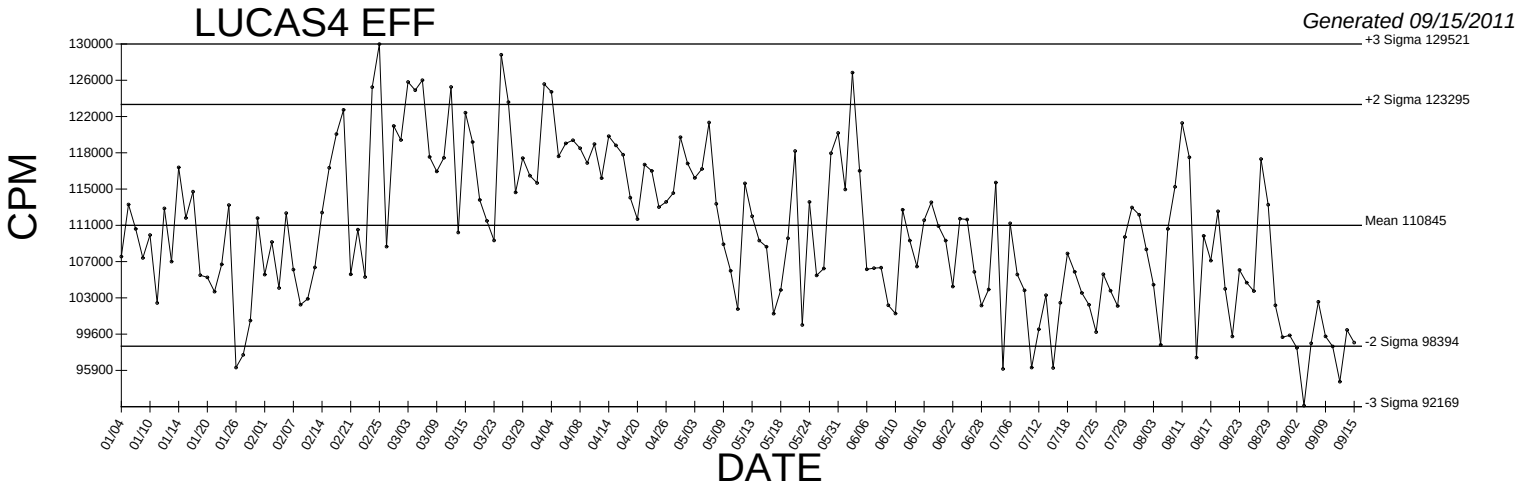
● Denotes Outlier



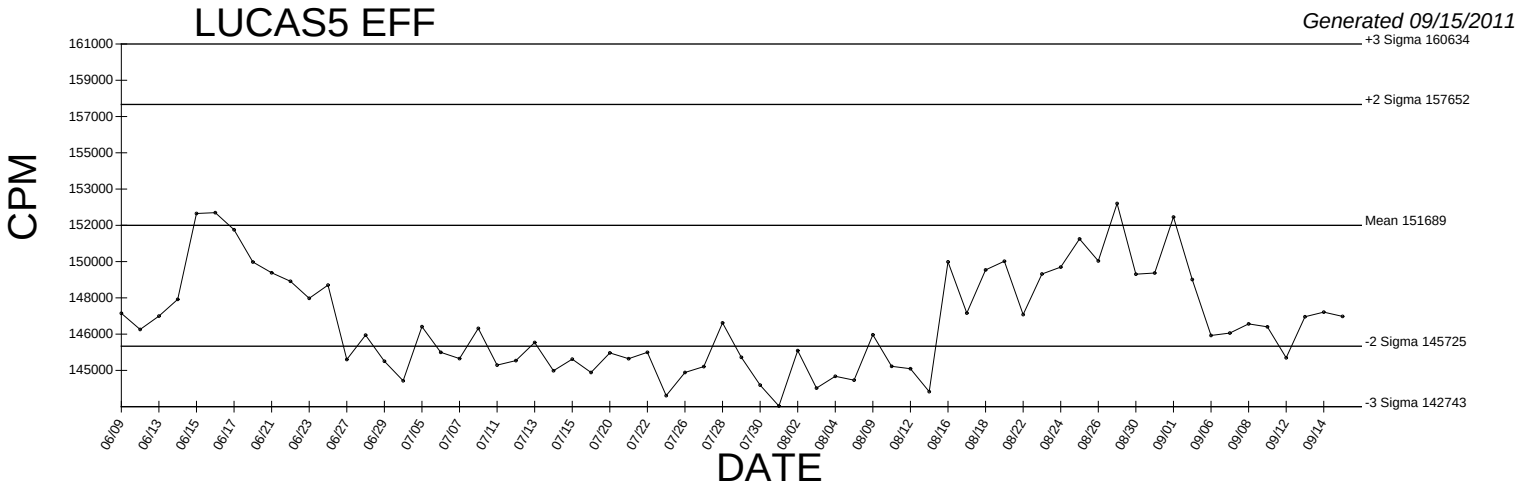
● Denotes Outlier



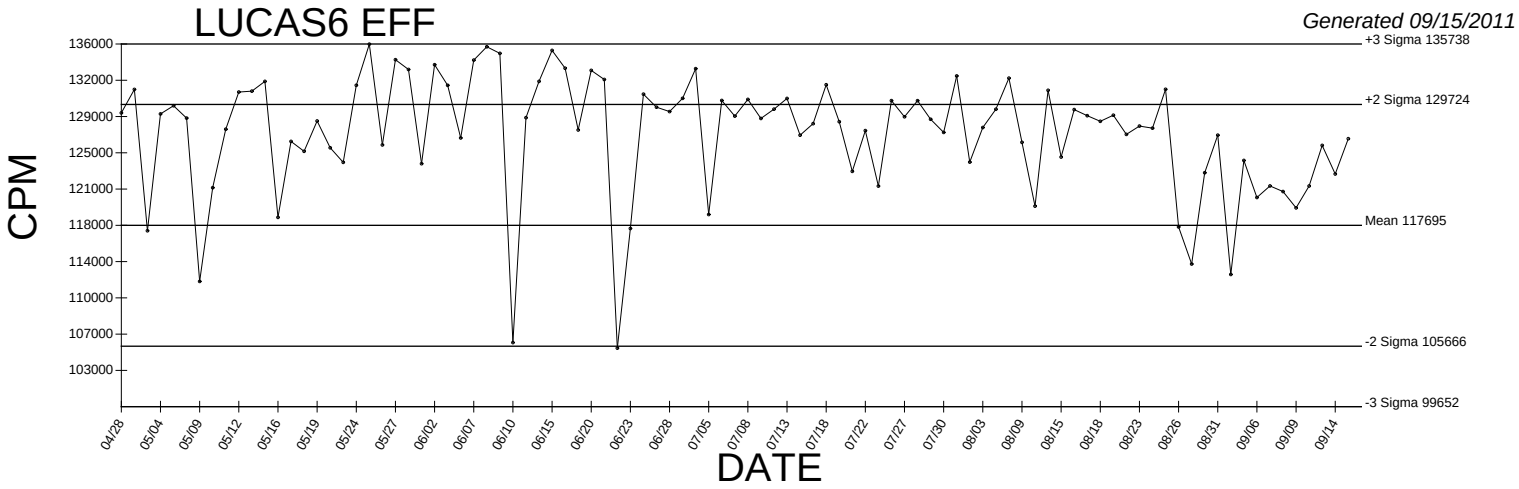
● Denotes Outlier



● Denotes Outlier



● Denotes Outlier



● Denotes Outlier

Standards Data

[redacted]

NAMAS
CALIBRATION
No. 0146

0112

ISSUED BY:	Nycomed Amersham plc Radiation & Radioactivity Calibration Laboratory Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL	ISSUED FOR:	AEA Technology plc Isotrak Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL

Description Principal radionuclide: Barium-133

Product code: BDZ64
Solution number: S7/26/28

Measurement Reference time: 1200 GMT on 20 June 1997

Nuclear data Nuclear data quoted on this certificate are taken from the Joint European File, Version 2.2.

Expression of uncertainties The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor **k** = 2.00, which for a *t*-distribution with $\nu_{eff} = \infty$ effective degrees of freedom corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Unless indicated, all other uncertainties are expressed at the confidence level associated with one standard uncertainty.

The format used for the uncertainties in the values of radionuclidic purity is illustrated by the following examples;

6.5(21)	=	6.5 ± 2.1
6.54(21)	=	6.54 ± 0.21
6.543(21)	=	6.543 ± 0.021

Approved Signatory W. F. Case

Date of issue 10 March 1999

RC-S-023-038

Nycomed Amersham

W F Case

This certificate is issued in accordance with the requirements of the United Kingdom Accreditation Service as specified in the NAMAS Accreditation Standard and NAMAS regulations. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Measurement

Reference time for solution number **S7/26/28**:	**1200 GMT on 20 June 1997**	
Radioactive concentration of barium-133:	474.0	kilobecquerels per gram of solution
which is equivalent to:	12.81	microcuries per gram of solution
Mass of solution:	5.1290	grams
Total activity of barium-133:	2.431	megabecquerels
which is equivalent to:	65.7	microcuries

Method of measurement used (see page 3 of the certificate): F

Calibration date: 20 June 1997
The calibration date is provided for added information only, and must not be confused with the reference date on pages 1 and 2 of the certificate. It is the reference date that must be used in all calculations relating to the values of activity.

Accuracy

Expanded uncertainty in the radioactive concentration quoted above: ± 1.8 %

Combined Type A uncertainty : ± 0.1 %

Combined Type B uncertainty : ± 0.9 %

Radionuclidic purity

The estimated activities of any radioactive impurities found by high-resolution gamma ray spectrometry, or in any other examination of the solution, are listed below expressed as percentages of the activity of the principal radionuclide at the reference time.

Cobalt-60	0.0011(2)%	Caesium-134	0.0006(1) %
Zinc-65	0.0017(4)%		

Chemical composition

0.1M HCl containing 100 micrograms of barium per ml.

Physical data

Reccomended half life: 10.52 ± 0.16 years (1 year = 365.25 days)

100% electron capture followed by prompt gamma rays in the energy range 0.053 MeV to 0.384 MeV.

The effect on the result of the standardization of uncertainties in the details of the decay scheme were included in the Type B uncertainty.

Remarks

This product meets the quality assurance requirements for achieving traceability to NIST as defined in ANSI N42.22-1995.

Tests made over 4 years on standardized solutions of barium-133 stored in glass ampoules have shown that loss of barium-133 from solution is negligible other than by radioactive decay.

RC-S-023-038A

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Methods of measurement

The measurement techniques listed below are currently in use at Nycomed Amersham for the absolute standardisation of radioactive solutions. The methods used for this standardisation are indicated on page 2 of the certificate.

Using a gas flow proportional counter

A	4 pi beta counting
B	4 pi alpha counting
C	4 pi internal conversion electron counting
D	4 pi coincidence counting
E	4 pi anticoincidence counting
F	4 pi coincidence and anticoincidence counting

Using a liquid scintillation counter

G	4 pi coincidence counting
H	4 pi anticoincidence counting
J	4 pi coincidence and anticoincidence counting
K	4 pi efficiency tracing

SI unit of radioactivity

The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq)	=	1 nuclear transformation per second, therefore
1 curie (Ci)	=	3.7×10^{10} becquerels exactly

Useful conversion factors are:

1 microcurie (μCi)	=	3.7×10^{4}	Bq	=	37 kilobecquerels (kBq)
1 millicurie (mCi)	=	3.7×10^{7}	Bq	=	37 megabecquerels (MBq)
1 kilobecquerel (kBq)	=	27.027 nanocuries (nCi)			
1 megabecquerel (MBq)	=	27.027 microcuries (μCi)			

RC-5-023-038B

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0112
Prepared By:	Richard Kinney
Carrier Conc:	0.1M HCL
Reference Date:	06/20/1997
Ampoule Mass (g):	5.129 g
Uncertainty:	+/- 1.8 %
LogBook No:	RC S 023 038A

A Solution Material Info			
Isotope:	Barium-133		
Prepared By:	Angela Johnson		
Prep Date:	04/09/1999		
Verification Date:	01/07/2011		
Expiration Date:	01/07/2012		
Primary Code:	0112-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	5.0881 g		
Density(g/mL):	0.9935	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (100 mL) = 1447055.6400 dpm/mL
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (0.9935 g/mL) / (100 mL) = 1456575.8226 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
10/31/2002	Angela Johnson	10.11	1000	0112-G	14725.049 dpm/mL	10/31/2003	10/31/2004
01/19/2005	Amanda Fehr	10.431	1000	0112-H	15193.542 dpm/mL	01/18/2006	01/18/2007
11/30/2006	Daniel Roy	10.0567	1000	0112-I	14648.35 dpm/mL	11/20/2008	11/20/2009
02/17/2009	Mary Aders	10.1141	1000	0112-J	14731.9535 dpm/ml	02/12/2010	02/12/2011
02/12/2010	Bethany Fiem	10.2041	1000	0112-K	14863.0453 dpm/ml	01/07/2011	01/07/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ba-133 Standard 0112-K

G. Ramsay	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
1/7/2011	0112-K N1	4985.8500	45.2000	4940.6500	0.7848	1.0000	6295.210522
	0112-K N2	5033.0000	45.2000	4987.8000	0.7848	1.0000	6355.287471
	0112-K N3	5008.0000	45.2000	4962.8000	0.7848	1.0000	6323.433309
						Average =	6324.643768
Mean Value (Counting) =	6324.643768		**103.961677**	**Pass**			
Stdev =	30.05676039		0.00475232	**Rule 3 (Pass/Fail)**			

Certificate Value =	6083.63
Lower Limit =	6264.530247
Upper Limit =	6384.757288
Rule 1 Pass/Fail	**Fail***
Two sigma =	60.11352078
10 % of Mean =	632.4643768
Rule 2 (Pass/Fail)	**Pass**

***Exception taken due to full standard recovery.**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ba-133 source 0112-K by transferring 1.0 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Gold. The Ba-133 efficiency calibration which was used for verification calculations was performed on 1/8/2011 using source 0487-A (Ba-133). Calibration data is recorded in this logbook under Ba-133 0487-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

1/20/11
Amanda L. Fehr

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

0638

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

67519-278

Ra-226 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

Analytics maintains traceability to the National Institute of Standards and Technology through participation in a Measurements Assurance Program as described in USNRC Reg. Guide 4.15, Revision 1, February 1979.

ISOTOPE:	Ra-226
ACTIVITY (dps):	2.353 E4
HALF-LIFE:	1.600 E3 years
CALIBRATION DATE:	January 23, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities (other than decay products) <0.1%

5.01065 grams 0.1M HCl solution with 50 μg/g Ba carrier.

P O NUMBER 3231RD, Item 5

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 1/26/04

RC-S-037-037a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0638
Prepared By:	Amanda Fehr
Carrier Conc:	0.1M HCl
Reference Date:	01/23/2004
Ampoule Mass (g):	5.01065 g
Uncertainty:	+/- 3.3 %
LogBook No:	RC-S-037-037

A Solution Material Info			
Isotope:	Radium-226		
Prepared By:	Amanda Fehr		
Prep Date:	01/16/2006		
Verification Date:	09/14/2010		
Expiration Date:	09/14/2011		
Primary Code:	0638-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.8398 g		
Density(g/mL):	1.0266	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (5.01065 g * 100 mL) = 13636.6133 dpm/mL
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (1.0266 g/mL)/ (5.01065 g * 100 mL) = 13282.9676 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/17/2006	Amanda Fehr	2.1041	100	0638-B	279.0211 dpm/mL	01/17/2007	01/17/2008
07/17/2006	Mary Aders	2.1313	100	0638-C	282.6281 dpm/mL	07/26/2006	07/26/2007
03/28/2007	Daniel Roy	2.1025	100	0638-D	279.2744 dpm/ml	04/08/2007	04/08/2008
03/28/2007	Daniel Roy	45.468	250	0638-E	2415.7999 dpm/ml	04/08/2010	04/08/2011
12/18/2007	Daniel Roy	2.014	100	0638-F	267.519 dpm/ml	02/02/2009	02/02/2010
02/12/2008	Daniel Roy	.5004	100	0638-G	66.468 dpm/ml	03/15/2011	03/15/2012
07/23/2008	Daniel Roy	5.0607	250	0638-H	268.8845 dpm/ml	07/17/2009	07/17/2010
09/28/2009	Angela Johnson	4.052	200	0638-I	269.113 dpm/mL	09/28/2009	09/28/2010

09/14/2010	Gregory Ramsay	5.18	250	0638-J	275.2231 dpm/mL	09/07/2011	09/07/2012
08/12/2011	Tim Chandler	.0369	100	0638-K	4.9014 dpm/mL	08/11/2011	08/11/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-226 Standard 0638-J 10

G. Ramsay	**Isotope**	**Value**	**Uncertainty**
9/27/2010	0638-J	1212.679	287.3311
	0638-J	1213.513	287.4371
	0638-J	1197.598	282.3895

Mean Value (Counting) =	1207.930	97.43	**Pass**
Stdev =	8.957401906		**Rule 3 (Pass/Fail)**

Target =	1239.74	
Lower Limit =	1190.015496	
Upper Limit =	1225.845104	
Rule 1 Pass/Fail	**Fail**	*Exception Taken due to full standard recovery
Two sigma =	17.91480381	
10 % of Mean =	120.79303	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Ra-226 source 0638-J by transferring portions of the degassed standard into tared glass liquid scintillation vials. Ten mL of DI Water and 10 mL mineral oil was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 10 mL of DI water and 10 mL of mineral oil. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Red using source standard verification. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
Reference RAD SOP M-001

10-5-10
10/4/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1519

83715-278

Ra-228 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 936802RD, Item 1

This standard radionuclide source was prepared gravimetrically from a master solution calibrated by Eckert & Ziegler Analytics, using a germanium gamma spectrometer system. Radionuclide purity and calibration were checked with a germanium gamma spectrometer system. The nuclear decay rate and reference date for this source are given below. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101.

Isotope	Half-Life, Days	Activity (Bq)	Uncertainty*, % Type u_A	u_B	U	Reference Date (12:00 PM EST)
Ra-228	2.100E+03	3.729E+02	0.2	1.9	3.8	01/06/2011

***Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

Comments:
Impurities: γ-impurities (other than decay products) <0.1%. 5.08567 g 0.1M HCl solution with approximately 30 μg/g Ba carrier.

Source Prepared by: M I Taskaeva
M. I. Taskaeva, Radiochemist

QA Approved: J. D. McCorvey, QA Manager Alternate

Date: 1/6/11

RECEIVED 1/6/11

ACCREDITED SOURCE CALIBRATION LABORATORY HEALTH PHYSICS SOCIETY FOUNDED 1956

Single Isotope Certificate, Rev 1 9/28/2009

RC-S-060-064

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1519
Prepared By:	Ashley Drochter
Carrier Conc:	0.1M HCl
Reference Date:	01/06/2011
Ampoule Mass (g):	5.08567 g
Uncertainty:	+/- 3.8 %
LogBook No:	RC-S-060-064

A Solution Material Info			
Isotope:	Radium-228		
Prepared By:	Gregory Ramsay		
Prep Date:	05/26/2011		
Verification Date:	07/06/2011		
Expiration Date:	05/26/2012		
Primary Code:	1519-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.9447 g		
Density(g/mL):	0.9970	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.9447 g) * (372.9 Bq) * (60 dpm/Bq) / (5.08567 g * 100 mL) = 217.5381 dpm/mL
(4.9447 g) * (372.9 Bq) * (60 dpm/Bq) / (0.9970 g/mL)/ (5.08567 g * 100 mL) = 218.1945 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-228 Standard 1519-A

B. Fiem	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
7/6/2011	1519-A N1	1104.2000	42.6000	1061.6000	5.26096828	1.0000	201.7879494
	1519-A N2	1119.6000	42.6000	1077.0000	5.26096828	1.0000	204.7151672
	1519-A N3	1093.6000	42.6000	1051.0000	5.26096828	1.0000	199.7731111
						Average =	202.0920759

Mean Value (Counting) =	202.0920759	dpm/mL	**98.6118055**	**Pass**
Stdev =	2.485024982	dpm/mL	0.0122965	

Certificate Value =	204.9	dpm/mL
Lower Limit =	197.1220259	dpm/mL
Upper Limit =	207.0621258	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	4.970049965	
10 % of Mean =	20.20920759	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Ra-228 source 1519-A by transferring portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC RED ~~(Wallac) using Protocol~~ ~~23~~ for Ra-228 source standard verification. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Amanda L. Fiem

Runlogs

Instrument Run Log

Instrument Type: GFPC **Batch ID: 1140300**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
285581001	SAMPLE	BXF1	PIC1A	SEP-15-11 14:03:55	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202484218	MB	BXF1	PIC1D	SEP-15-11 14:04:00	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202484219	DUP	BXF1	PIC2C	SEP-15-11 14:04:04	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202484220	MS	BXF1	PIC3B	SEP-15-11 14:04:16	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202484221	LCS	BXF1	PIC3C	SEP-15-11 14:04:20	DONE	CeF on 25mm Filter	01-AUG-10 00:00

Instrument Run Log

Instrument Type: LUCAS CELL DETECTOR **Batch ID: 1140637**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
285581001	SAMPLE	KSD1	LUCAS1	SEP-15-11 12:10:00	DONE	Lucas Cell	01-SEP-10 00:00
1202485082	DUP	KSD1	LUCAS4	SEP-15-11 12:10:00	DONE	Lucas Cell	04-JAN-11 00:00
1202485083	MS	KSD1	LUCAS5	SEP-15-11 12:10:00	DONE	Lucas Cell	09-JUN-11 00:00
1202485084	LCS	KSD1	LUCAS6	SEP-15-11 12:50:00	DONE	Lucas Cell	28-APR-11 00:00
1202485081	MB	KSD1	LUCAS2	SEP-15-11 14:25:00	DONE	Lucas Cell	26-JAN-11 00:00

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3386
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/1/2011
TURNAROUND/REPORT DUE: 10/1/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:1664	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:608	1	NPDES03A113-11-13857	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:608	2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES13S-11-26995	WOE	8/31/2011	
		2	NPDES13S-11-26995	WOE	8/31/2011	
	EPA:624	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:625	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		4	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
		4	NPDES03A199-11-13860	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:625	1	NPDES13S-11-26856	WOE	8/30/2011	
		2	NPDES13S-11-26856	WOE	8/30/2011	
		3	NPDES13S-11-26856	WOE	8/30/2011	
		4	NPDES13S-11-26856	WOE	8/30/2011	
	EPA:900	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:903.1	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:904	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	SW-846:8081A	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	

Final Page of REQUEST NUMBER 11-3386

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 11-3386

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	1	POLY	WSP-GrossA/B	None	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-26856	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26995	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES13S-11-26995	2	AMBER GLASS	WSP-608-PCB	Ice	WOE

Relinquished By: **Date** **Time** **Received By:** **Date** **Time**

Joseph Sherwood — Signature — 9/1/11 3pm — Signature — Sheri Sherwood

Signature — Signature

Signature — Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES13S-11-26995 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		8/31/11	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1435	SUB-MEDIA:	OTHER	
PRS ID:			SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall SSS13S		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: 24 hr. COMPOSITE TIME INTERVAL: flow weighted ~~1 HR~~ 9 pulses WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WPS-8290-D/F	1 LITER AMBER GLASS	Ice	Y	2,3,7,8-TCDD Only
2		WSP-608-PCB1	LITER AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) B Gray **REVIEWED BY (PRINT)** ~~B Gray~~ KG

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray	8/31/11	(Printed Name) K. Green	8/31/11
(Signature)	1515	(Signature)	3:15
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES13S-11-26856 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		8/30/11	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1432	SUB-MEDIA:	OTHER	
PRS ID:			SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall SSS13S		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: 24hr COMPOSITE TIME INTERVAL: ~~8 HRS~~ 9 pulses N/A WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		NPDES-OIL_GREASE	1 LITER AMBER GLASS	Sulfuric Acid (H2SO4)	N	
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid (HNO3)		
2		NPDES-TTO 2 -CVE (624)	40 ML SEPTUM AMBER GLASS	Ice		
4		NPDES-TTO SVOA (625)	1 LITER AMBER GLASS	Ice	Y 8/30/11 1432	
2		NPDES-TTO VOA HCl(624)	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	N	
2		WPS-8290-D/F	1 LITER AMBER GLASS	Ice		2,3,7,8-TCDD Only
2		WSP-608-PCB1	LITER AMBER GLASS	Ice		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1		NPDES-As+Cu	250 ML POLY	Nitric Acid (HNO3)		
1		NPDES-Se (7742 MOD)	250 ML POLY	Nitric Acid (HNO3)		

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

COLLECTED BY (PRINT) B. Gray **REVIEWED BY (PRINT)**

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray (Signature)	8/31/11 1045	(Printed Name) J VAldez (Signature)	8/31/11 1045
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES03A113-11-13857 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		8/31/11	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0942	SUB-MEDIA:	OTHER	
PRS ID:	TA-53		SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall 03A113		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: N/A COMPOSITE TIME INTERVAL: N/A WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		NPDES-BOD+TSS	1 GAL POLY	None	Y	
1		NPDES-CN(TOTAL)	500 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		NPDES-COD	250 ML POLY	Sulfuric Acid (H2SO4)	Y	
1		NPDES-Color/Sur/Anions	500 ML POLY	Ice	Y	
2		NPDES-E Coli	60 ML POLY	Sodium Sulfate	Y	
1		NPDES-NH3/NO3/NO2/TKN	1 LITER POLY	Sulfuric Acid (H2SO4)	Y	Plus TOC
3		NPDES-OIL_GREASE	1 LITER AMBER GLASS	Sulfuric Acid (H2SO4)	Y	
1		NPDES-P	1 LITER POLY	Sulfuric Acid (Hydrogen Sulfate) Ice	Y	
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid (HNO3)	Y	
2		NPDES-TTO 2-CVE (624)	40 ML SEPTUM AMBER GLASS	Ice	Y	
4		NPDES-TTO SVOA (625)	1 LITER AMBER GLASS	Ice	Y	
2		NPDES-TTO VOA HCl(624)	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	Y	
2		WPS-8290-D/F	1 LITER AMBER GLASS	Ice	Y	2,3,7,8-TCDD Only
2		WSP-608-PCBI	LITER AMBER GLASS	Ice	Y	
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1		NPDES-Metals+B+Mo+Sn+Ti	1 LITER POLY	Nitric Acid (HNO3)	Y	
1		NPDES-Sulfide	250 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		Se	250 ml poly	HNO_3	Y	To SWRI
1		As	250 ml poly	HNO_3	Y	To SWRI

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE DESC:

SAMPLE COMMENTS: collected from both cooling towers flow about 4 gpm and 30 gpm

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) B. Gray **REVIEWED BY (PRINT)** W. R. Velasquez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray (Signature) Beth Gray	8/31/11 1045	(Printed Name) JVAldez. (Signature)	8/31/11 1045
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES03A199-11-13860 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		08/31/2011	MEDIA:	NA	OR
TIME COLLECTED (HH:MM)		1058	SUB-MEDIA:	OTHER	
PRS ID:	TA 3		SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall 03A199		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: Grab COMPOSITE TIME INTERVAL: N/A WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		NPDES-BOD+ TSS	1 GAL POLY	None	Y	
1		NPDES-CN(TOTAL)	500 ML POLY	Sodium Hydroxide (NaOH)		
1		NPDES-COD	250 ML POLY	Sulfuric Acid (H2SO4)		
1		NPDES-Color/Sur /Anions	500 ML POLY	Ice		
2		NPDES-E Coli	60 ML POLY	Sodium Sulfate		
1		NPDES-NH3/NO 3/NO2/TKN	1 LITER POLY	Sulfuric Acid (H2SO4)		Plus TOC
3		NPDES-OIL_GREASE	1 LITER AMBER GLASS	Sulfuric Acid (H2SO4)		
1		NPDES-P	1 LITER POLY	Sulfuric Acid (Hydrogen Sulfate) Ice		
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid (HNO3)		
2		NPDES-TTO 2 -CVE (624)	40 ML SEPTUM AMBER GLASS	Ice		
4		NPDES-TTO SVOA (625)	1 LITER AMBER GLASS	Ice		
2		NPDES-TTO VOA HCl(624)	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)		
2		WPS-8290-D/F	1 LITER AMBER GLASS	Ice		2,3,7,8-TCDD Only
2		WSP-608-PCB1	LITER AMBER GLASS	Ice		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
1		NPDES-Metals+B +Mo+Sn+Ti	1 LITER POLY	Nitric Acid (HNO3)		200.8
1		NPDES-Sulfide	250 ML POLY	Sodium Hydroxide (NaOH)		
1		NPDES-As	250 ML POLY	Nitric Acid HNO_3		ship to SWRI Hydi
1		NPDES-Se	" "	" "		"

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) B. Gray **REVIEWED BY (PRINT)** W. Rick Velasquez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Beth Gray (Signature)	8/31/11 1215	(Printed Name) Sharon Sherwood (Signature)	8/31/11 1215
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386-1 VALIDATION DATE: 10/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC.

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☒ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☒ **OTHER (DESCRIBE):** PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Susan Ball **Level:** I **Date:** 10/28/11

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 10/26/11

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**287628001**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**−Relog from 285124005**	**Client:**	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113−11−13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 11:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016	U	0.115	ug/L	0.0383	0.115	1
11104−28−2	Aroclor−1221	U	0.115	ug/L	0.0383	0.115	1
11141−16−5	Aroclor−1232	U	0.115	ug/L	0.0383	0.115	1
53469−21−9	Aroclor−1242	U	0.115	ug/L	0.0383	0.115	1
12672−29−6	Aroclor−1248	U	0.115	ug/L	0.0383	0.115	1
11097−69−1	Aroclor−1254	U	0.115	ug/L	0.0383	0.115	1
11096−82−5	Aroclor−1260	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.142	0.230	ug/L	61.6	(23%−103%)
Decachlorobiphenyl	0.150	0.230	ug/L	65.0	(28%−117%)

JCC
10/26/11

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

Relog 287628

~~285 124 %~~

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	1	POLY	WSP-GrossA/B	None	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
X NPDES03A113-11-13857	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-26856	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26995	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES13S-11-26995	2	AMBER GLASS	WSP-608-PCB	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Sherri Sherwood	9/1/11	3pm	Signature: P. West	9/2/11	08:45
Signature:			Signature:		
Signature:			Signature:		

Received for DISPOSAL By: Date Time **Remarks:**

Signature

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:11-3386

Per Agreement Number:126310011

Project Cost Code: WE6L11550000

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 9/1/2011

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:1664	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:608	1	NPDES03A113-11-13857	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:608	2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES13S-11-26995	WOE	8/31/2011	
		2	NPDES13S-11-26995	WOE	8/31/2011	
	EPA:624	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:625	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		4	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
		4	NPDES03A199-11-13860	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:625	1	NPDES13S-11-26856	WOE	8/30/2011	
		2	NPDES13S-11-26856	WOE	8/30/2011	
		3	NPDES13S-11-26856	WOE	8/30/2011	
		4	NPDES13S-11-26856	WOE	8/30/2011	
	EPA:900	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:903.1	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:904	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	SW-846:8081A	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	

Final Page of REQUEST NUMBER 11-3386

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

October 12, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH NPDES 03A
Work Order: 287628
SDG: 11-3386-1

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on September 02, 2011, and analyzed for GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 11-3386
Enclosures

ARS International (63641-10)
LANL-WQH NPDES 03A
Workorder #: 287628
SDG # : 11-3386-1

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....4

Data Review Qualifier Flag Definition Sheet.....13

GC Semivolatile PCB Analysis.....15

Sample Data Summary.....22

QC Summary.....24

Sample Data.....29

Standard Data.....35

QC Data.....120

Miscellaneous Data.....140

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL-WQH NPDES 03A
Workorder #: 287628
SDG # : 11-3386-1

October 12, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on September 02, 2011 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
287628001	NPDES03A113-11-13857

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

List of current GEL Certifications as of 12 October 2011

State	Certification
Arizona	AZ0766
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH−0169
DoD ELAP − A2LA	2567.01
Florida − NELAP	E87156
Foreign Soils Permit USDA	P330−09−00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046 (Al33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M−SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey − NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−11−4
Utah − NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780−11
Wisconsin	999887790

Chain of Custody and Supporting Documentation

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

Relog 287628

~~285 124 %~~

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	1	POLY	WSP-GrossA/B	None	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
X NPDES03A113-11-13857	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-26856	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26995	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES13S-11-26995	2	AMBER GLASS	WSP-608-PCB	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Sherri Sherwood	9/1/11	3pm	Signature: P. West	9/2/11	08:45
Signature:			Signature:		
Signature:			Signature:		

Received for DISPOSAL By: Date Time **Remarks:**

Signature

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:11-3386

Per Agreement Number:126310011

Project Cost Code: WE6L11550000

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 9/1/2011

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:1664	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:608	1	NPDES03A113-11-13857	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:608	2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES13S-11-26995	WOE	8/31/2011	
		2	NPDES13S-11-26995	WOE	8/31/2011	
	EPA:624	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:625	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		4	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
		4	NPDES03A199-11-13860	WOE	8/31/2011	

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:625	1	NPDES13S-11-26856	WOE	8/30/2011	
		2	NPDES13S-11-26856	WOE	8/30/2011	
		3	NPDES13S-11-26856	WOE	8/30/2011	
		4	NPDES13S-11-26856	WOE	8/30/2011	
	EPA:900	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:903.1	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:904	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	SW-846:8081A	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	

Final Page of REQUEST NUMBER 11-3386

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/AR/COC/Work Order: 11-3386**
Received By: Patricia Dent	**Date Received: September 2, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags **Blue ice** Dry ice **None** Other (describe) **1,3-5,15C**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: **61524646** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**Client Labels**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			Circle Applicable: **FedEx Air** FedEx Ground UPS Field Services Courier Other **7209 7855 3412 1C 7209 7855 3386 3C 7209 7855 3397 3C 7209 7855 3423 4C 7209 7855 3423 15C 7209 7855 3401 5C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials HT Date 090611 Page 1 of 1

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

1C

FedEx Express

2 of 2
MPS# 0263 7209 7855 3412
Mstr# 7209 7855 3401 0201

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 RT12 08/10

68BC2/4288/DA47

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

3C

FedEx Express

1 of 2
TRK# 0201 7209 7855 3386
MASTER

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

68BC2/4288/DA47

NPDES

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

3C

FedEx Express

2 of 2
MPS# 0263 7209 7855 3397
Mstr# 7209 7855 3386 0201

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0458K00

4C

15-RAD

FedEx Express

TRK# 0201 7209 7855 3423

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

5c

FedEx Express

E

1 of 2

TRK# 0201 7209 7855 3401

FRI - 02 SEP A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

NPDES + other's

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC Semivolatile PCB Analysis

PCB Case Narrative
ARS International (ARSL)
SDG 11-3386-1

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	EPA 608 ATP
Prep Method:	EPA 608 SPE Prep
Analytical Batch Number:	1144879
Prep Batch Number:	1144878

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 608 ATP:

Sample ID	Client ID
287628001	NPDES03A113-11-13857
1202495394	Method Blank (MB)
1202495395	Laboratory Control Sample (LCS)
1202495396	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 16.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the

independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria. All analytes were within the established retention time windows for this method.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD between the LCS and LCSD met the acceptance limits.

QC Sample Designation
The matrix spike and matrix spike duplicate analysis was not performed for this batch of the samples. The LCS and LCSD analysis was performed to measure the precision and accuracy for the batch.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. All reported analyte detections in client and quality control samples were within the established retention time windows. Reported analyte concentrations were confirmed on dissimilar columns.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the LCSD are from the same analytical column as the LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 10/10/11

Roadmap for ARSL 11-3386-1 PCB

This roadmap was analyzed by jen01212 on 10-10-2011, 13:32.
This roadmap was reviewed by jim01140 on 10-10-2011, 13:55.
This roadmap was packaged by jim01140 on 10-10-2011, 16:45.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/101011.b/018f1801.d	287628001	sample	10-OCT-2011	11:18	11-3386-1.sub	NPDES03A113-11-1385	1.00000	1144879	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/101011.b/018b1801.d	287628001	sample	10-OCT-2011	11:18	11-3386-1.sub	NPDES03A113-11-1385	1.00000	1144879	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd2a.i/101011.b/013f1301.d	1202495394	mb	10-OCT-2011	10:22	11-2857-2.sub	PBLK01	1.00000	1144879	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/101011.b/013f1301-1.d	1202495394	mb	10-OCT-2011	10:22	11-3386-1.sub	PBLK01	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/013f1301-2.d	1202495394	mb	10-OCT-2011	10:22	11-3489.sub	PBLK01	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/014f1401.d	1202495395	lcs	10-OCT-2011	10:33	11-2857-2.sub	PBLK01LCS	1.00000	1144879	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/101011.b/014f1401-1.d	1202495395	lcs	10-OCT-2011	10:33	11-3386-1.sub	PBLK01LCS	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/014f1401-2.d	1202495395	lcs	10-OCT-2011	10:33	11-3489.sub	PBLK01LCS	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/015f1501.d	1202495396	lcsd	10-OCT-2011	10:44	11-2857-2.sub	PBLK01LCSD	1.00000	1144879	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/101011.b/015f1501-1.d	1202495396	lcsd	10-OCT-2011	10:44	11-3386-1.sub	PBLK01LCSD	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/015f1501-2.d	1202495396	lcsd	10-OCT-2011	10:44	11-3489.sub	PBLK01LCSD	1.00000	1144879	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd2a.i/101011.b/013b1301.d	1202495394	mb	10-OCT-2011	10:22	11-2857-2.sub	PBLK01	1.00000	1144879	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/101011.b/013b1301-1.d	1202495394	mb	10-OCT-2011	10:22	11-3386-1.sub	PBLK01	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/013b1301-2.d	1202495394	mb	10-OCT-2011	10:22	11-3489.sub	PBLK01	1.00000	1144879	
☐	N	/chem/ecd2a.i/101011.b/014b1401-1.d	1202495395	lcs	10-OCT-2011	10:33	11-3386-1.sub	PBLK01LCS	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/014b1401-2.d	1202495395	lcs	10-OCT-2011	10:33	11-3489.sub	PBLK01LCS	1.00000	1144879	
■	N	/chem/ecd2a.i/101011.b/014b1401.d	1202495395	lcs	10-OCT-2011	10:33	11-2857-2.sub	PBLK01LCS	1.00000	1144879	UPLOAD BOTH, USE HIGHER
■	N	/chem/ecd2a.i/101011.b/015b1501.d	1202495396	lcsd	10-OCT-2011	10:44	11-2857-2.sub	PBLK01LCSD	1.00000	1144879	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/101011.b/015b1501-1.d	1202495396	lcsd	10-OCT-2011	10:44	11-3386-1.sub	PBLK01LCSD	1.00000	1144879	

■	N	/chem/ecd2a.i/101011.b/015b1501-2.d	1202495396	lcsd	10-OCT-2011	10:44	11-3489.sub	PBLK01LCSD	1.00000	1144879	

Sample Data Summary

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**287628001**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**−Relog from 285124005**	**Client:**	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113−11−13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 11:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016	U	0.115	ug/L	0.0383	0.115	1
11104−28−2	Aroclor−1221	U	0.115	ug/L	0.0383	0.115	1
11141−16−5	Aroclor−1232	U	0.115	ug/L	0.0383	0.115	1
53469−21−9	Aroclor−1242	U	0.115	ug/L	0.0383	0.115	1
12672−29−6	Aroclor−1248	U	0.115	ug/L	0.0383	0.115	1
11097−69−1	Aroclor−1254	U	0.115	ug/L	0.0383	0.115	1
11096−82−5	Aroclor−1260	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.142	0.230	ug/L	61.6	(23%−103%)
Decachlorobiphenyl	0.150	0.230	ug/L	65.0	(28%−117%)

QC Summary

PCB

Surrogate Recovery Report

SDG Number: 11−3386−1

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202495394	MB for batch 1144878	68	79	74	80
1202495395	LCS for batch 1144878	77	87	85	89
1202495396	LCSD for batch 1144878	66	75	75	80
287628001	NPDES03A113−11−13857	54	62	60	65

Surrogate	Acceptance Limits
4CMX = 4cmx	(23%−103%)
DCB = Decachlorobiphenyl	(28%−117%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **11−3386−1**
Client ID: **LCS for batch 1144878**
Lab Sample ID: **1202495395**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **10/10/2011 10:33**
Prep Batch ID: **1144878**
Batch ID: **1144879**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674−11−2	LCS	Aroclor−1016	1.00	0.0	0.860	86	45−100
11096−82−5	LCS	Aroclor−1260	1.00	0.0	0.820	82	47−106

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **11−3386−1**
Client ID: **LCSD for batch 1144878**
Lab Sample ID: **1202495396**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **10/10/2011 10:44**
Prep Batch ID: **1144878**
Batch ID: **1144879**
Dilution: **1**

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674−11−2	LCSD Aroclor−1016	1.00	0.0	0.740	74	45−100	15	0−23
11096−82−5	LCSD Aroclor−1260	1.00	0.0	0.730	73	47−106	12	0−21

Method Blank Summary

SDG Number:	**11−3386−1**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1144878**	**Instrument ID:**	**ECD2A.I_2** **ECD2A.I_1**	**Data File:**	**013b1301−1.d** **013f1301−1.d**
Lab Sample ID:	**1202495394**				
Column:	**CLP2** **CLP1**	**Prep Date:**	**10/07/2011 15:16**	**Analyzed:**	**10/10/11 10:22**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1144878	**1202495395**	**014f1401−1.d** **014b1401−1.d**	**10/10/11**	**1033**
02 LCSD for batch 1144878	**1202495396**	**015f1501−1.d** **015b1501−1.d**	**10/10/11**	**1044**
03 NPDES03A113−11−13857	**287628001**	**018f1801.d** **018b1801.d**	**10/10/11**	**1118**

Sample Data

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**287628001**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**−Relog from 285124005**	**Client:**	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113−11−13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 11:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016	U	0.115	ug/L	0.0383	0.115	1
11104−28−2	Aroclor−1221	U	0.115	ug/L	0.0383	0.115	1
11141−16−5	Aroclor−1232	U	0.115	ug/L	0.0383	0.115	1
53469−21−9	Aroclor−1242	U	0.115	ug/L	0.0383	0.115	1
12672−29−6	Aroclor−1248	U	0.115	ug/L	0.0383	0.115	1
11097−69−1	Aroclor−1254	U	0.115	ug/L	0.0383	0.115	1
11096−82−5	Aroclor−1260	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.142	0.230	ug/L	61.6	(23%−103%)
Decachlorobiphenyl	0.150	0.230	ug/L	65.0	(28%−117%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/018f1801.d
Lab Smp Id: 287628001 Client Smp ID: NPDES03A113-11-1385
Inj Date : 10-OCT-2011 11:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |287628001|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|ARSL|WASTE WATER|NPDES03A113-11
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386-1.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.750	1.748	0.002	7206827	107.992	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.599	5.601	-0.002	7001994	120.838	0.14	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/101011.b/018f1801.d

Page 1

Date : 10-OCT-2011 11:18

Client ID: NPDES03A113-11-1385

Instrument: ecd2a.i

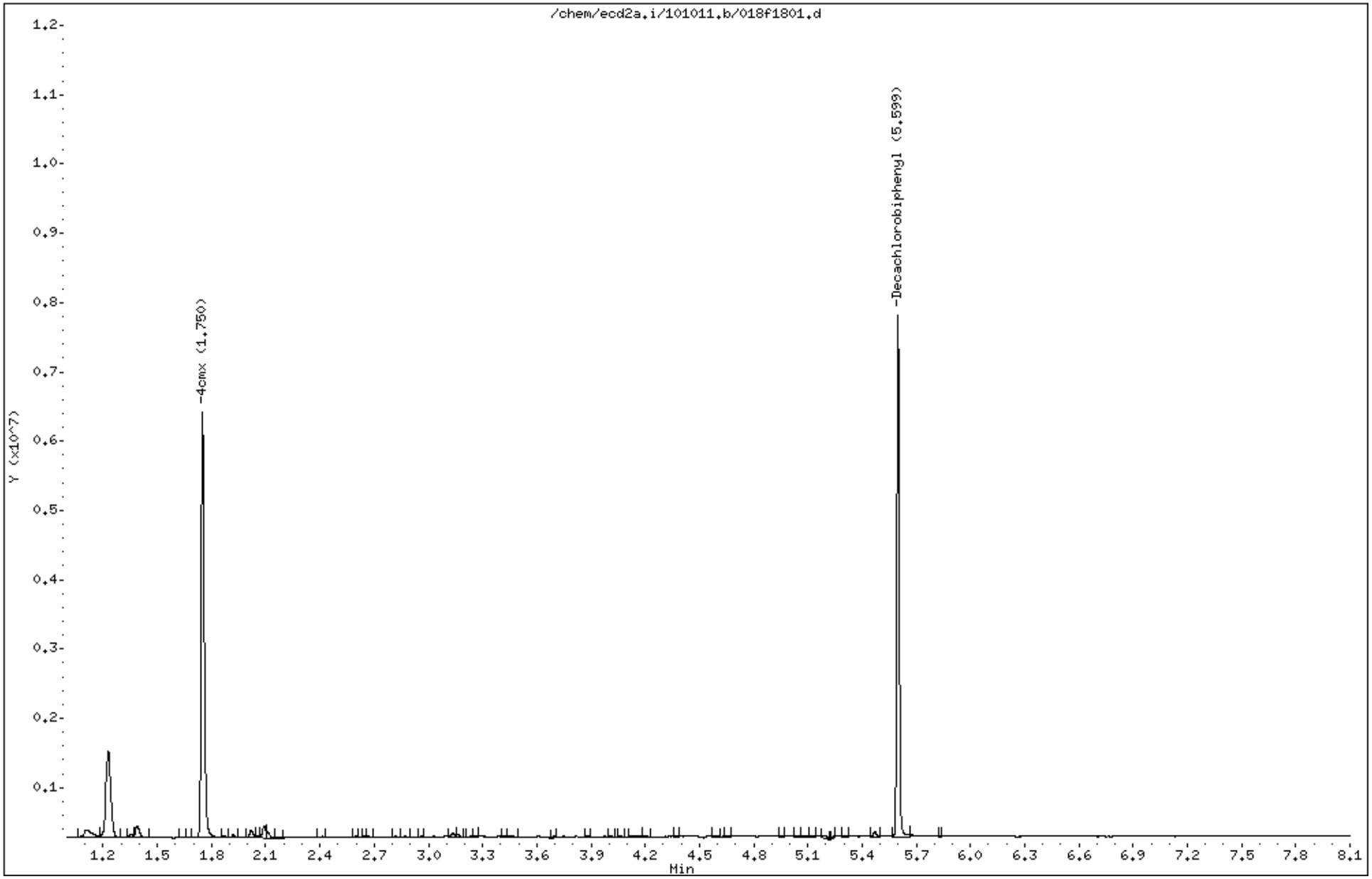
Sample Info: |28762800|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/018b1801.d
Lab Smp Id: 287628001 Client Smp ID: NPDES03A113-11-1385
Inj Date : 10-OCT-2011 11:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |287628001|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|ARSL|WASTE WATER|NPDES03A113-11
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386-1.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	22569630	123.112	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	21389453	130.079	0.15	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/101011.b/018b1801.d

Page 1

Date : 10-OCT-2011 11:18

Client ID: NPDES03A113-11-1385

Instrument: ecd2a.i

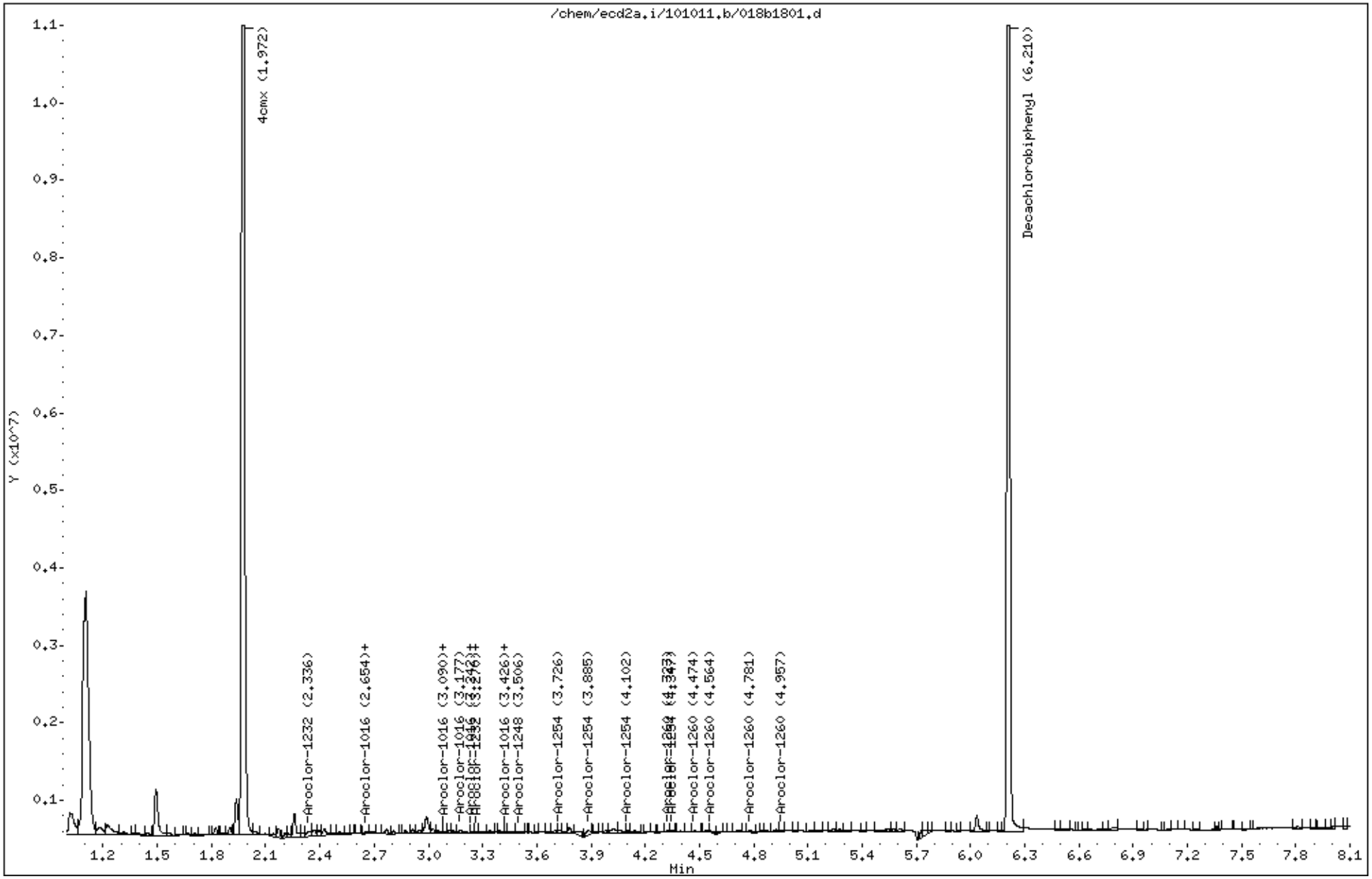
Sample Info: |287628001|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



Standard Data

Report Date: 10-Oct-2011 12:52

Calibration History

Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Start Cal Date: 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-OCT-2011 18:30	AR1248	/chem/ecd2a.i/100611.b/020f2001.d
06-OCT-2011 17:22	AR1242	/chem/ecd2a.i/100611.b/014f1401.d
06-OCT-2011 16:15	AR1254	/chem/ecd2a.i/100611.b/008f0801.d
06-OCT-2011 15:07	AR1660	/chem/ecd2a.i/100611.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-OCT-2011 18:41	AR1248	/chem/ecd2a.i/100611.b/021f2101.d
06-OCT-2011 17:33	AR1242	/chem/ecd2a.i/100611.b/015f1501.d
06-OCT-2011 16:26	AR1254	/chem/ecd2a.i/100611.b/009f0901.d
06-OCT-2011 15:19	AR1660	/chem/ecd2a.i/100611.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-OCT-2011 18:52	AR1248	/chem/ecd2a.i/100611.b/022f2201.d
06-OCT-2011 17:45	AR1242	/chem/ecd2a.i/100611.b/016f1601.d
06-OCT-2011 16:37	AR1254	/chem/ecd2a.i/100611.b/010f1001.d
06-OCT-2011 15:30	AR1660	/chem/ecd2a.i/100611.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
06-OCT-2011 20:22	DDTANALOGSTD	/chem/ecd2a.i/100611.b/030f3001.d
06-OCT-2011 20:10	AR1268	/chem/ecd2a.i/100611.b/029f2901.d
06-OCT-2011 19:59	AR1262	/chem/ecd2a.i/100611.b/028f2801.d
06-OCT-2011 19:48	AR1221	/chem/ecd2a.i/100611.b/027f2701.d
06-OCT-2011 19:37	AR1232	/chem/ecd2a.i/100611.b/026f2601.d
06-OCT-2011 19:03	AR1248	/chem/ecd2a.i/100611.b/023f2301.d
06-OCT-2011 17:56	AR1242	/chem/ecd2a.i/100611.b/017f1701.d
06-OCT-2011 16:48	AR1254	/chem/ecd2a.i/100611.b/011f1101.d
06-OCT-2011 15:41	AR1660	/chem/ecd2a.i/100611.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
06-OCT-2011 19:14	AR1248	/chem/ecd2a.i/100611.b/024f2401.d
06-OCT-2011 18:07	AR1242	/chem/ecd2a.i/100611.b/018f1801.d
06-OCT-2011 17:00	AR1254	/chem/ecd2a.i/100611.b/012f1201.d
06-OCT-2011 15:52	AR1660	/chem/ecd2a.i/100611.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 11:29	AR1660	/chem/ecd2a.i/101011.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		

10-OCT-2011 09:48	AR1268	/chem/ecd2a.i/101011.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:37	AR1262	/chem/ecd2a.i/101011.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:26	AR1221	/chem/ecd2a.i/101011.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:15	AR1242	/chem/ecd2a.i/101011.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:03	AR1232	/chem/ecd2a.i/101011.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:52	AR1248	/chem/ecd2a.i/101011.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:41	AR1242	/chem/ecd2a.i/101011.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:30	AR1254	/chem/ecd2a.i/101011.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:18	AR1660	/chem/ecd2a.i/101011.b/002f0201.d

Report Date: 10-Oct-2011 12:52

Calibration History

Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Start Cal Date: 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
06-OCT-2011 18:30	AR1248	/chem/ecd2a.i/100611.b/020b2001.d
06-OCT-2011 17:22	AR1242	/chem/ecd2a.i/100611.b/014b1401.d
06-OCT-2011 16:15	AR1254	/chem/ecd2a.i/100611.b/008b0801.d
06-OCT-2011 15:07	AR1660	/chem/ecd2a.i/100611.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
06-OCT-2011 18:41	AR1248	/chem/ecd2a.i/100611.b/021b2101.d
06-OCT-2011 17:33	AR1242	/chem/ecd2a.i/100611.b/015b1501.d
06-OCT-2011 16:26	AR1254	/chem/ecd2a.i/100611.b/009b0901.d
06-OCT-2011 15:19	AR1660	/chem/ecd2a.i/100611.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
06-OCT-2011 18:52	AR1248	/chem/ecd2a.i/100611.b/022b2201.d
06-OCT-2011 17:45	AR1242	/chem/ecd2a.i/100611.b/016b1601.d
06-OCT-2011 16:37	AR1254	/chem/ecd2a.i/100611.b/010b1001.d
06-OCT-2011 15:30	AR1660	/chem/ecd2a.i/100611.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
06-OCT-2011 20:22	DDTANALOGSTD	/chem/ecd2a.i/100611.b/030b3001.d
06-OCT-2011 20:10	AR1268	/chem/ecd2a.i/100611.b/029b2901.d
06-OCT-2011 19:59	AR1262	/chem/ecd2a.i/100611.b/028b2801.d
06-OCT-2011 19:48	AR1221	/chem/ecd2a.i/100611.b/027b2701.d
06-OCT-2011 19:37	AR1232	/chem/ecd2a.i/100611.b/026b2601.d
06-OCT-2011 19:03	AR1248	/chem/ecd2a.i/100611.b/023b2301.d
06-OCT-2011 17:56	AR1242	/chem/ecd2a.i/100611.b/017b1701.d
06-OCT-2011 16:48	AR1254	/chem/ecd2a.i/100611.b/011b1101.d
06-OCT-2011 15:41	AR1660	/chem/ecd2a.i/100611.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
06-OCT-2011 19:14	AR1248	/chem/ecd2a.i/100611.b/024b2401.d
06-OCT-2011 18:07	AR1242	/chem/ecd2a.i/100611.b/018b1801.d
06-OCT-2011 17:00	AR1254	/chem/ecd2a.i/100611.b/012b1201.d
06-OCT-2011 15:52	AR1660	/chem/ecd2a.i/100611.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 11:29	AR1660	/chem/ecd2a.i/101011.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		

10-OCT-2011 09:48	AR1268	/chem/ecd2a.i/101011.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:37	AR1262	/chem/ecd2a.i/101011.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:26	AR1221	/chem/ecd2a.i/101011.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:15	AR1242	/chem/ecd2a.i/101011.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 09:03	AR1232	/chem/ecd2a.i/101011.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:52	AR1248	/chem/ecd2a.i/101011.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:41	AR1242	/chem/ecd2a.i/101011.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:30	AR1254	/chem/ecd2a.i/101011.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-OCT-2011 08:18	AR1660	/chem/ecd2a.i/101011.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 10-Oct-2011 12:39 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.262	2.232-2.292	1.909e+03
	2.590	2.560-2.620	2.881e+03
	2.724	2.694-2.754	1.069e+03
	2.816	2.786-2.846	8.591e+02
	2.968	2.938-2.998	1.299e+03
2 Aroclor-1221	1.882	1.851-1.912	6.329e+02
	1.983	1.953-2.013	3.178e+02
	2.012	1.982-2.042	1.736e+03
3 Aroclor-1232	2.011	1.981-2.041	1.342e+03
	2.262	2.232-2.292	1.118e+03
	2.681	2.651-2.711	9.769e+02
	2.725	2.695-2.755	6.429e+02
	2.969	2.939-2.999	6.989e+02
4 Aroclor-1242	2.262	2.232-2.292	1.892e+03
	2.590	2.559-2.619	2.626e+03
	2.724	2.694-2.754	1.019e+03
	2.816	2.786-2.846	7.982e+02
	3.204	3.174-3.234	7.063e+02
5 Aroclor-1248	2.590	2.560-2.620	1.572e+03
	2.817	2.787-2.847	1.620e+03
	2.969	2.938-2.998	2.141e+03
	3.204	3.174-3.234	1.250e+03
	3.264	3.233-3.293	2.457e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.235	3.205-3.265	1.940e+03
		3.417	3.387-3.447	2.603e+03
		3.604	3.574-3.634	2.015e+03
		3.689	3.659-3.719	3.476e+03
		3.879	3.849-3.909	2.685e+03
	7 Aroclor-1260	3.817	3.787-3.847	2.875e+03
		4.009	3.979-4.039	4.371e+03
		4.094	4.064-4.124	1.836e+03
		4.280	4.250-4.310	2.719e+03
		4.447	4.417-4.477	2.748e+03
	8 Aroclor-1262	3.818	3.788-3.848	2.045e+03
		4.010	3.980-4.040	2.801e+03
		4.198	4.168-4.228	1.699e+03
		4.281	4.251-4.311	3.678e+03
		4.447	4.417-4.477	3.202e+03
	9 Aroclor-1268	4.877	4.847-4.907	9.753e+03
		4.903	4.873-4.933	9.637e+03
		5.036	5.006-5.066	7.709e+03
		5.275	5.245-5.305	3.646e+03
		5.470	5.440-5.500	2.636e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.748	1.718-1.778	6.674e+04
$	12 Decachlorobiphenyl	5.601	5.571-5.631	5.795e+04
	13 4,4'-DDT	4.224	4.204-4.244	2.430e+04
	14 4,4'-DDD	4.032	4.012-4.052	4.841e+04
	15 4,4'-DDE	3.624	3.604-3.644	6.457e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 10-Oct-2011 12:38 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.652	2.622-2.682	6.235e+03
	3.086	3.056-3.116	4.947e+03
	3.159	3.129-3.189	3.065e+03
	3.238	3.208-3.268	2.854e+03
	3.425	3.395-3.455	4.021e+03
2 Aroclor-1221	2.199	2.169-2.229	1.759e+03
	2.305	2.275-2.335	1.081e+03
	2.349	2.319-2.379	4.634e+03
3 Aroclor-1232	2.349	2.319-2.379	3.541e+03
	2.651	2.621-2.681	3.444e+03
	3.086	3.056-3.116	2.718e+03
	3.238	3.208-3.268	1.392e+03
	3.267	3.237-3.297	1.464e+03
4 Aroclor-1242	2.653	2.623-2.683	5.380e+03
	3.086	3.056-3.116	4.306e+03
	3.239	3.209-3.269	2.407e+03
	3.267	3.237-3.297	2.599e+03
	3.425	3.395-3.455	3.445e+03
5 Aroclor-1248	2.652	2.622-2.682	2.896e+03
	3.239	3.208-3.268	4.937e+03
	3.267	3.237-3.297	4.318e+03
	3.425	3.395-3.455	6.275e+03
	3.511	3.481-3.541	6.708e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.238	3.208-3.268	3.370e+03
		3.724	3.694-3.754	6.297e+03
		3.866	3.836-3.896	7.429e+03
		4.103	4.073-4.133	5.200e+03
		4.347	4.317-4.377	7.227e+03
	7 Aroclor-1260	4.322	4.292-4.352	7.783e+03
		4.473	4.443-4.503	9.659e+03
		4.585	4.555-4.615	6.503e+03
		4.783	4.753-4.813	7.358e+03
		4.984	4.954-5.014	7.582e+03
	8 Aroclor-1262	4.212	4.182-4.242	3.475e+03
		4.322	4.292-4.352	5.413e+03
		4.474	4.444-4.504	6.652e+03
		4.586	4.556-4.616	5.681e+03
		4.783	4.753-4.813	9.639e+03
	9 Aroclor-1268	5.408	5.378-5.438	2.725e+04
		5.439	5.409-5.469	2.582e+04
		5.612	5.582-5.642	2.102e+04
		5.812	5.782-5.842	9.891e+03
		6.035	6.005-6.065	7.817e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.971	1.941-2.001	1.833e+05
$	12 Decachlorobiphenyl	6.210	6.180-6.240	1.644e+05
	13 4,4'-DDT	4.720	4.700-4.740	7.806e+04
	14 4,4'-DDD	4.504	4.484-4.524	1.518e+05
	15 4,4'-DDE	4.100	4.080-4.120	1.863e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Cal Date : 10-Oct-2011 12:39 jen01212

Calibration File Names:
Level 1: /chem/ecd2a.i/100611.b/020f2001.d
Level 2: /chem/ecd2a.i/100611.b/021f2101.d
Level 3: /chem/ecd2a.i/100611.b/022f2201.d
Level 4: /chem/ecd2a.i/100611.b/030f3001.d
Level 5: /chem/ecd2a.i/100611.b/024f2401.d

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Aroclor-1016(1)	258470	582442	1120285	2185931	7745790	LINR	-76.14375	1909		0.99930
(2)	343246	805944	1588177	3170179	11620404	LINR	-46.84644	2881		0.99961
(3)	138126	318986	607434	1190557	4327598	LINR	-61.57003	1069		0.99960
(4)	111835	255845	494422	933043	3478814	LINR	-57.75542	859		0.99980
(5)	164033	366668	721317	1431383	5246022	LINR	-50.78790	1299		0.99964
2 Aroclor-1221(1)	+++++	+++++	+++++	633	+++++	AVRG		633		0.000e+00
(2)	+++++	+++++	+++++	318	+++++	AVRG		318		0.000e+00
(3)	+++++	+++++	+++++	1736	+++++	AVRG		1736		0.000e+00
3 Aroclor-1232(1)	+++++	+++++	+++++	1342	+++++	AVRG		1342		0.000e+00
(2)	+++++	+++++	+++++	1118	+++++	AVRG		1118		0.000e+00
(3)	+++++	+++++	+++++	977	+++++	AVRG		977		0.000e+00
(4)	+++++	+++++	+++++	643	+++++	AVRG		643		0.000e+00
(5)	+++++	+++++	+++++	699	+++++	AVRG		699		0.000e+00
4 Aroclor-1242(1)	2075	1970	1900	1846	1666	AVRG		1892		8.05019
(2)	2719	2624	2637	2673	2478	AVRG		2626		3.44875
(3)	1083	1051	1036	994	929	AVRG		1019		5.84415
(4)	853	834	799	772	733	AVRG		798		6.05390
(5)	729	727	710	692	674	AVRG		706		3.30723

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Cal Date : 10-Oct-2011 12:39 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aroclor-1248(1)	1725	1588	1546	1534	1468	AVRG		1572		6.08849
(2)	1772	1651	1605	1558	1516	AVRG		1620		6.07610
(3)	2299	2219	2042	2090	2054	AVRG		2141		5.27141
(4)	1345	1260	1219	1197	1229	AVRG		1250		4.61305
(5)	2596	2493	2402	2379	2416	AVRG		2457		3.60844
6 Aroclor-1254(1)	2085	1997	1943	1910	1767	AVRG		1940		6.06057
(2)	2778	2637	2589	2591	2423	AVRG		2603		4.88281
(3)	2151	2052	1998	2006	1868	AVRG		2015		5.07730
(4)	3596	3493	3475	3516	3299	AVRG		3476		3.14775
(5)	2808	2689	2679	2694	2556	AVRG		2685		3.31786
7 Aroclor-1260(1)	3159	2920	2852	2833	2610	AVRG		2875		6.85981
(2)	4636	4354	4358	4361	4148	AVRG		4371		3.96670
(3)	1956	1883	1832	1815	1693	AVRG		1836		5.28270
(4)	2927	2751	2710	2679	2526	AVRG		2719		5.30485
(5)	2921	2785	2755	2691	2589	AVRG		2748		4.45165
8 Aroclor-1262(1)	+++++	+++++	+++++	2045	+++++	AVRG		2045		0.000e+00
(2)	+++++	+++++	+++++	2801	+++++	AVRG		2801		0.000e+00
(3)	+++++	+++++	+++++	1699	+++++	AVRG		1699		0.000e+00
(4)	+++++	+++++	+++++	3678	+++++	AVRG		3678		0.000e+00
(5)	+++++	+++++	+++++	3202	+++++	AVRG		3202		0.000e+00
9 Aroclor-1268(1)	+++++	+++++	+++++	9753	+++++	AVRG		9753		0.000e+00
(2)	+++++	+++++	+++++	9637	+++++	AVRG		9637		0.000e+00
(3)	+++++	+++++	+++++	7709	+++++	AVRG		7709		0.000e+00
(4)	+++++	+++++	+++++	3646	+++++	AVRG		3646		0.000e+00
(5)	+++++	+++++	+++++	26357	+++++	AVRG		26357		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Cal Date : 10-Oct-2011 12:39 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
13 4,4'-DDT	+++++	+++++	+++++	24298	+++++	AVRG		24298		0.000e+00
14 4,4'-DDD	+++++	+++++	+++++	48413	+++++	AVRG		48413		0.000e+00
15 4,4'-DDE	+++++	+++++	+++++	64566	+++++	AVRG		64566		0.000e+00
$ 11 4cmx	69218	66393	67025	67648	63392	AVRG		66735		3.21168
$ 12 Decachlorobiphenyl	61260	56779	58093	57843	55752	AVRG		57945		3.57731

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Cal Date : 10-Oct-2011 12:38 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/100611.b/020b2001.d
Level 2: /chem/ecd2a.i/100611.b/021b2101.d
Level 3: /chem/ecd2a.i/100611.b/022b2201.d
Level 4: /chem/ecd2a.i/100611.b/030b3001.d
Level 5: /chem/ecd2a.i/100611.b/024b2401.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	6948	6469	6305	6105	5348	6235	9.391
(2)	5366	5024	5083	4954	4309	4947	7.875
(3)	3242	3085	3122	3100	2777	3065	5.625
(4)	3165	2933	2903	2829	2438	2854	9.261
(5)	4349	4114	4088	4025	3526	4021	7.522
2 Aroclor-1221(1)	+++++	+++++	+++++	1759	+++++	1759	0.000
(2)	+++++	+++++	+++++	1081	+++++	1081	0.000
(3)	+++++	+++++	+++++	4634	+++++	4634	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	3541	+++++	3541	0.000
(2)	+++++	+++++	+++++	3444	+++++	3444	0.000
(3)	+++++	+++++	+++++	2718	+++++	2718	0.000
(4)	+++++	+++++	+++++	1392	+++++	1392	0.000
(5)	+++++	+++++	+++++	1464	+++++	1464	0.000
4 Aroclor-1242(1)	5775	5654	5511	5240	4718	5380	7.812
(2)	4539	4437	4359	4225	3969	4306	5.122
(3)	2571	2489	2429	2346	2200	2407	5.902
(4)	2765	2680	2624	2539	2385	2599	5.588
(5)	3546	3569	3428	3411	3270	3445	3.483
5 Aroclor-1248(1)	3253	3044	2900	2785	2496	2896	9.788
(2)	5347	5200	4924	4771	4443	4937	7.228
(3)	4703	4494	4294	4165	3932	4318	6.876
(4)	6730	6438	6287	6128	5795	6275	5.555
(5)	7251	6714	6719	6569	6288	6708	5.224
6 Aroclor-1254(1)	3613	3515	3413	3317	2992	3370	7.083
(2)	6699	6507	6405	6178	5694	6297	6.122
(3)	7804	7669	7526	7292	6854	7429	5.022
(4)	5397	5306	5298	5108	4889	5200	3.905
(5)	7427	7354	7334	7172	6849	7227	3.194

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-OCT-2011 15:07
End Cal Date : 06-OCT-2011 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Cal Date : 10-Oct-2011 12:38 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	8351	7810	7855	7760	7141	7783	5.532
(2)	10294	9668	9708	9659	8966	9659	4.872
(3)	6979	6486	6537	6469	6043	6503	5.106
(4)	7876	7361	7365	7329	6859	7358	4.889
(5)	8060	7600	7615	7564	7069	7582	4.629
8 Aroclor-1262(1)	+++++	+++++	+++++	3475	+++++	3475	0.000
(2)	+++++	+++++	+++++	5413	+++++	5413	0.000
(3)	+++++	+++++	+++++	6652	+++++	6652	0.000
(4)	+++++	+++++	+++++	5681	+++++	5681	0.000
(5)	+++++	+++++	+++++	9639	+++++	9639	0.000
9 Aroclor-1268(1)	+++++	+++++	+++++	27249	+++++	27249	0.000
(2)	+++++	+++++	+++++	25822	+++++	25822	0.000
(3)	+++++	+++++	+++++	21022	+++++	21022	0.000
(4)	+++++	+++++	+++++	9891	+++++	9891	0.000
(5)	+++++	+++++	+++++	78174	+++++	78174	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	78060	+++++	78060	0.000
14 4,4'-DDD	+++++	+++++	+++++	151836	+++++	151836	0.000
15 4,4'-DDE	+++++	+++++	+++++	186312	+++++	186312	0.000
$ 11 4cmx	182672	179091	182564	187748	184557	183327	1.725
$ 12 Decachlorobiphenyl	171102	160576	162832	162398	165262	164434	2.484

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/002f0201.d
Lab Smp Id: WAR111006-01 60 Client Smp ID: AR166001
Inj Date : 06-OCT-2011 15:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-F-8082-100611.m
Meth Date : 07-Oct-2011 08:48 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:07 Cal File: 002f0201.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.751	1.749	0.002	692181	10.0000	10.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	612596	10.0000	10.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.264	2.263	0.001	258470	100.000	114	80.00- 120.00	100.00(M)
2.591	2.590	0.001	343246	100.000	108	126.05- 166.05	132.80
2.726	2.725	0.001	138126	100.000	112	34.79- 74.79	53.44
2.818	2.817	0.001	111835	100.000	113	22.38- 62.38	43.27
2.970	2.969	0.001	164033	100.000	112	45.50- 85.50	63.46
Average of Peak Amounts =					112		
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	315927	100.000	110	80.00- 120.00	100.00
4.010	4.009	0.001	463586	100.000	106	133.96- 173.96	146.74
4.096	4.095	0.001	195632	100.000	106	44.23- 84.23	61.92
4.281	4.281	0.000	292715	100.000	108	75.00- 115.00	92.65
4.448	4.447	0.001	292105	100.000	106	76.65- 116.65	92.46
Average of Peak Amounts =					107		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/100611.b/002f0201.d

Page 1

Date : 06-OCT-2011 15:07

Client ID: AR166001

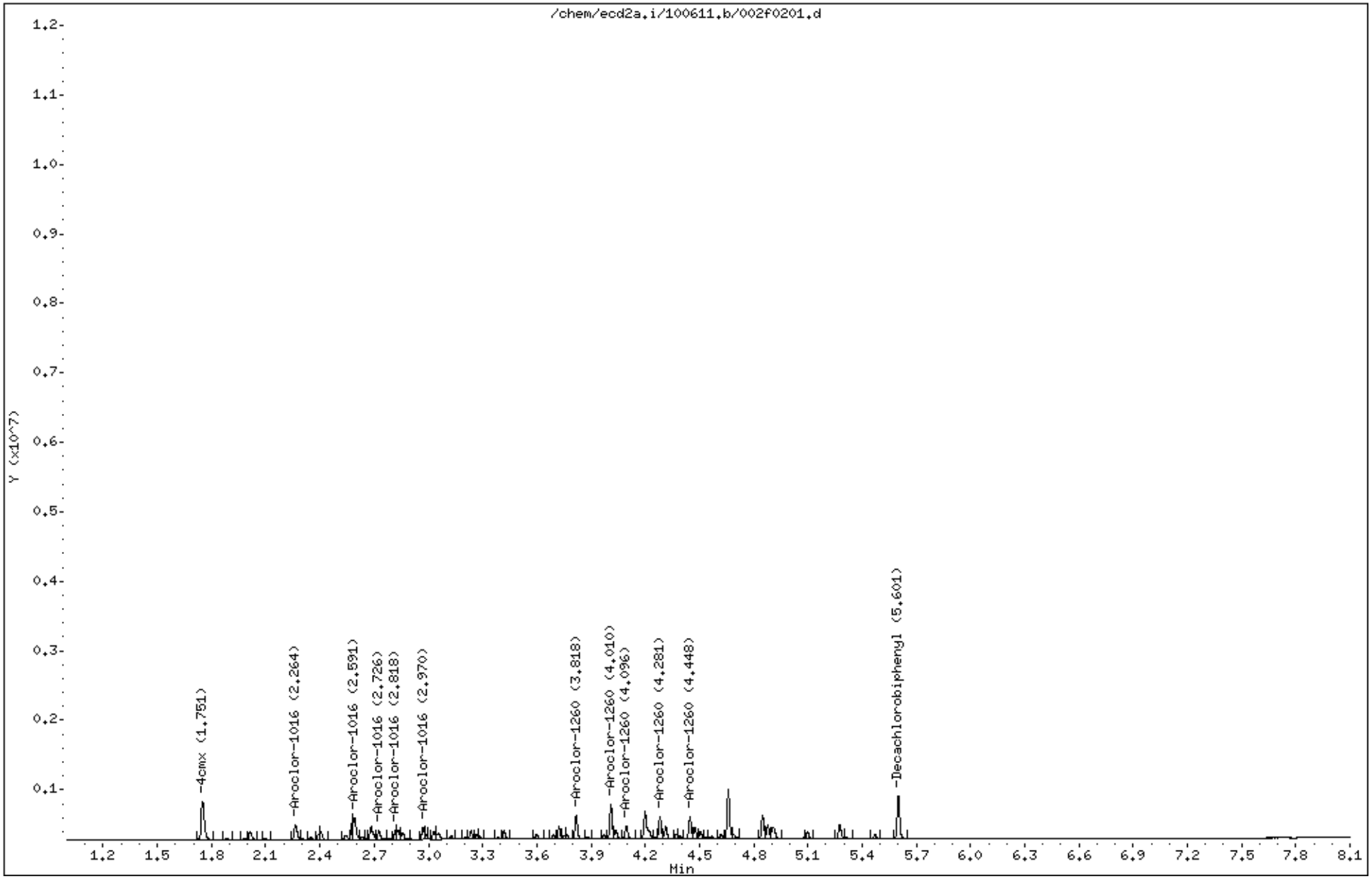
Instrument: ecd2a.i

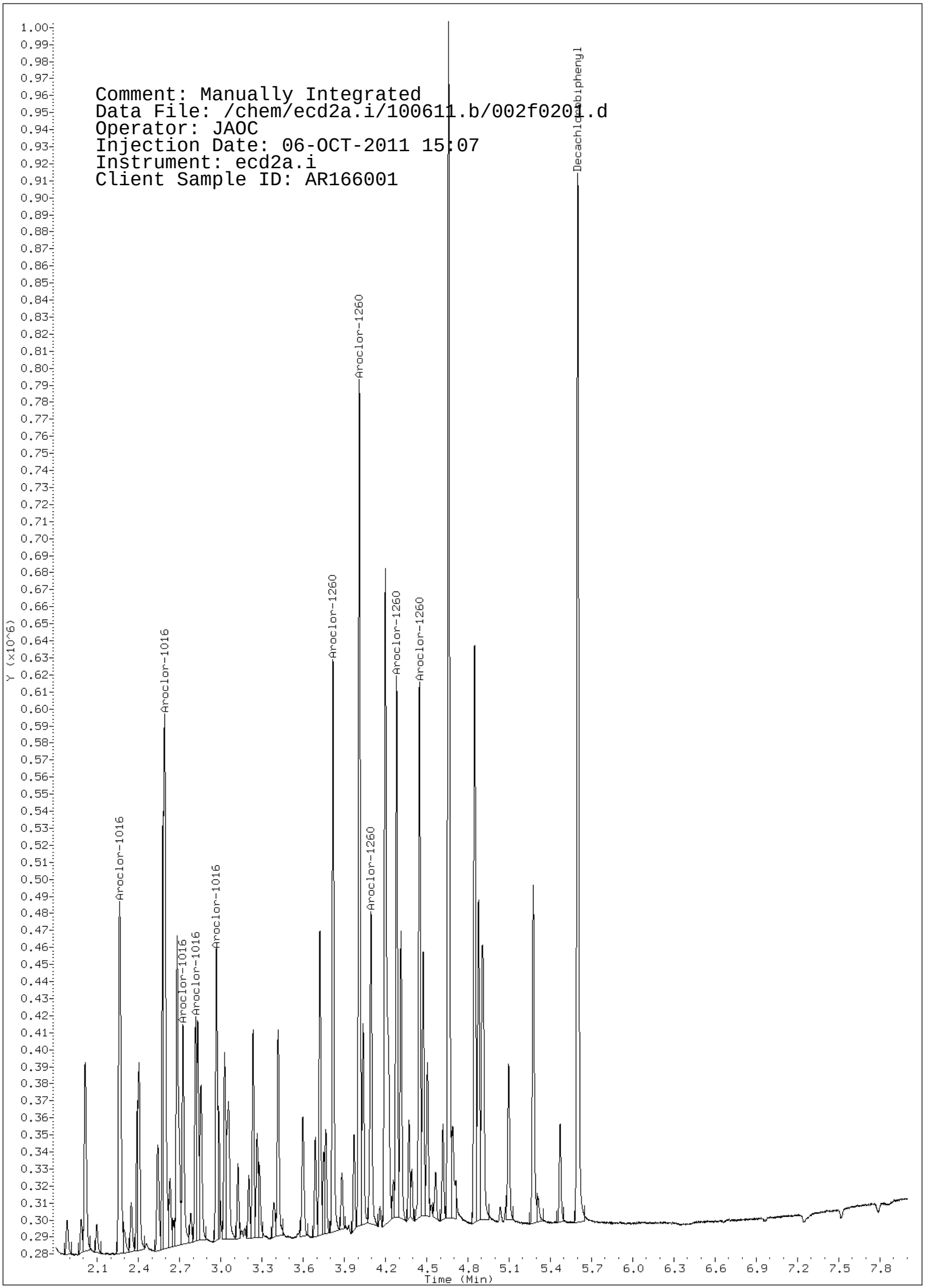
Sample Info: IWAR111006-01 60

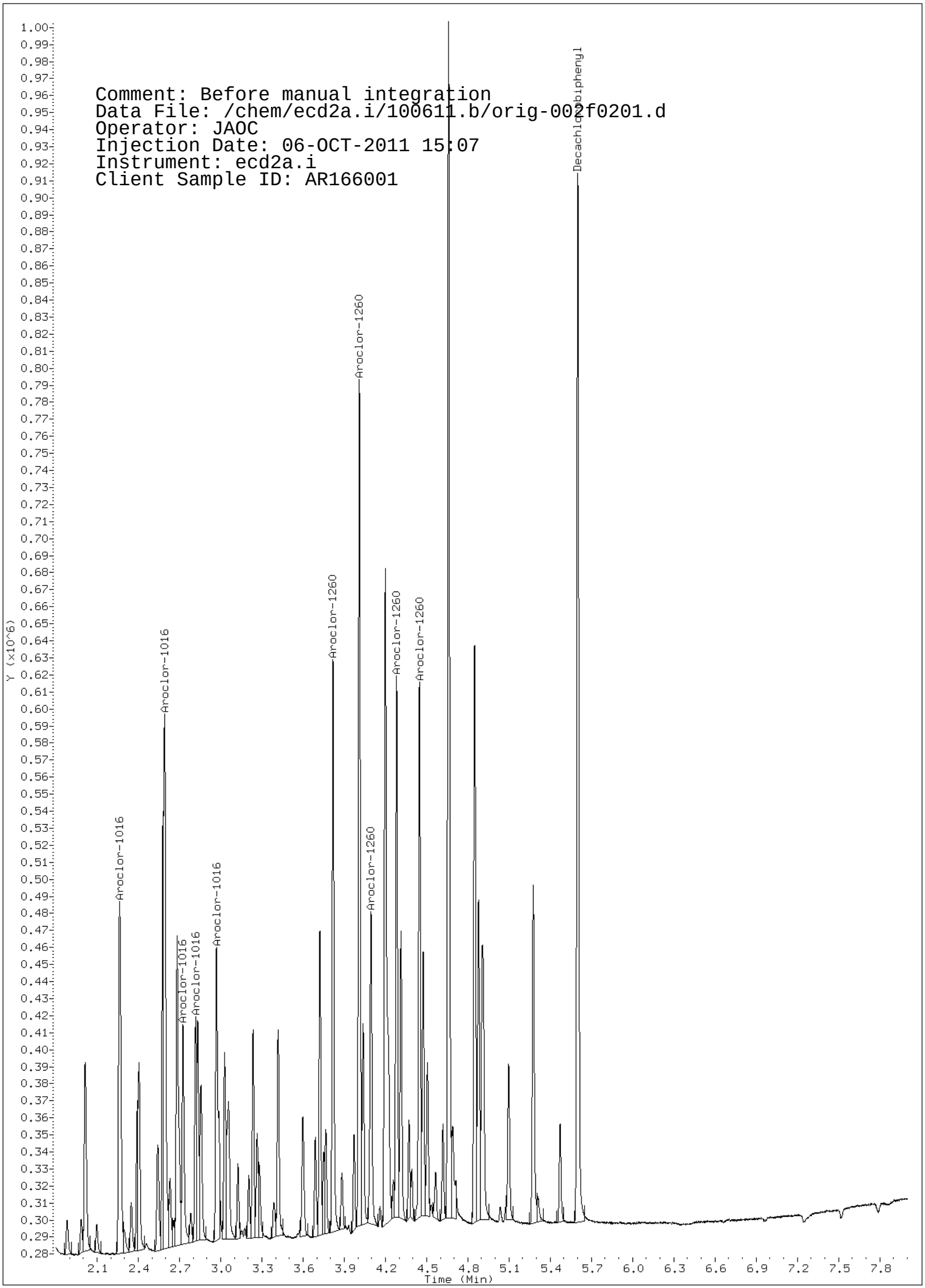
Operator: JAOC

Column phase: CLP1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/100611.b/002f0201.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:07
Instrument: ecd2a.i
Client Sample ID: AR166001
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/100611.b/orig-002f0201.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:07
Instrument: ecd2a.i
Client Sample ID: AR166001
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/002b0201.d
Lab Smp Id: WAR111006-01 60 Client Smp ID: AR166001
Inj Date : 06-OCT-2011 15:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-B-8082-100611.m
Meth Date : 07-Oct-2011 08:49 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:07 Cal File: 002b0201.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	1826725	10.0000	10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.209	6.210	-0.001	1711020	10.0000	10.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.652	2.652	0.000	694787	100.000	111	80.00- 120.00	100.00(M)
3.086	3.087	-0.001	536613	100.000	108	62.27- 102.27	77.23
3.160	3.158	0.002	324189	100.000	106	30.91- 70.91	46.66
3.238	3.237	0.001	316549	100.000	111	26.61- 66.61	45.56
3.426	3.425	0.001	434935	100.000	108	45.97- 85.97	62.60
Average of Peak Amounts =					109		
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	835073	100.000	107	80.00- 120.00	100.00
4.473	4.474	-0.001	1029389	100.000	106	104.52- 144.52	123.27
4.585	4.586	-0.001	697913	100.000	107	64.55- 104.55	83.58
4.783	4.783	0.000	787567	100.000	107	74.87- 114.87	94.31
4.983	4.983	0.000	805961	100.000	106	78.51- 118.51	96.51
Average of Peak Amounts =					107		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/100611.b/002b0201.d

Page 1

Date : 06-OCT-2011 15:07

Client ID: AR166001

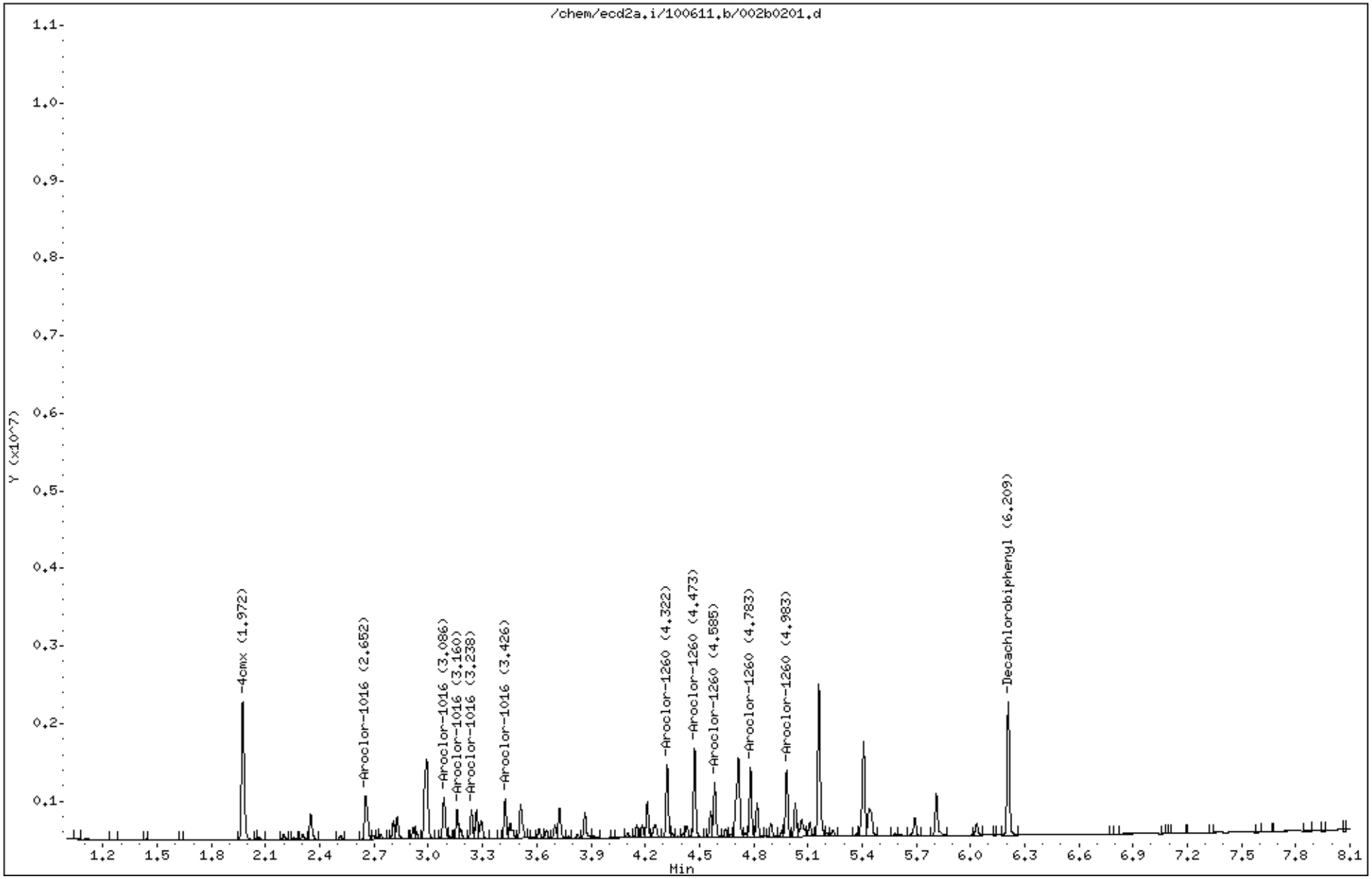
Instrument: ecd2a.i

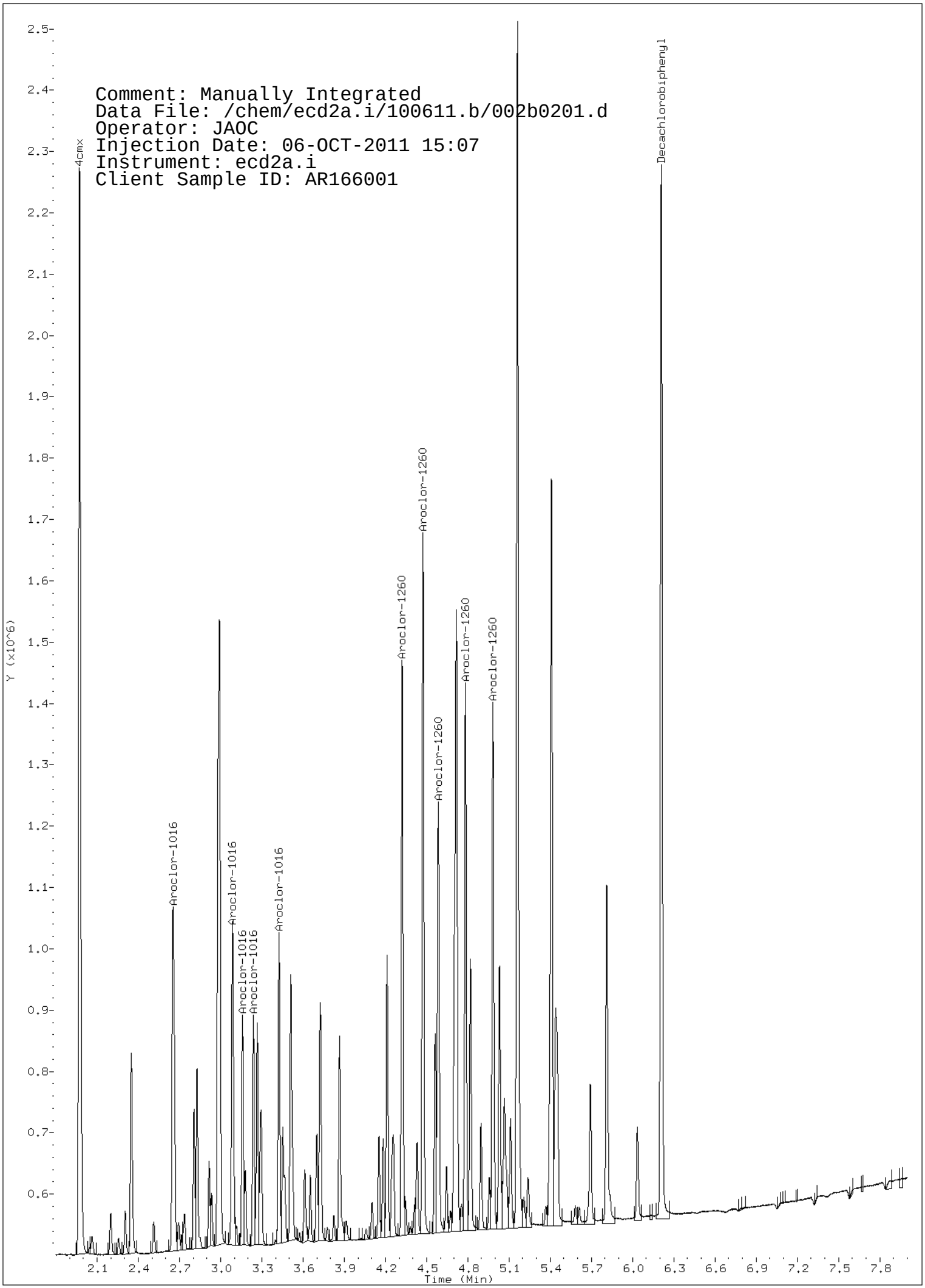
Sample Info: IWAR111006-01 60

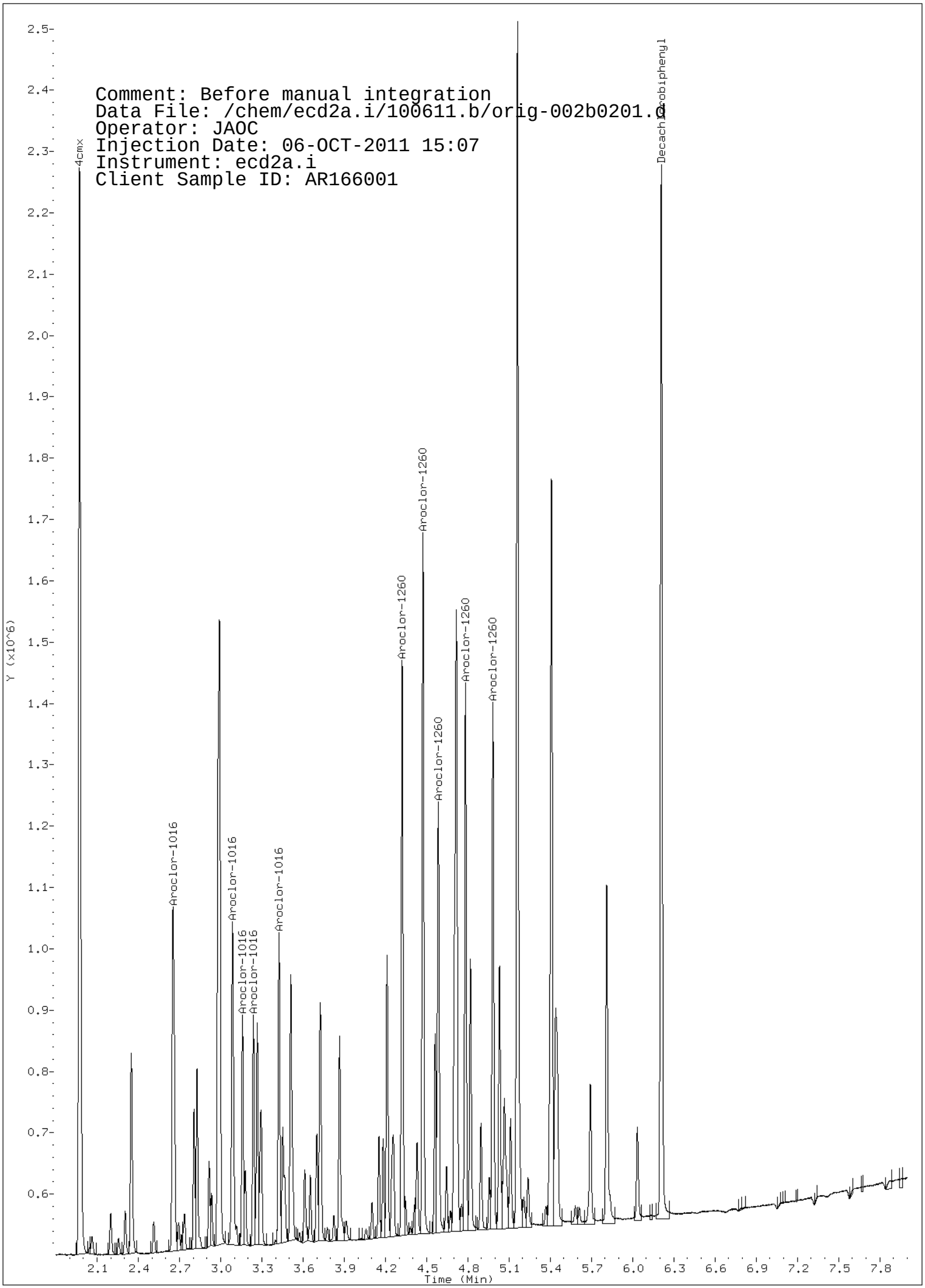
Operator: JAOC

Column phase: CLP2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/100611.b/002b0201.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:07
Instrument: ecd2a.i
Client Sample ID: AR166001
4cmx
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/100611.b/orig-002b0201.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:07
Instrument: ecd2a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/003f0301.d
Lab Smp Id: WAR111006-02 60 Client Smp ID: AR166002
Inj Date : 06-OCT-2011 15:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-02 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 13:22 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 18:41 Cal File: 021f2101.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.749	0.000	1659822	25.0000	24.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	1419481	25.0000	24.5	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 2051-24-3		
2.263	2.263	0.000	582442	250.000	258	80.00- 120.00	100.00
2.590	2.590	0.000	805944	250.000	253	118.37- 158.37	138.37
2.725	2.725	0.000	318986	250.000	260	34.77- 74.77	54.77
2.817	2.817	0.000	255845	250.000	259	23.93- 63.93	43.93
2.969	2.969	0.000	366668	250.000	251	42.95- 82.95	62.95
Average of Peak Amounts =					256		
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	729986	250.000	254	80.00- 120.00	100.00
4.010	4.009	0.001	1088483	250.000	249	129.11- 169.11	149.11
4.095	4.095	0.000	470716	250.000	256	44.48- 84.48	64.48
4.282	4.281	0.001	687771	250.000	253	74.22- 114.22	94.22
4.447	4.447	0.000	696290	250.000	253	75.38- 115.38	95.38
Average of Peak Amounts =					253		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/100611.b/003f0301.d

Page 1

Date : 06-OCT-2011 15:19

Client ID: AR166002

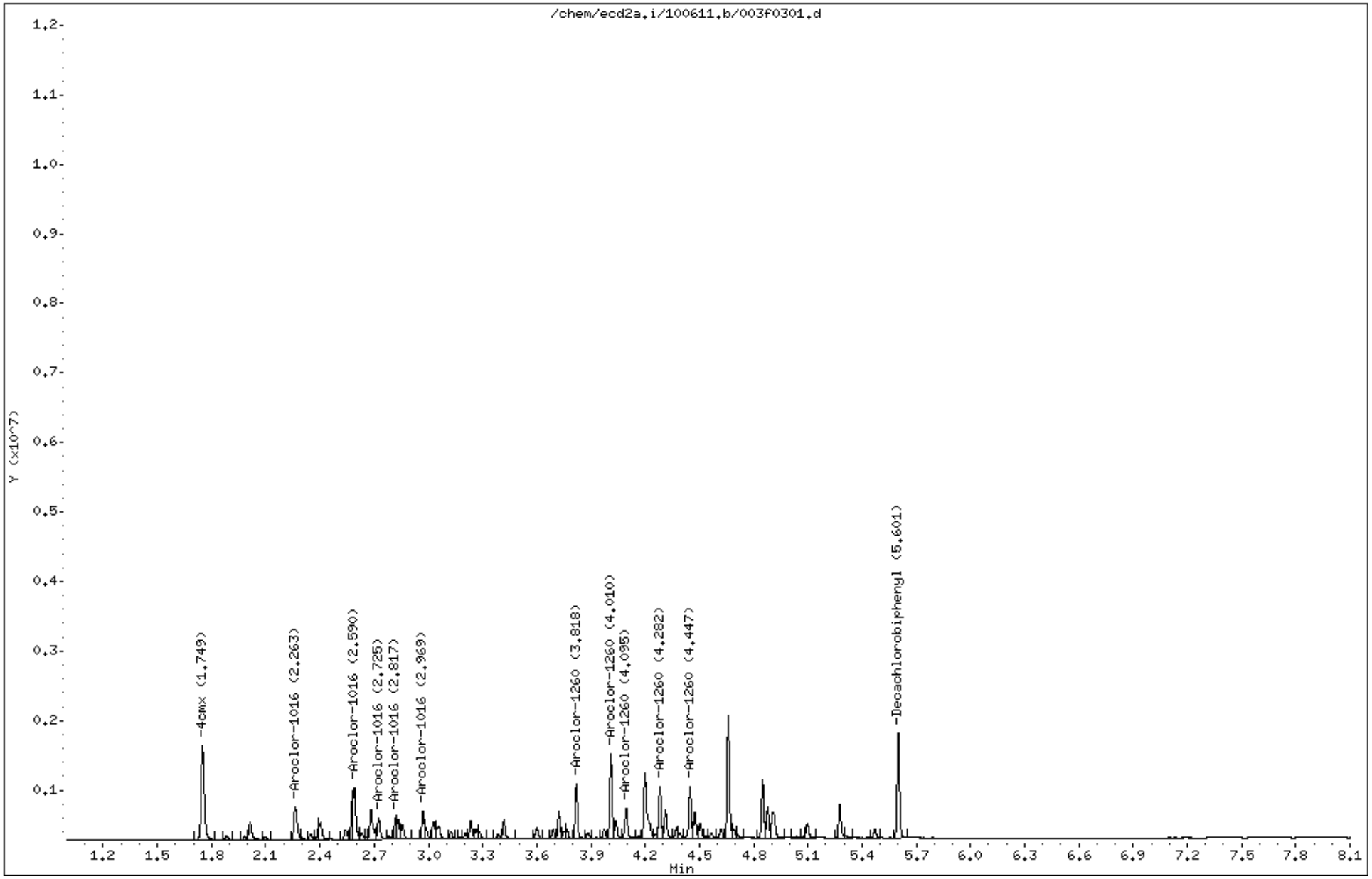
Instrument: ecd2a.i

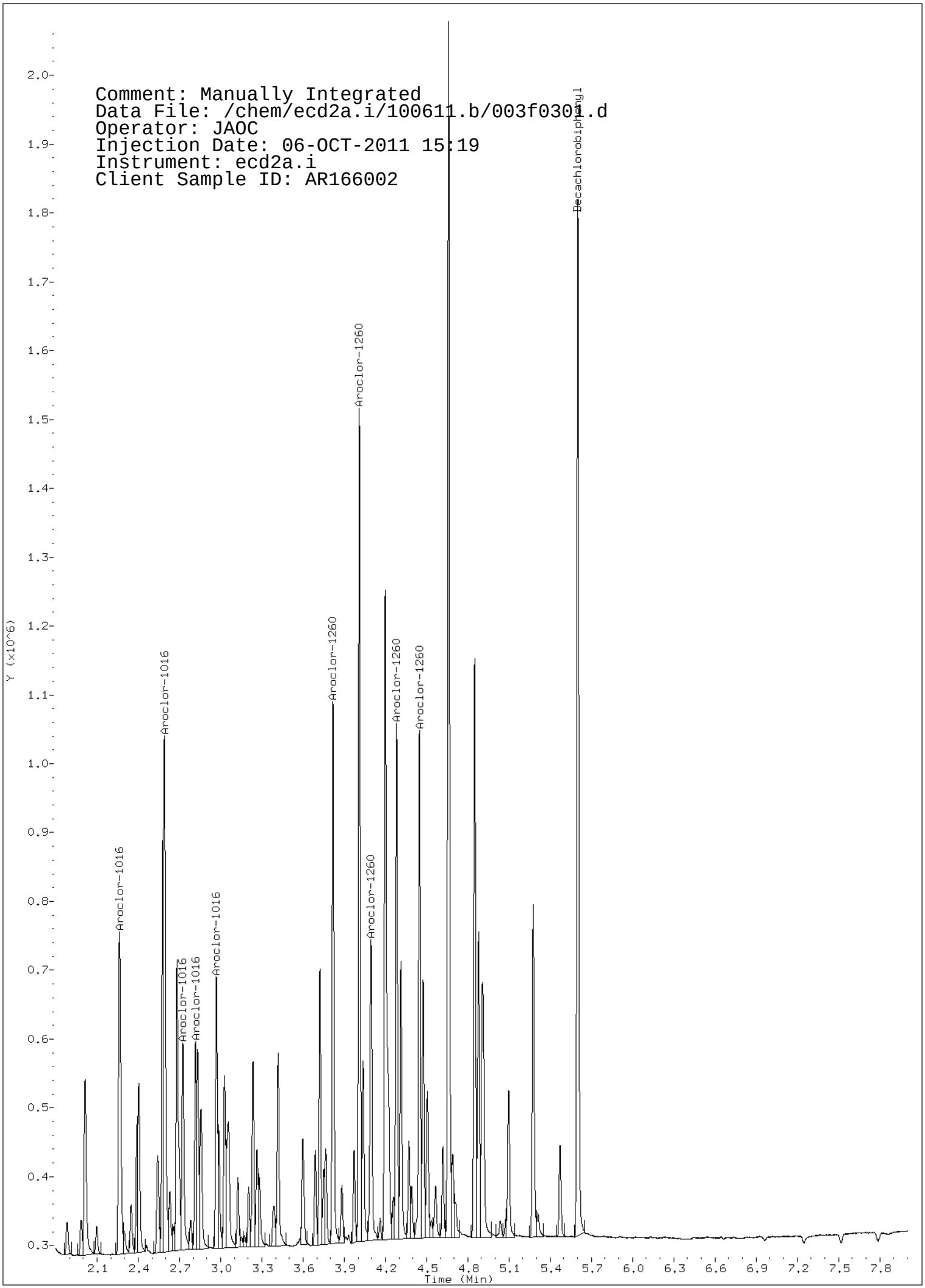
Sample Info: IWAR111006-02 60

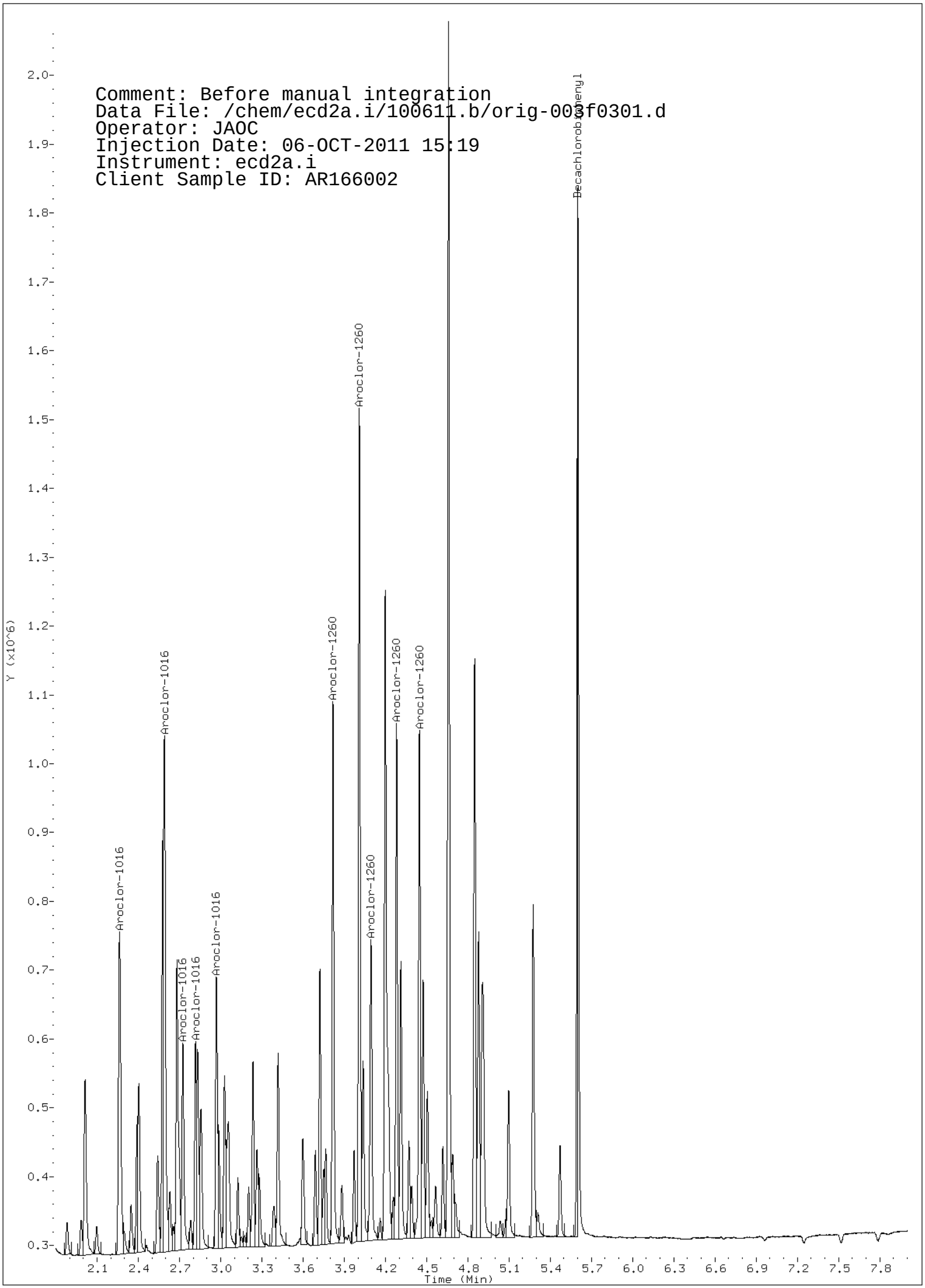
Operator: JAOC

Column phase: CLP1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/100611.b/003f0301.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:19
Instrument: ecd2a.i
Client Sample ID: AR166002
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/100611.b/orig-003f0301.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:19
Instrument: ecd2a.i
Client Sample ID: AR166002
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/003b0301.d
Lab Smp Id: WAR111006-02 60 Client Smp ID: AR166002
Inj Date : 06-OCT-2011 15:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-02 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-B-8082-100611.m
Meth Date : 07-Oct-2011 08:49 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:19 Cal File: 003b0301.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.972	0.000	4477274	25.0000	24.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	4014411	25.0000	24.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.652	2.652	0.000	1617354	250.000	259	80.00- 120.00	100.00(M)
3.087	3.087	0.000	1255877	250.000	254	62.27- 102.27	77.65
3.158	3.158	0.000	771237	250.000	252	30.91- 70.91	47.69
3.238	3.237	0.001	733269	250.000	257	26.61- 66.61	45.34
3.425	3.425	0.000	1028595	250.000	256	45.97- 85.97	63.60
Average of Peak Amounts =					256		
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	1952524	250.000	251	80.00- 120.00	100.00
4.474	4.474	0.000	2416998	250.000	250	104.52- 144.52	123.79
4.586	4.586	0.000	1621610	250.000	249	64.55- 104.55	83.05
4.783	4.783	0.000	1840331	250.000	250	74.87- 114.87	94.25
4.984	4.983	0.001	1900066	250.000	251	78.51- 118.51	97.31
Average of Peak Amounts =					250		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/100611.b/003b0301.d

Page 1

Date : 06-OCT-2011 15:19

Client ID: AR166002

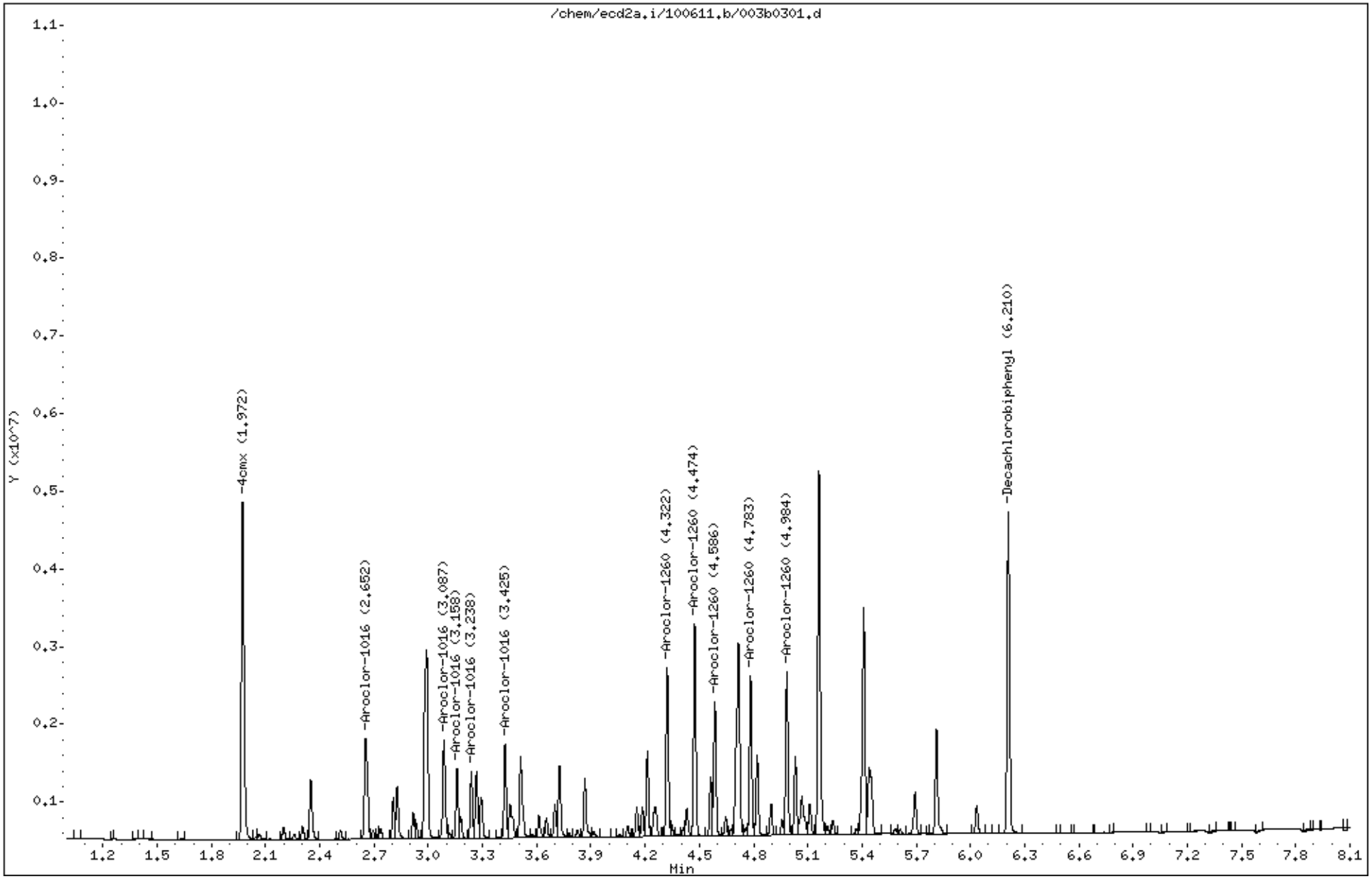
Instrument: ecd2a.i

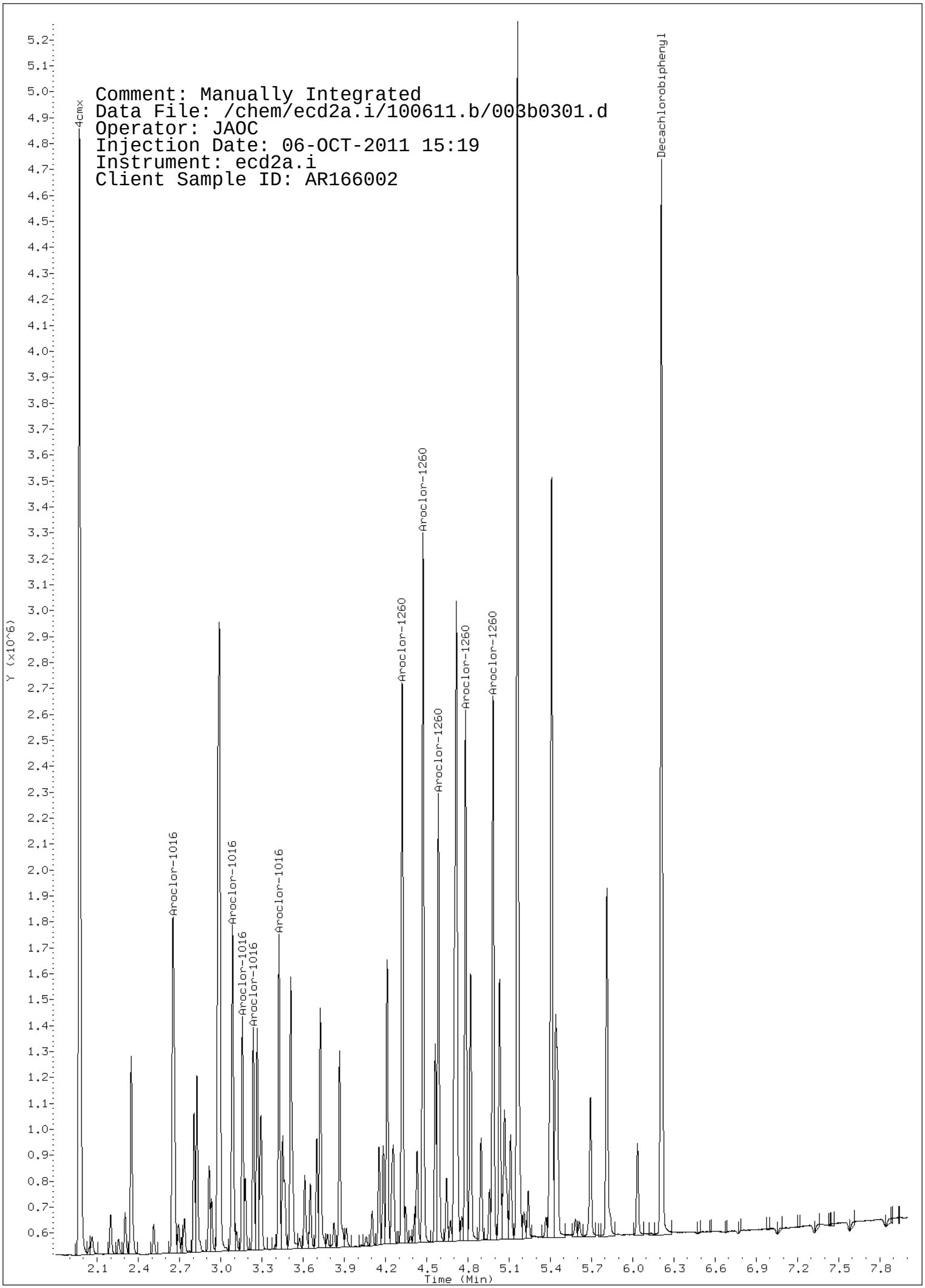
Sample Info: IWAR111006-02 60

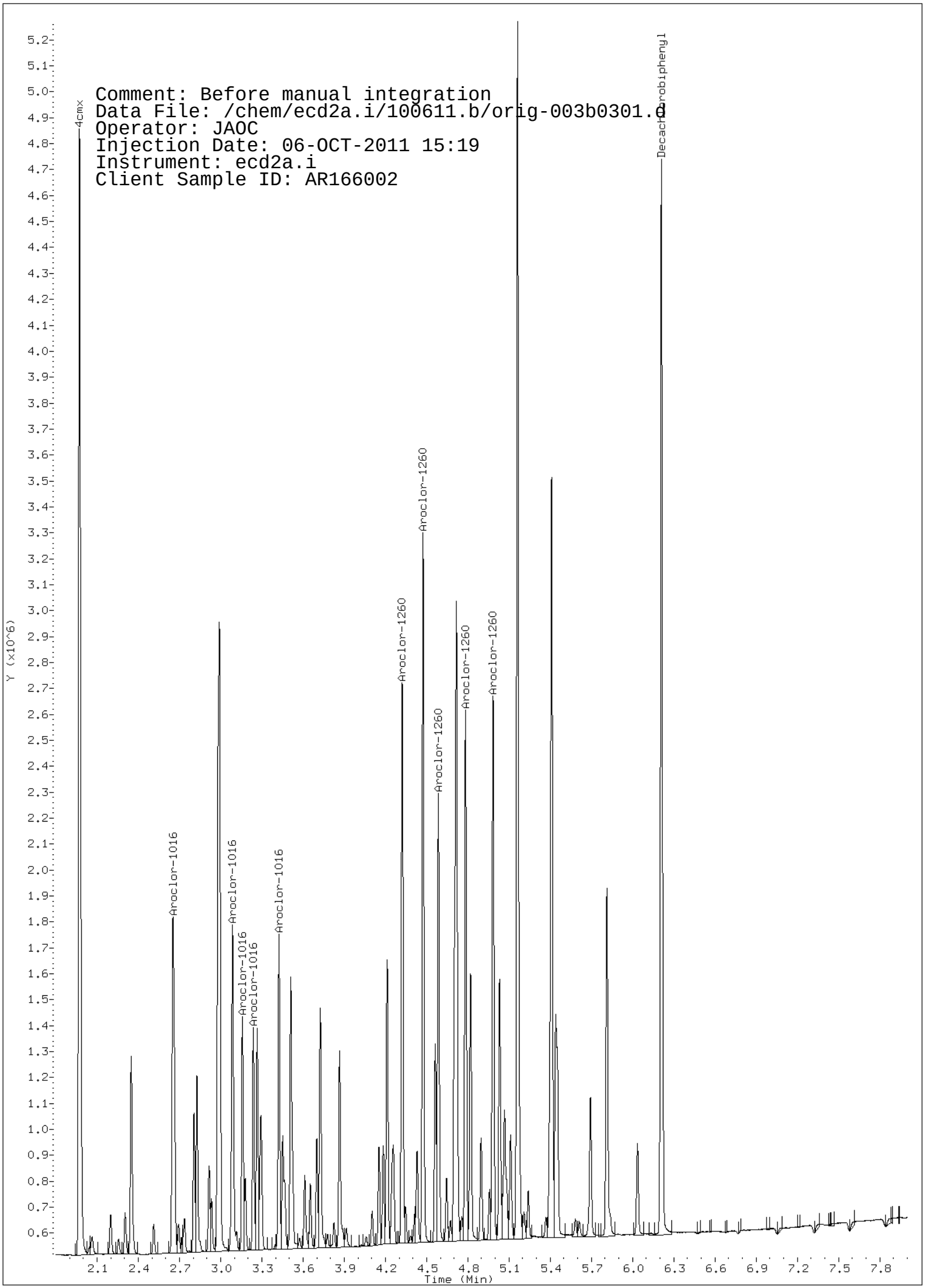
Operator: JAOC

Column phase: CLP2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/100611.b/003b0301.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:19
Instrument: ecd2a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/100611.b/orig-003b0301.d
Operator: JAOC
Injection Date: 06-OCT-2011 15:19
Instrument: ecd2a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/004f0401.d
Lab Smp Id: WAR111006-03 60 Client Smp ID: AR166003
Inj Date : 06-OCT-2011 15:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-03 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-F-8082-100611.m
Meth Date : 07-Oct-2011 08:48 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:30 Cal File: 004f0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.750	1.749	0.001	3351252	50.0000	50.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	2904669	50.0000	50.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.264	2.263	0.001	1120285	500.000	497	80.00- 120.00	100.00
2.590	2.590	0.000	1588177	500.000	499	126.05- 166.05	141.77
2.725	2.725	0.000	607434	500.000	494	34.79- 74.79	54.22
2.818	2.817	0.001	494422	500.000	501	22.38- 62.38	44.13
2.970	2.969	0.001	721317	500.000	494	45.50- 85.50	64.39
Average of Peak Amounts =					497		
7 Aroclor-1260					CAS #: 11096-82-5		
3.819	3.817	0.002	1425833	500.000	496	80.00- 120.00	100.00
4.010	4.009	0.001	2178807	500.000	498	133.96- 173.96	152.81
4.095	4.095	0.000	915946	500.000	499	44.23- 84.23	64.24
4.282	4.281	0.001	1355208	500.000	498	75.00- 115.00	95.05
4.448	4.447	0.001	1377501	500.000	501	76.65- 116.65	96.61
Average of Peak Amounts =					499		

Data File: /chem/ecd2a.i/100611.b/004f0401.d

Page 1

Date : 06-OCT-2011 15:30

Client ID: AR166003

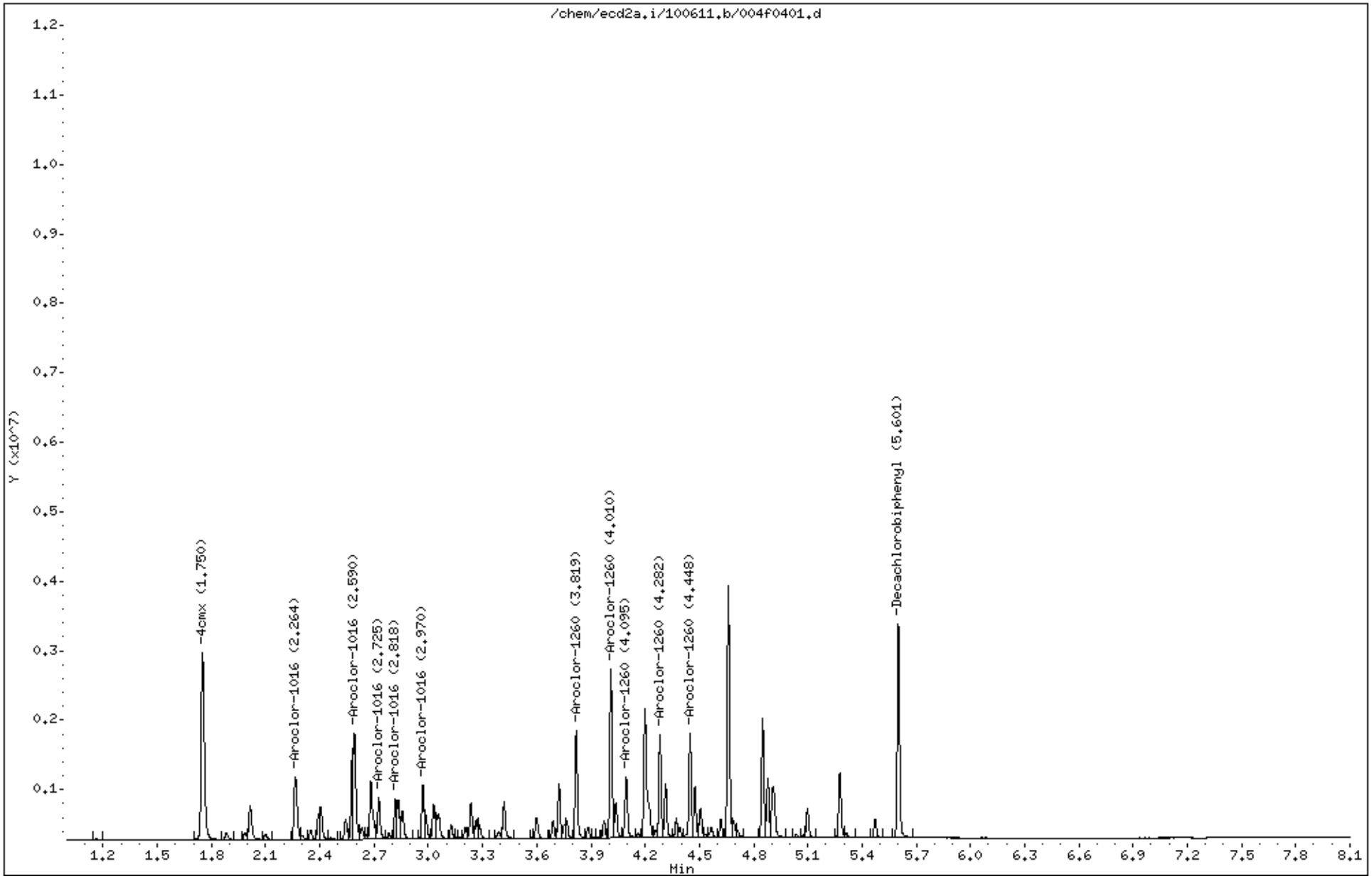
Instrument: ecd2a.i

Sample Info: IWAR111006-03 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/004b0401.d
Lab Smp Id: WAR111006-03 60 Client Smp ID: AR166003
Inj Date : 06-OCT-2011 15:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-03 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-B-8082-100611.m
Meth Date : 07-Oct-2011 08:49 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:30 Cal File: 004b0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	9128194	50.0000	49.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	8141617	50.0000	49.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.653	2.652	0.001	3152686	500.000	506	80.00- 120.00	100.00
3.086	3.087	-0.001	2541621	500.000	514	62.27- 102.27	80.62
3.159	3.158	0.001	1561077	500.000	509	30.91- 70.91	49.52
3.238	3.237	0.001	1451672	500.000	509	26.61- 66.61	46.05
3.425	3.425	0.000	2044027	500.000	508	45.97- 85.97	64.83
Average of Peak Amounts =					509		
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	3927739	500.000	505	80.00- 120.00	100.00
4.474	4.474	0.000	4853928	500.000	502	104.52- 144.52	123.58
4.585	4.586	-0.001	3268734	500.000	503	64.55- 104.55	83.22
4.783	4.783	0.000	3682609	500.000	500	74.87- 114.87	93.76
4.984	4.983	0.001	3807717	500.000	502	78.51- 118.51	96.94
Average of Peak Amounts =					503		

Data File: /chem/ecd2a.i/100611.b/004b0401.d

Date : 06-OCT-2011 15:30

Client ID: AR166003

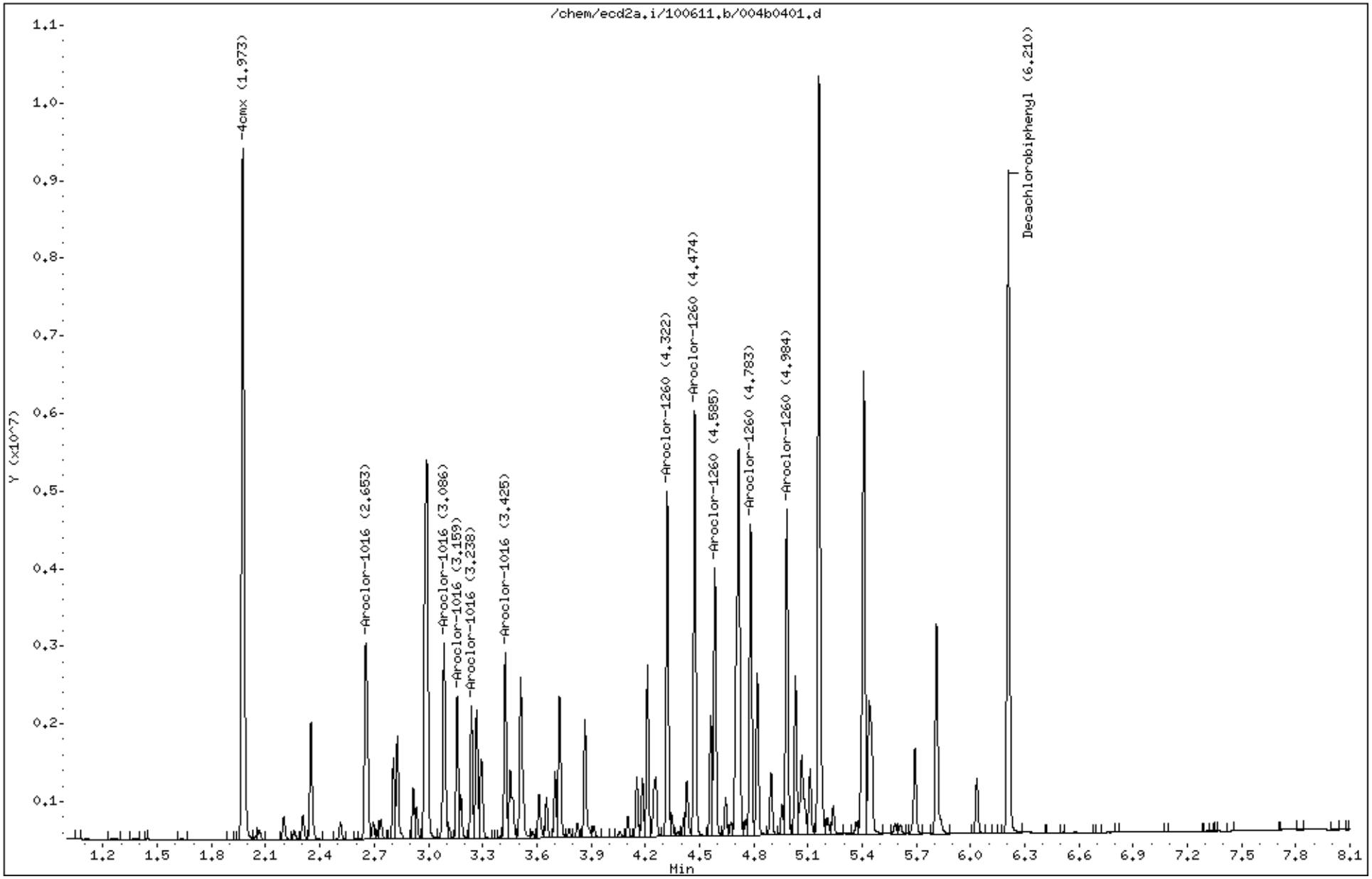
Sample Info: IWAR111006-03 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/005f0501.d
Lab Smp Id: WAR111006-04 60 Client Smp ID: AR166004
Inj Date : 06-OCT-2011 15:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-04 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-F-8082-100611.m
Meth Date : 07-Oct-2011 08:48 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:41 Cal File: 005f0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.750	1.749	0.001	6764754	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	5784296	100.000	99.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.263	2.263	0.000	2185931	1000.00	969	80.00- 120.00	100.00
2.591	2.590	0.001	3170179	1000.00	996	126.05- 166.05	145.03
2.725	2.725	0.000	1190557	1000.00	969	34.79- 74.79	54.46
2.818	2.817	0.001	933043	1000.00	946	22.38- 62.38	42.68
2.969	2.969	0.000	1431383	1000.00	981	45.50- 85.50	65.48
Average of Peak Amounts =					972		
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	2833107	1000.00	986	80.00- 120.00	100.00
4.010	4.009	0.001	4361261	1000.00	998	133.96- 173.96	153.94
4.095	4.095	0.000	1815367	1000.00	989	44.23- 84.23	64.08
4.282	4.281	0.001	2679152	1000.00	985	75.00- 115.00	94.57
4.448	4.447	0.001	2690786	1000.00	979	76.65- 116.65	94.98
Average of Peak Amounts =					987		

Data File: /chem/ecd2a.i/100611.b/005f0501.d

Page 1

Date : 06-OCT-2011 15:41

Client ID: AR166004

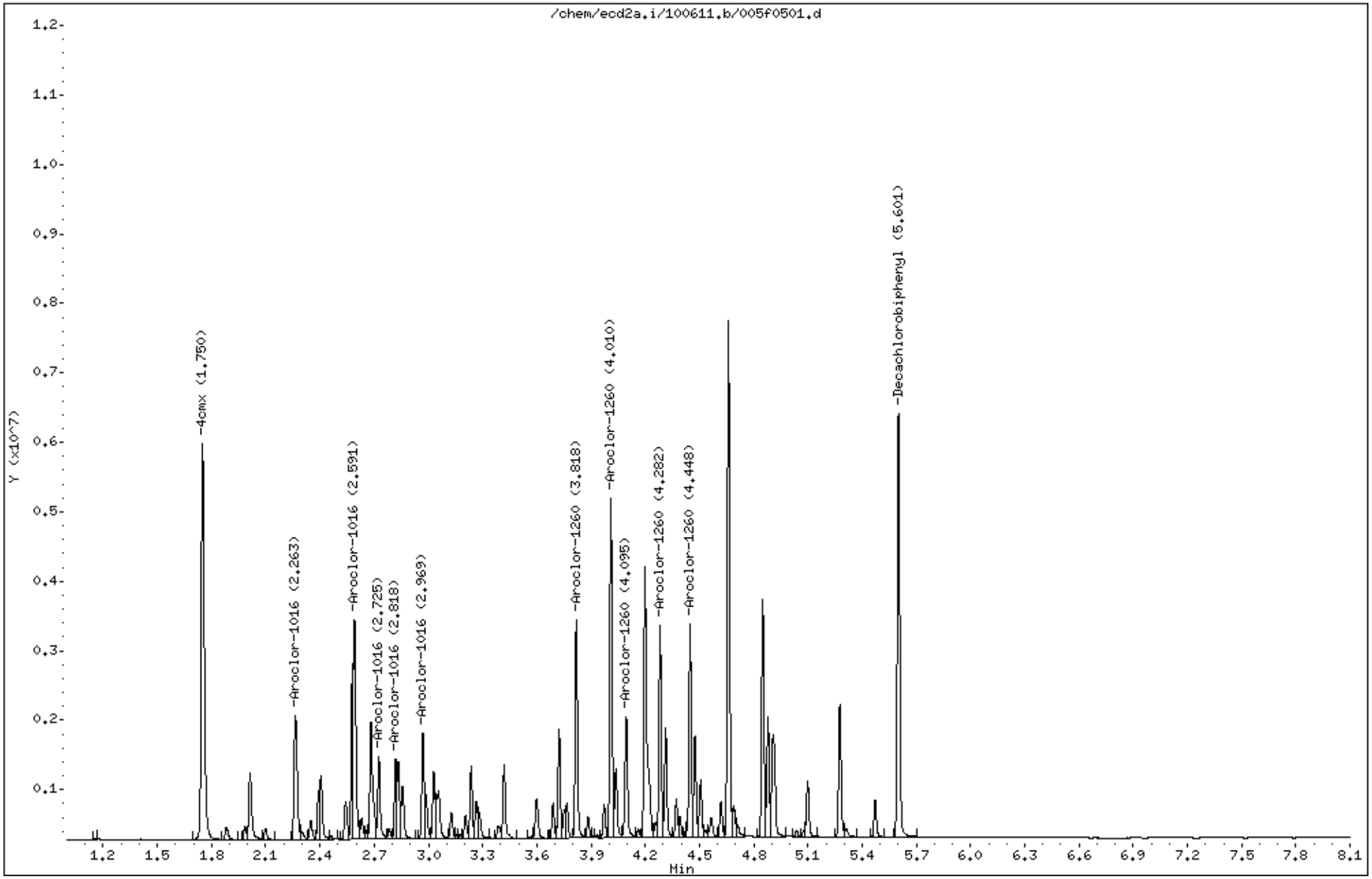
Instrument: ecd2a.i

Sample Info: IWAR111006-04 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/005b0501.d
Lab Smp Id: WAR111006-04 60 Client Smp ID: AR166004
Inj Date : 06-OCT-2011 15:41
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111006-04 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-B-8082-100611.m
Meth Date : 07-Oct-2011 08:49 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:41 Cal File: 005b0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.972	0.001	18774806	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	16239817	100.000	98.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.653	2.652	0.001	6104744	1000.00	979	80.00- 120.00	100.00
3.087	3.087	0.000	4954087	1000.00	1000	62.27- 102.27	81.15
3.159	3.158	0.001	3100324	1000.00	1010	30.91- 70.91	50.79
3.239	3.237	0.002	2828866	1000.00	991	26.61- 66.61	46.34
3.426	3.425	0.001	4025485	1000.00	1000	45.97- 85.97	65.94
Average of Peak Amounts =					997		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.322	0.001	7759943	1000.00	997	80.00- 120.00	100.00
4.473	4.474	-0.001	9658859	1000.00	1000	104.52- 144.52	124.47
4.585	4.586	-0.001	6468538	1000.00	995	64.55- 104.55	83.36
4.783	4.783	0.000	7328763	1000.00	996	74.87- 114.87	94.44
4.983	4.983	0.000	7564310	1000.00	998	78.51- 118.51	97.48
Average of Peak Amounts =					997		

Data File: /chem/ecd2a.i/100611.b/005b0501.d

Date : 06-OCT-2011 15:41

Client ID: AR166004

Sample Info: IWAR111006-04 60

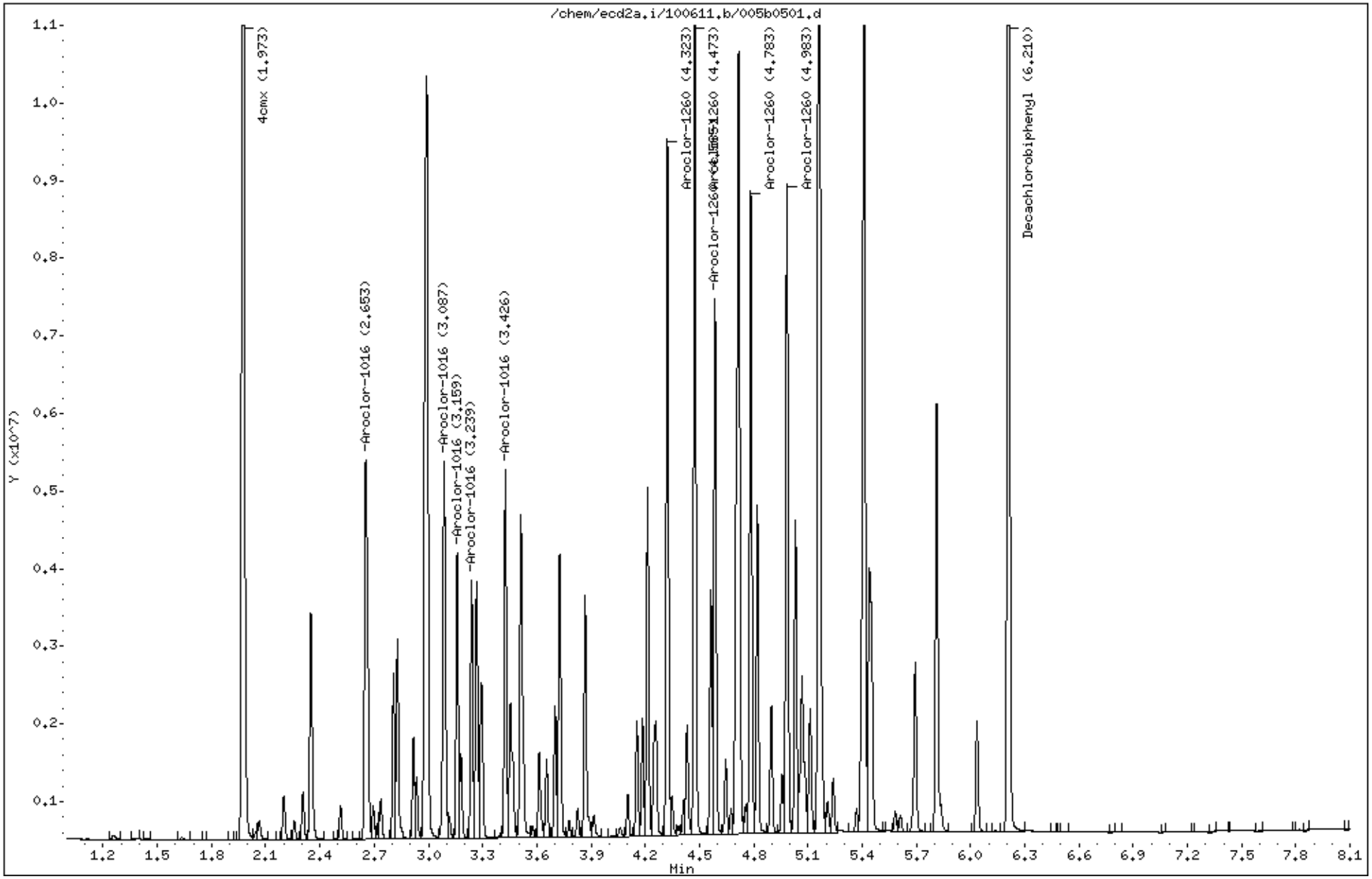
Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

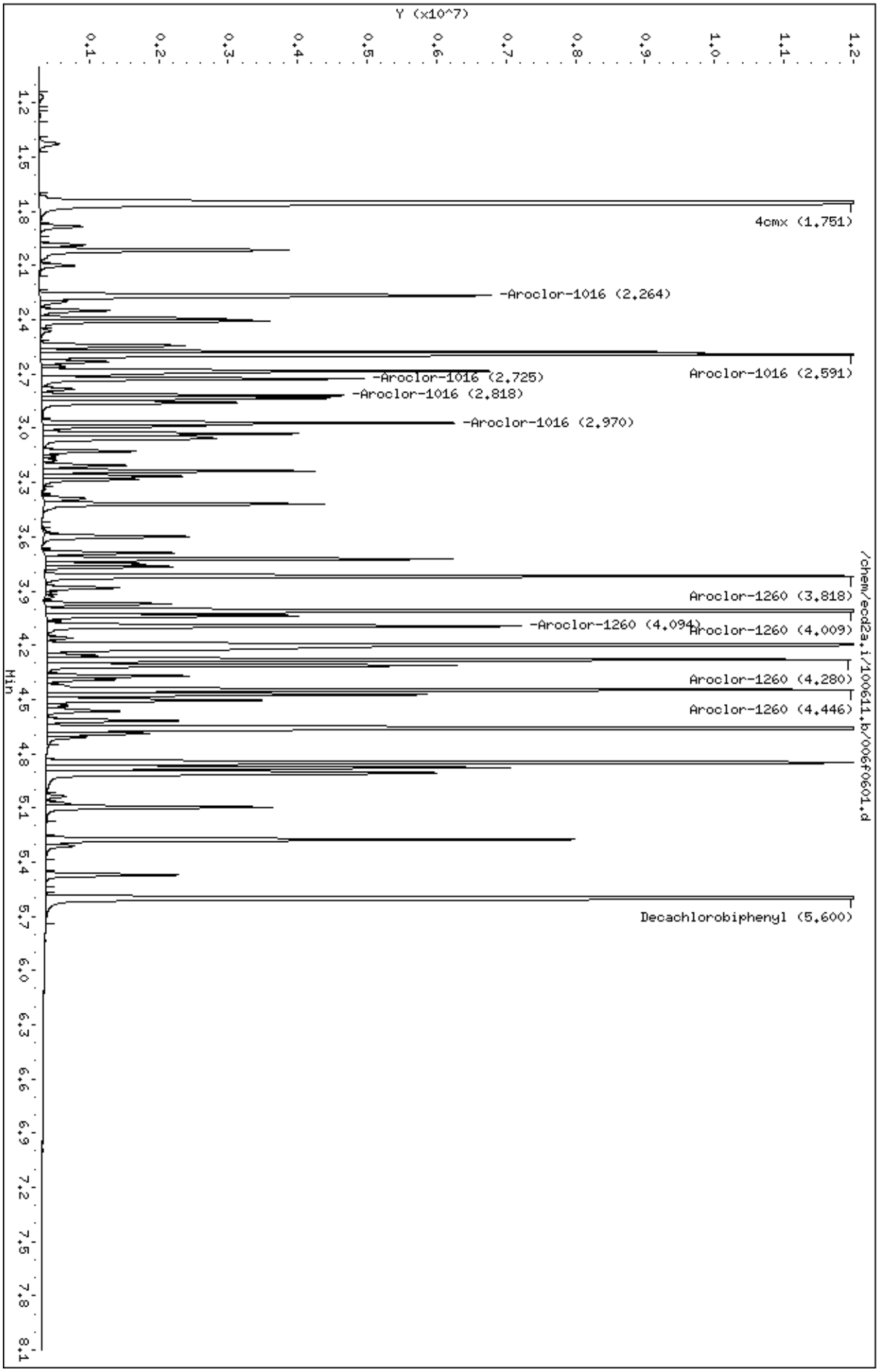
RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/006f0601.d
Lab Smp Id: IAR110623-01 60 Client Smp ID: AR166005
Inj Date : 06-OCT-2011 15:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110623-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-F-8082-100611.m
Meth Date : 07-Oct-2011 08:48 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:52 Cal File: 006f0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.751	1.749	0.002	25356803	400.000	380	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	22300784	400.000	385	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.264	2.263	0.001	7745790	4000.00	3430	80.00- 120.00	100.00
2.591	2.590	0.001	11620404	4000.00	3650	126.05- 166.05	150.02
2.725	2.725	0.000	4327598	4000.00	3520	34.79- 74.79	55.87
2.818	2.817	0.001	3478814	4000.00	3520	22.38- 62.38	44.91
2.970	2.969	0.001	5246022	4000.00	3600	45.50- 85.50	67.73
Average of Peak Amounts =				3.55e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	10438502	4000.00	3630	80.00- 120.00	100.00
4.009	4.009	0.000	16593554	4000.00	3800	133.96- 173.96	158.96
4.094	4.095	-0.001	6771193	4000.00	3690	44.23- 84.23	64.87
4.280	4.281	-0.001	10104618	4000.00	3720	75.00- 115.00	96.80
4.446	4.447	-0.001	10356757	4000.00	3770	76.65- 116.65	99.22
Average of Peak Amounts =				3.72e+03			

Data File: /chem/ecd2a.i/100611.b/006f0601.d
Date : 06-OCT-2011 15:52
Client ID: AR166005
Sample Info: IIAR110623-01 60
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25



Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/100611.b/006b0601.d
Lab Smp Id: IAR110623-01 60 Client Smp ID: AR166005
Inj Date : 06-OCT-2011 15:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110623-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/100611.b/ECD2-B-8082-100611.m
Meth Date : 07-Oct-2011 08:49 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 15:52 Cal File: 006b0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.974	1.972	0.002	73822889	400.000	403	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	66104865	400.000	402	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.653	2.652	0.001	21393108	4000.00	3430	80.00- 120.00	100.00
3.087	3.087	0.000	17236329	4000.00	3480	62.27- 102.27	80.57
3.159	3.158	0.001	11109525	4000.00	3620	30.91- 70.91	51.93
3.239	3.237	0.002	9751956	4000.00	3420	26.61- 66.61	45.58
3.425	3.425	0.000	14104997	4000.00	3510	45.97- 85.97	65.93
Average of Peak Amounts =				3.49e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	28562523	4000.00	3670	80.00- 120.00	100.00
4.474	4.474	0.000	35863826	4000.00	3710	104.52- 144.52	125.56
4.585	4.586	-0.001	24171752	4000.00	3720	64.55- 104.55	84.63
4.783	4.783	0.000	27436672	4000.00	3730	74.87- 114.87	96.06
4.983	4.983	0.000	28277350	4000.00	3730	78.51- 118.51	99.00
Average of Peak Amounts =				3.71e+03			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd2a.i/100611.b/006b0601.d

Date : 06-OCT-2011 15:52

Client ID: AR166005

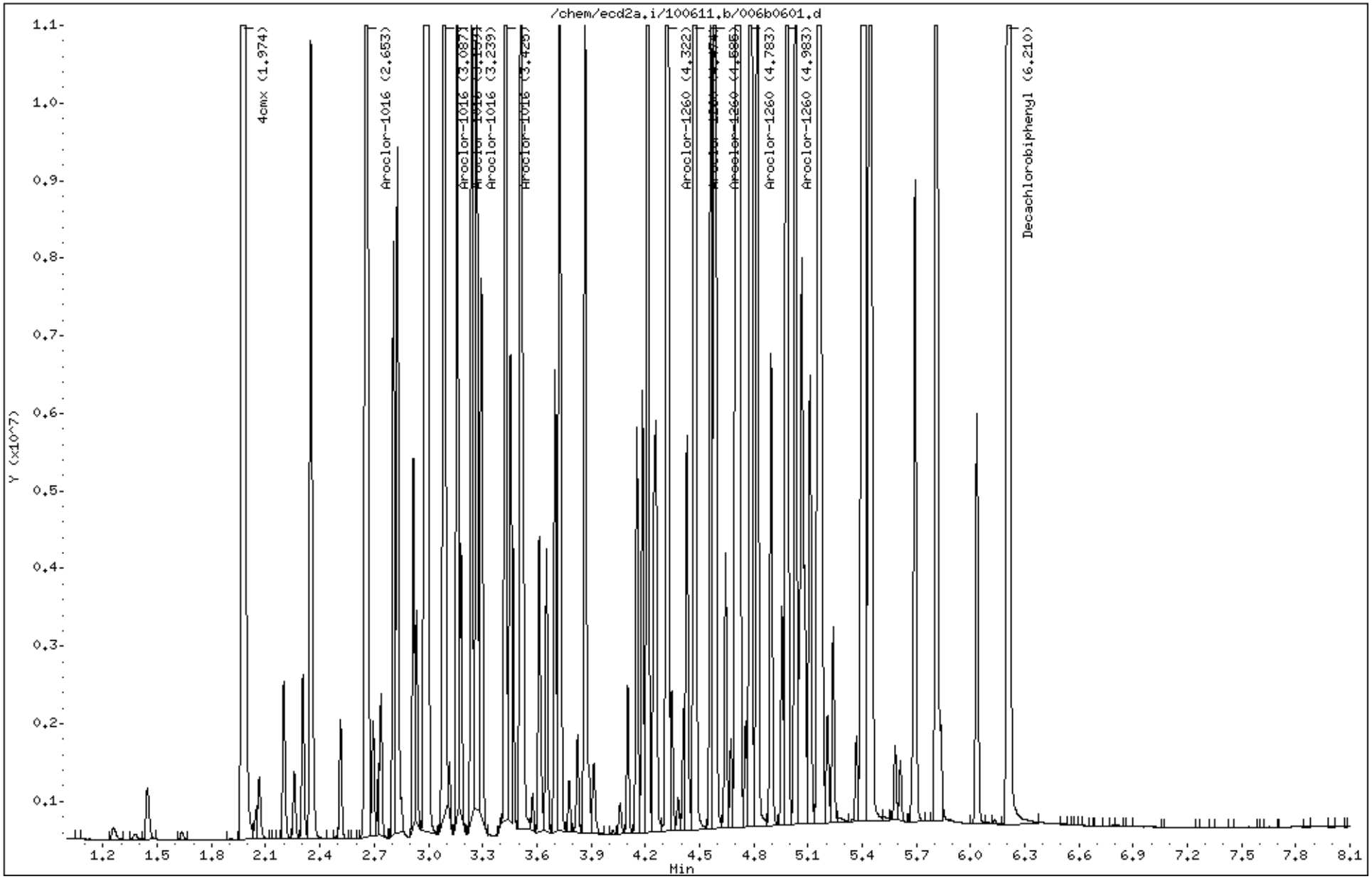
Sample Info: |IAR110623-01 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



Continuing Calibration Summary

Client SDG: 11−3386−1

Instrument ID: ECD2A.I_1

Injection Date: 10−OCT−11 08:18

Data File: /chem/ecd2a.i/101011.b/002f0201.d

Init. Cal. Date(s) 06−OCT−11 15:07 − 06−OCT−11 15:52

Lab Sample ID WAR110919−60 01

Method: /chem/ecd2a.i/101011.b/ECD2−F−8082−100611.m

Column ID: CLP1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor−1016	1000	984.88	1000	−1.51	15		Linear
Aroclor−1016(2)	1000	948.35	1000	−5.17	15		Linear
Aroclor−1016(3)	1000	969.82	1000	−3.02	15		Linear
Aroclor−1016(4)	1000	973.71	1000	−2.63	15		Linear
Aroclor−1016(5)	1000	968.58	1000	−3.14	15		Linear
Aroclor−1260	2874.72	2674.23	1000	−6.97	15		Averaged
Aroclor−1260(2)	4371.41	4117.4	1000	−5.81	15		Averaged
Aroclor−1260(3)	1835.85	1727.31	1000	−5.91	15		Averaged
Aroclor−1260(4)	2718.79	2556.26	1000	−5.98	15		Averaged
Aroclor−1260(5)	2748.24	2604.8	1000	−5.22	15		Averaged
4cmx(Surr)	66735.11	65085.66	100	−2.47	15		Averaged
Decachlorobiphenyl(Surr)	57945.43	56867.56	100	−1.86	15		Averaged

Continuing Calibration Summary

Client SDG: 11−3386−1

Instrument ID: ECD2A.I_2

Injection Date: 10−OCT−11 08:18

Data File: /chem/ecd2a.i/101011.b/002b0201.d

Init. Cal. Date(s) 06−OCT−11 15:07 − 06−OCT−11 15:52

Lab Sample ID WAR110919−60 01

Method: /chem/ecd2a.i/101011.b/ECD2−B−8082−100611.m

Column ID: CLP2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor−1016	6235.14	6290.84	1000	0.89	15		Averaged
Aroclor−1016(2)	4947.21	5216.11	1000	5.44	15		Averaged
Aroclor−1016(3)	3065.34	3214.87	1000	4.88	15		Averaged
Aroclor−1016(4)	2853.75	2950.03	1000	3.37	15		Averaged
Aroclor−1016(5)	4020.7	4192.34	1000	4.27	15		Averaged
Aroclor−1260	7783.38	8134.06	1000	4.51	15		Averaged
Aroclor−1260(2)	9658.91	10030.16	1000	3.84	15		Averaged
Aroclor−1260(3)	6502.9	6747.13	1000	3.76	15		Averaged
Aroclor−1260(4)	7358.03	7627.96	1000	3.67	15		Averaged
Aroclor−1260(5)	7581.79	7822.85	1000	3.18	15		Averaged
4cmx(Surr)	183326.52	199415.22	100	8.78	15		Averaged
Decachlorobiphenyl(Surr)	164434.22	176215.33	100	7.16	15		Averaged

Continuing Calibration Summary

Client SDG: 11−3386−1

Instrument ID: ECD2A.I_1

Injection Date: 10−OCT−11 11:29

Data File: /chem/ecd2a.i/101011.b/019f1901.d

Init. Cal. Date(s) 06−OCT−11 15:07 − 06−OCT−11 15:52

Lab Sample ID WAR110919−60 02

Method: /chem/ecd2a.i/101011.b/ECD2−F−8082−100611.m

Column ID: CLP1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor−1016	1000	1001.41	1000	0.14	15		Linear
Aroclor−1016(2)	1000	985.82	1000	−1.42	15		Linear
Aroclor−1016(3)	1000	994.69	1000	−0.53	15		Linear
Aroclor−1016(4)	1000	969.91	1000	−3.01	15		Linear
Aroclor−1016(5)	1000	986.77	1000	−1.32	15		Linear
Aroclor−1260	2874.72	2730.77	1000	−5.01	15		Averaged
Aroclor−1260(2)	4371.41	4195.88	1000	−4.02	15		Averaged
Aroclor−1260(3)	1835.85	1787.4	1000	−2.64	15		Averaged
Aroclor−1260(4)	2718.79	2607.98	1000	−4.08	15		Averaged
Aroclor−1260(5)	2748.24	2684.76	1000	−2.31	15		Averaged
4cmx(Surr)	66735.11	66079.06	100	−0.98	15		Averaged
Decachlorobiphenyl(Surr)	57945.43	58710.51	100	1.32	15		Averaged

Continuing Calibration Summary

Client SDG: 11−3386−1

Instrument ID: ECD2A.I_2

Injection Date: 10−OCT−11 11:29

Data File: /chem/ecd2a.i/101011.b/019b1901.d

Init. Cal. Date(s) 06−OCT−11 15:07 − 06−OCT−11 15:52

Lab Sample ID WAR110919−60 02

Method: /chem/ecd2a.i/101011.b/ECD2−B−8082−100611.m

Column ID: CLP2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor−1016	6235.14	6372.28	1000	2.2	15		Averaged
Aroclor−1016(2)	4947.21	5307.29	1000	7.28	15		Averaged
Aroclor−1016(3)	3065.34	3309.52	1000	7.97	15		Averaged
Aroclor−1016(4)	2853.75	3020.05	1000	5.83	15		Averaged
Aroclor−1016(5)	4020.7	4266.44	1000	6.11	15		Averaged
Aroclor−1260	7783.38	8114.64	1000	4.26	15		Averaged
Aroclor−1260(2)	9658.91	10042.01	1000	3.97	15		Averaged
Aroclor−1260(3)	6502.9	6762.31	1000	3.99	15		Averaged
Aroclor−1260(4)	7358.03	7631.09	1000	3.71	15		Averaged
Aroclor−1260(5)	7581.79	7891.41	1000	4.08	15		Averaged
4cmx(Surr)	183326.52	203267.54	100	10.88	15		Averaged
Decachlorobiphenyl(Surr)	164434.22	172482.26	100	4.89	15		Averaged

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/002f0201.d
Lab Smp Id: WAR110919-60 01 Client Smp ID: AR166001
Inj Date : 10-OCT-2011 08:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110919-60 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.748	1.748	0.000	6508566	100.000	97.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	5686756	100.000	98.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.262	2.262	0.000	2025242	1000.00	985	80.00- 120.00	100.00
2.590	2.590	0.000	2867050	1000.00	948	124.64- 164.64	141.57
2.724	2.724	0.000	1102543	1000.00	970	34.90- 74.90	54.44
2.816	2.816	0.000	886151	1000.00	974	22.93- 62.93	43.76
2.968	2.968	0.000	1324227	1000.00	968	45.53- 85.53	65.39
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
3.817	3.817	0.000	2674232	1000.00	930	80.00- 120.00	100.00
4.009	4.009	0.000	4117400	1000.00	942	133.65- 173.65	153.97
4.094	4.094	0.000	1727306	1000.00	941	45.45- 85.45	64.59
4.280	4.280	0.000	2556259	1000.00	940	75.50- 115.50	95.59
4.447	4.447	0.000	2604799	1000.00	948	78.31- 118.31	97.40
Average of Peak Amounts =					940		

Data File: /chem/ecd2a.i/101011.b/002f0201.d

Date : 10-OCT-2011 08:18

Client ID: AR166001

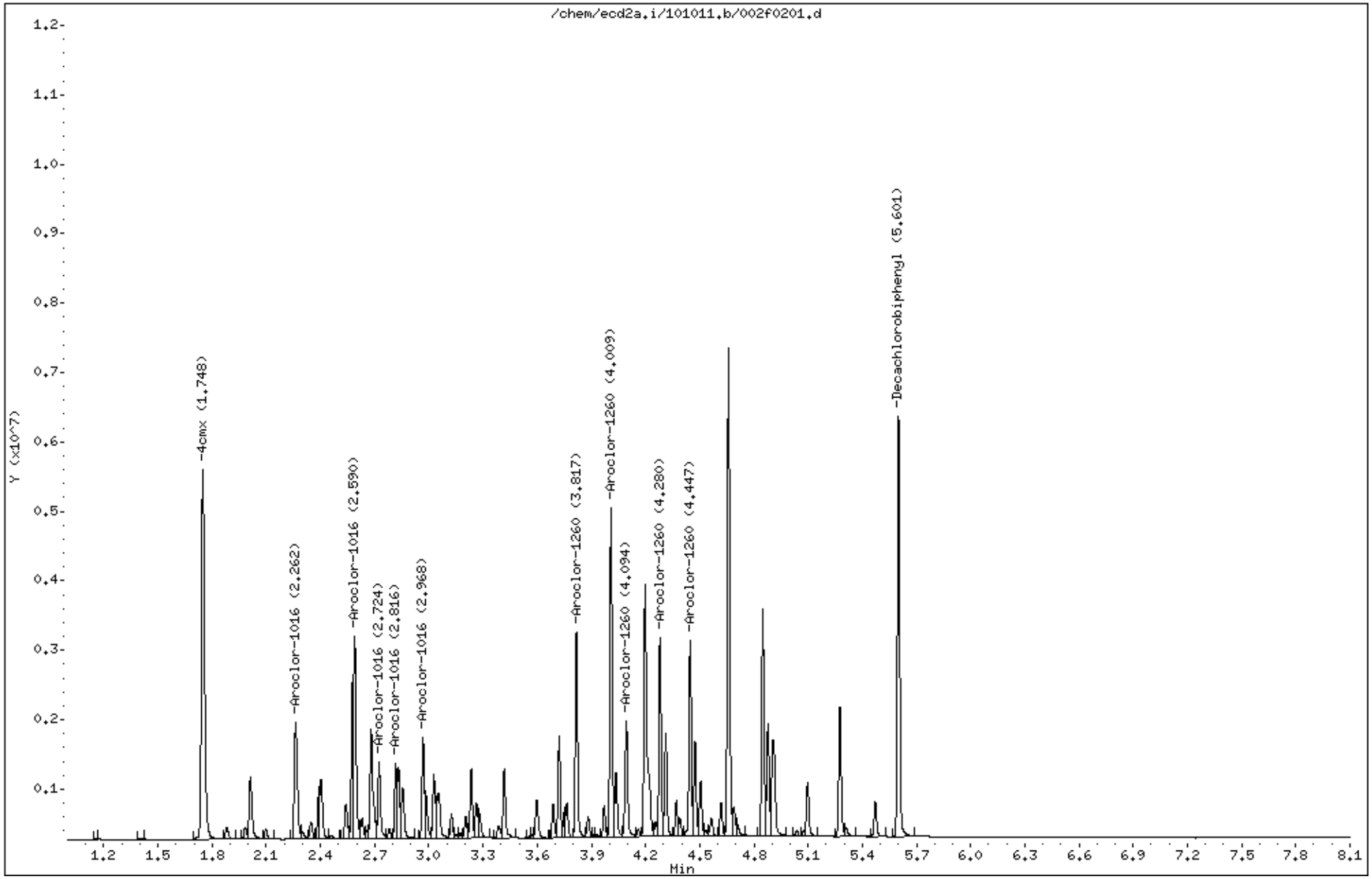
Sample Info: IWAR110919-60 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

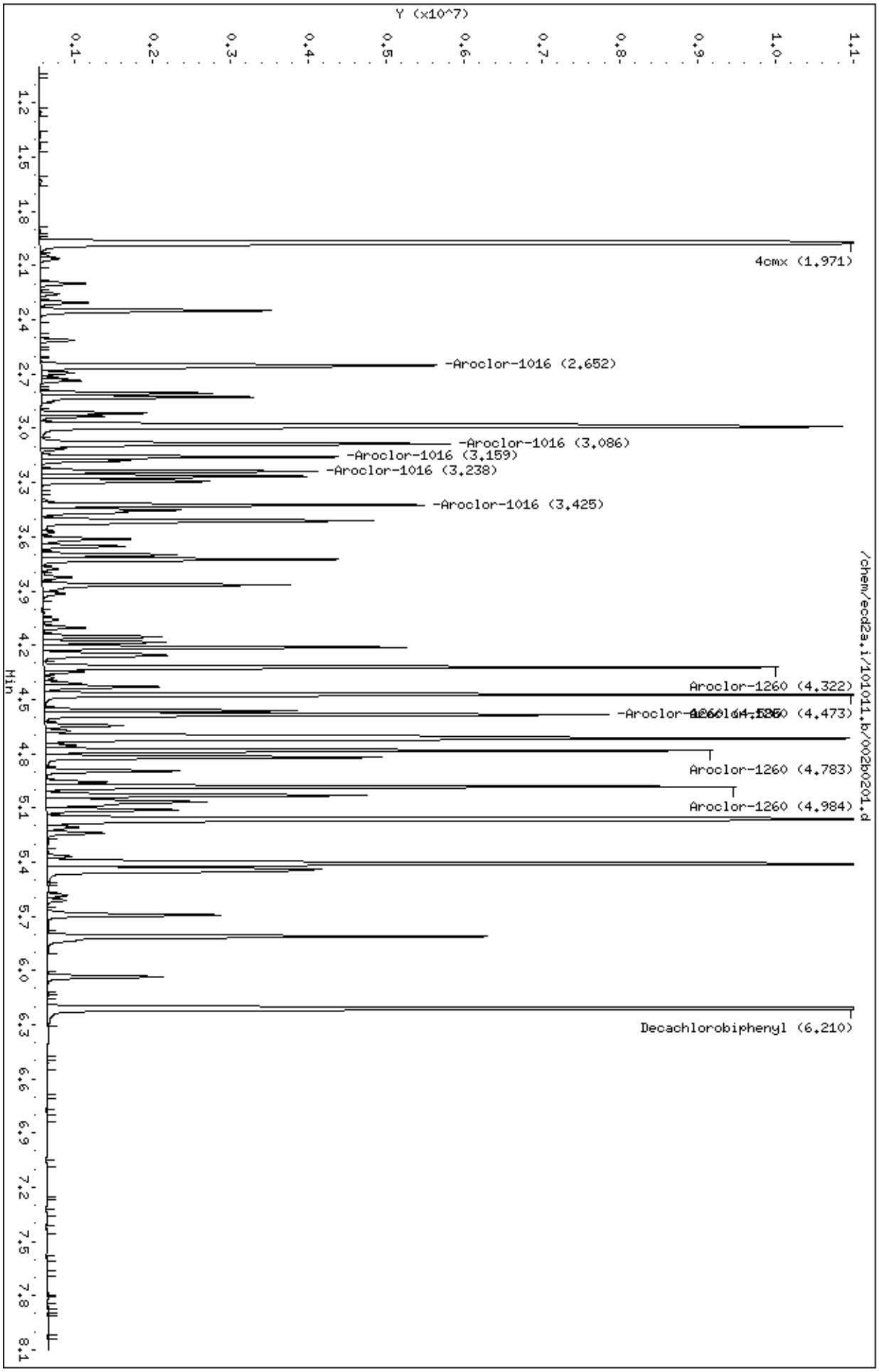
RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/002b0201.d
Lab Smp Id: WAR110919-60 01 Client Smp ID: AR166001
Inj Date : 10-OCT-2011 08:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110919-60 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	19941522	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	17621533	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.652	2.652	0.000	6290837	1000.00	1010	80.00- 120.00	100.00
3.086	3.086	0.000	5216111	1000.00	1050	63.29- 103.29	82.92
3.159	3.159	0.000	3214867	1000.00	1050	31.94- 71.94	51.10
3.238	3.238	0.000	2950031	1000.00	1030	27.39- 67.39	46.89
3.425	3.425	0.000	4192335	1000.00	1040	46.95- 86.95	66.64
Average of Peak Amounts =				1.04e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	8134059	1000.00	1040	80.00- 120.00	100.00
4.473	4.473	0.000	10030160	1000.00	1040	103.75- 143.75	123.31
4.585	4.585	0.000	6747133	1000.00	1040	63.33- 103.33	82.95
4.783	4.783	0.000	7627964	1000.00	1040	74.04- 114.04	93.78
4.984	4.984	0.000	7822854	1000.00	1030	77.25- 117.25	96.17
Average of Peak Amounts =				1.04e+03			

Data File: /chem/ecd2a.i/101011.b/002b0201.d
Date : 10-OCT-2011 08:18
Client ID: AR166001
Sample Info: IWAR110919-60 01
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25



Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/003f0301.d
Lab Smp Id: WAR110902-54 Client Smp ID: AR125401
Inj Date : 10-OCT-2011 08:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-54
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	6953695	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	6076388	100.000	105	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.235	3.235	0.000	1927882	1000.00	994	80.00- 120.00	100.00
3.417	3.417	0.000	2605463	1000.00	1000	115.15- 155.15	135.15
3.604	3.604	0.000	2010729	1000.00	998	84.30- 124.30	104.30
3.689	3.689	0.000	3510788	1000.00	1010	162.11- 202.11	182.11
3.879	3.879	0.000	2693221	1000.00	1000	119.70- 159.70	139.70
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/101011.b/003f0301.d

Page 1

Date : 10-OCT-2011 08:30

Client ID: AR125401

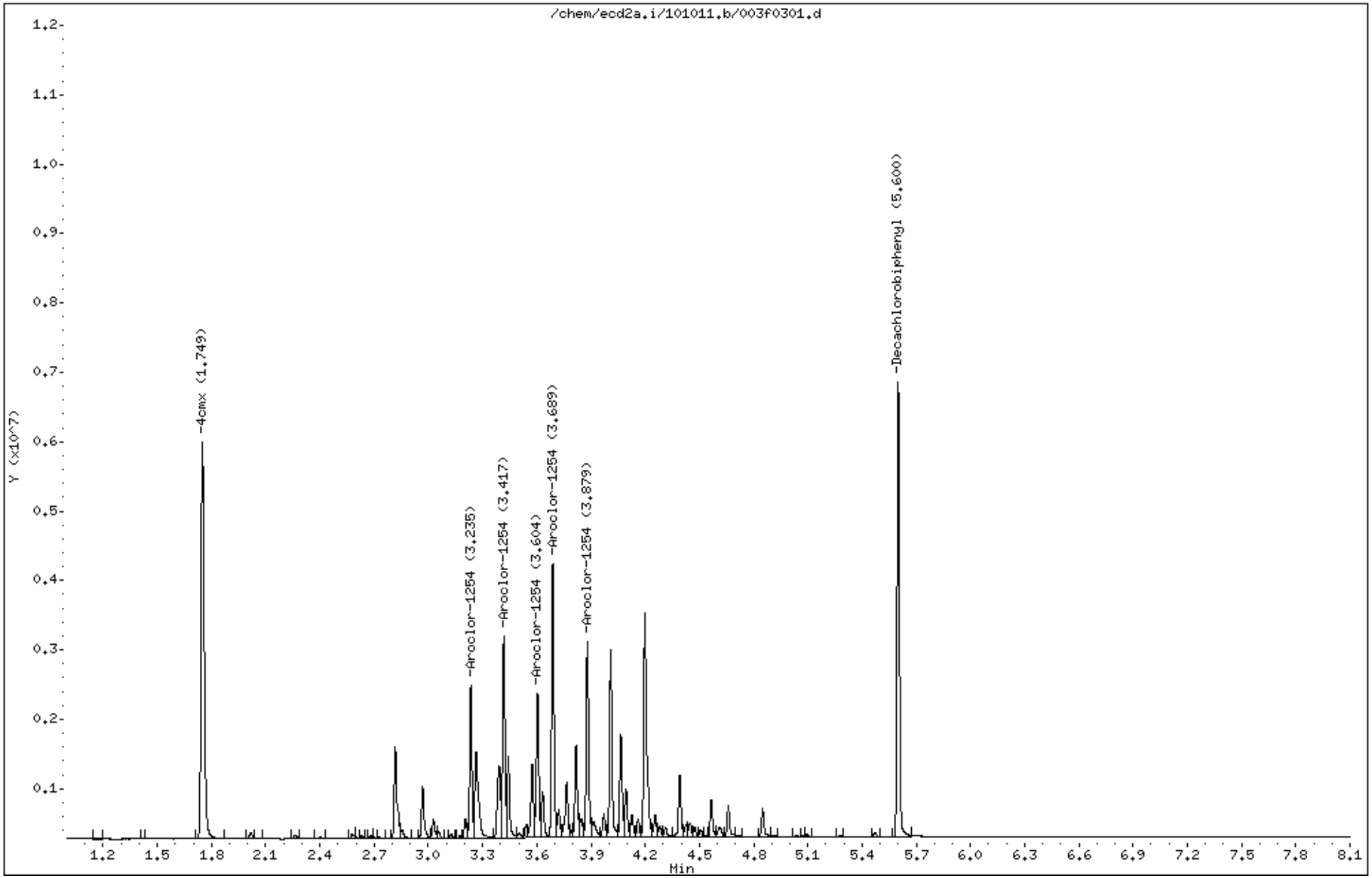
Instrument: ecd2a.i

Sample Info: IWAR110902-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/003b0301.d
Lab Smp Id: WAR110902-54 Client Smp ID: AR125401
Inj Date : 10-OCT-2011 08:30
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-54
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	21493748	100.000	117	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	18377418	100.000	112	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.238	3.238	0.000	3639109	1000.00	1080	80.00- 120.00	100.00
3.724	3.724	0.000	6904173	1000.00	1100	169.72- 209.72	189.72
3.866	3.866	0.000	8124060	1000.00	1090	203.24- 243.24	223.24
4.103	4.103	0.000	5716479	1000.00	1100	137.08- 177.08	157.08
4.347	4.347	0.000	7877688	1000.00	1090	196.47- 236.47	216.47

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd2a.i/101011.b/003b0301.d

Date : 10-OCT-2011 08:30

Client ID: AR125401

Sample Info: IWAR110902-54

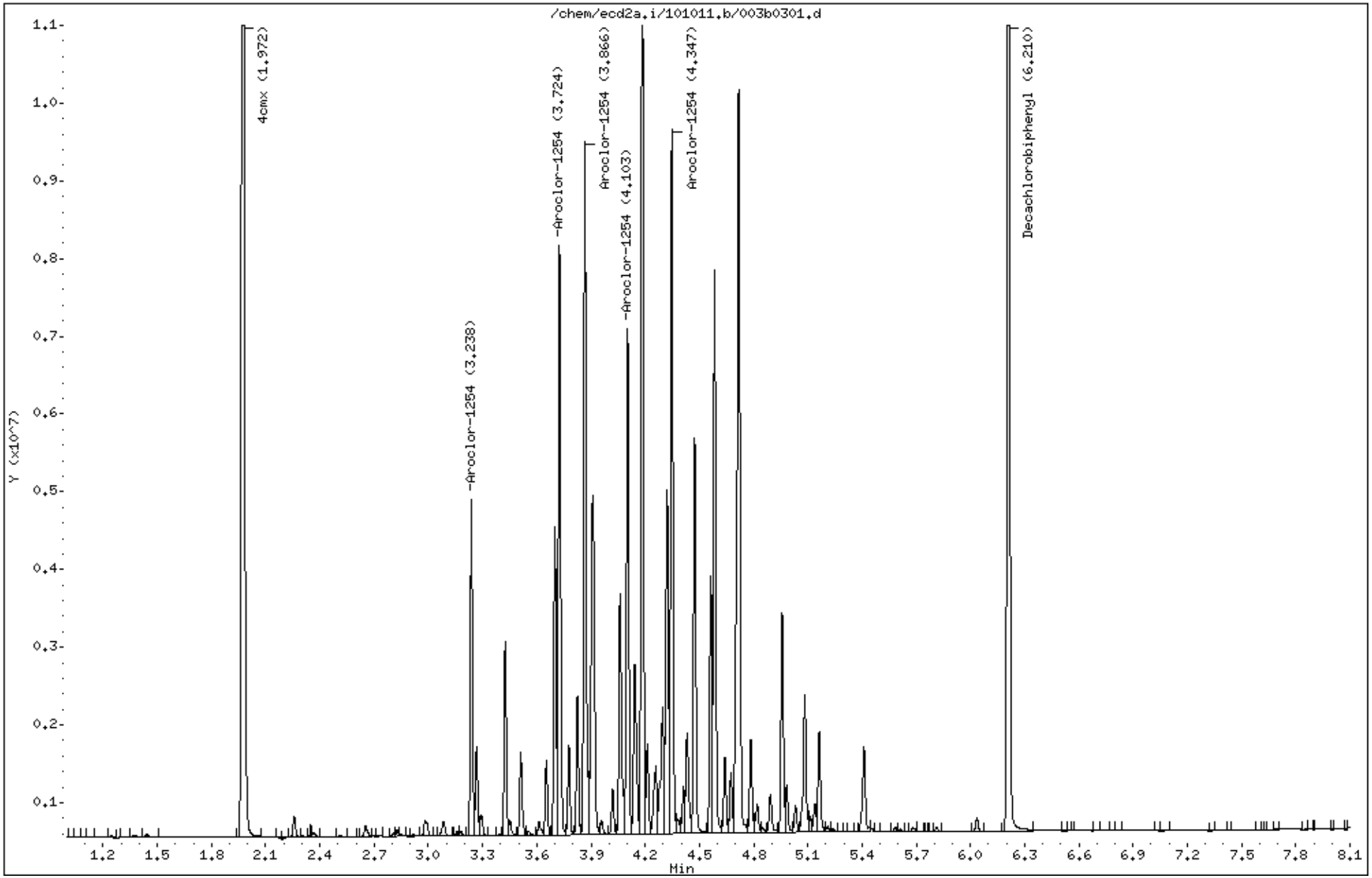
Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/005f0501.d
Lab Smp Id: WAR110726-48 Client Smp ID: AR124801
Inj Date : 10-OCT-2011 08:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-48
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.750	1.748	0.002	7572536	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	6770897	100.000	117	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.590	2.590	0.000	1435977	1000.00	913	80.00- 120.00	100.00
2.817	2.817	0.000	1611664	1000.00	995	92.23- 132.23	112.23
2.969	2.969	0.000	2177405	1000.00	1020	131.63- 171.63	151.63
3.204	3.204	0.000	1245043	1000.00	996	66.70- 106.70	86.70
3.264	3.264	0.000	2399784	1000.00	976	147.12- 187.12	167.12
Average of Peak Amounts =					980		

Data File: /chem/ecd2a.i/101011.b/005f0501.d

Page 1

Date : 10-OCT-2011 08:52

Client ID: AR124801

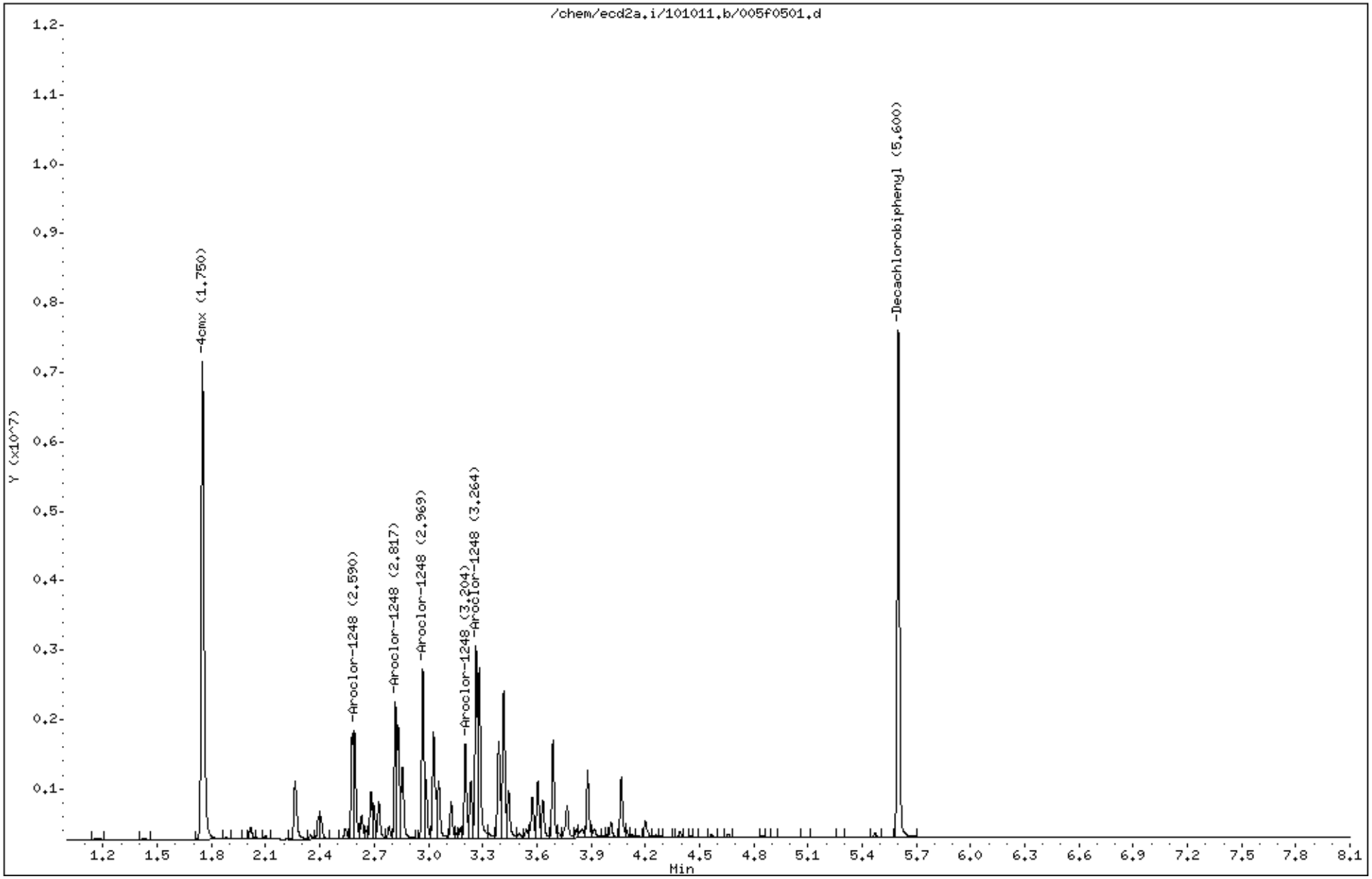
Instrument: ecd2a.i

Sample Info: IWAR110726-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/005b0501.d
Lab Smp Id: WAR110726-48 Client Smp ID: AR124801
Inj Date : 10-OCT-2011 08:52
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-48
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	23410340	100.000	128	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	20774461	100.000	126	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.652	2.652	0.000	2988994	1000.00	1030	80.00- 120.00	100.00
3.239	3.239	0.000	5233258	1000.00	1060	155.08- 195.08	175.08
3.267	3.267	0.000	4642705	1000.00	1080	135.33- 175.33	155.33
3.425	3.425	0.000	6766995	1000.00	1080	206.40- 246.40	226.40
3.511	3.511	0.000	7261897	1000.00	1080	222.95- 262.95	242.95

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd2a.i/101011.b/005b0501.d

Page 1

Date : 10-OCT-2011 08:52

Client ID: AR124801

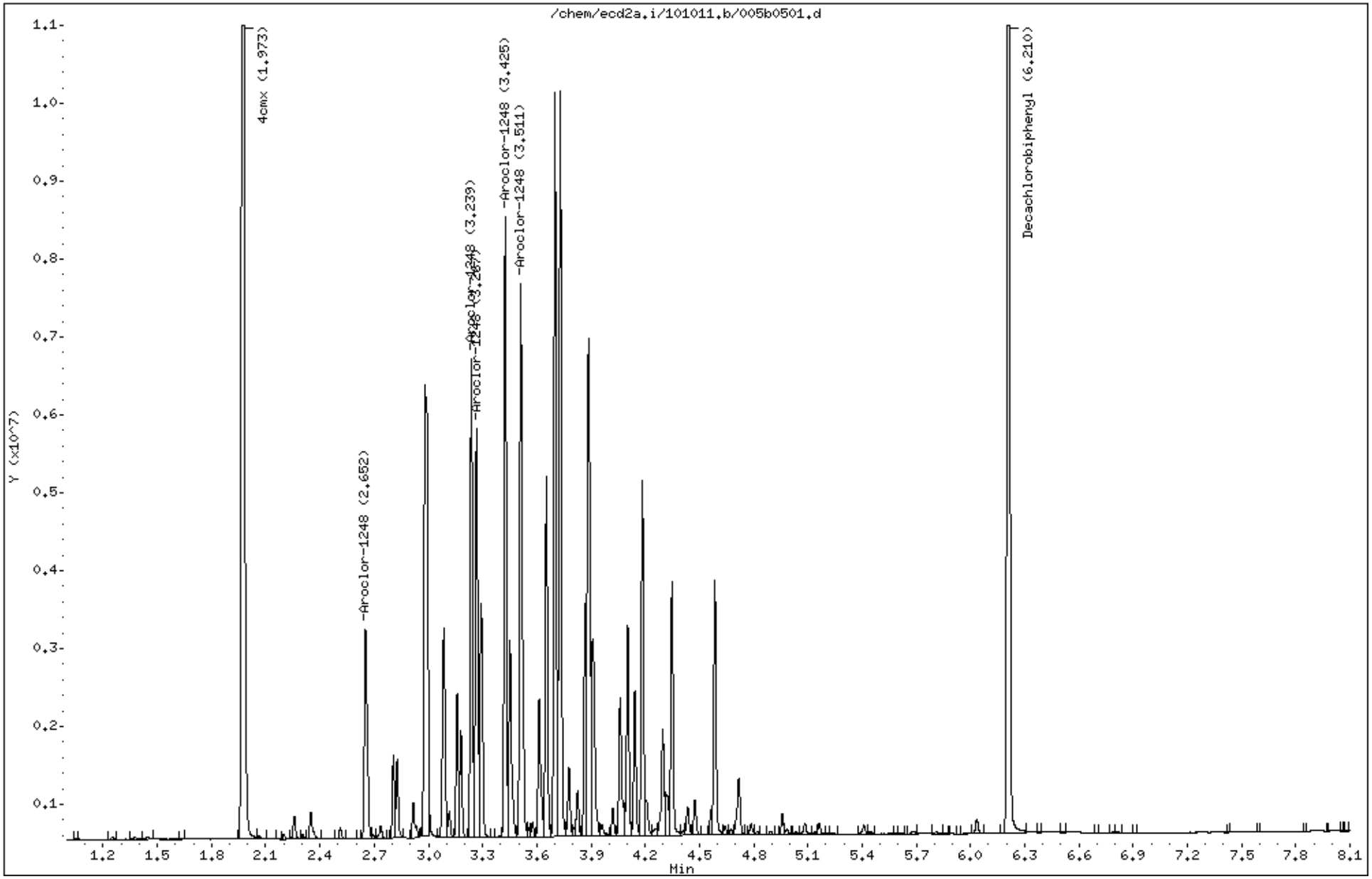
Instrument: ecd2a.i

Sample Info: IWAR110726-48

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/006f0601.d
Lab Smp Id: WAR111003-32 Client Smp ID: AR123201
Inj Date : 10-OCT-2011 09:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111003-32
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	6575994	100.000	98.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	5885750	100.000	102	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.011	2.011	0.000	1349947	1000.00	1000	80.00- 120.00	100.00
2.262	2.262	0.000	1126885	1000.00	1010	63.48- 103.48	83.48
2.681	2.681	0.000	981578	1000.00	1000	52.71- 92.71	72.71
2.725	2.725	0.000	643672	1000.00	1000	27.68- 67.68	47.68
2.969	2.969	0.000	701489	1000.00	1000	31.96- 71.96	51.96
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/101011.b/006f0601.d

Page 1

Date : 10-OCT-2011 09:03

Client ID: AR123201

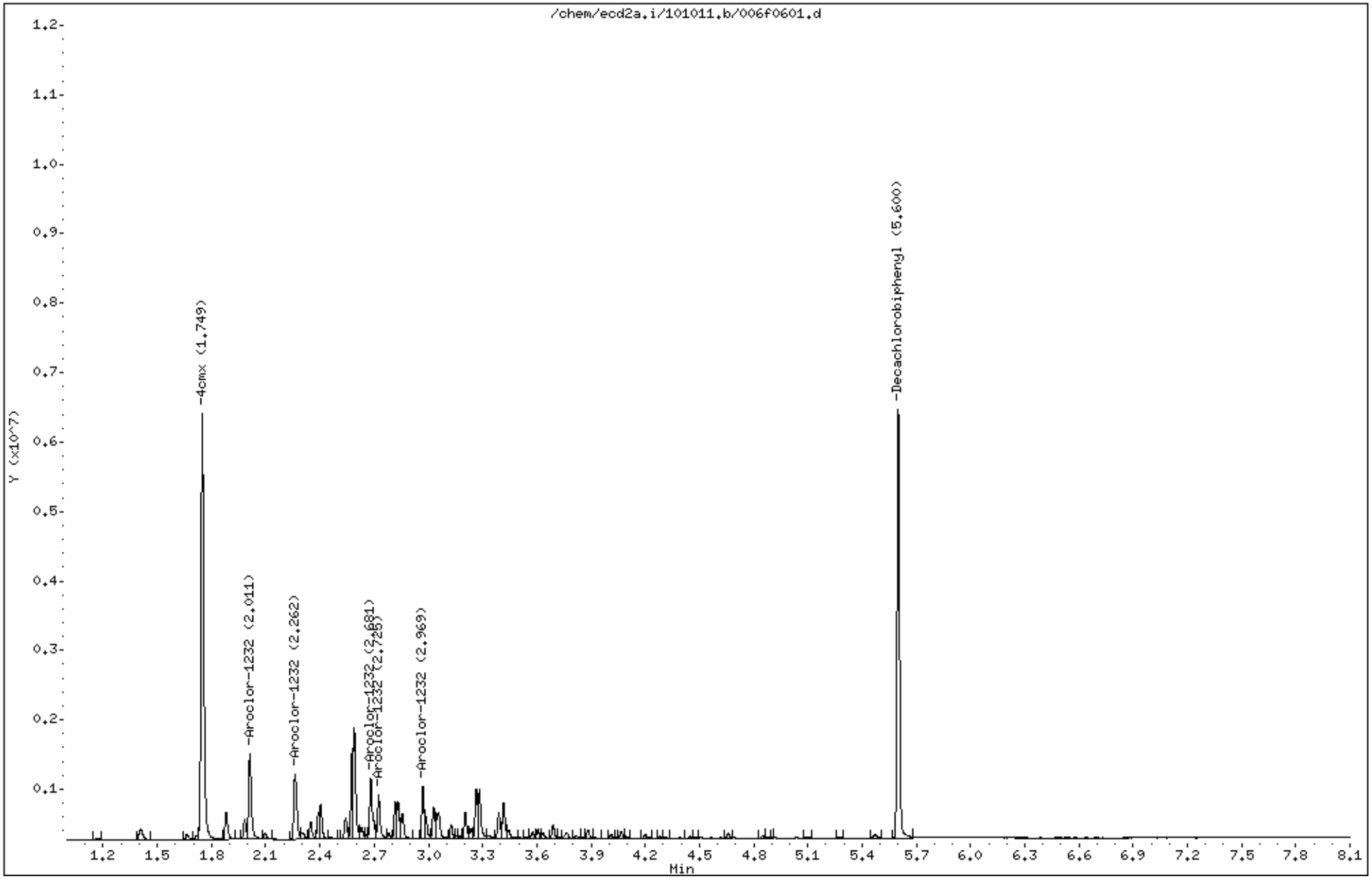
Instrument: ecd2a.i

Sample Info: IWAR111003-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/006b0601.d
Lab Smp Id: WAR111003-32 Client Smp ID: AR123201
Inj Date : 10-OCT-2011 09:03
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR111003-32
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	20294181	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	17398563	100.000	106	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.349	2.349	0.000	3804792	1000.00	1070	80.00- 120.00	100.00
2.651	2.651	0.000	3729034	1000.00	1080	78.01- 118.01	98.01
3.086	3.086	0.000	2932237	1000.00	1080	57.07- 97.07	77.07
3.238	3.238	0.000	1497319	1000.00	1080	19.35- 59.35	39.35
3.267	3.267	0.000	1574659	1000.00	1080	21.39- 61.39	41.39

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd2a.i/101011.b/006b0601.d

Page 1

Date : 10-OCT-2011 09:03

Client ID: AR123201

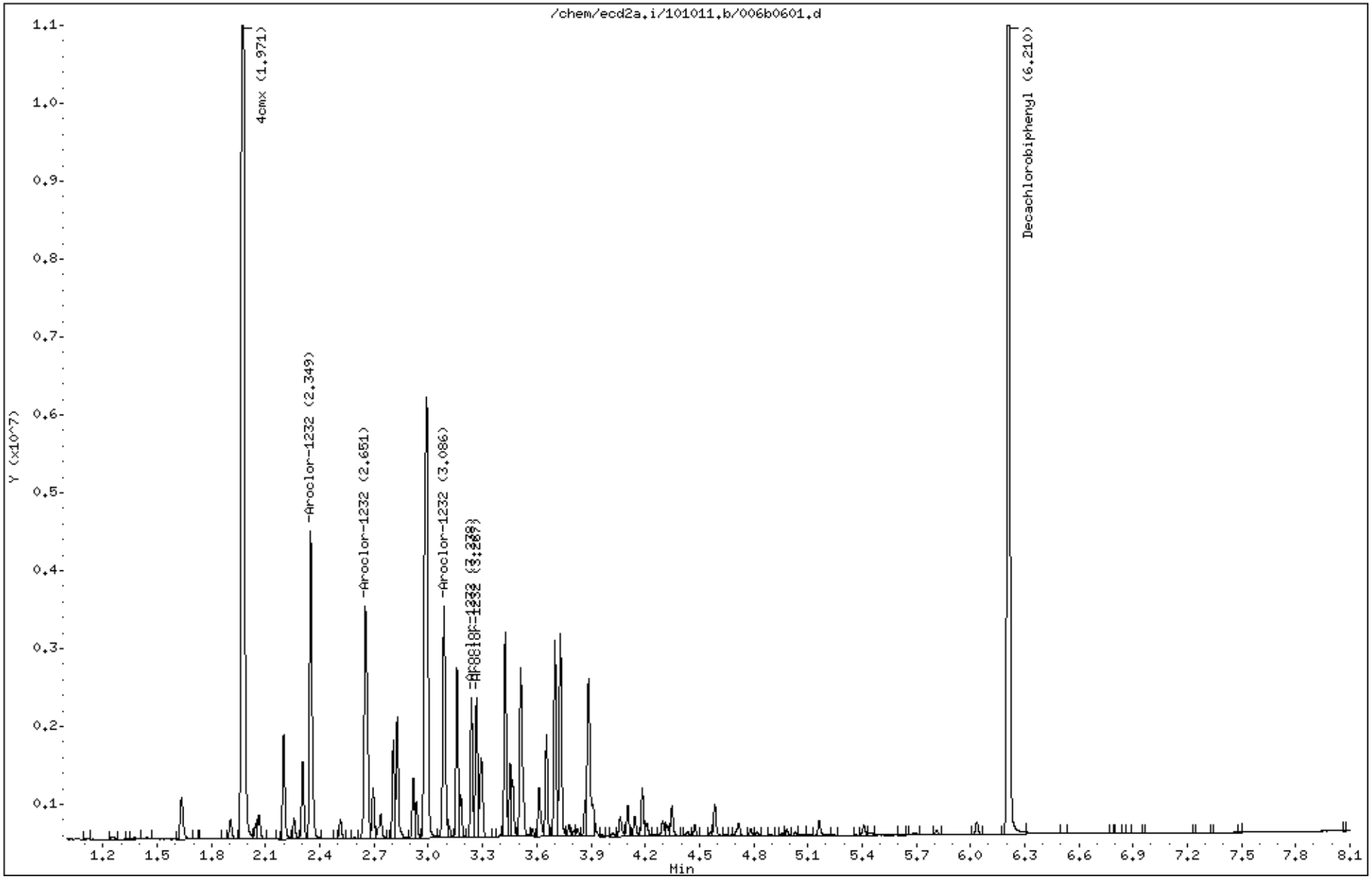
Instrument: ecd2a.i

Sample Info: IWAR111003-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/007f0701.d
Lab Smp Id: WAR110926-42 Client Smp ID: AR124201
Inj Date : 10-OCT-2011 09:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-42
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.748	1.748	0.000	6916364	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.602	5.601	0.001	5984635	100.000	103	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.262	2.262	0.000	1762512	1000.00	932	80.00- 120.00	100.00
2.590	2.590	0.000	2492426	1000.00	949	121.41- 161.41	141.41
2.724	2.724	0.000	947943	1000.00	930	33.78- 73.78	53.78
2.816	2.816	0.000	765757	1000.00	959	23.45- 63.45	43.45
3.204	3.204	0.000	668458	1000.00	946	17.93- 57.93	37.93
Average of Peak Amounts =					943		

Data File: /chem/ecd2a.i/101011.b/007f0701.d

Page 1

Date : 10-OCT-2011 09:15

Client ID: AR124201

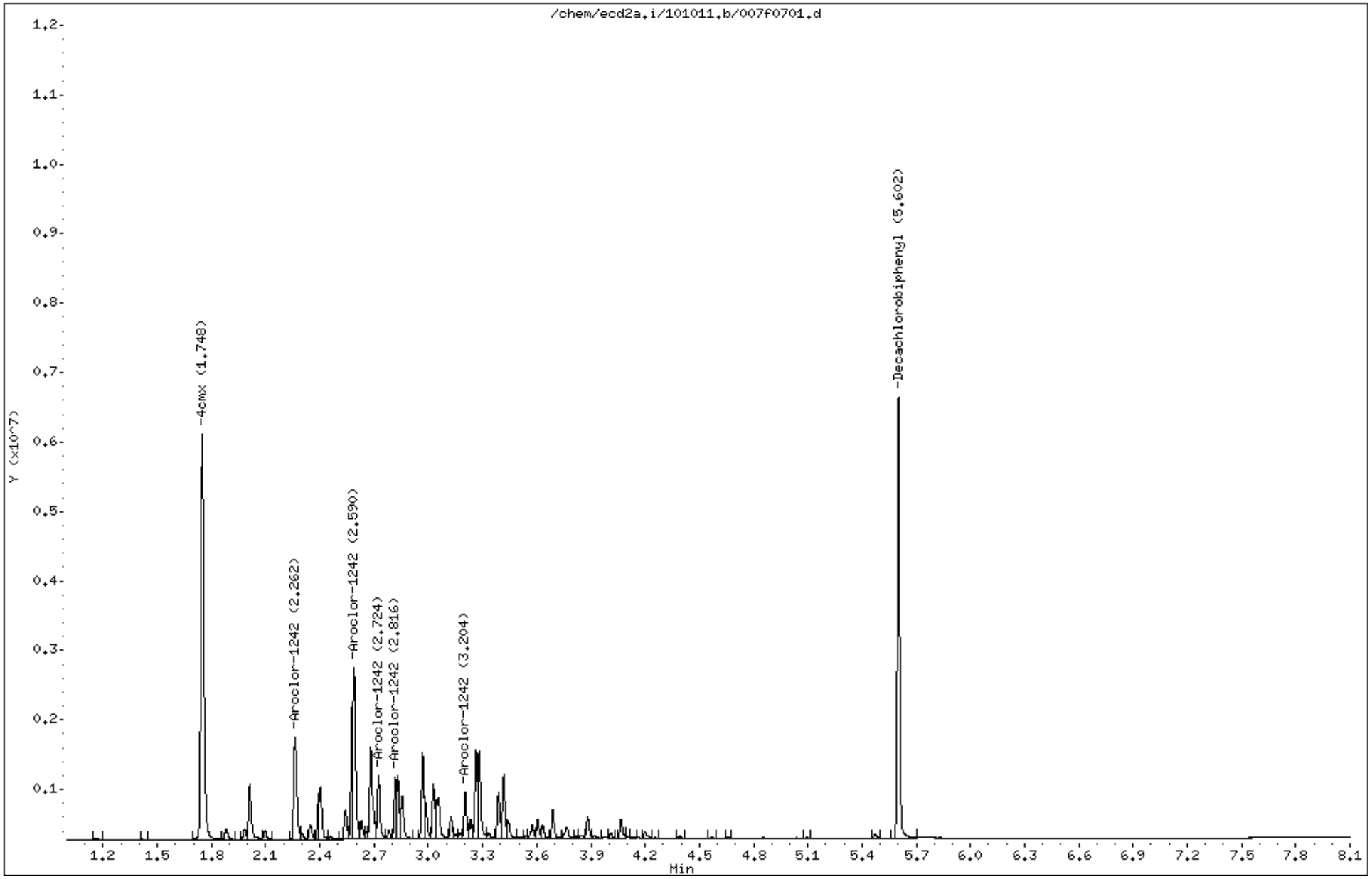
Instrument: ecd2a.i

Sample Info: IWAR110926-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/007b0701.d
Lab Smp Id: WAR110926-42 Client Smp ID: AR124201
Inj Date : 10-OCT-2011 09:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-42
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	21358495	100.000	116	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.211	6.210	0.001	18128945	100.000	110	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.653	2.653	0.000	5531008	1000.00	1030	80.00- 120.00	100.00
3.086	3.086	0.000	4499932	1000.00	1040	61.36- 101.36	81.36
3.239	3.239	0.000	2490121	1000.00	1030	25.02- 65.02	45.02
3.267	3.267	0.000	2700497	1000.00	1040	28.82- 68.82	48.82
3.425	3.425	0.000	3643642	1000.00	1060	45.88- 85.88	65.88

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd2a.i/101011.b/007b0701.d

Date : 10-OCT-2011 09:15

Client ID: AR124201

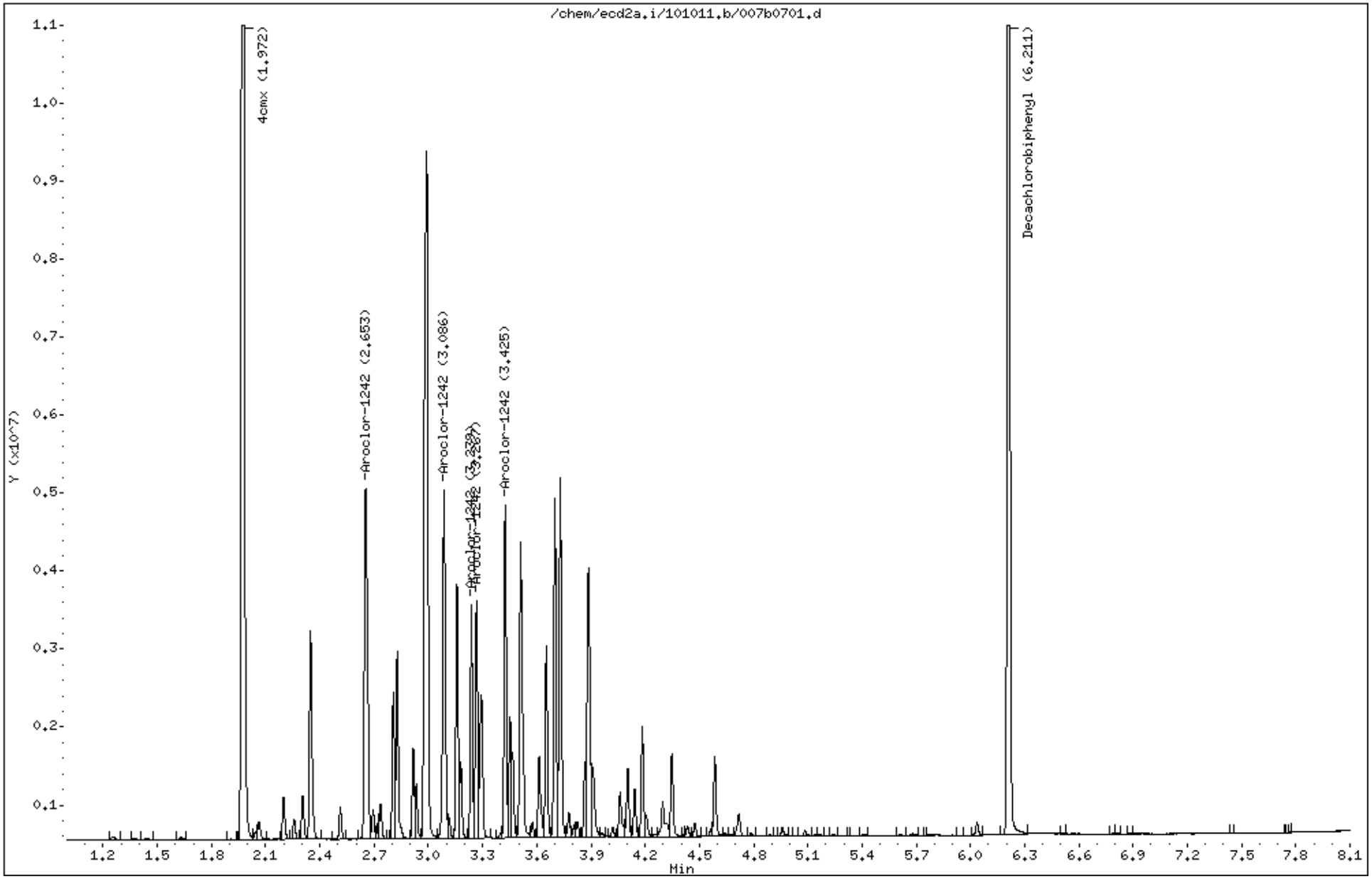
Sample Info: IWAR110926-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/008f0801.d
Lab Smp Id: WAR110829-21 Client Smp ID: AR122101
Inj Date : 10-OCT-2011 09:26
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110829-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	6444484	100.000	96.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.601	5.601	0.000	5633178	100.000	97.2	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.882	1.882	0.000	630056	1000.00	996	80.00- 120.00	100.00
1.983	1.983	0.000	352578	1000.00	1110	35.96- 75.96	55.96
2.012	2.012	0.000	1720237	1000.00	991	253.03- 293.03	273.03

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd2a.i/101011.b/008f0801.d

Page 1

Date : 10-OCT-2011 09:26

Client ID: AR122101

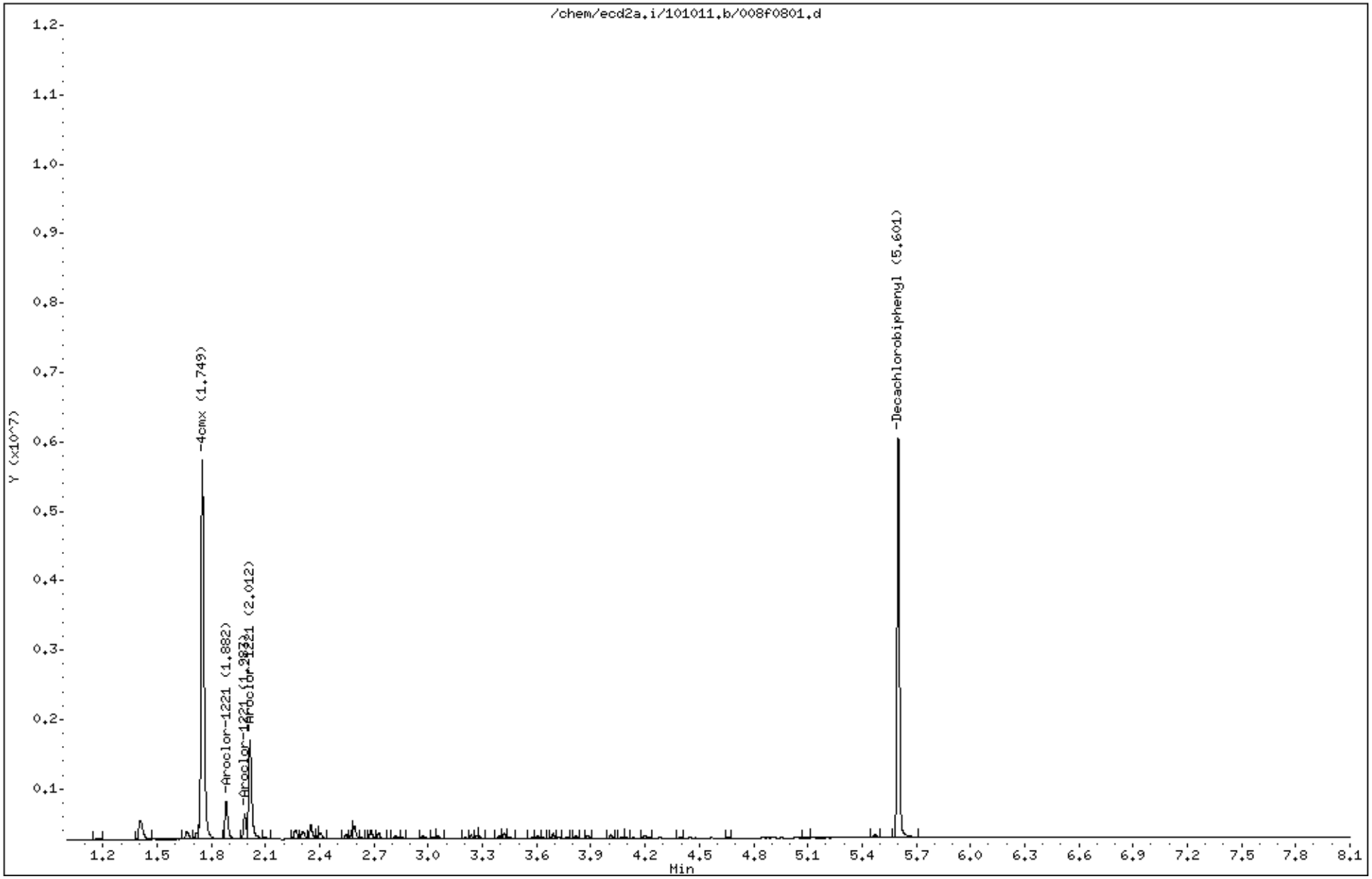
Instrument: ecd2a.i

Sample Info: IWAR110829-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/101011.b/008b0801.d
Lab Smp Id: WAR110829-21                  Client Smp ID: AR122101
Inj Date  : 10-OCT-2011 09:26
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |WAR110829-21
Misc Info :
Comment   :
Method    : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212    Quant Type: ESTD
Cal Date  : 06-OCT-2011 20:22             Cal File: 030b3001.d
Als bottle: 8                             Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: AR1221.sub
Target Version:  3.50                     Sample Matrix: None
```

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	19853765	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.211	6.210	0.001	16968323	100.000	103	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.199	2.199	0.000	1777340	1000.00	1010	80.00- 120.00	100.00
2.305	2.305	0.000	1157286	1000.00	1070	45.11- 85.11	65.11
2.349	2.349	0.000	4953718	1000.00	1070	258.72- 298.72	278.72

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd2a.i/101011.b/008b0801.d

Page 1

Date : 10-OCT-2011 09:26

Client ID: AR122101

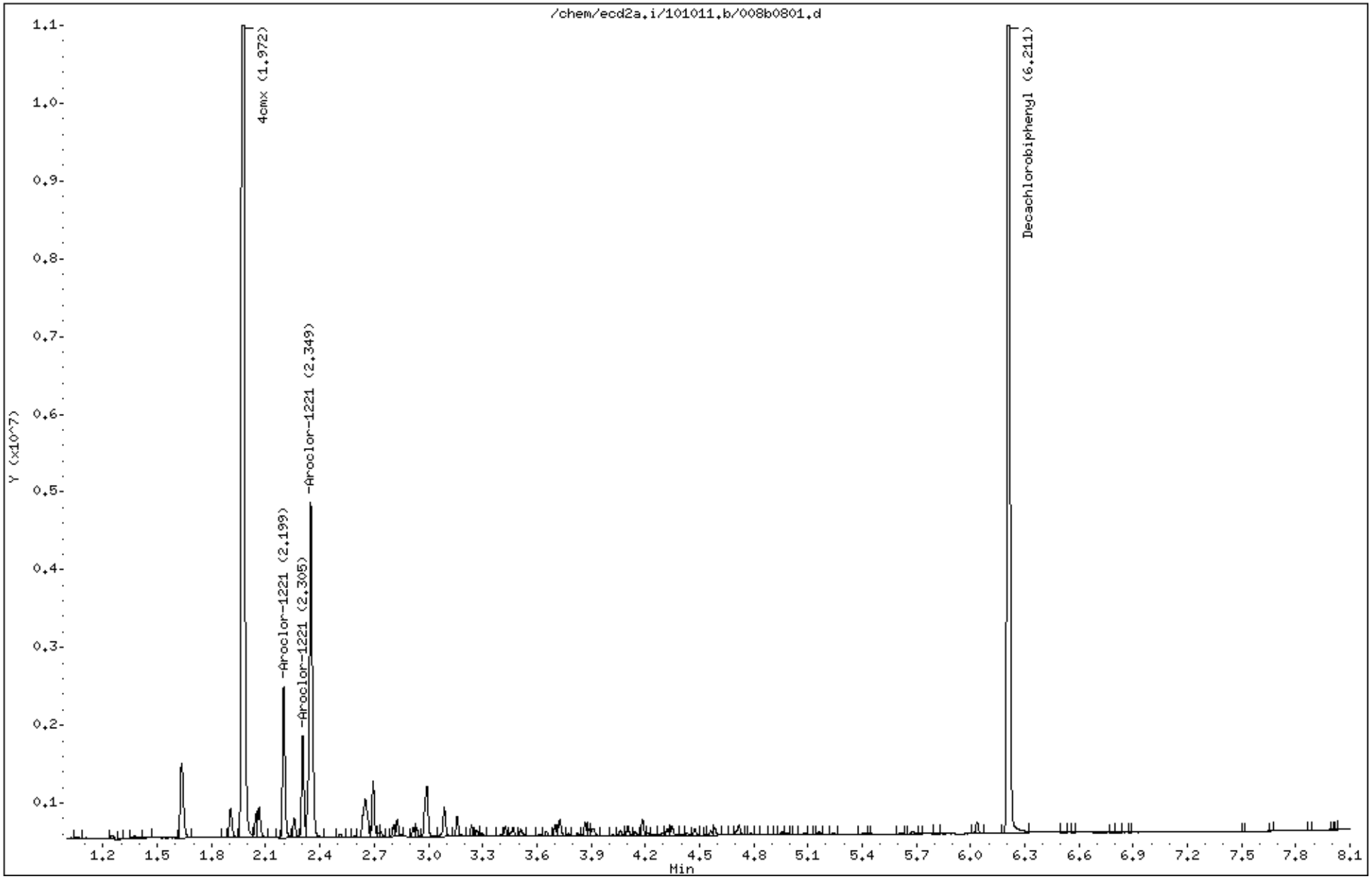
Instrument: ecd2a.i

Sample Info: IWAR110829-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/019f1901.d
Lab Smp Id: WAR110919-60 02 Client Smp ID: AR166002
Inj Date : 10-OCT-2011 11:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110919-60 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	6607906	100.000	99.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	5871051	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.263	2.262	0.001	2056788	1000.00	1000	80.00- 120.00	100.00
2.589	2.590	-0.001	2974992	1000.00	986	124.64- 164.64	144.64
2.724	2.724	0.000	1129139	1000.00	995	34.90- 74.90	54.90
2.816	2.816	0.000	882887	1000.00	970	22.93- 62.93	42.93
2.969	2.968	0.001	1347858	1000.00	987	45.53- 85.53	65.53
Average of Peak Amounts =					988		
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	2730774	1000.00	950	80.00- 120.00	100.00
4.010	4.009	0.001	4195876	1000.00	960	133.65- 173.65	153.65
4.094	4.094	0.000	1787402	1000.00	974	45.45- 85.45	65.45
4.281	4.280	0.001	2607981	1000.00	959	75.50- 115.50	95.50
4.447	4.447	0.000	2684758	1000.00	977	78.31- 118.31	98.31
Average of Peak Amounts =					964		

Data File: /chem/ecd2a.i/101011.b/019f1901.d

Page 1

Date : 10-OCT-2011 11:29

Client ID: AR166002

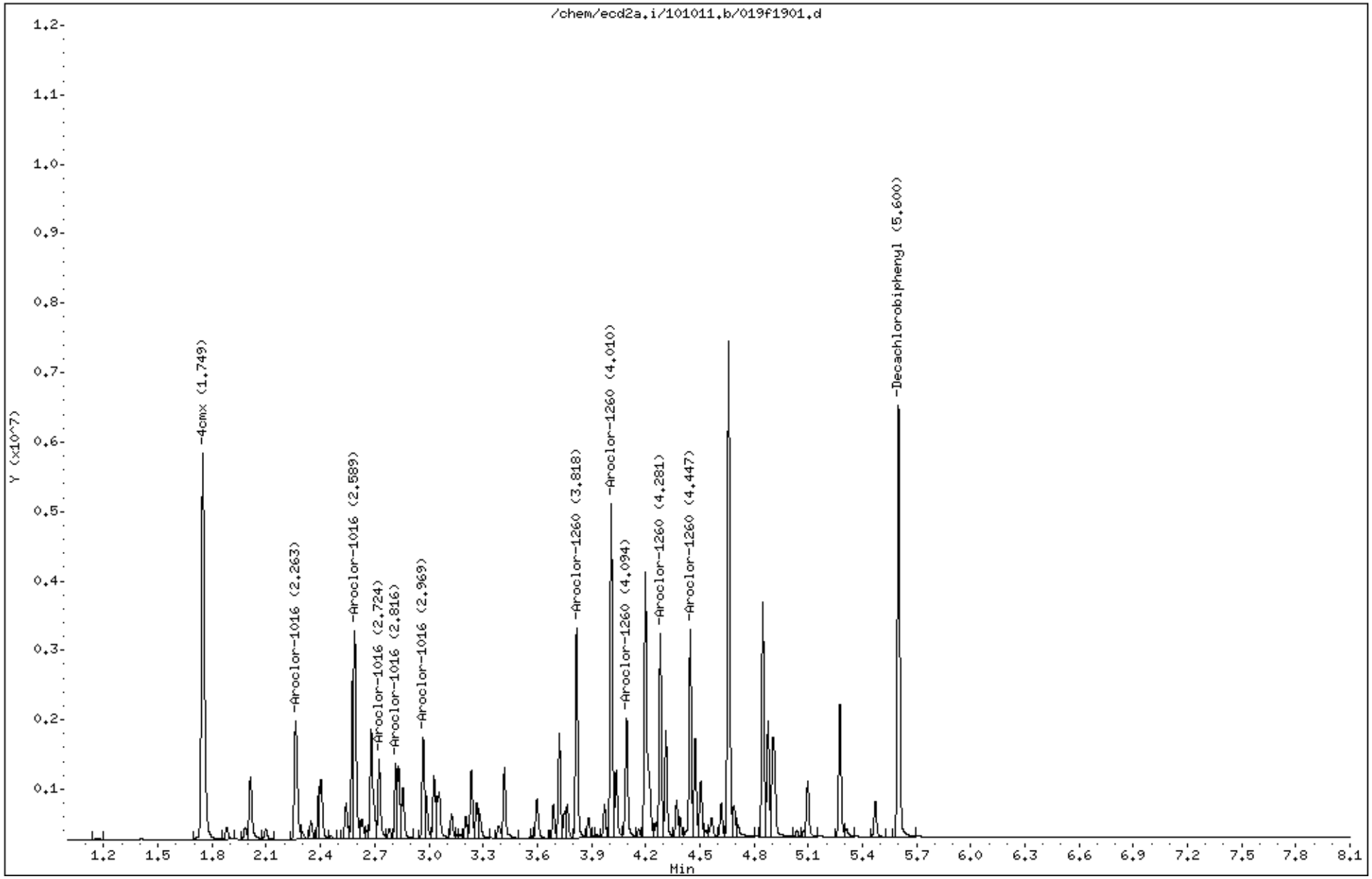
Instrument: ecd2a.i

Sample Info: IWAR110919-60 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/019b1901.d
Lab Smp Id: WAR110919-60 02 Client Smp ID: AR166002
Inj Date : 10-OCT-2011 11:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110919-60 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	20326754	100.000	111	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	17248226	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.652	2.652	0.000	6372278	1000.00	1020	80.00- 120.00	100.00
3.086	3.086	0.000	5307292	1000.00	1070	63.29- 103.29	83.29
3.159	3.159	0.000	3309520	1000.00	1080	31.94- 71.94	51.94
3.239	3.238	0.001	3020050	1000.00	1060	27.39- 67.39	47.39
3.425	3.425	0.000	4266441	1000.00	1060	46.95- 86.95	66.95
Average of Peak Amounts =				1.06e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	8114638	1000.00	1040	80.00- 120.00	100.00
4.474	4.473	0.001	10042009	1000.00	1040	103.75- 143.75	123.75
4.585	4.585	0.000	6762305	1000.00	1040	63.33- 103.33	83.33
4.784	4.783	0.001	7631085	1000.00	1040	74.04- 114.04	94.04
4.984	4.984	0.000	7891408	1000.00	1040	77.25- 117.25	97.25
Average of Peak Amounts =				1.04e+03			

Data File: /chem/ecd2a.i/101011.b/019b1901.d

Date : 10-OCT-2011 11:29

Client ID: AR166002

Sample Info: IWAR110919-60 02

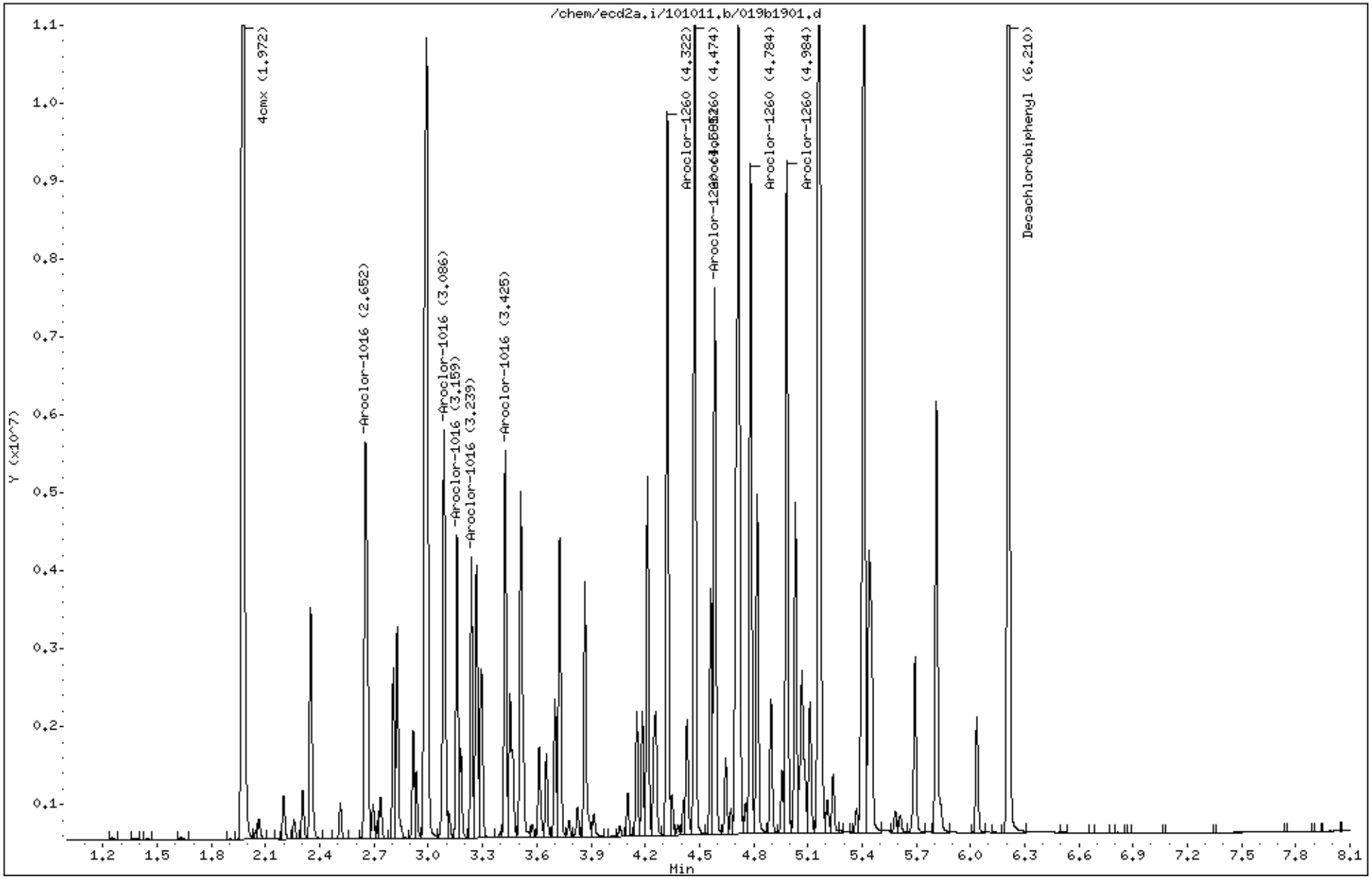
Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11−3386−1

GC Column: CLP1

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				#	#
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
002f0201.d	AR166001	WAR111006−01 60	06−OCT−11 15:07	1.75	5.6
003f0301.d	AR166002	WAR111006−02 60	06−OCT−11 15:19	1.75	5.6
004f0401.d	AR166003	WAR111006−03 60	06−OCT−11 15:30	1.75	5.6
005f0501.d	AR166004	WAR111006−04 60	06−OCT−11 15:41	1.75	5.6
006f0601.d	AR166005	IAR110623−01 60	06−OCT−11 15:52	1.75	5.6

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11−3386−1

GC Column: CLP2

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				#	#
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
002b0201.d	AR166001	WAR111006−01 60	06−OCT−11 15:07	1.97	6.21
003b0301.d	AR166002	WAR111006−02 60	06−OCT−11 15:19	1.97	6.21
004b0401.d	AR166003	WAR111006−03 60	06−OCT−11 15:30	1.97	6.21
005b0501.d	AR166004	WAR111006−04 60	06−OCT−11 15:41	1.97	6.21
006b0601.d	AR166005	IAR110623−01 60	06−OCT−11 15:52	1.97	6.21

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11−3386−1

GC Column: CLP1

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				1.75 1.72 1.78 #	5.6 5.57 5.63 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001f0101.d	PIBLK01	WAR110926−99 01	10−OCT−11 08:07	1.75	5.6
002f0201.d	AR166001	WAR110919−60 01	10−OCT−11 08:18	1.75	5.6
003f0301.d	AR125401	WAR110902−54	10−OCT−11 08:30	1.75	5.6
004f0401.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 08:41	1.75	5.6
005f0501.d	AR124801	WAR110726−48	10−OCT−11 08:52	1.75	5.6
006f0601.d	AR123201	WAR111003−32	10−OCT−11 09:03	1.75	5.6
007f0701.d	AR124201	WAR110926−42	10−OCT−11 09:15	1.75	5.6
008f0801.d	AR122101	WAR110829−21	10−OCT−11 09:26	1.75	5.6
009f0901.d	AR126201	WAR110829−62	10−OCT−11 09:37	1.75	5.6
010f1001.d	AR126801	WAR110809−68	10−OCT−11 09:48	1.75	5.6
011f1101.d	DDTANALOGSTD	WAR110609−DDT	10−OCT−11 09:59	NA	NA
012f1201.d	PIBLK02	WAR110926−99 02	10−OCT−11 10:11	1.75	5.6
013f1301−1.d	PBLK01	1202495394	10−OCT−11 10:22	1.75	5.6
014f1401.d	BLK01LCS	1202495395	10−OCT−11 10:33	1.75	5.6
015f1501.d	BLK01LCSD	1202495396	10−OCT−11 10:44	1.75	5.6
016f1601.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 10:56	1.75	5.6
017f1701.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 11:07	1.75	5.6
018f1801.d	NPDES03A113−11−1385	287628001	10−OCT−11 11:18	1.75	5.6
019f1901.d	AR166002	WAR110919−60 02	10−OCT−11 11:29	1.75	5.6

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11−3386−1

GC Column: CLP2

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				1.97	6.21
RT Range Based on Calibration Verification:				1.94 2 #	6.18 6.24 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001b0101.d	PIBLK01	WAR110926−99 01	10−OCT−11 08:07	1.97	6.21
002b0201.d	AR166001	WAR110919−60 01	10−OCT−11 08:18	1.97	6.21
003b0301.d	AR125401	WAR110902−54	10−OCT−11 08:30	1.97	6.21
004b0401.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 08:41	1.97	6.21
005b0501.d	AR124801	WAR110726−48	10−OCT−11 08:52	1.97	6.21
006b0601.d	AR123201	WAR111003−32	10−OCT−11 09:03	1.97	6.21
007b0701.d	AR124201	WAR110926−42	10−OCT−11 09:15	1.97	6.21
008b0801.d	AR122101	WAR110829−21	10−OCT−11 09:26	1.97	6.21
009b0901.d	AR126201	WAR110829−62	10−OCT−11 09:37	1.97	6.21
010b1001.d	AR126801	WAR110809−68	10−OCT−11 09:48	1.97	6.21
011b1101.d	DDTANALOGSTD	WAR110609−DDT	10−OCT−11 09:59	NA	NA
012b1201.d	PIBLK02	WAR110926−99 02	10−OCT−11 10:11	1.97	6.21
013b1301−1.d	PBLK01	1202495394	10−OCT−11 10:22	1.97	6.21
014b1401.d	BLK01LCS	1202495395	10−OCT−11 10:33	1.97	6.21
015b1501.d	BLK01LCSD	1202495396	10−OCT−11 10:44	1.97	6.21
016b1601.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 10:56	1.97	6.21
017b1701.d	ZZZZZZZ	ZZZZZZZ	10−OCT−11 11:07	1.97	6.21
018b1801.d	NPDES03A113−11−1385	287628001	10−OCT−11 11:18	1.97	6.21
019b1901.d	AR166002	WAR110919−60 02	10−OCT−11 11:29	1.97	6.21

Column used to flag retention time values with an asterisk.

Identification Summary

SDG Number: 11−3386−1 **Client ID:** LCS for batch 1144878

Lab Sample ID: 1202495395

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10−OCT−11 10:33	**Analyzed:**	10−OCT−11 10:33

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor−1016							8.68
Column 1	1	2.26	2.23 − 2.29	.827		ug/L	
	2	2.59	2.56 − 2.62	.795		ug/L	
	3	2.72	2.69 − 2.75	.795		ug/L	
	4	2.82	2.79 − 2.85	.803		ug/L	
	5	2.97	2.94 − 3	.741		ug/L	
					.792		
Column 2	1	2.65	2.62 − 2.68	.842		ug/L	
	2	3.09	3.06 − 3.12	.88		ug/L	
	3	3.16	3.13 − 3.19	.877		ug/L	
	4	3.24	3.21 − 3.27	.859		ug/L	
	5	3.42	3.39 − 3.45	.864		ug/L	
					.864		
Aroclor−1260							5.48
Column 1	1	3.82	3.79 − 3.85	.783		ug/L	
	2	4.01	3.98 − 4.04	.794		ug/L	
	3	4.09	4.06 − 4.12	.738		ug/L	
	4	4.28	4.25 − 4.31	.787		ug/L	
	5	4.45	4.42 − 4.48	.798		ug/L	
					.78		
Column 2	1	4.32	4.29 − 4.35	.853		ug/L	
	2	4.47	4.44 − 4.5	.835		ug/L	
	3	4.58	4.56 − 4.62	.725		ug/L	
	4	4.78	4.75 − 4.81	.858		ug/L	
	5	4.98	4.95 − 5.01	.848		ug/L	
					.824		

Identification Summary

SDG Number: **11−3386−1** **Client ID:** **LCSD for batch 1144878**

Lab Sample ID: **1202495396**

Data File:	**015f1501.d**	**Data File:**	**015b1501.d**
Inst:	**ECD2A.I_1**	**Inst:**	**ECD2A.I_2**
Column:	**CLP1**	**Column:**	**CLP2**
Analyzed:	**10−OCT−11 10:44**	**Analyzed:**	**10−OCT−11 10:44**

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor−1016							9.52
Column 1	1	2.26	2.23 − 2.29	.683		ug/L	
	2	2.59	2.56 − 2.62	.684		ug/L	
	3	2.72	2.69 − 2.75	.671		ug/L	
	4	2.82	2.79 − 2.85	.668		ug/L	
	5	2.97	2.94 − 3	.646		ug/L	
					.67		
Column 2	1	2.65	2.62 − 2.68	.713		ug/L	
	2	3.09	3.06 − 3.12	.746		ug/L	
	3	3.16	3.13 − 3.19	.746		ug/L	
	4	3.24	3.21 − 3.27	.742		ug/L	
	5	3.43	3.39 − 3.45	.739		ug/L	
					.737		
Aroclor−1260							5.82
Column 1	1	3.82	3.79 − 3.85	.686		ug/L	
	2	4.01	3.98 − 4.04	.698		ug/L	
	3	4.1	4.06 − 4.12	.65		ug/L	
	4	4.28	4.25 − 4.31	.7		ug/L	
	5	4.45	4.42 − 4.48	.699		ug/L	
					.686		
Column 2	1	4.32	4.29 − 4.35	.743		ug/L	
	2	4.47	4.44 − 4.5	.746		ug/L	
	3	4.59	4.56 − 4.62	.655		ug/L	
	4	4.78	4.75 − 4.81	.748		ug/L	
	5	4.98	4.95 − 5.01	.746		ug/L	
					.728		

QC Data

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202495394**				
Client Sample:	**QC for batch 1144878**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1144878**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 10:22**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**013f1301−1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301−1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016	U	0.100	ug/L	0.0333	0.100	1
11104−28−2	Aroclor−1221	U	0.100	ug/L	0.0333	0.100	1
11141−16−5	Aroclor−1232	U	0.100	ug/L	0.0333	0.100	1
53469−21−9	Aroclor−1242	U	0.100	ug/L	0.0333	0.100	1
12672−29−6	Aroclor−1248	U	0.100	ug/L	0.0333	0.100	1
11097−69−1	Aroclor−1254	U	0.100	ug/L	0.0333	0.100	1
11096−82−5	Aroclor−1260	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.159	0.200	ug/L	79.4	(23%−103%)
Decachlorobiphenyl	0.160	0.200	ug/L	79.9	(28%−117%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/101011.b/013f1301-1.d
Lab Smp Id: 1202495394                    Client Smp ID: PBLK01
Inj Date  : 10-OCT-2011 10:22
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202495394|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|MB|||
Comment   :
Method    : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212    Quant Type: ESTD
Cal Date  : 06-OCT-2011 20:22             Cal File: 030f3001.d
Als bottle: 13                            QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386-1.sub
Target Version:  3.50                     Sample Matrix: Waste Water
Processing Host: hpclp1
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.748	1.748	0.000	9133183	136.857	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.599	5.601	-0.002	8527477	147.164	0.15	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/101011.b/013f1301-1.d

Page 1

Date : 10-OCT-2011 10:22

Client ID: PBLK01

Instrument: ecd2a.i

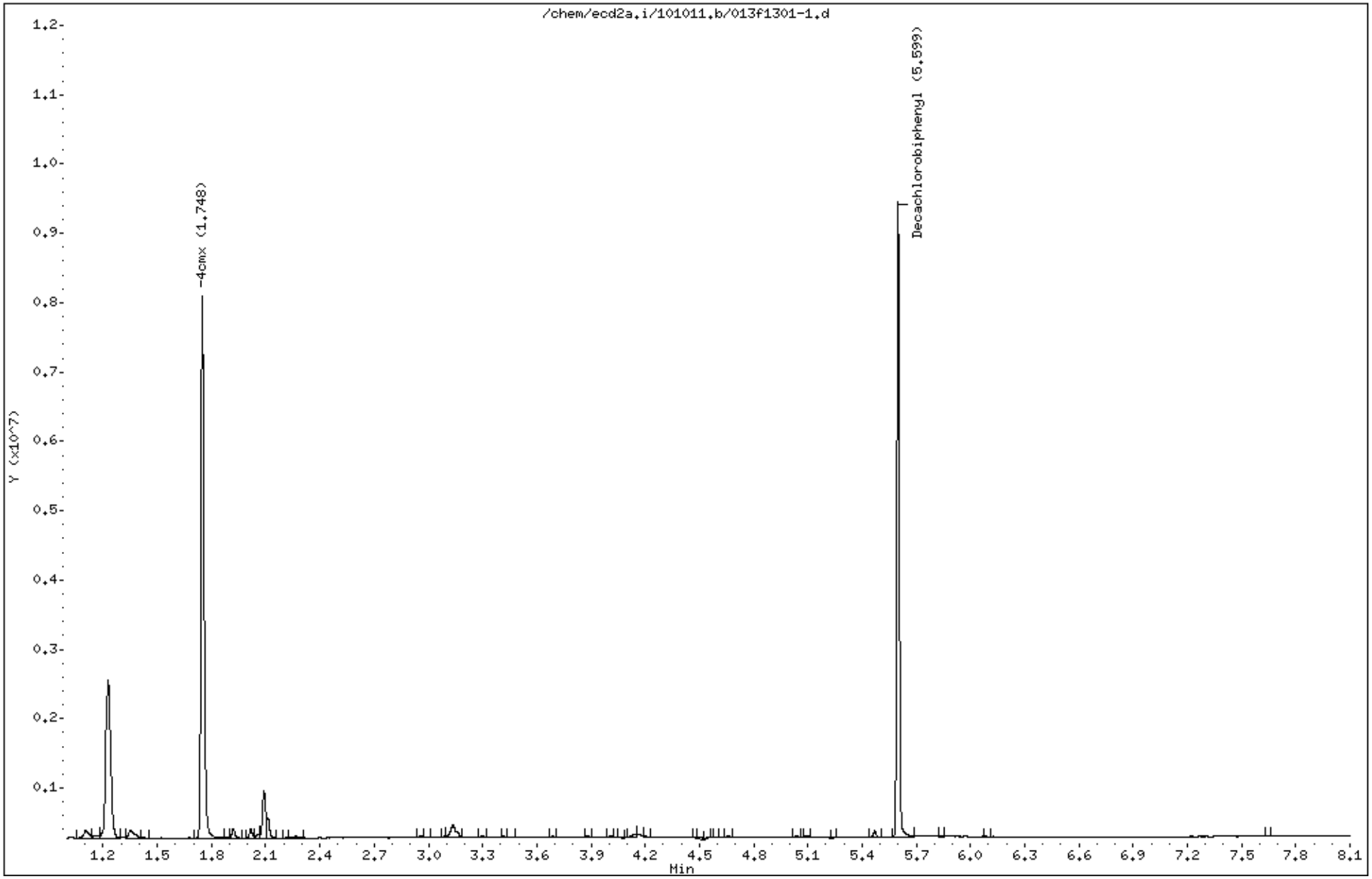
Sample Info: |1202495394|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/101011.b/013b1301-1.d
Lab Smp Id: 1202495394                    Client Smp ID: PBLK01
Inj Date  : 10-OCT-2011 10:22
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202495394|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|MB|||
Comment   :
Method    : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212    Quant Type: ESTD
Cal Date  : 06-OCT-2011 20:22             Cal File: 030b3001.d
Als bottle: 13                            QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386-1.sub
Target Version:  3.50                     Sample Matrix: Waste Water
Processing Host: hpclp1
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	29104909	158.760	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	26266188	159.737	0.16	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/101011.b/013b1301-1.d

Page 1

Date : 10-OCT-2011 10:22

Client ID: PBLK01

Instrument: ecd2a.i

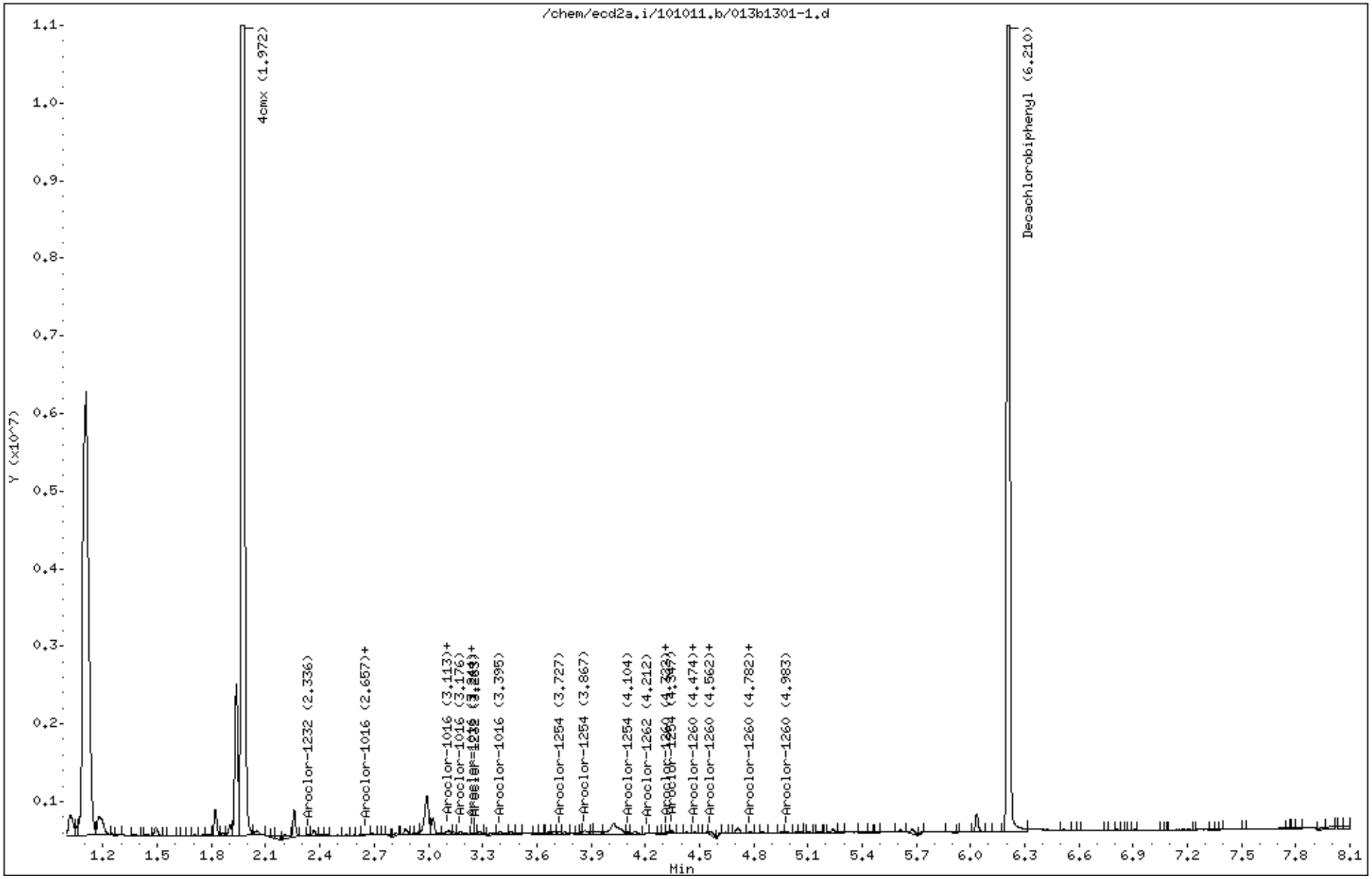
Sample Info: |1202495394|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202495395**				
Client Sample:	**QC for batch 1144878**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1144878**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 10:33**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401−1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401−1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016		0.860	ug/L	0.0333	0.100	2
11104−28−2	Aroclor−1221	U	0.100	ug/L	0.0333	0.100	1
11141−16−5	Aroclor−1232	U	0.100	ug/L	0.0333	0.100	1
53469−21−9	Aroclor−1242	U	0.100	ug/L	0.0333	0.100	1
12672−29−6	Aroclor−1248	U	0.100	ug/L	0.0333	0.100	1
11097−69−1	Aroclor−1254	U	0.100	ug/L	0.0333	0.100	1
11096−82−5	Aroclor−1260		0.820	ug/L	0.0333	0.100	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.175	0.200	ug/L	87.4	(23%−103%)
Decachlorobiphenyl	0.178	0.200	ug/L	89.0	(28%−117%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/014f1401-1.d
Lab Smp Id: 1202495395 Client Smp ID: PBLK01LCS
Inj Date : 10-OCT-2011 10:33
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202495395|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 14 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386-1.sub
Target Version: 3.50 Sample Matrix: Waste Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.750	1.748	0.002	10253963	153.652	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.600	5.601	-0.001	9871949	170.366	0.17	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.263	2.262	0.001	1724737	827.449	0.83	80.00- 120.00	100.00
2.591	2.590	0.001	2424007	794.565	0.79	124.64- 164.64	140.54
2.725	2.724	0.001	916165	795.465	0.80	34.90- 74.90	53.12
2.817	2.816	0.001	739139	802.587	0.80	22.93- 62.93	42.86
2.969	2.968	0.001	1029139	741.426	0.74	45.53- 85.53	59.67

Average of Peak Concentrations = 0.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.817	3.817	0.000	2249594	782.543	0.78	80.00- 120.00	100.00
4.009	4.009	0.000	3471199	794.068	0.79	133.65- 173.65	154.30
4.095	4.094	0.001	1354182	737.633	0.74	45.45- 85.45	60.20
4.280	4.280	0.000	2139873	787.068	0.79	75.50- 115.50	95.12
4.446	4.447	-0.001	2194000	798.330	0.80	78.31- 118.31	97.53
Average of Peak Concentrations =					0.78		

Data File: /chem/ecd2a.i/101011.b/014f1401-1.d

Date : 10-OCT-2011 10:33

Client ID: PBLK01LCS

Sample Info: |1202495395|1|

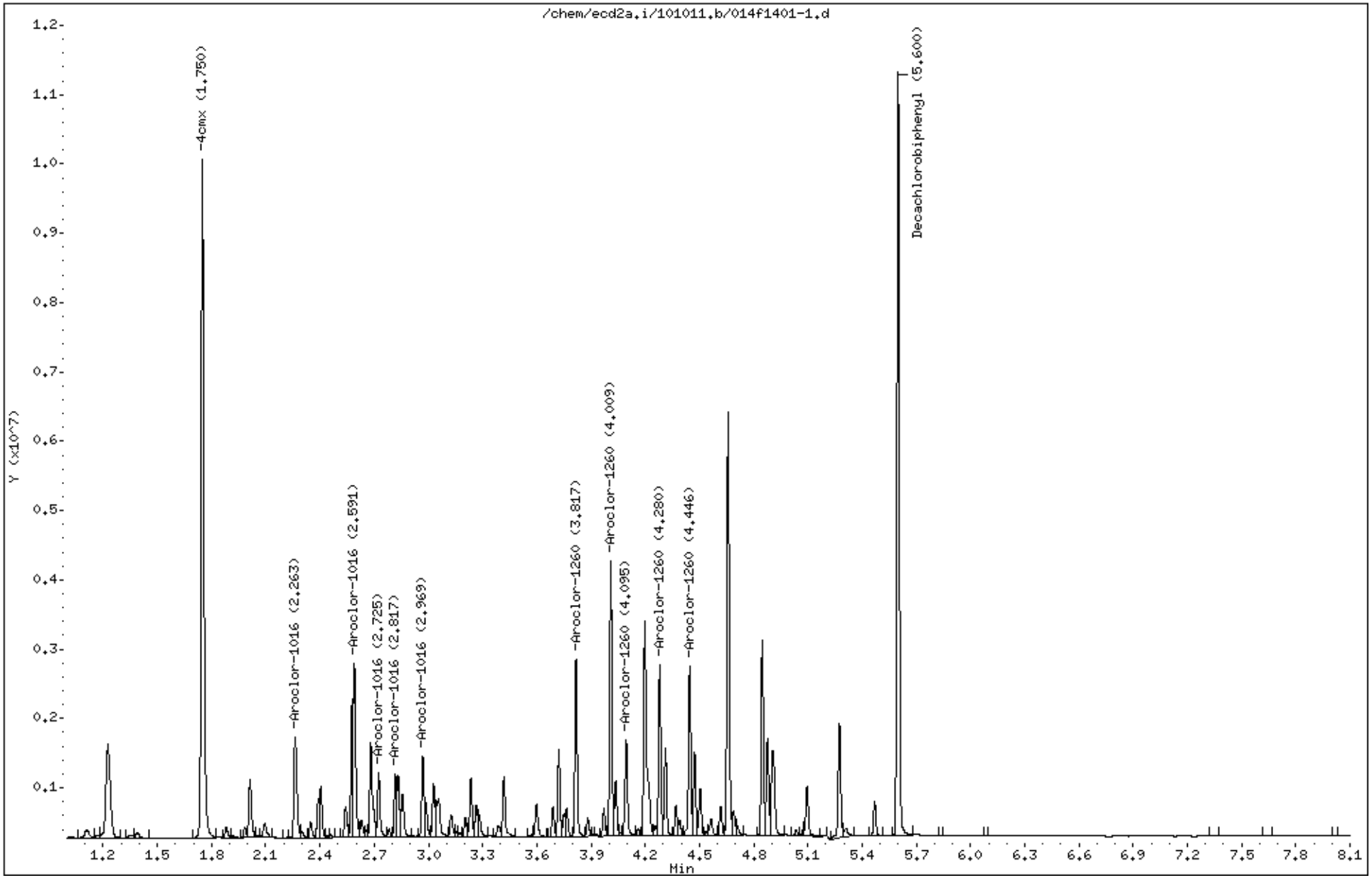
Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/101011.b/014b1401-1.d
Lab Smp Id: 1202495395                    Client Smp ID: PBLK01LCS
Inj Date  : 10-OCT-2011 10:33
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202495395|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|LCS|||
Comment   :
Method    : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212    Quant Type: ESTD
Cal Date  : 06-OCT-2011 20:22             Cal File: 030b3001.d
Als bottle: 14                            QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386-1.sub
Target Version:  3.50                     Sample Matrix: Waste Water
Processing Host: hpclp1
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	32057624	174.866	0.17	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	29260534	177.947	0.18	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.652	2.652	0.000	5250975	842.159	0.84	80.00- 120.00	100.00
3.086	3.086	0.000	4351735	879.634	0.88	63.29- 103.29	82.87
3.159	3.159	0.000	2686928	876.552	0.88	31.94- 71.94	51.17
3.238	3.238	0.000	2451146	858.920	0.86	27.39- 67.39	46.68
3.425	3.425	0.000	3473492	863.902	0.86	46.95- 86.95	66.15

Average of Peak Concentrations = 0.86

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.322	0.000	6639388	853.022	0.85	80.00- 120.00	100.00
4.474	4.473	0.001	8064554	834.934	0.83	103.75- 143.75	121.47
4.585	4.585	0.000	4717405	725.431	0.72	63.33- 103.33	71.05
4.782	4.783	-0.001	6316503	858.450	0.86	74.04- 114.04	95.14
4.983	4.984	-0.001	6427173	847.712	0.85	77.25- 117.25	96.80
			Average of Peak Concentrations =		0.82		

Data File: /chem/ecd2a.i/101011.b/014b1401-1.d

Page 1

Date : 10-OCT-2011 10:33

Client ID: PBLK01LCS

Instrument: ecd2a.i

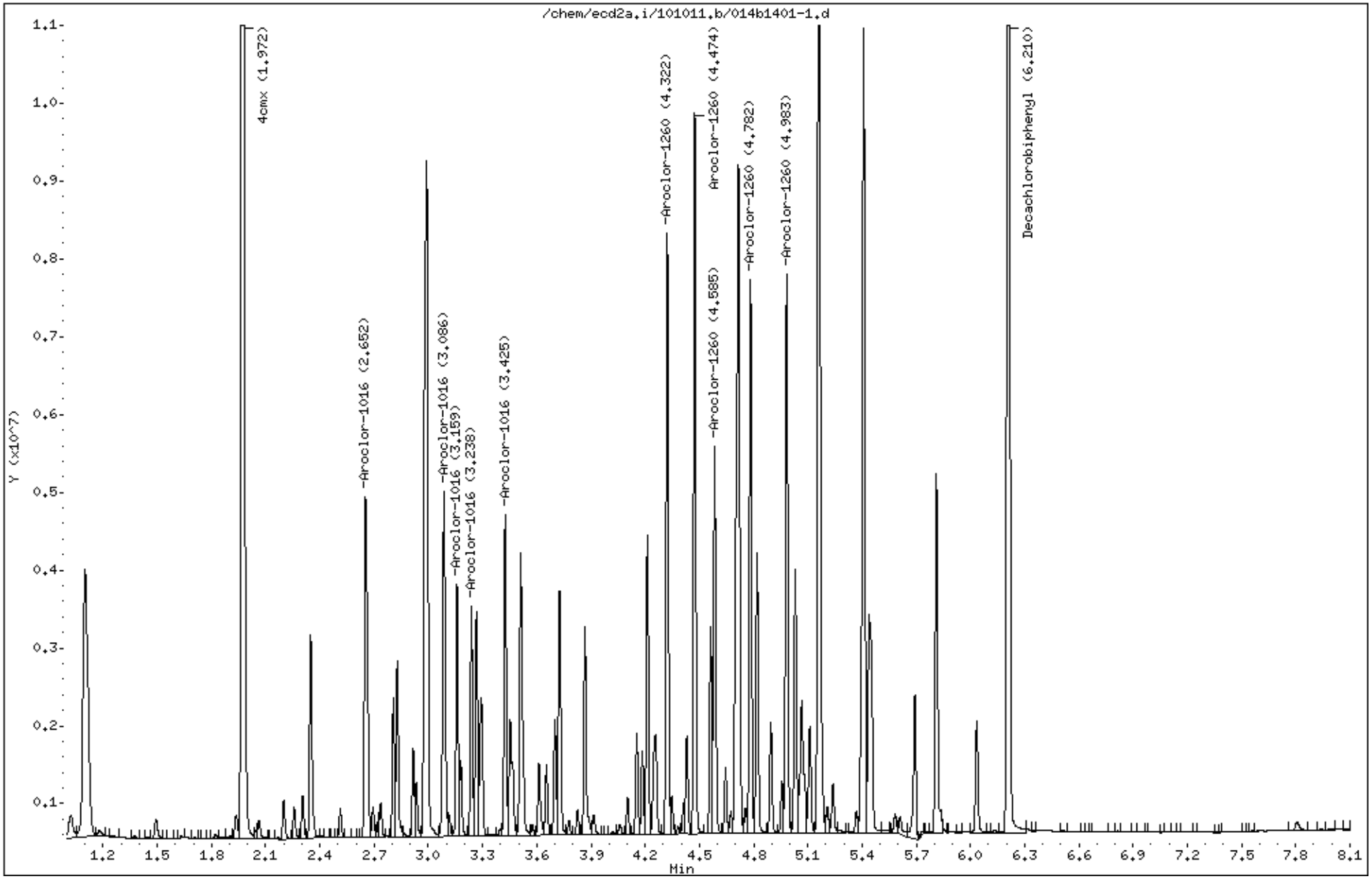
Sample Info: |1202495395|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11−3386−1**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202495396**				
Client Sample:	**QC for batch 1144878**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCSD for batch 1144878**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL−OA−E−040**
Batch ID:	**1144879**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**10/10/2011 10:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/07/2011 15:16**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501−1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501−1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674−11−2	Aroclor−1016		0.740	ug/L	0.0333	0.100	2
11104−28−2	Aroclor−1221	U	0.100	ug/L	0.0333	0.100	1
11141−16−5	Aroclor−1232	U	0.100	ug/L	0.0333	0.100	1
53469−21−9	Aroclor−1242	U	0.100	ug/L	0.0333	0.100	1
12672−29−6	Aroclor−1248	U	0.100	ug/L	0.0333	0.100	1
11097−69−1	Aroclor−1254	U	0.100	ug/L	0.0333	0.100	1
11096−82−5	Aroclor−1260		0.730	ug/L	0.0333	0.100	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.150	0.200	ug/L	74.8	(23%−103%)
Decachlorobiphenyl	0.160	0.200	ug/L	80.2	(28%−117%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/101011.b/015f1501-1.d
Lab Smp Id: 1202495396                    Client Smp ID: PBLK01LCSD
Inj Date  : 10-OCT-2011 10:44
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202495396|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|LCSD|||
Comment   :
Method    : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212    Quant Type: ESTD
Cal Date  : 06-OCT-2011 20:22             Cal File: 030f3001.d
Als bottle: 15                            QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386-1.sub
Target Version:  3.50                     Sample Matrix: Waste Water
Processing Host: hpclp1
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	8817097	132.121	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.599	5.601	-0.002	8637026	149.054	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.263	2.262	0.001	1448316	682.631	0.68	80.00- 120.00	100.00
2.591	2.590	0.001	2106438	684.332	0.68	124.64- 164.64	145.44
2.724	2.724	0.000	782950	670.848	0.67	34.90- 74.90	54.06
2.817	2.816	0.001	623681	668.196	0.67	22.93- 62.93	43.06
2.968	2.968	0.000	904571	645.536	0.64	45.53- 85.53	62.46

Average of Peak Concentrations = 0.67

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.818	3.817	0.001	1971378	685.763	0.68	80.00- 120.00	100.00
4.009	4.009	0.000	3049551	697.612	0.70	133.65- 173.65	154.69
4.095	4.094	0.001	1193081	649.880	0.65	45.45- 85.45	60.52
4.280	4.280	0.000	1902669	699.822	0.70	75.50- 115.50	96.51
4.446	4.447	-0.001	1921218	699.073	0.70	78.31- 118.31	97.46
Average of Peak Concentrations =					0.69		

Data File: /chem/ecd2a.i/101011.b/015f1501-1.d

Page 1

Date : 10-OCT-2011 10:44

Client ID: PBLK01LCSD

Instrument: ecd2a.i

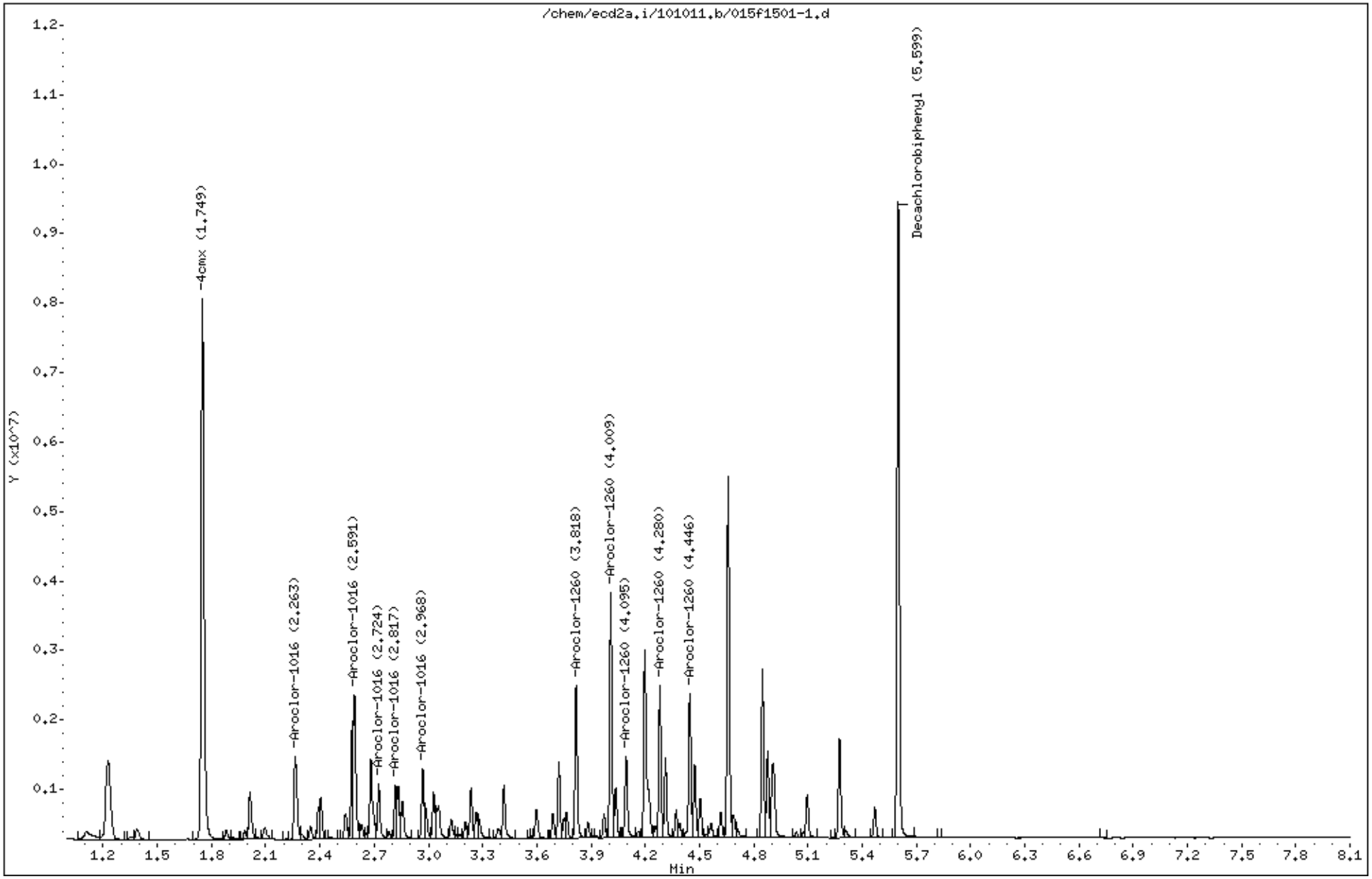
Sample Info: |1202495396|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/015b1501-1.d
Lab Smp Id: 1202495396 Client Smp ID: PBLK01LCSD
Inj Date : 10-OCT-2011 10:44
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202495396|1|
Misc Info : |ECDWWBS_1L|1144879|SVA|QC A|WASTE WATER|LCSD|||
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 15 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386-1.sub
Target Version: 3.50 Sample Matrix: Waste Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	27426021	149.602	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	26372508	160.383	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.653	2.652	0.001	4448551	713.465	0.71	80.00- 120.00	100.00
3.087	3.086	0.001	3692161	746.312	0.75	63.29- 103.29	83.00
3.159	3.159	0.000	2287092	746.114	0.75	31.94- 71.94	51.41
3.238	3.238	0.000	2116096	741.513	0.74	27.39- 67.39	47.57
3.425	3.425	0.000	2971551	739.062	0.74	46.95- 86.95	66.80
Average of Peak Concentrations =					0.74		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.322	0.001	5781919	742.855	0.74	80.00- 120.00	100.00
4.473	4.473	0.000	7208559	746.312	0.75	103.75- 143.75	124.67
4.585	4.585	0.000	4256501	654.554	0.65	63.33- 103.33	73.62
4.783	4.783	0.000	5507439	748.494	0.75	74.04- 114.04	95.25
4.983	4.984	-0.001	5653353	745.649	0.74	77.25- 117.25	97.78
Average of Peak Concentrations =					0.73		

Data File: /chem/ecd2a.i/101011.b/015b1501-1.d

Date : 10-OCT-2011 10:44

Client ID: PBLK01LCSD

Sample Info: |1202495396|1|

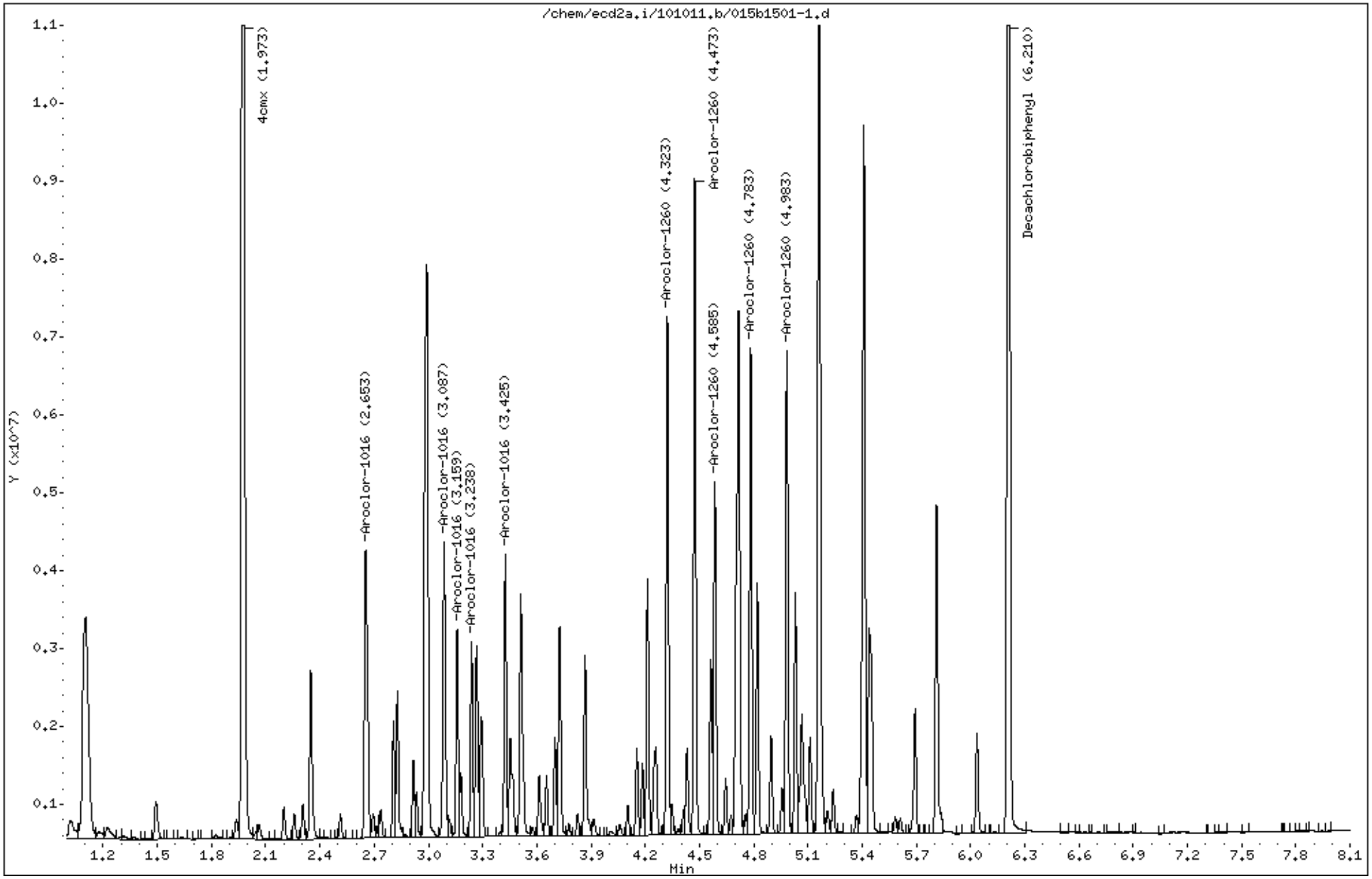
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



Miscellaneous Data

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 10/07/2011 METHOD: ECD2-F-8082-100611.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DB823
ALUMINA LOT:100709-A
COPPER LOT:1350083-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:100711 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR110926-99 01	JAOC	06-OCT-2011 14:56		100611	1.0		CLEAN
002f0201.d	WAR111006-01 60	JAOC	06-OCT-2011 15:07		100611	1.0		1660 LEVEL 1
003f0301.d	WAR111006-02 60	JAOC	06-OCT-2011 15:19		100611	1.0		1660 LEVEL 2
004f0401.d	WAR111006-03 60	JAOC	06-OCT-2011 15:30		100611	1.0		1660 LEVEL 3
005f0501.d	WAR111006-04 60	JAOC	06-OCT-2011 15:41		100611	1.0		1660 LEVEL 4
006f0601.d	IAR110623-01 60	JAOC	06-OCT-2011 15:52		100611	1.0		1660 LEVEL 5
007f0701.d	WAR110919-60 01	JAOC	06-OCT-2011 16:04		100611	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR111006-05 54	JAOC	06-OCT-2011 16:15		100611	1.0		1254 LEVEL 1
009f0901.d	WAR111006-06 54	JAOC	06-OCT-2011 16:26		100611	1.0		1254 LEVEL 2
010f1001.d	WAR111006-07 54	JAOC	06-OCT-2011 16:37		100611	1.0		1254 LEVEL 3
011f1101.d	WAR111006-08 54	JAOC	06-OCT-2011 16:48		100611	1.0		1254 LEVEL 4
012f1201.d	IAR110811-01 54	JAOC	06-OCT-2011 17:00		100611	1.0		1254 LEVEL 5
013f1301.d	WAR110902-54	JAOC	06-OCT-2011 17:11		100611	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR111006-09 42	JAOC	06-OCT-2011 17:22		100611	1.0		1242 LEVEL 1
015f1501.d	WAR111006-10 42	JAOC	06-OCT-2011 17:33		100611	1.0		1242 LEVEL 2

Instrument Batch: /chem/ecd2a.i/100611.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR111006-11 42	JAOC	06-OCT-2011 17:45		100611	1.0		1242 LEVEL 3

017f1701.d	WAR111006-12 42	JAOC	06-OCT-2011 17:56		100611	1.0	1242 LEVEL 4
018f1801.d	IAR110623-02 42	JAOC	06-OCT-2011 18:07		100611	1.0	1242 LEVEL 5
019f1901.d	WAR110726-42	JAOC	06-OCT-2011 18:18		100611	1.0	PASSES BOTH COLUMNS
020f2001.d	WAR111006-13 48	JAOC	06-OCT-2011 18:30		100611	1.0	1248 LEVEL 1
021f2101.d	WAR111006-14 48	JAOC	06-OCT-2011 18:41		100611	1.0	1248 LEVEL 2
022f2201.d	WAR111006-15 48	JAOC	06-OCT-2011 18:52		100611	1.0	1248 LEVEL 3
023f2301.d	WAR111006-16 48	JAOC	06-OCT-2011 19:03		100611	1.0	1248 LEVEL 4
024f2401.d	IAR110621-01 48	JAOC	06-OCT-2011 19:14		100611	1.0	1248 LEVEL 5
025f2501.d	WAR110726-48	JAOC	06-OCT-2011 19:26		100611	1.0	PASSES BOTH COLUMNS
026f2601.d	WAR111003-32	JAOC	06-OCT-2011 19:37		100611	1.0	PATTERN ONLY
027f2701.d	WAR110829-21	JAOC	06-OCT-2011 19:48		100611	1.0	PATTERN ONLY
028f2801.d	WAR110829-62	JAOC	06-OCT-2011 19:59		100611	1.0	PATTERN ONLY
029f2901.d	WAR110809-68	JAOC	06-OCT-2011 20:10		100611	1.0	PATTERN ONLY
030f3001.d	WAR110609-DDT	JAOC	06-OCT-2011 20:22		100611	1.0	DDT
031f3101.d	WAR110926-99 02	JAOC	06-OCT-2011 20:33		100611	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 10/10/2011 METHOD: ECD2-F-8082-100611.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DB823
ALUMINA LOT:100709-A
COPPER LOT:1350083-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:101011 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR110926-99 01	JAOC	10-OCT-2011 08:07		101011	1.0		CLEAN
002f0201.d	WAR110919-60 01	JAOC	10-OCT-2011 08:18		101011	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR110902-54	JAOC	10-OCT-2011 08:30		101011	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR110726-42	JAOC	10-OCT-2011 08:41		101011	1.0		DUSE
005f0501.d	WAR110726-48	JAOC	10-OCT-2011 08:52		101011	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR111003-32	JAOC	10-OCT-2011 09:03		101011	1.0		PATTERN ONLY
007f0701.d	WAR110926-42	JAOC	10-OCT-2011 09:15		101011	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR110829-21	JAOC	10-OCT-2011 09:26		101011	1.0		PATTERN ONLY
009f0901.d	WAR110829-62	JAOC	10-OCT-2011 09:37		101011	1.0		PATTERN ONLY
010f1001.d	WAR110809-68	JAOC	10-OCT-2011 09:48		101011	1.0		PATTERN ONLY
011f1101.d	WAR110609-DDT	JAOC	10-OCT-2011 09:59		101011	1.0		DDT
012f1201.d	WAR110926-99 02	JAOC	10-OCT-2011 10:11		101011	1.0		CLEAN
013f1301.d	1202495394	JAOC	10-OCT-2011 10:22	1144879	11-2857-2	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202495395	JAOC	10-OCT-2011 10:33	1144879	11-2857-2	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	1202495396	JAOC	10-OCT-2011 10:44	1144879	11-2857-2	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/101011.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	285463002	JAOC	10-OCT-2011 10:56	1144879	11-3489	1.0	ARSL	UPLOAD BOTH, USE HIGHER

```
|017f1701.d  |286443001              |JAOC  |10-OCT-2011 11:07    |1144879 |11-2857-2 |     1.0|ARSL      | UPLOAD BOTH, USE HIGHER
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
|018f1801.d  |287628001              |JAOC  |10-OCT-2011 11:18    |1144879 |11-3386-1 |     1.0|ARSL      | UPLOAD BOTH, USE HIGHER
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
|019f1901.d  |WAR110919-60 02        |JAOC  |10-OCT-2011 11:29    |        |101011    |     1.0|          | PASSES BOTH COLUMNS
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
|020f2001.d  |WAR110926-99 03        |JAOC  |10-OCT-2011 11:40    |        |101011    |     1.0|          | CLEAN
+-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+
```

Prep Logbook

Solid−Phase Extraction

Batch ID: 1144878 **Verified by:** _____

Analyst: Rodricous Corbett

Method: EPA 608 SPE Prep

Lab SOP: GL−OA−E−070 REV# 4

Instrument: Semi−Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Ph 2	Clean Up	Amount 1 (mL)	Amount 2 (mL)	Amount 3 (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202495394 MB	07−OCT−2011 15:16:00	1000	5	1	H2SO4/KMno4	2	2	8	1	0.001
1202495395 LCS	07−OCT−2011 15:16:00	1000	5	1	H2SO4/KMno4	2	2	8	1	0.001
1202495396 LCSD	07−OCT−2011 15:16:00	1000	5	1	H2SO4/KMno4	2	2	8	1	0.001
285463002 − 3	07−OCT−2011 15:16:00	950	0	0	H2SO4/KMno4	2	2	8	1	0.00105
286443001 − 2	07−OCT−2011 15:16:00	930	7	1	H2SO4/KMno4	2	2	8	1	0.00108
287628001	07−OCT−2011 15:16:00	870	7	1	H2SO4/KMno4	2	2	8	1	0.00115

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202495395	PCB Laboratory Control	WE110914−06	1	mL
LCSD	1202495396	PCB Laboratory Control	WE110914−06	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE110916−01	1	mL
REGNT	All	Methylene Chloride	1620402−D	50	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1622647	20	mL
REGNT	All	50g KMnO4 per 1L DI H2O	1622828	5	mL
REGNT	All	Hexane	1623056−B4	5	mL
REGNT	All	Acetone	1623058−B1	5	mL
SOURC	All	SODIUM SULFATE	1594298	30	g

Comments:

Final Solvent: Hexane
Verified By: SCG
Clean Up Int: RLC
Clean Up Date: 10−7−11
Cart: 93258 − TT

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/001b0101.d
Lab Smp Id: WAR110926-99 01 Client Smp ID: PIBLK01
Inj Date : 10-OCT-2011 08:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-99 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	81767534	446.021	446	80.00- 120.00	100.00(AR)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.209	6.210	-0.001	74279673	451.729	452	80.00- 120.00	100.00(AR)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/101011.b/001b0101.d

Page 1

Date : 10-OCT-2011 08:07

Client ID: PIBLK01

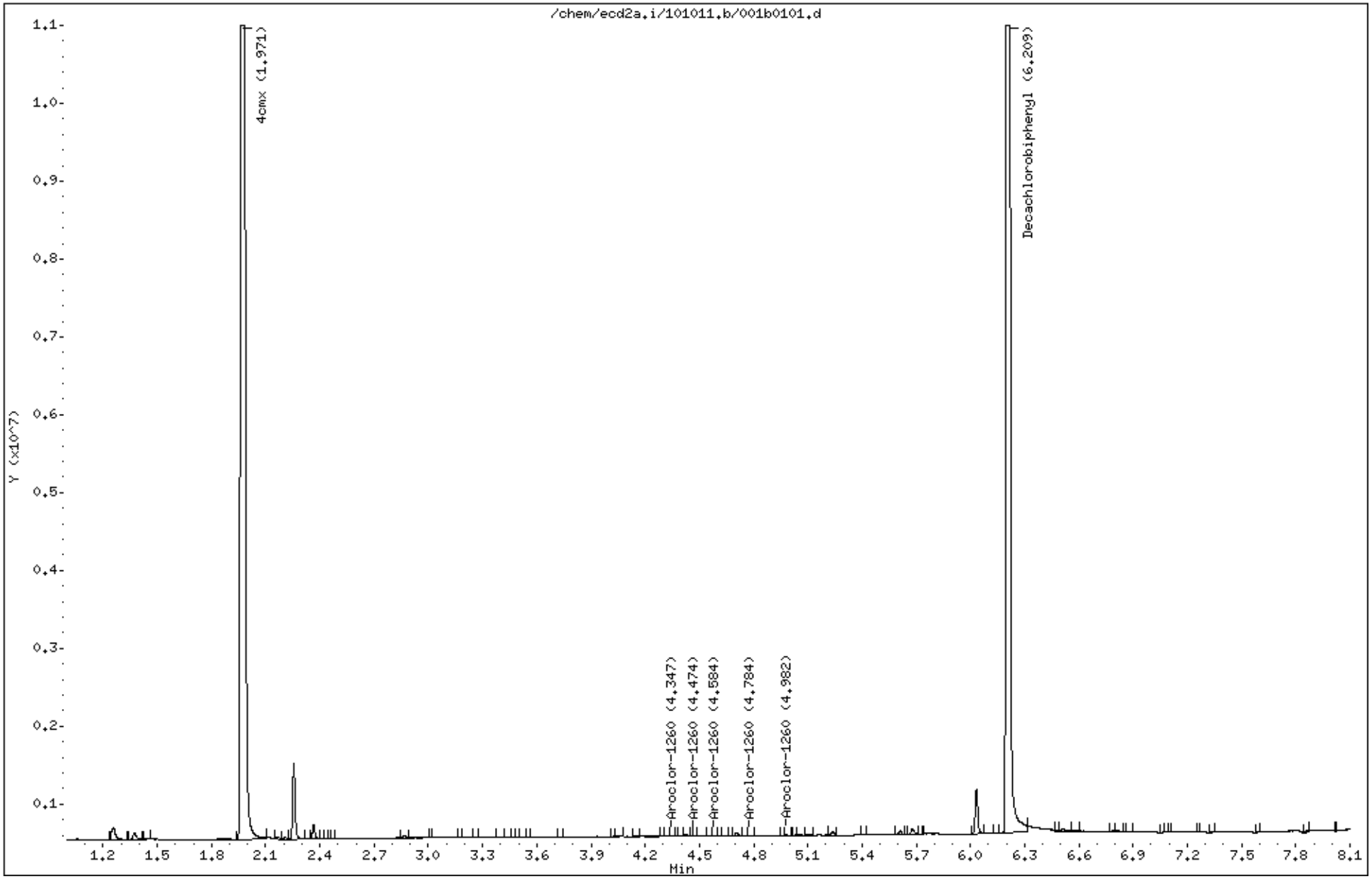
Instrument: ecd2a.i

Sample Info: IWAR110926-99 01

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/001f0101.d
Lab Smp Id: WAR110926-99 01 Client Smp ID: PIBLK01
Inj Date : 10-OCT-2011 08:07
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-99 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.747	1.748	-0.001	26384403	395.360	395	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.598	5.601	-0.003	23526080	406.004	406	80.00- 120.00	100.00(AR)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/101011.b/001f0101.d

Page 1

Date : 10-OCT-2011 08:07

Client ID: PIBLK01

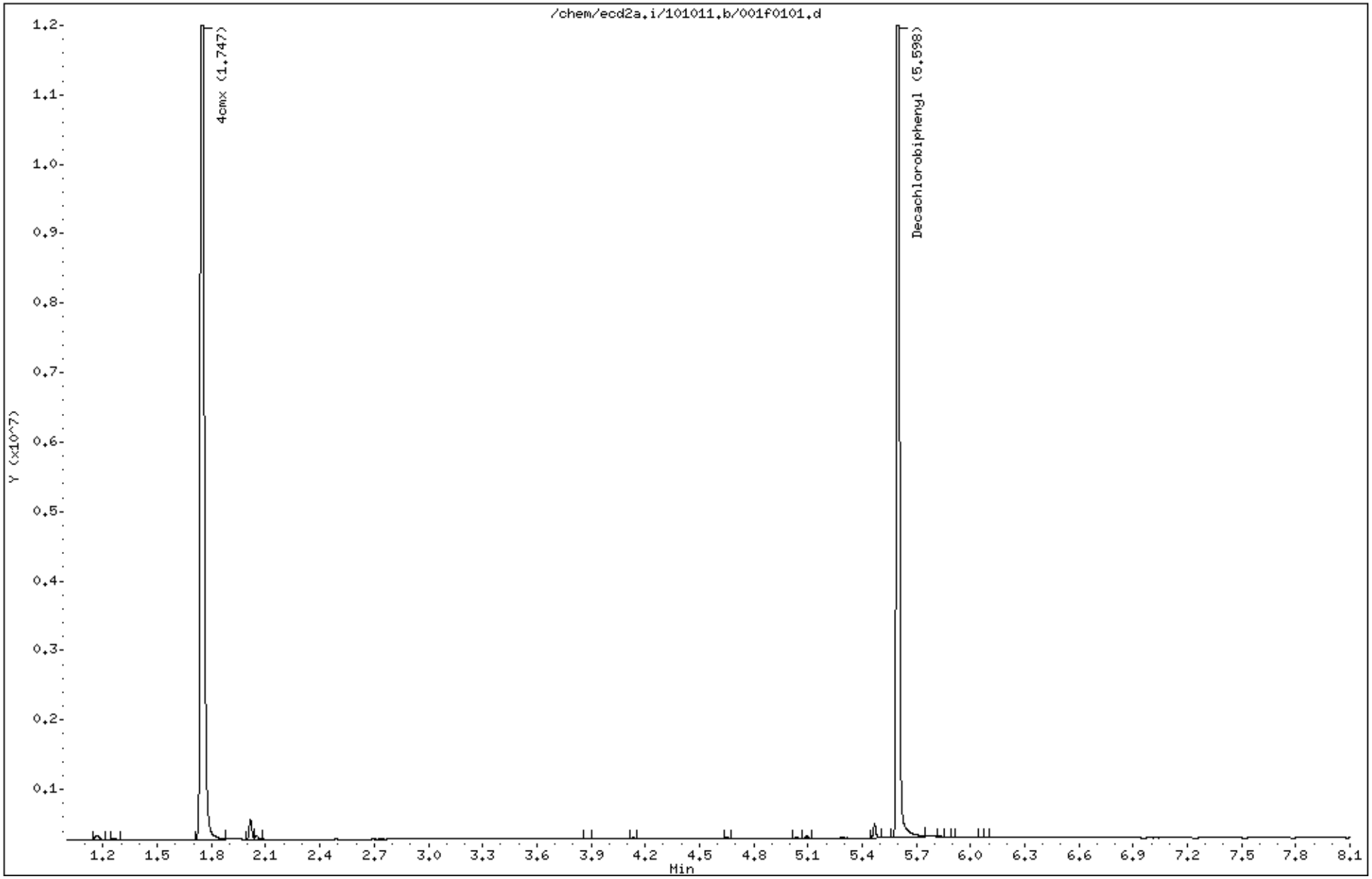
Instrument: ecd2a.i

Sample Info: IWAR110926-99 01

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/012b1201.d
Lab Smp Id: WAR110926-99 02 Client Smp ID: PIBLK02
Inj Date : 10-OCT-2011 10:11
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-99 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-B-8082-100611.m
Meth Date : 10-Oct-2011 12:38 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030b3001.d
Als bottle: 12 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	84197647	459.277	459	80.00- 120.00	100.00(AR)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.210	6.210	0.000	73604423	447.622	448	80.00- 120.00	100.00(AR)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/101011.b/012b1201.d

Date : 10-OCT-2011 10:11

Client ID: PIBLK02

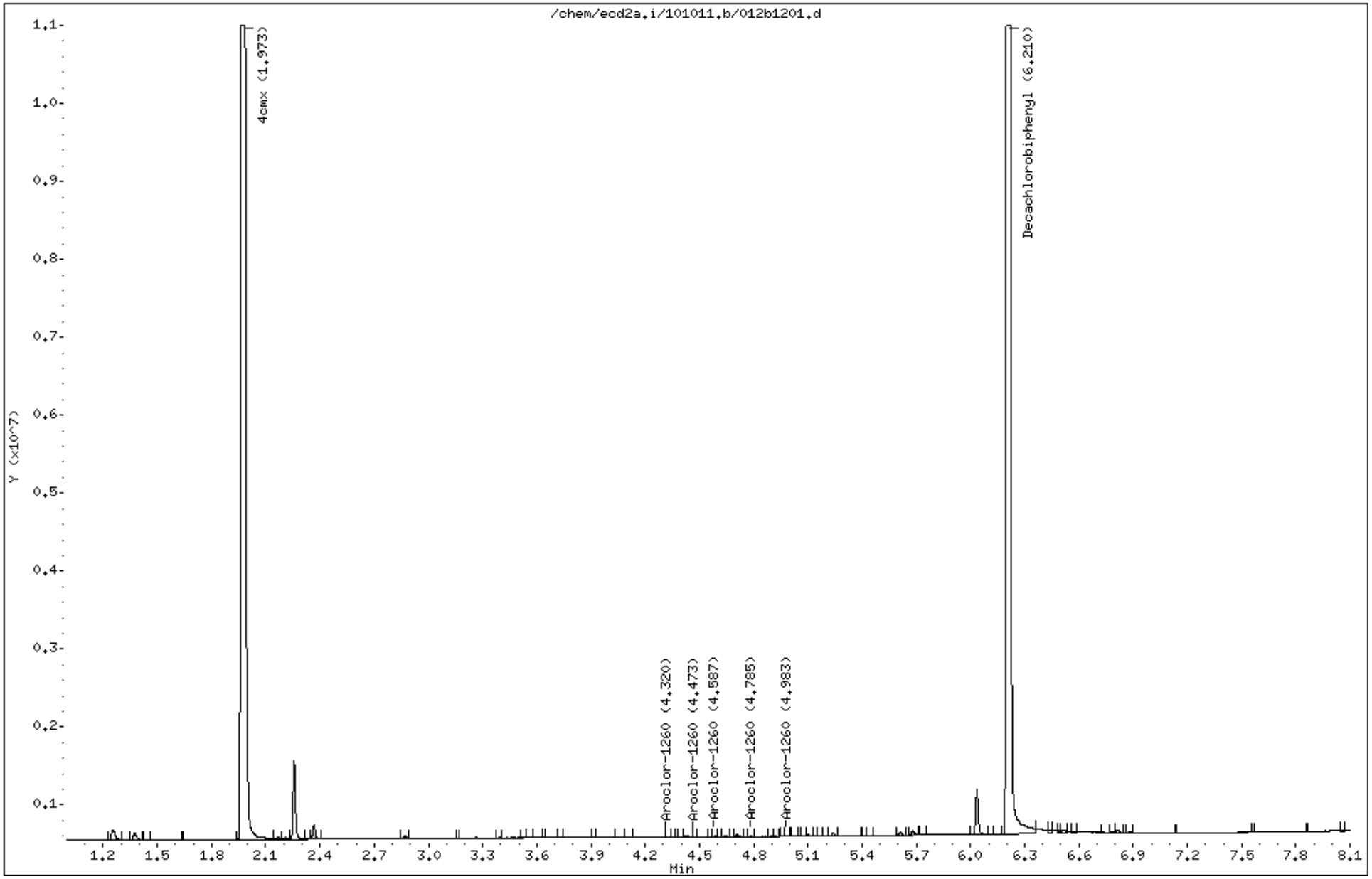
Sample Info: IWAR110926-99 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/101011.b/012f1201.d
Lab Smp Id: WAR110926-99 02 Client Smp ID: PIBLK02
Inj Date : 10-OCT-2011 10:11
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110926-99 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/101011.b/ECD2-F-8082-100611.m
Meth Date : 10-Oct-2011 12:39 jen01212 Quant Type: ESTD
Cal Date : 06-OCT-2011 20:22 Cal File: 030f3001.d
Als bottle: 12 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.749	1.748	0.001	26636174	399.133	399	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.599	5.601	-0.002	23384112	403.554	404	80.00- 120.00	100.00(AR)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/101011.b/012f1201.d

Page 1

Date : 10-OCT-2011 10:11

Client ID: PIBLK02

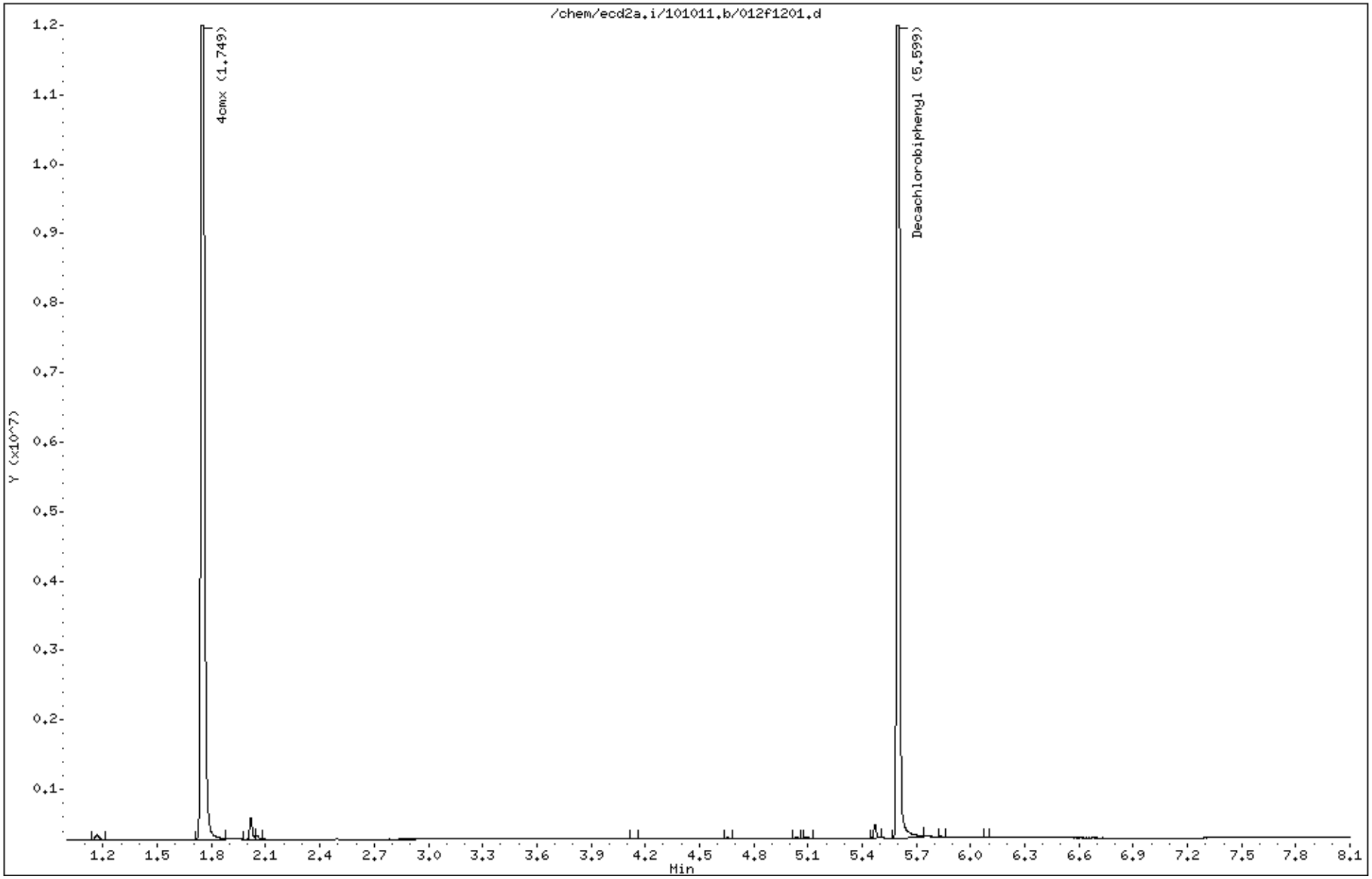
Instrument: ecd2a.i

Sample Info: IWAR110926-99 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☒ **OTHER (DESCRIBE):** GC/MS VOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☒	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☒	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %D was >20% for trans-1,2-dichloroethylene. The associated sample results were NDs and, thus were qualified UJ,V7c.
2. The MS and MSD %Rs did not meet laboratory acceptance criteria for 2-chloroethylvinyl ether. It should also be noted that acrolein and acrylonitrile were not present in the MS/MSD spiking solution. Since MS/MSD analyses were not required, no sample results were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/26/11

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:27**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:27**				
Data File:	**090311V3\3B610.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001	
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001	
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001	
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001	
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001	
75-09-2	Methylene chloride	J	0.00371	mg/L	0.003	0.010	
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001	UJ,V7c
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001	
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001	
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001	
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001	
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001	
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001	
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001	
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001	
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001	
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005	
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001	
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001	
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001	
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001	
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001	
124-48-1	Dibromochloromethane		0.00112	mg/L	0.0003	0.001	
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001	
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001	
75-25-2	Bromoform		0.0261	mg/L	0.00025	0.001	
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001	
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005	
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005	
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.7	50.0	ug/L	99.3	(79%-124%)
Bromofluorobenzene	50.4	50.0	ug/L	101	(80%-120%)
Toluene-d8	49.2	50.0	ug/L	98.4	(80%-120%)

LMF
9/26/11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:57**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:57**				
Data File:	**090311V3\3B611.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001	
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001	
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001	
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001	
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001	
75-09-2	Methylene chloride	J	0.00383	mg/L	0.003	0.010	
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001	UJ,V7c
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001	
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001	
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001	
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001	
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001	
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001	
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001	
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001	
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001	
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005	
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001	
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001	
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001	
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001	
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001	
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001	
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001	
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001	
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001	
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001	
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005	
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005	
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.1	50.0	ug/L	102	(79%-124%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(80%-120%)
Toluene-d8	50.1	50.0	ug/L	100	(80%-120%)

LMF
9/26/11

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☒ **OTHER (DESCRIBE):** GC/MS SVOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☒	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☒	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL %RSDs were >15% for 2-methyl-4,6-dinitrophenol and benzidine. The associated sample results were NDs and, thus, were qualified UJ,SV7a.
2. The ICV %Ds were >20% for hexachlorocyclopentadiene and benzidine. In the CCV associated with sample NPDES03A199-11-13860, the %D was >20% for hexachlorocyclopentadiene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. The MS/MSD %Rs did not meet laboratory acceptance criteria for several compounds. Since MS/MSD analyses were not required, no sample data were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/26/11

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☒	☐	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 **Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.010	mg/L	0.003	0.010	
108-95-2	Phenol	U	0.010	mg/L	0.003	0.010	
111-44-4	bis(2-Chloroethyl) ether	U	0.010	mg/L	0.003	0.010	
95-57-8	2-Chlorophenol	U	0.010	mg/L	0.003	0.010	
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.010	mg/L	0.003	0.010	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	0.010	mg/L	0.003	0.010	
67-72-1	Hexachloroethane	U	0.010	mg/L	0.003	0.010	
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010	
78-59-1	Isophorone	U	0.010	mg/L	0.003	0.010	
88-75-5	2-Nitrophenol	U	0.010	mg/L	0.003	0.010	
105-67-9	2,4-Dimethylphenol	U	0.010	mg/L	0.003	0.010	
111-91-1	bis(2-Chloroethoxy)methane	U	0.010	mg/L	0.003	0.010	
120-83-2	2,4-Dichlorophenol	U	0.010	mg/L	0.003	0.010	
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.003	0.010	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	0.010	mg/L	0.003	0.010	
91-20-3	Naphthalene	U	0.001	mg/L	0.0003	0.001	
77-47-4	Hexachlorocyclopentadiene	U	0.010	mg/L	0.003	0.010	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.003	0.010	
91-58-7	2-Chloronaphthalene	U	0.001	mg/L	0.0003	0.001	
131-11-3	Dimethylphthalate	U	0.010	mg/L	0.003	0.010	
606-20-2	2,6-Dinitrotoluene	U	0.010	mg/L	0.003	0.010	
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.003	0.010	
208-96-8	Acenaphthylene	U	0.001	mg/L	0.0003	0.001	
83-32-9	Acenaphthene	U	0.001	mg/L	0.0003	0.001	
51-28-5	2,4-Dinitrophenol	U	0.020	mg/L	0.005	0.020	
84-66-2	Diethylphthalate	U	0.010	mg/L	0.003	0.010	
100-02-7	4-Nitrophenol	U	0.010	mg/L	0.003	0.010	
86-73-7	Fluorene	U	0.001	mg/L	0.0003	0.001	
7005-72-3	4-Chlorophenylphenylether	U	0.010	mg/L	0.003	0.010	
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.010	mg/L	0.003	0.010	UJ,SV7a
122-39-4	Diphenylamine	U	0.010	mg/L	0.003	0.010	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	0.010	mg/L	0.003	0.010	
101-55-3	4-Bromophenylphenylether	U	0.010	mg/L	0.003	0.010	
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.003	0.010	
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.003	0.010	
85-01-8	Phenanthrene	U	0.001	mg/L	0.0003	0.001	
120-12-7	Anthracene	U	0.001	mg/L	0.0003	0.001	

LMF
9/26/11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
84-74-2	Di-n-butylphthalate	U	0.010	mg/L	0.003	0.010	
206-44-0	Fluoranthene	U	0.001	mg/L	0.0003	0.001	
129-00-0	Pyrene	U	0.001	mg/L	0.0003	0.001	
85-68-7	Butylbenzylphthalate	U	0.010	mg/L	0.003	0.010	
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.010	mg/L	0.003	0.010	
56-55-3	Benzo(a)anthracene	U	0.001	mg/L	0.0003	0.001	
218-01-9	Chrysene	U	0.001	mg/L	0.0003	0.001	
117-84-0	Di-n-octylphthalate	U	0.010	mg/L	0.003	0.010	
205-99-2	Benzo(b)fluoranthene	U	0.001	mg/L	0.0003	0.001	
207-08-9	Benzo(k)fluoranthene	U	0.001	mg/L	0.0003	0.001	
50-32-8	Benzo(a)pyrene	U	0.001	mg/L	0.0003	0.001	
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.001	mg/L	0.0003	0.001	
53-70-3	Dibenzo(a,h)anthracene	U	0.001	mg/L	0.0003	0.001	
191-24-2	Benzo(ghi)perylene	U	0.001	mg/L	0.0003	0.001	
92-87-5	Benzidine	U	0.010	mg/L	0.003	0.010	UJ,SV7a
91-94-1	3,3'-Dichlorobenzidine	U	0.010	mg/L	0.003	0.010	
120-82-1	1,2,4-Trichlorobenzene	U	0.010	mg/L	0.003	0.010	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.101	0.100	mg/L	101	(33%-126%)
2-Fluorobiphenyl	0.0439	0.050	mg/L	87.8	(37%-102%)
2-Fluorophenol	0.0326	0.100	mg/L	32.6	(14%-78%)
Nitrobenzene-d5	0.0493	0.050	mg/L	98.5	(40%-117%)
Phenol-d5	0.015	0.100	mg/L	15.0	(14%-80%)
p-Terphenyl-d14	0.0535	0.050	mg/L	107	(44%-134%)

LMF
9/26/11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0103	mg/L	0.00309	0.0103	
108-95-2	Phenol	U	0.0103	mg/L	0.00309	0.0103	
111-44-4	bis(2-Chloroethyl) ether	U	0.0103	mg/L	0.00309	0.0103	
95-57-8	2-Chlorophenol	U	0.0103	mg/L	0.00309	0.0103	
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0103	mg/L	0.00309	0.0103	
621-64-7	N-Nitrosodi--n-propylamine	U	0.0103	mg/L	0.00309	0.0103	
	N-Nitrosodipropylamine						
67-72-1	Hexachloroethane	U	0.0103	mg/L	0.00309	0.0103	
98-95-3	Nitrobenzene	U	0.0103	mg/L	0.00309	0.0103	
78-59-1	Isophorone	U	0.0103	mg/L	0.00309	0.0103	
88-75-5	2-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103	
105-67-9	2,4-Dimethylphenol	U	0.0103	mg/L	0.00309	0.0103	
111-91-1	bis(2-Chloroethoxy)methane	U	0.0103	mg/L	0.00309	0.0103	
120-83-2	2,4-Dichlorophenol	U	0.0103	mg/L	0.00309	0.0103	
87-68-3	Hexachlorobutadiene	U	0.0103	mg/L	0.00309	0.0103	
59-50-7	Parachlorometa cresol	U	0.0103	mg/L	0.00309	0.0103	
	4-Chloro-3-methylphenol						
91-20-3	Naphthalene	U	0.00103	mg/L	0.000309	0.00103	
77-47-4	Hexachlorocyclopentadiene	U	0.0103	mg/L	0.00309	0.0103	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	0.0103	mg/L	0.00309	0.0103	
91-58-7	2-Chloronaphthalene	U	0.00103	mg/L	0.000309	0.00103	
131-11-3	Dimethylphthalate	U	0.0103	mg/L	0.00309	0.0103	
606-20-2	2,6-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103	
121-14-2	2,4-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103	
208-96-8	Acenaphthylene	U	0.00103	mg/L	0.000309	0.00103	
83-32-9	Acenaphthene	U	0.00103	mg/L	0.000309	0.00103	
51-28-5	2,4-Dinitrophenol	U	0.0206	mg/L	0.00515	0.0206	
84-66-2	Diethylphthalate	U	0.0103	mg/L	0.00309	0.0103	
100-02-7	4-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103	
86-73-7	Fluorene	U	0.00103	mg/L	0.000309	0.00103	
7005-72-3	4-Chlorophenylphenylether	U	0.0103	mg/L	0.00309	0.0103	
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0103	mg/L	0.00309	0.0103	UJ,SV7a
122-39-4	Diphenylamine	U	0.0103	mg/L	0.00309	0.0103	
122-66-7	Azobenzene	U	0.0103	mg/L	0.00309	0.0103	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	0.0103	mg/L	0.00309	0.0103	
118-74-1	Hexachlorobenzene	U	0.0103	mg/L	0.00309	0.0103	
87-86-5	Pentachlorophenol	U	0.0103	mg/L	0.00309	0.0103	
85-01-8	Phenanthrene	U	0.00103	mg/L	0.000309	0.00103	
120-12-7	Anthracene	U	0.00103	mg/L	0.000309	0.00103	

LMF
9/26/11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
84-74-2	Di-n-butylphthalate	U	0.0103	mg/L	0.00309	0.0103	
206-44-0	Fluoranthene	U	0.00103	mg/L	0.000309	0.00103	
129-00-0	Pyrene	U	0.00103	mg/L	0.000309	0.00103	
85-68-7	Butylbenzylphthalate	U	0.0103	mg/L	0.00309	0.0103	
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0103	mg/L	0.00309	0.0103	
56-55-3	Benzo(a)anthracene	U	0.00103	mg/L	0.000309	0.00103	
218-01-9	Chrysene	U	0.00103	mg/L	0.000309	0.00103	
117-84-0	Di-n-octylphthalate	U	0.0103	mg/L	0.00309	0.0103	
205-99-2	Benzo(b)fluoranthene	U	0.00103	mg/L	0.000309	0.00103	
207-08-9	Benzo(k)fluoranthene	U	0.00103	mg/L	0.000309	0.00103	
50-32-8	Benzo(a)pyrene	U	0.00103	mg/L	0.000309	0.00103	
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00103	mg/L	0.000309	0.00103	
53-70-3	Dibenzo(a,h)anthracene	U	0.00103	mg/L	0.000309	0.00103	
191-24-2	Benzo(ghi)perylene	U	0.00103	mg/L	0.000309	0.00103	
92-87-5	Benzidine	U	0.0103	mg/L	0.00309	0.0103	UJ,SV7a
91-94-1	3,3'-Dichlorobenzidine	U	0.0103	mg/L	0.00309	0.0103	
120-82-1	1,2,4-Trichlorobenzene	U	0.0103	mg/L	0.00309	0.0103	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.0912	0.103	mg/L	88.5	(33%-126%)
2-Fluorobiphenyl	0.0391	0.0515	mg/L	75.8	(37%-102%)
2-Fluorophenol	0.0488	0.103	mg/L	47.3	(14%-78%)
Nitrobenzene-d5	0.044	0.0515	mg/L	85.4	(40%-117%)
Phenol-d5	0.031	0.103	mg/L	30.1	(14%-80%)
p-Terphenyl-d14	0.0442	0.0515	mg/L	85.8	(44%-134%)

LMF
9/26/11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0125	mg/L	0.00375	0.0125	
108-95-2	Phenol	U	0.0125	mg/L	0.00375	0.0125	
111-44-4	bis(2-Chloroethyl) ether	U	0.0125	mg/L	0.00375	0.0125	
95-57-8	2-Chlorophenol	U	0.0125	mg/L	0.00375	0.0125	
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0125	mg/L	0.00375	0.0125	
621-64-7	N-Nitrosodi--n-propylamine	U	0.0125	mg/L	0.00375	0.0125	
	N-Nitrosodipropylamine						
67-72-1	Hexachloroethane	U	0.0125	mg/L	0.00375	0.0125	
98-95-3	Nitrobenzene	U	0.0125	mg/L	0.00375	0.0125	
78-59-1	Isophorone	U	0.0125	mg/L	0.00375	0.0125	
88-75-5	2-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125	
105-67-9	2,4-Dimethylphenol	U	0.0125	mg/L	0.00375	0.0125	
111-91-1	bis(2-Chloroethoxy)methane	U	0.0125	mg/L	0.00375	0.0125	
120-83-2	2,4-Dichlorophenol	U	0.0125	mg/L	0.00375	0.0125	
87-68-3	Hexachlorobutadiene	U	0.0125	mg/L	0.00375	0.0125	
59-50-7	Parachlorometa cresol	U	0.0125	mg/L	0.00375	0.0125	
	4-Chloro-3-methylphenol						
91-20-3	Naphthalene	U	0.00125	mg/L	0.000375	0.00125	
77-47-4	Hexachlorocyclopentadiene	U	0.0125	mg/L	0.00375	0.0125	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	0.0125	mg/L	0.00375	0.0125	
91-58-7	2-Chloronaphthalene	U	0.00125	mg/L	0.000375	0.00125	
131-11-3	Dimethylphthalate	U	0.0125	mg/L	0.00375	0.0125	
606-20-2	2,6-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125	
121-14-2	2,4-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125	
208-96-8	Acenaphthylene	U	0.00125	mg/L	0.000375	0.00125	
83-32-9	Acenaphthene	U	0.00125	mg/L	0.000375	0.00125	
51-28-5	2,4-Dinitrophenol	U	0.025	mg/L	0.00625	0.025	
84-66-2	Diethylphthalate	U	0.0125	mg/L	0.00375	0.0125	
100-02-7	4-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125	
86-73-7	Fluorene	U	0.00125	mg/L	0.000375	0.00125	
7005-72-3	4-Chlorophenylphenylether	U	0.0125	mg/L	0.00375	0.0125	
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0125	mg/L	0.00375	0.0125	UJ,SV7a
122-39-4	Diphenylamine	U	0.0125	mg/L	0.00375	0.0125	
122-66-7	Azobenzene	U	0.0125	mg/L	0.00375	0.0125	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	0.0125	mg/L	0.00375	0.0125	
118-74-1	Hexachlorobenzene	U	0.0125	mg/L	0.00375	0.0125	
87-86-5	Pentachlorophenol	U	0.0125	mg/L	0.00375	0.0125	
85-01-8	Phenanthrene	U	0.00125	mg/L	0.000375	0.00125	
120-12-7	Anthracene	U	0.00125	mg/L	0.000375	0.00125	

LMF
9/26/11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
84-74-2	Di-n-butylphthalate	U	0.0125	mg/L	0.00375	0.0125	
206-44-0	Fluoranthene	U	0.00125	mg/L	0.000375	0.00125	
129-00-0	Pyrene	U	0.00125	mg/L	0.000375	0.00125	
85-68-7	Butylbenzylphthalate	U	0.0125	mg/L	0.00375	0.0125	
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0125	mg/L	0.00375	0.0125	
56-55-3	Benzo(a)anthracene	U	0.00125	mg/L	0.000375	0.00125	
218-01-9	Chrysene	U	0.00125	mg/L	0.000375	0.00125	
117-84-0	Di-n-octylphthalate	U	0.0125	mg/L	0.00375	0.0125	
205-99-2	Benzo(b)fluoranthene	U	0.00125	mg/L	0.000375	0.00125	
207-08-9	Benzo(k)fluoranthene	U	0.00125	mg/L	0.000375	0.00125	
50-32-8	Benzo(a)pyrene	U	0.00125	mg/L	0.000375	0.00125	
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00125	mg/L	0.000375	0.00125	
53-70-3	Dibenzo(a,h)anthracene	U	0.00125	mg/L	0.000375	0.00125	
191-24-2	Benzo(ghi)perylene	U	0.00125	mg/L	0.000375	0.00125	
92-87-5	Benzidine	U	0.0125	mg/L	0.00375	0.0125	UJ,SV7a
91-94-1	3,3'-Dichlorobenzidine	U	0.0125	mg/L	0.00375	0.0125	
120-82-1	1,2,4-Trichlorobenzene	U	0.0125	mg/L	0.00375	0.0125	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.090	0.125	mg/L	72.0	(33%-126%)
2-Fluorobiphenyl	0.0418	0.0625	mg/L	66.9	(37%-102%)
2-Fluorophenol	0.0542	0.125	mg/L	43.4	(14%-78%)
Nitrobenzene-d5	0.048	0.0625	mg/L	76.8	(40%-117%)
Phenol-d5	0.0232	0.125	mg/L	18.6	(14%-80%)
p-Terphenyl-d14	0.0508	0.0625	mg/L	81.3	(44%-134%)

LMF
9/26/11

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ **TPH-GRO**	☐ **HIGH EXPLOSIVES**	☐ **DIOXIN FURANS**	☐ **LCMSMS PERCHLORATES**
☐ **TPH-DRO**	☐ **METALS**	☐ **PCB CONGENERS**	☒ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
☐ **GENERAL CHEMISTRY**	☐ **RADIOCHEMISTRY**	☐ **LCMSMS HIGH EXPLOSIVES**	

☐ **OTHER (DESCRIBE):** Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %D was >15% on one column only for 4,4'-DDT. The associated sample results were NDs and, thus, were not qualified.
2. The MS/MSD RPDs did not meet laboratory acceptance criteria for many compounds. It should be noted that the MS and MSD parent sample was from another LANL RN. In addition, toxaphene was not represented in the MS/MSD. Since MS/MSD analyses were not required, no sample data were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/26/11

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124003**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**09/07/2011 12:17**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	013b1301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.211	ug/L	0.070	0.211	1
58-89-9	gamma-BHC (Lindane)	U	0.211	ug/L	0.070	0.211	1
319-85-7	beta-BHC	U	0.211	ug/L	0.070	0.211	1
72-43-5	Methoxychlor	U	2.11	ug/L	0.526	2.11	1
319-86-8	delta-BHC	U	0.211	ug/L	0.070	0.211	1
76-44-8	Heptachlor	U	0.211	ug/L	0.070	0.211	1
309-00-2	Aldrin	U	0.211	ug/L	0.070	0.211	1
1024-57-3	Heptachlor epoxide	U	0.211	ug/L	0.070	0.211	1
5103-74-2	gamma-Chlordane	U	0.211	ug/L	0.070	0.211	1
5103-71-9	alpha-Chlordane	U	0.211	ug/L	0.070	0.211	1
959-98-8	Endosulfan I	U	0.211	ug/L	0.070	0.211	1
72-55-9	4,4'-DDE	U	0.421	ug/L	0.105	0.421	1
60-57-1	Dieldrin	U	0.421	ug/L	0.105	0.421	1
72-20-8	Endrin	U	0.421	ug/L	0.105	0.421	1
72-54-8	4,4'-DDD	U	0.421	ug/L	0.105	0.421	1
33213-65-9	Endosulfan II	U	0.421	ug/L	0.105	0.421	1
7421-93-4	Endrin aldehyde	U	0.421	ug/L	0.070	0.421	1
50-29-3	4,4'-DDT	U	0.421	ug/L	0.105	0.421	1
1031-07-8	Endosulfan sulfate	U	0.421	ug/L	0.105	0.421	1
53494-70-5	Endrin ketone	U	0.421	ug/L	0.105	0.421	1
8001-35-2	Toxaphene	U	5.26	ug/L	1.58	5.26	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.947	1.05	ug/L	89.9	(23%-119%)
4cmx	0.741	1.05	ug/L	70.4	(21%-109%)

LMF
9/26/11

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124006**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**5**
Run Date:	**09/07/2011 12:34**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	014b1401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.105	ug/L	0.035	0.105	1
58-89-9	gamma-BHC (Lindane)	U	0.105	ug/L	0.035	0.105	1
319-85-7	beta-BHC	U	0.105	ug/L	0.035	0.105	1
72-43-5	Methoxychlor	U	1.05	ug/L	0.263	1.05	1
319-86-8	delta-BHC	U	0.105	ug/L	0.035	0.105	1
76-44-8	Heptachlor	U	0.105	ug/L	0.035	0.105	1
309-00-2	Aldrin	U	0.105	ug/L	0.035	0.105	1
1024-57-3	Heptachlor epoxide	U	0.105	ug/L	0.035	0.105	1
5103-74-2	gamma-Chlordane	U	0.105	ug/L	0.035	0.105	1
5103-71-9	alpha-Chlordane	U	0.105	ug/L	0.035	0.105	1
959-98-8	Endosulfan I	U	0.105	ug/L	0.035	0.105	1
72-55-9	4,4'-DDE	U	0.211	ug/L	0.0526	0.211	1
60-57-1	Dieldrin	U	0.211	ug/L	0.0526	0.211	1
72-20-8	Endrin	U	0.211	ug/L	0.0526	0.211	1
72-54-8	4,4'-DDD	U	0.211	ug/L	0.0526	0.211	1
33213-65-9	Endosulfan II	U	0.211	ug/L	0.0526	0.211	1
7421-93-4	Endrin aldehyde	U	0.211	ug/L	0.035	0.211	1
50-29-3	4,4'-DDT	U	0.211	ug/L	0.0526	0.211	1
1031-07-8	Endosulfan sulfate	U	0.211	ug/L	0.0526	0.211	1
53494-70-5	Endrin ketone	U	0.211	ug/L	0.0526	0.211	1
8001-35-2	Toxaphene	U	2.63	ug/L	0.789	2.63	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.742	1.05	ug/L	70.5	(21%-109%)
Decachlorobiphenyl	0.971	1.05	ug/L	92.3	(23%-119%)

LMF
9/26/11

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☒ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):** PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The surrogate %R was > the laboratory UAL for decachlorobiphenyl in the MB on one of the columns. This was a QC sample and, thus, no sample data were qualified.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/26/11

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124005**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:11**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.104	ug/L	0.0347	0.104	1
11104-28-2	Aroclor-1221	U	0.104	ug/L	0.0347	0.104	1
11141-16-5	Aroclor-1232	U	0.104	ug/L	0.0347	0.104	1
53469-21-9	Aroclor-1242	U	0.104	ug/L	0.0347	0.104	1
12672-29-6	Aroclor-1248	U	0.104	ug/L	0.0347	0.104	1
11097-69-1	Aroclor-1254	J	0.092	ug/L	0.0347	0.104	1
11096-82-5	Aroclor-1260	JP	0.069	ug/L	0.0347	0.104	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.150	0.208	ug/L	72.1	(21%-109%)
Decachlorobiphenyl	0.170	0.208	ug/L	81.6	(23%-119%)

LMF
9/26/11

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124002**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:49**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.147	0.211	ug/L	69.7	(21%-109%)
Decachlorobiphenyl	0.174	0.211	ug/L	82.5	(23%-119%)

LMF
9/26/11

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124008**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26995**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:23**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.109	ug/L	0.0362	0.109	1
11104-28-2	Aroclor-1221	U	0.109	ug/L	0.0362	0.109	1
11141-16-5	Aroclor-1232	U	0.109	ug/L	0.0362	0.109	1
53469-21-9	Aroclor-1242	U	0.109	ug/L	0.0362	0.109	1
12672-29-6	Aroclor-1248	U	0.109	ug/L	0.0362	0.109	1
11097-69-1	Aroclor-1254	U	0.109	ug/L	0.0362	0.109	1
11096-82-5	Aroclor-1260	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.168	0.217	ug/L	77.2	(21%-109%)
Decachlorobiphenyl	0.197	0.217	ug/L	90.5	(23%-119%)

LMF
9/26/11

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/26/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☒ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):** Oil and Grease Only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. A duplicate analysis was not performed with these samples. The result in sample NPDES03A199-11-13860 was a detect and, thus, was qualified J,I10d. The result in sample NPDES03A113-11-13857 was an ND and, thus, was qualified UJ,I10d.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/26/11

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☐	☒	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☐	☒	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☐	☒	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☐	☒	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☐	☒	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☐	☒	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☐	☒	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☐	☒	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 8, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL-WQH NPDES 03A

Client SDG: 11-3386

Client Sample ID:	NPDES03A199-11-13860	Project:	ESHL01310
Sample ID:	285124001	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	31-AUG-11 12:00		
Receive Date:	02-SEP-11		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Oil & Grease Analysis												
EPA 1664A n-Hexane Extractable Material (Oil and G "As Received"												
Oil and Grease	J	1.86	J,l10d	1.53	5.46	mg/L		JXT1	09/06/11	0713	1138662	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 1664A	

LMF
9/26/11

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 8, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL-WQH NPDES 03A

Client SDG: 11-3386

Client Sample ID:	NPDES03A113-11-13857	Project:	ESHL01310
Sample ID:	285124004	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	31-AUG-11 12:00		
Receive Date:	02-SEP-11		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Oil & Grease Analysis												
EPA 1664A n-Hexane Extractable Material (Oil and G "As Received"												
Oil and Grease	U	ND	UJ,I10d	1.49	5.32	mg/L		JXT1	09/06/11	0713	1138662	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 1664A	

LMF
9/26/11

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3386 VALIDATION DATE: 9/27/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☒ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):**

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Susan Ball **Level:** I **Date:** 09/27/11

VALIDATOR'S SIGNATURE: Larry M. Fukui DATE: 9/27/11

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 12, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 03A

Client Sample ID: NPDES03A199-11-13860
Sample ID: 285124001
Matrix: Waste Water
Collect Date: 31-AUG-11
Receive Date: 02-SEP-11
Collector: Client

Project: ESHL01310
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228	U	0.694	+/-0.279	0.869	+/-0.293	1.00	pCi/L		LXE3	09/10/11	1316	1138818	1
WSP-GrossA/B "As Received"													
Beta		7.25	+/-1.04	1.95	+/-1.20	3.00	pCi/L		DXF3	09/06/11	1608	1138752	2
Alpha		3.15	+/-1.11	2.35	+/-1.15	3.00	pCi/L		DXF3	09/06/11	2037	1138752	3
Rad Radium-226													
Ra226 "As Received"													
Radium-226		0.642	+/-0.143	0.223	+/-0.161	1.00	pCi/L		KSD1	09/12/11	1305	1139043	4

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 900.0/SW846 9310
3	EPA 900.0/SW846 9310
4	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1138818	57.2	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

LMF
9/27/11

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 12, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 03A

Client Sample ID: NPDES03A113-11-13857
Sample ID: 285124004
Matrix: Waste Water
Collect Date: 31-AUG-11
Receive Date: 02-SEP-11
Collector: Client

Project: ESHL01310
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228		0.824	+/-0.226	0.612	+/-0.251	1.00	pCi/L		LXE3	09/10/11	1316	1138818	1
WSP-GrossA/B "As Received"													
Beta		5.91	+/-1.01	2.21	+/-1.12	3.00	pCi/L		DXF3	09/06/11	1608	1138752	2
Alpha	U	1.20	+/-0.730	2.25	+/-0.741	3.00	pCi/L		DXF3	09/06/11	2037	1138752	3
Rad Radium-226													
Ra226 "As Received"													
Radium-226	U	0.342	+/-0.126	0.352	+/-0.137	1.00	pCi/L		KSD1	09/12/11	1305	1139043	4

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 900.0/SW846 9310
3	EPA 900.0/SW846 9310
4	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1138818	57.0	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

LMF
9/27/11

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 285 124 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	1	POLY	WSP-GrossA/B	None	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-26856	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26995	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES13S-11-26995	2	AMBER GLASS	WSP-608-PCB	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Joseph Sherwood Signature	9/1/11	3pm	P. Nest Signature	9/2/11	08:45
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3386
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 9/1/2011
TURNAROUND/REPORT DUE: 10/1/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:1664	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:608	1	NPDES03A113-11-13857	WOE	8/31/2011	

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:608	2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES13S-11-26995	WOE	8/31/2011	
		2	NPDES13S-11-26995	WOE	8/31/2011	
	EPA:624	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:625	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		4	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
		4	NPDES03A199-11-13860	WOE	8/31/2011	

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:625	1	NPDES13S-11-26856	WOE	8/30/2011	
		2	NPDES13S-11-26856	WOE	8/30/2011	
		3	NPDES13S-11-26856	WOE	8/30/2011	
		4	NPDES13S-11-26856	WOE	8/30/2011	
	EPA:900	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:903.1	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:904	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	SW-846:8081A	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	

Final Page of REQUEST NUMBER 11-3386

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

September 09, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH NPDES 03A
Work Order: 285124
SDG: 11-3386

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on September 02, 2011, and analyzed for GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 11-3386
Enclosures

ARS International (63641-10)
LANL-WQH NPDES 03A
Workorder #: 285124
SDG # : 11-3386

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....5

Data Review Qualifier Flag Definition Sheet.....14

Volatile Analysis.....16

Case Narrative.....17

Sample Data Summary.....22

Quality Control Summary.....25

Sample Data.....39

Standards.....53

Quality Control Data.....157

Miscellaneous.....187

Semi-Volatile Analysis.....193

Case Narrative.....194

Sample Data Summary.....200

Quality Control Summary.....207

Sample Data.....225

Standards.....246

Quality Control Data.....354

Miscellaneous.....400

GC Semivolatile Pesticide Analysis.....407

Case Narrative.....408
Sample Data Summary.....416
QC Summary.....420
Sample Data.....427
Standard Data.....438
QC Data.....682
Miscellaneous Data.....714
GC Semivolatile PCB Analysis.....771
Sample Data Summary.....778
QC Summary.....782
Sample Data.....788
Standard Data.....812
QC Data.....912
Miscellaneous Data.....941
General Chem Analysis.....954
Case Narrative.....955
Sample Data Summary.....960
Quality Control Summary.....964
n-Hexane Extractable Material Raw Data.....967
Miscellaneous.....969
Radiological Analysis.....971

Sample Data Summary.....978

Quality Control Data.....981

Gas Flow Raw Data.....985

Lucas Cell Raw Data.....1007

Continuing Calibration Data.....1014

Background and Efficiency Data.....1022

Standards Data.....1061

Runlogs.....1081

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL-WQH NPDES 03A
Workorder #: 285124
SDG # : 11-3386

September 09, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 02, 2011 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
285124001	NPDES03A199-11-13860
285124002	NPDES03A199-11-13860
285124003	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
285124005	NPDES03A113-11-13857
285124006	NPDES03A113-11-13857
285124007	NPDES13S-11-26856
285124008	NPDES13S-11-26995

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

List of current GEL Certifications as of 09 September 2011

State	Certification
Arizona	AZ0766
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH−0169
DoD ELAP − A2LA	2567.01
Florida − NELAP	E87156
Foreign Soils Permit USDA	P330−09−00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046 (Al33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M−SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey − NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−11−4
Utah − NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780−11
Wisconsin	999887790

Chain of Custody and Supporting Documentation

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 285 124 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A199-11-13860	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A199-11-13860	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A199-11-13860	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A199-11-13860	1	POLY	WSP-GrossA/B	None	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-OIL_GREASE	Sulfuric Acid (H2SO4)	WOE
NPDES03A113-11-13857	1	POLY	NPDES-Ra-226+Ra-228	Nitric Acid (HNO3)	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO 2-CVE (624)	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE

Thursday, September 01, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3386C

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 10/1/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES03A113-11-13857	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES03A113-11-13857	1	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	2	SEPTUM AMBER GLASS	NPDES-TTO VOA HCl(624)	Hydrochloric Acid (HCL)	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES03A113-11-13857	1	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	2	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	3	AMBER GLASS	WSP-8081A-Pest	Ice	WOE
NPDES03A113-11-13857	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-26856	1	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	2	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	3	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26856	4	AMBER GLASS	NPDES-TTO SVOA (625)	Ice	WOE
NPDES13S-11-26995	1	AMBER GLASS	WSP-608-PCB	Ice	WOE
NPDES13S-11-26995	2	AMBER GLASS	WSP-608-PCB	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Joseph Sherwood Signature	9/1/11	3pm	P. Nest Signature	9/2/11	08:45
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3386
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 9/1/2011
TURNAROUND/REPORT DUE: 10/1/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:1664	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:608	1	NPDES03A113-11-13857	WOE	8/31/2011	

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:608	2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES13S-11-26995	WOE	8/31/2011	
		2	NPDES13S-11-26995	WOE	8/31/2011	
	EPA:624	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:625	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		4	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	
		4	NPDES03A199-11-13860	WOE	8/31/2011	

Hard Copy Required

Thursday, September 01, 2011

REQUEST NUMBER: 11-3386

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:625	1	NPDES13S-11-26856	WOE	8/30/2011	
		2	NPDES13S-11-26856	WOE	8/30/2011	
		3	NPDES13S-11-26856	WOE	8/30/2011	
		4	NPDES13S-11-26856	WOE	8/30/2011	
	EPA:900	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:903.1	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	EPA:904	1	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
	SW-846:8081A	1	NPDES03A113-11-13857	WOE	8/31/2011	
		2	NPDES03A113-11-13857	WOE	8/31/2011	
		3	NPDES03A113-11-13857	WOE	8/31/2011	
		1	NPDES03A199-11-13860	WOE	8/31/2011	
		2	NPDES03A199-11-13860	WOE	8/31/2011	
		3	NPDES03A199-11-13860	WOE	8/31/2011	

Final Page of REQUEST NUMBER 11-3386

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/AR/COC/Work Order: 11-3386**
Received By: Patricia Dent	**Date Received: September 2, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags **Blue ice** Dry ice **None** Other (describe) **1,3-5,15C**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: **61524646** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**Client Labels**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			Circle Applicable: **FedEx Air** FedEx Ground UPS Field Services Courier Other **7209 7855 3412 1C 7209 7855 3386 3C 7209 7855 3397 3C 7209 7855 3423 4C 7209 7855 3423 15C 7209 7855 3401 5C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials HT Date 090611 Page 1 of 1

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

1C

FedEx Express

J101010090101124

2 of 2
MPS# 0263 7209 7855 3412
Mstr# 7209 7855 3401 0201

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 RIT2 08/10

585C2/4299/DA47

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

3C

FedEx Express

1 of 2
TRK# 0201 7209 7855 3386
MASTER

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

585C2/4299/DA47

NPDES

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

3C

FedEx Express

J101010090101124

2 of 2
MPS# 0263 7209 7855 3397
Mstr# 7209 7855 3386 0201

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0458K00

4C

15-RAD

FedEx Express

TRK# 0201 7209 7855 3423

FRI - 02 SEP A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01SEP11
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2472

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11550000

5c

FedEx Express

1 of 2

TRK# 0201 7209 7855 3401

FRI - 02 SEP A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

N POES + Others

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Volatile Analysis

Case Narrative

ChemStation Case Narrative
ARS International (ARSL)
SDG 11-3386

Method/Analysis Information

Procedure:	**Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method:	EPA 624 DOE-AL
Analytical Batch Number:	1138640

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
1202480059	Method Blank (MB)
1202480060	285124001(NPDES03A199-11-13860) Post Spike (PS)
1202480061	285124001(NPDES03A199-11-13860) Post Spike Duplicate (PSD)
1202480062	Laboratory Control Sample (LCS)
1202480063	Laboratory Control Sample (LCS)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-026 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a ’d’ qualifier.

Calibration Information

Please note that the ’Cal Date’ indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the ’Cal Date’ to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History

report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 285124001 (NPDES03A199-11-13860) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were not all within the acceptance limits. See the Data Exception Report in the miscellaneous section of the data package.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were not all within the acceptance limits. See the Data Exception Report in the miscellaneous section of the data package.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions/Methanol Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
DER # 993230 was generated for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA3.I	Agilent 6890/5973 GC/MS w/ OI 4560/Archon Autosampler	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3386 GEL Work Order: 285124

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 12 SEP 2011 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:27**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:27**				
Data File:	**090311V3\3B610.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	J	0.00371	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.00112	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0261	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.7	50.0	ug/L	99.3	(79%-124%)
Bromofluorobenzene	50.4	50.0	ug/L	101	(80%-120%)
Toluene-d8	49.2	50.0	ug/L	98.4	(80%-120%)

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:57**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:57**				
Data File:	**090311V3\3B611.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	J	0.00383	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.1	50.0	ug/L	102	(79%-124%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(80%-120%)
Toluene-d8	50.1	50.0	ug/L	100	(80%-120%)

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 11-3386

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202480062	LCS for batch 1138640	100	94	98
1202480063	LCS for batch 1138640	100	101	96
1202480059	MB for batch 1138640	101	99	101
285124001	NPDES03A199-11-13860	99	98	101
285124004	NPDES03A113-11-13857	102	100	105
1202480060	NPDES03A199-11-13860PS	99	97	102
1202480061	NPDES03A199-11-13860PSD	97	98	102

Surrogate			Acceptance Limits
DCED4	=	1,2-Dichloroethane-d4	(79%-124%)
TOL	=	Toluene-d8	(80%-120%)
BFB	=	Bromofluorobenzene	(80%-120%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860PS**
Lab Sample ID: **1202480060**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 03:56**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
74-87-3	PS	Chloromethane	0.050	0.00	U	0.040	80	53-142
75-01-4	PS	Vinyl chloride	0.050	0.00	U	0.0396	79	53-130
74-83-9	PS	Bromomethane	0.050	0.00	U	0.0423	85	60-122
75-00-3	PS	Chloroethane	0.050	0.00	U	0.0471	94	67-131
75-35-4	PS	1,1-Dichloroethylene	0.050	0.00	U	0.041	82	64-127
75-09-2	PS	Methylene chloride	0.050	0.00371	J	0.0473	87	72-123
156-60-5	PS	trans-1,2-Dichloroethylene	0.050	0.00	U	0.0424	85	69-124
75-34-3	PS	1,1-Dichloroethane	0.050	0.00	U	0.0444	89	75-123
67-66-3	PS	Chloroform	0.050	0.00	U	0.0454	91	76-124
71-55-6	PS	1,1,1-Trichloroethane	0.050	0.00	U	0.0427	85	72-137
56-23-5	PS	Carbon tetrachloride	0.050	0.00	U	0.041	82	69-141
107-06-2	PS	1,2-Dichloroethane	0.050	0.00	U	0.0452	90	72-126
71-43-2	PS	Benzene	0.050	0.00	U	0.0445	89	75-118
79-01-6	PS	Trichloroethylene	0.050	0.00	U	0.0461	92	69-128
78-87-5	PS	1,2-Dichloropropane	0.050	0.00	U	0.0455	91	78-123
75-27-4	PS	Bromodichloromethane	0.050	0.00	U	0.0462	92	76-136
110-75-8	PS	2-Chloroethylvinyl ether	0.250	0.00	U	0.0587	23 *	52-125
10061-01-5	PS	cis-1,3-Dichloropropylene	0.050	0.00	U	0.0458	92	77-131
108-88-3	PS	Toluene	0.050	0.00	U	0.0435	87	67-119
10061-02-6	PS	trans-1,3-Dichloropropylene	0.050	0.00	U	0.0445	89	75-128
79-00-5	PS	1,1,2-Trichloroethane	0.050	0.00	U	0.047	94	74-120
127-18-4	PS	Tetrachloroethylene	0.050	0.00	U	0.0407	81	65-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860PS**
Lab Sample ID: **1202480060**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 03:56**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
124-48-1	PS	Dibromochloromethane	0.050	0.00112		0.0473	92	72-129
108-90-7	PS	Chlorobenzene	0.050	0.00	U	0.0444	89	73-123
100-41-4	PS	Ethylbenzene	0.050	0.00	U	0.0427	85	69-122
75-25-2	PS	Bromoform	0.050	0.0261		0.0773	102	67-126
79-34-5	PS	1,1,2,2-Tetrachloroethane	0.050	0.00	U	0.0469	94	65-126
541-73-1	PS	1,3-Dichlorobenzene	0.050	0.00	U	0.0447	89	67-125
106-46-7	PS	1,4-Dichlorobenzene	0.050	0.00	U	0.0459	92	66-124
95-50-1	PS	1,2-Dichlorobenzene	0.050	0.00	U	0.0458	92	71-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860PSD**
Lab Sample ID: **1202480061**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 04:26**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
74-87-3	PSD	Chloromethane	0.050	0.00	U	0.0389	78	53-142	3	0-20
75-01-4	PSD	Vinyl chloride	0.050	0.00	U	0.0393	79	53-130	1	0-20
74-83-9	PSD	Bromomethane	0.050	0.00	U	0.0418	84	60-122	1	0-20
75-00-3	PSD	Chloroethane	0.050	0.00	U	0.0469	94	67-131	1	0-20
75-35-4	PSD	1,1-Dichloroethylene	0.050	0.00	U	0.0408	82	64-127	0	0-20
75-09-2	PSD	Methylene chloride	0.050	0.00371	J	0.0453	83	72-123	4	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	0.050	0.00	U	0.0425	85	69-124	0	0-20
75-34-3	PSD	1,1-Dichloroethane	0.050	0.00	U	0.0443	89	75-123	0	0-20
67-66-3	PSD	Chloroform	0.050	0.00	U	0.0449	90	76-124	1	0-20
71-55-6	PSD	1,1,1-Trichloroethane	0.050	0.00	U	0.0431	86	72-137	1	0-20
56-23-5	PSD	Carbon tetrachloride	0.050	0.00	U	0.0412	82	69-141	1	0-20
107-06-2	PSD	1,2-Dichloroethane	0.050	0.00	U	0.0444	89	72-126	2	0-20
71-43-2	PSD	Benzene	0.050	0.00	U	0.0439	88	75-118	1	0-20
79-01-6	PSD	Trichloroethylene	0.050	0.00	U	0.046	92	69-128	0	0-20
78-87-5	PSD	1,2-Dichloropropane	0.050	0.00	U	0.0451	90	78-123	1	0-20
75-27-4	PSD	Bromodichloromethane	0.050	0.00	U	0.0462	92	76-136	0	0-20
110-75-8	PSD	2-Chloroethylvinyl ether	0.250	0.00	U	0.0513	21 *	52-125	14	0-21
10061-01-5	PSD	cis-1,3-Dichloropropylene	0.050	0.00	U	0.0458	92	77-131	0	0-20
108-88-3	PSD	Toluene	0.050	0.00	U	0.0428	86	67-119	2	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	0.050	0.00	U	0.0444	89	75-128	0	0-20
79-00-5	PSD	1,1,2-Trichloroethane	0.050	0.00	U	0.0461	92	74-120	2	0-20
127-18-4	PSD	Tetrachloroethylene	0.050	0.00	U	0.0398	80	65-129	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860PSD**
Lab Sample ID: **1202480061**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 04:26**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
124-48-1	PSD	Dibromochloromethane	0.050	0.00112		0.0468	91	72-129	1	0-20
108-90-7	PSD	Chlorobenzene	0.050	0.00	U	0.044	88	73-123	1	0-20
100-41-4	PSD	Ethylbenzene	0.050	0.00	U	0.0424	85	69-122	1	0-20
75-25-2	PSD	Bromoform	0.050	0.0261		0.0729	94	67-126	6	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	0.050	0.00	U	0.0436	87	65-126	7	0-20
541-73-1	PSD	1,3-Dichlorobenzene	0.050	0.00	U	0.0444	89	67-125	1	0-22
106-46-7	PSD	1,4-Dichlorobenzene	0.050	0.00	U	0.0454	91	66-124	1	0-22
95-50-1	PSD	1,2-Dichlorobenzene	0.050	0.00	U	0.0457	91	71-123	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138640**
Lab Sample ID: **1202480062**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/03/2011 20:57**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
74-87-3	LCS	Chloromethane	0.050	0.0	0.040	80	63-135
75-01-4	LCS	Vinyl chloride	0.050	0.0	0.0406	81	65-125
74-83-9	LCS	Bromomethane	0.050	0.0	0.0413	83	69-120
75-00-3	LCS	Chloroethane	0.050	0.0	0.0465	93	75-129
75-35-4	LCS	1,1-Dichloroethylene	0.050	0.0	0.0412	82	73-125
75-09-2	LCS	Methylene chloride	0.050	0.0	0.044	88	76-120
156-60-5	LCS	trans-1,2-Dichloroethylene	0.050	0.0	0.0423	85	75-123
75-34-3	LCS	1,1-Dichloroethane	0.050	0.0	0.0426	85	80-120
67-66-3	LCS	Chloroform	0.050	0.0	0.0445	89	80-120
71-55-6	LCS	1,1,1-Trichloroethane	0.050	0.0	0.0434	87	80-138
56-23-5	LCS	Carbon tetrachloride	0.050	0.0	0.0427	85	78-142
107-06-2	LCS	1,2-Dichloroethane	0.050	0.0	0.0447	89	76-120
71-43-2	LCS	Benzene	0.050	0.0	0.0437	87	80-120
79-01-6	LCS	Trichloroethylene	0.050	0.0	0.0449	90	80-120
78-87-5	LCS	1,2-Dichloropropane	0.050	0.0	0.0441	88	80-120
75-27-4	LCS	Bromodichloromethane	0.050	0.0	0.0459	92	80-131
110-75-8	LCS	2-Chloroethylvinyl ether	0.250	0.0	0.223	89	53-121
10061-01-5	LCS	cis-1,3-Dichloropropylene	0.050	0.0	0.0458	92	80-130
108-88-3	LCS	Toluene	0.050	0.0	0.0427	85	77-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	0.050	0.0	0.046	92	80-125
79-00-5	LCS	1,1,2-Trichloroethane	0.050	0.0	0.0469	94	78-120
127-18-4	LCS	Tetrachloroethylene	0.050	0.0	0.0412	82	78-127

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138640**
Lab Sample ID: **1202480062**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/03/2011 20:57**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
124-48-1	LCS	Dibromochloromethane	0.050	0.0	0.0464	93	76-125
108-90-7	LCS	Chlorobenzene	0.050	0.0	0.0445	89	80-120
100-41-4	LCS	Ethylbenzene	0.050	0.0	0.042	84	80-120
75-25-2	LCS	Bromoform	0.050	0.0	0.0478	96	72-123
79-34-5	LCS	1,1,2,2-Tetrachloroethane	0.050	0.0	0.0472	94	72-120
541-73-1	LCS	1,3-Dichlorobenzene	0.050	0.0	0.0445	89	79-120
106-46-7	LCS	1,4-Dichlorobenzene	0.050	0.0	0.0453	91	78-120
95-50-1	LCS	1,2-Dichlorobenzene	0.050	0.0	0.0455	91	79-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138640**
Lab Sample ID: **1202480063**
Instrument: **VOA3.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/03/2011 21:56**
Prep Batch ID: **1138640**
Batch ID: **1138640**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	0.250	0.0	0.256	102	57-143
107-13-1	LCS	Acrylonitrile	0.250	0.0	0.251	100	62-124

Method Blank Summary

SDG Number:	**11-3386**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1138640**	**Instrument ID:**	**VOA3.I**	**Data File:**	**090311V3\3B608BAS.D**
Lab Sample ID:	**1202480059**	**Prep Date:**	**09/03/2011 23:27**	**Analyzed:**	**09/03/11 23:27**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1138640	1202480062	090311V3\3B603LAS.D	09/03/11	2057
02 LCS for batch 1138640	1202480063	090311V3\3B605SHAS.D	09/03/11	2156
03 NPDES03A199-11-13860	285124001	090311V3\3B610.D	09/04/11	0027
04 NPDES03A113-11-13857	285124004	090311V3\3B611.D	09/04/11	0057
05 NPDES03A199-11-13860PS	1202480060	090311V3\3B615.D	09/04/11	0356
06 NPDES03A199-11-13860PSD	1202480061	090311V3\3B616.D	09/04/11	0426

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: VOA3.I **Injection Date/Time:** 24-AUG-11 11:37

Column Description: DB-624 **Lab File ID** 082411V3\3A309.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	47.9
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0
174	50.0 - 100.0% of mass 95	77.3
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.6
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM110824-01	082411V3\3A310.D	24-AUG-11 12:07
ICALMIX[A]	W3VM110824-02	082411V3\3A311.D	24-AUG-11 12:37
ICALMIX[A]	W3VM110824-03	082411V3\3A312.D	24-AUG-11 13:07
ICALMIX[A]	W3VM110824-04	082411V3\3A313.D	24-AUG-11 13:37
ICALMIX[A]	W3VM110824-05	082411V3\3A314.D	24-AUG-11 14:07
ICALMIX[A]	W3VM110824-06	082411V3\3A315.D	24-AUG-11 14:37
ICALMIX[A]	W3VM110824-07	082411V3\3A316.D	24-AUG-11 15:07
ICALMIX[A]	W3VM110824-08	082411V3\3A317.D	24-AUG-11 15:37
ICALMIX[A]	W3VM110824-09	082411V3\3A318.D	24-AUG-11 16:07
ICVMIX[A]01	W3VM110824-11	082411V3\3A321.D	24-AUG-11 17:38
ICALMIX[B]	W3VM110824-12	082411V3\3A323.D	24-AUG-11 18:38
ICALMIX[B]	W3VM110824-13	082411V3\3A324.D	24-AUG-11 19:08
ICALMIX[B]	W3VM110824-14	082411V3\3A325.D	24-AUG-11 19:38
ICALMIX[B]	W3VM110824-15	082411V3\3A326.D	24-AUG-11 20:08
ICALMIX[B]	W3VM110824-16	082411V3\3A327.D	24-AUG-11 20:38
ICALMIX[B]	W3VM110824-17	082411V3\3A328.D	24-AUG-11 21:08

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: VOA3.I **Injection Date/Time:** 25-AUG-11 08:52

Column Description: DB-624 **Lab File ID** 082511V3\3A401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18
75	30.0 - 60.0% of mass 95	46.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0
174	50.0 - 100.0% of mass 95	77.8
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	100
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[B]	W3VM110825-01	082511V3\3A402.D	25-AUG-11 09:22
ICALMIX[B]	W3VM110825-02	082511V3\3A403.D	25-AUG-11 09:52
ICVMIX[B]02	W3VM110825-03	082511V3\3A405.D	25-AUG-11 10:53

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: VOA3.I **Injection Date/Time:** 03-SEP-11 19:57

Column Description: DB-624 **Lab File ID** 090311V3\3B601.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	45.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0
174	50.0 - 100.0% of mass 95	76.6
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	98.6
177	5.0 - 9.0% of mass 176	7.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W3VM110903-02	090311V3\3B603.D	03-SEP-11 20:57
BLK01LCS	1202480062	090311V3\3B603LAS.D	03-SEP-11 20:57
CCVMIX[B]02	W3VM110903-04	090311V3\3B605.D	03-SEP-11 21:56
BLK01SLCS	1202480063	090311V3\3B605SHAS.D	03-SEP-11 21:56
BLK01	1202480059	090311V3\3B608BAS.D	03-SEP-11 23:27
NPDES03A199-11-13860	285124001	090311V3\3B610.D	04-SEP-11 00:27
NPDES03A113-11-13857	285124004	090311V3\3B611.D	04-SEP-11 00:57
NPDES03A199-11-13860MS	1202480060	090311V3\3B615.D	04-SEP-11 03:56
NPDES03A199-11-13860MSD	1202480061	090311V3\3B616.D	04-SEP-11 04:26

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 11-3386

Instrument: VOA3.I

STD Analysis Time: 03-SEP-11 20:57

GC Column: DB-624

Data File: 090311V3\3B603.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1394180		12.0	615851		15.6	637756		18.2
Upper Limit	2788360		12.5	1231702		16.1	1275512		18.7
Lower Limit	697090		11.5	307926		15.1	318878		17.7
Sample ID									
BLK01LCS	1394180		12.0	615851		15.6	637756		18.2
BLK01SLCS	1378195		12.0	596724		15.6	623896		18.2
BLK01	1296023		12.0	561235		15.6	560079		18.2
NPDES03A199-11-13860	1390440		12.0	598331		15.6	604022		18.2
NPDES03A113-11-13857	1325544		12.0	576340		15.6	559472		18.2
NPDES03A199-11-13860MS	1341469		12.0	585705		15.6	582589		18.2
NPDES03A199-11-13860MSD	1338992		12.0	586232		15.6	587951		18.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:27**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:27**				
Data File:	**090311V3\3B610.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	J	0.00371	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.00112	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0261	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.7	50.0	ug/L	99.3	(79%-124%)
Bromofluorobenzene	50.4	50.0	ug/L	101	(80%-120%)
Toluene-d8	49.2	50.0	ug/L	98.4	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B610.D
Acq On : 04 Sep 2011 00:27
Operator : GRB2
InstName : VOA3
Sample : |285124001|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 20:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1390440	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	598331	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	604022	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1390440	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	598331	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	604022	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	78944	49.66	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1307345	49.20	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	576172	50.40	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	99.32%
43) Toluene-d8	50.000	80 - 120	98.40%
61) Bromofluorobenzene	50.000	80 - 120	100.80%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.666	0.000	0	N.D.		
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.365	0.000	0	N.D.		
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone	43	7.773	7.762	0.647	23326	Below Cal		93
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		0.000	8.070	0.000	0	N.D.		
12) Acetonitrile	41	8.248	8.224	0.687	3919	Below Cal	#	84
13) Methyl acetate	43	8.319	8.295	0.693	371	N.D.		
14) Carbon disulfide	76	8.200	8.212	0.683	1917	N.D.		
15) Methylene chloride	84	8.532	8.532	0.711	36314	3.71	ug/L	98
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate	43	9.386	9.612	0.782	4267	N.D.		
19) 1,1-Dichloroethane		0.000	9.623	0.000	0	N.D.		
20) 2-Butanone	43	10.181	10.406	0.848	3184	N.D.		
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		0.000	11.307	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		0.000	11.687	0.000	0	N.D.		
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	12.185	0.000	0	N.D.		
34) Trichloroethylene		0.000	12.481	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B610.D
Acq On : 04 Sep 2011 00:27
Operator : GRB2
InstName : VOA3
Sample : |285124001|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 20:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.		
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		
40) cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.		
44) Toluene	91	14.035	14.035	0.898	1064	N.D.		
45) trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47) 2-Hexanone		0.000	14.675	0.000	0	N.D.		
48) 1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.		
49) Tetrachloroethylene		0.000	14.699	0.000	0	N.D.		
50) Dibromochloromethane	129	14.960	14.960	0.957	9768	1.12	ug/L	100
51) 1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.		
52) Chlorobenzene		0.000	15.671	0.000	0	N.D.		
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.		
54) Ethylbenzene		0.000	15.754	0.000	0	N.D.		
55) m,p-Xylenes		0.000	15.873	0.000	0	N.D.		
56) o-Xylene		0.000	16.335	0.000	0	N.D.		
57) Styrene	104	16.335	16.335	1.045	358	N.D.		
59) Bromoform	173	16.608	16.608	0.913	151353	26.12	ug/L	99
60) Isopropylbenzene	105	16.916	16.715	0.930	633	N.D.		
62) 1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.		
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		0.000	17.142	0.000	0	N.D.		
65) n-Propylbenzene		0.000	17.165	0.000	0	N.D.		
66) 1,3,5-Trimethylbenzene		0.000	17.331	0.000	0	N.D.		
67) 2-Chlorotoluene		0.000	17.320	0.000	0	N.D.		
68) 4-Chlorotoluene	91	17.426	17.415	0.958	378	N.D.		
69) tert-Butylbenzene		0.000	17.711	0.000	0	N.D.		
70) 1,2,4-Trimethylbenzene		0.000	17.747	0.000	0	N.D.		
71) sec-Butylbenzene		0.000	17.948	0.000	0	N.D.		
72) 4-Isopropyltoluene		0.000	18.067	0.000	0	N.D.		
73) 1,3-Dichlorobenzene		0.000	18.126	0.000	0	N.D.		
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	673	N.D.		
75) n-Butylbenzene	91	18.339	18.529	1.008	744	N.D.		
76) 1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.		
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		0.000	20.676	0.000	0	N.D.		
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80) Naphthalene	128	21.079	21.079	1.158	1696	N.D.		
81) 1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.		
83) Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85) Acrolein		0.000	7.524	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	7.928	0.000	0	N.D.		
88) Allyl chloride	41	8.248	8.331	0.687	3919	Below Cal	#	44
89) tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.		
90) Acrylonitrile		0.000	8.864	0.000	0	N.D.		
91) Isopropyl ether		0.000	9.647	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B610.D
Acq On : 04 Sep 2011 00:27
Operator : GRB2
InstName : VOA3
Sample : |285124001|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 20:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

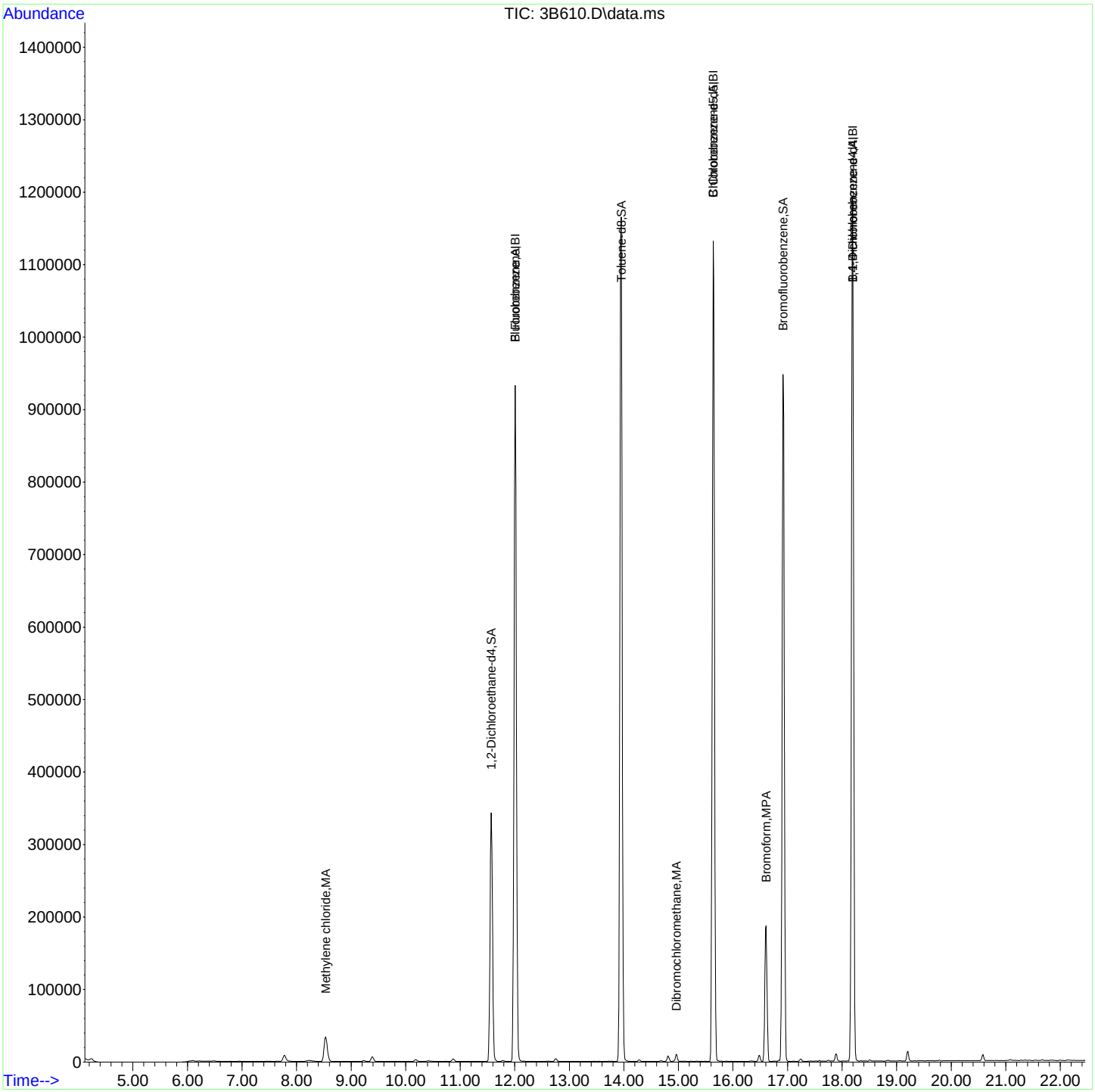
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.	
94) Ethyl acetate	43	10.418	10.454	0.868	3669	N.D.	
95) Propionitrile		0.000	10.501	0.000	0	N.D.	
96) Methacrylonitrile	41	10.869	10.726	0.905	2012	N.D.	
97) Tetrahydrofuran	42	10.869	10.869	0.905	1826	Below Cal #	2
98) Isobutyl alcohol		0.000	11.343	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	11.746	0.000	0	N.D.	
100) Methyl methacrylate		0.000	12.778	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102) 2-Nitropropane		0.000	13.300	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	15.553	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	16.762	0.000	0	N.D.	
108) Cyclohexanone		0.000	16.869	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.	
110) Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111) Benzyl chloride	91	18.339	18.339	1.008	744	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

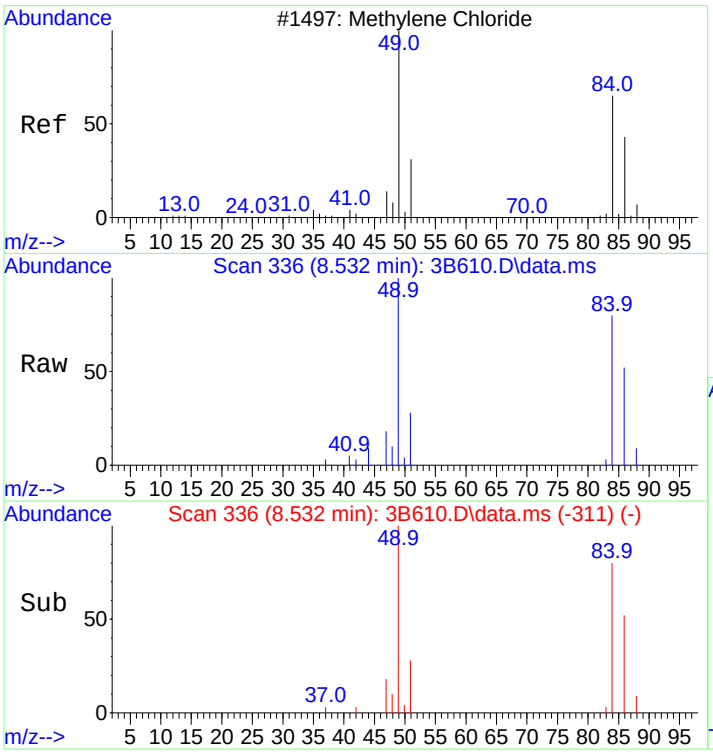
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B610.D
Acq On : 04 Sep 2011 00:27
Operator : GRB2
InstName : VOA3
Sample : |285124001|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 20:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

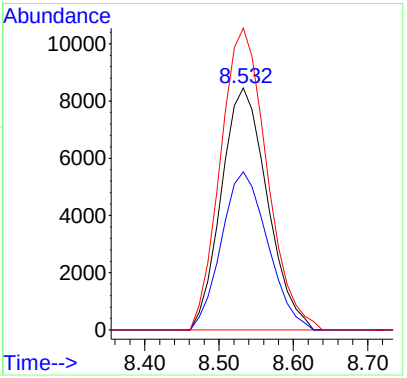


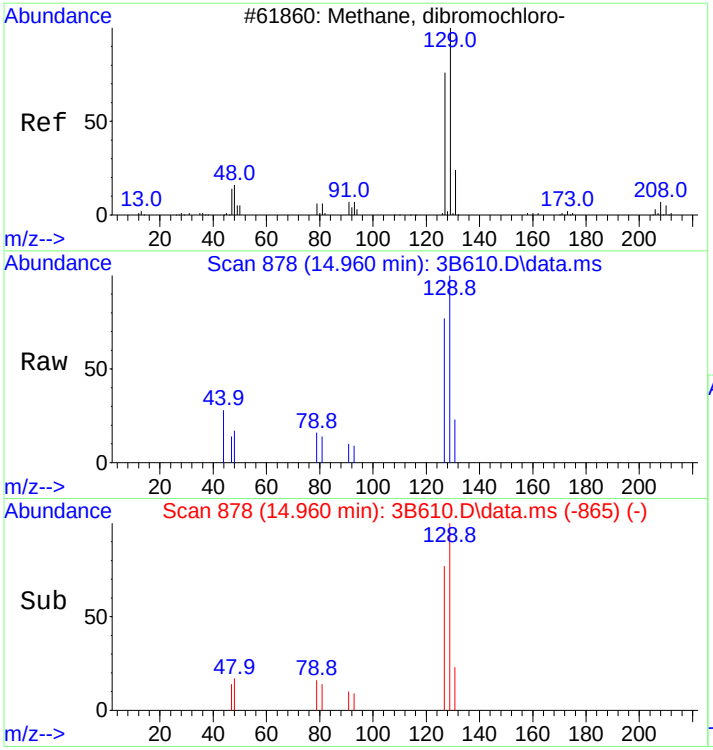


#15
Methylene chloride
Concen: 3.71 ug/L
RT: 8.532 min Scan# 336
Delta R.T. 0.000 min
Lab File: 3B610.D
Acq: 04 Sep 2011 00:27

Tgt Ion: 84 Resp: 36314

Ion	Ratio	Lower	Upper
84	100		
86	65.8	35.0	95.0
49	125.5	92.2	152.2

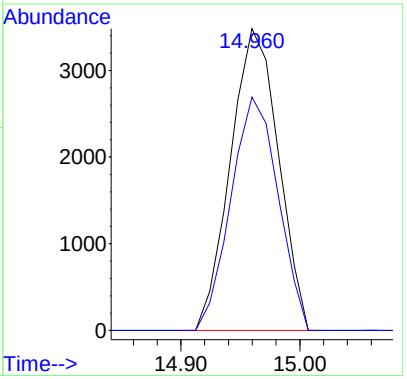


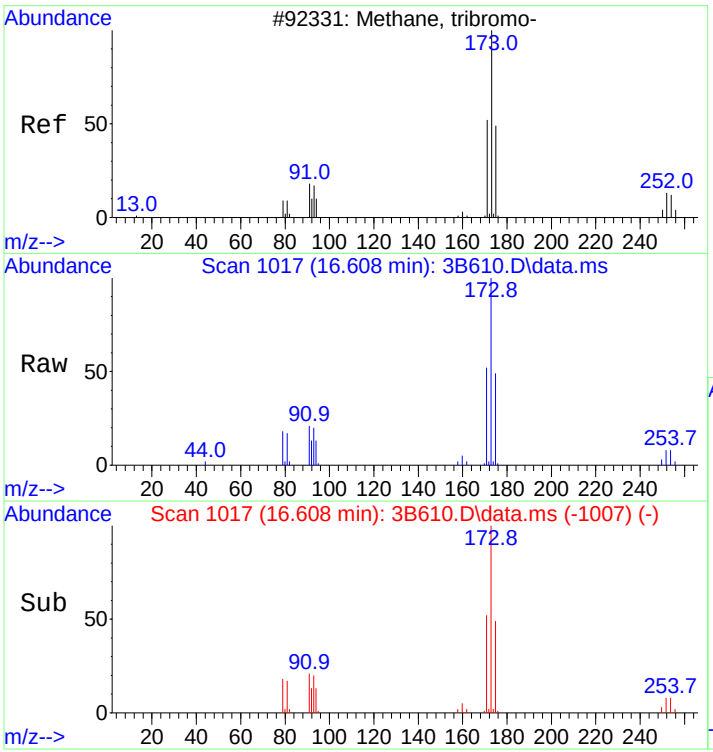


#50
Dibromochloromethane
Concen: 1.12 ug/L
RT: 14.960 min Scan# 878
Delta R.T. -0.000 min
Lab File: 3B610.D
Acq: 04 Sep 2011 00:27

Tgt Ion:129 Resp: 9768

Ion	Ratio	Lower	Upper
129	100		
127	76.2	46.2	106.2

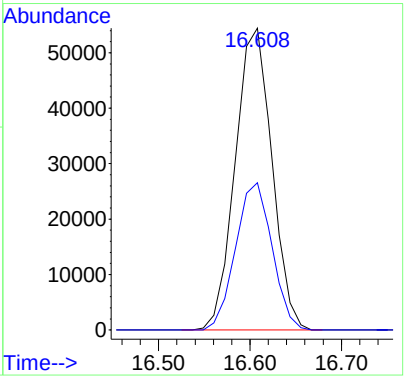


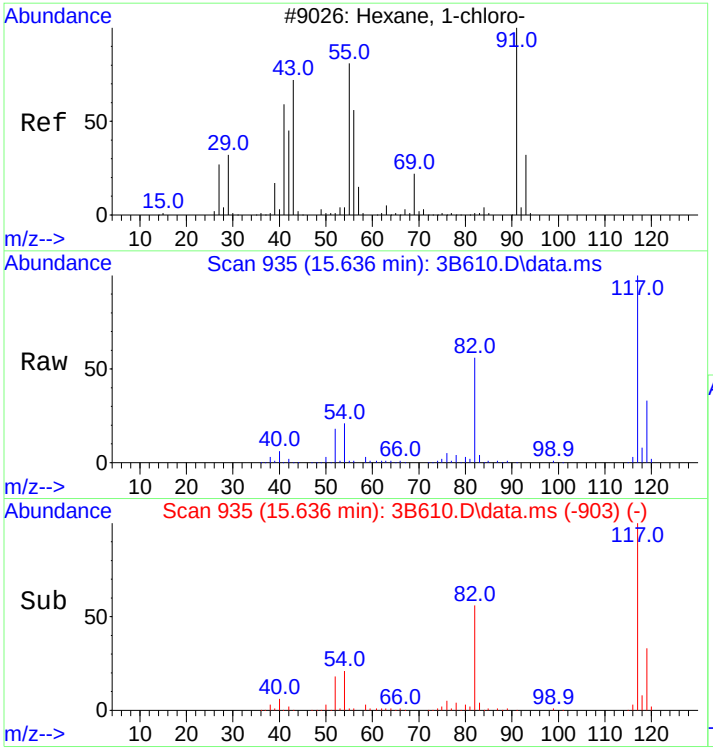


#59
Bromoform
Concen: 26.12 ug/L
RT: 16.608 min Scan# 1017
Delta R.T. 0.000 min
Lab File: 3B610.D
Acq: 04 Sep 2011 00:27

Tgt Ion:173 Resp: 151353

Ion	Ratio	Lower	Upper
173	100		
175	48.4	18.0	78.0

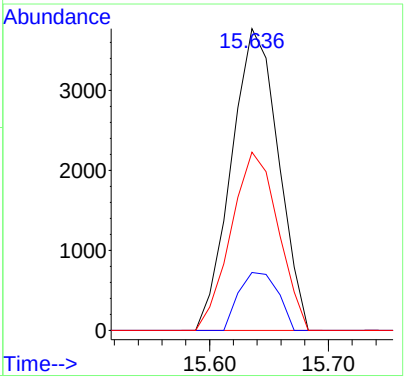




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.41 ug/L
RT: 15.636 min Scan# 935
Delta R.T. 0.083 min
Lab File: 3B610.D
Acq: 04 Sep 2011 00:27

Tgt Ion: 55 Resp: 10390

Ion	Ratio	Lower	Upper
55	100		
91	16.0	123.6	183.6#
56	59.3	31.5	91.5



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 00:57**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 00:57**				
Data File:	**090311V3\3B611.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	J	0.00383	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.1	50.0	ug/L	102	(79%-124%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(80%-120%)
Toluene-d8	50.1	50.0	ug/L	100	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B611.D
Acq On : 04 Sep 2011 00:57
Operator : GRB2
InstName : VOA3
Sample : |285124004|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 20:42:24 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1325544	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	576340	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	559472	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1325544	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	576340	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	559472	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	77473	51.12	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1281743	50.08	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	556351	52.55	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	102.24%
43) Toluene-d8	50.000	80 - 120	100.16%
61) Bromofluorobenzene	50.000	80 - 120	105.10%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.666	0.000	0	N.D.		
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.365	0.000	0	N.D.		
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone	43	7.773	7.762	0.647	5943	Below Cal		74
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		0.000	8.070	0.000	0	N.D.		
12) Acetonitrile	41	8.236	8.224	0.686	2599	Below Cal	#	85
13) Methyl acetate		0.000	8.295	0.000	0	N.D.		
14) Carbon disulfide	76	8.200	8.212	0.683	1780	N.D.		
15) Methylene chloride	84	8.532	8.532	0.711	35660	3.83	ug/L	98
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate	43	9.386	9.612	0.782	4158	N.D.		
19) 1,1-Dichloroethane		0.000	9.623	0.000	0	N.D.		
20) 2-Butanone	43	10.181	10.406	0.848	2431	N.D.		
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		0.000	11.307	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		0.000	11.687	0.000	0	N.D.		
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	12.185	0.000	0	N.D.		
34) Trichloroethylene		0.000	12.481	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B611.D
Acq On : 04 Sep 2011 00:57
Operator : GRB2
InstName : VOA3
Sample : |285124004|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 20:42:24 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.	
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.	
42) 4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.	
44) Toluene	91	14.035	14.035	0.898	732	N.D.	
45) trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.	
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.	
47) 2-Hexanone		0.000	14.675	0.000	0	N.D.	
48) 1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.	
49) Tetrachloroethylene		0.000	14.699	0.000	0	N.D.	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.	
51) 1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.	
52) Chlorobenzene		0.000	15.671	0.000	0	N.D.	
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.	
54) Ethylbenzene		0.000	15.754	0.000	0	N.D.	
55) m,p-Xylenes		0.000	15.873	0.000	0	N.D.	
56) o-Xylene		0.000	16.335	0.000	0	N.D.	
57) Styrene		0.000	16.335	0.000	0	N.D.	
59) Bromoform		0.000	16.608	0.000	0	N.D.	
60) Isopropylbenzene		0.000	16.715	0.000	0	N.D.	
62) 1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.	
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.	
64) Bromobenzene		0.000	17.142	0.000	0	N.D.	
65) n-Propylbenzene		0.000	17.165	0.000	0	N.D.	
66) 1,3,5-Trimethylbenzene		0.000	17.331	0.000	0	N.D.	
67) 2-Chlorotoluene		0.000	17.320	0.000	0	N.D.	
68) 4-Chlorotoluene	91	17.426	17.415	0.958	178	N.D.	
69) tert-Butylbenzene		0.000	17.711	0.000	0	N.D.	
70) 1,2,4-Trimethylbenzene		0.000	17.747	0.000	0	N.D.	
71) sec-Butylbenzene		0.000	17.948	0.000	0	N.D.	
72) 4-Isopropyltoluene		0.000	18.067	0.000	0	N.D.	
73) 1,3-Dichlorobenzene		0.000	18.126	0.000	0	N.D.	
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	411	N.D.	
75) n-Butylbenzene	91	18.339	18.529	1.008	383	N.D.	
76) 1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.	
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.	
78) 1,2,4-Trichlorobenzene		0.000	20.676	0.000	0	N.D.	
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.	
80) Naphthalene	128	21.079	21.079	1.158	857	N.D.	
81) 1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.	
83) Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.	
85) Acrolein		0.000	7.524	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	7.928	0.000	0	N.D.	
88) Allyl chloride	41	8.236	8.331	0.686	2599	Below Cal #	31
89) tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.	
90) Acrylonitrile		0.000	8.864	0.000	0	N.D.	
91) Isopropyl ether		0.000	9.647	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B611.D
Acq On : 04 Sep 2011 00:57
Operator : GRB2
InstName : VOA3
Sample : |285124004|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 20:42:24 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

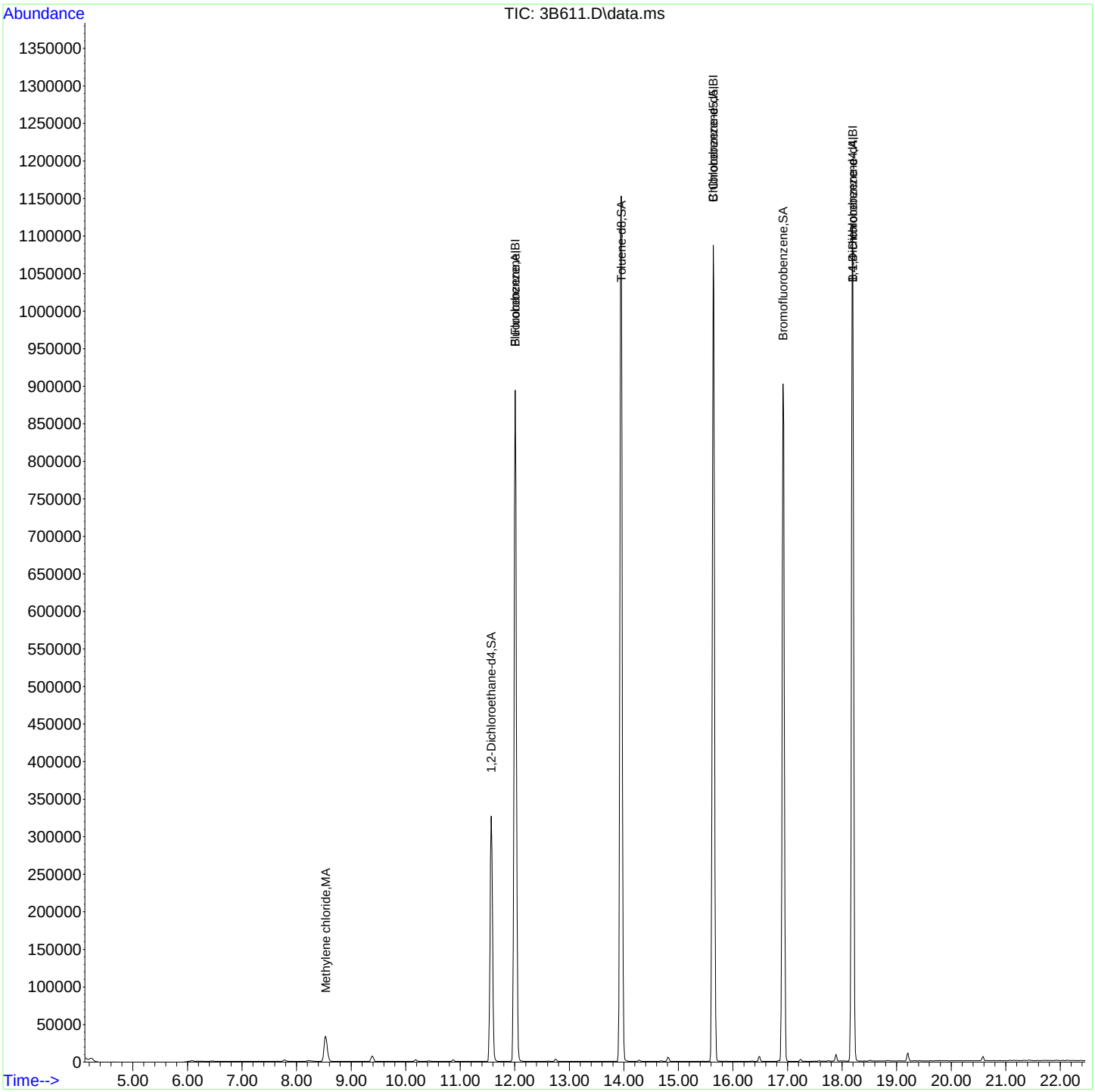
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.	
94) Ethyl acetate	43	10.418	10.454	0.868	2395	N.D.	
95) Propionitrile		0.000	10.501	0.000	0	N.D.	
96) Methacrylonitrile	41	10.868	10.726	0.905	1470	N.D.	
97) Tetrahydrofuran	42	10.868	10.869	0.905	1531	Below Cal #	43
98) Isobutyl alcohol		0.000	11.343	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	11.746	0.000	0	N.D.	
100) Methyl methacrylate		0.000	12.778	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102) 2-Nitropropane		0.000	13.300	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	15.553	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	16.762	0.000	0	N.D.	
108) Cyclohexanone		0.000	16.869	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.	
110) Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111) Benzyl chloride	91	18.339	18.339	1.008	383	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

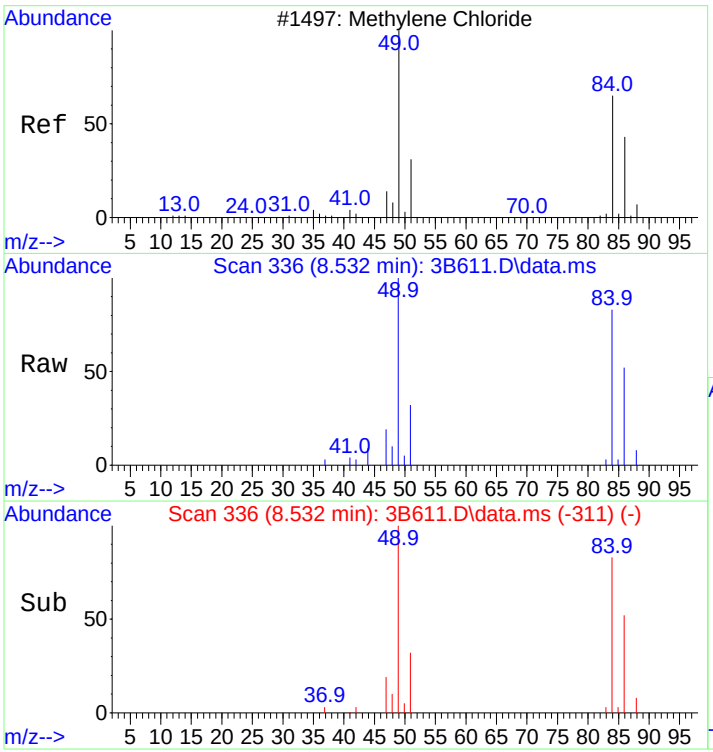
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B611.D
Acq On : 04 Sep 2011 00:57
Operator : GRB2
InstName : VOA3
Sample : |285124004|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 20:42:24 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

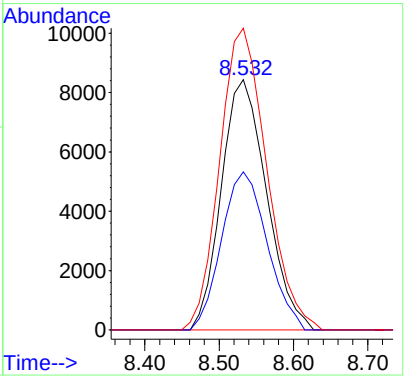


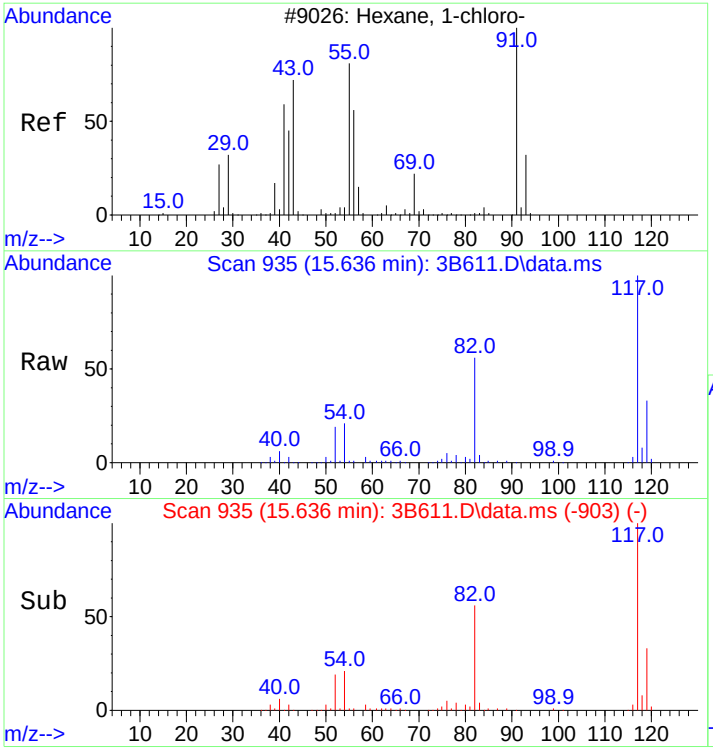


#15
Methylene chloride
Concen: 3.83 ug/L
RT: 8.532 min Scan# 336
Delta R.T. 0.000 min
Lab File: 3B611.D
Acq: 04 Sep 2011 00:57

Tgt Ion: 84 Resp: 35660

Ion	Ratio	Lower	Upper
84	100		
86	63.6	35.0	95.0
49	125.1	92.2	152.2

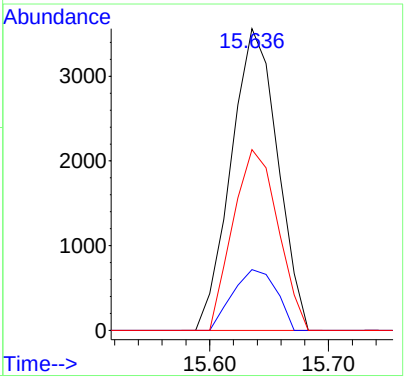




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.42 ug/L
RT: 15.636 min Scan# 935
Delta R.T. 0.083 min
Lab File: 3B611.D
Acq: 04 Sep 2011 00:57

Tgt Ion: 55 Resp: 9688

Ion	Ratio	Lower	Upper
55	100		
91	19.0	123.6	183.6#
56	58.2	31.5	91.5



Standards

Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6 #	Level 7 !	Level 7a
Fluorobenzene (IS)	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
1,2-Dichloroethane-d4(surr)		20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol		50	100	200	500	1000	2000	5000	10000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane		2	5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	150	200
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	150	200
Tetrahydrofuran			5	10	25	50	100	250	500
tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Toluene-d8 (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromofluorobenzene (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
Cyclohexanone			25	50	125	250	500	1250	2500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range		
SW 846 8260B low level	Level 1 &1a	Levels 1-> 7a	IS/SS @ 20 ppb	
EPA 524.2	Level 1a	Levels 1a-> 7a	IS/SS @ 20 ppb	
SW846 8260B/624	Level 2	Levels 1a-> 7a	IS/SS @ 50 ppb	n-butyl alchol only in 1a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA3
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:0.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A310.D

Injection Date	Mix	Calibration File
24 Aug 2011 12:07	A	C:\msdchem\1\DATA\082411V3\3A310.D

Cal Lvl:1 Amt:1.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A323.D

Injection Date	Mix	Calibration File
24 Aug 2011 12:37	A	C:\msdchem\1\DATA\082411V3\3A311.D
24 Aug 2011 18:38	B	C:\msdchem\1\DATA\082411V3\3A323.D

Cal Lvl:2 Amt:2.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A324.D

Injection Date	Mix	Calibration File
24 Aug 2011 13:07	A	C:\msdchem\1\DATA\082411V3\3A312.D
24 Aug 2011 19:08	B	C:\msdchem\1\DATA\082411V3\3A324.D

Cal Lvl:3 Amt:5.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A325.D

Injection Date	Mix	Calibration File
24 Aug 2011 13:37	A	C:\msdchem\1\DATA\082411V3\3A313.D
24 Aug 2011 19:38	B	C:\msdchem\1\DATA\082411V3\3A325.D

Cal Lvl:4 Amt:10.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A326.D

Injection Date	Mix	Calibration File
24 Aug 2011 14:07	A	C:\msdchem\1\DATA\082411V3\3A314.D
24 Aug 2011 20:08	B	C:\msdchem\1\DATA\082411V3\3A326.D

Cal Lvl:5 Amt:20.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A327.D

Injection Date	Mix	Calibration File
24 Aug 2011 14:37	A	C:\msdchem\1\DATA\082411V3\3A315.D
24 Aug 2011 20:38	B	C:\msdchem\1\DATA\082411V3\3A327.D

Cal Lvl:6 Amt:50.00 Last Updated with: C:\msdchem\1\DATA\082411V3\3A328.D

Injection Date	Mix	Calibration File
24 Aug 2011 15:07	A	C:\msdchem\1\DATA\082411V3\3A316.D
24 Aug 2011 21:08	B	C:\msdchem\1\DATA\082411V3\3A328.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\DATA\082511V3\3A403.D

Injection Date	Mix	Calibration File
24 Aug 2011 16:07	A	C:\msdchem\1\DATA\082411V3\3A318.D
25 Aug 2011 09:52	B	C:\msdchem\1\DATA\082511V3\3A403.D

Cal Lvl:9 Amt:80.00 Last Updated with: C:\msdchem\1\DATA\082511V3\3A402.D

Injection Date	Mix	Calibration File

Calibration History Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

24 Aug 2011 15:37	A	C:\msdchem\1\DATA\082411V3\3A317.D
25 Aug 2011 09:22	B	C:\msdchem\1\DATA\082511V3\3A402.D

VOA3-8260-082411.M Wed Sep 07 11:18:01 2011

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.2066334	0.1620559	0.2118402	0.1834713	0.2116538				
	0.2195281	0.2063447	0.2100296				0.2014	AVRG		9.4532
3)MPA Chloromethane		0.2750444	0.2121559	0.2487080	0.2329658	0.2542693				
	0.2380538	0.2201670	0.2295825				0.2389	AVRG		8.4142
4)MCA Vinyl chloride		0.2665231	0.2257862	0.2495386	0.2395662	0.2545830				
	0.2413465	0.2300347	0.2360064				0.2429	AVRG		5.5186
5)MA Bromomethane		0.3515368	0.2982162	0.3003132	0.2982980	0.3001584				
	0.2789268	0.2719602	0.2749791				0.2968	AVRG		8.4823
6)MA Chloroethane		0.1780688	0.1652139	0.1885747	0.1873411	0.1922242				
	0.1829379	0.1811698	0.1821610				0.1822	AVRG		4.5197
7)MA Trichlorofluoromethane		0.4065857	0.3850711	0.4093624	0.3930551	0.4036742				
	0.3803117	0.3718496	0.3779977				0.3910	AVRG		3.6558
8)MA Ethyl ether		0.2402388	0.2381533	0.2419480	0.2457800	0.2468808				
	0.2288364	0.2223173	0.2251809				0.2362	AVRG		4.0087
9)MA Acetone		33416	48962	127595	221461	476084				
0.0423 | 0.1428 | 0.00	1016561	1808359	1450597					LINR	#	0.9952
10)MCA 1,1-Dichloroethylene		0.4547135	0.4382884	0.4539444	0.4385210	0.4288891				
	0.3959441	0.3820435	0.3937460				0.4233	AVRG		6.7639
11)MA Iodomethane		0.5720284	0.5492500	0.5617469	0.5361779	0.5185386				
	0.4850503	0.4530934	0.4688803				0.5181	AVRG		8.5859
12)MA Acetonitrile		30128	46069	124958	226302	449275				
0.0331 | 0.0291 | 0.00	990077	1847153	1474096					LINR	#	0.9979
13)MA Methyl acetate		0.2504005	0.2061129	0.2317305	0.2164088	0.2246026				
	0.1913368	0.1825882	0.1835553				0.2108	AVRG		11.5722
14)MA Carbon disulfide		1.0371116	0.9920166	1.0041926	0.9474983	0.8998458				
	0.8102015	0.7352041	0.7675222				0.8992	AVRG		12.8285
15)MA Methylene chloride			0.4455416	0.3896004	0.3503236	0.3378137				
	0.3165256	0.3117369	0.3095636				0.3516	AVRG		14.2435
16)MA tert-Butyl methyl ether		0.9084268	0.8470139	0.9224122	0.8823403	0.8712392				
	0.8115046	0.7858636	0.7804093				0.8512	AVRG		6.3721

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4186677	0.4115983	0.4310818	0.4053687	0.3952020				
	0.3669922	0.3525394	0.3600271				0.3927	AVRG		7.4635
18)MA Vinyl acetate		0.5690120	0.5446006	0.5707225	0.5601744	0.4966682				
	0.4676471	0.4166238	0.4268733				0.5065	AVRG		12.5723
19)MPA 1,1-Dichloroethane		0.5629310	0.5291163	0.5290617	0.5072755	0.4767236				
	0.4473872	0.4206305	0.4281950				0.4877	AVRG		10.7544
20)MA 2-Butanone		0.2748684	0.2185085	0.2426865	0.2142618	0.2159552				
	0.2109306	0.1889550	0.1864803				0.2191	AVRG		13.0703
21)MA cis-1,2-Dichloroethylene		0.3766209	0.3404518	0.3583988	0.3387303	0.3270070				
	0.3020914	0.2962615	0.2972067				0.3296	AVRG		9.0045
22)MA 2,2-Dichloropropane		0.4476723	0.4193812	0.4125698	0.3873825	0.3687099				
	0.3335597	0.3230060	0.3281337				0.3776	AVRG		12.4314
23)MA Bromochloromethane		0.1792290	0.1539062	0.1663618	0.1641300	0.1620185				
	0.1545783	0.1544848	0.1535339				0.1610	AVRG		5.5624
24)MCA Chloroform		0.5802538	0.5389773	0.5556332	0.5141444	0.5033054				
	0.4645402	0.4493563	0.4561742				0.5078	AVRG		9.5674
25)MA 1,1,1-Trichloroethane		0.4503128	0.4678512	0.4662391	0.4517706	0.4396061				
	0.4159358	0.3977659	0.4087194				0.4373	AVRG		6.1065
26)MA Cyclohexane		0.5514091	0.5513241	0.5293002	0.5010373	0.4715128				
	0.4436163	0.4204578	0.4361260				0.4881	AVRG		10.7859
27)MA 1,1-Dichloropropene		0.4181876	0.3802425	0.3962535	0.3822267	0.3570192				
	0.3303667	0.3132446	0.3274051				0.3631	AVRG		10.2312
28)MA Carbon tetrachloride		0.4008248	0.3882903	0.3969525	0.3802979	0.3614804				
	0.3406402	0.3317829	0.3416743				0.3677	AVRG		7.4640
29)SA 1,2-Dichloroethane-d4		0.0576557	0.0558537	0.0584516	0.0580937	0.0586041				
	0.0569194	0.0563775	0.0554055				0.0572	AVRG		2.1244
30)MA 1,2-Dichloroethane		0.3672593	0.3643303	0.3894605	0.3674797	0.3543791				
	0.3259343	0.3072522	0.3104612				0.3483	AVRG		8.6349
31)MA Benzene		1.2209173	1.1424592	1.1792125	1.1229156	1.0761645				
	1.0040088	0.9635532	0.9796109				1.0861	AVRG		8.8431

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6455043	0.5669714	0.5961361	0.5777308	0.5470413				
	0.5075100	0.4865031	0.5027754				0.5538	AVRG		9.7171
33)MA n-Butyl alcohol	5757	11982	22414	84720	171501	409242				
-0.0087 | 0.0081 | 0.00	1021924	2011802	1586582					LINR	# #	0.9994
34)MA Trichloroethylene		0.3006486	0.3051638	0.3205440	0.3039502	0.2927842				
	0.2719307	0.2579379	0.2641227				0.2896	AVRG		7.7221
35)MCA 1,2-Dichloropropane		0.3099701	0.2902907	0.3050337	0.2858745	0.2758541				
	0.2552848	0.2390916	0.2437849				0.2756	AVRG		9.8180
36)MA Methylcyclohexane		0.5438079	0.5034652	0.5192670	0.5001054	0.4853567				
	0.4461527	0.4276130	0.4413509				0.4834	AVRG		8.5255
37)MA Dibromomethane		0.1981520	0.1679032	0.1950798	0.1827510	0.1805884				
	0.1688301	0.1687955	0.1678734				0.1787	AVRG		7.0001
38)MA Bromodichloromethane		0.4232684	0.3973567	0.4219286	0.3981050	0.4019733				
	0.3783667	0.3665335	0.3697492				0.3947	AVRG		5.5113
39)MA 2-Chloroethylvinyl ether		0.1409908	0.1270898	0.1821250	0.1437495	0.1491914				
	0.1299272	0.1266274	0.1294564				0.1411	AVRG		13.1779
40)MA cis-1,3-Dichloropropylen		0.4845983	0.4732300	0.5059854	0.4910594	0.4766645				
	0.4440559	0.4349291	0.4397446				0.4688	AVRG		5.5935
42)MA 4-Methyl-2-pentanone		0.3055974	0.2500061	0.3043635	0.2699051	0.2708923				
	0.2446821	0.2265066	0.2268734				0.2624	AVRG		11.8568
43)SA Toluene-d8		2.2188205	2.2249867	2.2401525	2.2119854	2.2190059				
	2.1962226	2.2291198	2.2243843				2.2206	AVRG		0.5804
44)MCA Toluene		3.0263082	2.7906630	2.8425271	2.6816037	2.5979795				
	2.4173532	2.2944280	2.3568235				2.6260	AVRG		9.8050
45)MA trans-1,3-Dichloropropyl		1.0474898	0.9585801	1.0675258	1.0238647	1.0182298				
	0.9515509	0.9309503	0.9447760				0.9929	AVRG		5.2736
46)MA 1,1,2-Trichloroethane		0.5245329	0.4691977	0.5379396	0.5105647	0.5117223				
	0.4698415	0.4524734	0.4583294				0.4918	AVRG		6.7036
47)MA 2-Hexanone		23856	36464	105278	181482	359336				
0.0767 | 0.2639 | 0.00	840120	1432295	1153887					LINR	#	0.9941

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		1.1134040	0.9759822	1.0747401	1.0092176	0.9902477				
	0.8797514	0.8172306	0.8362419				0.9621	AVRG		11.2766
49)MA Tetrachloroethylene		0.6442169	0.5808261	0.5798774	0.5457774	0.5251810				
	0.4865635	0.4597443	0.4781455				0.5375	AVRG		11.6486
50)MA Dibromochloromethane		0.7491605	0.6739205	0.7608613	0.7281233	0.7459892				
	0.7251846	0.7225720	0.7207383				0.7283	AVRG		3.6197
51)MA 1,2-Dibromoethane		0.6729559	0.6019539	0.6815610	0.6582674	0.6614355				
	0.6241601	0.6199735	0.6153071				0.6420	AVRG		4.6678
52)MPA Chlorobenzene		1.9072491	1.8209060	1.8361710	1.7685674	1.7586132				
	1.6526962	1.6168378	1.6307123				1.7490	AVRG		6.0749
53)MA 1,1,1,2-Tetrachloroethan		0.6706382	0.6261943	0.7033748	0.6817456	0.6791574				
	0.6425989	0.6282381	0.6355051				0.6584	AVRG		4.3977
54)MCA Ethylbenzene		3.3402121	3.2245848	3.2231761	3.0127352	2.9051127				
	2.6247176	2.3873374	2.5003621				2.9023	AVRG		12.4545
55)MA m,p-Xylenes		1.3034986	1.2484036	1.2868309	1.2317472	1.2036530				
	1.0988077	1.0209081	1.0609662				1.1819	AVRG		9.0808
56)MA o-Xylene		1.3185633	1.2680459	1.3192857	1.2505438	1.2545836				
	1.1616285	1.1081386	1.1357922				1.2271	AVRG		6.6507
57)MA Styrene		2.2604605	2.1405113	2.1791347	2.0682950	2.0761290				
	1.8984476	1.7437648	1.7872643				2.0193	AVRG		9.3289
59)MPA Bromoform		0.4234955	0.4447950	0.4733194	0.4853358	0.5008265				
	0.4985620	0.4909865	0.5200758				0.4797	AVRG		6.5970
60)MA Isopropylbenzene		3.3758308	3.2715688	3.2015631	3.1810764	3.0177952				
	2.7784262	2.4907504	2.7638883				3.0101	AVRG		10.1396
61)SA Bromofluorobenzene		0.9321574	0.9624566	0.9449437	0.9485299	0.9450058				
	0.9368384	0.9236921	0.9764053				0.9463	AVRG		1.7758
62)MPA 1,1,2,2-Tetrachloroethan		0.8334993	0.7452364	0.8129669	0.7810672	0.7846956				
	0.7566946	0.7095533	0.7470161				0.7713	AVRG		5.1799
63)MA 1,2,3-Trichloropropane		0.2280918	0.2231878	0.2381269	0.2291168	0.2271938				
	0.2203637	0.2134478	0.2235084				0.2254	AVRG		3.1949

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8708053	0.8557766	0.8347474	0.8238638	0.8139307				
	0.7746836	0.7330879	0.7857833				0.8116	AVRG		5.5773
65)MA n-Propylbenzene		3.9704631	3.9037266	3.7401692	3.6228887	3.4307897				
	3.1405191	2.8105641	3.1364054				3.4694	AVRG		11.8900
66)MA 1,3,5-Trimethylbenzene		2.7989460	2.8046944	2.6987900	2.6502208	2.5346065				
	2.2890839	2.0302890	2.2460032				2.5066	AVRG		11.4319
67)MA 2-Chlorotoluene		0.7875007	0.7879103	0.7731242	0.7884269	0.7415211				
	0.7108220	0.6548525	0.7211112				0.7457	AVRG		6.4513
68)MA 4-Chlorotoluene		2.5425125	2.4928063	2.4514587	2.3709292	2.2902225				
	2.1026109	1.9146381	2.0916227				2.2821	AVRG		9.8315
69)MA tert-Butylbenzene		0.5951756	0.6304815	0.5805631	0.5829071	0.5748231				
	0.5648981	0.5294885	0.5746033				0.5791	AVRG		4.8913
70)MA 1,2,4-Trimethylbenzene		2.8855104	2.8264864	2.7543438	2.6771297	2.5784682				
	2.4062615	2.1688928	2.3696052				2.5833	AVRG		9.6751
71)MA sec-Butylbenzene		3.7175610	3.6970145	3.5961448	3.5497792	3.4460132				
	3.2159248	2.8795231	3.1356984				3.4047	AVRG		8.7871
72)MA 4-Isopropyltoluene		2.9445481	2.9217962	2.8667820	2.8362006	2.7549640				
	2.5987255	2.3675749	2.5427238				2.7292	AVRG		7.5484
73)MA 1,3-Dichlorobenzene		1.7008638	1.6270676	1.6247309	1.5609200	1.5295127				
	1.4684500	1.3866523	1.4474295				1.5432	AVRG		6.8537
74)MA 1,4-Dichlorobenzene		1.5635922	1.5606381	1.5397416	1.5082245	1.4876585				
	1.4391592	1.3618674	1.4122914				1.4841	AVRG		4.9634
75)MA n-Butylbenzene		3.0458719	2.9103494	2.9612672	2.9150046	2.8128871				
	2.5770952	2.2839569	2.4580865				2.7456	AVRG		9.9387
76)MA 1,2-Dichlorobenzene		1.6238070	1.5259626	1.5914861	1.5472217	1.5345088				
	1.4491875	1.3644541	1.4304525				1.5084	AVRG		5.7699
77)MA 1,2-Dibromo-3-chloroprop		0.1416179	0.1455031	0.1669531	0.1650966	0.1779969				
	0.1738074	0.1814149	0.1694221				0.1652	AVRG		8.7580
78)MA 1,2,4-Trichlorobenzene		1.0201199	0.9721600	1.0511668	1.0070377	1.0441538				
	0.9675130	0.9521536	0.8880779				0.9878	AVRG		5.4754

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.6284974	0.5704699	0.6147374	0.6007820	0.6028736				
	0.5698001	0.5654031	0.5343442				0.5859	AVRG		5.2930
80)MA Naphthalene		2.0930296	1.7781743	2.0792225	2.0424471	2.1426453				
	1.9620249	1.9714412	1.8062262				1.9844	AVRG		6.7110
81)MA 1,2,3-Trichlorobenzene		0.8374835	0.7679863	0.8728222	0.8426771	0.8647010				
	0.8019376	0.8030136	0.7261116				0.8146	AVRG		6.1397
83)B Chlorotrifluoroethylene		0.1258434	0.1046332	0.1085185	0.1049998	0.1068877				
	0.1031050	0.0909428	0.0967930				0.1052	AVRG		9.6304
84)B 2-Chloro-1,1,1-trifluoro		0.3025450	0.2977154	0.2895566	0.2776973	0.2705728				
	0.2518381	0.2668083	0.2843286				0.2801	AVRG		6.0239
85)B Acrolein		0.0538869	0.0410052	0.0528690	0.0502029	0.0519501				
	0.0448017	0.0476929	0.0507783				0.0491	AVRG		8.9432
86)B Trichlorotrifluoroethane		0.1060320	0.0967823	0.0992119	0.0939009	0.0925368				
	0.0830778	0.0704489	0.0759735				0.0897	AVRG		13.5551
87)B Isopropyl Alcohol		0.0189271	0.0166137	0.0197125	0.0197370	0.0199722				
	0.0166596	0.0161527	0.0193936				0.0184	AVRG		8.8413
88)B Allyl chloride		62132	114723	295316	564331	1080822				
0.1116 | 0.3130 | 0.00	2437766	4271263	2747424					LINR	#	0.9901
89)B tert-Butyl Alcohol		0.0380488	0.0332823	0.0385179	0.0381218	0.0370748				
	0.0285805	0.0267291	0.0324596				0.0341	AVRG		13.4967
90)B Acrylonitrile		0.0964676	0.0875231	0.1035842	0.1030220	0.1043361				
	0.0857806	0.0801580	0.0904338				0.0939	AVRG		9.8578
91)B Isopropyl ether		1.0238749	1.0027980	0.9968590	0.9986328	0.9865477				
	0.8859249	0.8304564	0.8740896				0.9499	AVRG		7.7871
92)B 2-Chloro-1,3-butadiene		0.3800644	0.3538349	0.3727182	0.3666853	0.3610841				
	0.3324498	0.3147460	0.3317068				0.3517	AVRG		6.5372
93)B Ethyl tert-butyl ether		0.9700507	0.9760707	0.9822924	0.9589455	0.9577174				
	0.8654430	0.8073728	0.8544283				0.9215	AVRG		7.3838
94)B Ethyl acetate		0.2958916	0.2451128	0.2690954	0.2692442	0.2568611				
	0.2047621		0.2169031				0.2511	AVRG		12.6396

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0387204	0.0357142	0.0389215	0.0395162	0.0396589				
	0.0319138	0.0309013	0.0346392				0.0362	AVRG		9.6596
96)B Methacrylonitrile		0.1759485	0.1570179	0.1688028	0.1681478	0.1642901				
	0.1328370	0.1198751	0.1390257				0.1532	AVRG		13.1626
97)B Tetrahydrofuran		15020	22862	59272	116822	223672				
0.0217 | 0.0646 | 0.00	450754	879306	609743					LINR	#	0.9900
98)B Isobutyl alcohol		0.0076193	0.0058691	0.0082712	0.0087360	0.0094600				
	0.0076351	0.0075399	0.0092823				0.0081	AVRG	#	14.3927
99)B Methyl tert-amyl ether		0.8848422	0.8711068	0.9060705	0.8819819	0.8822739				
	0.7947954	0.7413892	0.7935536				0.8445	AVRG		7.0277
100)B Methyl methacrylate		0.2034568	0.1811852	0.1961867	0.1939994	0.1902208				
	0.1533490	0.1396765	0.1656551				0.1780	AVRG		12.7835
101)B 1,4-Dioxane		0.0028089	0.0024175	0.0027784	0.0029330	0.0028651				
	0.0024639	0.0024047	0.0027239				0.0027	AVRG	#	7.9652
102)B 2-Nitropropane		0.0912735	0.0819403	0.0890608	0.0889763	0.0895666				
	0.0748098	0.0703453	0.0829347				0.0836	AVRG		9.1459
104)B Ethyl methacrylate		0.8941451	0.8397013	0.8997172	0.8887281	0.8357004				
	0.7093556	0.6062902	0.7142966				0.7985	AVRG		13.6039
106)B 1-Chlorohexane		0.7425768	0.6952003	0.6216893	0.5995022	0.5941291				
	0.5409185	0.5276735	0.5591123				0.6101	AVRG		12.3085
107)B cis-1,4-Dichloro-2-buten		0.2356933	0.2228384	0.2430724	0.2480103	0.2358122				
	0.1963744	0.1827962	0.2121648				0.2221	AVRG		10.4766
108)B Cyclohexanone		9401	9214	29045	51990	101123				
0.0117 | 0.0149 | 0.00	216689		289584					LINR	#	0.9979
109)B trans-1,4-Dichloro-2-but		0.1835531	0.1791798	0.2025683	0.2044984	0.2000922				
	0.1670315	0.1578152	0.1842341				0.1849	AVRG		9.1772
110)B Pentachloroethane		0.4177334	0.4024236	0.4039802	0.4139435	0.4127129				
	0.3858668	0.3610877	0.4181338				0.4020	AVRG		4.8888
111)B Benzyl chloride		1.2392090	1.1564966	1.2591838	1.2527115	1.2140677				
	1.0342070	1.0654744	1.2782708				1.1875	AVRG		7.8201

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Last Update : Thu Aug 25 11:40:17 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7	9							
112)B bis(2-Chloroisopropyl)et		0.3723764	0.3378757	0.3743594	0.3792479	0.3724486				
	0.3005188	0.2825156	0.3441934				0.3454	AVRG		10.6479

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A310.D
Acq On : 24 Aug 2011 12:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD0005L 5ML n/a MIX[A] 0723-01B+0727-01C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 11:41:36 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1244680	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	534627	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	558132	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	74085	52.06	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1201002	50.58	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	514417	48.70	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.652	4.666	0.387	3283	0.65	ug/L	66
3) Chloromethane	50	5.053	5.068	0.421	3959	0.67	ug/L	78
4) Vinyl chloride	62	5.350	5.365	0.446	3735	0.62	ug/L	86
5) Bromomethane	94	6.101	6.125	0.508	2785	0.38	ug/L	95
6) Chloroethane	64	6.327	6.327	0.527	2204	0.49	ug/L #	42
7) Trichlorofluoromethane	101	6.837	6.849	0.569	5165	0.53	ug/L	78
8) Ethyl ether	59	7.299	7.299	0.608	2936	0.50	ug/L	71
9) Acetone	43	7.774	7.762	0.647	19642	Below Cal		95
10) 1,1-Dichloroethylene	61	7.762	7.774	0.646	5195	0.49	ug/L	95
11) Iodomethane	142	8.058	8.070	0.671	33916	2.63	ug/L	97
12) Acetonitrile	41	8.236	8.224	0.686	18609	Below Cal		71
13) Methyl acetate	43	8.307	8.295	0.692	15573	2.97	ug/L	94
14) Carbon disulfide	76	8.212	8.212	0.684	63886	2.85	ug/L	99
15) Methylene chloride	84	8.532	8.532	0.711	10103	N.D.		
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	11534	0.54	ug/L	87
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	4882	0.50	ug/L	95
18) Vinyl acetate	43	9.612	9.612	0.800	36286	2.88	ug/L	92
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	6225	0.51	ug/L	93
20) 2-Butanone	43	10.418	10.406	0.868	17977	3.30	ug/L	91
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	4410	0.54	ug/L	95
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	5497	0.58	ug/L	94
23) Bromochloromethane	128	10.809	10.797	0.900	1905	0.48	ug/L	97
24) Chloroform	83	10.869	10.869	0.905	7236	0.57	ug/L	98
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	5828	0.54	ug/L	97
26) Cyclohexane	56	11.307	11.307	0.942	8074	0.66	ug/L	86
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	5076	0.56	ug/L #	65
28) Carbon tetrachloride	117	11.438	11.438	0.953	4773	0.52	ug/L	99
30) 1,2-Dichloroethane	62	11.675	11.663	0.972	4679	0.54	ug/L	90
31) Benzene	78	11.687	11.687	0.973	15767	0.58	ug/L	97
32) Cyclohexene	67	11.829	11.829	0.985	7444	0.54	ug/L	96
33) n-Butyl alcohol	56	12.220	12.185	1.018	5757	82.55	ug/L	91
34) Trichloroethylene	95	12.481	12.481	1.040	4256	0.59	ug/L	90
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	4144	0.60	ug/L	89
36) Methylcyclohexane	83	12.766	12.766	1.063	6757	0.56	ug/L #	72
37) Dibromomethane	93	12.920	12.920	1.076	2391	0.54	ug/L	92
38) Bromodichloromethane	83	13.062	13.062	1.088	5258	0.54	ug/L #	92
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	8324	2.37	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A310.D
Acq On : 24 Aug 2011 12:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD0005L 5ML n/a MIX[A] 0723-01B+0727-01C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 11:41:36 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	6321	0.54	ug/L	97
42) 4-Methyl-2-pentanone	58	13.715	13.715	0.877	8312	2.96	ug/L	89
44) Toluene	91	14.035	14.035	0.898	17759	0.63	ug/L	91
45) trans-1,3-Dichloroprop...	75	14.225	14.213	0.910	5472	0.52	ug/L	77
46) 1,1,2-Trichloroethane	83	14.462	14.462	0.925	2732	0.52	ug/L	98
47) 2-Hexanone	58	14.675	14.675	0.939	11836	Below Cal		87
48) 1,3-Dichloropropane	76	14.675	14.663	0.939	5490	0.53	ug/L #	67
49) Tetrachloroethylene	164	14.699	14.699	0.940	3292	0.57	ug/L	92
50) Dibromochloromethane	129	14.960	14.960	0.957	3760	0.48	ug/L	100
51) 1,2-Dibromoethane	107	15.138	15.138	0.968	3307	0.48	ug/L	98
52) Chlorobenzene	112	15.671	15.671	1.002	10103	0.54	ug/L #	24
53) 1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	3860	0.55	ug/L	96
54) Ethylbenzene	91	15.754	15.754	1.008	18657	0.60	ug/L	95
55) m,p-Xylenes	106	15.873	15.873	1.015	14359	1.14	ug/L	80
56) o-Xylene	106	16.335	16.335	1.045	7345	0.56	ug/L	81
57) Styrene	104	16.335	16.335	1.045	12166	0.56	ug/L	89
59) Bromoform	173	16.608	16.608	0.913	2273	0.42	ug/L	96
60) Isopropylbenzene	105	16.715	16.715	0.919	19124	0.57	ug/L	95
62) 1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	4360	0.51	ug/L	91
63) 1,2,3-Trichloropropane	110	17.094	17.094	0.939	905	0.36	ug/L #	1
64) Bromobenzene	156	17.142	17.142	0.942	4625	0.51	ug/L	89
65) n-Propylbenzene	91	17.165	17.165	0.943	22523	0.58	ug/L	93
66) 1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	16245	0.58	ug/L	92
67) 2-Chlorotoluene	126	17.320	17.320	0.952	4285	0.51	ug/L #	66
68) 4-Chlorotoluene	91	17.426	17.415	0.958	14592	0.57	ug/L	95
69) tert-Butylbenzene	134	17.711	17.711	0.973	3305	0.51	ug/L #	81
70) 1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	17224	0.60	ug/L	90
71) sec-Butylbenzene	105	17.948	17.948	0.986	20807	0.55	ug/L	96
72) 4-Isopropyltoluene	119	18.079	18.067	0.993	16159	0.53	ug/L	95
73) 1,3-Dichlorobenzene	146	18.126	18.126	0.996	9541	0.55	ug/L	94
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	9390	0.57	ug/L #	63
75) n-Butylbenzene	91	18.529	18.529	1.018	16822	0.55	ug/L	95
76) 1,2-Dichlorobenzene	146	18.660	18.660	1.025	8925	0.53	ug/L	96
77) 1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	461	N.D.		
78) 1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	6273	0.57	ug/L	93
79) Hexachlorobutadiene	225	20.865	20.865	1.147	3336	0.51	ug/L	93
80) Naphthalene	128	21.079	21.079	1.158	11314	0.51	ug/L	94
81) 1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	4543	0.50	ug/L	97
83) Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85) Acrolein		7.548	7.524	0.629	0m	N.D. d		
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87) Isopropyl Alcohol		7.951	7.928	0.662	0m	N.D. d		
88) Allyl chloride		8.236	8.331	0.686	0m	N.D. d		
89) tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.		
90) Acrylonitrile		0.000	8.864	0.000	0	N.D.		
91) Isopropyl ether		9.612	9.647	0.800	0m	N.D. d		
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94) Ethyl acetate		10.418	10.454	0.868	0m	N.D. d		
95) Propionitrile		0.000	10.501	0.000	0	N.D.		
96) Methacrylonitrile		10.726	10.726	0.893	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A310.D
Acq On : 24 Aug 2011 12:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD0005L 5ML n/a MIX[A] 0723-01B+0727-01C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 11:41:36 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

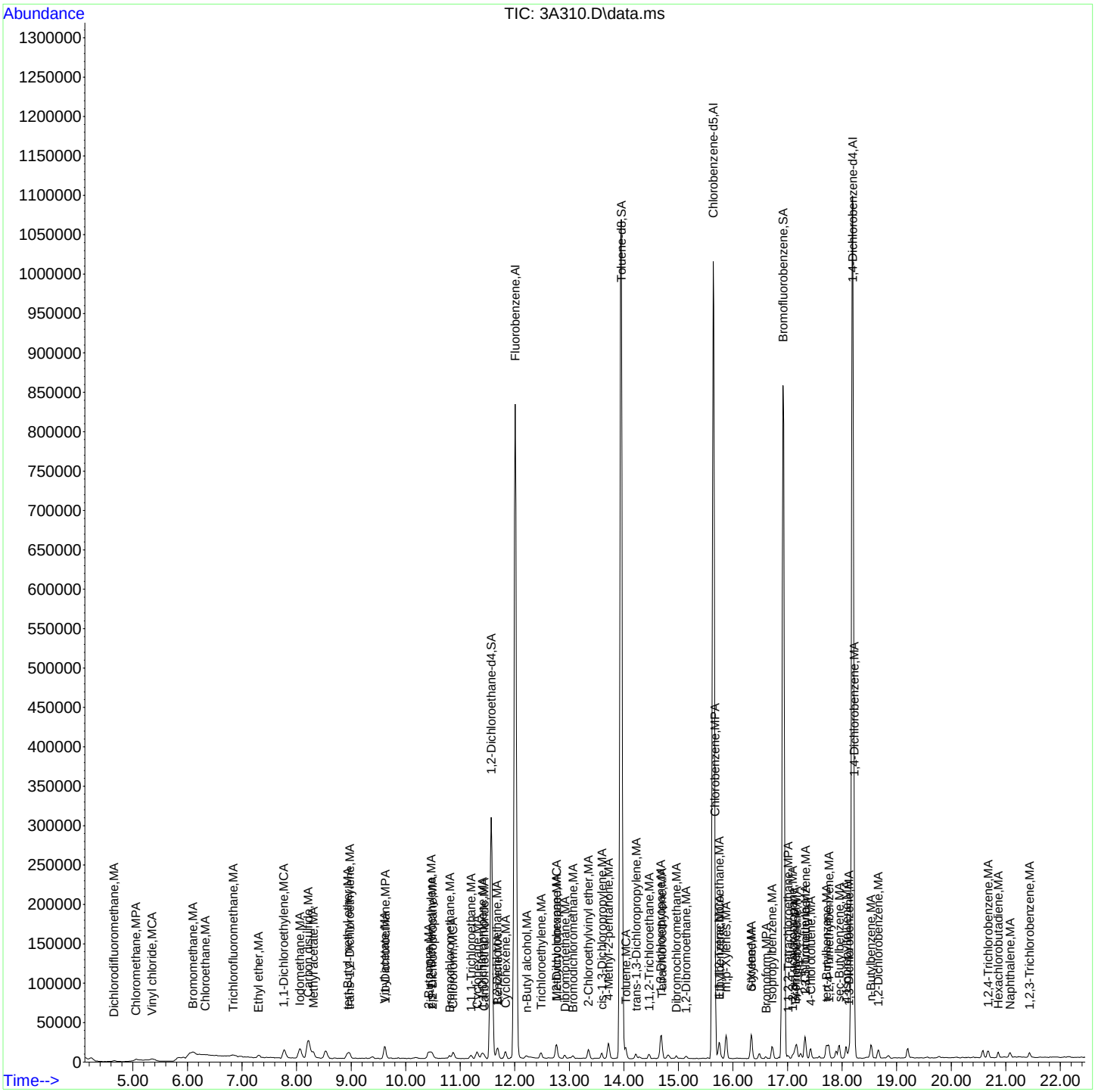
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.201	11.343	0.933	0m	N.D.	d
99)	Methyl tert-amyl ether		0.000	11.746	0.000	0	N.D.	
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.553	15.553	0.855	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	16.762	0.000	0	N.D.	
108)	Cyclohexanone		16.869	16.869	0.927	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.	
110)	Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.719	18.754	1.029	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A310.D
Acq On : 24 Aug 2011 12:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD0005L 5ML n/a MIX[A] 0723-01B+0727-01C
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 11:41:36 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A311.D
Acq On : 24 Aug 2011 12:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD001L 5ML n/a MIX[A] 0723-02B+0727-02C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 11:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1249798	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	539337	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	552190	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	72058	50.42	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1196692	49.96	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	514728	49.26	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	5165	1.03	ug/L	84
3) Chloromethane	50	5.053	5.068	0.421	6875	1.15	ug/L	93
4) Vinyl chloride	62	5.350	5.365	0.446	6662	1.10	ug/L	94
5) Bromomethane	94	6.101	6.125	0.508	8787	1.18	ug/L	99
6) Chloroethane	64	6.327	6.327	0.527	4451	0.98	ug/L	91
7) Trichlorofluoromethane	101	6.837	6.849	0.569	10163	1.04	ug/L	83
8) Ethyl ether	59	7.299	7.299	0.608	6005	1.02	ug/L	82
9) Acetone	43	7.773	7.762	0.647	33416	Below Cal		97
10) 1,1-Dichloroethylene	61	7.761	7.774	0.646	11366	1.07	ug/L	97
11) Iodomethane	142	8.058	8.070	0.671	71492	5.52	ug/L	99
12) Acetonitrile	41	8.236	8.224	0.686	30128	Below Cal		71
13) Methyl acetate	43	8.307	8.295	0.692	31295	5.94	ug/L	95
14) Carbon disulfide	76	8.212	8.212	0.684	129618	5.77	ug/L	99
15) Methylene chloride	84	8.532	8.532	0.711	15225	N.D.		
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	22707	1.07	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	10465	1.07	ug/L	97
18) Vinyl acetate	43	9.611	9.612	0.800	71115	5.62	ug/L	94
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	14071	1.15	ug/L	97
20) 2-Butanone	43	10.418	10.406	0.868	34353	6.27	ug/L	94
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	9414	1.14	ug/L	96
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	11190	1.19	ug/L	72
23) Bromochloromethane	128	10.809	10.797	0.900	4480	1.11	ug/L	93
24) Chloroform	83	10.868	10.869	0.905	14504	1.14	ug/L	95
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	11256	1.03	ug/L	94
26) Cyclohexane	56	11.307	11.307	0.942	13783	1.13	ug/L	96
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	10453	1.15	ug/L	82
28) Carbon tetrachloride	117	11.438	11.438	0.953	10019	1.09	ug/L	98
30) 1,2-Dichloroethane	62	11.675	11.663	0.972	9180	1.05	ug/L	96
31) Benzene	78	11.687	11.687	0.973	30518	1.12	ug/L	95
32) Cyclohexene	67	11.829	11.829	0.985	16135	1.17	ug/L	97
33) n-Butyl alcohol	56	12.208	12.185	1.017	11982	113.18	ug/L	87
34) Trichloroethylene	95	12.481	12.481	1.040	7515	1.04	ug/L	97
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	7748	1.12	ug/L	96
36) Methylcyclohexane	83	12.766	12.766	1.063	13593	1.12	ug/L	83
37) Dibromomethane	93	12.920	12.920	1.076	4953	1.11	ug/L	91
38) Bromodichloromethane	83	13.062	13.062	1.088	10580	1.07	ug/L	96
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	17621	4.99	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A311.D
Acq On : 24 Aug 2011 12:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD001L 5ML n/a MIX[A] 0723-02B+0727-02C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 11:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	12113	1.03	ug/L		80
42)	4-Methyl-2-pentanone	58	13.714	13.715	0.877	16482	5.82	ug/L	#	83
44)	Toluene	91	14.035	14.035	0.898	32644	1.15	ug/L		96
45)	trans-1,3-Dichloroprop...	75	14.224	14.213	0.910	11299	1.06	ug/L		84
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	5658	1.07	ug/L		96
47)	2-Hexanone	58	14.675	14.675	0.939	23856	Below Cal			93
48)	1,3-Dichloropropane	76	14.675	14.663	0.939	12010	1.16	ug/L		84
49)	Tetrachloroethylene	164	14.699	14.699	0.940	6949	1.20	ug/L		97
50)	Dibromochloromethane	129	14.960	14.960	0.957	8081	1.03	ug/L		100
51)	1,2-Dibromoethane	107	15.137	15.138	0.968	7259	1.05	ug/L		98
52)	Chlorobenzene	112	15.671	15.671	1.002	20573	1.09	ug/L	#	60
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	7234	1.02	ug/L		93
54)	Ethylbenzene	91	15.754	15.754	1.008	36030	1.15	ug/L		96
55)	m,p-Xylenes	106	15.873	15.873	1.015	28121	2.21	ug/L		85
56)	o-Xylene	106	16.335	16.335	1.045	14223	1.07	ug/L		80
57)	Styrene	104	16.335	16.335	1.045	24383	1.12	ug/L		97
59)	Bromoform	173	16.608	16.608	0.913	4677	0.88	ug/L		100
60)	Isopropylbenzene	105	16.727	16.715	0.919	37282	1.12	ug/L		93
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	9205	1.08	ug/L		95
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	2519	1.01	ug/L	#	73
64)	Bromobenzene	156	17.142	17.142	0.942	9617	1.07	ug/L		94
65)	n-Propylbenzene	91	17.165	17.165	0.943	43849	1.14	ug/L		96
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	30911	1.12	ug/L		98
67)	2-Chlorotoluene	126	17.319	17.320	0.952	8697	1.06	ug/L	#	75
68)	4-Chlorotoluene	91	17.426	17.415	0.958	28079	1.11	ug/L		97
69)	tert-Butylbenzene	134	17.711	17.711	0.973	6573	1.03	ug/L	#	88
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	31867	1.12	ug/L		95
71)	sec-Butylbenzene	105	17.948	17.948	0.986	41056	1.09	ug/L		98
72)	4-Isopropyltoluene	119	18.078	18.067	0.993	32519	1.08	ug/L		97
73)	1,3-Dichlorobenzene	146	18.138	18.126	0.997	18784	1.10	ug/L		98
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	17268	1.05	ug/L	#	79
75)	n-Butylbenzene	91	18.529	18.529	1.018	33638	1.11	ug/L		93
76)	1,2-Dichlorobenzene	146	18.671	18.660	1.026	17933	1.08	ug/L		99
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	1564	0.86	ug/L		88
78)	1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	11266	1.03	ug/L		99
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	6941	1.07	ug/L		97
80)	Naphthalene	128	21.079	21.079	1.158	23115	1.05	ug/L		97
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	9249	1.03	ug/L		99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.			
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.			
85)	Acrolein		7.429	7.524	0.619	0m	N.D.	d		
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.			
87)	Isopropyl Alcohol		7.880	7.928	0.656	0m	N.D.	d		
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.			
90)	Acrylonitrile		0.000	8.864	0.000	0	N.D.			
91)	Isopropyl ether		9.623	9.647	0.801	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.			
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.			
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d		
95)	Propionitrile		0.000	10.501	0.000	0	N.D.			
96)	Methacrylonitrile		10.785	10.726	0.898	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A311.D
Acq On : 24 Aug 2011 12:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD001L 5ML n/a MIX[A] 0723-02B+0727-02C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 11:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

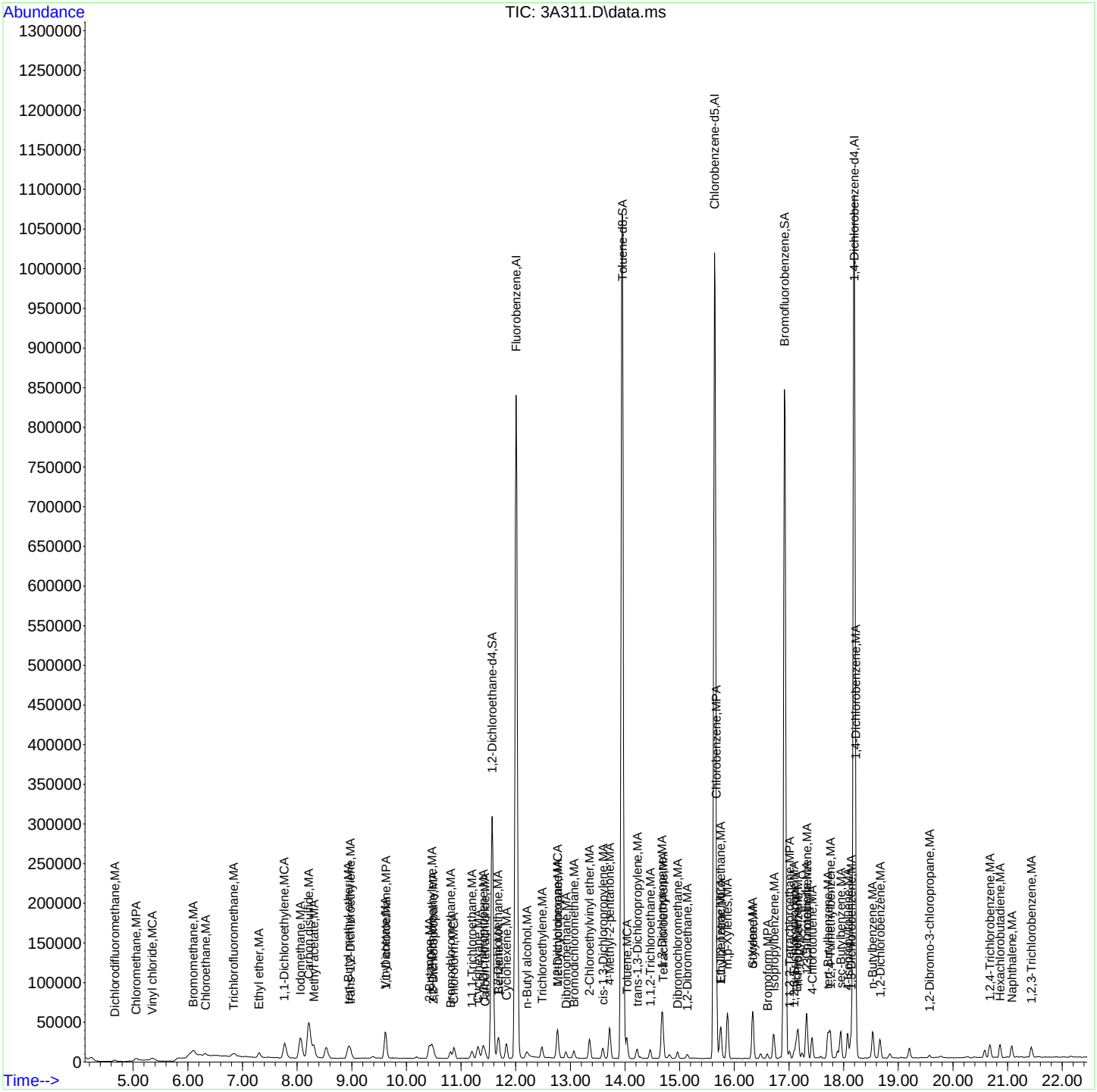
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		0.000	11.746	0.000	0	N.D.	
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.193	13.300	1.099	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.636	15.553	0.859	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	16.762	0.000	0	N.D.	
108)	Cyclohexanone		0.000	16.869	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.	
110)	Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.707	18.754	1.028	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A311.D
Acq On : 24 Aug 2011 12:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD001L 5ML n/a MIX[A] 0723-02B+0727-02C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 11:41:40 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A312.D
Acq On : 24 Aug 2011 13:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-03|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD002L 5ML n/a MIX[A] 0723-03B+0727-03C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 11:41:44 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1227046	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	530107	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	521982	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	68535	48.85	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1179481	50.10	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	502385	50.86	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	7954	1.61	ug/L	87
3) Chloromethane	50	5.053	5.068	0.421	10413	1.78	ug/L	99
4) Vinyl chloride	62	5.350	5.365	0.446	11082	1.86	ug/L	95
5) Bromomethane	94	6.113	6.125	0.509	14637	2.01	ug/L	95
6) Chloroethane	64	6.327	6.327	0.527	8109	1.81	ug/L	98
7) Trichlorofluoromethane	101	6.837	6.849	0.569	18900	1.97	ug/L	95
8) Ethyl ether	59	7.299	7.299	0.608	11689	2.02	ug/L	94
9) Acetone	43	7.773	7.762	0.647	48962	Below Cal		96
10) 1,1-Dichloroethylene	61	7.762	7.774	0.646	21512	2.07	ug/L	98
11) Iodomethane	142	8.058	8.070	0.671	134791	10.60	ug/L	99
12) Acetonitrile	41	8.236	8.224	0.686	46069	7.66	ug/L	82
13) Methyl acetate	43	8.307	8.295	0.692	50582	9.78	ug/L	98
14) Carbon disulfide	76	8.212	8.212	0.684	243450	11.03	ug/L	98
15) Methylene chloride	84	8.532	8.532	0.711	21868	2.53	ug/L	97
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	41573	1.99	ug/L	95
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	20202	2.10	ug/L	99
18) Vinyl acetate	43	9.612	9.612	0.800	133650	10.75	ug/L	96
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	25970	2.17	ug/L	98
20) 2-Butanone	43	10.418	10.406	0.868	53624	9.97	ug/L	94
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	16710	2.07	ug/L	98
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	20584	2.22	ug/L	98
23) Bromochloromethane	128	10.809	10.797	0.900	7554	1.91	ug/L	90
24) Chloroform	83	10.869	10.869	0.905	26454	2.12	ug/L	97
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	22963	2.14	ug/L	98
26) Cyclohexane	56	11.307	11.307	0.942	27060	2.26	ug/L	95
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	18663	2.09	ug/L	97
28) Carbon tetrachloride	117	11.438	11.438	0.953	19058	2.11	ug/L	99
30) 1,2-Dichloroethane	62	11.675	11.663	0.972	17882	2.09	ug/L	98
31) Benzene	78	11.687	11.687	0.973	56074	2.10	ug/L	96
32) Cyclohexene	67	11.829	11.829	0.985	27828	2.05	ug/L	96
33) n-Butyl alcohol	56	12.197	12.185	1.016	22414	166.78	ug/L	86
34) Trichloroethylene	95	12.481	12.481	1.040	14978	2.11	ug/L	98
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	14248	2.11	ug/L	98
36) Methylcyclohexane	83	12.766	12.766	1.063	24711	2.08	ug/L	86
37) Dibromomethane	93	12.920	12.920	1.076	8241	1.88	ug/L	96
38) Bromodichloromethane	83	13.062	13.062	1.088	19503	2.01	ug/L	99
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	31189	9.00	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A312.D
Acq On : 24 Aug 2011 13:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-03|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD002L 5ML n/a MIX[A] 0723-03B+0727-03C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 11:41:44 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	23227	2.02	ug/L		90
42)	4-Methyl-2-pentanone	58	13.715	13.715	0.877	26506	9.53	ug/L		85
44)	Toluene	91	14.035	14.035	0.898	59174	2.13	ug/L		97
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	20326	1.93	ug/L		88
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	9949	1.91	ug/L		94
47)	2-Hexanone	58	14.675	14.675	0.939	36464	Below Cal			89
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	20695	2.03	ug/L		87
49)	Tetrachloroethylene	164	14.699	14.699	0.940	12316	2.16	ug/L		98
50)	Dibromochloromethane	129	14.960	14.960	0.957	14290	1.85	ug/L		98
51)	1,2-Dibromoethane	107	15.138	15.138	0.968	12764	1.88	ug/L		98
52)	Chlorobenzene	112	15.671	15.671	1.002	38611	2.08	ug/L		83
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	13278	1.90	ug/L		95
54)	Ethylbenzene	91	15.754	15.754	1.008	68375	2.22	ug/L		95
55)	m,p-Xylenes	106	15.873	15.873	1.015	52943	4.23	ug/L		88
56)	o-Xylene	106	16.335	16.335	1.045	26888	2.07	ug/L		85
57)	Styrene	104	16.335	16.335	1.045	45388	2.12	ug/L		97
59)	Bromoform	173	16.608	16.608	0.913	9287	1.85	ug/L		98
60)	Isopropylbenzene	105	16.715	16.715	0.919	68308	2.17	ug/L		96
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	15560	1.93	ug/L		96
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	4660	1.98	ug/L	#	77
64)	Bromobenzene	156	17.142	17.142	0.942	17868	2.11	ug/L		95
65)	n-Propylbenzene	91	17.165	17.165	0.943	81507	2.25	ug/L		95
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	58560	2.24	ug/L		95
67)	2-Chlorotoluene	126	17.320	17.320	0.952	16451	2.11	ug/L	#	81
68)	4-Chlorotoluene	91	17.426	17.415	0.958	52048	2.18	ug/L		97
69)	tert-Butylbenzene	134	17.711	17.711	0.973	13164	2.18	ug/L		96
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	59015	2.19	ug/L		95
71)	sec-Butylbenzene	105	17.948	17.948	0.986	77191	2.17	ug/L		96
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	61005	2.14	ug/L		96
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	33972	2.11	ug/L		98
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	32585	2.10	ug/L		88
75)	n-Butylbenzene	91	18.529	18.529	1.018	60766	2.12	ug/L		96
76)	1,2-Dichlorobenzene	146	18.660	18.660	1.025	31861	2.02	ug/L		97
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	3038	1.76	ug/L		93
78)	1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	20298	1.97	ug/L		98
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	11911	1.95	ug/L		96
80)	Naphthalene	128	21.079	21.079	1.158	37127	1.79	ug/L		98
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	16035	1.89	ug/L		99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.			
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.			
85)	Acrolein		7.548	7.524	0.629	0m	N.D.	d		
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.			
87)	Isopropyl Alcohol		7.999	7.928	0.666	0m	N.D.	d		
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.			
90)	Acrylonitrile		0.000	8.864	0.000	0	N.D.			
91)	Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.			
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.			
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d		
95)	Propionitrile		0.000	10.501	0.000	0	N.D.			
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A312.D
Acq On : 24 Aug 2011 13:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-03|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD002L 5ML n/a MIX[A] 0723-03B+0727-03C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 11:41:44 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

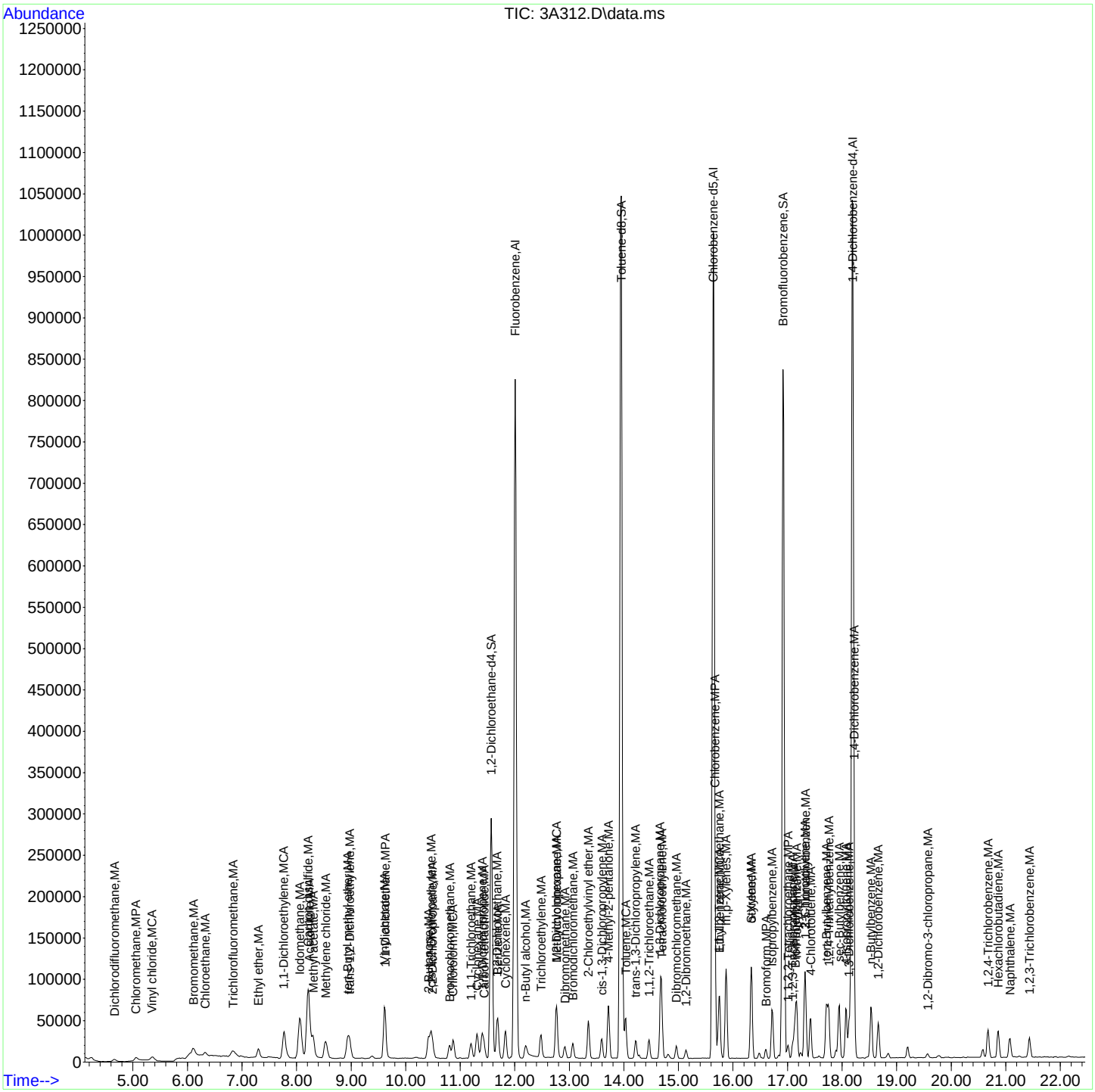
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.556	11.343	0.962	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.636	15.553	0.859	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.988	16.869	0.934	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.	
110)	Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.671	18.754	1.026	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A312.D
Acq On : 24 Aug 2011 13:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-03|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD002L 5ML n/a MIX[A] 0723-03B+0727-03C
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 11:41:44 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A313.D
Acq On : 24 Aug 2011 13:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-04|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005L 5ML n/a MIX[A] 0723-04B+0727-04C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 11:41:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1215964	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	526732	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	548657	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	71075	51.12	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1179960	50.44	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	518450	49.93	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	25759	5.26	ug/L	96
3) Chloromethane	50	5.053	5.068	0.421	30242	5.21	ug/L	98
4) Vinyl chloride	62	5.350	5.365	0.446	30343	5.14	ug/L	98
5) Bromomethane	94	6.113	6.125	0.509	36517	5.06	ug/L	97
6) Chloroethane	64	6.327	6.327	0.527	22930	5.17	ug/L	97
7) Trichlorofluoromethane	101	6.837	6.849	0.569	49777	5.23	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	29420	5.12	ug/L	97
9) Acetone	43	7.774	7.762	0.647	127595	21.93	ug/L	97
10) 1,1-Dichloroethylene	61	7.762	7.774	0.646	55198	5.36	ug/L	99
11) Iodomethane	142	8.058	8.070	0.671	341532	27.11	ug/L	98
12) Acetonitrile	41	8.236	8.224	0.686	124958	119.56	ug/L	92
13) Methyl acetate	43	8.307	8.295	0.692	140888	27.48	ug/L	99
14) Carbon disulfide	76	8.212	8.212	0.684	610531	27.92	ug/L	99
15) Methylene chloride	84	8.532	8.532	0.711	47374	5.54	ug/L	97
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	112162	5.42	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	52418	5.49	ug/L	98
18) Vinyl acetate	43	9.612	9.612	0.800	346989	28.17	ug/L	96
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	64332	5.42	ug/L	99
20) 2-Butanone	43	10.418	10.406	0.868	147549	27.69	ug/L	97
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	43580	5.44	ug/L	99
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	50167	5.46	ug/L	94
23) Bromochloromethane	128	10.809	10.797	0.900	20229	5.17	ug/L	93
24) Chloroform	83	10.869	10.869	0.905	67563	5.47	ug/L	97
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	56693	5.33	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	64361	5.42	ug/L	99
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	48183	5.46	ug/L	94
28) Carbon tetrachloride	117	11.438	11.438	0.953	48268	5.40	ug/L	100
30) 1,2-Dichloroethane	62	11.675	11.663	0.972	47357	5.59	ug/L	99
31) Benzene	78	11.687	11.687	0.973	143388	5.43	ug/L	98
32) Cyclohexene	67	11.829	11.829	0.985	72488	5.38	ug/L	98
33) n-Butyl alcohol	56	12.197	12.185	1.016	84720	484.21	ug/L	95
34) Trichloroethylene	95	12.481	12.481	1.040	38977	5.53	ug/L	96
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	37091	5.53	ug/L	99
36) Methylcyclohexane	83	12.766	12.766	1.063	63141	5.37	ug/L	92
37) Dibromomethane	93	12.920	12.920	1.076	23721	5.46	ug/L	98
38) Bromodichloromethane	83	13.062	13.062	1.088	51305	5.35	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	88583	25.81	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A313.D
Acq On : 24 Aug 2011 13:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-04|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005L 5ML n/a MIX[A] 0723-04B+0727-04C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 11:41:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	61526	5.40	ug/L		94
42)	4-Methyl-2-pentanone	58	13.715	13.715	0.877	80159	29.00	ug/L		91
44)	Toluene	91	14.035	14.035	0.898	149725	5.41	ug/L		97
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	56230	5.38	ug/L		93
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	28335	5.47	ug/L		99
47)	2-Hexanone	58	14.675	14.675	0.939	105278	23.34	ug/L		94
48)	1,3-Dichloropropane	76	14.675	14.663	0.939	56610	5.59	ug/L		89
49)	Tetrachloroethylene	164	14.699	14.699	0.940	30544	5.39	ug/L		97
50)	Dibromochloromethane	129	14.960	14.960	0.957	40077	5.22	ug/L		98
51)	1,2-Dibromoethane	107	15.138	15.138	0.968	35900	5.31	ug/L		98
52)	Chlorobenzene	112	15.671	15.671	1.002	96717	5.25	ug/L		91
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	37049	5.34	ug/L		99
54)	Ethylbenzene	91	15.754	15.754	1.008	169775	5.55	ug/L		97
55)	m,p-Xylenes	106	15.873	15.873	1.015	135563	10.89	ug/L		90
56)	o-Xylene	106	16.335	16.335	1.045	69491	5.38	ug/L		87
57)	Styrene	104	16.335	16.335	1.045	114782	5.40	ug/L		94
59)	Bromoform	173	16.608	16.608	0.913	25969	4.93	ug/L		99
60)	Isopropylbenzene	105	16.715	16.715	0.919	175656	5.32	ug/L		96
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	44604	5.27	ug/L		97
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	13065	5.28	ug/L	#	90
64)	Bromobenzene	156	17.142	17.142	0.942	45799	5.14	ug/L		95
65)	n-Propylbenzene	91	17.165	17.165	0.943	205207	5.39	ug/L		97
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	148071	5.38	ug/L		97
67)	2-Chlorotoluene	126	17.320	17.320	0.952	42418	5.18	ug/L	#	83
68)	4-Chlorotoluene	91	17.426	17.415	0.958	134501	5.37	ug/L		96
69)	tert-Butylbenzene	134	17.711	17.711	0.973	31853	5.01	ug/L	#	85
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	151119	5.33	ug/L		96
71)	sec-Butylbenzene	105	17.948	17.948	0.986	197305	5.28	ug/L		97
72)	4-Isopropyltoluene	119	18.079	18.067	0.993	157288	5.25	ug/L		98
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	89142	5.26	ug/L		97
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	84479	5.19	ug/L		96
75)	n-Butylbenzene	91	18.529	18.529	1.018	162472	5.39	ug/L		95
76)	1,2-Dichlorobenzene	146	18.660	18.660	1.025	87318	5.28	ug/L		100
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	9160	5.05	ug/L		96
78)	1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	57673	5.32	ug/L		97
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	33728	5.25	ug/L		98
80)	Naphthalene	128	21.079	21.079	1.158	114078	5.24	ug/L		99
81)	1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	47888	5.36	ug/L		99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.			
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.			
85)	Acrolein		7.524	7.524	0.627	0m	N.D.	d		
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.			
87)	Isopropyl Alcohol		7.868	7.928	0.655	0m	N.D.	d		
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.			
90)	Acrylonitrile		8.924	8.864	0.743	0m	N.D.	d		
91)	Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.			
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.			
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d		
95)	Propionitrile		0.000	10.501	0.000	0	N.D.			
96)	Methacrylonitrile		10.750	10.726	0.895	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A313.D
Acq On : 24 Aug 2011 13:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-04|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005L 5ML n/a MIX[A] 0723-04B+0727-04C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 11:41:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

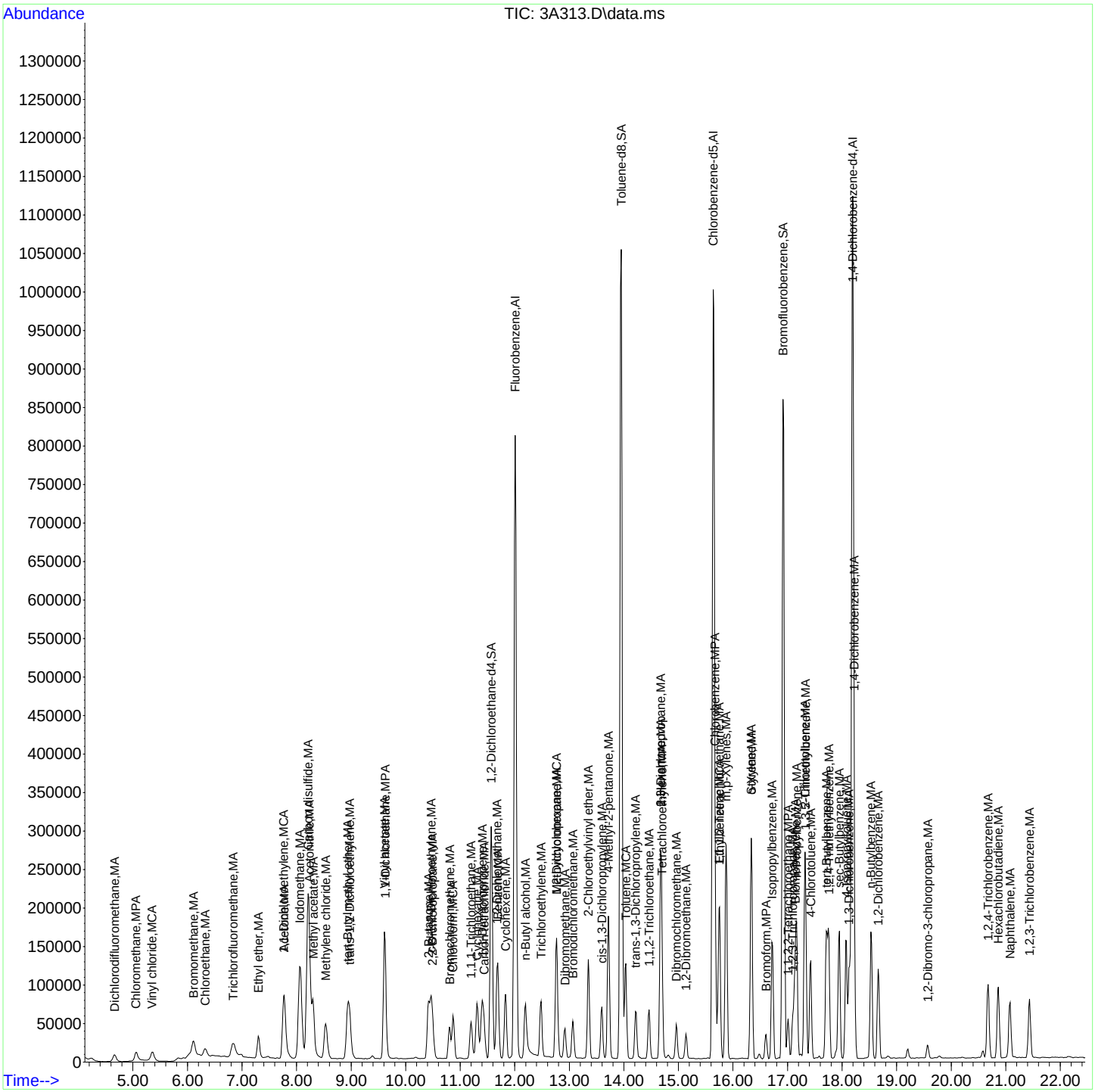
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.529	15.553	0.853	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.893	16.869	0.928	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.826	18.754	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A313.D
Acq On : 24 Aug 2011 13:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-04|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005L 5ML n/a MIX[A] 0723-04B+0727-04C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 11:41:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A314.D
Acq On : 24 Aug 2011 14:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-05|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010L 5ML n/a MIX[A] 0723-05B+0727-05C
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 25 11:41:53 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1228721	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	535603	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	543500	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	71381	50.81	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1184746	49.81	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	515526	50.12	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	45087	9.11	ug/L	96
3) Chloromethane	50	5.067	5.068	0.422	57250	9.75	ug/L	99
4) Vinyl chloride	62	5.350	5.365	0.446	58872	9.86	ug/L	98
5) Bromomethane	94	6.113	6.125	0.509	73305	10.05	ug/L	98
6) Chloroethane	64	6.327	6.327	0.527	46038	10.28	ug/L	98
7) Trichlorofluoromethane	101	6.837	6.849	0.569	96591	10.05	ug/L	100
8) Ethyl ether	59	7.299	7.299	0.608	60399	10.41	ug/L	97
9) Acetone	43	7.761	7.762	0.646	221461	48.29	ug/L	97
10) 1,1-Dichloroethylene	61	7.761	7.774	0.646	107764	10.36	ug/L	99
11) Iodomethane	142	8.058	8.070	0.671	658813	51.75	ug/L	98
12) Acetonitrile	41	8.236	8.224	0.686	226302	259.25	ug/L	96
13) Methyl acetate	43	8.307	8.295	0.692	265906	51.32	ug/L	98
14) Carbon disulfide	76	8.212	8.212	0.684	1164211	52.69	ug/L	98
15) Methylene chloride	84	8.532	8.532	0.711	86090	9.96	ug/L	98
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	216830	10.37	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	99617	10.32	ug/L	99
18) Vinyl acetate	43	9.611	9.612	0.800	688298	55.29	ug/L	97
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	124660	10.40	ug/L	100
20) 2-Butanone	43	10.418	10.406	0.868	263268	48.90	ug/L	98
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	83241	10.28	ug/L	98
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	95197	10.26	ug/L	97
23) Bromochloromethane	128	10.797	10.797	0.899	40334	10.19	ug/L	96
24) Chloroform	83	10.868	10.869	0.905	126348	10.12	ug/L	98
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	111020	10.33	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	123127	10.27	ug/L	98
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	93930	10.53	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	93456	10.34	ug/L	98
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	90306	10.55	ug/L	98
31) Benzene	78	11.687	11.687	0.973	275950	10.34	ug/L	99
32) Cyclohexene	67	11.829	11.829	0.985	141974	10.43	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	171501	915.86	ug/L	95
34) Trichloroethylene	95	12.481	12.481	1.040	74694	10.49	ug/L	97
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	70252	10.37	ug/L	98
36) Methylcyclohexane	83	12.766	12.766	1.063	122898	10.35	ug/L	97
37) Dibromomethane	93	12.920	12.920	1.076	44910	10.22	ug/L	99
38) Bromodichloromethane	83	13.062	13.062	1.088	97832	10.09	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	176628	50.92	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A314.D
Acq On : 24 Aug 2011 14:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-05|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010L 5ML n/a MIX[A] 0723-05B+0727-05C
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 25 11:41:53 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	120675	10.48	ug/L	97
42)	4-Methyl-2-pentanone	58	13.714	13.715	0.877	144562	51.44	ug/L	90
44)	Toluene	91	14.035	14.035	0.898	287255	10.21	ug/L	98
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	109677	10.31	ug/L	95
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	54692	10.38	ug/L	100
47)	2-Hexanone	58	14.675	14.675	0.939	181482	49.67	ug/L	93
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	108108	10.49	ug/L	94
49)	Tetrachloroethylene	164	14.699	14.699	0.940	58464	10.15	ug/L	97
50)	Dibromochloromethane	129	14.960	14.960	0.957	77997	10.00	ug/L	99
51)	1,2-Dibromoethane	107	15.137	15.138	0.968	70514	10.25	ug/L	97
52)	Chlorobenzene	112	15.671	15.671	1.002	189450	10.11	ug/L	96
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	73029	10.35	ug/L	99
54)	Ethylbenzene	91	15.754	15.754	1.008	322726	10.38	ug/L	98
55)	m,p-Xylenes	106	15.873	15.873	1.015	263891	20.84	ug/L	92
56)	o-Xylene	106	16.335	16.335	1.045	133959	10.19	ug/L	87
57)	Styrene	104	16.335	16.335	1.045	221557	10.24	ug/L	94
59)	Bromoform	173	16.608	16.608	0.913	52756	10.12	ug/L	100
60)	Isopropylbenzene	105	16.715	16.715	0.919	345783	10.57	ug/L	98
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	84902	10.13	ug/L	98
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	24905	10.17	ug/L #	88
64)	Bromobenzene	156	17.142	17.142	0.942	89554	10.15	ug/L	95
65)	n-Propylbenzene	91	17.165	17.165	0.943	393808	10.44	ug/L	97
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	288079	10.57	ug/L	97
67)	2-Chlorotoluene	126	17.319	17.320	0.952	85702	10.57	ug/L	93
68)	4-Chlorotoluene	91	17.426	17.415	0.958	257720	10.39	ug/L	97
69)	tert-Butylbenzene	134	17.711	17.711	0.973	63362	10.07	ug/L #	87
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	291004	10.36	ug/L	97
71)	sec-Butylbenzene	105	17.948	17.948	0.986	385861	10.43	ug/L	97
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	308295	10.39	ug/L	98
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	169672	10.11	ug/L	98
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	163944	10.16	ug/L	97
75)	n-Butylbenzene	91	18.529	18.529	1.018	316861	10.62	ug/L	97
76)	1,2-Dichlorobenzene	146	18.659	18.660	1.025	168183	10.26	ug/L	98
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	17946	9.99	ug/L	96
78)	1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	109465	10.19	ug/L	99
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	65305	10.25	ug/L	99
80)	Naphthalene	128	21.079	21.079	1.158	222014	10.29	ug/L	99
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	91599	10.34	ug/L	100
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.607	7.524	0.634	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.963	7.928	0.663	0m	N.D.	d	
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.		
90)	Acrylonitrile		8.935	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d	
95)	Propionitrile		0.000	10.501	0.000	0	N.D.		
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A314.D
Acq On : 24 Aug 2011 14:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-05|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010L 5ML n/a MIX[A] 0723-05B+0727-05C
ALS Vial : 7 Sample Multiplier: 1

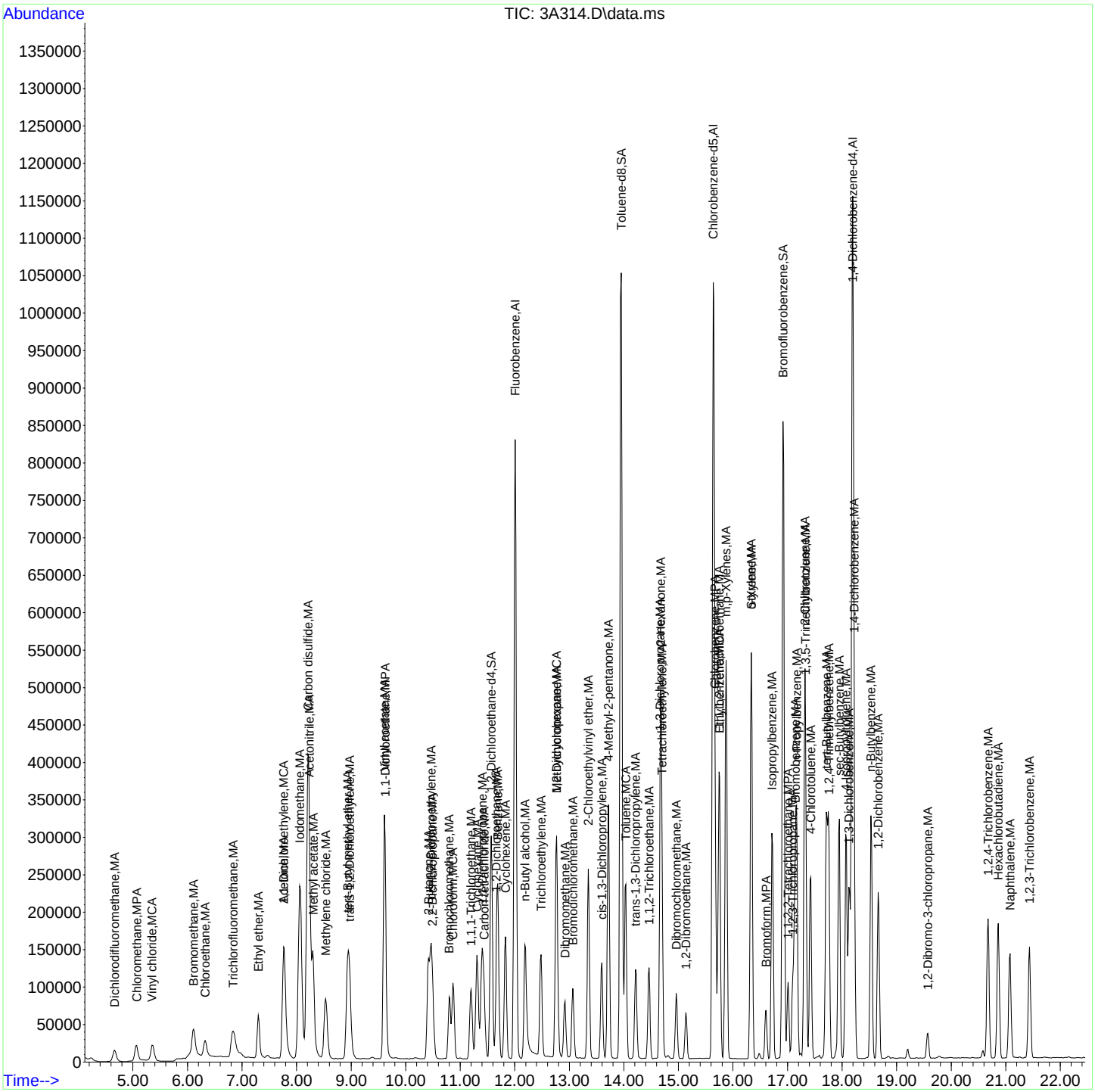
Quant Time: Aug 25 11:41:53 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.165	11.343	0.930	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.493	15.553	0.851	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.881	16.869	0.928	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		0.000	17.782	0.000	0	N.D.	
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.695	18.754	1.027	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A314.D
Acq On    : 24 Aug 2011  14:07
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-05|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD010L 5ML n/a MIX[A] 0723-05B+0727-05C
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Aug 25 11:41:53 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A315.D
Acq On : 24 Aug 2011 14:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-06|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD020L 5ML n/a MIX[A] 0723-06B+0727-06C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 25 11:41:57 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1227252	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.635	15.636	1.000	530698	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	552931	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.635	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	71922	51.25	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1177622	49.96	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	522523	49.93	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	103901	21.01	ug/L	98
3) Chloromethane	50	5.067	5.068	0.422	124821	21.29	ug/L	98
4) Vinyl chloride	62	5.364	5.365	0.447	124975	20.96	ug/L	99
5) Bromomethane	94	6.113	6.125	0.509	147348	20.23	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	94363	21.10	ug/L	99
7) Trichlorofluoromethane	101	6.836	6.849	0.569	198164	20.65	ug/L	100
8) Ethyl ether	59	7.299	7.299	0.608	121194	20.91	ug/L	100
9) Acetone	43	7.761	7.762	0.646	476084	121.00	ug/L	98
10) 1,1-Dichloroethylene	61	7.761	7.774	0.646	210542	20.27	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	1272755	100.09	ug/L	99
12) Acetonitrile	41	8.236	8.224	0.686	449275	571.36	ug/L	99
13) Methyl acetate	43	8.295	8.295	0.691	551288	106.53	ug/L	99
14) Carbon disulfide	76	8.212	8.212	0.684	2208675	100.07	ug/L	99
15) Methylene chloride	84	8.532	8.532	0.711	165833	19.22	ug/L	99
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	427692	20.47	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	194005	20.13	ug/L	99
18) Vinyl acetate	43	9.611	9.612	0.800	1219074	98.05	ug/L	97
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	234024	19.55	ug/L	100
20) 2-Butanone	43	10.418	10.406	0.868	530063	98.57	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	160528	19.84	ug/L	99
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	181000	19.53	ug/L	99
23) Bromochloromethane	128	10.797	10.797	0.899	79535	20.12	ug/L	97
24) Chloroform	83	10.868	10.869	0.905	247073	19.82	ug/L	98
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	215803	20.11	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	231466	19.32	ug/L	99
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	175261	19.66	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	177451	19.66	ug/L	99
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	173965	20.35	ug/L	100
31) Benzene	78	11.687	11.687	0.973	528290	19.82	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	268543	19.76	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	409242	2113.09	ug/L	99
34) Trichloroethylene	95	12.481	12.481	1.040	143728	20.22	ug/L	98
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	135417	20.01	ug/L	99
36) Methylcyclohexane	83	12.766	12.766	1.063	238262	20.08	ug/L	98
37) Dibromomethane	93	12.920	12.920	1.076	88651	20.21	ug/L	98
38) Bromodichloromethane	83	13.062	13.062	1.088	197329	20.37	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	366191	105.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A315.D
Acq On : 24 Aug 2011 14:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-06|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD020L 5ML n/a MIX[A] 0723-06B+0727-06C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 25 11:41:57 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	233995	20.34	ug/L	97
42)	4-Methyl-2-pentanone	58	13.714	13.715	0.877	287524	103.25	ug/L	95
44)	Toluene	91	14.035	14.035	0.898	551497	19.79	ug/L	99
45)	trans-1,3-Dichloroprop...	75	14.212	14.213	0.909	216149	20.51	ug/L	96
46)	1,1,2-Trichloroethane	83	14.461	14.462	0.925	108628	20.81	ug/L	97
47)	2-Hexanone	58	14.675	14.675	0.939	359336	113.76	ug/L	95
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	210209	20.59	ug/L	97
49)	Tetrachloroethylene	164	14.699	14.699	0.940	111485	19.54	ug/L	100
50)	Dibromochloromethane	129	14.960	14.960	0.957	158358	20.49	ug/L	100
51)	1,2-Dibromoethane	107	15.137	15.138	0.968	140409	20.61	ug/L	99
52)	Chlorobenzene	112	15.671	15.671	1.002	373317	20.11	ug/L	98
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	144171	20.63	ug/L	99
54)	Ethylbenzene	91	15.754	15.754	1.008	616695	20.02	ug/L	99
55)	m,p-Xylenes	106	15.873	15.873	1.015	511021	40.74	ug/L	95
56)	o-Xylene	106	16.335	16.335	1.045	266322	20.45	ug/L	93
57)	Styrene	104	16.335	16.335	1.045	440719	20.56	ug/L	98
59)	Bromoform	173	16.608	16.608	0.913	110769	20.88	ug/L	100
60)	Isopropylbenzene	105	16.715	16.715	0.919	667453	20.05	ug/L	99
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	173553	20.35	ug/L	100
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	50249	20.16	ug/L	93
64)	Bromobenzene	156	17.142	17.142	0.942	180019	20.06	ug/L	98
65)	n-Propylbenzene	91	17.165	17.165	0.943	758796	19.78	ug/L	98
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	560585	20.22	ug/L	97
67)	2-Chlorotoluene	126	17.319	17.320	0.952	164004	19.89	ug/L	91
68)	4-Chlorotoluene	91	17.426	17.415	0.958	506534	20.07	ug/L	98
69)	tert-Butylbenzene	134	17.711	17.711	0.973	127135	19.85	ug/L	92
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	570286	19.96	ug/L	97
71)	sec-Butylbenzene	105	17.948	17.948	0.986	762163	20.24	ug/L	98
72)	4-Isopropyltoluene	119	18.078	18.067	0.993	609322	20.19	ug/L	98
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	338286	19.82	ug/L	99
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	329029	20.05	ug/L	99
75)	n-Butylbenzene	91	18.529	18.529	1.018	622133	20.49	ug/L	98
76)	1,2-Dichlorobenzene	146	18.659	18.660	1.025	339391	20.35	ug/L	99
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	39368	21.55	ug/L	98
78)	1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	230938	21.14	ug/L	100
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	133339	20.58	ug/L	99
80)	Naphthalene	128	21.079	21.079	1.158	473894	21.59	ug/L	100
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	191248	21.23	ug/L	99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.382	7.524	0.615	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.963	7.928	0.663	0m	N.D.	d	
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.		
90)	Acrylonitrile		8.935	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d	
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d	
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A315.D
Acq On : 24 Aug 2011 14:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-06|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD020L 5ML n/a MIX[A] 0723-06B+0727-06C
ALS Vial : 8 Sample Multiplier: 1

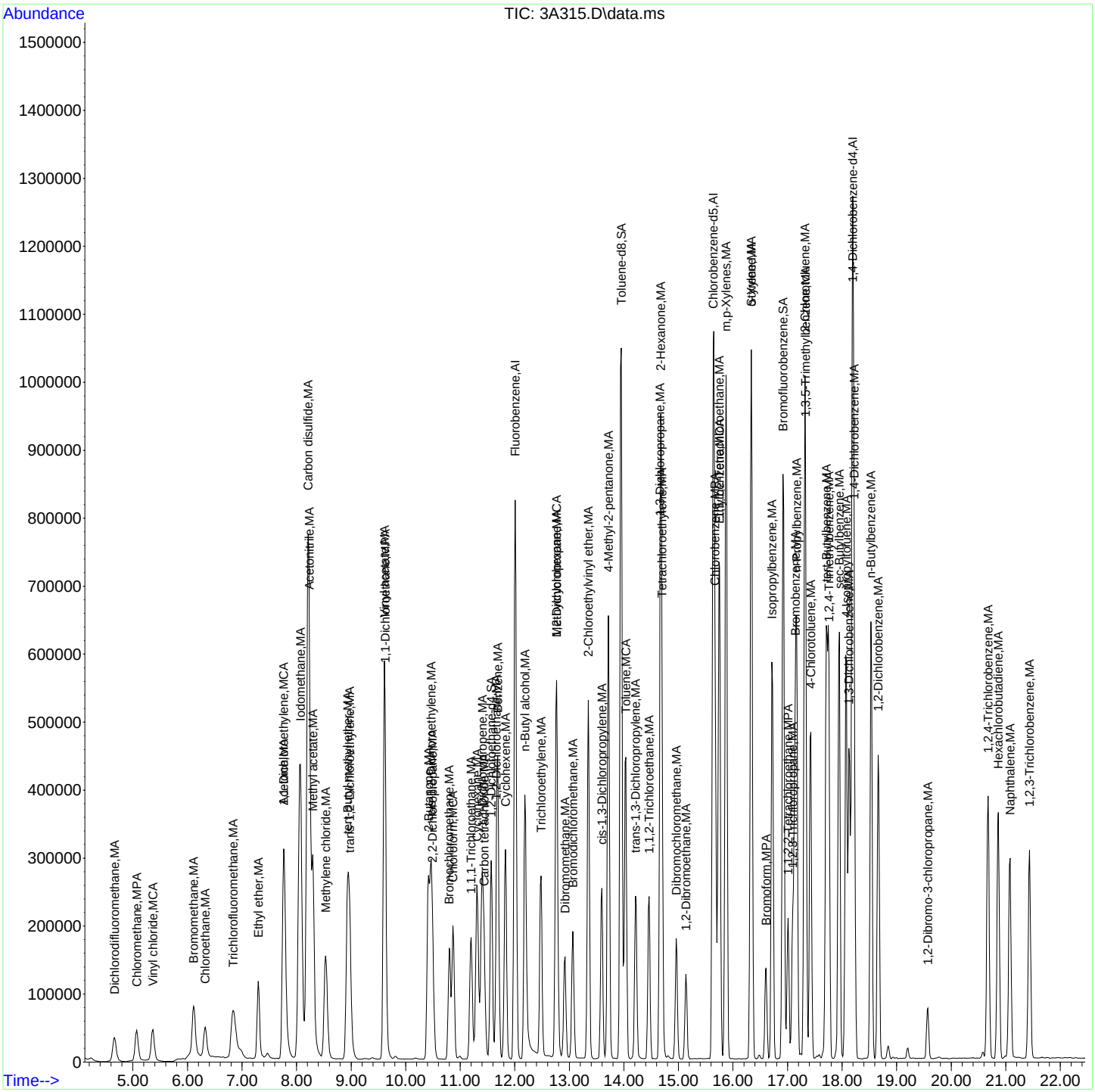
Quant Time: Aug 25 11:41:57 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		0.000	12.884	0.000	0	N.D.	
102)	2-Nitropropane		13.252	13.300	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.552	15.553	0.855	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.869	16.869	0.927	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.185	18.339	0.999	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.742	18.754	1.030	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A315.D
Acq On    : 24 Aug 2011  14:37
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-06|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD020L 5ML n/a MIX[A] 0723-06B+0727-06C
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Aug 25 11:41:57 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A316.D
Acq On : 24 Aug 2011 15:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-07|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050L 5ML n/a MIX[A] 0723-07B+0727-07C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 25 11:42:00 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1244269	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	539948	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	552836	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	70823	49.78	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1185846	49.45	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	517918	49.50	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	273152	54.49	ug/L	100
3) Chloromethane	50	5.068	5.068	0.422	296203	49.83	ug/L	100
4) Vinyl chloride	62	5.365	5.365	0.447	300300	49.68	ug/L	100
5) Bromomethane	94	6.125	6.125	0.510	347060	46.99	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	227624	50.20	ug/L	100
7) Trichlorofluoromethane	101	6.849	6.849	0.570	473210	48.63	ug/L	100
8) Ethyl ether	59	7.299	7.299	0.608	284734	48.45	ug/L	100
9) Acetone	43	7.762	7.762	0.646	1016561	271.21	ug/L	100
10) 1,1-Dichloroethylene	61	7.774	7.774	0.647	492661	46.77	ug/L	100
11) Iodomethane	142	8.070	8.070	0.672	3017665	234.05	ug/L	100
12) Acetonitrile	41	8.224	8.224	0.685	990077	1308.51	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1190372	226.87	ug/L	100
14) Carbon disulfide	76	8.212	8.212	0.684	5040543	225.26	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	393843	45.01	ug/L	100
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	1009730	47.67	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	456637	46.73	ug/L	100
18) Vinyl acetate	43	9.612	9.612	0.800	2909394	230.80	ug/L	100
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	556670	45.87	ug/L	100
20) 2-Butanone	43	10.406	10.406	0.867	1312272	240.70	ug/L	100
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	375883	45.83	ug/L	100
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	415038	44.17	ug/L	100
23) Bromochloromethane	128	10.797	10.797	0.899	192337	48.00	ug/L	100
24) Chloroform	83	10.869	10.869	0.905	578013	45.74	ug/L	100
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	517536	47.56	ug/L	100
26) Cyclohexane	56	11.307	11.307	0.942	551978	45.44	ug/L	100
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	411065	45.49	ug/L	100
28) Carbon tetrachloride	117	11.438	11.438	0.953	423848	46.31	ug/L	100
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	405550	46.79	ug/L	100
31) Benzene	78	11.687	11.687	0.973	1249257	46.22	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	631479	45.82	ug/L	100
33) n-Butyl alcohol	56	12.185	12.185	1.015	1021924	5125.50	ug/L	100
34) Trichloroethylene	95	12.481	12.481	1.040	338355	46.94	ug/L	100
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	317643	46.31	ug/L	100
36) Methylcyclohexane	83	12.766	12.766	1.063	555134	46.15	ug/L	100
37) Dibromomethane	93	12.920	12.920	1.076	210070	47.23	ug/L	100
38) Bromodichloromethane	83	13.062	13.062	1.088	470790	47.94	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	808322	230.13	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A316.D
Acq On : 24 Aug 2011 15:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-07|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050L 5ML n/a MIX[A] 0723-07B+0727-07C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 25 11:42:00 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	552525	47.36	ug/L	100
42)	4-Methyl-2-pentanone	58	13.715	13.715	0.877	660578	233.16	ug/L	100
44)	Toluene	91	14.035	14.035	0.898	1305245	46.03	ug/L	100
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	513788	47.92	ug/L	100
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	253690	47.77	ug/L	100
47)	2-Hexanone	58	14.675	14.675	0.939	840120	280.25	ug/L	100
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	475020	45.72	ug/L	100
49)	Tetrachloroethylene	164	14.699	14.699	0.940	262719	45.26	ug/L	100
50)	Dibromochloromethane	129	14.960	14.960	0.957	391562	49.78	ug/L	100
51)	1,2-Dibromoethane	107	15.138	15.138	0.968	337014	48.61	ug/L	100
52)	Chlorobenzene	112	15.671	15.671	1.002	892370	47.25	ug/L	100
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	346970	48.80	ug/L	100
54)	Ethylbenzene	91	15.754	15.754	1.008	1417211	45.22	ug/L	100
55)	m,p-Xylenes	106	15.873	15.873	1.015	1186598	92.97	ug/L	100
56)	o-Xylene	106	16.335	16.335	1.045	627219	47.33	ug/L	100
57)	Styrene	104	16.335	16.335	1.045	1025063	47.01	ug/L	100
59)	Bromoform	173	16.608	16.608	0.913	275623	51.97	ug/L	100
60)	Isopropylbenzene	105	16.715	16.715	0.919	1536014	46.15	ug/L	100
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	418328	49.05	ug/L	100
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	121825	48.89	ug/L	100
64)	Bromobenzene	156	17.142	17.142	0.942	428273	47.73	ug/L	100
65)	n-Propylbenzene	91	17.165	17.165	0.943	1736192	45.26	ug/L	100
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1265488	45.66	ug/L	100
67)	2-Chlorotoluene	126	17.320	17.320	0.952	392968	47.66	ug/L	100
68)	4-Chlorotoluene	91	17.415	17.415	0.957	1162399	46.07	ug/L	100
69)	tert-Butylbenzene	134	17.711	17.711	0.973	312296	48.77	ug/L	100
70)	1,2,4-Trimethylbenzene	105	17.747	17.747	0.975	1330268	46.57	ug/L	100
71)	sec-Butylbenzene	105	17.948	17.948	0.986	1777879	47.23	ug/L	100
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	1436669	47.61	ug/L	100
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	811812	47.58	ug/L	100
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	795619	48.48	ug/L	100
75)	n-Butylbenzene	91	18.529	18.529	1.018	1424711	46.93	ug/L	100
76)	1,2-Dichlorobenzene	146	18.660	18.660	1.025	801163	48.04	ug/L	100
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	96087	52.60	ug/L	100
78)	1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	534876	48.97	ug/L	100
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	315006	48.63	ug/L	100
80)	Naphthalene	128	21.079	21.079	1.158	1084678	49.44	ug/L	100
81)	1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	443340	49.22	ug/L	100
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.536	7.524	0.628	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.951	7.928	0.662	0m	N.D.	d	
88)	Allyl chloride		8.224	8.331	0.685	0m	N.D.	d	
89)	tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90)	Acrylonitrile		8.936	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		9.813	9.766	0.817	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94)	Ethyl acetate		10.406	10.454	0.867	0m	N.D.	d	
95)	Propionitrile		10.406	10.501	0.867	0m	N.D.	d	
96)	Methacrylonitrile		10.880	10.726	0.906	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A316.D
Acq On : 24 Aug 2011 15:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-07|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050L 5ML n/a MIX[A] 0723-07B+0727-07C
ALS Vial : 9 Sample Multiplier: 1

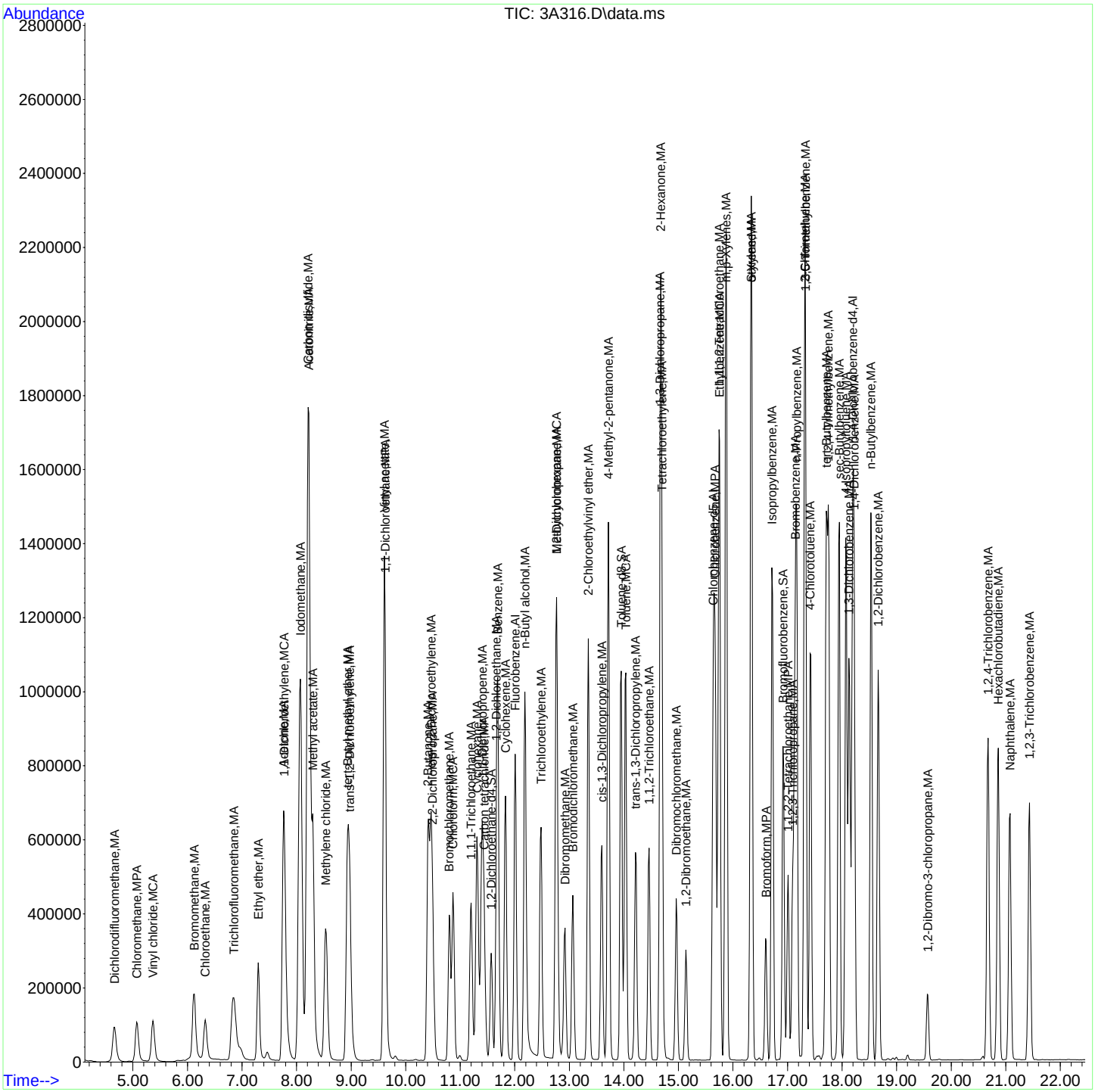
Quant Time: Aug 25 11:42:00 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.556	11.343	0.962	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.541	15.553	0.854	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.881	16.869	0.928	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.790	18.754	1.033	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A316.D
Acq On    : 24 Aug 2011  15:07
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-07|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD050L 5ML n/a MIX[A] 0723-07B+0727-07C
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Aug 25 11:42:00 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A317.D
Acq On : 24 Aug 2011 15:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-08|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD080L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 11:42:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1254100	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	540216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	538341	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	69484	48.46	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1201648	50.09	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	525639	51.59	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	421437	83.41	ug/L	99
3) Chloromethane	50	5.082	5.068	0.423	460671	76.89	ug/L	99
4) Vinyl chloride	62	5.379	5.365	0.448	473561	77.72	ug/L	99
5) Bromomethane	94	6.125	6.125	0.510	551762	74.12	ug/L	99
6) Chloroethane	64	6.327	6.327	0.527	365517	79.98	ug/L	99
7) Trichlorofluoromethane	101	6.848	6.849	0.570	758475	77.34	ug/L	100
8) Ethyl ether	59	7.299	7.299	0.608	451839	76.28	ug/L	100
9) Acetone	43	7.762	7.762	0.646	1450597	390.13	ug/L	100
10) 1,1-Dichloroethylene	61	7.773	7.774	0.647	790075	74.42	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	4704182	362.00	ug/L	100
12) Acetonitrile	41	8.224	8.224	0.685	1474096	1960.01	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1841574	348.23	ug/L	99
14) Carbon disulfide	76	8.212	8.212	0.684	7700397	341.42	ug/L	99
15) Methylene chloride	84	8.532	8.532	0.711	621158	70.44	ug/L	100
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	1565938	73.35	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	722416	73.35	ug/L	99
18) Vinyl acetate	43	9.611	9.612	0.800	4282734	337.09	ug/L	99
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	859199	70.24	ug/L	99
20) 2-Butanone	43	10.406	10.406	0.867	1870920	340.48	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	596363	72.14	ug/L	98
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	658420	69.53	ug/L	99
23) Bromochloromethane	128	10.809	10.797	0.900	308075	76.28	ug/L	98
24) Chloroform	83	10.868	10.869	0.905	915341	71.87	ug/L	100
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	820120	74.78	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	875113	71.48	ug/L	100
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	656958	72.13	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	685590	74.33	ug/L	99
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	622959	71.30	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1965648	72.16	ug/L	99
32) Cyclohexene	67	11.829	11.829	0.985	1008849	72.63	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	1586582	7866.01	ug/L	98
34) Trichloroethylene	95	12.481	12.481	1.040	529978	72.95	ug/L	100
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	489169	70.75	ug/L	100
36) Methylcyclohexane	83	12.766	12.766	1.063	885597	73.04	ug/L	99
37) Dibromomethane	93	12.920	12.920	1.076	336848	75.13	ug/L	99
38) Bromodichloromethane	83	13.062	13.062	1.088	741924	74.95	ug/L	99
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	1298810	366.88	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A317.D
Acq On : 24 Aug 2011 15:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-08|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD080L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 11:42:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	882374	75.04	ug/L	99
42)	4-Methyl-2-pentanone	58	13.714	13.715	0.877	980485	345.91	ug/L	97
44)	Toluene	91	14.035	14.035	0.898	2037110	71.80	ug/L	98
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	816613	76.12	ug/L	99
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	396155	74.55	ug/L	99
47)	2-Hexanone	58	14.675	14.675	0.939	1153887	390.15	ug/L	98
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	722802	69.53	ug/L	95
49)	Tetrachloroethylene	164	14.699	14.699	0.940	413283	71.16	ug/L	98
50)	Dibromochloromethane	129	14.960	14.960	0.957	622967	79.17	ug/L	100
51)	1,2-Dibromoethane	107	15.137	15.138	0.968	531838	76.68	ug/L	99
52)	Chlorobenzene	112	15.671	15.671	1.002	1409499	74.59	ug/L	99
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	549296	77.21	ug/L	99
54)	Ethylbenzene	91	15.754	15.754	1.008	2161177	68.92	ug/L	99
55)	m,p-Xylenes	106	15.873	15.873	1.015	1834083	143.63	ug/L	96
56)	o-Xylene	106	16.335	16.335	1.045	981717	74.05	ug/L	95
57)	Styrene	104	16.335	16.335	1.045	1544814	70.81	ug/L	100
59)	Bromoform	173	16.608	16.608	0.913	447965	86.74	ug/L	99
60)	Isopropylbenzene	105	16.715	16.715	0.919	2380663	73.46	ug/L	99
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	643439	77.48	ug/L	98
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	192518	79.34	ug/L	97
64)	Bromobenzene	156	17.142	17.142	0.942	676831	77.46	ug/L	99
65)	n-Propylbenzene	91	17.165	17.165	0.943	2701529	72.32	ug/L	98
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1933962	71.66	ug/L	98
67)	2-Chlorotoluene	126	17.319	17.320	0.952	621126	77.37	ug/L	94
68)	4-Chlorotoluene	91	17.426	17.415	0.958	1801610	73.32	ug/L	99
69)	tert-Butylbenzene	134	17.711	17.711	0.973	494932	79.38	ug/L	98
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	2041049	73.38	ug/L	98
71)	sec-Butylbenzene	105	17.948	17.948	0.986	2700920	73.68	ug/L	99
72)	4-Isopropyltoluene	119	18.078	18.067	0.993	2190164	74.53	ug/L	99
73)	1,3-Dichlorobenzene	146	18.138	18.126	0.997	1246737	75.04	ug/L	99
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	1216471	76.13	ug/L	99
75)	n-Butylbenzene	91	18.529	18.529	1.018	2117262	71.62	ug/L	98
76)	1,2-Dichlorobenzene	146	18.659	18.660	1.025	1232114	75.87	ug/L	99
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	145931	82.03	ug/L	99
78)	1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	764942	71.92	ug/L	99
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	460255	72.97	ug/L	100
80)	Naphthalene	128	21.079	21.079	1.158	1555785	72.82	ug/L	100
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	625433	71.31	ug/L	99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.548	7.524	0.629	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.762	7.928	0.646	0m	N.D.	d	
88)	Allyl chloride		8.224	8.331	0.685	0m	N.D.	d	
89)	tert-Butyl Alcohol		8.592	8.580	0.716	0m	N.D.	d	
90)	Acrylonitrile		8.935	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		9.813	9.766	0.817	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94)	Ethyl acetate		10.406	10.454	0.867	0m	N.D.	d	
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d	
96)	Methacrylonitrile		10.868	10.726	0.905	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A317.D
Acq On : 24 Aug 2011 15:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-08|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD080L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 11:42:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

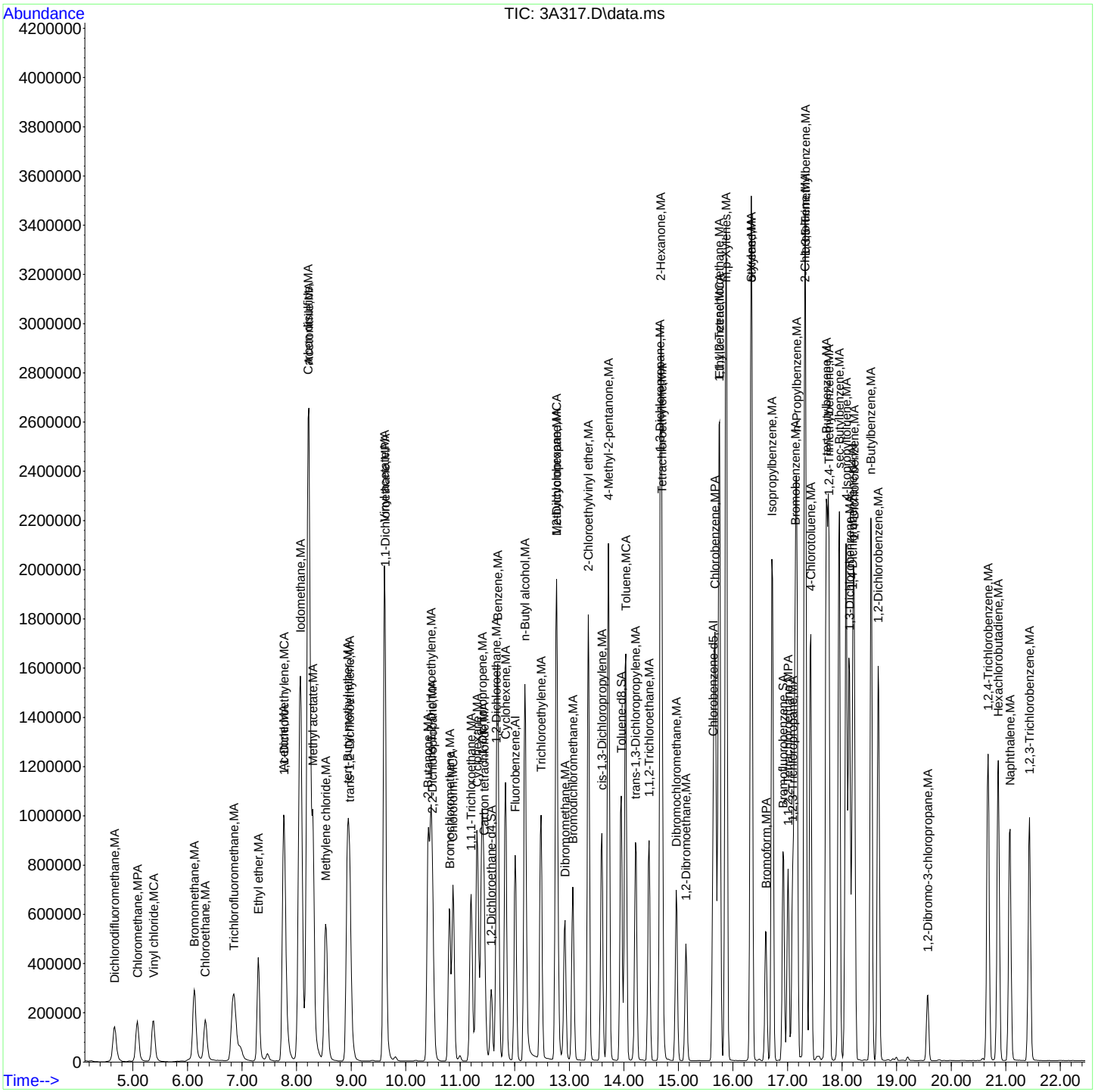
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.908	12.884	1.075	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.636	15.553	0.859	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.821	16.869	0.924	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.742	18.754	1.030	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A317.D
Acq On : 24 Aug 2011 15:37
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-08|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD080L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 11:42:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A318.D
Acq On : 24 Aug 2011 16:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-09|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 11:42:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1244912	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	537352	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	580294	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	70185	49.31	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1197822	50.19	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	536013	48.81	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.651	4.666	0.387	513762	102.43	ug/L	99 A
3) Chloromethane	50	5.082	5.068	0.423	548177	92.17	ug/L	99
4) Vinyl chloride	62	5.365	5.365	0.447	572746	94.69	ug/L	99
5) Bromomethane	94	6.125	6.125	0.510	677133	91.63	ug/L	99
6) Chloroethane	64	6.327	6.327	0.527	451081	99.43	ug/L	99
7) Trichlorofluoromethane	101	6.848	6.849	0.570	925840	95.11	ug/L	100
8) Ethyl ether	59	7.299	7.299	0.608	553531	94.14	ug/L	99
9) Acetone	43	7.761	7.762	0.646	1808359	493.73	ug/L	99
10) 1,1-Dichloroethylene	61	7.773	7.774	0.647	951221	90.26	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	5640614	437.27	ug/L	100
12) Acetonitrile	41	8.224	8.224	0.685	1847153	2489.06	ug/L	99
13) Methyl acetate	43	8.295	8.295	0.691	2273063	433.00	ug/L	99
14) Carbon disulfide	76	8.212	8.212	0.684	9152644	408.81	ug/L	98
15) Methylene chloride	84	8.532	8.532	0.711	776170	88.67	ug/L	98
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	1956662	92.33	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	877761	89.78	ug/L	98
18) Vinyl acetate	43	9.611	9.612	0.800	5186600	411.24	ug/L	98
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	1047296	86.25	ug/L	99
20) 2-Butanone	43	10.406	10.406	0.867	2352324	431.25	ug/L	98
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	737639	89.89	ug/L	97
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	804228	85.55	ug/L	98
23) Bromochloromethane	128	10.797	10.797	0.899	384640	95.94	ug/L	97
24) Chloroform	83	10.868	10.869	0.905	1118818	88.49	ug/L	99
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	990367	90.96	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	1046866	86.14	ug/L	99
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	779924	86.27	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	826081	90.22	ug/L	99
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	765004	88.21	ug/L	99
31) Benzene	78	11.687	11.687	0.973	2399078	88.72	ug/L	99
32) Cyclohexene	67	11.829	11.829	0.985	1211307	87.85	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	2011802	10032.82	ug/L	97 A
34) Trichloroethylene	95	12.481	12.481	1.040	642220	89.06	ug/L	100
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	595296	86.74	ug/L	99
36) Methylcyclohexane	83	12.766	12.766	1.063	1064681	88.46	ug/L	98
37) Dibromomethane	93	12.920	12.920	1.076	420271	94.43	ug/L	99
38) Bromodichloromethane	83	13.062	13.062	1.088	912604	92.87	ug/L	98
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	1576400	448.57	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A318.D
Acq On : 24 Aug 2011 16:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-09|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 11:42:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	1082897	92.78	ug/L	99	
42)	4-Methyl-2-pentanone	58	13.714	13.715	0.877	1217138	431.68	ug/L	95	
44)	Toluene	91	14.035	14.035	0.898	2465831	87.37	ug/L	97	
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	1000496	93.76	ug/L	99	
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	486275	92.00	ug/L	98	
47)	2-Hexanone	58	14.675	14.675	0.939	1432295	490.46	ug/L	97	
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	878281	84.94	ug/L	94	
49)	Tetrachloroethylene	164	14.699	14.699	0.940	494089	85.53	ug/L	99	
50)	Dibromochloromethane	129	14.960	14.960	0.957	776551	99.21	ug/L	100	
51)	1,2-Dibromoethane	107	15.137	15.138	0.968	666288	96.58	ug/L	99	
52)	Chlorobenzene	112	15.671	15.671	1.002	1737622	92.45	ug/L	99	
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	675170	95.41	ug/L	100	
54)	Ethylbenzene	91	15.754	15.754	1.008	2565681	82.26	ug/L	97	
55)	m,p-Xylenes	106	15.873	15.873	1.015	2194348	172.76	ug/L	94	
56)	o-Xylene	106	16.335	16.335	1.045	1190921	90.31	ug/L	94	
57)	Styrene	104	16.335	16.335	1.045	1874031	86.36	ug/L	100	
59)	Bromoform	173	16.608	16.608	0.913	569833	102.36	ug/L	98	A
60)	Isopropylbenzene	105	16.715	16.715	0.919	2890735	82.75	ug/L	97	
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	823499	91.99	ug/L	98	
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	247725	94.71	ug/L	93	
64)	Bromobenzene	156	17.142	17.142	0.942	850813	90.33	ug/L	98	
65)	n-Propylbenzene	91	17.165	17.165	0.943	3261907	81.01	ug/L	97	
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	2355832	80.98	ug/L	97	
67)	2-Chlorotoluene	126	17.319	17.320	0.952	760014	87.82	ug/L	92	
68)	4-Chlorotoluene	91	17.426	17.415	0.958	2222106	83.90	ug/L	97	
69)	tert-Butylbenzene	134	17.711	17.711	0.973	614518	91.43	ug/L	95	
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	2517191	83.96	ug/L	97	
71)	sec-Butylbenzene	105	17.948	17.948	0.986	3341940	84.57	ug/L	98	
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	2747779	86.75	ug/L	99	
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	1609332	89.86	ug/L	99	
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	1580567	91.76	ug/L	98	
75)	n-Butylbenzene	91	18.529	18.529	1.018	2650733	83.19	ug/L	97	
76)	1,2-Dichlorobenzene	146	18.659	18.660	1.025	1583569	90.46	ug/L	98	
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	210548	109.80	ug/L	97	A
78)	1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	1105058	96.39	ug/L	98	
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	656200	96.51	ug/L	99	
80)	Naphthalene	128	21.079	21.079	1.158	2288031	99.35	ug/L	100	
81)	1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	931968	98.58	ug/L	98	
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.			
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.			
85)	Acrolein		7.465	7.524	0.622	0m	N.D.	d		
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.			
87)	Isopropyl Alcohol		7.975	7.928	0.664	0m	N.D.	d		
88)	Allyl chloride		8.224	8.331	0.685	0m	N.D.	d		
89)	tert-Butyl Alcohol		8.592	8.580	0.716	0m	N.D.	d		
90)	Acrylonitrile		8.935	8.864	0.744	0m	N.D.	d		
91)	Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		9.813	9.766	0.817	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.			
94)	Ethyl acetate		10.406	10.454	0.867	0m	N.D.	d		
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d		
96)	Methacrylonitrile		10.880	10.726	0.906	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A318.D
Acq On : 24 Aug 2011 16:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-09|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 11:42:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

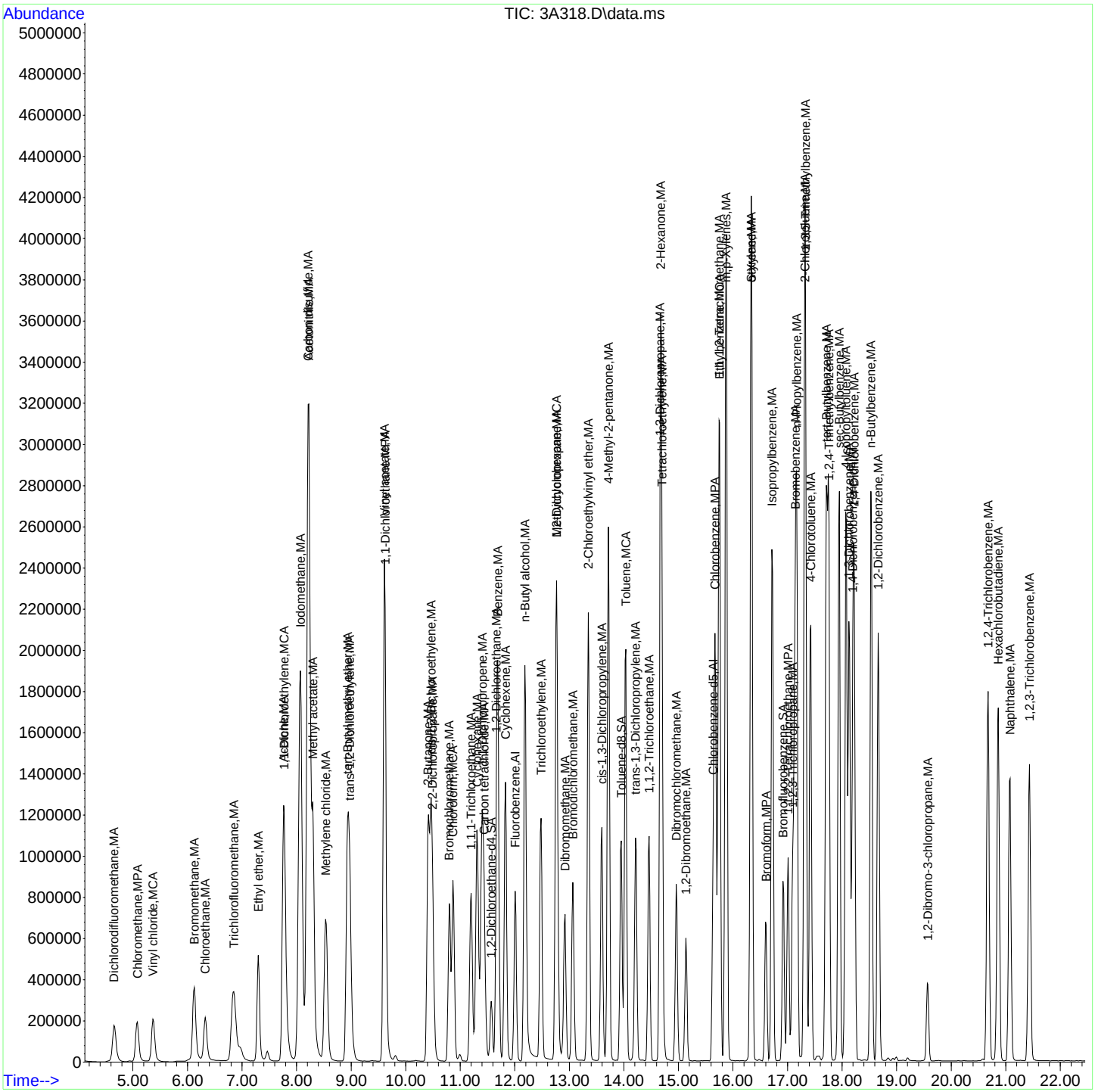
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.505	15.553	0.852	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.881	16.869	0.928	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.683	18.754	1.027	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A318.D
Acq On : 24 Aug 2011 16:07
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-09|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100L 5ML n/a MIX[A] 0723-08B+0727-08C
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 11:42:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: VOA3.I **Injection Date:** 24-AUG-11 17:38

Data File: 082411V3\3A321.D **Init. Cal. Date(s)** 24-AUG-11 12:07 - 25-AUG-11 09:5

Lab Sample ID W3VM110824-11 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD **Method Update:** 25-AUG-11 11:40

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.0572	0.05898		.01		3.11189	30		Averaged	
S	Toluene-d8	2.2206	2.228		.01		0.33324	30		Averaged	
S	Bromofluorobenzene	0.9463	0.94752		.01		0.12892	30		Averaged	
	Dichlorodifluoromethane	0.2014	0.21993		.01		9.2006	30		Averaged	
	Chloromethane	0.2389	0.24809		.1		3.8468	30		Averaged	spcc
	Vinyl chloride	0.2429	0.23243		.01		-4.31042	20		Averaged	ccc
	Bromomethane	0.2968	0.27213		.01		-8.31199	30		Averaged	
	Chloroethane	0.1822	0.18615		.01		2.16795	30		Averaged	
	Trichlorofluoromethane	0.391	0.41041		.01		4.96419	30		Averaged	
	Ethyl ether	0.2362	0.21958		.01		-7.03641	30		Averaged	
	Acetone	250	185.6	250			-25.76	40		Linear	
	1,1-Dichloroethylene	0.4233	0.37749		.01		-10.82211	20		Averaged	ccc
	Iodomethane	0.5181	0.44523		.01		-14.06485	30		Averaged	
	Carbon disulfide	0.8992	0.72549		.01		-19.31828	30		Averaged	
	Acetonitrile	1250	1275.34	1250			2.0272	30		Linear	
	Methyl acetate	0.2108	0.1789		.01		-15.13283	40		Averaged	
	Methylene chloride	0.3516	0.31261		.01		-11.08931	30		Averaged	
	tert-Butyl methyl ether	0.8512	0.7855		.01		-7.71852	30		Averaged	
	trans-1,2-Dichloroethylene	0.3927	0.2863		.01		-27.09447	30		Averaged	
	Vinyl acetate	0.5065	0.49703		.01		-1.86969	40		Averaged	
	1,1-Dichloroethane	0.4877	0.42536		.1		-12.78245	30		Averaged	spcc
	2-Butanone	0.2191	0.14517		.01		-33.74258	40		Averaged	
	cis-1,2-Dichloroethylene	0.3296	0.34907		.01		5.90716	30		Averaged	
	2,2-Dichloropropane	0.3776	0.32433		.01		-14.10752	30		Averaged	
	Bromochloromethane	0.161	0.1534		.01		-4.7205	30		Averaged	
	Chloroform	0.5078	0.46327		.01		-8.7692	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4373	0.3959		.01		-9.46718	30		Averaged	
	Cyclohexane	0.4881	0.41245		.01		-15.49887	30		Averaged	
	1,1-Dichloropropene	0.3631	0.31963		.01		-11.97191	30		Averaged	
	Carbon tetrachloride	0.3677	0.33389		.01		-9.195	30		Averaged	
	1,2-Dichloroethane	0.3483	0.31336		.01		-10.03158	30		Averaged	
	Benzene	1.0861	0.96669		.01		-10.99438	30		Averaged	
	Cyclohexene	0.5538	0.47893		.01		-13.51932	30		Averaged	
	n-Butyl alcohol	5000	5035.97	5000			0.7194	40		Linear	
	Trichloroethylene	0.2896	0.25557		.01		-11.75069	30		Averaged	
	1,2-Dichloropropane	0.2756	0.24708		.01		-10.34833	20		Averaged	ccc
	Methylcyclohexane	0.4834	0.42241		.01		-12.61688	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 24-AUG-11 17:38

Data File: 082411V3\3A321.D **Init. Cal. Date(s)** 24-AUG-11 12:07 25-AUG-11 09:5

Lab Sample ID W3VM110824-11 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1787	0.1694		.01		-5.20425	30		Averaged	
Bromodichloromethane	0.3947	0.37159		.01		-5.85508	30		Averaged	
2-Chloroethylvinyl ether	0.1411	0.12258		.01		-13.12544	30		Averaged	
cis-1,3-Dichloropropylene	0.4688	0.43977		.01		-6.19241	30		Averaged	
4-Methyl-2-pentanone	0.2624	0.23328		.01		-11.09756	40		Averaged	
Toluene	2.626	2.30912		.01		-12.06702	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.9929	0.94248		.01		-5.07805	30		Averaged	
1,1,2-Trichloroethane	0.4918	0.4583		.01		-6.81171	30		Averaged	
1,3-Dichloropropane	0.9621	0.87165		.01		-9.40131	30		Averaged	
2-Hexanone	250	213.94	250			-14.424	40		Linear	
Tetrachloroethylene	0.5375	0.46327		.01		-13.81023	30		Averaged	
Dibromochloromethane	0.7283	0.68305		.01		-6.2131	30		Averaged	
1,2-Dibromoethane	0.642	0.60326		.01		-6.03427	30		Averaged	
Chlorobenzene	1.749	1.59358		.3		-8.88622	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.6584	0.62996		.01		-4.31956	30		Averaged	
Ethylbenzene	2.9023	2.47444		.01		-14.7421	20		Averaged	ccc
m,p-Xylenes	1.1819	1.05115		.01		-11.0627	30		Averaged	
o-Xylene	1.2271	1.11372		.01		-9.23967	30		Averaged	
Styrene	2.0193	1.8012		.01		-10.80077	30		Averaged	
Bromoform	0.4797	0.4843		.1		0.95893	30		Averaged	spcc
Isopropylbenzene	3.0101	2.65751		.01		-11.71356	30		Averaged	
1,1,2,2-Tetrachloroethane	0.7713	0.70954		.3		-8.00726	30		Averaged	spcc
1,2,3-Trichloropropane	0.2254	0.21191		.01		-5.98492	30		Averaged	
Bromobenzene	0.8116	0.74184		.01		-8.59537	30		Averaged	
n-Propylbenzene	3.4694	2.85686		.01		-17.6555	30		Averaged	
2-Chlorotoluene	0.7457	0.68882		.01		-7.62773	30		Averaged	
1,3,5-Trimethylbenzene	2.5066	2.19436		.01		-12.45671	30		Averaged	
4-Chlorotoluene	2.2821	1.94883		.01		-14.60365	30		Averaged	
tert-Butylbenzene	0.5791	0.52554		.01		-9.24883	30		Averaged	
1,2,4-Trimethylbenzene	2.5833	2.28354		.01		-11.60376	30		Averaged	
sec-Butylbenzene	3.4047	2.97154		.01		-12.72241	30		Averaged	
4-Isopropyltoluene	2.7292	2.51726		.01		-7.76565	30		Averaged	
1,3-Dichlorobenzene	1.5432	1.39535		.01		-9.58074	30		Averaged	
1,4-Dichlorobenzene	1.4841	1.33125		.01		-10.29917	30		Averaged	
n-Butylbenzene	2.7456	2.43692		.01		-11.24272	30		Averaged	
1,2-Dichlorobenzene	1.5084	1.36921		.01		-9.22766	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1652	0.16992		.01		2.85714	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 24-AUG-11 17:38

Data File: 082411V3\3A321.D **Init. Cal. Date(s)** 24-AUG-11 12:07 25-AUG-11 09:5

Lab Sample ID W3VM110824-11 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9878	0.90013		.01		-8.87528	30		Averaged
Hexachlorobutadiene	0.5859	0.51918		.01		-11.38761	30		Averaged
Naphthalene	1.9844	1.92877		.01		-2.80337	30		Averaged
1,2,3-Trichlorobenzene	0.8146	0.78039		.01		-4.19961	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A321.D
Acq On : 24 Aug 2011 17:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-11|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[A] 0808-01B+0822-01
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 11:42:18 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1251369	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	550720	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	570912	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1251369	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	550720	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	570912	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	73805	51.58	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1227003	50.17	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	540953	50.07	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	275209	54.59	ug/L	99
3) Chloromethane	50	5.068	5.068	0.422	310456	51.93	ug/L	100
4) Vinyl chloride	62	5.365	5.365	0.447	290857	47.84	ug/L	99
5) Bromomethane	94	6.125	6.125	0.510	340537	45.84	ug/L	99
6) Chloroethane	64	6.327	6.327	0.527	232945	51.08	ug/L	100
7) Trichlorofluoromethane	101	6.837	6.849	0.569	513576	52.48	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	274781	46.49	ug/L	100
9) Acetone	43	7.762	7.762	0.646	716332	185.60	ug/L	99
10) 1,1-Dichloroethylene	61	7.774	7.774	0.647	472374	44.59	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	2785722	214.84	ug/L	100
12) Acetonitrile	41	8.236	8.224	0.686	971537	1275.34	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1119347	212.13	ug/L	100
14) Carbon disulfide	76	8.212	8.212	0.684	4539293	201.71	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	391187	44.46	ug/L	99
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	982949	46.14	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	358271	36.45	ug/L	100
18) Vinyl acetate	43	9.612	9.612	0.800	3109821	245.30	ug/L	100
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	532286	43.61	ug/L	100
20) 2-Butanone	43	10.406	10.406	0.867	908327	165.66	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	436820	52.95	ug/L	97
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	405856	42.95	ug/L	98
23) Bromochloromethane	128	10.797	10.797	0.899	191956	47.63	ug/L	100
24) Chloroform	83	10.869	10.869	0.905	579727	45.62	ug/L	99
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	495413	45.27	ug/L	100
26) Cyclohexane	56	11.307	11.307	0.942	516126	42.25	ug/L	99
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	399979	44.01	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	417823	45.40	ug/L	100
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	392129	44.98	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1209685	44.50	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	599321	43.24	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	1009613	5035.97	ug/L	99
34) Trichloroethylene	95	12.481	12.481	1.040	319809	44.12	ug/L	99
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	309184	44.82	ug/L	99
36) Methylcyclohexane	83	12.766	12.766	1.063	528592	43.69	ug/L	99
37) Dibromomethane	93	12.920	12.920	1.076	211986	47.39	ug/L	100
38) Bromodichloromethane	83	13.062	13.062	1.088	464999	47.08	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	766949	217.11	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A321.D
Acq On : 24 Aug 2011 17:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-11|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[A] 0808-01B+0822-01
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 11:42:18 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	550310	46.91	ug/L	100
42)	4-Methyl-2-pentanone	58	13.715	13.715	0.877	642369	222.30	ug/L	100
44)	Toluene	91	14.035	14.035	0.898	1271680	43.97	ug/L	100
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	519043	47.46	ug/L	98
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	252393	46.59	ug/L	99
47)	2-Hexanone	58	14.675	14.675	0.939	664113	213.94	ug/L	99
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	480036	45.30	ug/L	91
49)	Tetrachloroethylene	164	14.699	14.699	0.940	255134	43.09	ug/L	100
50)	Dibromochloromethane	129	14.960	14.960	0.957	376169	46.89	ug/L	99
51)	1,2-Dibromoethane	107	15.138	15.138	0.968	332226	46.99	ug/L	100
52)	Chlorobenzene	112	15.671	15.671	1.002	877619	45.56	ug/L	99
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	346930	47.84	ug/L	98
54)	Ethylbenzene	91	15.754	15.754	1.008	1362721	42.63	ug/L	100
55)	m,p-Xylenes	106	15.873	15.873	1.015	1157775	88.94	ug/L	100
56)	o-Xylene	106	16.335	16.335	1.045	613349	45.38	ug/L	100
57)	Styrene	104	16.335	16.335	1.045	991955	44.60	ug/L	100
59)	Bromoform	173	16.608	16.608	0.913	276493	50.48	ug/L	98
60)	Isopropylbenzene	105	16.715	16.715	0.919	1517203	44.14	ug/L	100
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	405087	45.99	ug/L	99
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	120980	47.01	ug/L	98
64)	Bromobenzene	156	17.142	17.142	0.942	423525	45.70	ug/L	99
65)	n-Propylbenzene	91	17.165	17.165	0.943	1631018	41.17	ug/L	100
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1252789	43.77	ug/L	100
67)	2-Chlorotoluene	126	17.320	17.320	0.952	393254	46.19	ug/L	98
68)	4-Chlorotoluene	91	17.426	17.415	0.958	1112609	42.70	ug/L	99
69)	tert-Butylbenzene	134	17.711	17.711	0.973	300036	45.37	ug/L	98
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	1303699	44.20	ug/L	100
71)	sec-Butylbenzene	105	17.948	17.948	0.986	1696489	43.64	ug/L	100
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	1437133	46.12	ug/L	100
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	796620	45.21	ug/L	100
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	760026	44.85	ug/L	99
75)	n-Butylbenzene	91	18.529	18.529	1.018	1391269	44.38	ug/L	100
76)	1,2-Dichlorobenzene	146	18.660	18.660	1.025	781696	45.39	ug/L	100
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	97008	51.42	ug/L	99
78)	1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	513897	45.56	ug/L	100
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	296405	44.31	ug/L	99
80)	Naphthalene	128	21.079	21.079	1.158	1101156	48.60	ug/L	100
81)	1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	445533	47.90	ug/L	99
83)	Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.		
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.536	7.524	0.628	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.809	7.928	0.650	0m	N.D.	d	
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d	
89)	tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90)	Acrylonitrile		8.936	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94)	Ethyl acetate		10.406	10.454	0.867	0m	N.D.	d	
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d	
96)	Methacrylonitrile		10.869	10.726	0.905	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A321.D
Acq On : 24 Aug 2011 17:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-11|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[A] 0808-01B+0822-01
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 11:42:18 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

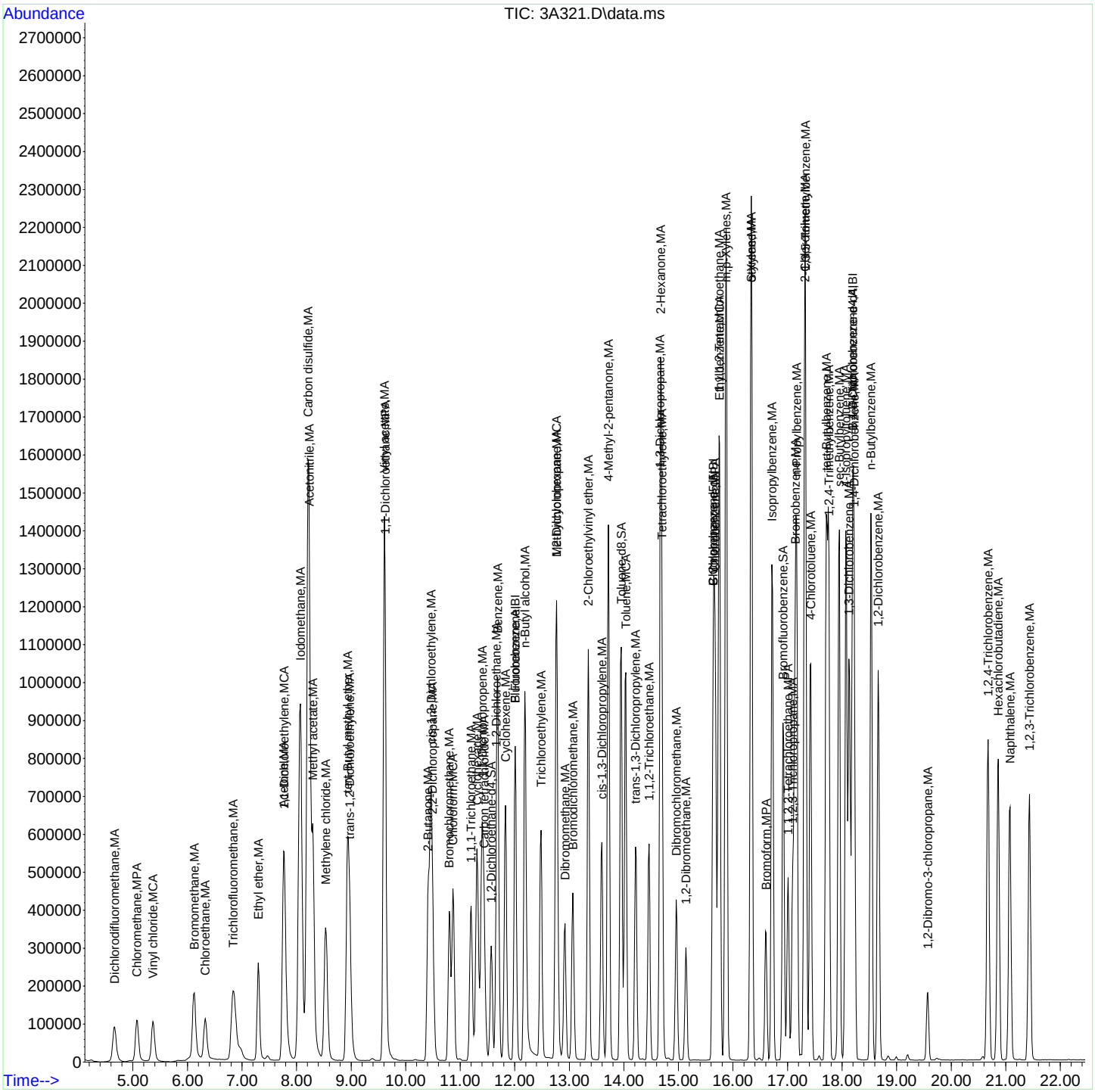
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.908	12.884	1.075	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.553	15.553	0.855	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.833	16.869	0.925	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		18.778	18.754	1.032	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A321.D
Acq On : 24 Aug 2011 17:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-11|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[A] 0808-01B+0822-01
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 11:42:18 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A323.D
Acq On : 24 Aug 2011 18:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-12|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005S 5ML n/a MIX[B] 0728-01+0728-09+0705-
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 25 11:42:25 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1274521	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	551689	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	588222	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.365	0.000	0	N.D.		
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.319	8.295	0.693	0m	N.D.	d	
14) Carbon disulfide		8.200	8.212	0.683	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		0.000	9.623	0.000	0	N.D.		
20) 2-Butanone		10.465	10.406	0.872	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.295	11.307	0.941	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		12.220	12.185	1.018	0m	N.D.	d	
34) Trichloroethylene		0.000	12.481	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.		
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A323.D
Acq On : 24 Aug 2011 18:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-12|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005S 5ML n/a MIX[B] 0728-01+0728-09+0705-
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 25 11:42:25 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42)	4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.		
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		14.213	14.213	0.909	0m	N.D.	d	
46)	1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47)	2-Hexanone		14.687	14.675	0.939	0m	N.D.	d	
48)	1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.		
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50)	Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51)	1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.		
52)	Chlorobenzene		15.683	15.671	1.003	0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.		
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56)	o-Xylene		0.000	16.335	0.000	0	N.D.		
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d	
59)	Bromoform		0.000	16.608	0.000	0	N.D.		
60)	Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.		
63)	1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64)	Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65)	n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67)	2-Chlorotoluene		0.000	17.320	0.000	0	N.D.		
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70)	1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71)	sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72)	4-Isopropyltoluene		18.078	18.067	0.993	0m	N.D.	d	
73)	1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75)	n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76)	1,2-Dichlorobenzene		18.660	18.660	1.025	0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78)	1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79)	Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	16039	5.98	ug/L	97
84)	2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	38560	5.40	ug/L	99
85)	Acrolein	56	7.536	7.524	0.628	6868	5.48	ug/L #	62
86)	Trichlorotrifluoroethane	85	7.738	7.750	0.644	13514	5.91	ug/L	96
87)	Isopropyl Alcohol	45	7.939	7.928	0.661	24123	51.44	ug/L	94
88)	Allyl chloride	41	8.331	8.331	0.694	62132	Below Cal		91
89)	tert-Butyl Alcohol	59	8.580	8.580	0.715	48494	55.79	ug/L	98
90)	Acrylonitrile	53	8.864	8.864	0.738	12295	5.14	ug/L	98
91)	Isopropyl ether	45	9.647	9.647	0.803	26099	1.08	ug/L	80
92)	2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	9688	1.08	ug/L	91
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	24727	1.05	ug/L	94
94)	Ethyl acetate	43	10.465	10.454	0.872	37712	5.89	ug/L	96
95)	Propionitrile	54	10.501	10.501	0.875	4935	5.34	ug/L	54
96)	Methacrylonitrile	41	10.726	10.726	0.893	22425	5.74	ug/L	88

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A323.D
Acq On : 24 Aug 2011 18:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-12|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD005S 5ML n/a MIX[B] 0728-01+0728-09+0705-
ALS Vial : 16 Sample Multiplier: 1

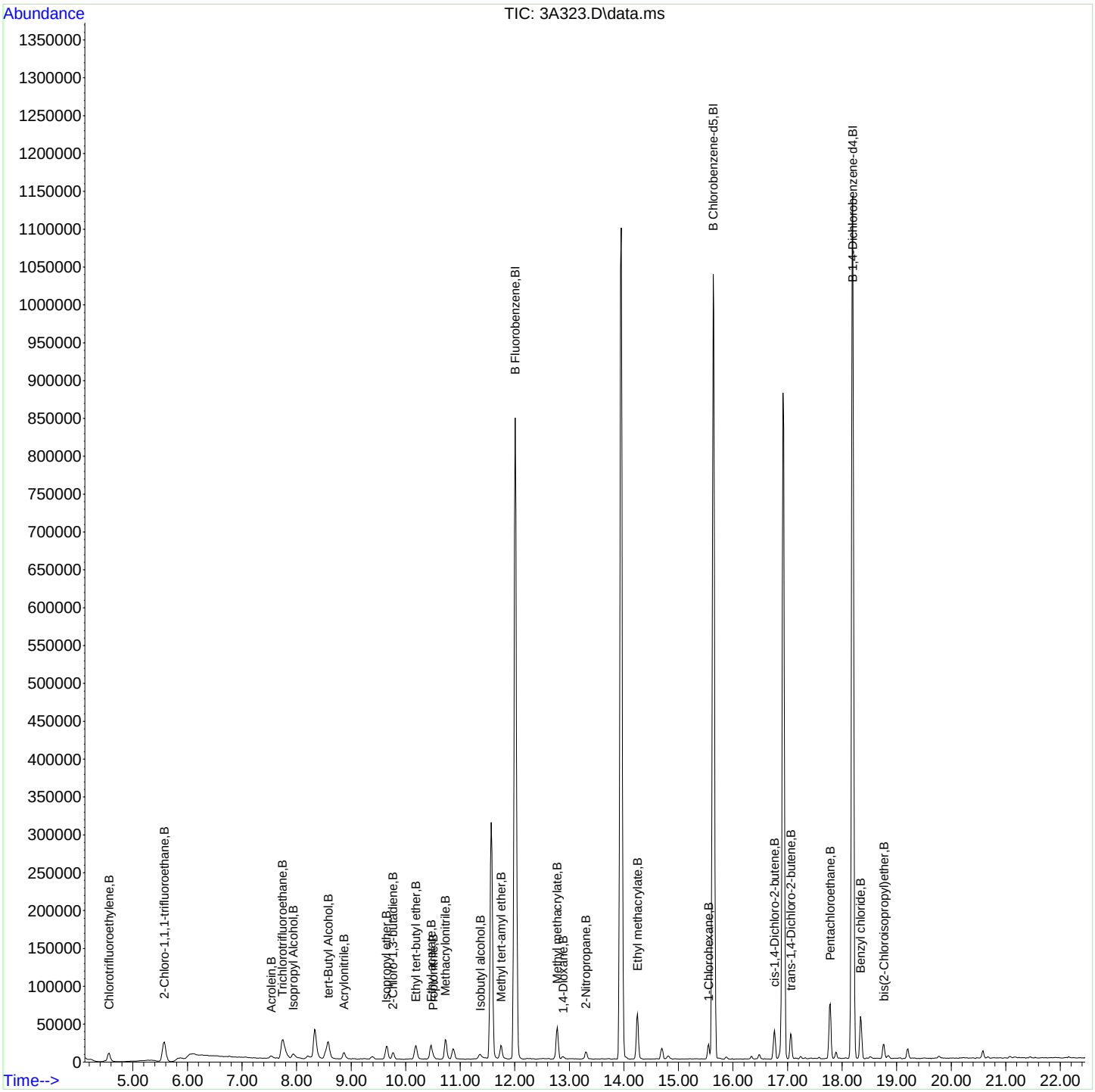
Quant Time: Aug 25 11:42:25 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.868	10.869	0.905	15020	Below Cal		98
98)	Isobutyl alcohol	41	11.367	11.343	0.947	9711	47.32	ug/L	83
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	22555	1.05	ug/L	90
100)	Methyl methacrylate	69	12.778	12.778	1.064	25931	5.72	ug/L	91
101)	1,4-Dioxane	88	12.884	12.884	1.073	3580	52.51	ug/L	91
102)	2-Nitropropane	43	13.299	13.300	1.108	11633	5.46	ug/L	95
104)	Ethyl methacrylate	69	14.248	14.248	0.911	49329	5.60	ug/L	90
106)	1-Chlorohexane	55	15.553	15.553	0.855	8736	1.22	ug/L	88
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	13864	5.31	ug/L	91
108)	Cyclohexanone	42	16.869	16.869	0.927	9401	N.D.		
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	10797	4.96	ug/L	97
110)	Pentachloroethane	167	17.782	17.782	0.977	24572	5.20	ug/L	94
111)	Benzyl chloride	91	18.339	18.339	1.008	72893	5.22	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	18.766	18.754	1.031	21904	5.39	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A323.D
Acq On    : 24 Aug 2011  18:38
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-12|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD005S 5ML n/a MIX[B] 0728-01+0728-09+0705-
ALS Vial  : 16   Sample Multiplier: 1

Quant Time: Aug 25 11:42:25 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A324.D
Acq On : 24 Aug 2011 19:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-13|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010S 5ML n/a MIX[B] 0728-01+0728-10+0705-
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 11:42:29 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1285204	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	554340	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	579725	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		5.053	5.068	0.421	0m	N.D.	d	
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone		7.785	7.762	0.648	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		8.070	8.070	0.672	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.212	8.212	0.684	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		0.000	9.623	0.000	0	N.D.		
20) 2-Butanone		10.181	10.406	0.848	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.295	11.307	0.941	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		12.149	12.185	1.012	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.		
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A324.D
Acq On : 24 Aug 2011 19:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-13|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010S 5ML n/a MIX[B] 0728-01+0728-10+0705-
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 11:42:29 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.		
44) Toluene		14.035	14.035	0.898	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47) 2-Hexanone		14.687	14.675	0.939	0m	N.D.	d	
48) 1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.		
49) Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51) 1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.		
52) Chlorobenzene		15.683	15.671	1.003	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.		
54) Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55) m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56) o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57) Styrene		16.335	16.335	1.045	0m	N.D.	d	
59) Bromoform		0.000	16.608	0.000	0	N.D.		
60) Isopropylbenzene		16.715	16.715	0.919	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.		
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		0.000	17.142	0.000	0	N.D.		
65) n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67) 2-Chlorotoluene		0.000	17.320	0.000	0	N.D.		
68) 4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69) tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70) 1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71) sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72) 4-Isopropyltoluene		18.067	18.067	0.993	0m	N.D.	d	
73) 1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74) 1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75) n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76) 1,2-Dichlorobenzene		18.671	18.660	1.026	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80) Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.562	4.562	0.380	26895	9.94	ug/L	95
84) 2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	76525	10.63	ug/L	98
85) Acrolein	56	7.536	7.524	0.628	10540	8.34	ug/L #	54
86) Trichlorotrifluoroethane	85	7.738	7.750	0.644	24877	10.78	ug/L	95
87) Isopropyl Alcohol	45	7.939	7.928	0.661	42704	90.31	ug/L	96
88) Allyl chloride	41	8.331	8.331	0.694	114723	Below Cal		97
89) tert-Butyl Alcohol	59	8.580	8.580	0.715	85549	97.60	ug/L	97
90) Acrylonitrile	53	8.864	8.864	0.738	22497	9.32	ug/L	97
91) Isopropyl ether	45	9.647	9.647	0.803	51552	2.11	ug/L	91
92) 2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	18190	2.01	ug/L	95
93) Ethyl tert-butyl ether	59	10.181	10.181	0.848	50178	2.12	ug/L	98
94) Ethyl acetate	43	10.465	10.454	0.872	63004	9.76	ug/L	97
95) Propionitrile	54	10.501	10.501	0.875	9180	9.85	ug/L	70
96) Methacrylonitrile	41	10.726	10.726	0.893	40360	10.25	ug/L	91

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A324.D
Acq On : 24 Aug 2011 19:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-13|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010S 5ML n/a MIX[B] 0728-01+0728-10+0705-
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 11:42:29 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

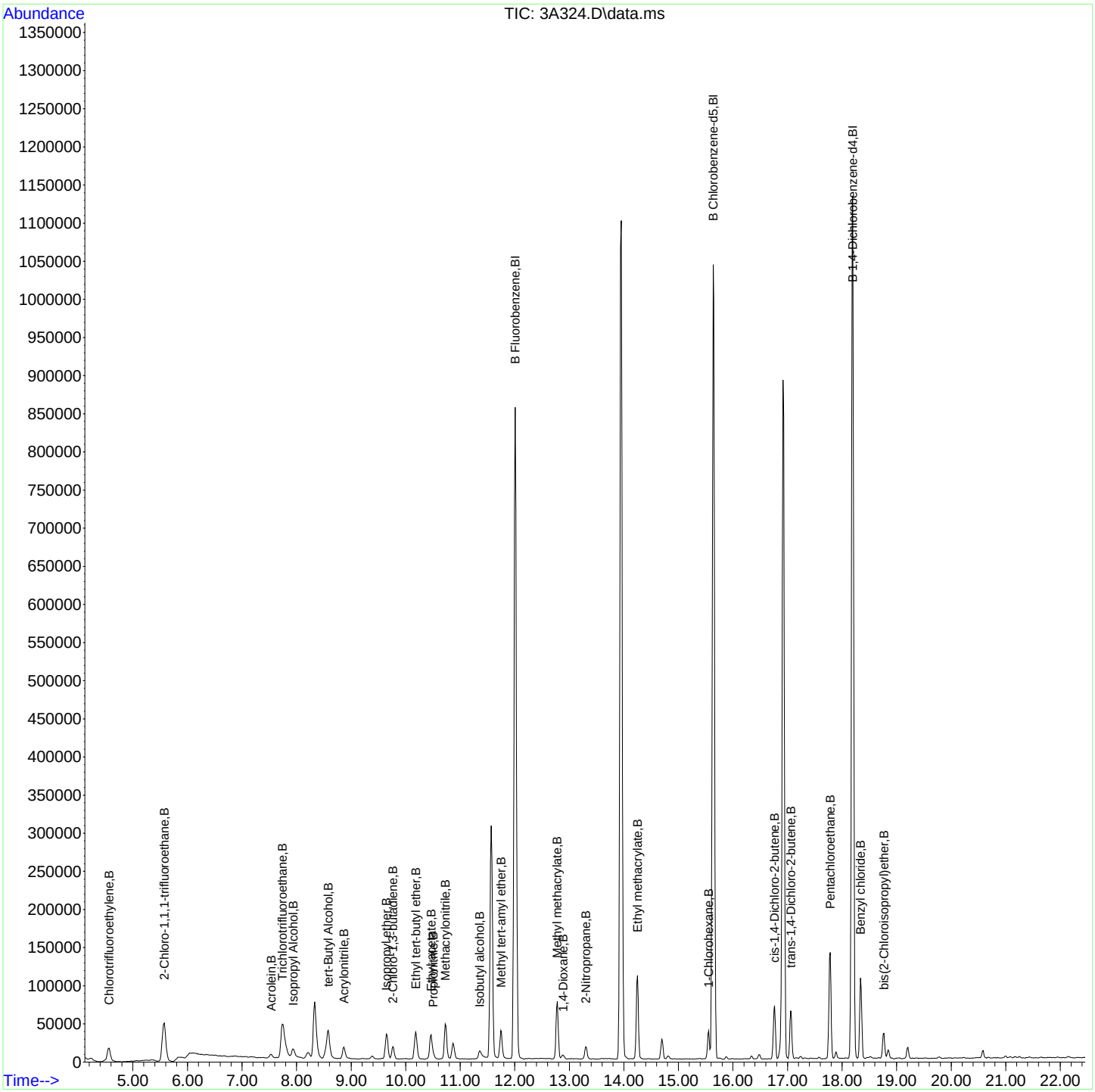
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.868	10.869	0.905	22862	Below Cal		98
98)	Isobutyl alcohol	41	11.355	11.343	0.946	15086	72.89	ug/L	86
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	44782	2.06	ug/L	95
100)	Methyl methacrylate	69	12.778	12.778	1.064	46572	10.18	ug/L	91
101)	1,4-Dioxane	88	12.884	12.884	1.073	6214	90.39	ug/L	96
102)	2-Nitropropane	43	13.299	13.300	1.108	21062	9.80	ug/L	93
104)	Ethyl methacrylate	69	14.248	14.248	0.911	93096	10.52	ug/L	96
106)	1-Chlorohexane	55	15.553	15.553	0.855	16121	2.28	ug/L	86
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	25837	10.03	ug/L	91
108)	Cyclohexanone	42	16.869	16.869	0.927	9214	N.D.		
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	20775	9.69	ug/L	97
110)	Pentachloroethane	167	17.782	17.782	0.977	46659	10.01	ug/L	94
111)	Benzyl chloride	91	18.339	18.339	1.008	134090	9.74	ug/L	96
112)	bis(2-Chloroisopropyl)...	45	18.766	18.754	1.031	39175	9.78	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A324.D
Acq On : 24 Aug 2011 19:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-13|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD010S 5ML n/a MIX[B] 0728-01+0728-10+0705-
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 11:42:29 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A325.D
Acq On : 24 Aug 2011 19:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-14|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD025S 5ML n/a MIX[B] 0728-03+0728-11+0705-
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 11:42:33 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1295429	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	548170	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	581078	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.365	0.000	0	N.D.		
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone		7.774	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		0.000	8.070	0.000	0	N.D.		
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.331	8.212	0.694	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.181	10.406	0.848	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.355	11.307	0.946	0m	N.D.	d	
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		11.675	11.687	0.972	0m	N.D.	d	
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		12.209	12.185	1.017	0m	N.D.	d	
34) Trichloroethylene		0.000	12.481	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.		
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A325.D
Acq On : 24 Aug 2011 19:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-14|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD025S 5ML n/a MIX[B] 0728-03+0728-11+0705-
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 11:42:33 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42) 4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.		
44) Toluene		14.035	14.035	0.898	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.		
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47) 2-Hexanone		14.687	14.675	0.939	0m	N.D.	d	
48) 1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.		
49) Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51) 1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.		
52) Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.		
54) Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55) m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56) o-Xylene		0.000	16.335	0.000	0	N.D.		
57) Styrene		16.335	16.335	1.045	0m	N.D.	d	
59) Bromoform		0.000	16.608	0.000	0	N.D.		
60) Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.		
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		0.000	17.142	0.000	0	N.D.		
65) n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		0.000	17.331	0.000	0	N.D.		
67) 2-Chlorotoluene		0.000	17.320	0.000	0	N.D.		
68) 4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69) tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70) 1,2,4-Trimethylbenzene		17.747	17.747	0.975	0m	N.D.	d	
71) sec-Butylbenzene		0.000	17.948	0.000	0	N.D.		
72) 4-Isopropyltoluene		0.000	18.067	0.000	0	N.D.		
73) 1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74) 1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75) n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76) 1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.		
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		20.676	20.676	1.136	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80) Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.562	4.562	0.380	70289	25.78	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	187550	25.84	ug/L	99
85) Acrolein	56	7.524	7.524	0.627	34244	26.89	ug/L	96
86) Trichlorotrifluoroethane	85	7.738	7.750	0.644	64261	27.64	ug/L	98
87) Isopropyl Alcohol	45	7.928	7.928	0.660	127681	267.89	ug/L	98
88) Allyl chloride	41	8.331	8.331	0.694	295316	18.59	ug/L	98
89) tert-Butyl Alcohol	59	8.580	8.580	0.715	249486	282.37	ug/L	100
90) Acrylonitrile	53	8.864	8.864	0.738	67093	27.57	ug/L	98
91) Isopropyl ether	45	9.647	9.647	0.803	129136	5.25	ug/L	96
92) 2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	48283	5.30	ug/L	97
93) Ethyl tert-butyl ether	59	10.181	10.181	0.848	127249	5.33	ug/L	97
94) Ethyl acetate	43	10.454	10.454	0.871	174297	26.79	ug/L	97
95) Propionitrile	54	10.501	10.501	0.875	25210	26.84	ug/L	88
96) Methacrylonitrile	41	10.726	10.726	0.893	109336	27.54	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A325.D
Acq On : 24 Aug 2011 19:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-14|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD025S 5ML n/a MIX[B] 0728-03+0728-11+0705-
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 11:42:33 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

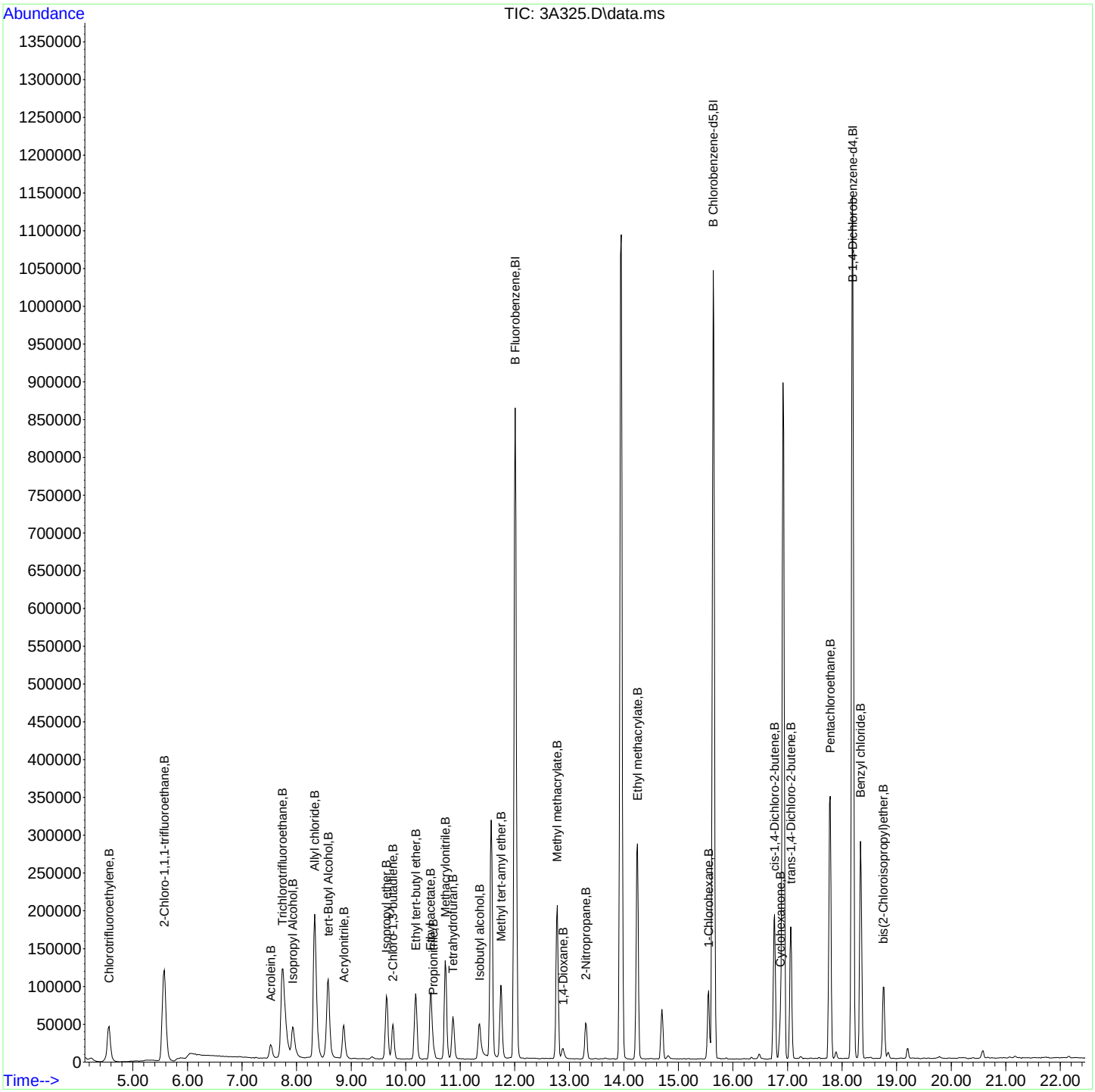
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.869	10.869	0.905	59272	18.59	ug/L	98
98)	Isobutyl alcohol	41	11.355	11.343	0.946	53574	256.82	ug/L	91
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	117375	5.36	ug/L	96
100)	Methyl methacrylate	69	12.778	12.778	1.064	127073	27.56	ug/L	94
101)	1,4-Dioxane	88	12.885	12.884	1.073	17996	259.72	ug/L	95
102)	2-Nitropropane	43	13.300	13.300	1.108	57686	26.63	ug/L	97
104)	Ethyl methacrylate	69	14.248	14.248	0.911	246599	28.17	ug/L	95
106)	1-Chlorohexane	55	15.553	15.553	0.855	36125	5.09	ug/L	94
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	70622	27.36	ug/L	91
108)	Cyclohexanone	42	16.869	16.869	0.927	29045	128.24	ug/L	91
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	58854	27.39	ug/L	94
110)	Pentachloroethane	167	17.782	17.782	0.977	117372	25.12	ug/L	93
111)	Benzyl chloride	91	18.339	18.339	1.008	365842	26.51	ug/L	97
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	108766	27.09	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A325.D
Acq On : 24 Aug 2011 19:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-14|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD025S 5ML n/a MIX[B] 0728-03+0728-11+0705-
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 11:42:33 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A326.D
Acq On : 24 Aug 2011 20:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-15|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050S 5ML n/a MIX[B] 0728-04+0728-12+0705-
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 25 11:42:37 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1285803	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	543129	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	570073	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		5.052	5.068	0.421	0m	N.D.	d	
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.761	7.774	0.646	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.212	8.212	0.684	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.935	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.623	9.623	0.801	0m	N.D.	d	
20) 2-Butanone		10.453	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		10.453	10.465	0.871	0m	N.D.	d	
22) 2,2-Dichloropropane		10.489	10.489	0.874	0m	N.D.	d	
23) Bromochloromethane		10.809	10.797	0.900	0m	N.D.	d	
24) Chloroform		10.868	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		11.200	11.201	0.933	0m	N.D.	d	
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.402	11.402	0.950	0m	N.D.	d	
28) Carbon tetrachloride		11.438	11.438	0.953	0m	N.D.	d	
30) 1,2-Dichloroethane		11.675	11.663	0.972	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.829	11.829	0.985	0m	N.D.	d	
33) n-Butyl alcohol		12.232	12.185	1.019	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		12.766	12.766	1.063	0m	N.D.	d	
36) Methylcyclohexane		12.766	12.766	1.063	0m	N.D.	d	
37) Dibromomethane		12.920	12.920	1.076	0m	N.D.	d	
38) Bromodichloromethane		13.062	13.062	1.088	0m	N.D.	d	
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A326.D
Acq On : 24 Aug 2011 20:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-15|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050S 5ML n/a MIX[B] 0728-04+0728-12+0705-
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 25 11:42:37 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		13.596	13.596	1.132	0m	N.D.	d	
42)	4-Methyl-2-pentanone		13.714	13.715	0.877	0m	N.D.	d	
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		14.212	14.213	0.909	0m	N.D.	d	
46)	1,1,2-Trichloroethane		14.462	14.462	0.925	0m	N.D.	d	
47)	2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48)	1,3-Dichloropropane		14.675	14.663	0.939	0m	N.D.	d	
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50)	Dibromochloromethane		14.960	14.960	0.957	0m	N.D.	d	
51)	1,2-Dibromoethane		15.137	15.138	0.968	0m	N.D.	d	
52)	Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56)	o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d	
59)	Bromoform		16.608	16.608	0.913	0m	N.D.	d	
60)	Isopropylbenzene		16.715	16.715	0.919	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		17.011	17.011	0.935	0m	N.D.	d	
63)	1,2,3-Trichloropropane		17.094	17.094	0.939	0m	N.D.	d	
64)	Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65)	n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67)	2-Chlorotoluene		17.319	17.320	0.952	0m	N.D.	d	
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70)	1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71)	sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72)	4-Isopropyltoluene		18.078	18.067	0.993	0m	N.D.	d	
73)	1,3-Dichlorobenzene		18.126	18.126	0.996	0m	N.D.	d	
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75)	n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76)	1,2-Dichlorobenzene		18.671	18.660	1.026	0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78)	1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79)	Hexachlorobutadiene		20.865	20.865	1.147	0m	N.D.	d	
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	135009	49.90	ug/L	99
84)	2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	357064	49.57	ug/L	99
85)	Acrolein	56	7.524	7.524	0.627	64551	51.07	ug/L	95
86)	Trichlorotrifluoroethane	85	7.750	7.750	0.645	120738	52.32	ug/L	97
87)	Isopropyl Alcohol	45	7.927	7.928	0.660	253779	536.45	ug/L	98
88)	Allyl chloride	41	8.331	8.331	0.694	564331	52.28	ug/L	98
89)	tert-Butyl Alcohol	59	8.580	8.580	0.715	490171	558.94	ug/L	99
90)	Acrylonitrile	53	8.864	8.864	0.738	132466	54.85	ug/L	99
91)	Isopropyl ether	45	9.647	9.647	0.803	256809	10.51	ug/L	98
92)	2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	94297	10.43	ug/L	98
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	246603	10.41	ug/L	99
94)	Ethyl acetate	43	10.453	10.454	0.871	346195	53.61	ug/L	99
95)	Propionitrile	54	10.501	10.501	0.875	50810	54.51	ug/L	95
96)	Methacrylonitrile	41	10.726	10.726	0.893	216205	54.86	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A326.D
Acq On : 24 Aug 2011 20:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-15|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD050S 5ML n/a MIX[B] 0728-04+0728-12+0705-
ALS Vial : 19 Sample Multiplier: 1

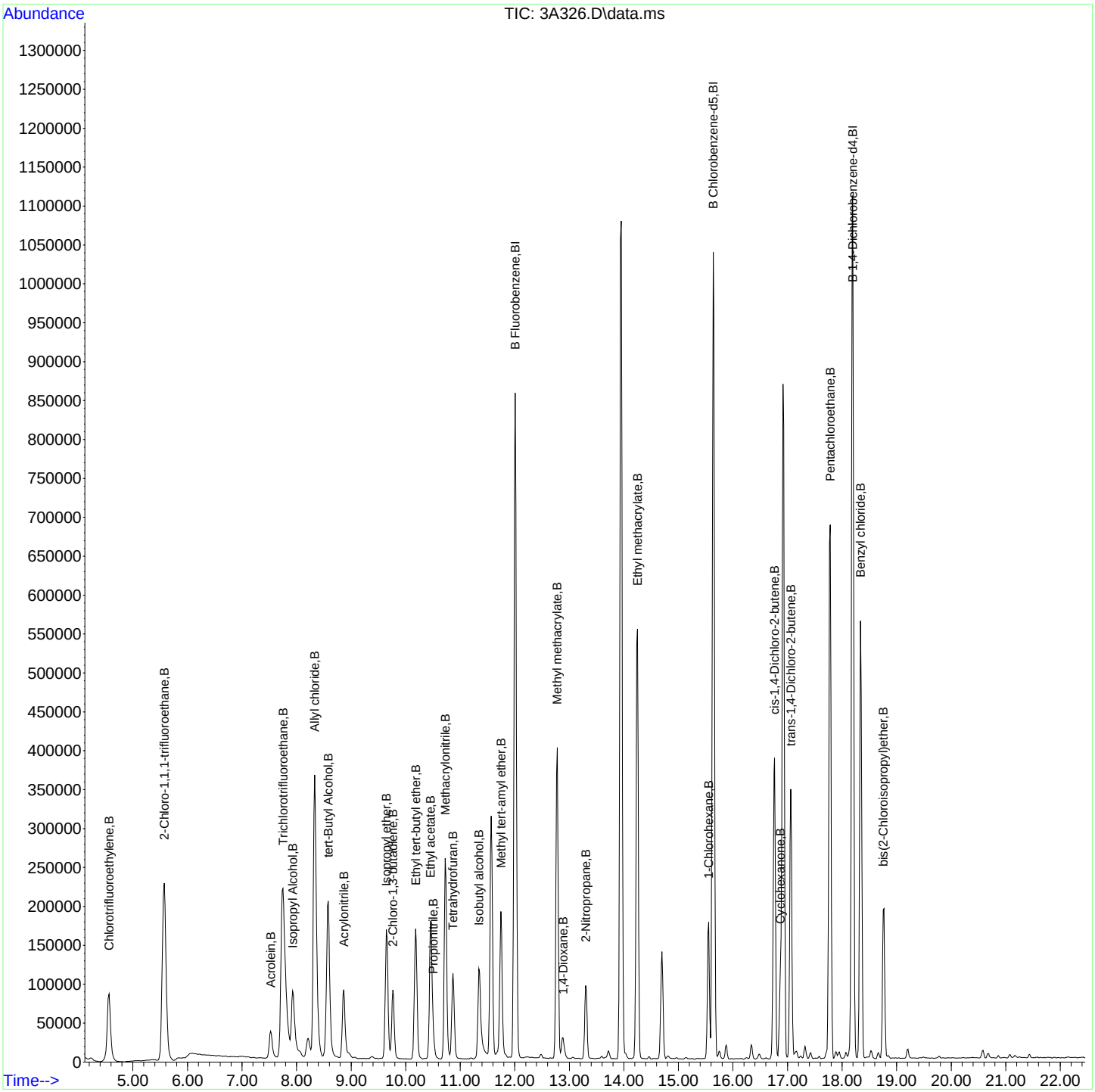
Quant Time: Aug 25 11:42:37 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.868	10.869	0.905	116822	53.48	ug/L	97
98)	Isobutyl alcohol	41	11.343	11.343	0.945	112328	542.50	ug/L	97
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	226811	10.44	ug/L	97
100)	Methyl methacrylate	69	12.778	12.778	1.064	249445	54.50	ug/L	95
101)	1,4-Dioxane	88	12.884	12.884	1.073	37713	548.35	ug/L	99
102)	2-Nitropropane	43	13.299	13.300	1.108	114406	53.21	ug/L	98
104)	Ethyl methacrylate	69	14.248	14.248	0.911	482694	55.65	ug/L	96
106)	1-Chlorohexane	55	15.552	15.553	0.855	68352	9.83	ug/L	97
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	141384	55.83	ug/L	94
108)	Cyclohexanone	42	16.869	16.869	0.927	51990	266.41	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	116579	55.31	ug/L	97
110)	Pentachloroethane	167	17.782	17.782	0.977	235978	51.49	ug/L	96
111)	Benzyl chloride	91	18.339	18.339	1.008	714137	52.75	ug/L	97
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	216199	54.89	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A326.D
Acq On    : 24 Aug 2011  20:08
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-15|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD050S 5ML n/a MIX[B] 0728-04+0728-12+0705-
ALS Vial  : 19   Sample Multiplier: 1

Quant Time: Aug 25 11:42:37 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A327.D
Acq On : 24 Aug 2011 20:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-16|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100S 5ML n/a MIX[B] 0728-05+0728-13+0705-
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 25 11:42:41 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1268631	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	548708	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	576007	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.761	7.774	0.646	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.212	8.212	0.684	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.935	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.181	10.406	0.848	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.868	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		11.675	11.663	0.972	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.829	11.829	0.985	0m	N.D.	d	
33) n-Butyl alcohol		12.256	12.185	1.021	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A327.D
Acq On : 24 Aug 2011 20:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-16|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100S 5ML n/a MIX[B] 0728-05+0728-13+0705-
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 25 11:42:41 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		13.596	13.596	1.132	0m	N.D.	d	
42) 4-Methyl-2-pentanone		13.714	13.715	0.877	0m	N.D.	d	
44) Toluene		14.035	14.035	0.898	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		14.224	14.213	0.910	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47) 2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48) 1,3-Dichloropropane		14.675	14.663	0.939	0m	N.D.	d	
49) Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51) 1,2-Dibromoethane		15.137	15.138	0.968	0m	N.D.	d	
52) Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.		
54) Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55) m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56) o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57) Styrene		16.335	16.335	1.045	0m	N.D.	d	
59) Bromoform		0.000	16.608	0.000	0	N.D.		
60) Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65) n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67) 2-Chlorotoluene		17.319	17.320	0.952	0m	N.D.	d	
68) 4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69) tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70) 1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71) sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72) 4-Isopropyltoluene		18.078	18.067	0.993	0m	N.D.	d	
73) 1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74) 1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75) n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76) 1,2-Dichlorobenzene		18.659	18.660	1.025	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80) Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.562	4.562	0.380	271202	101.59	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	686514	96.59	ug/L	99
85) Acrolein	56	7.524	7.524	0.627	131811	105.70	ug/L	99
86) Trichlorotrifluoroethane	85	7.738	7.750	0.644	234790	103.11	ug/L	99
87) Isopropyl Alcohol	45	7.927	7.928	0.660	506748	1085.68	ug/L	100
88) Allyl chloride	41	8.331	8.331	0.694	1080822	118.26	ug/L	98
89) tert-Butyl Alcohol	59	8.580	8.580	0.715	940684	1087.18	ug/L	100
90) Acrylonitrile	53	8.864	8.864	0.738	264728	111.10	ug/L	99
91) Isopropyl ether	45	9.647	9.647	0.803	500626	20.77	ug/L	99
92) 2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	183233	20.54	ug/L	99
93) Ethyl tert-butyl ether	59	10.181	10.181	0.848	485996	20.79	ug/L	99
94) Ethyl acetate	43	10.453	10.454	0.871	651724	102.28	ug/L	99
95) Propionitrile	54	10.501	10.501	0.875	100625	109.41	ug/L	98
96) Methacrylonitrile	41	10.726	10.726	0.893	416847	107.21	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A327.D
Acq On : 24 Aug 2011 20:38
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-16|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD100S 5ML n/a MIX[B] 0728-05+0728-13+0705-
ALS Vial : 20 Sample Multiplier: 1

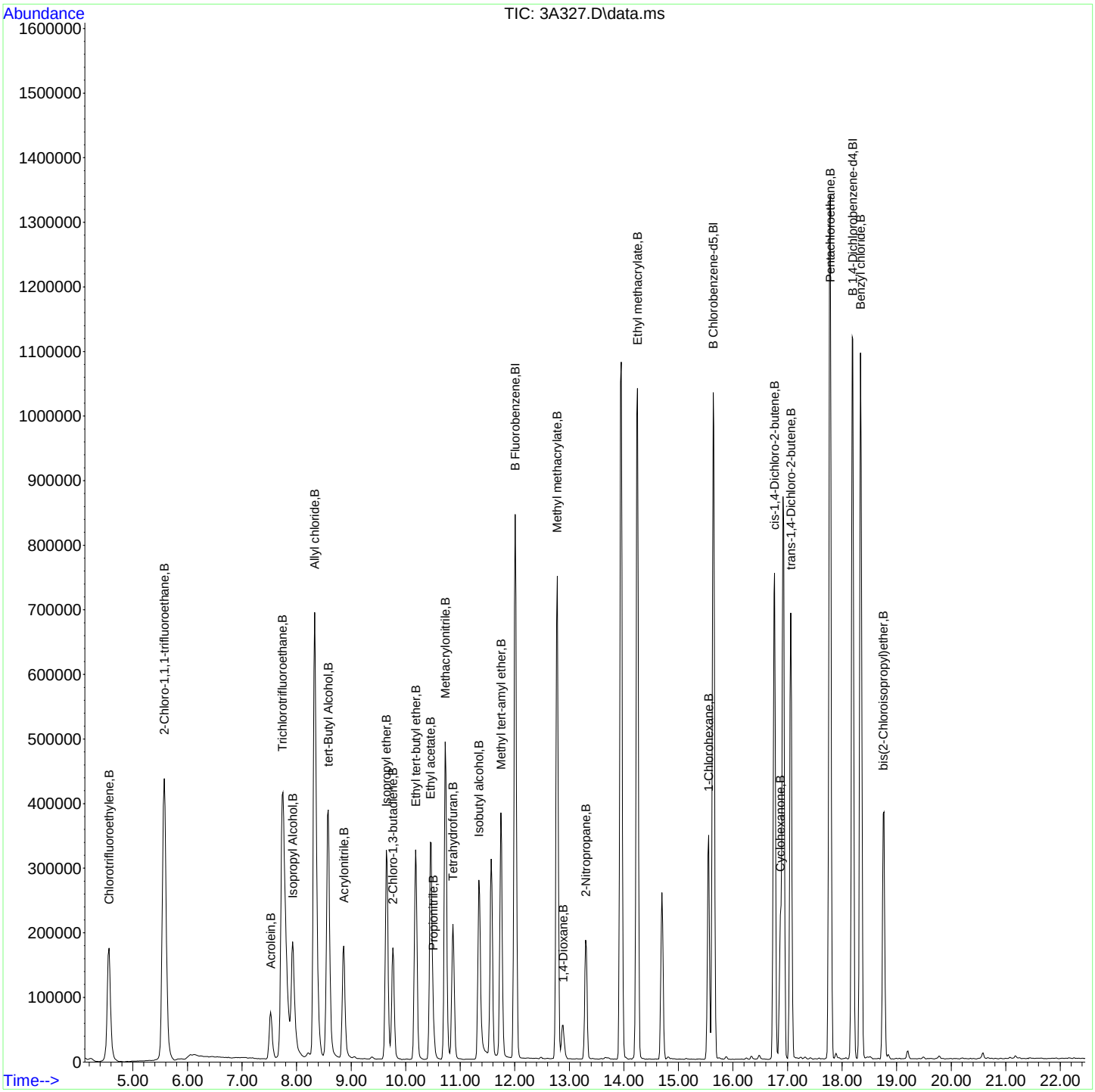
Quant Time: Aug 25 11:42:41 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.868	10.869	0.905	223672	119.59	ug/L	99
98)	Isobutyl alcohol	41	11.343	11.343	0.945	240025	1174.92	ug/L	99
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	447712	20.89	ug/L	98
100)	Methyl methacrylate	69	12.778	12.778	1.064	482640	106.89	ug/L	97
101)	1,4-Dioxane	88	12.884	12.884	1.073	72695	1071.29	ug/L	99
102)	2-Nitropropane	43	13.299	13.300	1.108	227254	107.12	ug/L	98
104)	Ethyl methacrylate	69	14.248	14.248	0.911	917111	104.66	ug/L	97
106)	1-Chlorohexane	55	15.553	15.553	0.855	136889	19.48	ug/L	96
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	271659	106.18	ug/L	96
108)	Cyclohexanone	42	16.869	16.869	0.927	101123	549.23	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	230509	108.23	ug/L	97
110)	Pentachloroethane	167	17.782	17.782	0.977	475451	102.67	ug/L	98
111)	Benzyl chloride	91	18.339	18.339	1.008	1398623	102.24	ug/L	98
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	429066	107.82	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A327.D
Acq On    : 24 Aug 2011  20:38
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110824-16|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD100S 5ML n/a MIX[B] 0728-05+0728-13+0705-
ALS Vial  : 20   Sample Multiplier: 1

Quant Time: Aug 25 11:42:41 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A328.D
Acq On : 24 Aug 2011 21:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-17|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD250S 5ML n/a MIX[B] 0728-06+0728-14+0705-
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 11:42:45 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1305692	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	543665	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	574251	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.762	7.774	0.646	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.212	8.212	0.684	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.936	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.623	9.623	0.801	0m	N.D.	d	
20) 2-Butanone		10.454	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		10.465	10.465	0.872	0m	N.D.	d	
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.869	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		11.438	11.438	0.953	0m	N.D.	d	
30) 1,2-Dichloroethane		11.663	11.663	0.971	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.829	11.829	0.985	0m	N.D.	d	
33) n-Butyl alcohol		12.220	12.185	1.018	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		13.062	13.062	1.088	0m	N.D.	d	
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A328.D
Acq On : 24 Aug 2011 21:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-17|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD250S 5ML n/a MIX[B] 0728-06+0728-14+0705-
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 11:42:45 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) cis-1,3-Dichloropropylene		13.596	13.596	1.132	0m	N.D.	d	
42) 4-Methyl-2-pentanone		13.715	13.715	0.877	0m	N.D.	d	
44) Toluene		14.035	14.035	0.898	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		14.225	14.213	0.910	0m	N.D.	d	
46) 1,1,2-Trichloroethane		14.462	14.462	0.925	0m	N.D.	d	
47) 2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48) 1,3-Dichloropropane		14.711	14.663	0.941	0m	N.D.	d	
49) Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51) 1,2-Dibromoethane		15.138	15.138	0.968	0m	N.D.	d	
52) Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54) Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55) m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56) o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57) Styrene		16.335	16.335	1.045	0m	N.D.	d	
59) Bromoform		16.608	16.608	0.913	0m	N.D.	d	
60) Isopropylbenzene		16.715	16.715	0.919	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65) n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67) 2-Chlorotoluene		17.320	17.320	0.952	0m	N.D.	d	
68) 4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69) tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70) 1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71) sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72) 4-Isopropyltoluene		18.079	18.067	0.993	0m	N.D.	d	
73) 1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74) 1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75) n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76) 1,2-Dichlorobenzene		18.660	18.660	1.025	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78) 1,2,4-Trichlorobenzene		20.676	20.676	1.136	0m	N.D.	d	
79) Hexachlorobutadiene		20.865	20.865	1.147	0m	N.D.	d	
80) Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.562	4.562	0.380	403870	146.99	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	986469	134.85	ug/L	100
85) Acrolein	56	7.524	7.524	0.627	292486	227.89	ug/L	100
86) Trichlorotrifluoroethane	85	7.750	7.750	0.645	542370	231.43	ug/L	100
87) Isopropyl Alcohol	45	7.928	7.928	0.660	1087617	2264.02	ug/L	100
88) Allyl chloride	41	8.331	8.331	0.694	2437766	280.42	ug/L	100
89) tert-Butyl Alcohol	59	8.580	8.580	0.715	1865868	2095.23	ug/L	100
90) Acrylonitrile	53	8.864	8.864	0.738	560015	228.35	ug/L	100
91) Isopropyl ether	45	9.647	9.647	0.803	1156745	46.63	ug/L	100
92) 2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	434077	47.27	ug/L	100
93) Ethyl tert-butyl ether	59	10.181	10.181	0.848	1130002	46.96	ug/L	100
94) Ethyl acetate	43	10.454	10.454	0.871	1336781	203.85	ug/L	100
95) Propionitrile	54	10.501	10.501	0.875	208348	220.11	ug/L	100
96) Methacrylonitrile	41	10.726	10.726	0.893	867221	216.71	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A328.D
Acq On : 24 Aug 2011 21:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-17|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD250S 5ML n/a MIX[B] 0728-06+0728-14+0705-
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 11:42:45 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

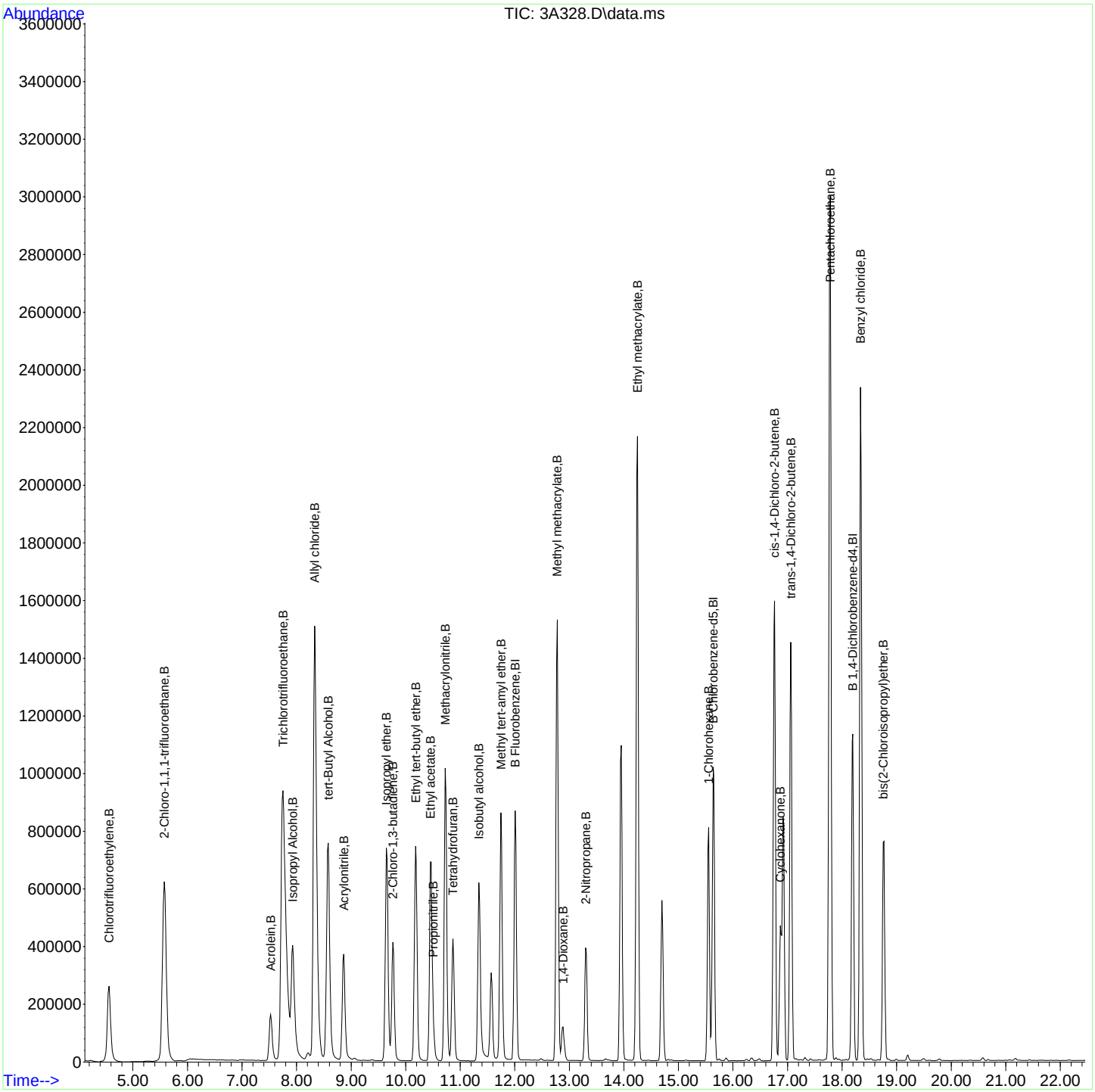
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.869	10.869	0.905	450754	250.26	ug/L	100
98)	Isobutyl alcohol	41	11.343	11.343	0.945	498453	2370.67	ug/L	100
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	1037758	47.06	ug/L	100
100)	Methyl methacrylate	69	12.778	12.778	1.064	1001133	215.42	ug/L	100
101)	1,4-Dioxane	88	12.884	12.884	1.073	160855	2303.21	ug/L	100
102)	2-Nitropropane	43	13.300	13.300	1.108	488393	223.68	ug/L	100
104)	Ethyl methacrylate	69	14.248	14.248	0.911	1928259	222.09	ug/L	100
106)	1-Chlorohexane	55	15.553	15.553	0.855	310623	44.33	ug/L	100
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	563841	221.05	ug/L	100
108)	Cyclohexanone	42	16.869	16.869	0.927	216689	1225.71	ug/L	100
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	479590	225.88	ug/L	100
110)	Pentachloroethane	167	17.782	17.782	0.977	1107922	239.98	ug/L	100
111)	Benzyl chloride	91	18.339	18.339	1.008	2969472	217.74	ug/L	100
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	862866	217.49	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A328.D
Acq On : 24 Aug 2011 21:08
Operator : SYK1
InstName : VOA3
Sample : |W3VM110824-17|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD250S 5ML n/a MIX[B] 0728-06+0728-14+0705-
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 11:42:45 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A402.D
Acq On : 25 Aug 2011 09:22
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD300S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 25 11:43:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.635	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1355140	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.635	15.636	1.000	577749	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	629784	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.750	7.774	0.645	0m	N.D.	d	
11) Iodomethane		0.000	8.070	0.000	0	N.D.		
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.295	8.295	0.691	0m	N.D.	d	
14) Carbon disulfide		8.331	8.212	0.694	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.935	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.765	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.453	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.868	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		11.746	11.663	0.978	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.746	11.829	0.978	0m	N.D.	d	
33) n-Butyl alcohol		12.232	12.185	1.019	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A402.D
Acq On : 25 Aug 2011 09:22
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD300S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 25 11:43:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42)	4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.		
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.		
46)	1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47)	2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48)	1,3-Dichloropropane		14.711	14.663	0.941	0m	N.D.	d	
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50)	Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51)	1,2-Dibromoethane		15.137	15.138	0.968	0m	N.D.	d	
52)	Chlorobenzene		0.000	15.671	0.000	0	N.D.		
53)	1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56)	o-Xylene		0.000	16.335	0.000	0	N.D.		
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d	
59)	Bromoform		0.000	16.608	0.000	0	N.D.		
60)	Isopropylbenzene		16.726	16.715	0.919	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		17.058	17.011	0.937	0m	N.D.	d	
63)	1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64)	Bromobenzene		0.000	17.142	0.000	0	N.D.		
65)	n-Propylbenzene		17.058	17.165	0.937	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		0.000	17.331	0.000	0	N.D.		
67)	2-Chlorotoluene		17.319	17.320	0.952	0m	N.D.	d	
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70)	1,2,4-Trimethylbenzene		17.806	17.747	0.978	0m	N.D.	d	
71)	sec-Butylbenzene		0.000	17.948	0.000	0	N.D.		
72)	4-Isopropyltoluene		0.000	18.067	0.000	0	N.D.		
73)	1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75)	n-Butylbenzene		18.339	18.529	1.008	0m	N.D.	d	
76)	1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.		
77)	1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78)	1,2,4-Trichlorobenzene		0.000	20.676	0.000	0	N.D.		
79)	Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.		
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	419738	147.19	ug/L	100
84)	2-Chloro-1,1,1-trifluo...	118	5.572	5.573	0.464	1232976	162.40	ug/L	100
85)	Acrolein	56	7.524	7.524	0.627	412870	309.95	ug/L	98
86)	Trichlorotrifluoroethane	85	7.750	7.750	0.645	617728	253.96	ug/L	100
87)	Isopropyl Alcohol	45	7.927	7.928	0.660	2102486	4216.91	ug/L	100
88)	Allyl chloride	41	8.331	8.331	0.694	2747424	306.04	ug/L	99
89)	tert-Butyl Alcohol	59	8.568	8.580	0.714	3518982	3807.37	ug/L	99
90)	Acrylonitrile	53	8.864	8.864	0.738	735303	288.89	ug/L	99
91)	Isopropyl ether	45	9.647	9.647	0.803	1895222	73.62	ug/L	99
92)	2-Chloro-1,3-butadiene	53	9.765	9.766	0.813	539411	56.60	ug/L	98
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	1852592	74.17	ug/L	99
94)	Ethyl acetate	43	10.453	10.454	0.871	1763604	259.12	ug/L	99
95)	Propionitrile	54	10.501	10.501	0.875	281646	286.68	ug/L	99
96)	Methacrylonitrile	41	10.726	10.726	0.893	1130396	272.17	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A402.D
Acq On : 25 Aug 2011 09:22
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD300S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 25 11:43:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

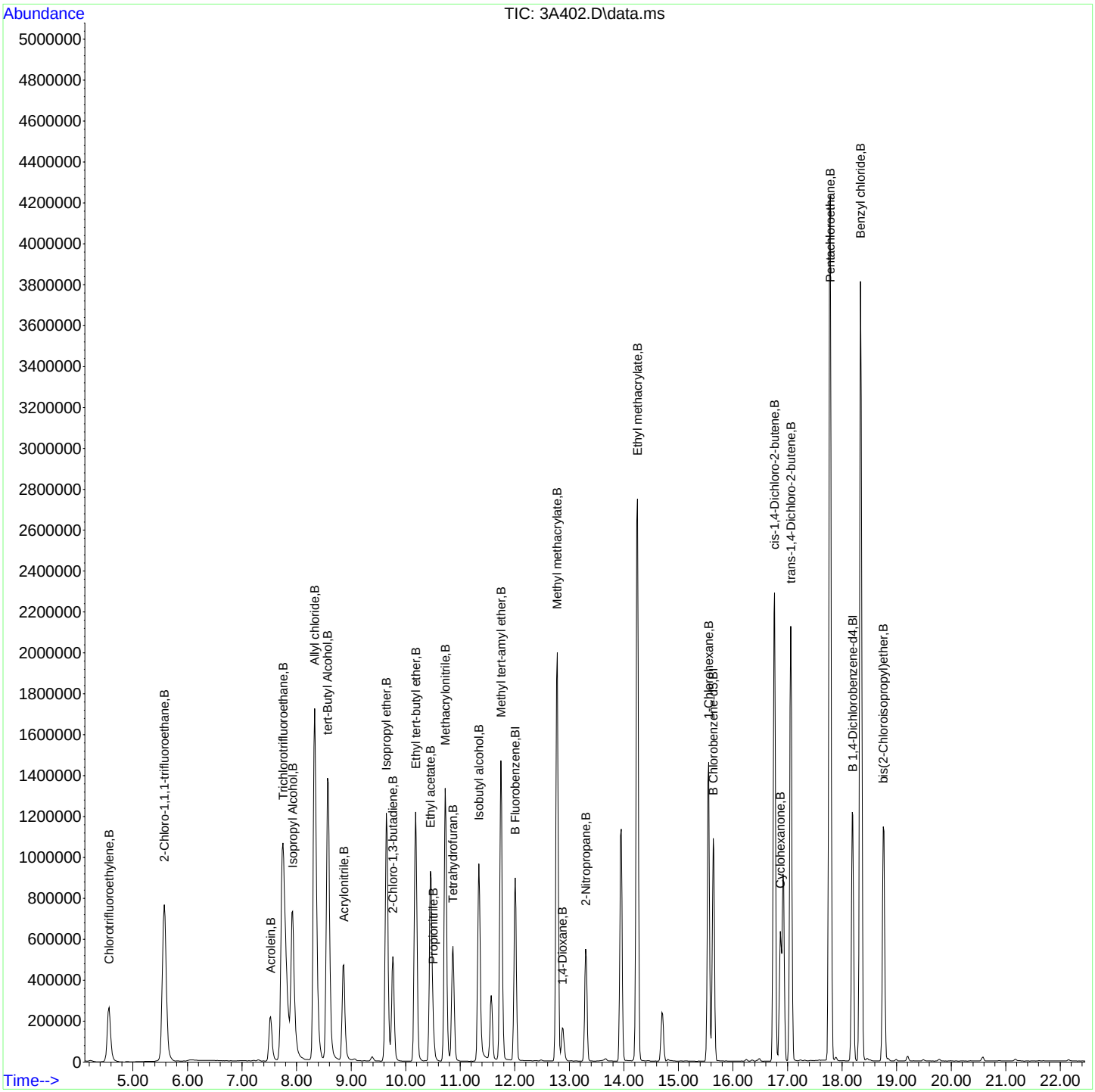
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
97)	Tetrahydrofuran	42	10.868	10.869	0.905	609743	331.27	ug/L	100	
98)	Isobutyl alcohol	41	11.343	11.343	0.945	754729	3458.55	ug/L	97	
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	1720602	75.17	ug/L	100	
100)	Methyl methacrylate	69	12.778	12.778	1.064	1346915	279.25	ug/L	98	
101)	1,4-Dioxane	88	12.872	12.884	1.072	221475	3055.49	ug/L	99	
102)	2-Nitropropane	43	13.299	13.300	1.108	674329	297.56	ug/L	99	
104)	Ethyl methacrylate	69	14.248	14.248	0.911	2476105	268.37	ug/L	99	
106)	1-Chlorohexane	55	15.552	15.553	0.855	563392	73.31	ug/L	97	
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	801708	286.59	ug/L	96	
108)	Cyclohexanone	42	16.869	16.869	0.927	289584	1502.20	ug/L	97	A
109)	trans-1,4-Dichloro-2-b...	53	17.058	17.059	0.937	696166	298.97	ug/L	98	
110)	Pentachloroethane	167	17.782	17.782	0.977	1580004	312.05	ug/L	100	
111)	Benzyl chloride	91	18.339	18.339	1.008	4830207	322.94	ug/L	97	
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	1300605	298.92	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A402.D
Acq On : 25 Aug 2011 09:22
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-01|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD300S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Aug 25 11:43:04 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A403.D
Acq On : 25 Aug 2011 09:52
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD500S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Aug 25 11:43:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	0m	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1376000	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	572224	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	624659	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	0d	0.00	ug/L	
43) Toluene-d8	98	13.952	13.952	0.892	0d	0.00	ug/L	
61) Bromofluorobenzene	95	16.916	16.916	0.930	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		5.068	5.068	0.422	0m	N.D.	d	
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.750	7.774	0.645	0m	N.D.	d	
11) Iodomethane		8.082	8.070	0.673	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.331	8.212	0.694	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.936	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.454	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.869	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		11.746	11.663	0.978	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.746	11.829	0.978	0m	N.D.	d	
33) n-Butyl alcohol		12.220	12.185	1.018	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A403.D
Acq On : 25 Aug 2011 09:52
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD500S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Aug 25 11:43:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40)	cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.			
42)	4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.			
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d		
45)	trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.			
46)	1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.			
47)	2-Hexanone		14.675	14.675	0.939	0m	N.D.	d		
48)	1,3-Dichloropropane		14.723	14.663	0.942	0m	N.D.	d		
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d		
50)	Dibromochloromethane		0.000	14.960	0.000	0	N.D.			
51)	1,2-Dibromoethane		15.138	15.138	0.968	0m	N.D.	d		
52)	Chlorobenzene		0.000	15.671	0.000	0	N.D.			
53)	1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d		
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d		
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d		
56)	o-Xylene		16.335	16.335	1.045	0m	N.D.	d		
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d		
59)	Bromoform		0.000	16.608	0.000	0	N.D.			
60)	Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d		
63)	1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.			
64)	Bromobenzene		0.000	17.142	0.000	0	N.D.			
65)	n-Propylbenzene		17.059	17.165	0.937	0m	N.D.	d		
66)	1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d		
67)	2-Chlorotoluene		17.320	17.320	0.952	0m	N.D.	d		
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d		
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d		
70)	1,2,4-Trimethylbenzene		17.806	17.747	0.978	0m	N.D.	d		
71)	sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d		
72)	4-Isopropyltoluene		18.067	18.067	0.993	0m	N.D.	d		
73)	1,3-Dichlorobenzene		18.126	18.126	0.996	0m	N.D.	d		
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d		
75)	n-Butylbenzene		18.339	18.529	1.008	0m	N.D.	d		
76)	1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.			
77)	1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.			
78)	1,2,4-Trichlorobenzene		20.676	20.676	1.136	0m	N.D.	d		
79)	Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.			
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d		
81)	1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.			
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	500549	172.87	ug/L	100	
84)	2-Chloro-1,1,1-trifluo...	118	5.588	5.573	0.465	1468513	190.49	ug/L	100	
85)	Acrolein	56	7.524	7.524	0.627	656254	485.19	ug/L	98	
86)	Trichlorotrifluoroethane	85	7.750	7.750	0.645	969377	392.49	ug/L	99	
87)	Isopropyl Alcohol	45	7.928	7.928	0.660	2222612	4390.26	ug/L	100	
88)	Allyl chloride	41	8.331	8.331	0.694	4271263	478.03	ug/L	98	
89)	tert-Butyl Alcohol	59	8.580	8.580	0.715	3677920	3919.01	ug/L	100	
90)	Acrylonitrile	53	8.864	8.864	0.738	1102974	426.77	ug/L	99	
91)	Isopropyl ether	45	9.647	9.647	0.803	2285416	87.43	ug/L	99	
92)	2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	866181	89.50	ug/L	96	
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	2221890	87.61	ug/L	99	
94)	Ethyl acetate	43	10.454	10.454	0.871	2507271	362.80	ug/L	98	A
95)	Propionitrile	54	10.501	10.501	0.875	425202	426.25	ug/L	100	
96)	Methacrylonitrile	41	10.726	10.726	0.893	1649482	391.13	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A403.D
Acq On : 25 Aug 2011 09:52
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-02|ICAL|1|VOA|1|VOA8260BL|
Misc : VSTD500S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial : 30 Sample Multiplier: 1

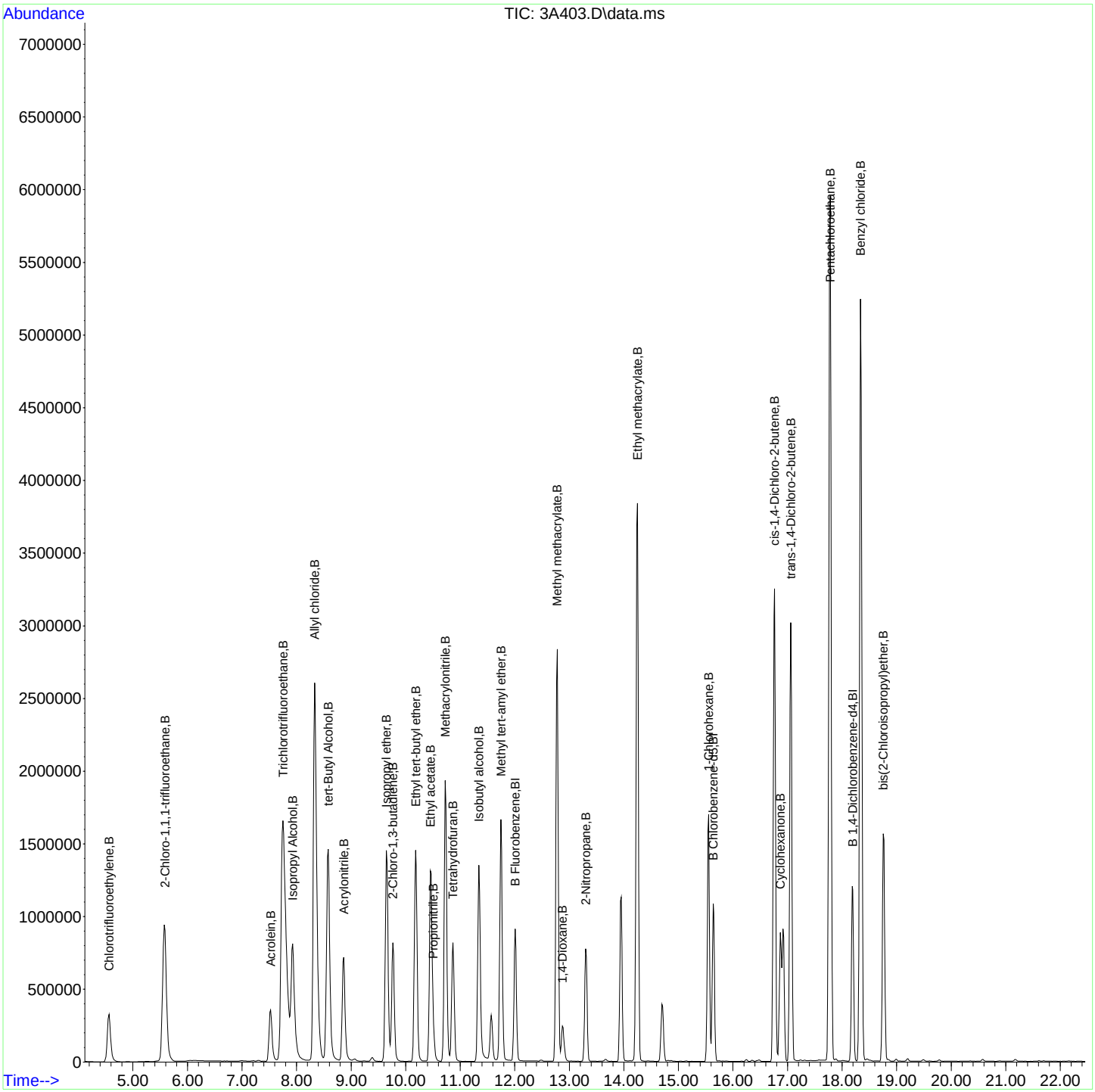
Quant Time: Aug 25 11:43:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
97)	Tetrahydrofuran	42	10.869	10.869	0.905	879306	477.55	ug/L	99	
98)	Isobutyl alcohol	41	11.343	11.343	0.945	1037484	4682.20	ug/L	95	
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	2040303	87.79	ug/L	99	
100)	Methyl methacrylate	69	12.778	12.778	1.064	1921949	392.42	ug/L	96	
101)	1,4-Dioxane	88	12.873	12.884	1.072	330884	4495.70	ug/L	99	
102)	2-Nitropropane	43	13.300	13.300	1.108	967952	420.66	ug/L	100	
104)	Ethyl methacrylate	69	14.248	14.248	0.911	3469338	379.65	ug/L	99	
106)	1-Chlorohexane	55	15.553	15.553	0.855	659232	86.49	ug/L	97	
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	1141853	411.53	ug/L	97	
108)	Cyclohexanone	42	16.869	16.869	0.927	404091	2129.41	ug/L	97	A
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	985807	426.82	ug/L	97	
110)	Pentachloroethane	167	17.782	17.782	0.977	2255567	449.13	ug/L	99	
111)	Benzyl chloride	91	18.339	18.339	1.008	6655582	448.64	ug/L	96	
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	1764759	408.92	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A403.D
Acq On    : 25 Aug 2011  09:52
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110825-02|ICAL|1|VOA|1|VOA8260BL|
Misc      : VSTD500S 5ML n/a MIX[B] 0728-07+0728-15+0705-
ALS Vial  : 30   Sample Multiplier: 1

Quant Time: Aug 25 11:43:09 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: VOA3.I

Injection Date: 25-AUG-11 10:53

Data File: 082511V3\3A405.D

Init. Cal. Date(s) 24-AUG-11 12:07 - 25-AUG-11 09:5

Lab Sample ID W3VM110825-03

Method: 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Method Update: 25-AUG-11 11:40

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.0572	0.05705		.01		-0.26224	30		Averaged
S	Toluene-d8	2.2206	2.24885		.01		1.27218	30		Averaged
S	Bromofluorobenzene	0.9463	0.89986		.01		-4.90753	30		Averaged
	Chlorotrifluoroethylene	0.1052	0.10636		.01		1.10266	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2801	0.27263		.01		-2.6669	30		Averaged
	Acrolein	0.0491	0.04611		.01		-6.08961	30		Averaged
	Trichlorotrifluoroethane	0.0897	0.07782		.01		-13.24415	30		Averaged
	Isopropyl Alcohol	0.0184	0.01984		.01		7.82609	40		Averaged
	Allyl chloride	250	229.2	250			-8.32	30		Linear
	tert-Butyl Alcohol	0.0341	0.03481		.01		2.08211	40		Averaged
	Acrylonitrile	0.0939	0.08894		.01		-5.28222	30		Averaged
	Isopropyl ether	0.9499	0.92042		.01		-3.10348	30		Averaged
	2-Chloro-1,3-butadiene	0.3517	0.25626		.01		-27.13676	30		Averaged
	Ethyl tert-butyl ether	0.9215	0.89906		.01		-2.43516	30		Averaged
	Ethyl acetate	0.2511	0.22266		.01		-11.32616	40		Averaged
	Propionitrile	0.0362	0.0361		.01		-0.27624	30		Averaged
	Methacrylonitrile	0.1532	0.13583		.01		-11.33812	30		Averaged
	Tetrahydrofuran	250	283.12	250			13.248	30		Linear
	Isobutyl alcohol	0.0081	0.00896		.01		10.61728	40		Averaged
	Methyl tert-amyl ether	0.8445	0.83126		.01		-1.56779	30		Averaged
	Methyl methacrylate	0.178	0.1629		.01		-8.48315	30		Averaged
	1,4-Dioxane	0.0027	0.00272		.01		0.74074	40		Averaged
	2-Nitropropane	0.0836	0.08166		.01		-2.32057	30		Averaged
	Ethyl methacrylate	0.7985	0.69667		.01		-12.75266	30		Averaged
	1-Chlorohexane	0.6101	0.56456		.01		-7.46435	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2221	0.20302		.01		-8.59072	30		Averaged
	Cyclohexanone	1250	1203.47	1250			-3.7224	40		Linear
	trans-1,4-Dichloro-2-butene	0.1849	0.18468		.01		-0.11898	30		Averaged
	Pentachloroethane	0.402	0.4057		.01		0.9204	30		Averaged
	Benzyl chloride	1.1875	1.16943		.01		-1.52168	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3454	0.33022		.01		-4.3949	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A405.D
Acq On : 25 Aug 2011 10:53
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-03|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[B] 0728-08C+0729-08C+0728-16B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Aug 25 11:43:15 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1313600	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	562765	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	608697	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1313600	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	562765	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	608697	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	74937	49.89	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1265573	50.64	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	547744	47.55	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		5.573	5.365	0.464	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.738	7.774	0.644	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.331	8.212	0.694	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.936	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.454	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.869	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.746	11.829	0.978	0m	N.D.	d	
33) n-Butyl alcohol		12.197	12.185	1.016	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A405.D
Acq On : 25 Aug 2011 10:53
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-03|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[B] 0728-08C+0729-08C+0728-16B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Aug 25 11:43:15 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.		
42)	4-Methyl-2-pentanone		13.726	13.715	0.878	0m	N.D.	d	
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.		
46)	1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47)	2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48)	1,3-Dichloropropane		14.723	14.663	0.942	0m	N.D.	d	
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50)	Dibromochloromethane		0.000	14.960	0.000	0	N.D.		
51)	1,2-Dibromoethane		15.138	15.138	0.968	0m	N.D.	d	
52)	Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56)	o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d	
59)	Bromoform		0.000	16.608	0.000	0	N.D.		
60)	Isopropylbenzene		16.715	16.715	0.919	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d	
63)	1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64)	Bromobenzene		0.000	17.142	0.000	0	N.D.		
65)	n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67)	2-Chlorotoluene		17.320	17.320	0.952	0m	N.D.	d	
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70)	1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71)	sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72)	4-Isopropyltoluene		18.079	18.067	0.993	0m	N.D.	d	
73)	1,3-Dichlorobenzene		18.138	18.126	0.997	0m	N.D.	d	
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75)	n-Butylbenzene		18.339	18.529	1.008	0m	N.D.	d	
76)	1,2-Dichlorobenzene		18.660	18.660	1.025	0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.		
78)	1,2,4-Trichlorobenzene		20.676	20.676	1.136	0m	N.D.	d	
79)	Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.		
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.		
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	419136	151.63	ug/L	100
84)	2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	1074394	145.98	ug/L	100
85)	Acrolein	56	7.524	7.524	0.627	302856	234.55	ug/L	99
86)	Trichlorotrifluoroethane	85	7.750	7.750	0.645	511123	216.78	ug/L	100
87)	Isopropyl Alcohol	45	7.928	7.928	0.660	1303286	2696.63	ug/L	100
88)	Allyl chloride	41	8.331	8.331	0.694	2031402	229.20	ug/L	100
89)	tert-Butyl Alcohol	59	8.580	8.580	0.715	2286028	2551.59	ug/L	100
90)	Acrylonitrile	53	8.864	8.864	0.738	584134	236.75	ug/L	99
91)	Isopropyl ether	45	9.647	9.647	0.803	1209058	48.45	ug/L	100
92)	2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	336628	36.44	ug/L	99
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	1181011	48.78	ug/L	100
94)	Ethyl acetate	43	10.454	10.454	0.871	1462457	221.67	ug/L	100
95)	Propionitrile	54	10.501	10.501	0.875	237127	249.00	ug/L	100
96)	Methacrylonitrile	41	10.726	10.726	0.893	892099	221.58	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A405.D
Acq On : 25 Aug 2011 10:53
Operator : SYK1
InstName : VOA3
Sample : |W3VM110825-03|ICV|1|VOA|1|VOA8260BL|
Misc : ICV 5ML n/a MIX[B] 0728-08C+0729-08C+0728-16B
ALS Vial : 32 Sample Multiplier: 1

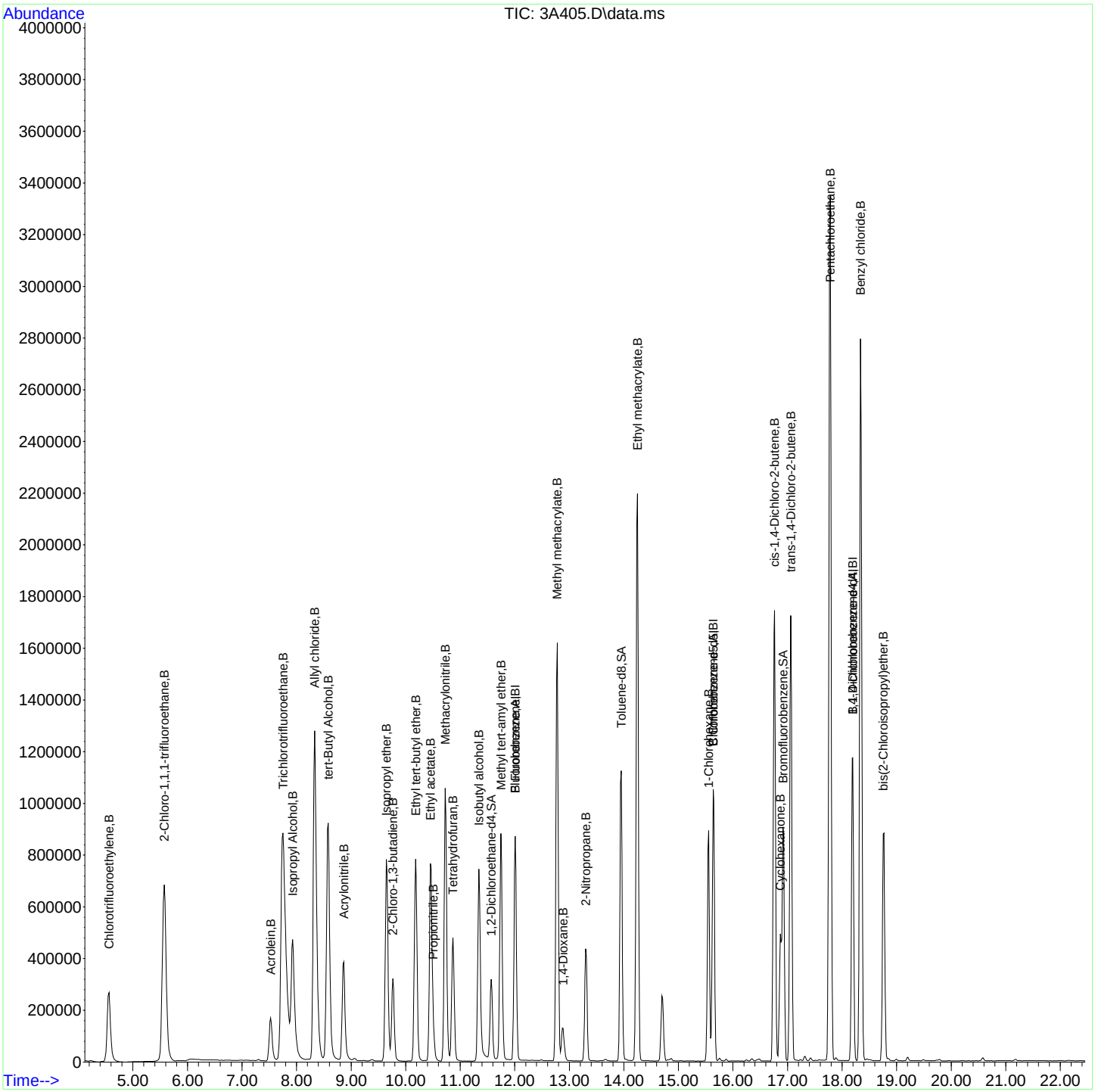
Quant Time: Aug 25 11:43:15 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.869	10.869	0.905	509277	283.12	ug/L	99
98)	Isobutyl alcohol	41	11.343	11.343	0.945	588388	2781.55	ug/L	98
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	1091942	49.22	ug/L	99
100)	Methyl methacrylate	69	12.778	12.778	1.064	1069960	228.84	ug/L	99
101)	1,4-Dioxane	88	12.884	12.884	1.073	178927	2546.55	ug/L	100
102)	2-Nitropropane	43	13.300	13.300	1.108	536373	244.17	ug/L	99
104)	Ethyl methacrylate	69	14.248	14.248	0.911	1960298	218.12	ug/L	100
106)	1-Chlorohexane	55	15.553	15.553	0.855	343645	46.27	ug/L	100
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	617886	228.53	ug/L	100
108)	Cyclohexanone	42	16.869	16.869	0.927	225649	1203.47	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	562083	249.75	ug/L	98
110)	Pentachloroethane	167	17.782	17.782	0.977	1234740	252.31	ug/L	100
111)	Benzyl chloride	91	18.339	18.339	1.008	3559128	246.20	ug/L	99
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	1005026	238.99	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A405.D
Acq On    : 25 Aug 2011  10:53
Operator  : SYK1
InstName  : VOA3
Sample    : |W3VM110825-03|ICV|1|VOA|1|VOA8260BL|
Misc      : ICV 5ML n/a MIX[B] 0728-08C+0729-08C+0728-16B
ALS Vial  : 32   Sample Multiplier: 1

Quant Time: Aug 25 11:43:15 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: VOA3.I **Injection Date:** 03-SEP-11 20:57

Data File: 090311V3\3B603.D **Init. Cal. Date(s)** 24-AUG-11 12:07 - 25-AUG-11 09:5

Lab Sample ID W3VM110903-02 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD **Method Update:** 25-AUG-11 11:40

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.0572	0.05741		.01		0.36713	30		Averaged	
S	Toluene-d8	2.2206	2.0911		.01		-5.83176	30		Averaged	
S	Bromofluorobenzene	0.9463	0.92769		.01		-1.96661	30		Averaged	
	Dichlorodifluoromethane	0.2014	0.13494		.01		-32.99901	30	*	Averaged	
	Chloromethane	0.2389	0.1909		.1		-20.09209	30		Averaged	spcc
	Vinyl chloride	0.2429	0.19746		.01		-18.70729	20		Averaged	ccc
	Bromomethane	0.2968	0.24524		.01		-17.37197	30		Averaged	
	Chloroethane	0.1822	0.16937		.01		-7.04171	30		Averaged	
	Trichlorofluoromethane	0.391	0.34243		.01		-12.42199	30		Averaged	
	Ethyl ether	0.2362	0.21776		.01		-7.80694	30		Averaged	
	Acetone	250	198.49	250			-20.604	40		Linear	
	1,1-Dichloroethylene	0.4233	0.34909		.01		-17.5313	20		Averaged	ccc
	Iodomethane	0.5181	0.44547		.01		-14.01853	30		Averaged	
	Carbon disulfide	0.8992	0.73852		.01		-17.86922	30		Averaged	
	Acetonitrile	1250	1322.26	1250			5.7808	30		Linear	
	Methyl acetate	0.2108	0.20325		.01		-3.58159	40		Averaged	
	Methylene chloride	0.3516	0.30961		.01		-11.94255	30		Averaged	
	tert-Butyl methyl ether	0.8512	0.76551		.01		-10.06696	30		Averaged	
	trans-1,2-Dichloroethylene	0.3927	0.33247		.01		-15.33741	30		Averaged	
	Vinyl acetate	0.5065	0.45595		.01		-9.98026	40		Averaged	
	1,1-Dichloroethane	0.4877	0.41582		.1		-14.73857	30		Averaged	spcc
	2-Butanone	0.2191	0.16463		.01		-24.86079	40		Averaged	
	cis-1,2-Dichloroethylene	0.3296	0.28791		.01		-12.64867	30		Averaged	
	2,2-Dichloropropane	0.3776	0.32253		.01		-14.58422	30		Averaged	
	Bromochloromethane	0.161	0.14961		.01		-7.07453	30		Averaged	
	Chloroform	0.5078	0.45165		.01		-11.0575	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4373	0.3799		.01		-13.126	30		Averaged	
	Cyclohexane	0.4881	0.40538		.01		-16.94735	30		Averaged	
	1,1-Dichloropropene	0.3631	0.30801		.01		-15.17213	30		Averaged	
	Carbon tetrachloride	0.3677	0.31365		.01		-14.69948	30		Averaged	
	1,2-Dichloroethane	0.3483	0.3114		.01		-10.59432	30		Averaged	
	Benzene	1.0861	0.94944		.01		-12.58264	30		Averaged	
	Cyclohexene	0.5538	0.45312		.01		-18.17985	30		Averaged	
	n-Butyl alcohol	5000	5287.65	5000			5.753	40		Linear	
	Trichloroethylene	0.2896	0.25978		.01		-10.29696	30		Averaged	
	1,2-Dichloropropane	0.2756	0.24312		.01		-11.7852	20		Averaged	ccc
	Methylcyclohexane	0.4834	0.41029		.01		-15.12412	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 03-SEP-11 20:57

Data File: 090311V3\3B603.D **Init. Cal. Date(s)** 24-AUG-11 12:07 25-AUG-11 09:5

Lab Sample ID W3VM110903-02 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1787	0.16615		.01		-7.02294	30		Averaged	
Bromodichloromethane	0.3947	0.36193		.01		-8.30251	30		Averaged	
2-Chloroethylvinyl ether	0.1411	0.126		.01		-10.70163	30		Averaged	
cis-1,3-Dichloropropylene	0.4688	0.429		.01		-8.48976	30		Averaged	
4-Methyl-2-pentanone	0.2624	0.24564		.01		-6.3872	40		Averaged	
Toluene	2.626	2.24309		.01		-14.58149	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.9929	0.91372		.01		-7.97462	30		Averaged	
1,1,2-Trichloroethane	0.4918	0.46101		.01		-6.26068	30		Averaged	
1,3-Dichloropropane	0.9621	0.85535		.01		-11.09552	30		Averaged	
2-Hexanone	250	230.56	250			-7.776	40		Linear	
Tetrachloroethylene	0.5375	0.44276		.01		-17.62605	30		Averaged	
Dibromochloromethane	0.7283	0.67532		.01		-7.27447	30		Averaged	
1,2-Dibromoethane	0.642	0.60027		.01		-6.5	30		Averaged	
Chlorobenzene	1.749	1.55521		.3		-11.08005	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.6584	0.60048		.01		-8.79708	30		Averaged	
Ethylbenzene	2.9023	2.43985		.01		-15.93391	20		Averaged	ccc
m,p-Xylenes	1.1819	1.0276		.01		-13.05525	30		Averaged	
o-Xylene	1.2271	1.09499		.01		-10.76603	30		Averaged	
Styrene	2.0193	1.78398		.01		-11.65354	30		Averaged	
Bromoform	0.4797	0.4589		.1		-4.33604	30		Averaged	spcc
Isopropylbenzene	3.0101	2.56426		.01		-14.81147	30		Averaged	
1,1,2,2-Tetrachloroethane	0.7713	0.72788		.3		-5.62946	30		Averaged	spcc
1,2,3-Trichloropropane	0.2254	0.20974		.01		-6.94765	30		Averaged	
Bromobenzene	0.8116	0.71618		.01		-11.75702	30		Averaged	
n-Propylbenzene	3.4694	2.94562		.01		-15.09713	30		Averaged	
2-Chlorotoluene	0.7457	0.66646		.01		-10.62626	30		Averaged	
1,3,5-Trimethylbenzene	2.5066	2.14127		.01		-14.57472	30		Averaged	
4-Chlorotoluene	2.2821	2.0196		.01		-11.50256	30		Averaged	
tert-Butylbenzene	0.5791	0.51129		.01		-11.70955	30		Averaged	
1,2,4-Trimethylbenzene	2.5833	2.23964		.01		-13.30314	30		Averaged	
sec-Butylbenzene	3.4047	3.00898		.01		-11.62276	30		Averaged	
4-Isopropyltoluene	2.7292	2.44067		.01		-10.57196	30		Averaged	
1,3-Dichlorobenzene	1.5432	1.37434		.01		-10.9422	30		Averaged	
1,4-Dichlorobenzene	1.4841	1.34374		.01		-9.45758	30		Averaged	
n-Butylbenzene	2.7456	2.44958		.01		-10.78161	30		Averaged	
1,2-Dichlorobenzene	1.5084	1.37257		.01		-9.00491	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1652	0.16074		.01		-2.69976	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date:** 03-SEP-11 20:57

Data File: 090311V3\3B603.D **Init. Cal. Date(s)** 24-AUG-11 12:07 25-AUG-11 09:5

Lab Sample ID W3VM110903-02 **Method:** 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9878	0.93106		.01		-5.74408	30		Averaged
Hexachlorobutadiene	0.5859	0.52157		.01		-10.97969	30		Averaged
Naphthalene	1.9844	1.94343		.01		-2.0646	30		Averaged
1,2,3-Trichlorobenzene	0.8146	0.76515		.01		-6.07046	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-02|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1394180	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	615851	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	637756	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1394180	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	615851	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	637756	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	80044	50.21	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1287809	47.08	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	591637	49.02	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	188130	33.49	ug/L	100
3) Chloromethane	50	5.068	5.068	0.422	266144	39.96	ug/L	100
4) Vinyl chloride	62	5.365	5.365	0.447	275298	40.64	ug/L	100
5) Bromomethane	94	6.125	6.125	0.510	341905	41.31	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	236139	46.48	ug/L	100
7) Trichlorofluoromethane	101	6.837	6.849	0.569	477406	43.79	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	303597	46.10	ug/L	99
9) Acetone	43	7.762	7.762	0.646	849425	198.49	ug/L	100
10) 1,1-Dichloroethylene	61	7.774	7.774	0.647	486694	41.24	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	3105353	214.96	ug/L	100
12) Acetonitrile	41	8.236	8.224	0.686	1120537	1322.26	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1416818	241.00	ug/L	100
14) Carbon disulfide	76	8.212	8.212	0.684	5148116	205.33	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	431659	44.03	ug/L	99
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	1067253	44.97	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	463529	42.33	ug/L	100
18) Vinyl acetate	43	9.612	9.612	0.800	3178386	225.03	ug/L	100
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	579723	42.63	ug/L	99
20) 2-Butanone	43	10.418	10.406	0.868	1147606	187.86	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	401396	43.68	ug/L	100
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	449669	42.71	ug/L	99
23) Bromochloromethane	128	10.809	10.797	0.900	208578	46.45	ug/L	99
24) Chloroform	83	10.869	10.869	0.905	629680	44.47	ug/L	99
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	529653	43.44	ug/L	100
26) Cyclohexane	56	11.307	11.307	0.942	565173	41.53	ug/L	97
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	429428	42.41	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	437285	42.65	ug/L	99
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	434146	44.70	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1323684	43.71	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	631724	40.91	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	1181657	5287.65	ug/L	99
34) Trichloroethylene	95	12.481	12.481	1.040	362185	44.85	ug/L	98
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	338952	44.10	ug/L	98
36) Methylcyclohexane	83	12.766	12.766	1.063	572021	42.44	ug/L	99
37) Dibromomethane	93	12.920	12.920	1.076	231639	46.48	ug/L	98
38) Bromodichloromethane	83	13.062	13.062	1.088	504592	45.85	ug/L	98
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	878308	223.17	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-02|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	598105	45.76	ug/L	100
42)	4-Methyl-2-pentanone	58	13.715	13.715	0.877	756374	234.07	ug/L	100
44)	Toluene	91	14.035	14.035	0.898	1381407	42.71	ug/L	100
45)	trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	562715	46.01	ug/L	99
46)	1,1,2-Trichloroethane	83	14.462	14.462	0.925	283916	46.87	ug/L	100
47)	2-Hexanone	58	14.675	14.675	0.939	796676	230.56	ug/L	100
48)	1,3-Dichloropropane	76	14.663	14.663	0.938	526766	44.45	ug/L	94
49)	Tetrachloroethylene	164	14.699	14.699	0.940	272672	41.18	ug/L	98
50)	Dibromochloromethane	129	14.960	14.960	0.957	415899	46.36	ug/L	100
51)	1,2-Dibromoethane	107	15.138	15.138	0.968	369679	46.75	ug/L	100
52)	Chlorobenzene	112	15.671	15.671	1.002	957778	44.46	ug/L	100
53)	1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	369807	45.60	ug/L	99
54)	Ethylbenzene	91	15.754	15.754	1.008	1502585	42.03	ug/L	100
55)	m,p-Xylenes	106	15.873	15.873	1.015	1265702	86.95	ug/L	100
56)	o-Xylene	106	16.335	16.335	1.045	674350	44.62	ug/L	99
57)	Styrene	104	16.335	16.335	1.045	1098668	44.17	ug/L	100
59)	Bromoform	173	16.608	16.608	0.913	292669	47.83	ug/L	99
60)	Isopropylbenzene	105	16.715	16.715	0.919	1635371	42.59	ug/L	100
62)	1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	464209	47.18	ug/L	98
63)	1,2,3-Trichloropropane	110	17.094	17.094	0.939	133761	46.53	ug/L	98
64)	Bromobenzene	156	17.142	17.142	0.942	456747	44.12	ug/L	98
65)	n-Propylbenzene	91	17.165	17.165	0.943	1878585	42.45	ug/L	99
66)	1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1365609	42.71	ug/L	100
67)	2-Chlorotoluene	126	17.320	17.320	0.952	425042	44.69	ug/L	100
68)	4-Chlorotoluene	91	17.426	17.415	0.958	1288015	44.25	ug/L	99
69)	tert-Butylbenzene	134	17.711	17.711	0.973	326080	44.14	ug/L	97
70)	1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	1428347	43.35	ug/L	99
71)	sec-Butylbenzene	105	17.948	17.948	0.986	1918996	44.19	ug/L	99
72)	4-Isopropyltoluene	119	18.067	18.067	0.993	1556555	44.71	ug/L	100
73)	1,3-Dichlorobenzene	146	18.126	18.126	0.996	876493	44.53	ug/L	99
74)	1,4-Dichlorobenzene	146	18.221	18.221	1.001	856978	45.27	ug/L	100
75)	n-Butylbenzene	91	18.529	18.529	1.018	1562233	44.61	ug/L	99
76)	1,2-Dichlorobenzene	146	18.660	18.660	1.025	875363	45.50	ug/L	100
77)	1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	102515	48.64	ug/L	99
78)	1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	593789	47.13	ug/L	99
79)	Hexachlorobutadiene	225	20.865	20.865	1.147	332634	44.51	ug/L	100
80)	Naphthalene	128	21.079	21.079	1.158	1239435	48.97	ug/L	100
81)	1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	487979	46.97	ug/L	99
83)	Chlorotrifluoroethylene		4.562	4.562	0.380	0m	N.D.	d	
84)	2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85)	Acrolein		7.536	7.524	0.628	0m	N.D.	d	
86)	Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.774	7.928	0.647	0m	N.D.	d	
88)	Allyl chloride		8.236	8.331	0.686	0m	N.D.	d	
89)	tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90)	Acrylonitrile		8.936	8.864	0.744	0m	N.D.	d	
91)	Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		
93)	Ethyl tert-butyl ether		10.181	10.181	0.848	0m	N.D.	d	
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d	
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d	
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-02|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

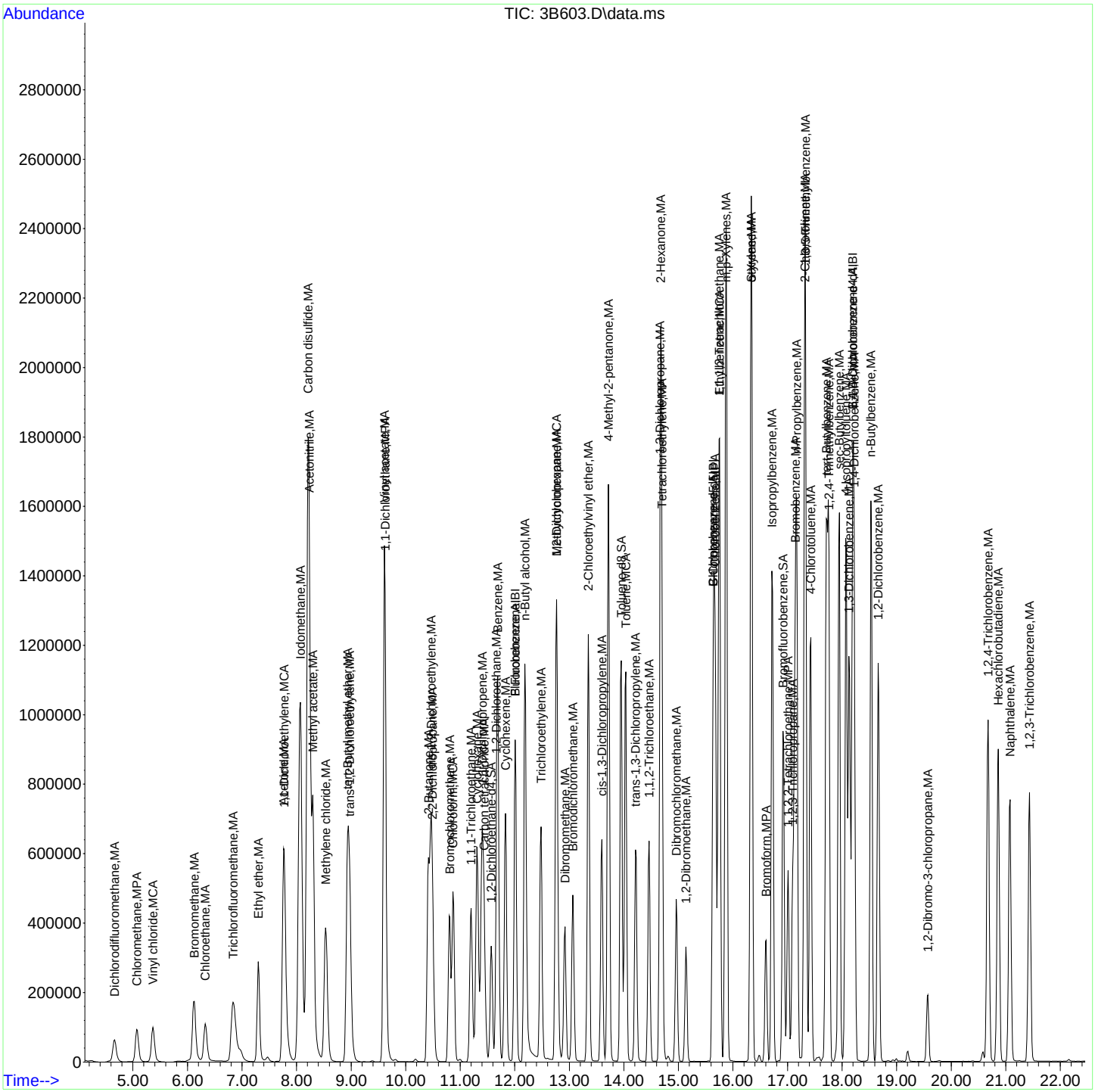
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98) Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99) Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100) Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101) 1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102) 2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104) Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106) 1-Chlorohexane		15.553	15.553	0.855	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108) Cyclohexanone		16.715	16.869	0.919	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110) Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111) Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-02|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: VOA3.I

Injection Date: 03-SEP-11 21:56

Data File: 090311V3\3B605.D

Init. Cal. Date(s) 24-AUG-11 12:07 - 25-AUG-11 09:5

Lab Sample ID W3VM110903-04

Method: 082411V3\VOA3-8260-082411.M

Quant Type ISTD

Method Update: 25-AUG-11 11:40

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.0572	0.05739		.01		0.33217	30		Averaged
S	Toluene-d8	2.2206	2.23578		.01		0.6836	30		Averaged
S	Bromofluorobenzene	0.9463	0.91177		.01		-3.64895	30		Averaged
	Chlorotrifluoroethylene	0.1052	0.07938		.01		-24.54373	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2801	0.22254		.01		-20.5498	30		Averaged
	Acrolein	0.0491	0.05028		.01		2.40326	30		Averaged
	Trichlorotrifluoroethane	0.0897	0.09356		.01		4.30323	30		Averaged
	Isopropyl Alcohol	0.0184	0.01883		.01		2.33696	40		Averaged
	Allyl chloride	250	272.8	250			9.12	30		Linear
	tert-Butyl Alcohol	0.0341	0.03288		.01		-3.57771	40		Averaged
	Acrylonitrile	0.0939	0.09416		.01		0.27689	30		Averaged
	Isopropyl ether	0.9499	0.81574		.01		-14.12359	30		Averaged
	2-Chloro-1,3-butadiene	0.3517	0.28794		.01		-18.12909	30		Averaged
	Ethyl tert-butyl ether	0.9215	0.80179		.01		-12.99078	30		Averaged
	Ethyl acetate	0.2511	0.23604		.01		-5.99761	40		Averaged
	Propionitrile	0.0362	0.03642		.01		0.60773	30		Averaged
	Methacrylonitrile	0.1532	0.144		.01		-6.00522	30		Averaged
	Tetrahydrofuran	250	291.48	250			16.592	30		Linear
	Isobutyl alcohol	0.0081	0.00921		.01		13.7037	40		Averaged
	Methyl tert-amyl ether	0.8445	0.75146		.01		-11.01717	30		Averaged
	Methyl methacrylate	0.178	0.16792		.01		-5.66292	30		Averaged
	1,4-Dioxane	0.0027	0.00268		.01		-0.74074	40		Averaged
	2-Nitropropane	0.0836	0.08092		.01		-3.20574	30		Averaged
	Ethyl methacrylate	0.7985	0.71242		.01		-10.78021	30		Averaged
	1-Chlorohexane	0.6101	0.4757		.01		-22.02918	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2221	0.20936		.01		-5.73615	30		Averaged
	Cyclohexanone	1250	1261.99	1250			0.9592	40		Linear
	trans-1,4-Dichloro-2-butene	0.1849	0.19223		.01		3.96431	30		Averaged
	Pentachloroethane	0.402	0.40547		.01		0.86318	30		Averaged
	Benzyl chloride	1.1875	1.17585		.01		-0.98105	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3454	0.32229		.01		-6.69079	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1378195	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	596724	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	623896	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1378195	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	596724	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	623896	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	79101	50.20	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1334143	50.34	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	568849	48.18	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		5.067	5.068	0.422	0m	N.D.	d	
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.750	7.774	0.645	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.200	8.212	0.683	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.936	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.453	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.868	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		11.675	11.663	0.972	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.829	11.829	0.985	0m	N.D.	d	
33) n-Butyl alcohol		12.208	12.185	1.017	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene		13.596	13.596	1.132	0m	N.D.	d	
42)	4-Methyl-2-pentanone		13.714	13.715	0.877	0m	N.D.	d	
44)	Toluene		14.035	14.035	0.898	0m	N.D.	d	
45)	trans-1,3-Dichloroprop...		14.213	14.213	0.909	0m	N.D.	d	
46)	1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47)	2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48)	1,3-Dichloropropane		14.722	14.663	0.942	0m	N.D.	d	
49)	Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50)	Dibromochloromethane		14.960	14.960	0.957	0m	N.D.	d	
51)	1,2-Dibromoethane		15.138	15.138	0.968	0m	N.D.	d	
52)	Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54)	Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55)	m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56)	o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57)	Styrene		16.335	16.335	1.045	0m	N.D.	d	
59)	Bromoform		0.000	16.608	0.000	0	N.D.		
60)	Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d	
63)	1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64)	Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65)	n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66)	1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67)	2-Chlorotoluene		17.319	17.320	0.952	0m	N.D.	d	
68)	4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69)	tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70)	1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71)	sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72)	4-Isopropyltoluene		18.078	18.067	0.993	0m	N.D.	d	
73)	1,3-Dichlorobenzene		18.126	18.126	0.996	0m	N.D.	d	
74)	1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75)	n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76)	1,2-Dichlorobenzene		18.660	18.660	1.025	0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...		19.561	19.573	1.075	0m	N.D.	d	
78)	1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79)	Hexachlorobutadiene		20.865	20.865	1.147	0m	N.D.	d	
80)	Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81)	1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83)	Chlorotrifluoroethylene	116	4.562	4.562	0.380	328193	113.16	ug/L	100
84)	2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	920107	119.16	ug/L	99
85)	Acrolein	56	7.524	7.524	0.627	346459	255.74	ug/L	97
86)	Trichlorotrifluoroethane	85	7.750	7.750	0.645	644696	260.62	ug/L	98
87)	Isopropyl Alcohol	45	7.928	7.928	0.660	1297708	2559.24	ug/L	99
88)	Allyl chloride	41	8.331	8.331	0.694	2507449	272.80	ug/L	100
89)	tert-Butyl Alcohol	59	8.580	8.580	0.715	2266047	2410.74	ug/L	100
90)	Acrylonitrile	53	8.864	8.864	0.738	648853	250.66	ug/L	99
91)	Isopropyl ether	45	9.647	9.647	0.803	1124247	42.94	ug/L	99
92)	2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	396836	40.94	ug/L	99
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	1105020	43.50	ug/L	99
94)	Ethyl acetate	43	10.453	10.454	0.871	1626567	234.99	ug/L	100
95)	Propionitrile	54	10.501	10.501	0.875	250964	251.18	ug/L	99
96)	Methacrylonitrile	41	10.726	10.726	0.893	992322	234.93	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |W3VM110903-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

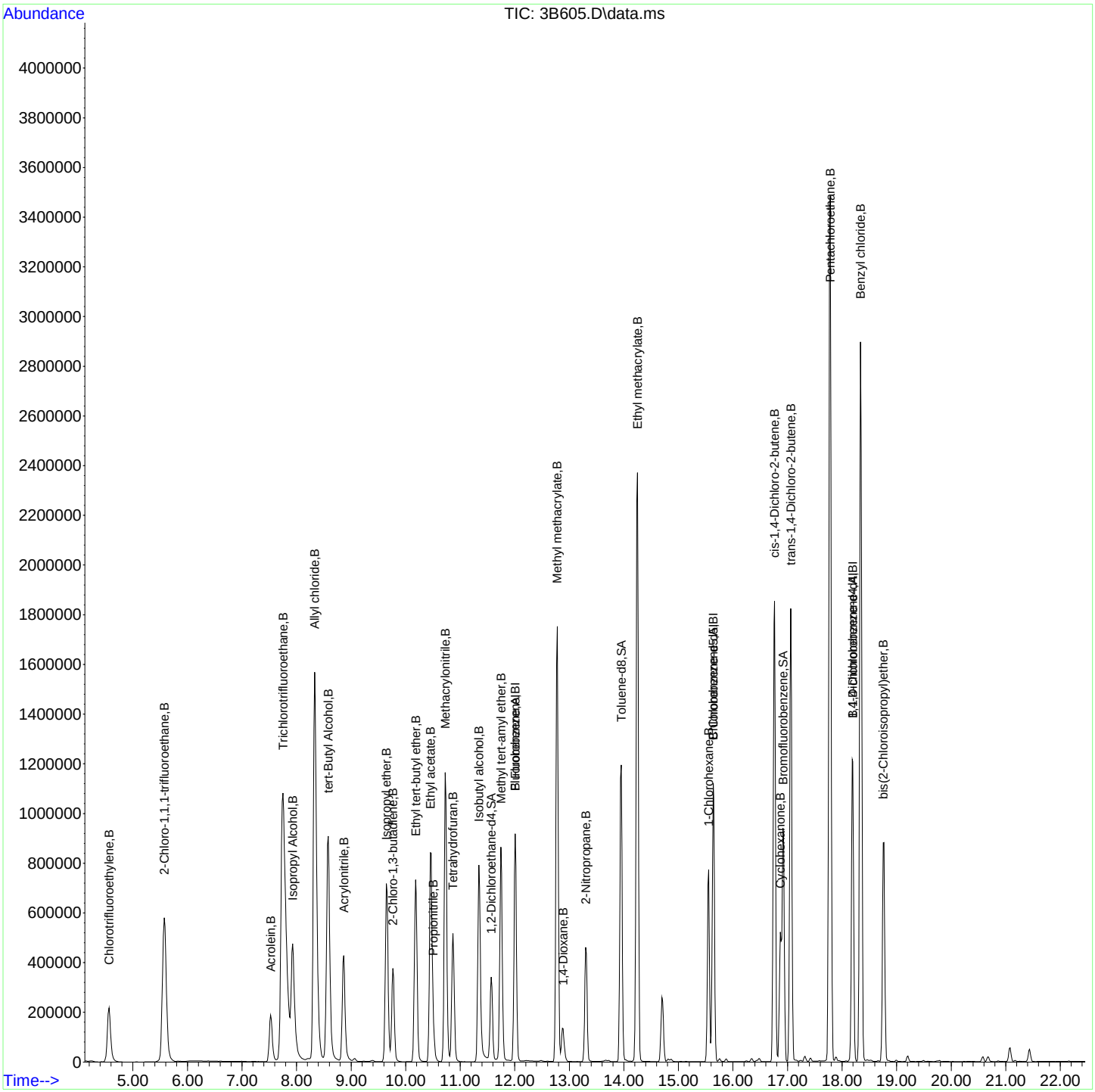
Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	10.868	10.869	0.905	549219	291.48	ug/L	99
98)	Isobutyl alcohol	41	11.343	11.343	0.945	634953	2861.00	ug/L	99
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	1035664	44.49	ug/L	99
100)	Methyl methacrylate	69	12.778	12.778	1.064	1157131	235.89	ug/L	98
101)	1,4-Dioxane	88	12.884	12.884	1.073	184740	2506.05	ug/L	99
102)	2-Nitropropane	43	13.299	13.300	1.108	557598	241.94	ug/L	98
104)	Ethyl methacrylate	69	14.248	14.248	0.911	2125588	223.05	ug/L	100
106)	1-Chlorohexane	55	15.553	15.553	0.855	296786	38.99	ug/L	100
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	653082	235.66	ug/L	99
108)	Cyclohexanone	42	16.869	16.869	0.927	242174	1261.99	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	599653	259.95	ug/L	99
110)	Pentachloroethane	167	17.782	17.782	0.977	1264871	252.17	ug/L	98
111)	Benzyl chloride	91	18.339	18.339	1.008	3668044	247.56	ug/L	99
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	1005372	233.24	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605.D
Acq On    : 03 Sep 2011  21:56
Operator  : GRB2
InstName  : VOA3
Sample    : |W3VM110903-04|CCV|1|VOA|1|VOA8260BL|
Misc      : CCV 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



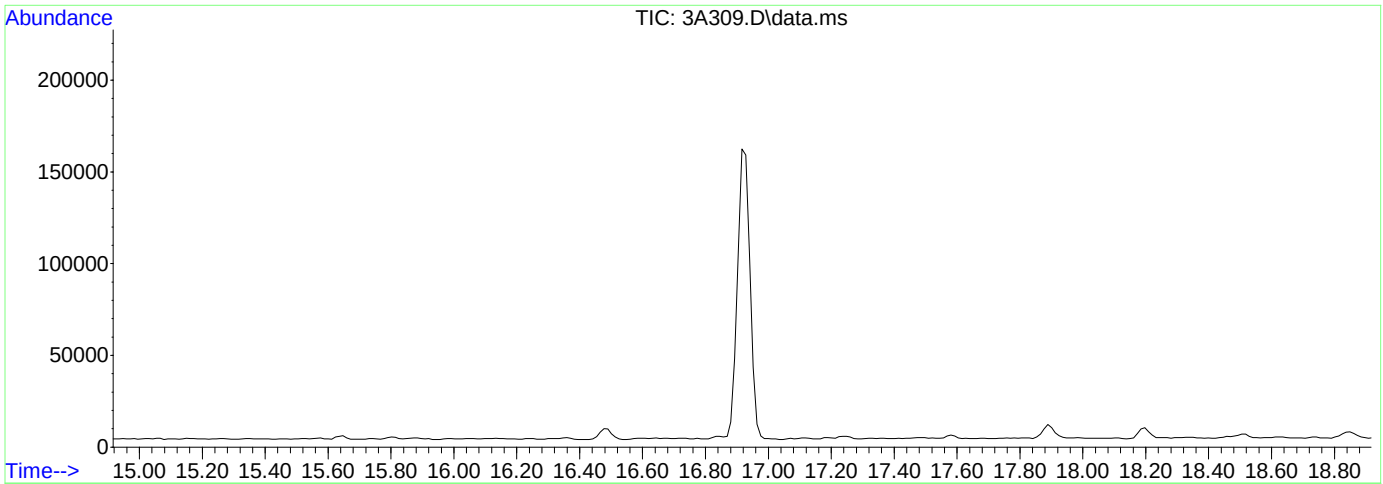
Quality Control Data

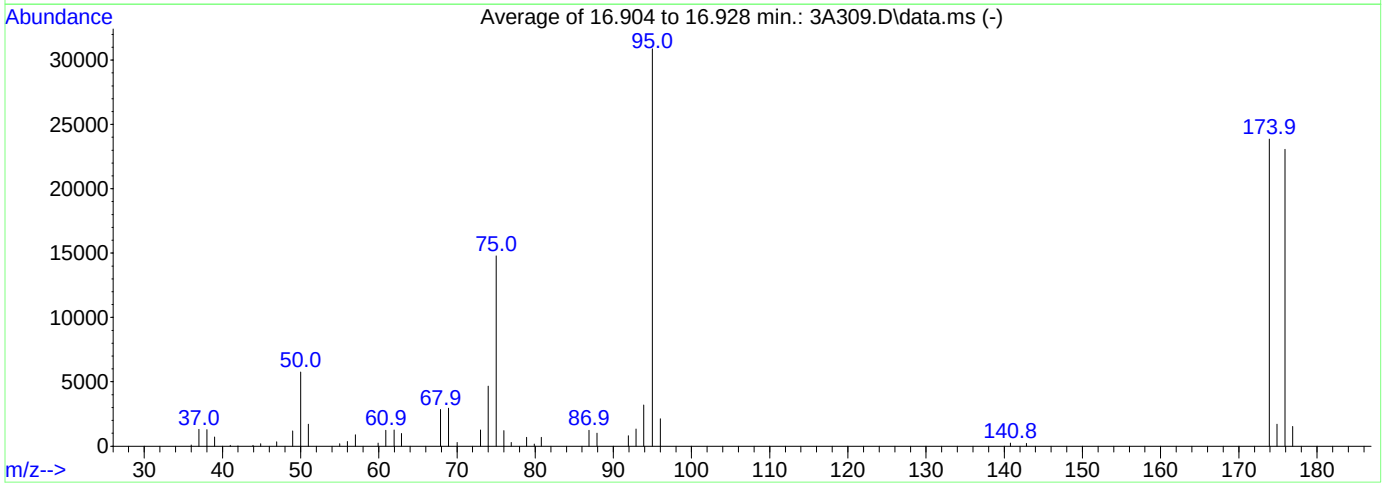
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082411V3\
Data File : 3A309.D
Acq On : 24 Aug 2011 11:37
Operator : SYK1
Sample : |IVM110802-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 10ML n/a
ALS Vial : 2 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Aug 25 11:40:17 2011





AutoFind: Scans 1042, 1043, 1044; Background Corrected with Scan 1036

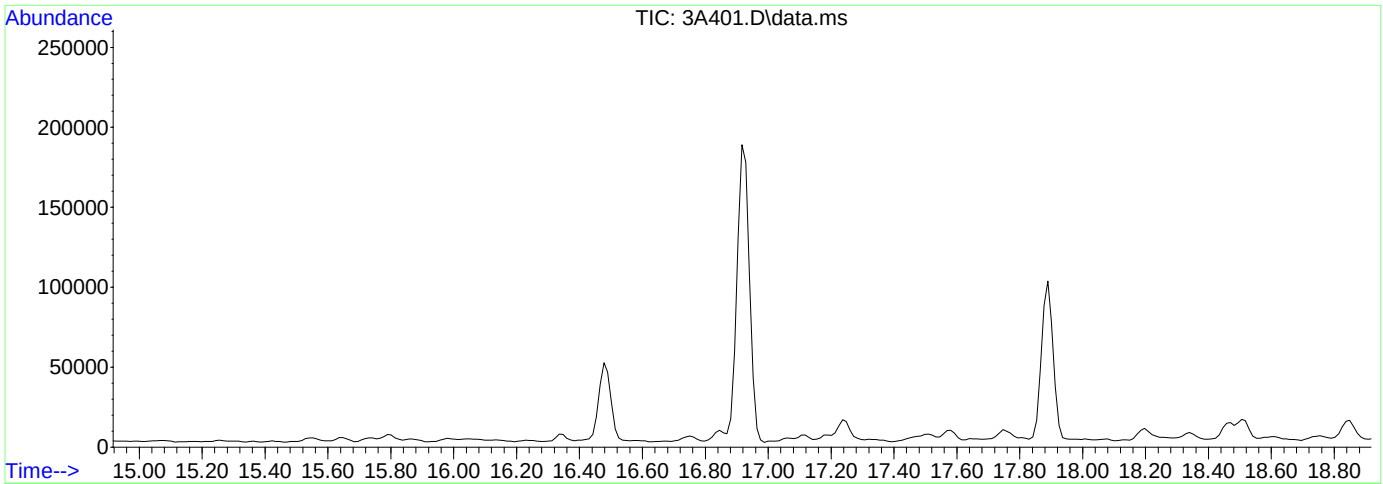
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	5756	PASS
75	95	30	60	47.9	14779	PASS
95	95	100	100	100.0	30883	PASS
96	95	5	9	6.9	2130	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.3	23863	PASS
175	174	5	9	7.1	1695	PASS
176	174	95	101	96.6	23054	PASS
177	176	5	9	6.6	1525	PASS

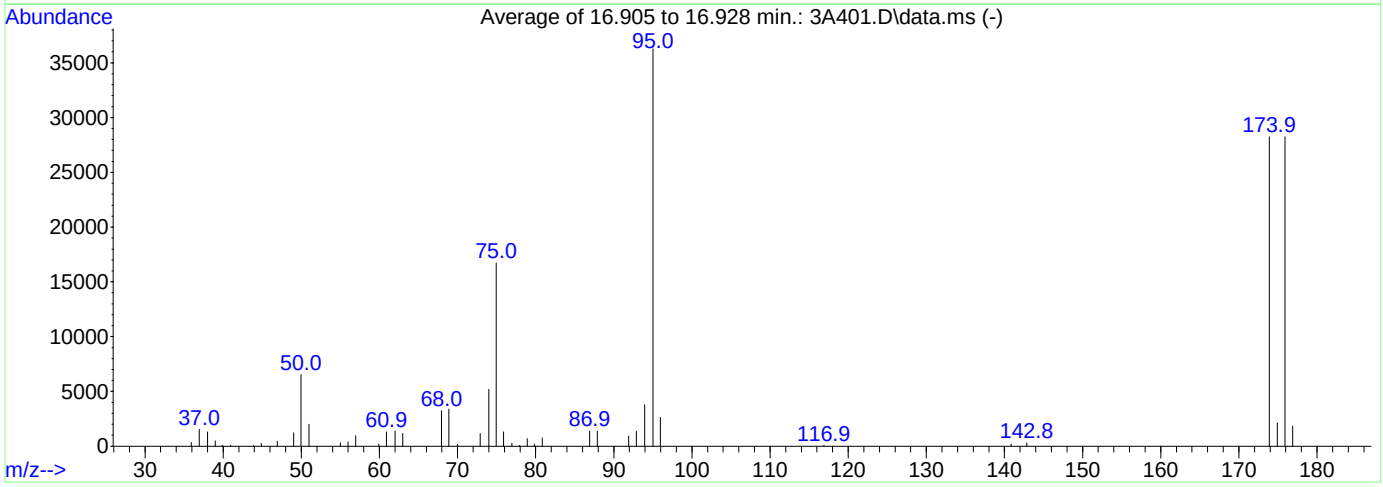
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\082511V3\
Data File : 3A401.D
Acq On : 25 Aug 2011 08:52
Operator : SYK1
Sample : |IVM110802-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 10ML n/a
ALS Vial : 28 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Aug 25 11:40:17 2011





AutoFind: Scans 1042, 1043, 1044; Background Corrected with Scan 1036

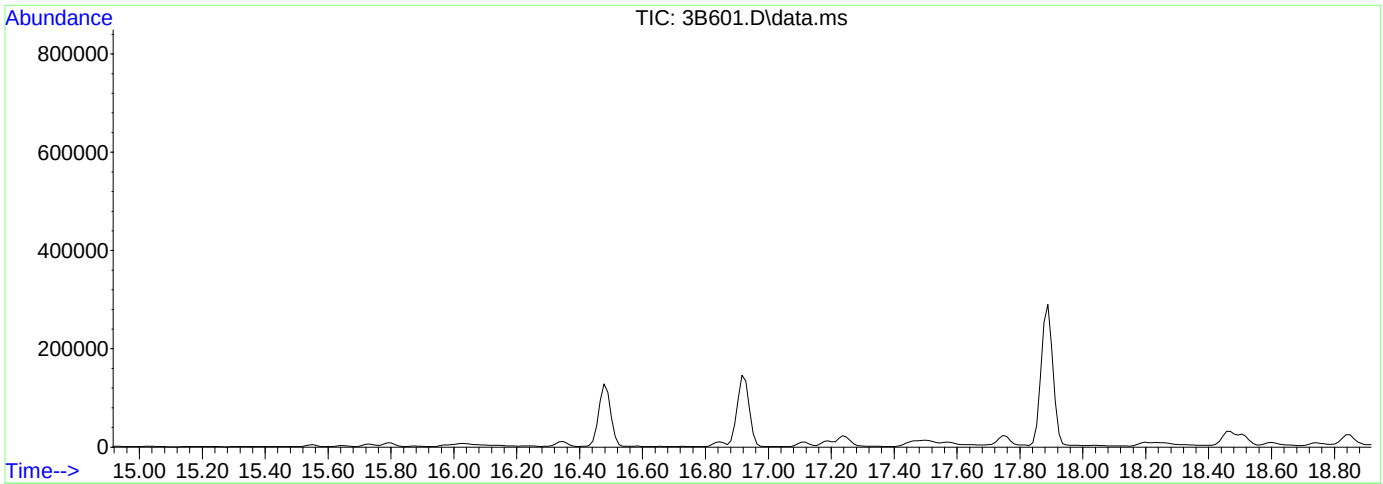
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	6528	PASS
75	95	30	60	46.1	16736	PASS
95	95	100	100	100.0	36288	PASS
96	95	5	9	7.2	2603	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	77.8	28248	PASS
175	174	5	9	7.5	2106	PASS
176	174	95	101	100.0	28248	PASS
177	176	5	9	6.5	1839	PASS

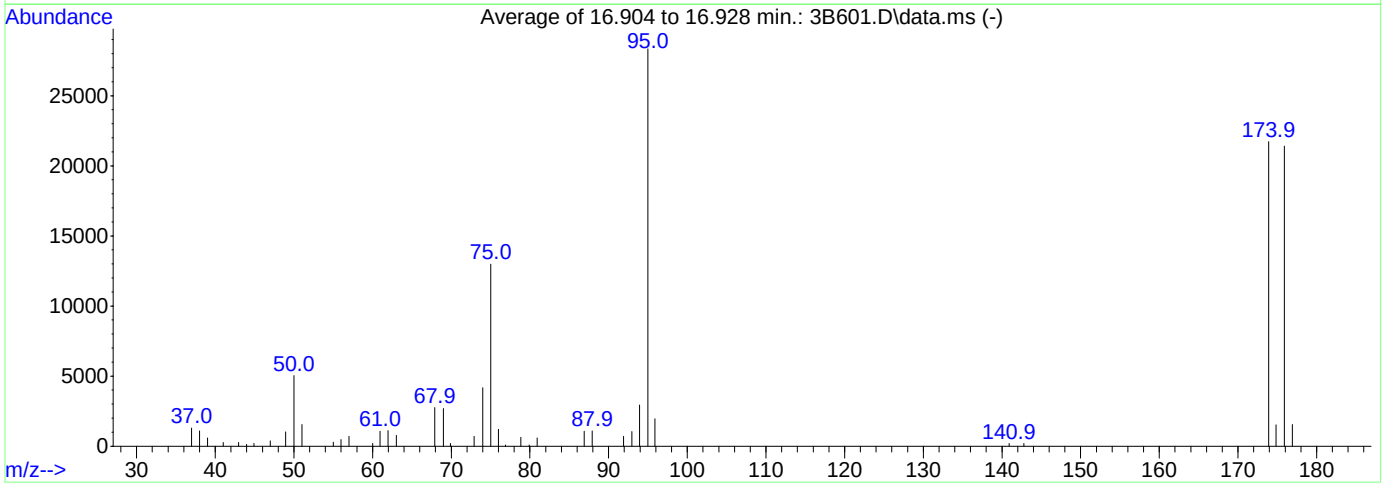
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B601.D
Acq On : 03 Sep 2011 19:57
Operator : GRB2
Sample : |IVM110902-01|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 10ML n/a
ALS Vial : 1 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Aug 25 11:40:17 2011





AutoFind: Scans 1042, 1043, 1044; Background Corrected with Scan 1036

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	5040	PASS
75	95	30	60	45.8	12980	PASS
95	95	100	100	100.0	28355	PASS
96	95	5	9	6.9	1948	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	76.6	21716	PASS
175	174	5	9	7.0	1524	PASS
176	174	95	101	98.6	21409	PASS
177	176	5	9	7.2	1540	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202480059**				
Client Sample:	**QC for batch 1138640**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1138640**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/03/2011 23:27**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/03/2011 23:27**				
Data File:	**090311V3\3B608BAS.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.7	50.0	ug/L	101	(79%-124%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(80%-120%)
Toluene-d8	49.3	50.0	ug/L	98.6	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B608BAS.D
Acq On : 03 Sep 2011 23:27
Operator : GRB2
InstName : VOA3
Sample : |1202480059|1138640|1|VOA|1|VOA624_LFD|
Misc : BLANK 5ML n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 03:08:49 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1296023	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	561235	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	560079	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1296023	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	561235	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	560079	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	75117	50.69	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1229334	49.32	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	537739	50.73	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	101.38%
43) Toluene-d8	50.000	80 - 120	98.64%
61) Bromofluorobenzene	50.000	80 - 120	101.46%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.666	0.000	0	N.D.		
3) Chloromethane		0.000	5.068	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.365	0.000	0	N.D.		
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		0.000	7.299	0.000	0	N.D.		
9) Acetone	43	7.785	7.762	0.648	4349	Below Cal		57
10) 1,1-Dichloroethylene		0.000	7.774	0.000	0	N.D.		
11) Iodomethane		0.000	8.070	0.000	0	N.D.		
12) Acetonitrile	41	8.236	8.224	0.686	2769	Below Cal	#	69
13) Methyl acetate	43	8.307	8.295	0.692	194	N.D.		
14) Carbon disulfide	76	8.200	8.212	0.683	1695	N.D.		
15) Methylene chloride	84	8.532	8.532	0.711	13557	N.D.		
16) tert-Butyl methyl ether		0.000	8.936	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.971	0.000	0	N.D.		
18) Vinyl acetate	43	9.386	9.612	0.782	1214	N.D.		
19) 1,1-Dichloroethane		0.000	9.623	0.000	0	N.D.		
20) 2-Butanone	43	10.181	10.406	0.848	2452	N.D.		
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		0.000	10.869	0.000	0	N.D.		
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		0.000	11.307	0.000	0	N.D.		
27) 1,1-Dichloropropene		0.000	11.402	0.000	0	N.D.		
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		0.000	11.663	0.000	0	N.D.		
31) Benzene		0.000	11.687	0.000	0	N.D.		
32) Cyclohexene		0.000	11.829	0.000	0	N.D.		
33) n-Butyl alcohol		0.000	12.185	0.000	0	N.D.		
34) Trichloroethylene		0.000	12.481	0.000	0	N.D.		
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B608BAS.D
Acq On : 03 Sep 2011 23:27
Operator : GRB2
InstName : VOA3
Sample : |1202480059|1138640|1|VOA|1|VOA624_LFD|
Misc : BLANK 5ML n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 03:08:49 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) Methylcyclohexane		0.000	12.766	0.000	0	N.D.	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.	
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.	
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene		0.000	13.596	0.000	0	N.D.	
42) 4-Methyl-2-pentanone		0.000	13.715	0.000	0	N.D.	
44) Toluene		0.000	14.035	0.000	0	N.D.	
45) trans-1,3-Dichloroprop...		0.000	14.213	0.000	0	N.D.	
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.	
47) 2-Hexanone	58	14.687	14.675	0.939	199	Below Cal #	1
48) 1,3-Dichloropropane		0.000	14.663	0.000	0	N.D.	
49) Tetrachloroethylene		0.000	14.699	0.000	0	N.D.	
50) Dibromochloromethane		0.000	14.960	0.000	0	N.D.	
51) 1,2-Dibromoethane		0.000	15.138	0.000	0	N.D.	
52) Chlorobenzene		0.000	15.671	0.000	0	N.D.	
53) 1,1,1,2-Tetrachloroethane		0.000	15.742	0.000	0	N.D.	
54) Ethylbenzene		0.000	15.754	0.000	0	N.D.	
55) m,p-Xylenes		0.000	15.873	0.000	0	N.D.	
56) o-Xylene		0.000	16.335	0.000	0	N.D.	
57) Styrene		0.000	16.335	0.000	0	N.D.	
59) Bromoform		0.000	16.608	0.000	0	N.D.	
60) Isopropylbenzene	105	16.916	16.715	0.930	186	N.D.	
62) 1,1,2,2-Tetrachloroethane		0.000	17.011	0.000	0	N.D.	
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.	
64) Bromobenzene		0.000	17.142	0.000	0	N.D.	
65) n-Propylbenzene		0.000	17.165	0.000	0	N.D.	
66) 1,3,5-Trimethylbenzene		0.000	17.331	0.000	0	N.D.	
67) 2-Chlorotoluene		0.000	17.320	0.000	0	N.D.	
68) 4-Chlorotoluene	91	17.426	17.415	0.958	756	N.D.	
69) tert-Butylbenzene		0.000	17.711	0.000	0	N.D.	
70) 1,2,4-Trimethylbenzene		0.000	17.747	0.000	0	N.D.	
71) sec-Butylbenzene		0.000	17.948	0.000	0	N.D.	
72) 4-Isopropyltoluene		0.000	18.067	0.000	0	N.D.	
73) 1,3-Dichlorobenzene		0.000	18.126	0.000	0	N.D.	
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	611	N.D.	
75) n-Butylbenzene	91	18.339	18.529	1.008	1730	N.D.	
76) 1,2-Dichlorobenzene		0.000	18.660	0.000	0	N.D.	
77) 1,2-Dibromo-3-chloropr...		0.000	19.573	0.000	0	N.D.	
78) 1,2,4-Trichlorobenzene		0.000	20.676	0.000	0	N.D.	
79) Hexachlorobutadiene		0.000	20.865	0.000	0	N.D.	
80) Naphthalene	128	21.079	21.079	1.158	1784	N.D.	
81) 1,2,3-Trichlorobenzene		0.000	21.435	0.000	0	N.D.	
83) Chlorotrifluoroethylene		0.000	4.562	0.000	0	N.D.	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.	
85) Acrolein		0.000	7.524	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.	
87) Isopropyl Alcohol		0.000	7.928	0.000	0	N.D.	
88) Allyl chloride	41	8.236	8.331	0.686	2769	Below Cal #	36
89) tert-Butyl Alcohol		0.000	8.580	0.000	0	N.D.	
90) Acrylonitrile		0.000	8.864	0.000	0	N.D.	
91) Isopropyl ether		0.000	9.647	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B608BAS.D
Acq On : 03 Sep 2011 23:27
Operator : GRB2
InstName : VOA3
Sample : |1202480059|1138640|1|VOA|1|VOA624_LFD|
Misc : BLANK 5ML n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 03:08:49 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

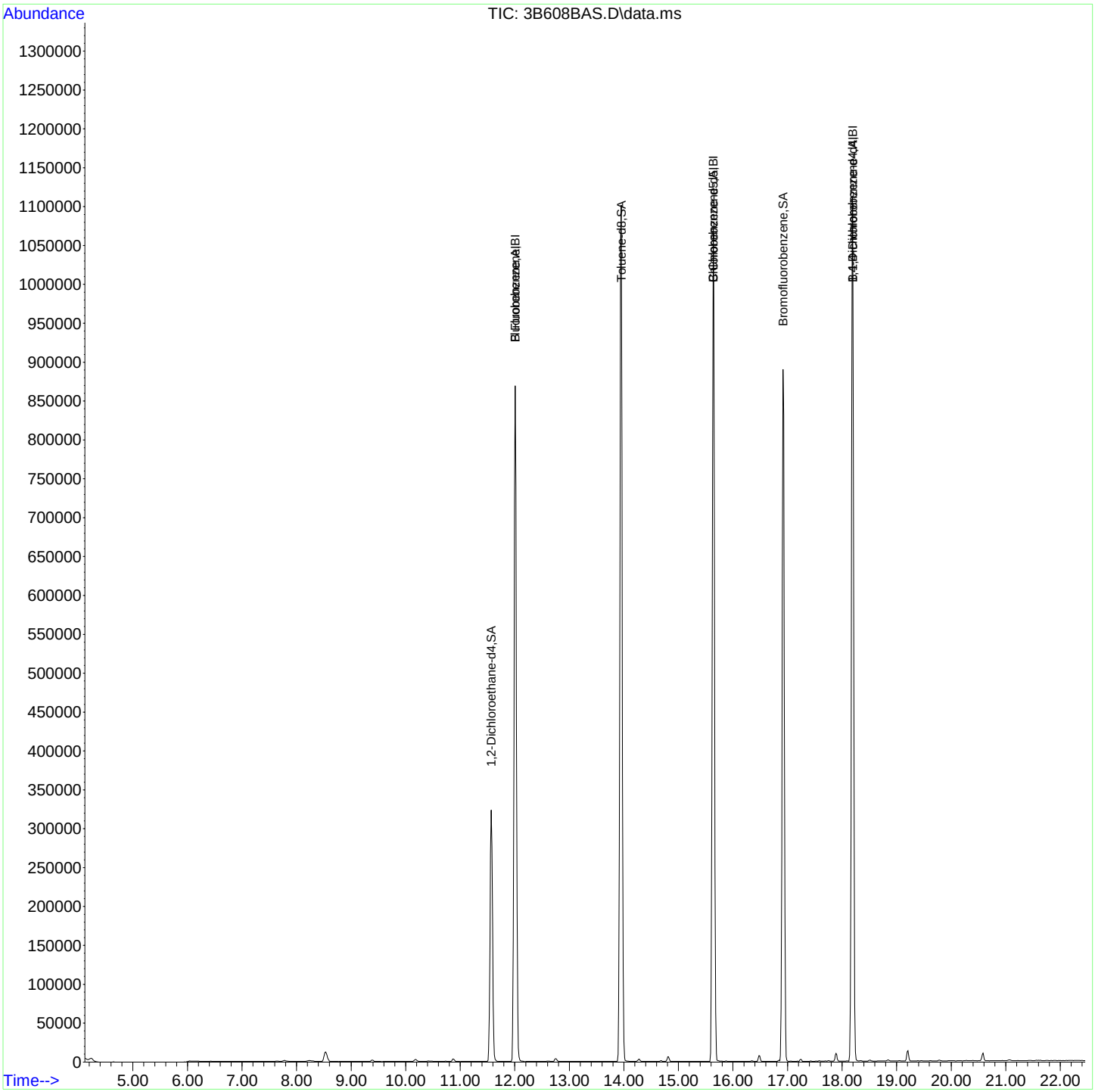
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93) Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.		
94) Ethyl acetate	43	10.418	10.454	0.868	2596	N.D.		
95) Propionitrile		0.000	10.501	0.000	0	N.D.		
96) Methacrylonitrile	41	10.868	10.726	0.905	2094	N.D.		
97) Tetrahydrofuran	42	10.868	10.869	0.905	2775	Below Cal		87
98) Isobutyl alcohol		0.000	11.343	0.000	0	N.D.		
99) Methyl tert-amyl ether		0.000	11.746	0.000	0	N.D.		
100) Methyl methacrylate		0.000	12.778	0.000	0	N.D.		
101) 1,4-Dioxane		0.000	12.884	0.000	0	N.D.		
102) 2-Nitropropane		0.000	13.300	0.000	0	N.D.		
104) Ethyl methacrylate	69	14.248	14.248	0.911	180	N.D.		
106) 1-Chlorohexane		0.000	15.553	0.000	0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene		0.000	16.762	0.000	0	N.D.		
108) Cyclohexanone		0.000	16.869	0.000	0	N.D.		
109) trans-1,4-Dichloro-2-b...		0.000	17.059	0.000	0	N.D.		
110) Pentachloroethane		0.000	17.782	0.000	0	N.D.		
111) Benzyl chloride	91	18.339	18.339	1.008	1730	N.D.		
112) bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.		

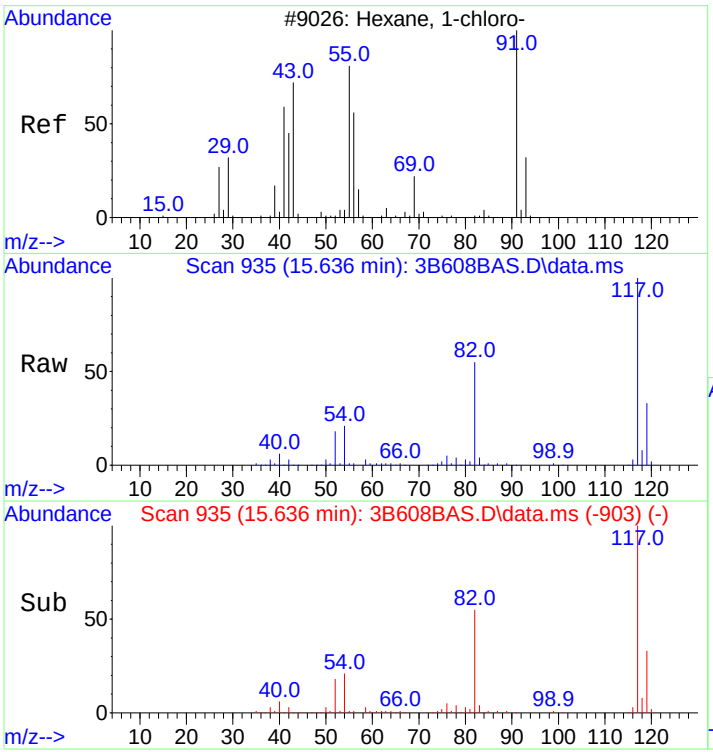
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B608BAS.D
Acq On : 03 Sep 2011 23:27
Operator : GRB2
InstName : VOA3
Sample : |1202480059|1138640|1|VOA|1|VOA624_LFD|
Misc : BLANK 5ML n/a
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 03:08:49 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

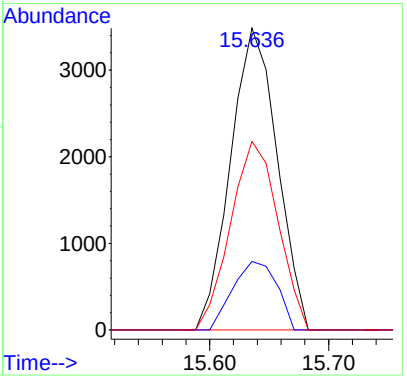




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.39 ug/L
RT: 15.636 min Scan# 935
Delta R.T. 0.083 min
Lab File: 3B608BAS.D
Acq: 03 Sep 2011 23:27

Tgt Ion: 55 Resp: 9513

Ion	Ratio	Lower	Upper
55	100		
91	21.4	123.6	183.6#
56	63.5	31.5	91.5



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202480062**				
Client Sample:	**QC for batch 1138640**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138640**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/03/2011 20:57**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/03/2011 20:57**				
Data File:	**090311V3\3B603LAS.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.040	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0406	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0413	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0465	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.0412	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.044	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0423	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0426	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0445	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0434	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0427	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0447	mg/L	0.00025	0.001
71-43-2	Benzene		0.0437	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0449	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0441	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0459	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.223	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0458	mg/L	0.00025	0.001
108-88-3	Toluene		0.0427	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.046	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.0469	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0412	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0464	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0445	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.042	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0478	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.0472	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0445	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0453	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0455	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.2	50.0	ug/L	100	(79%-124%)
Bromofluorobenzene	49.0	50.0	ug/L	98.0	(80%-120%)
Toluene-d8	47.1	50.0	ug/L	94.2	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603LAS.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |1202480062|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1394180	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	615851	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	637756	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1394180	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	615851	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	637756	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	80044	50.21	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1287809	47.08	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	591637	49.02	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	100.42%
43) Toluene-d8	50.000	80 - 120	94.16%
61) Bromofluorobenzene	50.000	80 - 120	98.04%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	188130	33.49	ug/L	100
3) Chloromethane	50	5.068	5.068	0.422	266144	39.96	ug/L	100
4) Vinyl chloride	62	5.365	5.365	0.447	275298	40.64	ug/L	100
5) Bromomethane	94	6.125	6.125	0.510	341905	41.31	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	236139	46.48	ug/L	100
7) Trichlorofluoromethane	101	6.837	6.849	0.569	477406	43.79	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	303597	46.10	ug/L	99
9) Acetone	43	7.762	7.762	0.646	849425	198.49	ug/L	100
10) 1,1-Dichloroethylene	61	7.774	7.774	0.647	486694	41.24	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	3105353	214.96	ug/L	100
12) Acetonitrile	41	8.236	8.224	0.686	1120537	1322.26	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1416818	241.00	ug/L	100
14) Carbon disulfide	76	8.212	8.212	0.684	5148116	205.33	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	431659	44.03	ug/L	99
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	1067253	44.97	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	463529	42.33	ug/L	100
18) Vinyl acetate	43	9.612	9.612	0.800	3178386	225.03	ug/L	100
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	579723	42.63	ug/L	99
20) 2-Butanone	43	10.418	10.406	0.868	1147606	187.86	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	401396	43.68	ug/L	100
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	449669	42.71	ug/L	99
23) Bromochloromethane	128	10.809	10.797	0.900	208578	46.45	ug/L	99
24) Chloroform	83	10.869	10.869	0.905	629680	44.47	ug/L	99
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	529653	43.44	ug/L	100
26) Cyclohexane	56	11.307	11.307	0.942	565173	41.53	ug/L	97
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	429428	42.41	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	437285	42.65	ug/L	99
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	434146	44.70	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1323684	43.71	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	631724	40.91	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	1181657	5287.65	ug/L	99
34) Trichloroethylene	95	12.481	12.481	1.040	362185	44.85	ug/L	98
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	338952	44.10	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603LAS.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |1202480062|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane	83	12.766	12.766	1.063	572021	42.44	ug/L	99
37) Dibromomethane	93	12.920	12.920	1.076	231639	46.48	ug/L	98
38) Bromodichloromethane	83	13.062	13.062	1.088	504592	45.85	ug/L	98
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	878308	223.17	ug/L	99
40) cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	598105	45.76	ug/L	100
42) 4-Methyl-2-pentanone	58	13.715	13.715	0.877	756374	234.07	ug/L	100
44) Toluene	91	14.035	14.035	0.898	1381407	42.71	ug/L	100
45) trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	562715	46.01	ug/L	99
46) 1,1,2-Trichloroethane	83	14.462	14.462	0.925	283916	46.87	ug/L	100
47) 2-Hexanone	58	14.675	14.675	0.939	796676	230.56	ug/L	100
48) 1,3-Dichloropropane	76	14.663	14.663	0.938	526766	44.45	ug/L	94
49) Tetrachloroethylene	164	14.699	14.699	0.940	272672	41.18	ug/L	98
50) Dibromochloromethane	129	14.960	14.960	0.957	415899	46.36	ug/L	100
51) 1,2-Dibromoethane	107	15.138	15.138	0.968	369679	46.75	ug/L	100
52) Chlorobenzene	112	15.671	15.671	1.002	957778	44.46	ug/L	100
53) 1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	369807	45.60	ug/L	99
54) Ethylbenzene	91	15.754	15.754	1.008	1502585	42.03	ug/L	100
55) m,p-Xylenes	106	15.873	15.873	1.015	1265702	86.95	ug/L	100
56) o-Xylene	106	16.335	16.335	1.045	674350	44.62	ug/L	99
57) Styrene	104	16.335	16.335	1.045	1098668	44.17	ug/L	100
59) Bromoform	173	16.608	16.608	0.913	292669	47.83	ug/L	99
60) Isopropylbenzene	105	16.715	16.715	0.919	1635371	42.59	ug/L	100
62) 1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	464209	47.18	ug/L	98
63) 1,2,3-Trichloropropane	110	17.094	17.094	0.939	133761	46.53	ug/L	98
64) Bromobenzene	156	17.142	17.142	0.942	456747	44.12	ug/L	98
65) n-Propylbenzene	91	17.165	17.165	0.943	1878585	42.45	ug/L	99
66) 1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1365609	42.71	ug/L	100
67) 2-Chlorotoluene	126	17.320	17.320	0.952	425042	44.69	ug/L	100
68) 4-Chlorotoluene	91	17.426	17.415	0.958	1288015	44.25	ug/L	99
69) tert-Butylbenzene	134	17.711	17.711	0.973	326080	44.14	ug/L	97
70) 1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	1428347	43.35	ug/L	99
71) sec-Butylbenzene	105	17.948	17.948	0.986	1918996	44.19	ug/L	99
72) 4-Isopropyltoluene	119	18.067	18.067	0.993	1556555	44.71	ug/L	100
73) 1,3-Dichlorobenzene	146	18.126	18.126	0.996	876493	44.53	ug/L	99
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	856978	45.27	ug/L	100
75) n-Butylbenzene	91	18.529	18.529	1.018	1562233	44.61	ug/L	99
76) 1,2-Dichlorobenzene	146	18.660	18.660	1.025	875363	45.50	ug/L	100
77) 1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	102515	48.64	ug/L	99
78) 1,2,4-Trichlorobenzene	180	20.676	20.676	1.136	593789	47.13	ug/L	99
79) Hexachlorobutadiene	225	20.865	20.865	1.147	332634	44.51	ug/L	100
80) Naphthalene	128	21.079	21.079	1.158	1239435	48.97	ug/L	100
81) 1,2,3-Trichlorobenzene	180	21.435	21.435	1.178	487979	46.97	ug/L	99
83) Chlorotrifluoroethylene		4.562	4.562	0.380	0m	N.D.	d	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85) Acrolein		7.536	7.524	0.628	0m	N.D.	d	
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87) Isopropyl Alcohol		7.774	7.928	0.647	0m	N.D.	d	
88) Allyl chloride		8.236	8.331	0.686	0m	N.D.	d	
89) tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90) Acrylonitrile		8.936	8.864	0.744	0m	N.D.	d	
91) Isopropyl ether		9.612	9.647	0.800	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603LAS.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |1202480062|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

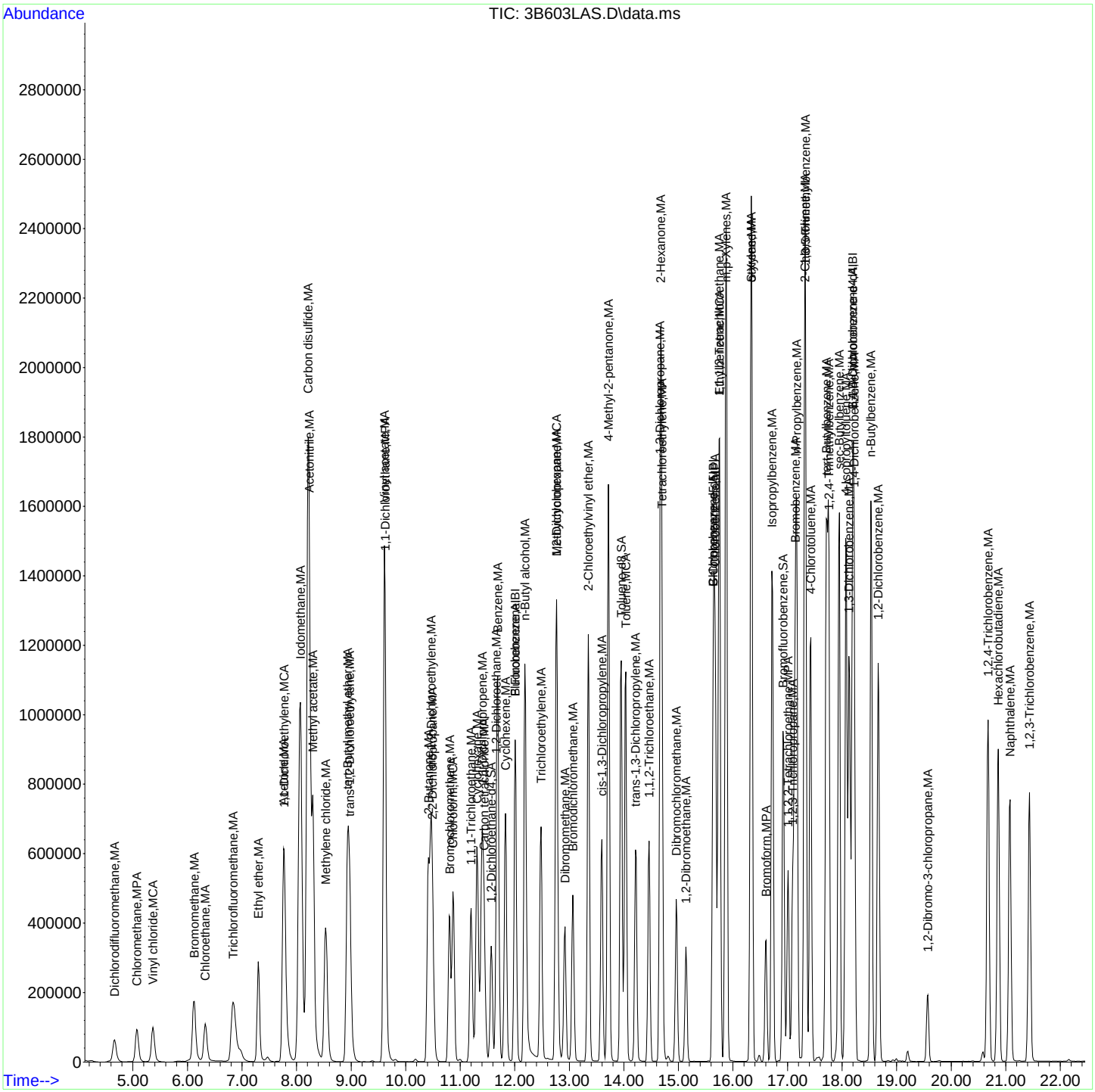
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		10.181	10.181	0.848	0m	N.D.	d
94) Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d
95) Propionitrile		10.418	10.501	0.868	0m	N.D.	d
96) Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d
97) Tetrahydrofuran		10.869	10.869	0.905	0m	N.D.	d
98) Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99) Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100) Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101) 1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102) 2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104) Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106) 1-Chlorohexane		15.553	15.553	0.855	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108) Cyclohexanone		16.715	16.869	0.919	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110) Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111) Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B603LAS.D
Acq On : 03 Sep 2011 20:57
Operator : GRB2
InstName : VOA3
Sample : |1202480062|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[A] 0817-01B+0831-02
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 21:22:48 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202480063**				
Client Sample:	**QC for batch 1138640**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138640**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/03/2011 21:56**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/03/2011 21:56**				
Data File:	**090311V3\3B605SHAS.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane	U	0.001	mg/L	0.0003	0.001
75-01-4	Vinyl chloride	U	0.001	mg/L	0.0005	0.001
74-83-9	Bromomethane	U	0.001	mg/L	0.0003	0.001
75-00-3	Chloroethane	U	0.001	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-09-2	Methylene chloride	U	0.010	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene	U	0.001	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane	U	0.001	mg/L	0.0003	0.001
67-66-3	Chloroform	U	0.001	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane	U	0.001	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride	U	0.001	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane	U	0.001	mg/L	0.00025	0.001
71-43-2	Benzene	U	0.001	mg/L	0.0003	0.001
79-01-6	Trichloroethylene	U	0.001	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane	U	0.001	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane	U	0.001	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether	U	0.005	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
108-88-3	Toluene	U	0.001	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene	U	0.001	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane	U	0.001	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene	U	0.001	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane	U	0.001	mg/L	0.0003	0.001
108-90-7	Chlorobenzene	U	0.001	mg/L	0.00025	0.001
100-41-4	Ethylbenzene	U	0.001	mg/L	0.00025	0.001
75-25-2	Bromoform	U	0.001	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane	U	0.001	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001
107-02-8	Acrolein		0.256	mg/L	0.00125	0.005
107-13-1	Acrylonitrile		0.251	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene	U	0.001	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.2	50.0	ug/L	100	(79%-124%)
Bromofluorobenzene	48.2	50.0	ug/L	96.4	(80%-120%)
Toluene-d8	50.3	50.0	ug/L	101	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605SHAS.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |1202480063|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	12.007	12.007	1.000	1378195	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	596724	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	623896	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1378195	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	596724	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	623896	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	79101	50.20	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1334143	50.34	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	568849	48.18	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	100.40%
43) Toluene-d8	50.000	80 - 120	100.68%
61) Bromofluorobenzene	50.000	80 - 120	96.36%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.562	4.666	0.380	0m	N.D.	d	
3) Chloromethane		5.067	5.068	0.422	0m	N.D.	d	
4) Vinyl chloride		5.350	5.365	0.446	0m	N.D.	d	
5) Bromomethane		0.000	6.125	0.000	0	N.D.		
6) Chloroethane		0.000	6.327	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.849	0.000	0	N.D.		
8) Ethyl ether		7.299	7.299	0.608	0m	N.D.	d	
9) Acetone		7.773	7.762	0.647	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.750	7.774	0.645	0m	N.D.	d	
11) Iodomethane		8.058	8.070	0.671	0m	N.D.	d	
12) Acetonitrile		8.331	8.224	0.694	0m	N.D.	d	
13) Methyl acetate		8.307	8.295	0.692	0m	N.D.	d	
14) Carbon disulfide		8.200	8.212	0.683	0m	N.D.	d	
15) Methylene chloride		8.532	8.532	0.711	0m	N.D.	d	
16) tert-Butyl methyl ether		8.936	8.936	0.744	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.971	8.971	0.747	0m	N.D.	d	
18) Vinyl acetate		9.647	9.612	0.803	0m	N.D.	d	
19) 1,1-Dichloroethane		9.766	9.623	0.813	0m	N.D.	d	
20) 2-Butanone		10.453	10.406	0.871	0m	N.D.	d	
21) cis-1,2-Dichloroethylene		0.000	10.465	0.000	0	N.D.		
22) 2,2-Dichloropropane		0.000	10.489	0.000	0	N.D.		
23) Bromochloromethane		0.000	10.797	0.000	0	N.D.		
24) Chloroform		10.868	10.869	0.905	0m	N.D.	d	
25) 1,1,1-Trichloroethane		0.000	11.201	0.000	0	N.D.		
26) Cyclohexane		11.343	11.307	0.945	0m	N.D.	d	
27) 1,1-Dichloropropene		11.343	11.402	0.945	0m	N.D.	d	
28) Carbon tetrachloride		0.000	11.438	0.000	0	N.D.		
30) 1,2-Dichloroethane		11.675	11.663	0.972	0m	N.D.	d	
31) Benzene		11.687	11.687	0.973	0m	N.D.	d	
32) Cyclohexene		11.829	11.829	0.985	0m	N.D.	d	
33) n-Butyl alcohol		12.208	12.185	1.017	0m	N.D.	d	
34) Trichloroethylene		12.481	12.481	1.040	0m	N.D.	d	
35) 1,2-Dichloropropane		0.000	12.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605SHAS.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |1202480063|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane		12.778	12.766	1.064	0m	N.D.	d	
37) Dibromomethane		0.000	12.920	0.000	0	N.D.		
38) Bromodichloromethane		0.000	13.062	0.000	0	N.D.		
39) 2-Chloroethylvinyl ether		0.000	13.347	0.000	0	N.D.		
40) cis-1,3-Dichloropropylene		13.596	13.596	1.132	0m	N.D.	d	
42) 4-Methyl-2-pentanone		13.714	13.715	0.877	0m	N.D.	d	
44) Toluene		14.035	14.035	0.898	0m	N.D.	d	
45) trans-1,3-Dichloroprop...		14.213	14.213	0.909	0m	N.D.	d	
46) 1,1,2-Trichloroethane		0.000	14.462	0.000	0	N.D.		
47) 2-Hexanone		14.675	14.675	0.939	0m	N.D.	d	
48) 1,3-Dichloropropane		14.722	14.663	0.942	0m	N.D.	d	
49) Tetrachloroethylene		14.699	14.699	0.940	0m	N.D.	d	
50) Dibromochloromethane		14.960	14.960	0.957	0m	N.D.	d	
51) 1,2-Dibromoethane		15.138	15.138	0.968	0m	N.D.	d	
52) Chlorobenzene		15.671	15.671	1.002	0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane		15.742	15.742	1.007	0m	N.D.	d	
54) Ethylbenzene		15.754	15.754	1.008	0m	N.D.	d	
55) m,p-Xylenes		15.873	15.873	1.015	0m	N.D.	d	
56) o-Xylene		16.335	16.335	1.045	0m	N.D.	d	
57) Styrene		16.335	16.335	1.045	0m	N.D.	d	
59) Bromoform		0.000	16.608	0.000	0	N.D.		
60) Isopropylbenzene		16.727	16.715	0.919	0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane		17.059	17.011	0.937	0m	N.D.	d	
63) 1,2,3-Trichloropropane		0.000	17.094	0.000	0	N.D.		
64) Bromobenzene		17.142	17.142	0.942	0m	N.D.	d	
65) n-Propylbenzene		17.165	17.165	0.943	0m	N.D.	d	
66) 1,3,5-Trimethylbenzene		17.331	17.331	0.952	0m	N.D.	d	
67) 2-Chlorotoluene		17.319	17.320	0.952	0m	N.D.	d	
68) 4-Chlorotoluene		17.426	17.415	0.958	0m	N.D.	d	
69) tert-Butylbenzene		17.782	17.711	0.977	0m	N.D.	d	
70) 1,2,4-Trimethylbenzene		17.758	17.747	0.976	0m	N.D.	d	
71) sec-Butylbenzene		17.948	17.948	0.986	0m	N.D.	d	
72) 4-Isopropyltoluene		18.078	18.067	0.993	0m	N.D.	d	
73) 1,3-Dichlorobenzene		18.126	18.126	0.996	0m	N.D.	d	
74) 1,4-Dichlorobenzene		18.221	18.221	1.001	0m	N.D.	d	
75) n-Butylbenzene		18.529	18.529	1.018	0m	N.D.	d	
76) 1,2-Dichlorobenzene		18.660	18.660	1.025	0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...		19.561	19.573	1.075	0m	N.D.	d	
78) 1,2,4-Trichlorobenzene		20.675	20.676	1.136	0m	N.D.	d	
79) Hexachlorobutadiene		20.865	20.865	1.147	0m	N.D.	d	
80) Naphthalene		21.079	21.079	1.158	0m	N.D.	d	
81) 1,2,3-Trichlorobenzene		21.434	21.435	1.178	0m	N.D.	d	
83) Chlorotrifluoroethylene	116	4.562	4.562	0.380	328193	113.16	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	118	5.573	5.573	0.464	920107	119.16	ug/L	99
85) Acrolein	56	7.524	7.524	0.627	346459	255.74	ug/L	97
86) Trichlorotrifluoroethane	85	7.750	7.750	0.645	644696	260.62	ug/L	98
87) Isopropyl Alcohol	45	7.928	7.928	0.660	1297708	2559.24	ug/L	99
88) Allyl chloride	41	8.331	8.331	0.694	2507449	272.80	ug/L	100
89) tert-Butyl Alcohol	59	8.580	8.580	0.715	2266047	2410.74	ug/L	100
90) Acrylonitrile	53	8.864	8.864	0.738	648853	250.66	ug/L	99
91) Isopropyl ether	45	9.647	9.647	0.803	1124247	42.94	ug/L	99
92) 2-Chloro-1,3-butadiene	53	9.766	9.766	0.813	396836	40.94	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605SHAS.D
Acq On : 03 Sep 2011 21:56
Operator : GRB2
InstName : VOA3
Sample : |1202480063|1138640|1|VOA|1|VOA624_LFD|
Misc : LCS 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial : 5 Sample Multiplier: 1

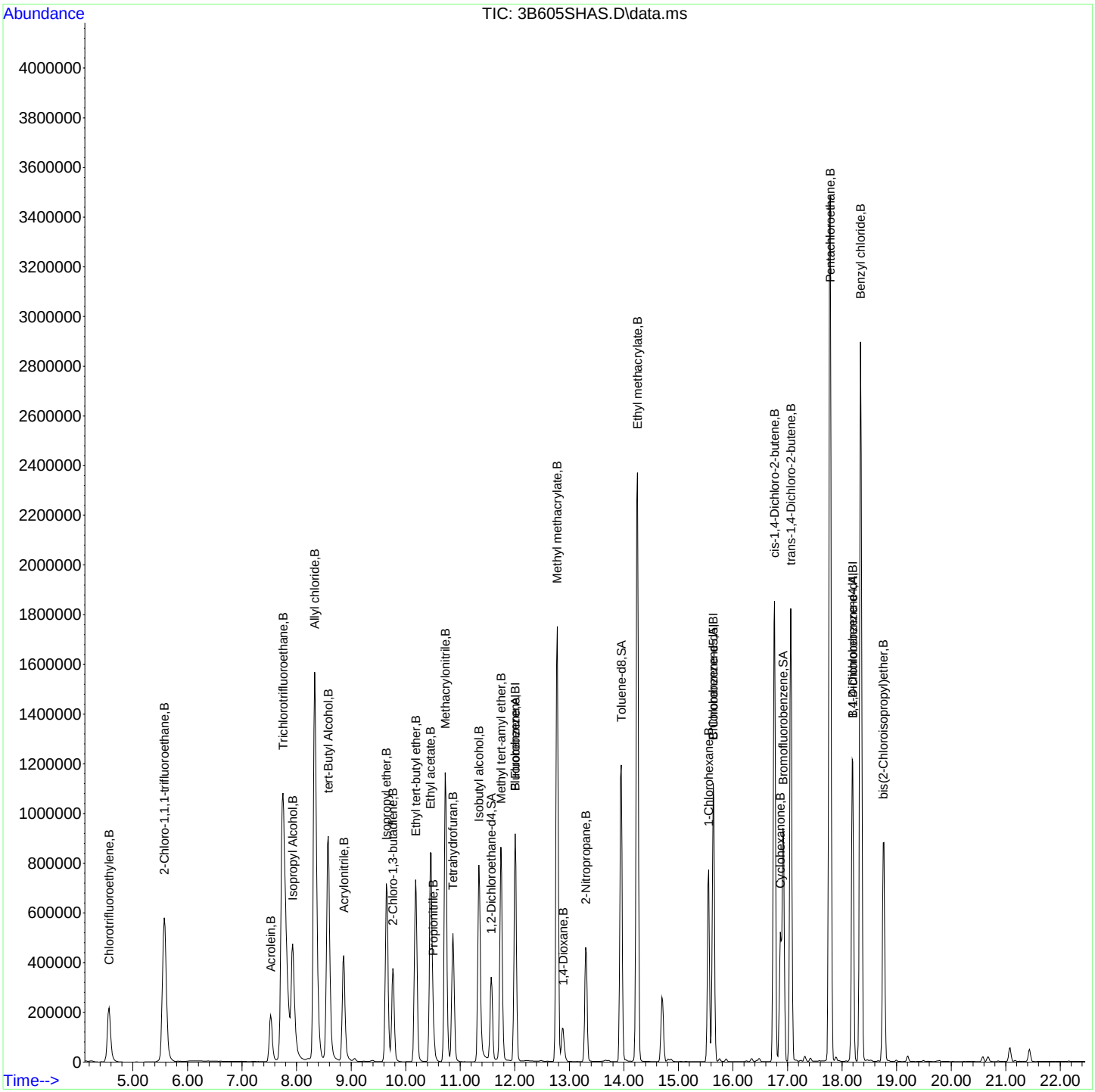
Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93)	Ethyl tert-butyl ether	59	10.181	10.181	0.848	1105020	43.50	ug/L	99
94)	Ethyl acetate	43	10.453	10.454	0.871	1626567	234.99	ug/L	100
95)	Propionitrile	54	10.501	10.501	0.875	250964	251.18	ug/L	99
96)	Methacrylonitrile	41	10.726	10.726	0.893	992322	234.93	ug/L	99
97)	Tetrahydrofuran	42	10.868	10.869	0.905	549219	291.48	ug/L	99
98)	Isobutyl alcohol	41	11.343	11.343	0.945	634953	2861.00	ug/L	99
99)	Methyl tert-amyl ether	73	11.746	11.746	0.978	1035664	44.49	ug/L	99
100)	Methyl methacrylate	69	12.778	12.778	1.064	1157131	235.89	ug/L	98
101)	1,4-Dioxane	88	12.884	12.884	1.073	184740	2506.05	ug/L	99
102)	2-Nitropropane	43	13.299	13.300	1.108	557598	241.94	ug/L	98
104)	Ethyl methacrylate	69	14.248	14.248	0.911	2125588	223.05	ug/L	100
106)	1-Chlorohexane	55	15.553	15.553	0.855	296786	38.99	ug/L	100
107)	cis-1,4-Dichloro-2-butene	53	16.762	16.762	0.921	653082	235.66	ug/L	99
108)	Cyclohexanone	42	16.869	16.869	0.927	242174	1261.99	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	17.059	17.059	0.937	599653	259.95	ug/L	99
110)	Pentachloroethane	167	17.782	17.782	0.977	1264871	252.17	ug/L	98
111)	Benzyl chloride	91	18.339	18.339	1.008	3668044	247.56	ug/L	99
112)	bis(2-Chloroisopropyl)...	45	18.754	18.754	1.031	1005372	233.24	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B605SHAS.D
Acq On    : 03 Sep 2011  21:56
Operator  : GRB2
InstName  : VOA3
Sample    : |1202480063|1138640|1|VOA|1|VOA624_LFD|
Misc      : LCS 5ML n/a MIX[B] 0728-16C+0728-08B+0729-08D
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Sep 03 22:24:46 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202480060**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138640**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860PS**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 03:56**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 03:56**				
Data File:	**090311V3\3B615.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.040	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0396	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0423	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0471	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.041	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.0473	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0424	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0444	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0454	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0427	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.041	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0452	mg/L	0.00025	0.001
71-43-2	Benzene		0.0445	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.0461	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0455	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0462	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.0587	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0458	mg/L	0.00025	0.001
108-88-3	Toluene		0.0435	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0445	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.047	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0407	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0473	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.0444	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.0427	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0773	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.0469	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0447	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0459	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0458	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.4	50.0	ug/L	98.7	(79%-124%)
Bromofluorobenzene	51.0	50.0	ug/L	102	(80%-120%)
Toluene-d8	48.5	50.0	ug/L	97.0	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B615.D
Acq On : 04 Sep 2011 03:56
Operator : GRB2
InstName : VOA3
Sample : |1202480060|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MS 285124001
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 07:56:19 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1341469	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	585705	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	582589	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1341469	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	585705	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	582589	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	75718	49.37	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1261060	48.48	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	562145	50.99	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	98.74%
43) Toluene-d8	50.000	80 - 120	96.96%
61) Bromofluorobenzene	50.000	80 - 120	101.98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.666	4.666	0.389	174017	32.20	ug/L	99
3) Chloromethane	50	5.067	5.068	0.422	256375	40.00	ug/L	99
4) Vinyl chloride	62	5.365	5.365	0.447	257950	39.58	ug/L	99
5) Bromomethane	94	6.113	6.125	0.509	336738	42.29	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	230367	47.12	ug/L	99
7) Trichlorofluoromethane	101	6.837	6.849	0.569	444839	42.41	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	294032	46.41	ug/L	97
9) Acetone	43	7.762	7.762	0.646	870970	212.49	ug/L	99
10) 1,1-Dichloroethylene	61	7.773	7.774	0.647	465235	40.97	ug/L	99
11) Iodomethane	142	8.070	8.070	0.672	2956150	212.67	ug/L	100
12) Acetonitrile	41	8.224	8.224	0.685	1072844	1315.45	ug/L	100
13) Methyl acetate	43	8.295	8.295	0.691	1354164	239.39	ug/L	100
14) Carbon disulfide	76	8.212	8.212	0.684	4923991	204.10	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	446562	47.34	ug/L	99
16) tert-Butyl methyl ether	73	8.936	8.936	0.744	1026428	44.95	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	446610	42.39	ug/L	100
18) Vinyl acetate	43	9.611	9.612	0.800	2391283	175.96	ug/L	99
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	580649	44.38	ug/L	99
20) 2-Butanone	43	10.418	10.406	0.868	1122604	190.99	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	390878	44.20	ug/L	99
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	423635	41.82	ug/L	99
23) Bromochloromethane	128	10.809	10.797	0.900	195092	45.16	ug/L	97
24) Chloroform	83	10.868	10.869	0.905	618483	45.40	ug/L	99
25) 1,1,1-Trichloroethane	97	11.201	11.201	0.933	501392	42.74	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	532145	40.64	ug/L	97
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	402680	41.33	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	404364	40.98	ug/L	100
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	422502	45.21	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1295455	44.46	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	602589	40.56	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	1051685	4895.02	ug/L	100
34) Trichloroethylene	95	12.481	12.481	1.040	358578	46.14	ug/L	97
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	336785	45.54	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B615.D
Acq On : 04 Sep 2011 03:56
Operator : GRB2
InstName : VOA3
Sample : |1202480060|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MS 285124001
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 07:56:19 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane	83	12.766	12.766	1.063	534107	41.18	ug/L	99
37) Dibromomethane	93	12.920	12.920	1.076	226509	47.23	ug/L	96
38) Bromodichloromethane	83	13.062	13.062	1.088	488674	46.15	ug/L	100
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	222172	58.67	ug/L	97
40) cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	576525	45.84	ug/L	99
42) 4-Methyl-2-pentanone	58	13.714	13.715	0.877	728840	237.16	ug/L	99
44) Toluene	91	14.035	14.035	0.898	1339454	43.54	ug/L	99
45) trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	517742	44.52	ug/L	99
46) 1,1,2-Trichloroethane	83	14.462	14.462	0.925	270575	46.96	ug/L	98
47) 2-Hexanone	58	14.675	14.675	0.939	781531	238.27	ug/L	99
48) 1,3-Dichloropropane	76	14.663	14.663	0.938	506943	44.98	ug/L	96
49) Tetrachloroethylene	164	14.699	14.699	0.940	256179	40.68	ug/L	99
50) Dibromochloromethane	129	14.960	14.960	0.957	403683	47.32	ug/L	100
51) 1,2-Dibromoethane	107	15.138	15.138	0.968	351275	46.71	ug/L	100
52) Chlorobenzene	112	15.671	15.671	1.002	910399	44.44	ug/L	99
53) 1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	357912	46.40	ug/L	99
54) Ethylbenzene	91	15.754	15.754	1.008	1452331	42.72	ug/L	100
55) m,p-Xylenes	106	15.873	15.873	1.015	1202041	86.83	ug/L	99
56) o-Xylene	106	16.335	16.335	1.045	641394	44.62	ug/L	98
57) Styrene	104	16.335	16.335	1.045	1043915	44.13	ug/L	99
59) Bromoform	173	16.608	16.608	0.913	431935	77.28	ug/L	98
60) Isopropylbenzene	105	16.715	16.715	0.919	1553999	44.31	ug/L	100
62) 1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	421532	46.90	ug/L	100
63) 1,2,3-Trichloropropane	110	17.094	17.094	0.939	125295	47.71	ug/L	98
64) Bromobenzene	156	17.142	17.142	0.942	434354	45.93	ug/L	97
65) n-Propylbenzene	91	17.165	17.165	0.943	1764726	43.65	ug/L	98
66) 1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1301033	44.55	ug/L	100
67) 2-Chlorotoluene	126	17.319	17.320	0.952	411165	47.32	ug/L	99
68) 4-Chlorotoluene	91	17.426	17.415	0.958	1180344	44.39	ug/L	100
69) tert-Butylbenzene	134	17.711	17.711	0.973	308566	45.73	ug/L	95
70) 1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	1341096	44.55	ug/L	99
71) sec-Butylbenzene	105	17.948	17.948	0.986	1800711	45.39	ug/L	98
72) 4-Isopropyltoluene	119	18.067	18.067	0.993	1419408	44.64	ug/L	99
73) 1,3-Dichlorobenzene	146	18.126	18.126	0.996	803282	44.67	ug/L	99
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	794174	45.92	ug/L	99
75) n-Butylbenzene	91	18.529	18.529	1.018	1430185	44.71	ug/L	99
76) 1,2-Dichlorobenzene	146	18.660	18.660	1.025	805048	45.81	ug/L	99
77) 1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	90695	47.11	ug/L	99
78) 1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	502219	43.63	ug/L	99
79) Hexachlorobutadiene	225	20.865	20.865	1.147	294703	43.17	ug/L	99
80) Naphthalene	128	21.079	21.079	1.158	1043162	45.12	ug/L	100
81) 1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	405771	42.75	ug/L	99
83) Chlorotrifluoroethylene		4.562	4.562	0.380	0m	N.D.	d	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85) Acrolein		0.000	7.524	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87) Isopropyl Alcohol		7.939	7.928	0.661	0m	N.D.	d	
88) Allyl chloride		8.224	8.331	0.685	0m	N.D.	d	
89) tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90) Acrylonitrile		8.936	8.864	0.744	0m	N.D.	d	
91) Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B615.D
Acq On : 04 Sep 2011 03:56
Operator : GRB2
InstName : VOA3
Sample : |1202480060|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MS 285124001
ALS Vial : 15 Sample Multiplier: 1

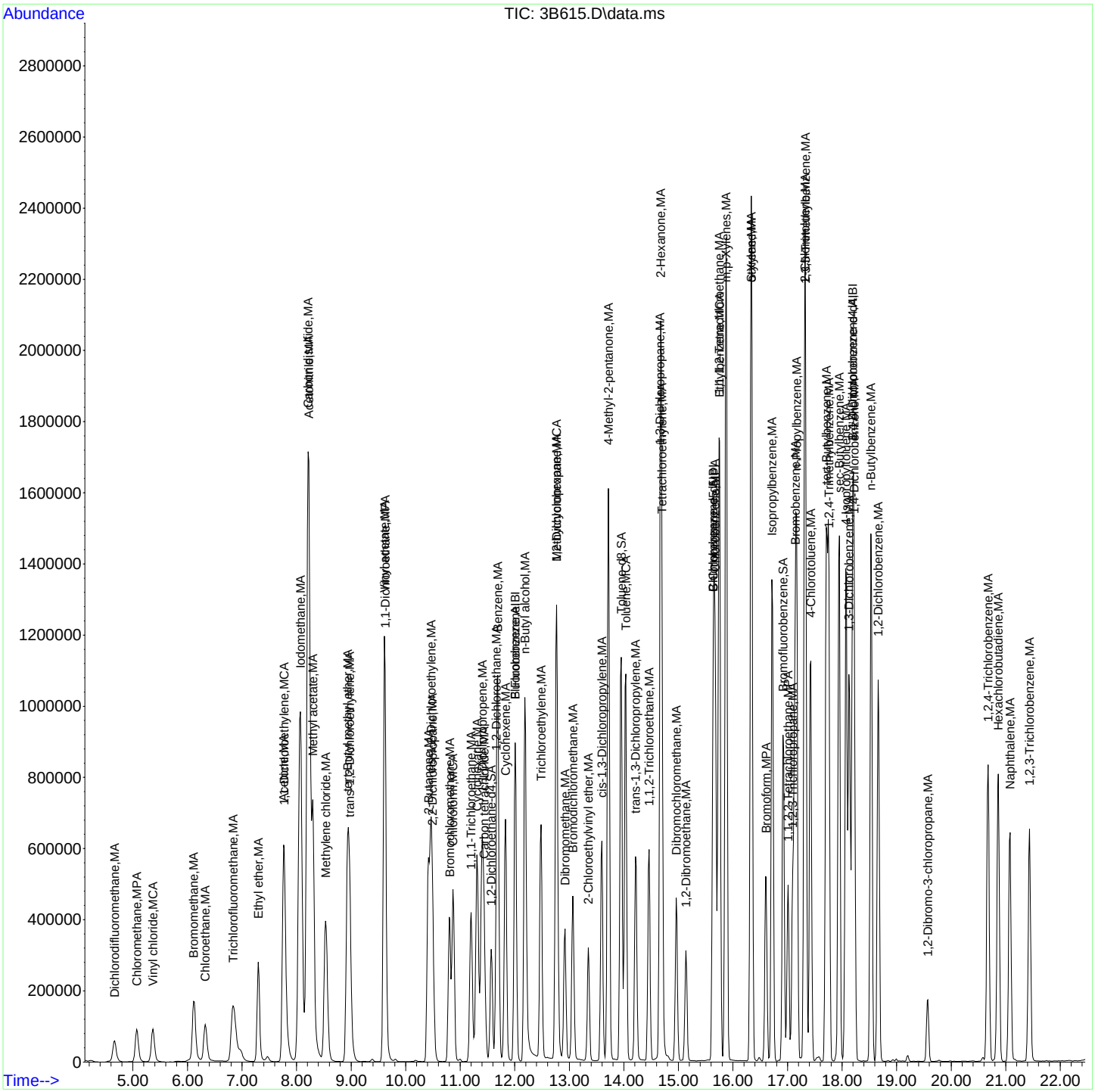
Quant Time: Sep 04 07:56:19 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		10.181	10.181	0.848	0m	N.D.	d
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		14.272	14.248	0.913	0m	N.D.	d
106)	1-Chlorohexane		15.553	15.553	0.855	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.715	16.869	0.919	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.529	18.339	1.018	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B615.D
Acq On    : 04 Sep 2011  03:56
Operator  : GRB2
InstName  : VOA3
Sample    : |1202480060|1138640|1|VOA|1|VOA624_LFD|
Misc      : ARSL 5mL ph7 624  MIX[A] MS 285124001
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Sep 04 07:56:19 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE
```



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202480061**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138640**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860PSD**	**Method:**	**EPA 624 DOE-AL**	**SOP Ref:**	**GL-OA-E-026**
Batch ID:	**1138640**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 04:26**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**09/04/2011 04:26**				
Data File:	**090311V3\3B616.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
74-87-3	Chloromethane		0.0389	mg/L	0.0003	0.001
75-01-4	Vinyl chloride		0.0393	mg/L	0.0005	0.001
74-83-9	Bromomethane		0.0418	mg/L	0.0003	0.001
75-00-3	Chloroethane		0.0469	mg/L	0.0003	0.001
75-35-4	1,1-Dichloroethylene		0.0408	mg/L	0.0003	0.001
75-09-2	Methylene chloride		0.0453	mg/L	0.003	0.010
156-60-5	trans-1,2-Dichloroethylene		0.0425	mg/L	0.0003	0.001
75-34-3	1,1-Dichloroethane		0.0443	mg/L	0.0003	0.001
67-66-3	Chloroform		0.0449	mg/L	0.00025	0.001
71-55-6	1,1,1-Trichloroethane		0.0431	mg/L	0.000325	0.001
56-23-5	Carbon tetrachloride		0.0412	mg/L	0.0003	0.001
107-06-2	1,2-Dichloroethane		0.0444	mg/L	0.00025	0.001
71-43-2	Benzene		0.0439	mg/L	0.0003	0.001
79-01-6	Trichloroethylene		0.046	mg/L	0.00025	0.001
78-87-5	1,2-Dichloropropane		0.0451	mg/L	0.00025	0.001
75-27-4	Bromodichloromethane		0.0462	mg/L	0.00025	0.001
110-75-8	2-Chloroethylvinyl ether		0.0513	mg/L	0.0015	0.005
10061-01-5	cis-1,3-Dichloropropylene		0.0458	mg/L	0.00025	0.001
108-88-3	Toluene		0.0428	mg/L	0.00025	0.001
10061-02-6	trans-1,3-Dichloropropylene		0.0444	mg/L	0.00025	0.001
79-00-5	1,1,2-Trichloroethane		0.0461	mg/L	0.00025	0.001
127-18-4	Tetrachloroethylene		0.0398	mg/L	0.0003	0.001
124-48-1	Dibromochloromethane		0.0468	mg/L	0.0003	0.001
108-90-7	Chlorobenzene		0.044	mg/L	0.00025	0.001
100-41-4	Ethylbenzene		0.0424	mg/L	0.00025	0.001
75-25-2	Bromoform		0.0729	mg/L	0.00025	0.001
79-34-5	1,1,2,2-Tetrachloroethane		0.0436	mg/L	0.00025	0.001
541-73-1	1,3-Dichlorobenzene		0.0444	mg/L	0.00025	0.001
106-46-7	1,4-Dichlorobenzene		0.0454	mg/L	0.00025	0.001
107-02-8	Acrolein	U	0.005	mg/L	0.00125	0.005
107-13-1	Acrylonitrile	U	0.005	mg/L	0.001	0.005
95-50-1	1,2-Dichlorobenzene		0.0457	mg/L	0.00025	0.001

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.6	50.0	ug/L	97.3	(79%-124%)
Bromofluorobenzene	51.0	50.0	ug/L	102	(80%-120%)
Toluene-d8	48.8	50.0	ug/L	97.6	(80%-120%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B616.D
Acq On : 04 Sep 2011 04:26
Operator : GRB2
InstName : VOA3
Sample : |1202480061|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MSD 285124001
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 07:56:22 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	12.007	12.007	1.000	1338992	50.00	ug/L	0.00
41) Chlorobenzene-d5	82	15.636	15.636	1.000	586232	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	587951	50.00	ug/L	0.00
82) B Fluorobenzene	96	12.007	12.007	1.000	1338992	50.00	ug/L	0.00
103) B Chlorobenzene-d5	82	15.636	15.636	1.000	586232	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	18.197	18.197	1.000	587951	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	102	11.568	11.568	0.963	74451	48.63	ug/L	0.00
43) Toluene-d8	98	13.952	13.952	0.892	1270531	48.80	ug/L	0.00
61) Bromofluorobenzene	95	16.916	16.916	0.930	567529	51.00	ug/L	0.00

Compound	Amount	Range	Recovery
29) 1,2-Dichloroethane-d4	50.000	79 - 124	97.26%
43) Toluene-d8	50.000	80 - 120	97.60%
61) Bromofluorobenzene	50.000	80 - 120	102.00%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.651	4.666	0.387	174349	32.32	ug/L	99
3) Chloromethane	50	5.067	5.068	0.422	248664	38.87	ug/L	99
4) Vinyl chloride	62	5.365	5.365	0.447	255854	39.33	ug/L	99
5) Bromomethane	94	6.113	6.125	0.509	331861	41.75	ug/L	100
6) Chloroethane	64	6.327	6.327	0.527	228611	46.85	ug/L	99
7) Trichlorofluoromethane	101	6.837	6.849	0.569	447183	42.71	ug/L	99
8) Ethyl ether	59	7.299	7.299	0.608	288687	45.65	ug/L	98
9) Acetone	43	7.761	7.762	0.646	786584	190.85	ug/L	99
10) 1,1-Dichloroethylene	61	7.761	7.774	0.646	462726	40.82	ug/L	100
11) Iodomethane	142	8.070	8.070	0.672	2961745	213.47	ug/L	100
12) Acetonitrile	41	8.224	8.224	0.685	981724	1201.22	ug/L	99
13) Methyl acetate	43	8.295	8.295	0.691	1239350	219.50	ug/L	99
14) Carbon disulfide	76	8.212	8.212	0.684	4942676	205.26	ug/L	100
15) Methylene chloride	84	8.532	8.532	0.711	426117	45.26	ug/L	100
16) tert-Butyl methyl ether	73	8.935	8.936	0.744	982335	43.10	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.971	8.971	0.747	447104	42.52	ug/L	99
18) Vinyl acetate	43	9.611	9.612	0.800	2198410	162.06	ug/L	98
19) 1,1-Dichloroethane	63	9.623	9.623	0.801	578467	44.29	ug/L	100
20) 2-Butanone	43	10.418	10.406	0.868	1019167	173.71	ug/L	99
21) cis-1,2-Dichloroethylene	96	10.465	10.465	0.872	390309	44.22	ug/L	99
22) 2,2-Dichloropropane	77	10.489	10.489	0.874	422896	41.83	ug/L	99
23) Bromochloromethane	128	10.809	10.797	0.900	195770	45.40	ug/L	97
24) Chloroform	83	10.868	10.869	0.905	611055	44.93	ug/L	99
25) 1,1,1-Trichloroethane	97	11.200	11.201	0.933	505179	43.14	ug/L	99
26) Cyclohexane	56	11.307	11.307	0.942	526450	40.28	ug/L	99
27) 1,1-Dichloropropene	75	11.402	11.402	0.950	405399	41.69	ug/L	99
28) Carbon tetrachloride	117	11.438	11.438	0.953	405944	41.22	ug/L	100
30) 1,2-Dichloroethane	62	11.663	11.663	0.971	414376	44.42	ug/L	99
31) Benzene	78	11.687	11.687	0.973	1275663	43.86	ug/L	100
32) Cyclohexene	67	11.829	11.829	0.985	598177	40.34	ug/L	99
33) n-Butyl alcohol	56	12.185	12.185	1.015	957100	4467.78	ug/L	99
34) Trichloroethylene	95	12.481	12.481	1.040	356595	45.97	ug/L	98
35) 1,2-Dichloropropane	63	12.766	12.766	1.063	333129	45.13	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B616.D
Acq On : 04 Sep 2011 04:26
Operator : GRB2
InstName : VOA3
Sample : |1202480061|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MSD 285124001
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 07:56:22 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) Methylcyclohexane	83	12.766	12.766	1.063	534323	41.28	ug/L	98
37) Dibromomethane	93	12.920	12.920	1.076	219222	45.80	ug/L	96
38) Bromodichloromethane	83	13.062	13.062	1.088	488153	46.19	ug/L	99
39) 2-Chloroethylvinyl ether	63	13.347	13.347	1.112	193743	51.26	ug/L	97
40) cis-1,3-Dichloropropylene	75	13.596	13.596	1.132	575187	45.82	ug/L	99
42) 4-Methyl-2-pentanone	58	13.714	13.715	0.877	672888	218.75	ug/L	99
44) Toluene	91	14.035	14.035	0.898	1317202	42.78	ug/L	99
45) trans-1,3-Dichloroprop...	75	14.213	14.213	0.909	516318	44.35	ug/L	99
46) 1,1,2-Trichloroethane	83	14.462	14.462	0.925	265667	46.07	ug/L	98
47) 2-Hexanone	58	14.675	14.675	0.939	702951	212.65	ug/L	98
48) 1,3-Dichloropropane	76	14.663	14.663	0.938	493512	43.75	ug/L	93
49) Tetrachloroethylene	164	14.699	14.699	0.940	250762	39.79	ug/L	98
50) Dibromochloromethane	129	14.960	14.960	0.957	399683	46.81	ug/L	100
51) 1,2-Dibromoethane	107	15.137	15.138	0.968	341712	45.40	ug/L	98
52) Chlorobenzene	112	15.671	15.671	1.002	901497	43.96	ug/L	97
53) 1,1,1,2-Tetrachloroethane	131	15.742	15.742	1.007	352747	45.69	ug/L	98
54) Ethylbenzene	91	15.754	15.754	1.008	1440967	42.35	ug/L	99
55) m,p-Xylenes	106	15.873	15.873	1.015	1201322	86.70	ug/L	99
56) o-Xylene	106	16.335	16.335	1.045	647885	45.03	ug/L	99
57) Styrene	104	16.335	16.335	1.045	1048155	44.27	ug/L	99
59) Bromoform	173	16.608	16.608	0.913	411274	72.91	ug/L	97
60) Isopropylbenzene	105	16.715	16.715	0.919	1543114	43.60	ug/L	100
62) 1,1,2,2-Tetrachloroethane	83	17.011	17.011	0.935	395869	43.64	ug/L	98
63) 1,2,3-Trichloropropane	110	17.094	17.094	0.939	116632	44.01	ug/L #	89
64) Bromobenzene	156	17.142	17.142	0.942	429434	45.00	ug/L	97
65) n-Propylbenzene	91	17.165	17.165	0.943	1770751	43.40	ug/L	99
66) 1,3,5-Trimethylbenzene	105	17.331	17.331	0.952	1293896	43.90	ug/L	100
67) 2-Chlorotoluene	126	17.319	17.320	0.952	406827	46.40	ug/L	100
68) 4-Chlorotoluene	91	17.426	17.415	0.958	1193751	44.48	ug/L	99
69) tert-Butylbenzene	134	17.711	17.711	0.973	308276	45.27	ug/L	97
70) 1,2,4-Trimethylbenzene	105	17.758	17.747	0.976	1342630	44.20	ug/L	98
71) sec-Butylbenzene	105	17.948	17.948	0.986	1792868	44.78	ug/L	99
72) 4-Isopropyltoluene	119	18.078	18.067	0.993	1442168	44.94	ug/L	99
73) 1,3-Dichlorobenzene	146	18.138	18.126	0.997	805617	44.40	ug/L	99
74) 1,4-Dichlorobenzene	146	18.221	18.221	1.001	792673	45.42	ug/L	99
75) n-Butylbenzene	91	18.529	18.529	1.018	1443158	44.70	ug/L	99
76) 1,2-Dichlorobenzene	146	18.659	18.660	1.025	810865	45.72	ug/L	99
77) 1,2-Dibromo-3-chloropr...	157	19.573	19.573	1.076	87641	45.11	ug/L	100
78) 1,2,4-Trichlorobenzene	180	20.675	20.676	1.136	541397	46.61	ug/L	99
79) Hexachlorobutadiene	225	20.865	20.865	1.147	322013	46.74	ug/L	99
80) Naphthalene	128	21.079	21.079	1.158	1163680	49.87	ug/L	100
81) 1,2,3-Trichlorobenzene	180	21.434	21.435	1.178	463797	48.42	ug/L	99
83) Chlorotrifluoroethylene		4.562	4.562	0.380	0m	N.D.	d	
84) 2-Chloro-1,1,1-trifluo...		0.000	5.573	0.000	0	N.D.		
85) Acrolein		0.000	7.524	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.750	0.000	0	N.D.		
87) Isopropyl Alcohol		7.939	7.928	0.661	0m	N.D.	d	
88) Allyl chloride		8.224	8.331	0.685	0m	N.D.	d	
89) tert-Butyl Alcohol		8.580	8.580	0.715	0m	N.D.	d	
90) Acrylonitrile		8.935	8.864	0.744	0m	N.D.	d	
91) Isopropyl ether		9.611	9.647	0.800	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	9.766	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B616.D
Acq On : 04 Sep 2011 04:26
Operator : GRB2
InstName : VOA3
Sample : |1202480061|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MSD 285124001
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 07:56:22 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE

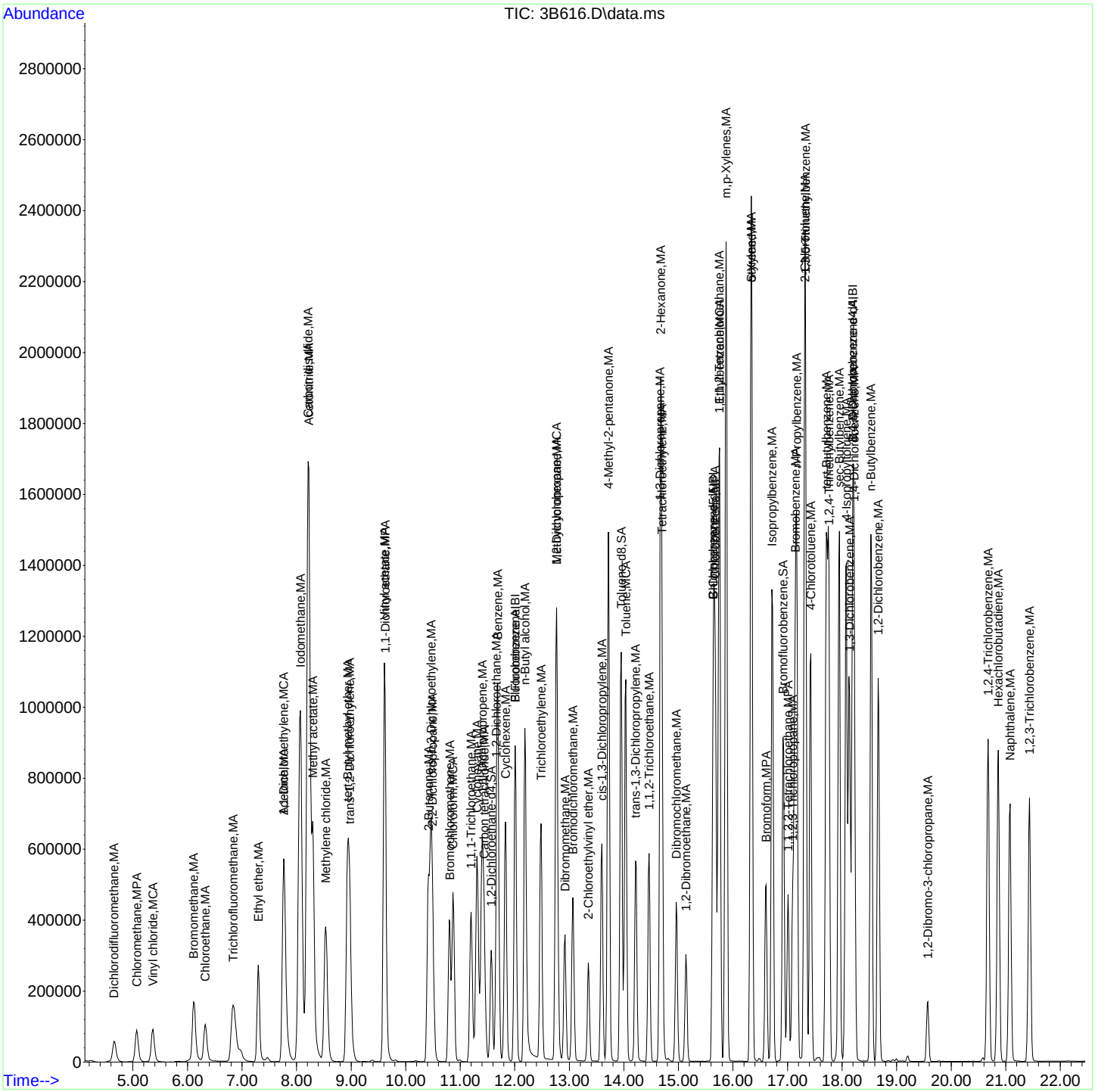
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	10.181	0.000	0	N.D.	
94)	Ethyl acetate		10.418	10.454	0.868	0m	N.D.	d
95)	Propionitrile		10.418	10.501	0.868	0m	N.D.	d
96)	Methacrylonitrile		10.489	10.726	0.874	0m	N.D.	d
97)	Tetrahydrofuran		10.868	10.869	0.905	0m	N.D.	d
98)	Isobutyl alcohol		11.307	11.343	0.942	0m	N.D.	d
99)	Methyl tert-amyl ether		11.687	11.746	0.973	0m	N.D.	d
100)	Methyl methacrylate		12.766	12.778	1.063	0m	N.D.	d
101)	1,4-Dioxane		12.920	12.884	1.076	0m	N.D.	d
102)	2-Nitropropane		13.347	13.300	1.112	0m	N.D.	d
104)	Ethyl methacrylate		0.000	14.248	0.000	0	N.D.	
106)	1-Chlorohexane		15.541	15.553	0.854	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		16.715	16.762	0.919	0m	N.D.	d
108)	Cyclohexanone		16.715	16.869	0.919	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		17.165	17.059	0.943	0m	N.D.	d
110)	Pentachloroethane		17.782	17.782	0.977	0m	N.D.	d
111)	Benzyl chloride		18.327	18.339	1.007	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		0.000	18.754	0.000	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090311V3\
Data File : 3B616.D
Acq On : 04 Sep 2011 04:26
Operator : GRB2
InstName : VOA3
Sample : |1202480061|1138640|1|VOA|1|VOA624_LFD|
Misc : ARSL 5mL ph7 624 MIX[A] MSD 285124001
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 07:56:22 2011
Quant Method : C:\msdchem\1\DATA\082411V3\VOA3-8260-082411.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Aug 25 11:40:17 2011
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 8/24/2011 Method 8260/624 Operator: SYK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 8/24/2011-8/25/2011

(See pg. 238 and 239 for ICAL Std. Sci. Ids)

Cl test lot # N/A

Sequence Number: 082411V3

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
			5+5		
IS	UVM110615-01	1	1	1	
SS	UVM110725-02	1	1	1	
Long List ICV	W3VM110824-11		5+5		
BFB	IVM110802-01				1
Short List ICV			5+5		

Purge Amount	
5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
8/24/2011	7:02	3A301.D	IVM110802-01	-----	BFB	5ML	1	N/A	1	w	SYK1	N/A	X	Passed but see 3A309
8/24/2011	7:32	3A302.D	IVM110802-01	-----	BFB	5ML	1	N/A	2	w	SYK1	N/A	X	Passed but see 3A309
8/24/2011	8:02	3A303.D	IVM110802-01	-----	BFB	5ML	1	N/A	3	w	SYK1	N/A	X	Passed but see 3A309
8/24/2011	8:32	3A304.D	W3VM110824-01	VSTD001L	ICAL	5ML	1	N/A	4	w	SYK1	N/A	X	MIX[A] UVM110723-02B+UVM110727-02C; lowered Emvolts
8/24/2011	9:33	3A305.D	12024-----	-----	BLANK	5ML	1	N/A	5	w	SYK1	N/A	X	RINSE
8/24/2011	10:03	3A306.D	IVM110802-01	-----	BFB	5ML	1	N/A	6	w	SYK1	N/A	X	Passed but see 3A309
8/24/2011	10:33	3A307.D	W3VM110824-01	VSTD001L	ICAL	5ML	1	N/A	7	w	SYK1	N/A	X	MIX[A] UVM110723-02B+UVM110727-02C; lowered Emvolts
8/24/2011	11:07	3A308.D	12024-----	-----	BLANK	5ML	1	N/A	1	w	SYK1	N/A	X	RINSE
8/24/2011	11:37	3A309.D	IVM110802-01	-----	BFB	5ML	1	N/A	2	w	SYK1	N/A	O	
8/24/2011	12:07	3A310.D	W3VM110824-01	VSTD0005L	ICAL	5ML	1	N/A	3	w	SYK1	N/A	O	MIX[A] UVM110723-01B+UVM110727-01C
8/24/2011	12:37	3A311.D	W3VM110824-02	VSTD001L	ICAL	5ML	1	N/A	4	w	SYK1	N/A	O	MIX[A] UVM110723-02B+UVM110727-02C
8/24/2011	13:07	3A312.D	W3VM110824-03	VSTD002L	ICAL	5ML	1	N/A	5	w	SYK1	N/A	O	MIX[A] UVM110723-03B+UVM110727-03C
8/24/2011	13:37	3A313.D	W3VM110824-04	VSTD005L	ICAL	5ML	1	N/A	6	w	SYK1	N/A	O	MIX[A] UVM110723-04B+UVM110727-04C
8/24/2011	14:07	3A314.D	W3VM110824-05	VSTD010L	ICAL	5ML	1	N/A	7	w	SYK1	N/A	O	MIX[A] UVM110723-05B+UVM110727-05C
8/24/2011	14:37	3A315.D	W3VM110824-06	VSTD020L	ICAL	5ML	1	N/A	8	w	SYK1	N/A	O	MIX[A] UVM110723-06B+UVM110727-06C
8/24/2011	15:07	3A316.D	W3VM110824-07	VSTD050L	ICAL	5ML	1	N/A	9	w	SYK1	N/A	O	MIX[A] UVM110723-07B+UVM110727-07C
8/24/2011	15:37	3A317.D	W3VM110824-08	VSTD080L	ICAL	5ML	1	N/A	10	w	SYK1	N/A	O	MIX[A] UVM110723-08B+UVM110727-08C
8/24/2011	16:07	3A318.D	W3VM110824-09	VSTD100L	ICAL	5ML	1	N/A	11	w	SYK1	N/A	O	MIX[A] UVM110723-08B+UVM110727-08C
8/24/2011	16:37	3A319.D	12024-----	-----	BLANK	5ML	1	N/A	12	w	SYK1	N/A	X	RINSE
8/24/2011	17:07	3A320.D	W3VM110824-10	ICV	ICV	5ML	1	N/A	13	w	SYK1	N/A	X	MIX[A] UVM110718-01E+IVM110822-01; ccc out
8/24/2011	17:38	3A321.D	W3VM110824-11	ICV	ICV	5ML	1	N/A	14	w	SYK1	N/A	O	MIX[A] UVM110808-01B+IVM110822-01
8/24/2011	18:08	3A322.D	12024-----	-----	BLANK	5ML	1	N/A	15	w	SYK1	N/A	X	RINSE
8/24/2011	18:38	3A323.D	W3VM110824-12	VSTD005S	ICAL	5ML	1	N/A	16	w	SYK1	N/A	O	MIX[B] UVM110728-01+UVM110728-09+UVM110705-01E
8/24/2011	19:08	3A324.D	W3VM110824-13	VSTD010S	ICAL	5ML	1	N/A	17	w	SYK1	N/A	O	MIX[B] UVM110728-01+UVM110728-10+UVM110705-02E
8/24/2011	19:38	3A325.D	W3VM110824-14	VSTD025S	ICAL	5ML	1	N/A	18	w	SYK1	N/A	O	MIX[B] UVM110728-03+UVM110728-11+UVM110705-03E
8/24/2011	20:08	3A326.D	W3VM110824-15	VSTD050S	ICAL	5ML	1	N/A	19	w	SYK1	N/A	O	MIX[B] UVM110728-04+UVM110728-12+UVM110705-04E
8/24/2011	20:38	3A327.D	W3VM110824-16	VSTD100S	ICAL	5ML	1	N/A	20	w	SYK1	N/A	O	MIX[B] UVM110728-05+UVM110728-13+UVM110705-05E
8/24/2011	21:08	3A328.D	W3VM110824-17	VSTD250S	ICAL	5ML	1	N/A	21	w	SYK1	N/A	O	MIX[B] UVM110728-06+UVM110728-14+UVM110705-06E

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 8/24/2011 Method 8260/624 Operator: SYK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 8/24/2011-8/25/2011

(See pg. 238 and 239 for ICAL Std. Sci. Ids)

Cl test lot # N/A

Sequence Number: 082411V3

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
			5+5		
IS	UVM110615-01	1	1	1	
SS	UVM110725-02	1	1	1	
Long List ICV	W3VM110824-11		5+5		
BFB	IVM110802-01				1
Short List ICV			5+5		

Purge Amount	
5	Water Purge Vol:
n/a	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
8/24/2011	21:38	3A329.D	W3VM110824-18	VSTD300S	ICAL	5ML	1	N/A	22	w	SYK1	N/A	X	MIX[B] UVM110728-07+UVM110728-15+UVM110705-07E; compounds low, see 3A402
8/24/2011	22:08	3A330.D	W3VM110824-19	VSTD500S	ICAL	5ML	1	N/A	23	w	SYK1	N/A	X	MIX[B] UVM110728-07+UVM110728-15+UVM110705-07E; compounds low, see 3A403
8/24/2011	22:38	3A331.D	12024-----	-----	BLANK	5ML	1	N/A	24	w	SYK1	N/A	X	RINSE
8/24/2011	23:08	3A332.D	W3VM110824-20	ICV	ICV	5ML	1	N/A	25	w	SYK1	N/A	X	MIX[B] 0728-08C+0729-08C+07; see 3A405

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 8/25/2011 Method 8260/624 Operator: SYK1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 08/24/2011-08/25/2011

(See pg. 238-239 for ICAL Std. Sci. Ids)

Cl test lot # 1177

Sequence Number: 082511V3

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM110825-04		5+5		
IS	UVM110615-01	1	1	1	
SS	UVM110725-02	1	1	1	
LCS/MS	W3VM110825-05/06			5+5	
BFB	IVM110802-01				1
SHORT	W3VM110825-07		5+5+5	5+5+5	

Purge Amount	
5	Water Purge Vol:
varied	Soil Purge Wt.
x	Mid level ext. MeOH Vol:
100	ul
DD946	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
8/25/2011	8:52	3A401.D	IVM110802-01	-----	BFB	5ML	1	N/A	28	w	SYK1	N/A	O	
8/25/2011	9:22	3A402.D	W3VM110825-01	VSTD300S	ICAL	5ML	1	N/A	29	w	SYK1	N/A	O	MIX[B] UVM110728-07+0728-15+UVM110705-07E
8/25/2011	9:52	3A403.D	W3VM110825-02	VSTD500S	ICAL	5ML	1	N/A	30	w	SYK1	N/A	O	MIX[B] UVM110728-07+0728-15+UVM110705-07E
8/25/2011	10:22	3A404.D	12024-----	-----	BLANK	5ML	1	N/A	31	w	SYK1	N/A	X	RINSE
8/25/2011	10:53	3A405.D	W3VM110825-03	ICV	ICV	5ML	1	N/A	32	w	SYK1	N/A	O	MIX[B] UVM110728-08C+UVM110729-08C+UVM110728-16B
8/25/2011	11:23	3A406.D	W3VM110825-04	-----	CCV	5ML	1	N/A	1	w	SYK1	N/A	O	MIX[A] UVM110727-07C+UVM110723-07B
8/25/2011	11:53	3A407.D	W3VM110825-05	-----	LCS	5ML	1	N/A	2	w	SYK1	N/A	O	MIX[A] UVM110718-01E+IVM110822-01
8/25/2011	12:23	3A408.D	W3VM110825-06	-----	LCS	5G	1	N/A	3	s	SYK1	N/A	O	MIX[A] UVM110718-01E+IVM110822-01 SOIL
8/25/2011	12:53	3A409.D	W3VM110825-07	-----	CCV/LCS	5G	1	N/A	4	s	SYK1	N/A	O	MIX[B] UVM110729-08C+UVM110728-08C+0728-16B SOIL
8/25/2011	13:23	3A410.D	12024-----	-----	BLANK	5ML	1	N/A	5	w	SYK1	N/A	O	
8/25/2011	13:53	3A411.D	12024-----	-----	BLANK	5G	1	N/A	6	s	SYK1	N/A	O	SOIL
8/25/2011	14:24	3A412.D	284525008	UCOR	1136142	5ML	1	pH5	7	w	SYK1	N	O	624
8/25/2011	14:53	3A413.D	284525001	UCOR	1136142	5ML	1	pH7	8	w	SYK1	N	O	624
8/25/2011	15:23	3A414.D	1202474200	UCOR	1136142	5ML	1	pH7	9	w	SYK1	N	O	DUP
8/25/2011	15:53	3A415.D	12024-----	-----	BLANK	100uL	50	N/A	10	s	SYK1	N/A	O	MeOH BLNK
8/25/2011	16:24	3A416.D	284175001	CARE	1136192	100uL	50	N/A	11	s	SYK1	N/A	O	SOIL; O/R for Trichloroethylene, rerun AT 100x on 08/26
8/25/2011	16:54	3A417.D	284175002	CARE	1136192	100uL	50	N/A	12	s	SYK1	N/A	X	SOIL: C/O, rerun on 08/26
8/25/2011	17:24	3A418.D	284598001	SRNS	1136296	5ML	1	pH2	13	w	SYK1	N	X	C/O
8/25/2011	17:54	3A419.D	284598002	SRNS	1136296	5ML	1	pH2	14	w	SYK1	N	X	C/O
8/25/2011	18:25	3A420.D	1202474201	UCOR	1136142	5ML	1	pH7	15	w	SYK1	N	O	MS 284525001 MIX[A]
8/25/2011	18:55	3A421.D	1202474334	CARE	1136192	100uL	50	N/A	16	s	SYK1	N/A	O	MS 284175001 MIX[A] SOIL
8/25/2011	19:25	3A422.D	1202474335	CARE	1136192	100uL	50	N/A	17	s	SYK1	N/A	O	MSD 284175001 MIX[A] SOIL
8/25/2011	19:55	3A423.D	1202474584	SRNS	1136296	5ML	1	pH2	18	w	SYK1	N	O	MS 284598001 MIX[A]
8/25/2011	20:25	3A424.D	1202474585	SRNS	1136296	5ML	1	pH2	19	w	SYK1	N	O	MSD 284598001 MIX[A]

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 9/3/2011 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 08/24/2011-08/25/2011

(See pg. 238-239 for ICAL Std. Sci. Ids)

Cl test lot # 12616

Sequence Number: 090311V3

Daily Standard Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM110903-02		5+5		
IS	UVM110615-01	1	1	1	
SS	UVM110725-02	1	1	1	
LCS/MS	W3VM110903-02/03			5+5	
BFB	IVM110902-01				1
SHORT	W3VM110903-04		5+5+5	5+5+5	
	N/A				

Volume Added for Purge (ul)

Purge Amount	
5	Water Purge Vol:
VARIED	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
100	ul
DD946	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3 Sep 2011	19:57	3B601.D	IVM110902-01	GEL	BFB	5mL	1	N/A	1	w	GRB	N/A	O	
3 Sep 2011	20:27	3B602.D	W3VM110903-01	GEL	CCV	5mL	1	N/A	2	w	GRB	N/A	X	UVM110723-07B+UVM110826-07A
3 Sep 2011	20:57	3B603.D	W3VM110903-02	GEL	CCV/LCS	5mL	1	N/A	3	w	GRB	N/A	O	UVM110817-01B+IVM110831-02
3 Sep 2011	21:27	3B604.D	W3VM110903-03	GEL	LCS	5g	1	N/A	4	s	GRB	N/A	O	UVM110817-01B+IVM110831-02 SOIL
3 Sep 2011	21:56	3B605.D	W3VM110903-04	GEL	CCV/LCS	5mL	1	N/A	5	w	GRB	N/A	O	UVM110728-16C+UVM110728-08B+UVM110729-08D
3 Sep 2011	22:27	3B606.D	W3VM110903-05	GEL	LCS	5g	1	N/A	6	s	GRB	N/A	X	UVM110728-16C+UVM110728-08B+UVM110729-08D SOIL
3 Sep 2011	22:56	3B607.D	12024-----	GEL	BLANK	5g	1	N/A	7	s	GRB	N/A	O	SOIL
3 Sep 2011	23:27	3B608.D	12024-----	GEL	BLANK	5mL	1	N/A	8	w	GRB	N/A	O	
3 Sep 2011	23:57	3B609.D	12024-----	GEL	HB	0.1mL	50	N/A	9	s	GRB	N/A	O	SOIL MEOH BLANK
4 Sep 2011	00:27	3B610.D	285124001	ARSL	1138640	5mL	1	ph7	10	w	GRB	N	O	624
4 Sep 2011	00:57	3B611.D	285124004	ARSL	1138640	5mL	1	ph7	11	w	GRB	N	O	624
4 Sep 2011	01:27	3B612.D	284791003	ARSL	1138639	5mL	1	ph2	12	w	GRB	N	O	
4 Sep 2011	01:57	3B613.D	284791006	ARSL	1138639	5mL	1	ph2	13	w	GRB	N	O	
4 Sep 2011	03:26	3B614.D	284972001	CARE	1138642	0.1mL	50	N/A	14	s	GRB	N/A	O	SOIL 5.08g/5mL MEOH
4 Sep 2011	03:56	3B615.D	1202480060	ARSL	1138640	5mL	1	ph7	15	w	GRB	N	O	624 MS 285124001; SEE 3B726
4 Sep 2011	04:26	3B616.D	1202480061	ARSL	1138640	5mL	1	ph7	16	w	GRB	N	O	624 MSD 285124001; SEE 3B727
4 Sep 2011	04:56	3B617.D	1202480055	ARSL	1138639	5mL	1	ph2	17	w	GRB	N	O	MS 284791003
4 Sep 2011	05:26	3B618.D	1202480056	ARSL	1138639	5mL	1	ph2	18	w	GRB	N	O	MSD 284791003
4 Sep 2011	05:57	3B619.D	1202480065	CARE	1138642	0.1mL	50	N/A	19	s	GRB	N/A	O	SOIL MS 284972001; SEE 3B728
4 Sep 2011	06:26	3B620.D	1202480066	CARE	1138642	0.1mL	50	N/A	20	s	GRB	N/A	O	SOIL MSD 284972001; SEE 3B729

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	EPA 624 DOE-AL	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1138640	See Below		

Potentially affected work order(s)(SDG): 285124(11-3386)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. QC samples 1202480060 (MS) and 1202480061 (MSD) do not pass recoveries for 2-Chloroethylvinyl ether. The MS recovered at 23.5%. The MSD recovered at 20.5%. The limits are 52%-125%.	1. The MS and MSD recovered in a similar manner. The results are reported.

Originator's Name:

Gelester Baskett 05-SEP-11

Data Validator/Group Leader:

Erin Haubert 09-SEP-11

Semi-Volatile Analysis

Case Narrative

Semi-Volatile Case Narrative
ARS International (ARSL)
SDG 11-3386

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	EPA 625
Prep Method:	EPA 625
Analytical Batch Number:	1138552
Prep Batch Number:	1138551

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 625:

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
285124007	NPDES13S-11-26856
1202479916	Method Blank (MB)
1202479917	Laboratory Control Sample (LCS)
1202479918	285124001(NPDES03A199-11-13860) Matrix Spike (MS)
1202479919	285124001(NPDES03A199-11-13860) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 26.

Raw data reports are processed and reviewed by the analyst using the data analysis software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Due to software limitations, the Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Methodologies referenced N-Nitroso-diphenylamine. However, as stated in EPA Methodology, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, showed that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG) in this batch. A second source initial calibration verification standard (ICV) was included in the standard section directly behind the initial calibration. Not all ICV analytes satisfied the acceptance criteria as outlined in the EPA 625 method. The ICV displayed one outlier, Hexachlorocyclopentadiene, that was biased low at -29.26% drift.

CCV Requirements
All Calibration Verification Standards met acceptance criteria for all requested target analytes for the original analytical sequence. The secondary analytical sequence containing the re-analysis of sample 285124001 (NPDES03A199-11-13860) displayed one outlier, Hexachlorocyclopentadiene, in the CVS that was biased greater than +20% drift. As this target analyte was initially within CVS acceptance criteria and was not detected in either analysis of sample 285124001 (NPDES03A199-11-13860), the positive bias had no adverse impact on the data and the re-analyzed data results have been reported.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG in this batch met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG in this batch.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 285124001 (NPDES03A199-11-13860) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS(1202479918(NPDES03A199-11-13860)) recovered spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202479919(NPDES03A199-11-13860)) recovered spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information:

Holding Time Specifications

All samples in this SDG in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All reported compound mass spectra met the detection specifications in the method.

Sample Dilutions
The samples in this SDG in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 285124001 (NPDES03A199-11-13860) was re-analyzed due to a marginally low surrogate recovery. The re-analyzed data results have been reported.

Miscellaneous Information:

Data Exception (DER) Documentation
The following DER was generated for this SDG: 993571.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Manual integrations, if any, are included with the raw data.

TIC Comment
Tentatively identified compounds (TIC) were not required for the SDG associated samples in this batch.

Additional Comments
Additional comments were not required for the SDG associated samples in this batch.

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	Agilent 6890/5973 GC/MS w/ 7683 Autosampler	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3386 GEL Work Order: 285124

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Barbara Bailey **Name: Barbara Bailey**

Date: 08 SEP 2011 **Title: Data Validator**

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.010	mg/L	0.003	0.010
108-95-2	Phenol	U	0.010	mg/L	0.003	0.010
111-44-4	bis(2-Chloroethyl) ether	U	0.010	mg/L	0.003	0.010
95-57-8	2-Chlorophenol	U	0.010	mg/L	0.003	0.010
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.010	mg/L	0.003	0.010
621-64-7	N-Nitrosodi--n-propylamine	U	0.010	mg/L	0.003	0.010
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.010	mg/L	0.003	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
78-59-1	Isophorone	U	0.010	mg/L	0.003	0.010
88-75-5	2-Nitrophenol	U	0.010	mg/L	0.003	0.010
105-67-9	2,4-Dimethylphenol	U	0.010	mg/L	0.003	0.010
111-91-1	bis(2-Chloroethoxy)methane	U	0.010	mg/L	0.003	0.010
120-83-2	2,4-Dichlorophenol	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.003	0.010
59-50-7	Parachlorometa cresol	U	0.010	mg/L	0.003	0.010
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.001	mg/L	0.0003	0.001
77-47-4	Hexachlorocyclopentadiene	U	0.010	mg/L	0.003	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.003	0.010
91-58-7	2-Chloronaphthalene	U	0.001	mg/L	0.0003	0.001
131-11-3	Dimethylphthalate	U	0.010	mg/L	0.003	0.010
606-20-2	2,6-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
208-96-8	Acenaphthylene	U	0.001	mg/L	0.0003	0.001
83-32-9	Acenaphthene	U	0.001	mg/L	0.0003	0.001
51-28-5	2,4-Dinitrophenol	U	0.020	mg/L	0.005	0.020
84-66-2	Diethylphthalate	U	0.010	mg/L	0.003	0.010
100-02-7	4-Nitrophenol	U	0.010	mg/L	0.003	0.010
86-73-7	Fluorene	U	0.001	mg/L	0.0003	0.001
7005-72-3	4-Chlorophenylphenylether	U	0.010	mg/L	0.003	0.010
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.010	mg/L	0.003	0.010
122-39-4	Diphenylamine	U	0.010	mg/L	0.003	0.010
122-66-7	Azobenzene	U	0.010	mg/L	0.003	0.010
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.010	mg/L	0.003	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.003	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.003	0.010
85-01-8	Phenanthrene	U	0.001	mg/L	0.0003	0.001
120-12-7	Anthracene	U	0.001	mg/L	0.0003	0.001

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.010	mg/L	0.003	0.010
206-44-0	Fluoranthene	U	0.001	mg/L	0.0003	0.001
129-00-0	Pyrene	U	0.001	mg/L	0.0003	0.001
85-68-7	Butylbenzylphthalate	U	0.010	mg/L	0.003	0.010
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.010	mg/L	0.003	0.010
56-55-3	Benzo(a)anthracene	U	0.001	mg/L	0.0003	0.001
218-01-9	Chrysene	U	0.001	mg/L	0.0003	0.001
117-84-0	Di-n-octylphthalate	U	0.010	mg/L	0.003	0.010
205-99-2	Benzo(b)fluoranthene	U	0.001	mg/L	0.0003	0.001
207-08-9	Benzo(k)fluoranthene	U	0.001	mg/L	0.0003	0.001
50-32-8	Benzo(a)pyrene	U	0.001	mg/L	0.0003	0.001
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.001	mg/L	0.0003	0.001
53-70-3	Dibenzo(a,h)anthracene	U	0.001	mg/L	0.0003	0.001
191-24-2	Benzo(ghi)perylene	U	0.001	mg/L	0.0003	0.001
92-87-5	Benzidine	U	0.010	mg/L	0.003	0.010
91-94-1	3,3'-Dichlorobenzidine	U	0.010	mg/L	0.003	0.010
120-82-1	1,2,4-Trichlorobenzene	U	0.010	mg/L	0.003	0.010

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.101	0.100	mg/L	101	(33%-126%)
2-Fluorobiphenyl	0.0439	0.050	mg/L	87.8	(37%-102%)
2-Fluorophenol	0.0326	0.100	mg/L	32.6	(14%-78%)
Nitrobenzene-d5	0.0493	0.050	mg/L	98.5	(40%-117%)
Phenol-d5	0.015	0.100	mg/L	15.0	(14%-80%)
p-Terphenyl-d14	0.0535	0.050	mg/L	107	(44%-134%)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0103	mg/L	0.00309	0.0103
108-95-2	Phenol	U	0.0103	mg/L	0.00309	0.0103
111-44-4	bis(2-Chloroethyl) ether	U	0.0103	mg/L	0.00309	0.0103
95-57-8	2-Chlorophenol	U	0.0103	mg/L	0.00309	0.0103
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0103	mg/L	0.00309	0.0103
621-64-7	N-Nitrosodi--n-propylamine	U	0.0103	mg/L	0.00309	0.0103
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.0103	mg/L	0.00309	0.0103
98-95-3	Nitrobenzene	U	0.0103	mg/L	0.00309	0.0103
78-59-1	Isophorone	U	0.0103	mg/L	0.00309	0.0103
88-75-5	2-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103
105-67-9	2,4-Dimethylphenol	U	0.0103	mg/L	0.00309	0.0103
111-91-1	bis(2-Chloroethoxy)methane	U	0.0103	mg/L	0.00309	0.0103
120-83-2	2,4-Dichlorophenol	U	0.0103	mg/L	0.00309	0.0103
87-68-3	Hexachlorobutadiene	U	0.0103	mg/L	0.00309	0.0103
59-50-7	Parachlorometa cresol	U	0.0103	mg/L	0.00309	0.0103
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.00103	mg/L	0.000309	0.00103
77-47-4	Hexachlorocyclopentadiene	U	0.0103	mg/L	0.00309	0.0103
88-06-2	2,4,6-Trichlorophenol	U	0.0103	mg/L	0.00309	0.0103
91-58-7	2-Chloronaphthalene	U	0.00103	mg/L	0.000309	0.00103
131-11-3	Dimethylphthalate	U	0.0103	mg/L	0.00309	0.0103
606-20-2	2,6-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103
121-14-2	2,4-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103
208-96-8	Acenaphthylene	U	0.00103	mg/L	0.000309	0.00103
83-32-9	Acenaphthene	U	0.00103	mg/L	0.000309	0.00103
51-28-5	2,4-Dinitrophenol	U	0.0206	mg/L	0.00515	0.0206
84-66-2	Diethylphthalate	U	0.0103	mg/L	0.00309	0.0103
100-02-7	4-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103
86-73-7	Fluorene	U	0.00103	mg/L	0.000309	0.00103
7005-72-3	4-Chlorophenylphenylether	U	0.0103	mg/L	0.00309	0.0103
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0103	mg/L	0.00309	0.0103
122-39-4	Diphenylamine	U	0.0103	mg/L	0.00309	0.0103
122-66-7	Azobenzene	U	0.0103	mg/L	0.00309	0.0103
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.0103	mg/L	0.00309	0.0103
118-74-1	Hexachlorobenzene	U	0.0103	mg/L	0.00309	0.0103
87-86-5	Pentachlorophenol	U	0.0103	mg/L	0.00309	0.0103
85-01-8	Phenanthrene	U	0.00103	mg/L	0.000309	0.00103
120-12-7	Anthracene	U	0.00103	mg/L	0.000309	0.00103

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.0103	mg/L	0.00309	0.0103
206-44-0	Fluoranthene	U	0.00103	mg/L	0.000309	0.00103
129-00-0	Pyrene	U	0.00103	mg/L	0.000309	0.00103
85-68-7	Butylbenzylphthalate	U	0.0103	mg/L	0.00309	0.0103
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0103	mg/L	0.00309	0.0103
56-55-3	Benzo(a)anthracene	U	0.00103	mg/L	0.000309	0.00103
218-01-9	Chrysene	U	0.00103	mg/L	0.000309	0.00103
117-84-0	Di-n-octylphthalate	U	0.0103	mg/L	0.00309	0.0103
205-99-2	Benzo(b)fluoranthene	U	0.00103	mg/L	0.000309	0.00103
207-08-9	Benzo(k)fluoranthene	U	0.00103	mg/L	0.000309	0.00103
50-32-8	Benzo(a)pyrene	U	0.00103	mg/L	0.000309	0.00103
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00103	mg/L	0.000309	0.00103
53-70-3	Dibenzo(a,h)anthracene	U	0.00103	mg/L	0.000309	0.00103
191-24-2	Benzo(ghi)perylene	U	0.00103	mg/L	0.000309	0.00103
92-87-5	Benzidine	U	0.0103	mg/L	0.00309	0.0103
91-94-1	3,3'-Dichlorobenzidine	U	0.0103	mg/L	0.00309	0.0103
120-82-1	1,2,4-Trichlorobenzene	U	0.0103	mg/L	0.00309	0.0103

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.0912	0.103	mg/L	88.5	(33%-126%)
2-Fluorobiphenyl	0.0391	0.0515	mg/L	75.8	(37%-102%)
2-Fluorophenol	0.0488	0.103	mg/L	47.3	(14%-78%)
Nitrobenzene-d5	0.044	0.0515	mg/L	85.4	(40%-117%)
Phenol-d5	0.031	0.103	mg/L	30.1	(14%-80%)
p-Terphenyl-d14	0.0442	0.0515	mg/L	85.8	(44%-134%)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0125	mg/L	0.00375	0.0125
108-95-2	Phenol	U	0.0125	mg/L	0.00375	0.0125
111-44-4	bis(2-Chloroethyl) ether	U	0.0125	mg/L	0.00375	0.0125
95-57-8	2-Chlorophenol	U	0.0125	mg/L	0.00375	0.0125
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0125	mg/L	0.00375	0.0125
621-64-7	N-Nitrosodi--n-propylamine	U	0.0125	mg/L	0.00375	0.0125
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.0125	mg/L	0.00375	0.0125
98-95-3	Nitrobenzene	U	0.0125	mg/L	0.00375	0.0125
78-59-1	Isophorone	U	0.0125	mg/L	0.00375	0.0125
88-75-5	2-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125
105-67-9	2,4-Dimethylphenol	U	0.0125	mg/L	0.00375	0.0125
111-91-1	bis(2-Chloroethoxy)methane	U	0.0125	mg/L	0.00375	0.0125
120-83-2	2,4-Dichlorophenol	U	0.0125	mg/L	0.00375	0.0125
87-68-3	Hexachlorobutadiene	U	0.0125	mg/L	0.00375	0.0125
59-50-7	Parachlorometa cresol	U	0.0125	mg/L	0.00375	0.0125
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.00125	mg/L	0.000375	0.00125
77-47-4	Hexachlorocyclopentadiene	U	0.0125	mg/L	0.00375	0.0125
88-06-2	2,4,6-Trichlorophenol	U	0.0125	mg/L	0.00375	0.0125
91-58-7	2-Chloronaphthalene	U	0.00125	mg/L	0.000375	0.00125
131-11-3	Dimethylphthalate	U	0.0125	mg/L	0.00375	0.0125
606-20-2	2,6-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125
121-14-2	2,4-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125
208-96-8	Acenaphthylene	U	0.00125	mg/L	0.000375	0.00125
83-32-9	Acenaphthene	U	0.00125	mg/L	0.000375	0.00125
51-28-5	2,4-Dinitrophenol	U	0.025	mg/L	0.00625	0.025
84-66-2	Diethylphthalate	U	0.0125	mg/L	0.00375	0.0125
100-02-7	4-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125
86-73-7	Fluorene	U	0.00125	mg/L	0.000375	0.00125
7005-72-3	4-Chlorophenylphenylether	U	0.0125	mg/L	0.00375	0.0125
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0125	mg/L	0.00375	0.0125
122-39-4	Diphenylamine	U	0.0125	mg/L	0.00375	0.0125
122-66-7	Azobenzene	U	0.0125	mg/L	0.00375	0.0125
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.0125	mg/L	0.00375	0.0125
118-74-1	Hexachlorobenzene	U	0.0125	mg/L	0.00375	0.0125
87-86-5	Pentachlorophenol	U	0.0125	mg/L	0.00375	0.0125
85-01-8	Phenanthrene	U	0.00125	mg/L	0.000375	0.00125
120-12-7	Anthracene	U	0.00125	mg/L	0.000375	0.00125

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.0125	mg/L	0.00375	0.0125
206-44-0	Fluoranthene	U	0.00125	mg/L	0.000375	0.00125
129-00-0	Pyrene	U	0.00125	mg/L	0.000375	0.00125
85-68-7	Butylbenzylphthalate	U	0.0125	mg/L	0.00375	0.0125
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0125	mg/L	0.00375	0.0125
56-55-3	Benzo(a)anthracene	U	0.00125	mg/L	0.000375	0.00125
218-01-9	Chrysene	U	0.00125	mg/L	0.000375	0.00125
117-84-0	Di-n-octylphthalate	U	0.0125	mg/L	0.00375	0.0125
205-99-2	Benzo(b)fluoranthene	U	0.00125	mg/L	0.000375	0.00125
207-08-9	Benzo(k)fluoranthene	U	0.00125	mg/L	0.000375	0.00125
50-32-8	Benzo(a)pyrene	U	0.00125	mg/L	0.000375	0.00125
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00125	mg/L	0.000375	0.00125
53-70-3	Dibenzo(a,h)anthracene	U	0.00125	mg/L	0.000375	0.00125
191-24-2	Benzo(ghi)perylene	U	0.00125	mg/L	0.000375	0.00125
92-87-5	Benzidine	U	0.0125	mg/L	0.00375	0.0125
91-94-1	3,3'-Dichlorobenzidine	U	0.0125	mg/L	0.00375	0.0125
120-82-1	1,2,4-Trichlorobenzene	U	0.0125	mg/L	0.00375	0.0125

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.090	0.125	mg/L	72.0	(33%-126%)
2-Fluorobiphenyl	0.0418	0.0625	mg/L	66.9	(37%-102%)
2-Fluorophenol	0.0542	0.125	mg/L	43.4	(14%-78%)
Nitrobenzene-d5	0.048	0.0625	mg/L	76.8	(40%-117%)
Phenol-d5	0.0232	0.125	mg/L	18.6	(14%-80%)
p-Terphenyl-d14	0.0508	0.0625	mg/L	81.3	(44%-134%)

Quality Control Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 11-3386

Matrix Type: LIQUID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202479916	MB for batch 1138551	42	27	81	69	52	90
1202479917	LCS for batch 1138551	49	31	80	74	89	79
1202479918	NPDES03A199-11-13860MS	49	37	78	68	78	76
1202479919	NPDES03A199-11-13860MSD	51	40	82	67	79	77
285124004	NPDES03A113-11-13857	47	30	85	76	88	86
285124007	NPDES13S-11-26856	43	19	77	67	72	81
285124001	NPDES03A199-11-13860	33	15	99	88	101	107

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(14%-78%)
PHL	=	Phenol-d5	(14%-80%)
NBZ	=	Nitrobenzene-d5	(40%-117%)
FBP	=	2-Fluorobiphenyl	(37%-102%)
TBP	=	2,4,6-Tribromophenol	(33%-126%)
TPH	=	p-Terphenyl-d14	(44%-134%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138551**
Lab Sample ID: **1202479917**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 16:10**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	0.050	0.0	0.0254	51	31-86
108-95-2	LCS	Phenol	0.050	0.0	0.0168	34	15-103
111-44-4	LCS	bis(2-Chloroethyl) ether	0.050	0.0	0.0359	72	45-103
95-57-8	LCS	2-Chlorophenol	0.050	0.0	0.0368	74	49-98
39638-32-9	LCS	bis(2-Chloroisopropyl)ether	0.050	0.0	0.0372	74	42-116
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	0.050	0.0	0.0392	78	50-114
67-72-1	LCS	Hexachloroethane	0.050	0.0	0.0276	55	33-89
98-95-3	LCS	Nitrobenzene	0.050	0.0	0.040	80	48-115
78-59-1	LCS	Isophorone	0.050	0.0	0.0411	82	55-114
88-75-5	LCS	2-Nitrophenol	0.050	0.0	0.0386	77	53-105
105-67-9	LCS	2,4-Dimethylphenol	0.050	0.0	0.0382	76	44-94
111-91-1	LCS	bis(2-Chloroethoxy)methane	0.050	0.0	0.0392	78	53-109
120-83-2	LCS	2,4-Dichlorophenol	0.050	0.0	0.0391	78	54-102
87-68-3	LCS	Hexachlorobutadiene	0.050	0.0	0.0297	59	31-98
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	0.050	0.0	0.0416	83	55-107
91-20-3	LCS	Naphthalene	0.050	0.0	0.0341	68	41-92
77-47-4	LCS	Hexachlorocyclopentadiene	0.050	0.0	0.031	62	34-91
88-06-2	LCS	2,4,6-Trichlorophenol	0.050	0.0	0.0391	78	52-106
91-58-7	LCS	2-Chloronaphthalene	0.050	0.0	0.0355	71	46-96
131-11-3	LCS	Dimethylphthalate	0.050	0.0	0.0426	85	64-115
606-20-2	LCS	2,6-Dinitrotoluene	0.050	0.0	0.0401	80	64-111
121-14-2	LCS	2,4-Dinitrotoluene	0.050	0.0	0.040	80	58-118

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138551**
Lab Sample ID: **1202479917**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 16:10**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
208-96-8	LCS	Acenaphthylene	0.050	0.0	0.0377	75	52-102
83-32-9	LCS	Acenaphthene	0.050	0.0	0.037	74	50-96
51-28-5	LCS	2,4-Dinitrophenol	0.050	0.0	0.0398	80	32-136
84-66-2	LCS	Diethylphthalate	0.050	0.0	0.0424	85	63-117
100-02-7	LCS	4-Nitrophenol	0.050	0.0	0.0155	31	15-103
86-73-7	LCS	Fluorene	0.050	0.0	0.0379	76	54-103
7005-72-3	LCS	4-Chlorophenylphenylether	0.050	0.0	0.0379	76	53-106
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	0.050	0.0	0.0444	89	48-124
122-39-4	LCS	Diphenylamine	0.050	0.0	0.0386	77	60-108
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	0.050	0.0	0.0393	79	51-115
101-55-3	LCS	4-Bromophenylphenylether	0.050	0.0	0.0379	76	56-109
118-74-1	LCS	Hexachlorobenzene	0.050	0.0	0.0386	77	56-113
87-86-5	LCS	Pentachlorophenol	0.050	0.0	0.0411	82	40-107
85-01-8	LCS	Phenanthrene	0.050	0.0	0.0392	78	61-105
120-12-7	LCS	Anthracene	0.050	0.0	0.0384	77	58-107
84-74-2	LCS	Di-n-butylphthalate	0.050	0.0	0.0417	83	62-120
206-44-0	LCS	Fluoranthene	0.050	0.0	0.0405	81	59-111
129-00-0	LCS	Pyrene	0.050	0.0	0.0348	70	53-113
85-68-7	LCS	Butylbenzylphthalate	0.050	0.0	0.0371	74	57-122
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	0.050	0.0	0.0379	76	53-128
56-55-3	LCS	Benzo(a)anthracene	0.050	0.0	0.038	76	62-104
218-01-9	LCS	Chrysene	0.050	0.0	0.0384	77	62-105

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138551**
Lab Sample ID: **1202479917**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 16:10**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L	Spike Conc. mg/L	Recovery %	Acceptance Limits
117-84-0	LCS	Di-n-octylphthalate	0.050	0.0	0.040	80	36-140
205-99-2	LCS	Benzo(b)fluoranthene	0.050	0.0	0.0377	75	58-110
207-08-9	LCS	Benzo(k)fluoranthene	0.050	0.0	0.038	76	61-113
50-32-8	LCS	Benzo(a)pyrene	0.050	0.0	0.0368	74	63-111
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	0.050	0.0	0.0438	88	50-129
53-70-3	LCS	Dibenzo(a,h)anthracene	0.050	0.0	0.0453	91	51-130
191-24-2	LCS	Benzo(ghi)perylene	0.050	0.0	0.0417	83	44-132
92-87-5	LCS	Benzidine	0.100	0.0	0.0541	54	17-136
91-94-1	LCS	3,3'-Dichlorobenzidine	0.050	0.0	0.0409	82	40-115
120-82-1	LCS	1,2,4-Trichlorobenzene	0.050	0.0	0.031	62	37-89

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MS**
Lab Sample ID: **1202479918**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:04**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	0.125	0.00	U	0.0735	59	34-97
108-95-2	MS	Phenol	0.125	0.00	U	0.0589	47	31-137
111-44-4	MS	bis(2-Chloroethyl) ether	0.125	0.00	U	0.0789	63	43-105
95-57-8	MS	2-Chlorophenol	0.125	0.00	U	0.0797	64	43-106
39638-32-9	MS	bis(2-Chloroisopropyl)ether	0.125	0.00	U	0.0814	65	39-118
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	0.125	0.00	U	0.0871	70	45-120
67-72-1	MS	Hexachloroethane	0.125	0.00	U	0.0601	48	40-82
98-95-3	MS	Nitrobenzene	0.125	0.00	U	0.0948	76	39-127
78-59-1	MS	Isophorone	0.125	0.00	U	0.104	83	48-120
88-75-5	MS	2-Nitrophenol	0.125	0.00	U	0.0959	77	48-110
105-67-9	MS	2,4-Dimethylphenol	0.125	0.00	U	0.0948	76	41-100
111-91-1	MS	bis(2-Chloroethoxy)methane	0.125	0.00	U	0.0932	75	49-112
120-83-2	MS	2,4-Dichlorophenol	0.125	0.00	U	0.0934	75	45-112
87-68-3	MS	Hexachlorobutadiene	0.125	0.00	U	0.0718	57	38-91
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	0.125	0.00	U	0.0957	77	47-117
91-20-3	MS	Naphthalene	0.125	0.00	U	0.0843	67	35-101
77-47-4	MS	Hexachlorocyclopentadiene	0.125	0.00	U	0.082	66	31-95
88-06-2	MS	2,4,6-Trichlorophenol	0.125	0.00	U	0.0886	71	45-107
91-58-7	MS	2-Chloronaphthalene	0.125	0.00	U	0.0802	64	43-103
131-11-3	MS	Dimethylphthalate	0.125	0.00	U	0.0951	76	57-118
606-20-2	MS	2,6-Dinitrotoluene	0.125	0.00	U	0.0898	72	57-113
121-14-2	MS	2,4-Dinitrotoluene	0.125	0.00	U	0.0885	71	52-117

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MS**
Lab Sample ID: **1202479918**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:04**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
208-96-8	MS	Acenaphthylene	0.125	0.00	U	0.0819	66	45-109
83-32-9	MS	Acenaphthene	0.125	0.00	U	0.0837	67	45-103
51-28-5	MS	2,4-Dinitrophenol	0.125	0.00	U	0.105	84	26-138
84-66-2	MS	Diethylphthalate	0.125	0.00	U	0.096	77	55-120
100-02-7	MS	4-Nitrophenol	0.125	0.00	U	0.0587	47	39-96
86-73-7	MS	Fluorene	0.125	0.00	U	0.0842	67	48-109
7005-72-3	MS	4-Chlorophenylphenylether	0.125	0.00	U	0.0856	69	51-108
534-52-1	MS	2-Methyl-4,6-dinitrophenol	0.125	0.00	U	0.105	84	39-126
122-39-4	MS	Diphenylamine	0.125	0.00	U	0.0427	34 *	54-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	0.125	0.00	U	0.0878	70	49-116
101-55-3	MS	4-Bromophenylphenylether	0.125	0.00	U	0.0823	66	53-111
118-74-1	MS	Hexachlorobenzene	0.125	0.00	U	0.0849	68	51-115
87-86-5	MS	Pentachlorophenol	0.125	0.00	U	0.0978	78	35-116
85-01-8	MS	Phenanthrene	0.125	0.00	U	0.0857	69	50-115
120-12-7	MS	Anthracene	0.125	0.00	U	0.0843	67	49-115
84-74-2	MS	Di-n-butylphthalate	0.125	0.00	U	0.0912	73	54-123
206-44-0	MS	Fluoranthene	0.125	0.00	U	0.0847	68	50-116
129-00-0	MS	Pyrene	0.125	0.00	U	0.0857	69	42-125
85-68-7	MS	Butylbenzylphthalate	0.125	0.00	U	0.0834	67	49-128
117-81-7	MS	bis(2-Ethylhexyl)phthalate	0.125	0.00	U	0.0784	63	44-135
56-55-3	MS	Benzo(a)anthracene	0.125	0.00	U	0.0819	66	48-116
218-01-9	MS	Chrysene	0.125	0.00	U	0.0825	66	52-113

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MS**
Lab Sample ID: **1202479918**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:04**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits
117-84-0	MS	Di-n-octylphthalate	0.125	0.00	U	0.0748	60	32-144
205-99-2	MS	Benzo(b)fluoranthene	0.125	0.00	U	0.0801	64	50-114
207-08-9	MS	Benzo(k)fluoranthene	0.125	0.00	U	0.0814	65	52-118
50-32-8	MS	Benzo(a)pyrene	0.125	0.00	U	0.0782	63	54-116
193-39-5	MS	Indeno(1,2,3-cd)pyrene	0.125	0.00	U	0.0836	67	42-130
53-70-3	MS	Dibenzo(a,h)anthracene	0.125	0.00	U	0.0863	69	44-131
191-24-2	MS	Benzo(ghi)perylene	0.125	0.00	U	0.0801	64	38-131
92-87-5	MS	Benzidine	0.250	0.00	U	0.0166	7 *	13-131
91-94-1	MS	3,3'-Dichlorobenzidine	0.125	0.00	U	0.0486	39	38-111
120-82-1	MS	1,2,4-Trichlorobenzene	0.125	0.00	U	0.0726	58	37-91

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MSD**
Lab Sample ID: **1202479919**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:32**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	0.125	0.00	U	0.0778	62	34-97	6	0-27
108-95-2	MSD	Phenol	0.125	0.00	U	0.0644	52	31-137	9	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	0.125	0.00	U	0.0866	69	43-105	9	0-25
95-57-8	MSD	2-Chlorophenol	0.125	0.00	U	0.0858	69	43-106	7	0-25
39638-32-9	MSD	bis(2-Chloroisopropyl)ether	0.125	0.00	U	0.0861	69	39-118	6	0-29
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	0.125	0.00	U	0.0953	76	45-120	9	0-28
67-72-1	MSD	Hexachloroethane	0.125	0.00	U	0.0608	49	40-82	1	0-25
98-95-3	MSD	Nitrobenzene	0.125	0.00	U	0.102	81	39-127	7	0-27
78-59-1	MSD	Isophorone	0.125	0.00	U	0.110	88	48-120	5	0-26
88-75-5	MSD	2-Nitrophenol	0.125	0.00	U	0.0985	79	48-110	3	0-25
105-67-9	MSD	2,4-Dimethylphenol	0.125	0.00	U	0.105	84	41-100	11	0-25
111-91-1	MSD	bis(2-Chloroethoxy)methane	0.125	0.00	U	0.0971	78	49-112	4	0-25
120-83-2	MSD	2,4-Dichlorophenol	0.125	0.00	U	0.101	81	45-112	8	0-25
87-68-3	MSD	Hexachlorobutadiene	0.125	0.00	U	0.0751	60	38-91	4	0-26
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	0.125	0.00	U	0.102	82	47-117	7	0-25
91-20-3	MSD	Naphthalene	0.125	0.00	U	0.0878	70	35-101	4	0-28
77-47-4	MSD	Hexachlorocyclopentadiene	0.125	0.00	U	0.0865	69	31-95	5	0-25
88-06-2	MSD	2,4,6-Trichlorophenol	0.125	0.00	U	0.0925	74	45-107	4	0-25
91-58-7	MSD	2-Chloronaphthalene	0.125	0.00	U	0.0806	64	43-103	0	0-27
131-11-3	MSD	Dimethylphthalate	0.125	0.00	U	0.0995	80	57-118	5	0-23
606-20-2	MSD	2,6-Dinitrotoluene	0.125	0.00	U	0.0937	75	57-113	4	0-24
121-14-2	MSD	2,4-Dinitrotoluene	0.125	0.00	U	0.0935	75	52-117	6	0-23

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MSD**
Lab Sample ID: **1202479919**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:32**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
208-96-8	MSD	Acenaphthylene	0.125	0.00	U	0.0833	67	45-109	2	0-26
83-32-9	MSD	Acenaphthene	0.125	0.00	U	0.086	69	45-103	3	0-29
51-28-5	MSD	2,4-Dinitrophenol	0.125	0.00	U	0.110	88	26-138	4	0-25
84-66-2	MSD	Diethylphthalate	0.125	0.00	U	0.0985	79	55-120	3	0-25
100-02-7	MSD	4-Nitrophenol	0.125	0.00	U	0.0648	52	39-96	10	0-25
86-73-7	MSD	Fluorene	0.125	0.00	U	0.0856	68	48-109	2	0-26
7005-72-3	MSD	4-Chlorophenylphenylether	0.125	0.00	U	0.0852	68	51-108	0	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	0.125	0.00	U	0.115	92	39-126	8	0-25
122-39-4	MSD	Diphenylamine	0.125	0.00	U	0.0431	34 *	54-109	1	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	0.125	0.00	U	0.0906	72	49-116	3	0-24
101-55-3	MSD	4-Bromophenylphenylether	0.125	0.00	U	0.0862	69	53-111	5	0-25
118-74-1	MSD	Hexachlorobenzene	0.125	0.00	U	0.0896	72	51-115	5	0-25
87-86-5	MSD	Pentachlorophenol	0.125	0.00	U	0.103	83	35-116	6	0-25
85-01-8	MSD	Phenanthrene	0.125	0.00	U	0.0889	71	50-115	4	0-26
120-12-7	MSD	Anthracene	0.125	0.00	U	0.0872	70	49-115	3	0-25
84-74-2	MSD	Di-n-butylphthalate	0.125	0.00	U	0.0937	75	54-123	3	0-27
206-44-0	MSD	Fluoranthene	0.125	0.00	U	0.0893	71	50-116	5	0-29
129-00-0	MSD	Pyrene	0.125	0.00	U	0.0894	72	42-125	4	0-25
85-68-7	MSD	Butylbenzylphthalate	0.125	0.00	U	0.0864	69	49-128	4	0-27
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	0.125	0.00	U	0.0818	65	44-135	4	0-27
56-55-3	MSD	Benzo(a)anthracene	0.125	0.00	U	0.0856	69	48-116	4	0-24
218-01-9	MSD	Chrysene	0.125	0.00	U	0.0875	70	52-113	6	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MSD**
Lab Sample ID: **1202479919**
Instrument: **MSD6.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/04/2011 18:32**
Prep Batch ID: **1138551**
Batch ID: **1138552**
Dilution: 1

CAS No		Parmname	Amount Added mg/L	Sample Conc. mg/L		Spike Conc. mg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
117-84-0	MSD	Di-n-octylphthalate	0.125	0.00	U	0.0811	65	32-144	8	0-29
205-99-2	MSD	Benzo(b)fluoranthene	0.125	0.00	U	0.0866	69	50-114	8	0-25
207-08-9	MSD	Benzo(k)fluoranthene	0.125	0.00	U	0.0842	67	52-118	3	0-28
50-32-8	MSD	Benzo(a)pyrene	0.125	0.00	U	0.0832	67	54-116	6	0-26
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	0.125	0.00	U	0.093	74	42-130	11	0-25
53-70-3	MSD	Dibenzo(a,h)anthracene	0.125	0.00	U	0.098	78	44-131	13	0-25
191-24-2	MSD	Benzo(ghi)perylene	0.125	0.00	U	0.090	72	38-131	12	0-37
92-87-5	MSD	Benzidine	0.250	0.00	U	0.0201	8 *	13-131	19	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	0.125	0.00	U	0.0544	44	38-111	11	0-25
120-82-1	MSD	1,2,4-Trichlorobenzene	0.125	0.00	U	0.078	62	37-91	7	0-27

Method Blank Summary

SDG Number:	**11-3386**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1138551**	**Instrument ID:**	**MSD6.I**	**Data File:**	**s090411.B\s6i0406.D**
Lab Sample ID:	**1202479916**	**Prep Date:**	**09/02/2011 16:50**	**Analyzed:**	**09/04/11 15:41**
Column:	**DB-5ms**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 1138551	1202479917	s090411.B\s6i0407.D	09/04/11	1610
02	NPDES03A199-11-13860MS	1202479918	s090411.B\s6i0411.D	09/04/11	1804
03	NPDES03A199-11-13860MSD	1202479919	s090411.B\s6i0412.D	09/04/11	1832
04	NPDES03A113-11-13857	285124004	s090411.B\s6i0413.D	09/04/11	1901
05	NPDES13S-11-26856	285124007	s090411.B\s6i0414.D	09/04/11	1929
06	NPDES03A199-11-13860	285124001	s090611.B\s6i0606.D	09/06/11	1345

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: MSD6.I **Injection Date/Time:** 01-SEP-11 09:58

Column Description: DB-5ms **Lab File ID** s090111.B\s6i0101.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	57.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	49.5
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	24.6
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	67.9
442	Greater than 40% of mass 198	80.8
443	17 - 23% of mass 442	21.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN110812-07	s090111.B\s6i0104.D	01-SEP-11 11:20
ICALMIX[A]	WBN110812-06	s090111.B\s6i0105.D	01-SEP-11 11:55
ICALMIX[A]	WBN110812-05.1	s090111.B\s6i0106.D	01-SEP-11 12:29
ICALMIX[A]	WBN110812-08	s090111.B\s6i0107.D	01-SEP-11 13:03
ICALMIX[A]	WBN110812-04	s090111.B\s6i0108.D	01-SEP-11 13:37
ICALMIX[A]	WBN110812-03	s090111.B\s6i0109.D	01-SEP-11 14:11
ICALMIX[A]	WBN110812-02	s090111.B\s6i0110.D	01-SEP-11 14:44
ICALMIX[A]	WBN110812-01	s090111.B\s6i0111.D	01-SEP-11 15:18
ICVMIX[A]01	WBN110812-09.1	s090111.B\s6i0112.D	01-SEP-11 15:52
ICALMIX[B]	WBN110825-17	s090111.B\s6i0113.D	01-SEP-11 16:27
ICALMIX[B]	WBN110825-16	s090111.B\s6i0114.D	01-SEP-11 16:55
ICALMIX[B]	WBN110825-15.1	s090111.B\s6i0115.D	01-SEP-11 17:24
ICALMIX[B]	WBN110825-14	s090111.B\s6i0116.D	01-SEP-11 17:53
ICALMIX[B]	WBN110825-13	s090111.B\s6i0117.D	01-SEP-11 18:22
ICALMIX[B]	WBN110825-12	s090111.B\s6i0118.D	01-SEP-11 18:50
ICALMIX[B]	WBN110825-11	s090111.B\s6i0119.D	01-SEP-11 19:20

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: MSD6.I **Injection Date/Time:** 01-SEP-11 09:58

Column Description: DB-5ms **Lab File ID** s090111.B\s6i0101.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	57.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	49.5
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	24.6
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	67.9
442	Greater than 40% of mass 198	80.8
443	17 - 23% of mass 442	21.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[B]02	WBN110825-18.1	s090111.B\s6i0120.D	01-SEP-11 19:47

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: MSD6.I **Injection Date/Time:** 04-SEP-11 13:53

Column Description: DB-5ms **Lab File ID** s090411.B\s6i0402.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	57.7
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	50.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.2
197	0 - 1% of mass 198	0.7
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.4
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	68
442	Greater than 40% of mass 198	81.3
443	17 - 23% of mass 442	22.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[B]01	WBN110825-15.4	s090411.B\s6i0404.D	04-SEP-11 14:41
CCVMIX[A]02	WBN110812-05.4	s090411.B\s6i0405.D	04-SEP-11 15:09
BLK01	1202479916	s090411.B\s6i0406.D	04-SEP-11 15:41
BLK01LCS	1202479917	s090411.B\s6i0407.D	04-SEP-11 16:10
NPDES03A199-11-13860MS	1202479918	s090411.B\s6i0411.D	04-SEP-11 18:04
NPDES03A199-11-13860MSD	1202479919	s090411.B\s6i0412.D	04-SEP-11 18:32
NPDES03A113-11-13857	285124004	s090411.B\s6i0413.D	04-SEP-11 19:01
NPDES13S-11-26856	285124007	s090411.B\s6i0414.D	04-SEP-11 19:29

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 11-3386

Instrument ID: MSD6.I **Injection Date/Time:** 06-SEP-11 11:25

Column Description: DB-5ms **Lab File ID** s090611.B\s6i0601.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	55.8
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	47.6
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.5
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	7.3
275	10 - 30% of mass 198	25.6
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	70.4
442	Greater than 40% of mass 198	86
443	17 - 23% of mass 442	21.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	WBN110812-05.3	s090611.B\s6i0602.D	06-SEP-11 11:38
CCVMIX[B]04	WBN110719-15.3	s090611.B\s6i0603.D	06-SEP-11 12:13
NPDES03A199-11-13860	285124001	s090611.B\s6i0606.D	06-SEP-11 13:45

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 11-3386

Instrument: MSD6.I

STD Analysis Time: 04-SEP-11 15:09

GC Column: DB-5ms

Data File: s090411.B\s6i0405.D

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	141346		4.99	535240		6.28	275841		8.15	432656		9.77	235379		12.9	132450		15.3
Upper Limit	282692		5.49	1070480		6.78	551682		8.65	865312		10.3	470758		13.4	264900		15.8
Lower Limit	70673		4.49	267620		5.78	137921		7.65	216328		9.27	117690		12.4	66225		14.8
Sample ID																		
BLK01	157897		4.98	538005		6.27	296368		8.15	440488		9.77	204306		12.8	106330		15.3
BLK01LCS	156956		4.99	598152		6.28	313551		8.15	502981		9.77	311980		12.9	198166		15.3
NPDES03A199-11-13860MS	156971		4.99	544255		6.28	304089		8.15	486266		9.77	255734		12.9	142721		15.3
NPDES03A199-11-13860MSD	156700		4.99	547234		6.28	313608		8.15	499398		9.77	263961		12.9	149784		15.3
NPDES03A113-11-13857	162187		4.98	562746		6.27	316624		8.15	488595		9.77	280879		12.8	160061		15.3
NPDES13S-11-26856	164659		4.98	553558		6.27	317145		8.15	478524		9.77	242278		12.8	139633		15.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 11-3386

Instrument: MSD6.I

STD Analysis Time: 06-SEP-11 11:38

GC Column: DB-5ms

Data File: s090611.B\s6i0602.D

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	144927		4.99		539001		6.28		276445		8.15		431512		9.77		224199		12.9		119677		15.3	
Upper Limit	289854		5.49		1078002		6.78		552890		8.65		863024		10.3		448398		13.4		239354		15.8	
Lower Limit	72464		4.49		269501		5.78		138223		7.65		215756		9.27		112100		12.4		59839		14.8	
Sample ID																								
NPDES03A199-11-13860	129857		4.98		454304		6.27		247330		8.15		390854		9.77		200831		12.8		93753		15.3	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0103	mg/L	0.00309	0.0103
108-95-2	Phenol	U	0.0103	mg/L	0.00309	0.0103
111-44-4	bis(2-Chloroethyl) ether	U	0.0103	mg/L	0.00309	0.0103
95-57-8	2-Chlorophenol	U	0.0103	mg/L	0.00309	0.0103
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0103	mg/L	0.00309	0.0103
621-64-7	N-Nitrosodi--n-propylamine	U	0.0103	mg/L	0.00309	0.0103
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.0103	mg/L	0.00309	0.0103
98-95-3	Nitrobenzene	U	0.0103	mg/L	0.00309	0.0103
78-59-1	Isophorone	U	0.0103	mg/L	0.00309	0.0103
88-75-5	2-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103
105-67-9	2,4-Dimethylphenol	U	0.0103	mg/L	0.00309	0.0103
111-91-1	bis(2-Chloroethoxy)methane	U	0.0103	mg/L	0.00309	0.0103
120-83-2	2,4-Dichlorophenol	U	0.0103	mg/L	0.00309	0.0103
87-68-3	Hexachlorobutadiene	U	0.0103	mg/L	0.00309	0.0103
59-50-7	Parachlorometa cresol	U	0.0103	mg/L	0.00309	0.0103
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.00103	mg/L	0.000309	0.00103
77-47-4	Hexachlorocyclopentadiene	U	0.0103	mg/L	0.00309	0.0103
88-06-2	2,4,6-Trichlorophenol	U	0.0103	mg/L	0.00309	0.0103
91-58-7	2-Chloronaphthalene	U	0.00103	mg/L	0.000309	0.00103
131-11-3	Dimethylphthalate	U	0.0103	mg/L	0.00309	0.0103
606-20-2	2,6-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103
121-14-2	2,4-Dinitrotoluene	U	0.0103	mg/L	0.00309	0.0103
208-96-8	Acenaphthylene	U	0.00103	mg/L	0.000309	0.00103
83-32-9	Acenaphthene	U	0.00103	mg/L	0.000309	0.00103
51-28-5	2,4-Dinitrophenol	U	0.0206	mg/L	0.00515	0.0206
84-66-2	Diethylphthalate	U	0.0103	mg/L	0.00309	0.0103
100-02-7	4-Nitrophenol	U	0.0103	mg/L	0.00309	0.0103
86-73-7	Fluorene	U	0.00103	mg/L	0.000309	0.00103
7005-72-3	4-Chlorophenylphenylether	U	0.0103	mg/L	0.00309	0.0103
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0103	mg/L	0.00309	0.0103
122-39-4	Diphenylamine	U	0.0103	mg/L	0.00309	0.0103
122-66-7	Azobenzene	U	0.0103	mg/L	0.00309	0.0103
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.0103	mg/L	0.00309	0.0103
118-74-1	Hexachlorobenzene	U	0.0103	mg/L	0.00309	0.0103
87-86-5	Pentachlorophenol	U	0.0103	mg/L	0.00309	0.0103
85-01-8	Phenanthrene	U	0.00103	mg/L	0.000309	0.00103
120-12-7	Anthracene	U	0.00103	mg/L	0.000309	0.00103

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124004**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**970 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0413.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.0103	mg/L	0.00309	0.0103
206-44-0	Fluoranthene	U	0.00103	mg/L	0.000309	0.00103
129-00-0	Pyrene	U	0.00103	mg/L	0.000309	0.00103
85-68-7	Butylbenzylphthalate	U	0.0103	mg/L	0.00309	0.0103
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0103	mg/L	0.00309	0.0103
56-55-3	Benzo(a)anthracene	U	0.00103	mg/L	0.000309	0.00103
218-01-9	Chrysene	U	0.00103	mg/L	0.000309	0.00103
117-84-0	Di-n-octylphthalate	U	0.0103	mg/L	0.00309	0.0103
205-99-2	Benzo(b)fluoranthene	U	0.00103	mg/L	0.000309	0.00103
207-08-9	Benzo(k)fluoranthene	U	0.00103	mg/L	0.000309	0.00103
50-32-8	Benzo(a)pyrene	U	0.00103	mg/L	0.000309	0.00103
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00103	mg/L	0.000309	0.00103
53-70-3	Dibenzo(a,h)anthracene	U	0.00103	mg/L	0.000309	0.00103
191-24-2	Benzo(ghi)perylene	U	0.00103	mg/L	0.000309	0.00103
92-87-5	Benzidine	U	0.0103	mg/L	0.00309	0.0103
91-94-1	3,3'-Dichlorobenzidine	U	0.0103	mg/L	0.00309	0.0103
120-82-1	1,2,4-Trichlorobenzene	U	0.0103	mg/L	0.00309	0.0103

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.0912	0.103	mg/L	88.5	(33%-126%)
2-Fluorobiphenyl	0.0391	0.0515	mg/L	75.8	(37%-102%)
2-Fluorophenol	0.0488	0.103	mg/L	47.3	(14%-78%)
Nitrobenzene-d5	0.044	0.0515	mg/L	85.4	(40%-117%)
Phenol-d5	0.031	0.103	mg/L	30.1	(14%-80%)
p-Terphenyl-d14	0.0442	0.0515	mg/L	85.8	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0413.D
Acq On : 04 Sep 2011 19:01
Operator : JMB3
InstName : MSD6
Sample : |285124004|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:58:44 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	162187	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	316624	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	488595	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.844	12.853	1.000	280879	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	160061	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	162187	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	316624	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	488595	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.844	12.853	1.000	280879	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	160061	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	316624	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	488595	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.844	12.853	1.000	280879	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	160061	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	162187	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	316624	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	488595	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.844	12.853	1.000	280879	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	162187	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	562746	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.844	12.853	1.000	280879	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	160061	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.760	248439	47.30	ng/uL	0.00
8) Phenol-d5	99	4.565	4.576	0.916	205140	30.06	ng/uL	-0.01
25) Nitrobenzene-d5	82	5.522	5.531	0.880	229890	42.72	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.397	7.403	0.908	389497	37.89	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.003	9.006	1.105	124161	88.46	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.894	342562	42.91	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	47.30%
8) Phenol-d5	100.000	14 - 80	30.06%
25) Nitrobenzene-d5	50.000	40 - 117	85.44%
47) 2-Fluorobiphenyl	50.000	37 - 102	75.78%
66) 2,4,6-Tribromophenol	100.000	33 - 126	88.46%
83) p-Terphenyl-d14	50.000	44 - 134	85.82%

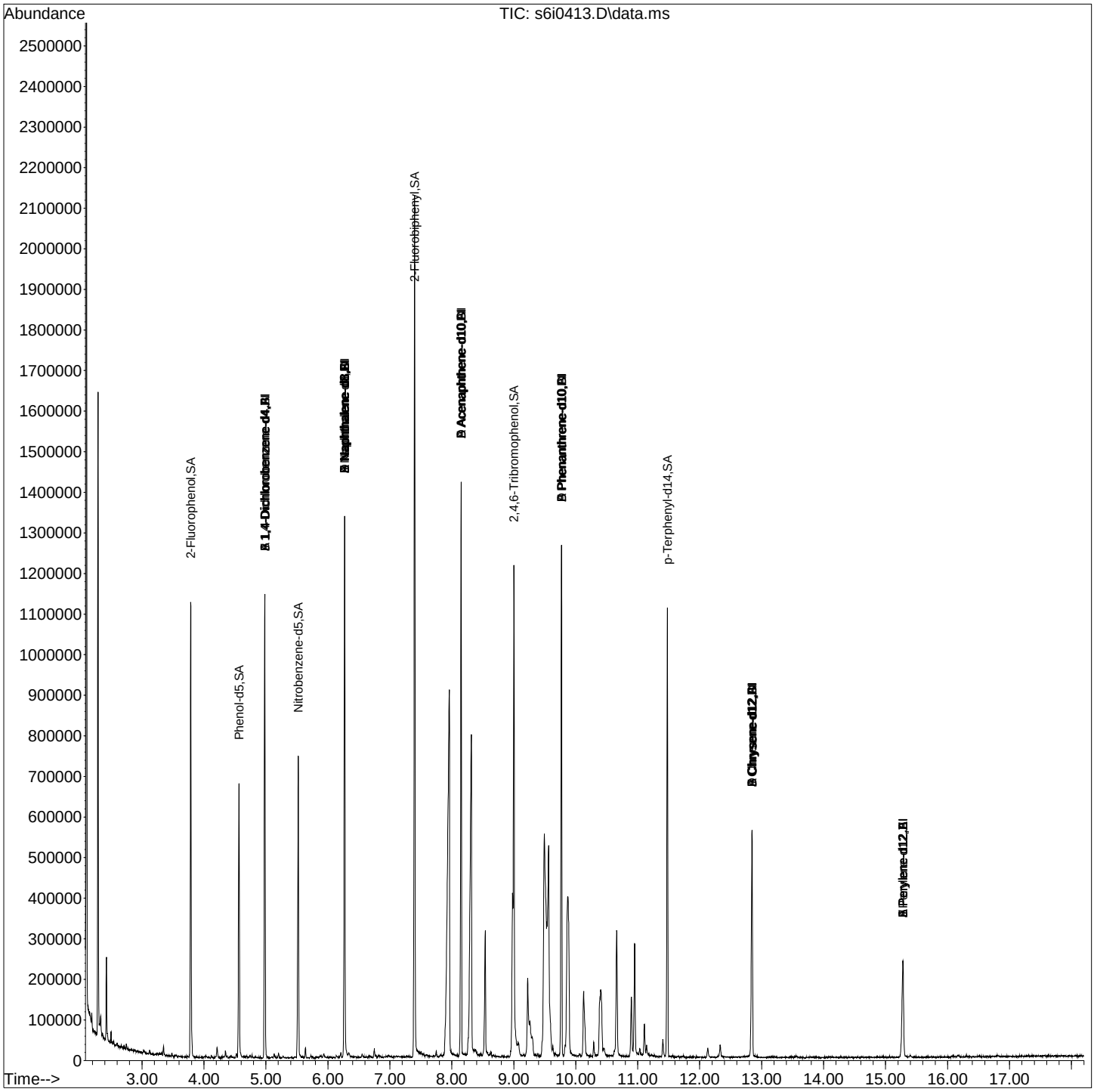
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

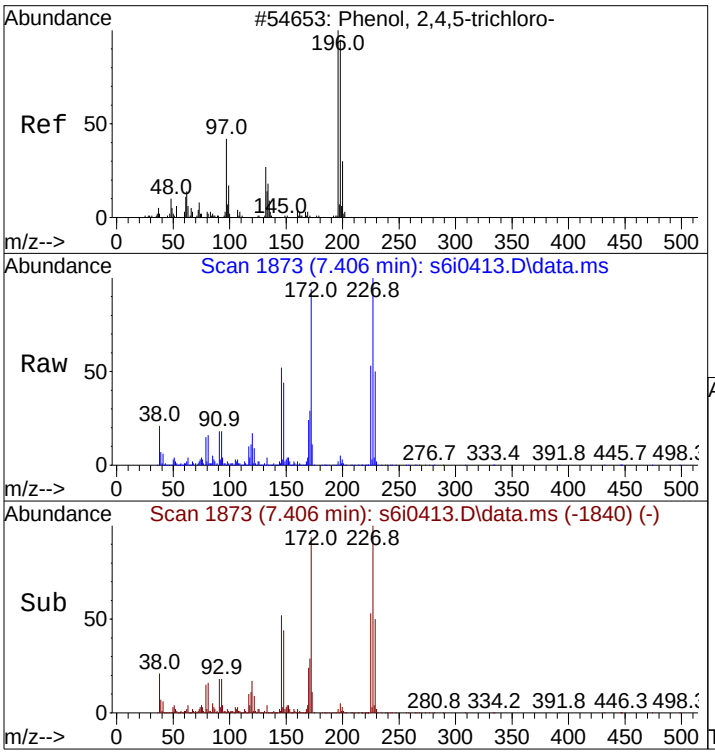
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0413.D
Acq On : 04 Sep 2011 19:01
Operator : JMB3
InstName : MSD6
Sample : |285124004|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:58:44 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

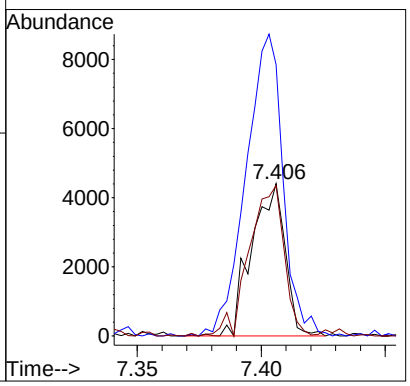


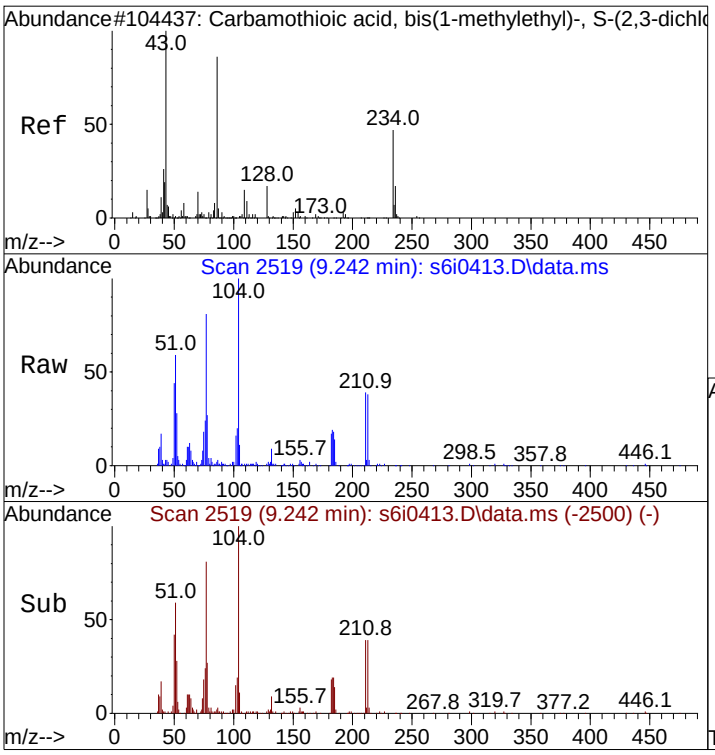


#46 BEFORE analyst DELETION
2,4,5-Trichlorophenol
Concen: 1.30 ng/uL
RT: 7.406 min Scan# 1873
Delta R.T. 0.060 min
Lab File: s6i0413.D
Acq: 04 Sep 2011 19:01

Tgt Ion:196 Resp: 4171

Ion	Ratio	Lower	Upper
196	100		
198	217.3	74.5	134.5#
200	101.6	5.1	65.1#

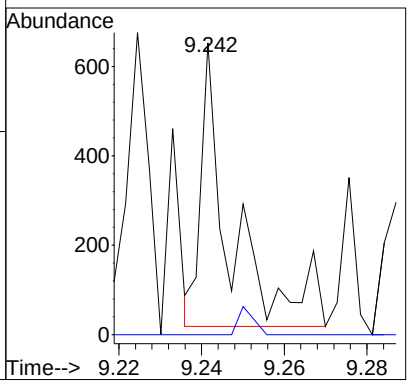


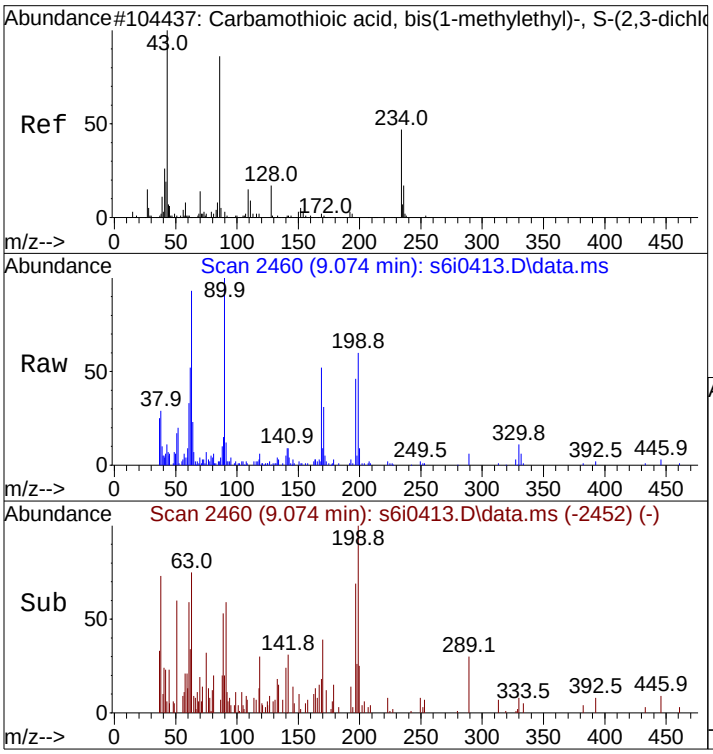


#135 BEFORE analyst DELETION
Cis Diallate
Concen: 0.06 ng/uL
RT: 9.242 min Scan# 2519
Delta R.T. -0.011 min
Lab File: s6i0413.D
Acq: 04 Sep 2011 19:01

Tgt Ion: 86 Resp: 314

Ion	Ratio	Lower	Upper
86	100		
234	0.0	19.7	79.7#

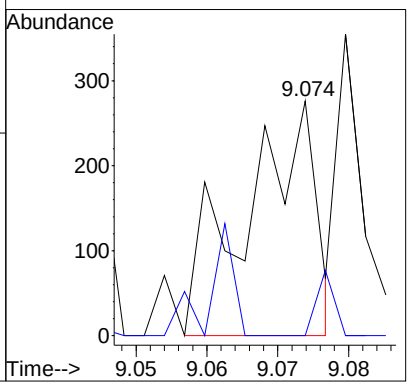


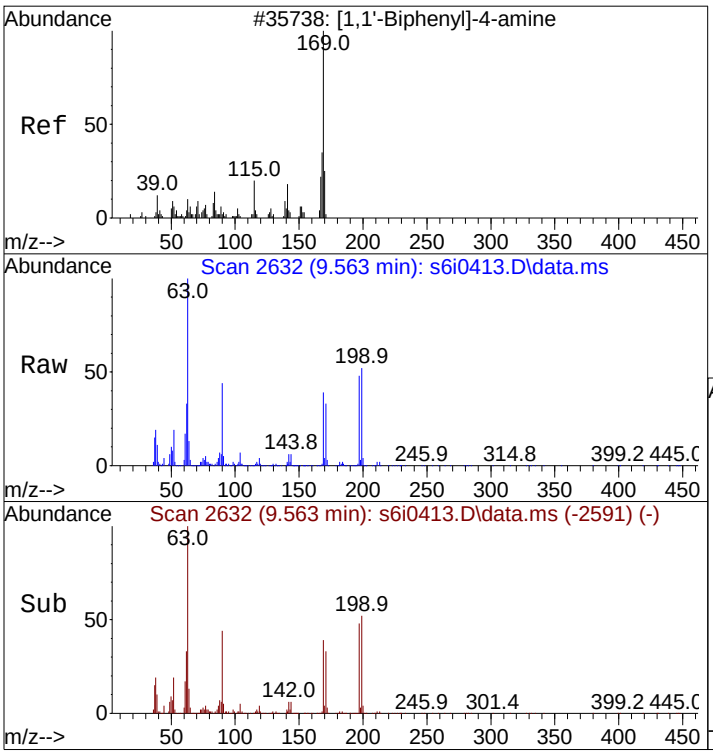


#136 BEFORE analyst DELETION
Trans Diallate
Concen: 0.04 ng/uL
RT: 9.074 min Scan# 2460
Delta R.T. -0.077 min
Lab File: s6i0413.D
Acq: 04 Sep 2011 19:01

Tgt Ion: 86 Resp: 190

Ion	Ratio	Lower	Upper
86	100		
234	0.0	13.8	73.8#

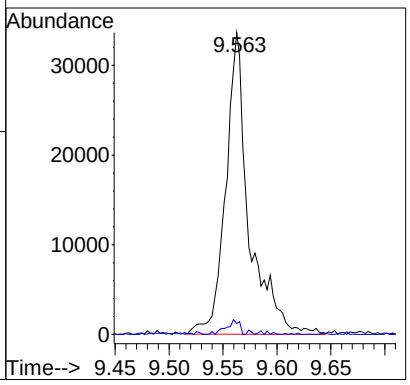




#138 BEFORE analyst DELETION
4-Aminobiphenyl
Concen: 5.96 ng/uL
RT: 9.563 min Scan# 2632
Delta R.T. 0.017 min
Lab File: s6i0413.D
Acq: 04 Sep 2011 19:01

Tgt Ion:169 Resp: 50666

Ion	Ratio	Lower	Upper
169	100		
168	2.7	0.0	52.2



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.0125	mg/L	0.00375	0.0125
108-95-2	Phenol	U	0.0125	mg/L	0.00375	0.0125
111-44-4	bis(2-Chloroethyl) ether	U	0.0125	mg/L	0.00375	0.0125
95-57-8	2-Chlorophenol	U	0.0125	mg/L	0.00375	0.0125
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.0125	mg/L	0.00375	0.0125
621-64-7	N-Nitrosodi--n-propylamine	U	0.0125	mg/L	0.00375	0.0125
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.0125	mg/L	0.00375	0.0125
98-95-3	Nitrobenzene	U	0.0125	mg/L	0.00375	0.0125
78-59-1	Isophorone	U	0.0125	mg/L	0.00375	0.0125
88-75-5	2-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125
105-67-9	2,4-Dimethylphenol	U	0.0125	mg/L	0.00375	0.0125
111-91-1	bis(2-Chloroethoxy)methane	U	0.0125	mg/L	0.00375	0.0125
120-83-2	2,4-Dichlorophenol	U	0.0125	mg/L	0.00375	0.0125
87-68-3	Hexachlorobutadiene	U	0.0125	mg/L	0.00375	0.0125
59-50-7	Parachlorometa cresol	U	0.0125	mg/L	0.00375	0.0125
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.00125	mg/L	0.000375	0.00125
77-47-4	Hexachlorocyclopentadiene	U	0.0125	mg/L	0.00375	0.0125
88-06-2	2,4,6-Trichlorophenol	U	0.0125	mg/L	0.00375	0.0125
91-58-7	2-Chloronaphthalene	U	0.00125	mg/L	0.000375	0.00125
131-11-3	Dimethylphthalate	U	0.0125	mg/L	0.00375	0.0125
606-20-2	2,6-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125
121-14-2	2,4-Dinitrotoluene	U	0.0125	mg/L	0.00375	0.0125
208-96-8	Acenaphthylene	U	0.00125	mg/L	0.000375	0.00125
83-32-9	Acenaphthene	U	0.00125	mg/L	0.000375	0.00125
51-28-5	2,4-Dinitrophenol	U	0.025	mg/L	0.00625	0.025
84-66-2	Diethylphthalate	U	0.0125	mg/L	0.00375	0.0125
100-02-7	4-Nitrophenol	U	0.0125	mg/L	0.00375	0.0125
86-73-7	Fluorene	U	0.00125	mg/L	0.000375	0.00125
7005-72-3	4-Chlorophenylphenylether	U	0.0125	mg/L	0.00375	0.0125
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.0125	mg/L	0.00375	0.0125
122-39-4	Diphenylamine	U	0.0125	mg/L	0.00375	0.0125
122-66-7	Azobenzene	U	0.0125	mg/L	0.00375	0.0125
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.0125	mg/L	0.00375	0.0125
118-74-1	Hexachlorobenzene	U	0.0125	mg/L	0.00375	0.0125
87-86-5	Pentachlorophenol	U	0.0125	mg/L	0.00375	0.0125
85-01-8	Phenanthrene	U	0.00125	mg/L	0.000375	0.00125
120-12-7	Anthracene	U	0.00125	mg/L	0.000375	0.00125

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124007**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26856**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 19:29**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0414.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.0125	mg/L	0.00375	0.0125
206-44-0	Fluoranthene	U	0.00125	mg/L	0.000375	0.00125
129-00-0	Pyrene	U	0.00125	mg/L	0.000375	0.00125
85-68-7	Butylbenzylphthalate	U	0.0125	mg/L	0.00375	0.0125
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.0125	mg/L	0.00375	0.0125
56-55-3	Benzo(a)anthracene	U	0.00125	mg/L	0.000375	0.00125
218-01-9	Chrysene	U	0.00125	mg/L	0.000375	0.00125
117-84-0	Di-n-octylphthalate	U	0.0125	mg/L	0.00375	0.0125
205-99-2	Benzo(b)fluoranthene	U	0.00125	mg/L	0.000375	0.00125
207-08-9	Benzo(k)fluoranthene	U	0.00125	mg/L	0.000375	0.00125
50-32-8	Benzo(a)pyrene	U	0.00125	mg/L	0.000375	0.00125
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.00125	mg/L	0.000375	0.00125
53-70-3	Dibenzo(a,h)anthracene	U	0.00125	mg/L	0.000375	0.00125
191-24-2	Benzo(ghi)perylene	U	0.00125	mg/L	0.000375	0.00125
92-87-5	Benzidine	U	0.0125	mg/L	0.00375	0.0125
91-94-1	3,3'-Dichlorobenzidine	U	0.0125	mg/L	0.00375	0.0125
120-82-1	1,2,4-Trichlorobenzene	U	0.0125	mg/L	0.00375	0.0125

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.090	0.125	mg/L	72.0	(33%-126%)
2-Fluorobiphenyl	0.0418	0.0625	mg/L	66.9	(37%-102%)
2-Fluorophenol	0.0542	0.125	mg/L	43.4	(14%-78%)
Nitrobenzene-d5	0.048	0.0625	mg/L	76.8	(40%-117%)
Phenol-d5	0.0232	0.125	mg/L	18.6	(14%-80%)
p-Terphenyl-d14	0.0508	0.0625	mg/L	81.3	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0414.D
Acq On : 04 Sep 2011 19:29
Operator : JMB3
InstName : MSD6
Sample : |285124007|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 06 08:59:55 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164659	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.269	6.278	1.000	553558	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	317145	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.767	9.773	1.000	478524	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.842	12.853	1.000	242278	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.274	15.285	1.000	139633	40.00	ng/uL	-0.01
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164659	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.269	6.278	1.000	553558	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	317145	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.767	9.773	1.000	478524	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.842	12.853	1.000	242278	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.274	15.285	1.000	139633	40.00	ng/uL	-0.01
156) D Naphthalene-d8	136	6.269	6.278	1.000	553558	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	317145	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.767	9.773	1.000	478524	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.842	12.853	1.000	242278	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.269	6.278	1.000	556133	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.274	15.316	1.000	139633	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164659	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.269	6.278	1.000	553558	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	317145	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.767	9.773	1.000	478524	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.842	12.853	1.000	242278	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164659	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.269	6.278	1.000	553558	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.842	12.853	1.000	242278	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.274	15.285	1.000	139633	40.00	ng/uL	-0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	231331	43.38	ng/uL	0.00
8) Phenol-d5	99	4.565	4.576	0.916	128642	18.57	ng/uL	-0.01
25) Nitrobenzene-d5	82	5.522	5.531	0.881	203160	38.38	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.397	7.403	0.908	344271	33.43	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.000	9.006	1.104	101211	71.99	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.894	279969	40.65	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	43.38%
8) Phenol-d5	100.000	14 - 80	18.57%
25) Nitrobenzene-d5	50.000	40 - 117	76.76%
47) 2-Fluorobiphenyl	50.000	37 - 102	66.86%
66) 2,4,6-Tribromophenol	100.000	33 - 126	71.99%
83) p-Terphenyl-d14	50.000	44 - 134	81.30%

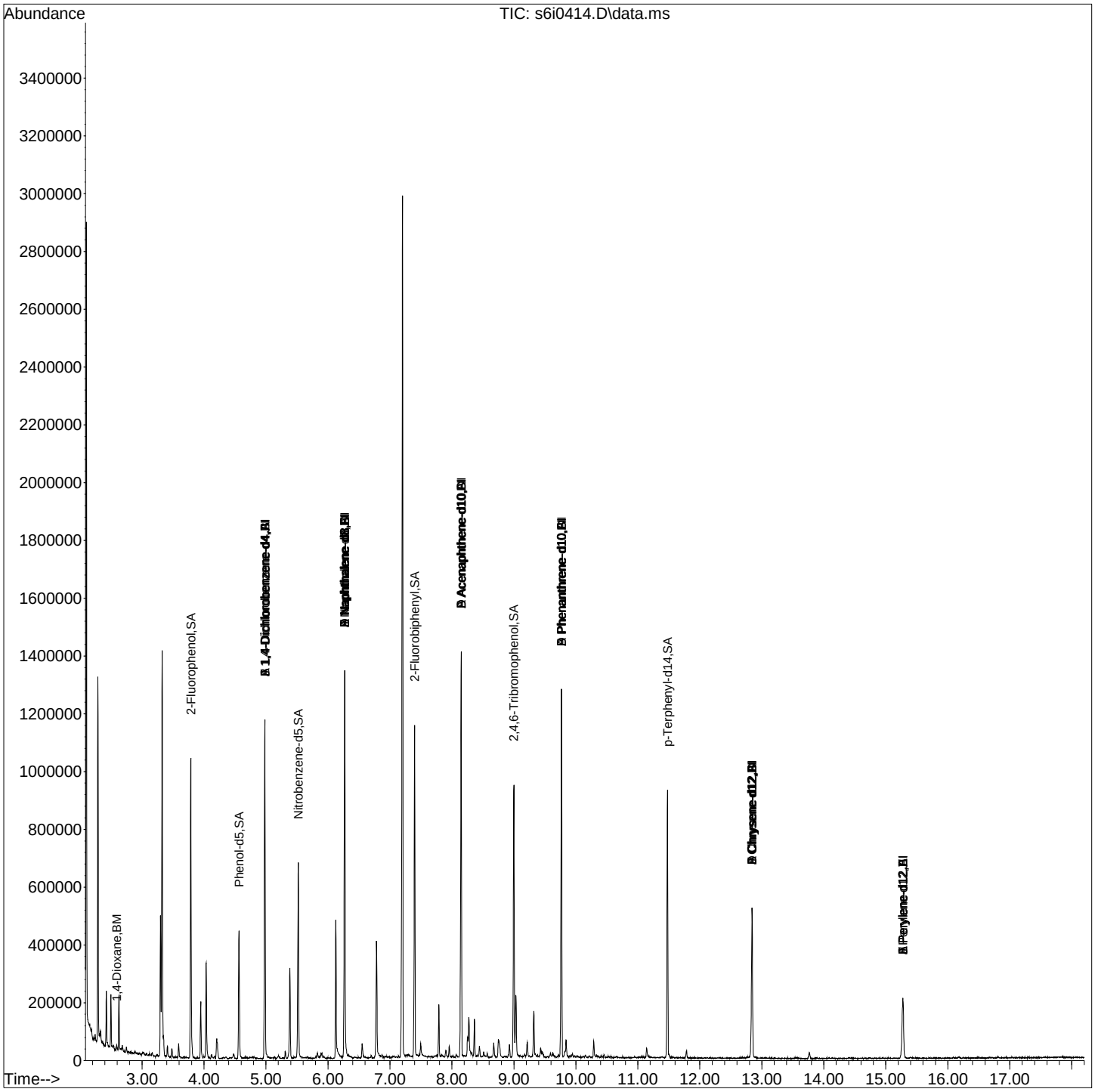
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	3467	1.45	ng/uL	84

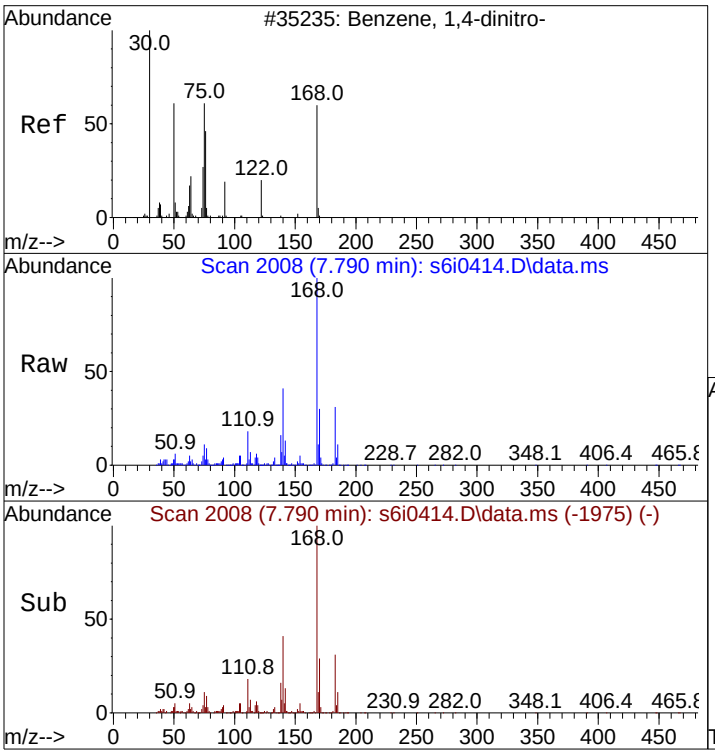
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0414.D
Acq On : 04 Sep 2011 19:29
Operator : JMB3
InstName : MSD6
Sample : |285124007|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 06 08:59:55 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

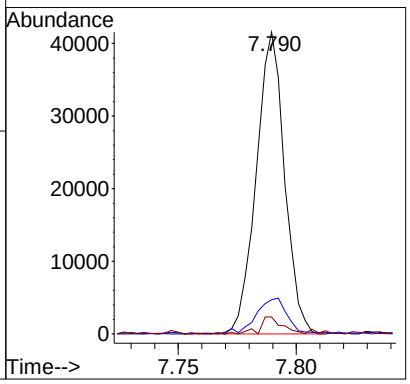


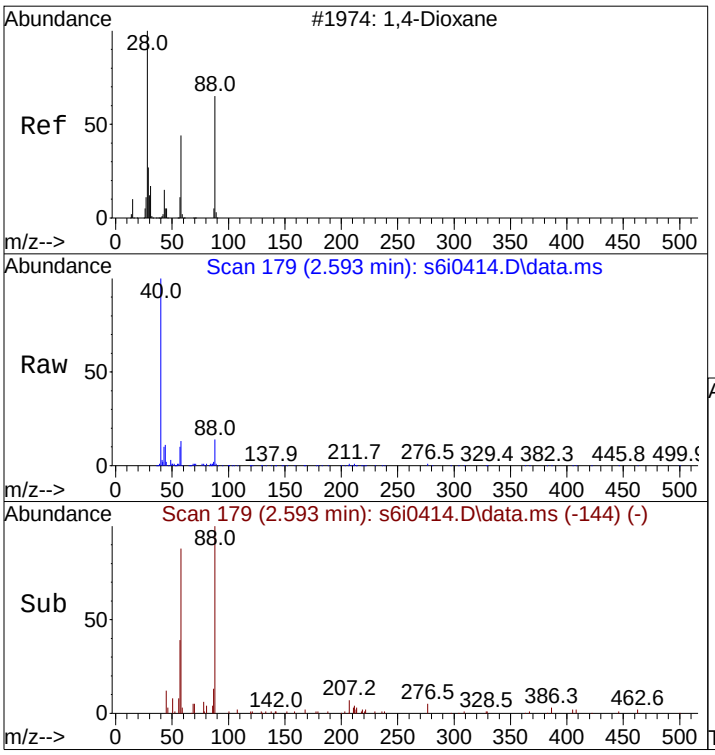


#50 BEFORE analyst DELETION
1,4-Dinitrobenzene
Concen: 21.97 ng/uL
RT: 7.790 min Scan# 2008
Delta R.T. -0.005 min
Lab File: s6i0414.D
Acq: 04 Sep 2011 19:29

Tgt Ion:168 Resp: 34789

Ion	Ratio	Lower	Upper
168	100		
75	13.5	91.9	151.9#
50	4.6	96.0	156.0#

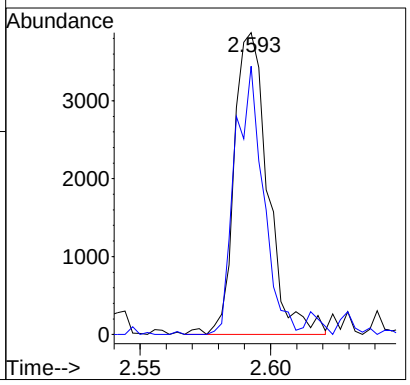


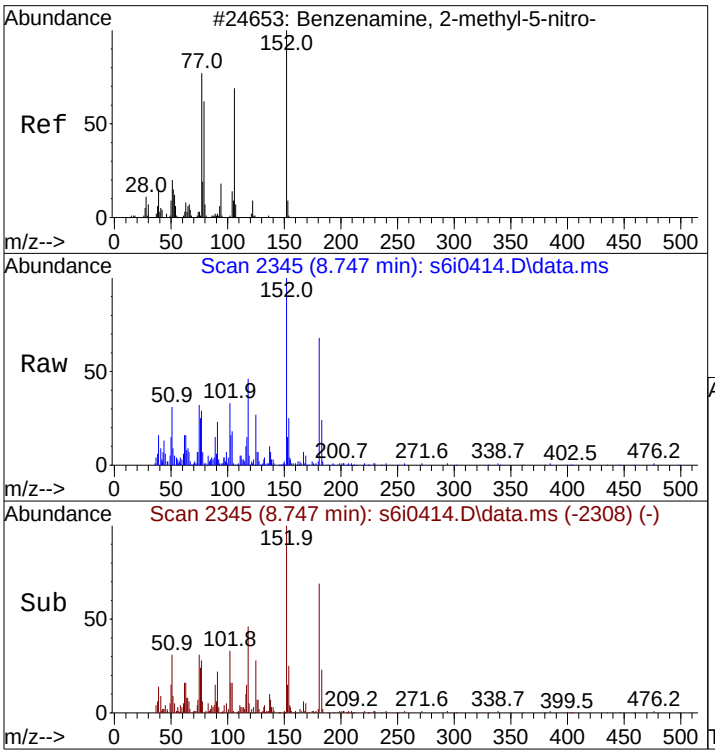


#100
1,4-Dioxane
Concen: 1.45 ng/uL
RT: 2.593 min Scan# 179
Delta R.T. -0.000 min
Lab File: s6i0414.D
Acq: 04 Sep 2011 19:29

Tgt Ion: 88 Resp: 3467

Ion	Ratio	Lower	Upper
88	100		
58	75.0	60.6	120.6

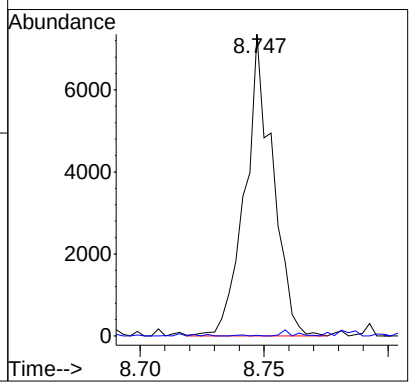


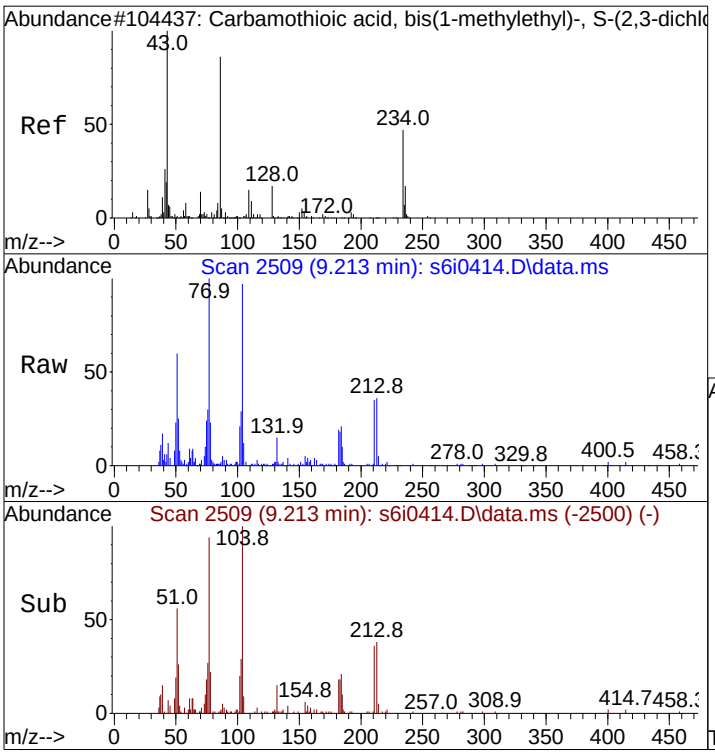


#130 BEFORE analyst DELETION
5-Nitro-o-toluidine
Concen: 2.25 ng/uL
RT: 8.747 min Scan# 2345
Delta R.T. 0.006 min
Lab File: s6i0414.D
Acq: 04 Sep 2011 19:29

Tgt Ion:152 Resp: 5707

Ion	Ratio	Lower	Upper
152	100		
106	0.0	48.6	108.6#

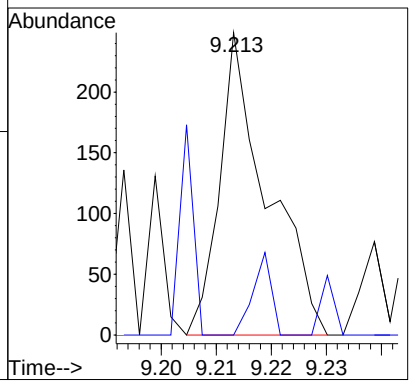


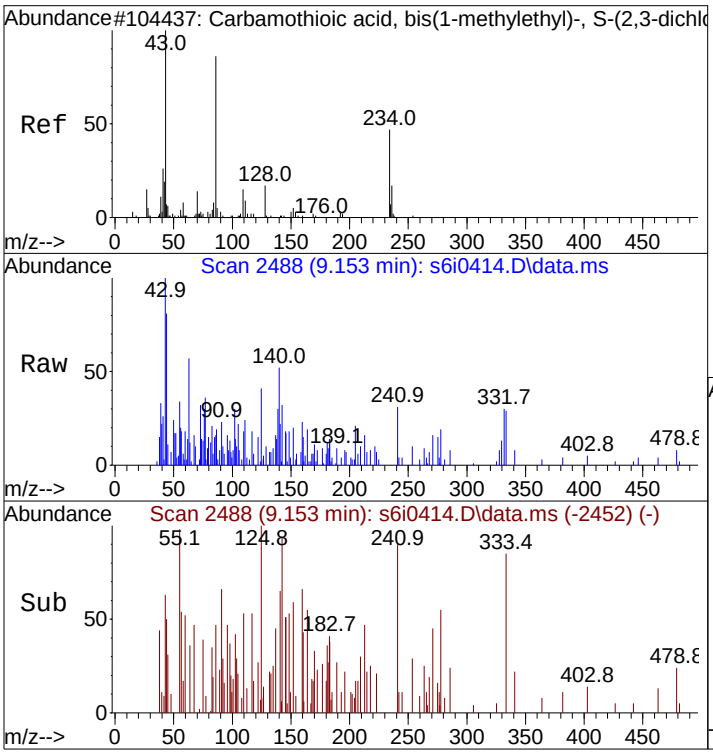


#135 BEFORE analyst DELETION
Cis Diallate
Concen: 0.03 ng/uL
RT: 9.213 min Scan# 2509
Delta R.T. -0.040 min
Lab File: s6i0414.D
Acq: 04 Sep 2011 19:29

Tgt Ion: 86 Resp: 149

Ion	Ratio	Lower	Upper
86	100		
234	0.0	19.7	79.7#

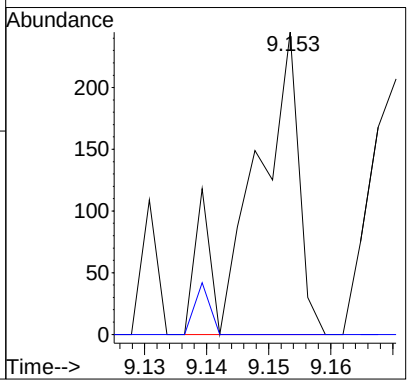




#136 BEFORE analyst DELETION
Trans Diallate
Concen: 0.03 ng/uL
RT: 9.153 min Scan# 2488
Delta R.T. 0.002 min
Lab File: s6i0414.D
Acq: 04 Sep 2011 19:29

Tgt Ion: 86 Resp: 129

Ion	Ratio	Lower	Upper
86	100		
234	0.0	13.8	73.8#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.010	mg/L	0.003	0.010
108-95-2	Phenol	U	0.010	mg/L	0.003	0.010
111-44-4	bis(2-Chloroethyl) ether	U	0.010	mg/L	0.003	0.010
95-57-8	2-Chlorophenol	U	0.010	mg/L	0.003	0.010
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.010	mg/L	0.003	0.010
621-64-7	N-Nitrosodi--n-propylamine	U	0.010	mg/L	0.003	0.010
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.010	mg/L	0.003	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
78-59-1	Isophorone	U	0.010	mg/L	0.003	0.010
88-75-5	2-Nitrophenol	U	0.010	mg/L	0.003	0.010
105-67-9	2,4-Dimethylphenol	U	0.010	mg/L	0.003	0.010
111-91-1	bis(2-Chloroethoxy)methane	U	0.010	mg/L	0.003	0.010
120-83-2	2,4-Dichlorophenol	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.003	0.010
59-50-7	Parachlorometa cresol	U	0.010	mg/L	0.003	0.010
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.001	mg/L	0.0003	0.001
77-47-4	Hexachlorocyclopentadiene	U	0.010	mg/L	0.003	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.003	0.010
91-58-7	2-Chloronaphthalene	U	0.001	mg/L	0.0003	0.001
131-11-3	Dimethylphthalate	U	0.010	mg/L	0.003	0.010
606-20-2	2,6-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
208-96-8	Acenaphthylene	U	0.001	mg/L	0.0003	0.001
83-32-9	Acenaphthene	U	0.001	mg/L	0.0003	0.001
51-28-5	2,4-Dinitrophenol	U	0.020	mg/L	0.005	0.020
84-66-2	Diethylphthalate	U	0.010	mg/L	0.003	0.010
100-02-7	4-Nitrophenol	U	0.010	mg/L	0.003	0.010
86-73-7	Fluorene	U	0.001	mg/L	0.0003	0.001
7005-72-3	4-Chlorophenylphenylether	U	0.010	mg/L	0.003	0.010
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.010	mg/L	0.003	0.010
122-39-4	Diphenylamine	U	0.010	mg/L	0.003	0.010
122-66-7	Azobenzene	U	0.010	mg/L	0.003	0.010
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.010	mg/L	0.003	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.003	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.003	0.010
85-01-8	Phenanthrene	U	0.001	mg/L	0.0003	0.001
120-12-7	Anthracene	U	0.001	mg/L	0.0003	0.001

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124001**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 13:45**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090611.B\s6i0606.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.010	mg/L	0.003	0.010
206-44-0	Fluoranthene	U	0.001	mg/L	0.0003	0.001
129-00-0	Pyrene	U	0.001	mg/L	0.0003	0.001
85-68-7	Butylbenzylphthalate	U	0.010	mg/L	0.003	0.010
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.010	mg/L	0.003	0.010
56-55-3	Benzo(a)anthracene	U	0.001	mg/L	0.0003	0.001
218-01-9	Chrysene	U	0.001	mg/L	0.0003	0.001
117-84-0	Di-n-octylphthalate	U	0.010	mg/L	0.003	0.010
205-99-2	Benzo(b)fluoranthene	U	0.001	mg/L	0.0003	0.001
207-08-9	Benzo(k)fluoranthene	U	0.001	mg/L	0.0003	0.001
50-32-8	Benzo(a)pyrene	U	0.001	mg/L	0.0003	0.001
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.001	mg/L	0.0003	0.001
53-70-3	Dibenzo(a,h)anthracene	U	0.001	mg/L	0.0003	0.001
191-24-2	Benzo(ghi)perylene	U	0.001	mg/L	0.0003	0.001
92-87-5	Benzidine	U	0.010	mg/L	0.003	0.010
91-94-1	3,3'-Dichlorobenzidine	U	0.010	mg/L	0.003	0.010
120-82-1	1,2,4-Trichlorobenzene	U	0.010	mg/L	0.003	0.010

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.101	0.100	mg/L	101	(33%-126%)
2-Fluorobiphenyl	0.0439	0.050	mg/L	87.8	(37%-102%)
2-Fluorophenol	0.0326	0.100	mg/L	32.6	(14%-78%)
Nitrobenzene-d5	0.0493	0.050	mg/L	98.5	(40%-117%)
Phenol-d5	0.015	0.100	mg/L	15.0	(14%-80%)
p-Terphenyl-d14	0.0535	0.050	mg/L	107	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0606.D
Acq On : 06 Sep 2011 13:45
Operator : JMB3
InstName : MSD6
Sample : |285124001|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 14:11:20 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	129857	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.269	6.278	1.000	454304	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.148	8.156	1.000	247330	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.767	9.773	1.000	390854	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.842	12.853	1.000	200831	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.277	15.285	1.000	93753	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	129857	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.269	6.278	1.000	454304	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.148	8.156	1.000	247330	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.767	9.773	1.000	390854	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.842	12.853	1.000	200831	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.277	15.285	1.000	93753	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.269	6.278	1.000	454304	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.148	8.156	1.000	247330	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.767	9.773	1.000	390854	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.842	12.853	1.000	200831	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.269	6.278	1.000	454294	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	93753	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	129857	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.269	6.278	1.000	454304	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.148	8.156	1.000	247330	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.767	9.773	1.000	390854	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.842	12.853	1.000	200831	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	129857	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.269	6.278	1.000	454304	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.842	12.853	1.000	200831	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.277	15.285	1.000	93753	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.760	137019	32.58	ng/uL	0.00
8) Phenol-d5	99	4.564	4.576	0.916	82094	15.02	ng/uL	-0.01
25) Nitrobenzene-d5	82	5.522	5.531	0.881	214051	49.27	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	352673	43.92	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.003	9.006	1.105	111066	101.30	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.894	305288	53.48	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	32.58%
8) Phenol-d5	100.000	14 - 80	15.02%
25) Nitrobenzene-d5	50.000	40 - 117	98.54%
47) 2-Fluorobiphenyl	50.000	37 - 102	87.84%
66) 2,4,6-Tribromophenol	100.000	33 - 126	101.30%
83) p-Terphenyl-d14	50.000	44 - 134	106.96%

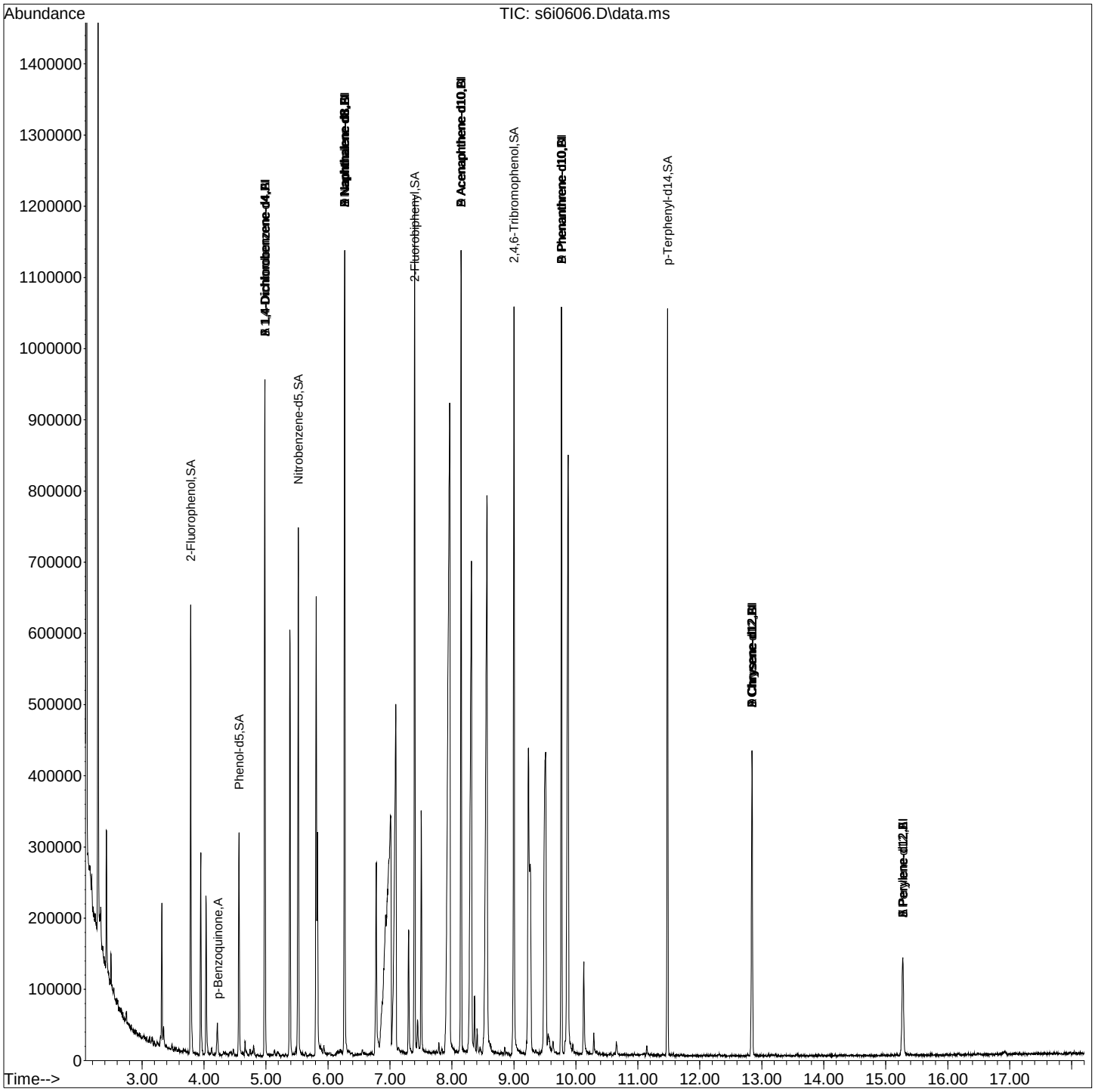
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
6) p-Benzoquinone	54	4.226	4.232	0.848	2203	3.03	ng/uL	94

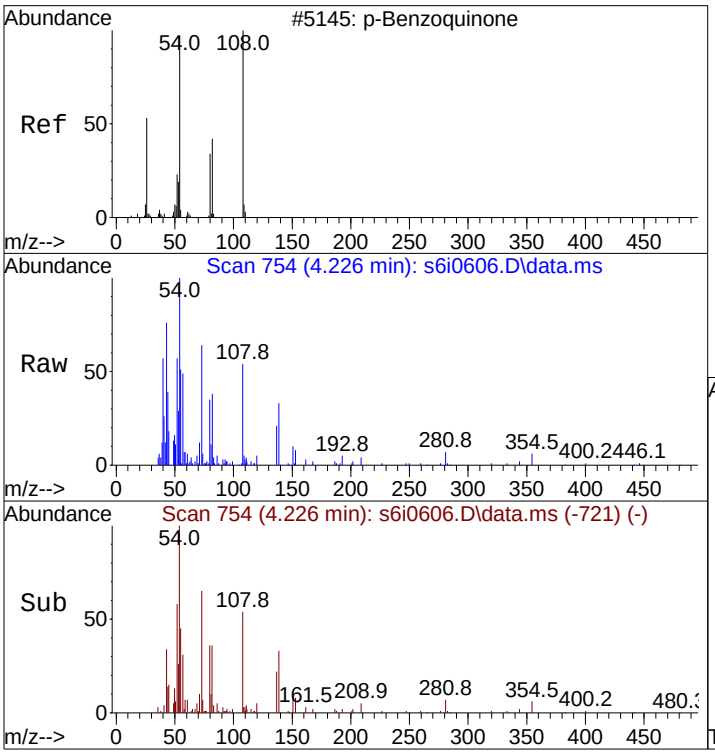
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0606.D
Acq On : 06 Sep 2011 13:45
Operator : JMB3
InstName : MSD6
Sample : |285124001|1138552|1|SVM|1|ARSL
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 14:11:20 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

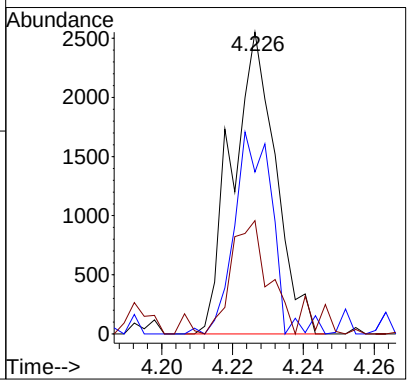


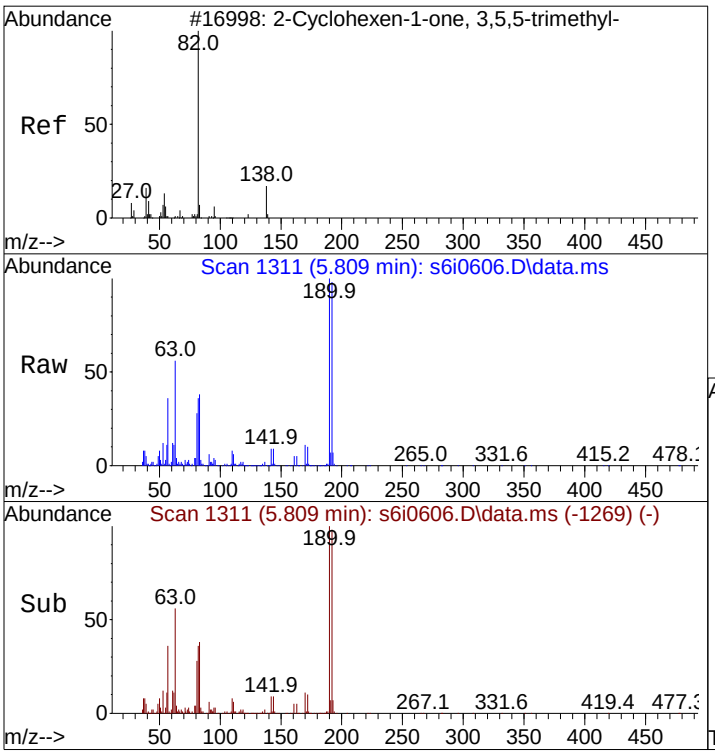


#6
p-Benzoquinone
Concen: 3.03 ng/uL
RT: 4.226 min Scan# 754
Delta R.T. -0.006 min
Lab File: s6i0606.D
Acq: 06 Sep 2011 13:45

Tgt Ion: 54 Resp: 2203

Ion	Ratio	Lower	Upper
54	100		
108	57.2	33.3	93.3
82	31.8	0.9	60.9

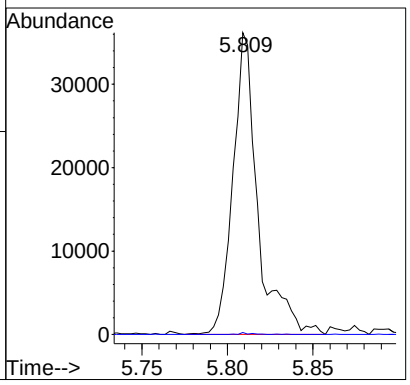


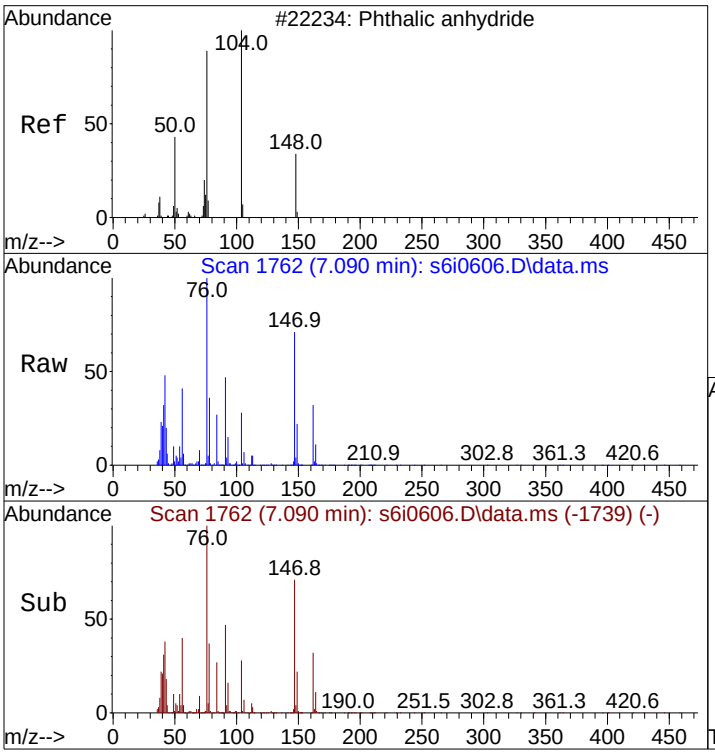


#27 BEFORE analyst DELETION
Isophorone
Concen: 4.65 ng/uL
RT: 5.809 min Scan# 1311
Delta R.T. 0.014 min
Lab File: s6i0606.D
Acq: 06 Sep 2011 13:45

Tgt Ion: 82 Resp: 36787

Ion	Ratio	Lower	Upper
82	100		
138	0.3	0.0	48.2

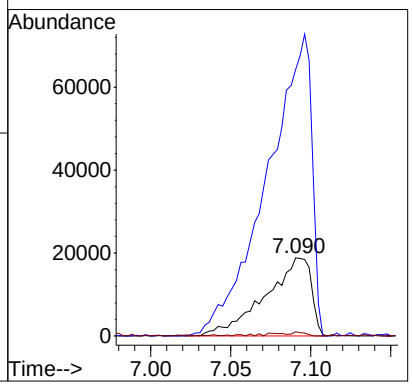


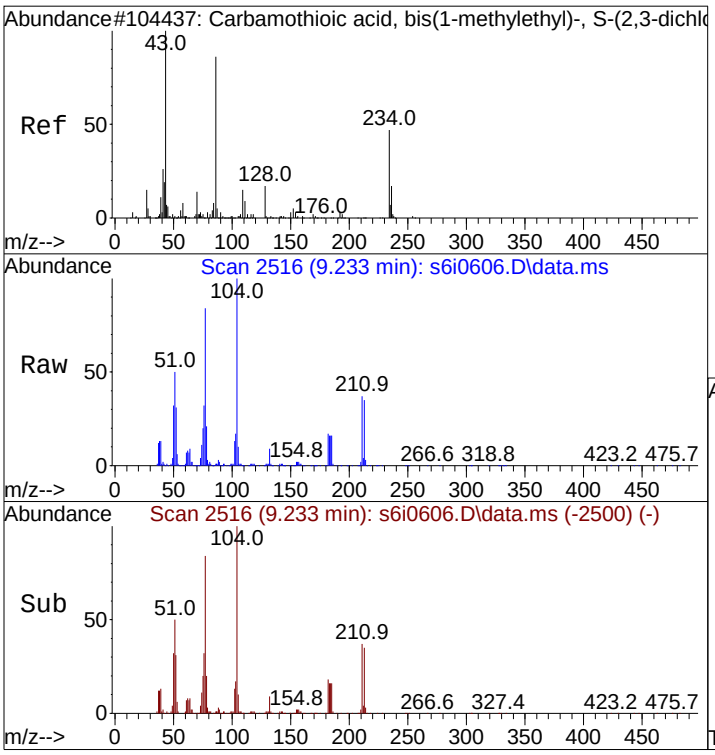


#40 BEFORE analyst DELETION
Phthalic anhydride
Concen: 52.12 ng/uL
RT: 7.090 min Scan# 1762
Delta R.T. 0.014 min
Lab File: s6i0606.D
Acq: 06 Sep 2011 13:45

Tgt Ion:104 Resp: 37566

Ion	Ratio	Lower	Upper
104	100		
76	375.8	43.9	103.9#
50	1.5	14.1	74.1#

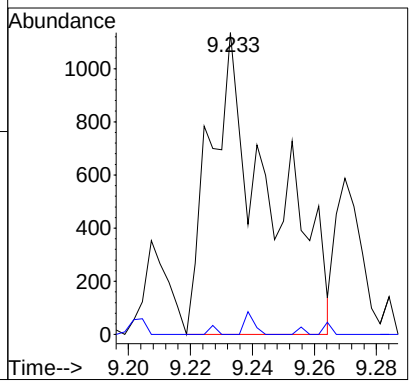


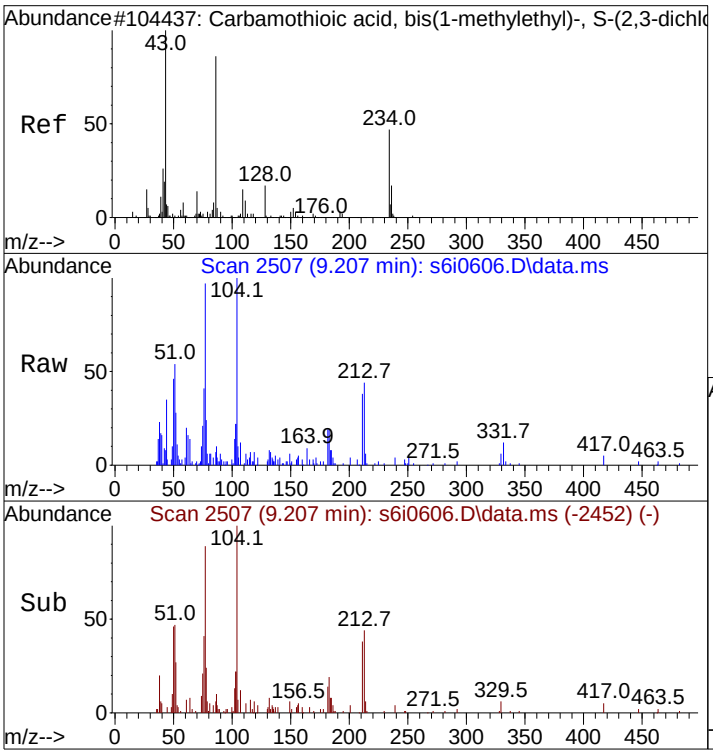


#135 BEFORE analyst DELETION
Cis Diallate
Concen: 0.34 ng/uL
RT: 9.233 min Scan# 2516
Delta R.T. -0.020 min
Lab File: s6i0606.D
Acq: 06 Sep 2011 13:45

Tgt Ion: 86 Resp: 1525

Ion	Ratio	Lower	Upper
86	100		
234	0.0	19.7	79.7#

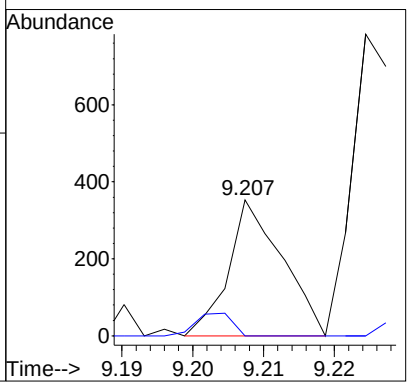




#136 BEFORE analyst DELETION
Trans Diallate
Concen: 0.05 ng/uL
RT: 9.207 min Scan# 2507
Delta R.T. 0.056 min
Lab File: s6i0606.D
Acq: 06 Sep 2011 13:45

Tgt Ion: 86 Resp: 187

Ion	Ratio	Lower	Upper
86	100		
234	0.0	13.8	73.8#



Standards

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Calibration History Report MSD6
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:1 Amt:0.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0107.D

Injection Date	Mix	Calibration File
01 Sep 2011 13:03	A	C:\msdchem\1\DATA\s090111.B\s6i0107.D

Cal Lvl:2 Amt:10.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0113.D

Injection Date	Mix	Calibration File
01 Sep 2011 11:20	A	C:\msdchem\1\DATA\s090111.B\s6i0104.D
01 Sep 2011 16:27	B	C:\msdchem\1\DATA\s090111.B\s6i0113.D

Cal Lvl:3 Amt:20.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0114.D

Injection Date	Mix	Calibration File
01 Sep 2011 11:55	A	C:\msdchem\1\DATA\s090111.B\s6i0105.D
01 Sep 2011 16:55	B	C:\msdchem\1\DATA\s090111.B\s6i0114.D

Cal Lvl:4 Amt:40.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0115.D

Injection Date	Mix	Calibration File
01 Sep 2011 12:29	A	C:\msdchem\1\DATA\s090111.B\s6i0106.D
01 Sep 2011 17:24	B	C:\msdchem\1\DATA\s090111.B\s6i0115.D

Cal Lvl:5 Amt:50.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0116.D

Injection Date	Mix	Calibration File
01 Sep 2011 13:37	A	C:\msdchem\1\DATA\s090111.B\s6i0108.D
01 Sep 2011 17:53	B	C:\msdchem\1\DATA\s090111.B\s6i0116.D

Cal Lvl:6 Amt:80.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0117.D

Injection Date	Mix	Calibration File
01 Sep 2011 14:11	A	C:\msdchem\1\DATA\s090111.B\s6i0109.D
01 Sep 2011 18:22	B	C:\msdchem\1\DATA\s090111.B\s6i0117.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0118.D

Injection Date	Mix	Calibration File
01 Sep 2011 14:44	A	C:\msdchem\1\DATA\s090111.B\s6i0110.D
01 Sep 2011 18:50	B	C:\msdchem\1\DATA\s090111.B\s6i0118.D

Cal Lvl:8 Amt:120.00 Last Updated with: C:\msdchem\1\DATA\s090111.B\s6i0119.D

Injection Date	Mix	Calibration File
01 Sep 2011 15:18	A	C:\msdchem\1\DATA\s090111.B\s6i0111.D
01 Sep 2011 19:20	B	C:\msdchem\1\DATA\s090111.B\s6i0119.D

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
2)A 2-Ethoxyethanol		0.9780928	0.9748467	0.9805997	0.9612282	0.9465593				
	0.9547454	0.9482793					0.9635	AVRG		1.4888
3)AM N-Methyl-N-nitrosomethyl		0.8844919	0.8779124	0.8793713	0.8818412	0.8772020				
	0.8625432	0.8771787					0.8772	AVRG		0.7990
4)AM Pyridine		1.2834538	1.2450164	1.2709668	1.2578448	1.2043256				
	1.2186030	1.2197350					1.2428	AVRG		2.3857
5)SA 2-Fluorophenol		1.3495939	1.3214601	1.3405742	1.3000821	1.2670164				
	1.2465049	1.2428174					1.2954	AVRG		3.4001
6)A p-Benzoquinone		0.1369129	0.1068587	0.2838532	0.2940701	0.1459352				
	0.3079155	0.2939044					0.2242	AVRG	#	39.8183
7)AM Aniline		0.7814026	0.8187937	0.8213545	0.8175595	0.8102618				
	0.8079456	0.8127477					0.8100	AVRG		1.6663
8)SA Phenol-d5		1.6965646	1.7035791	1.7122243	1.6864673	1.6729071				
	1.6457400	1.6652670					1.6832	AVRG		1.3886
9)AMC Phenol		1.7116066	1.7264509	1.7216129	1.6876075	1.6545224				
	1.6364786	1.2832061					1.6316	AVRG		9.6440
10)AM bis(2-Chloroethyl) ether		1.2413139	1.1872380	1.1855914	1.1539484	1.1419407				
	1.1946833	1.2156874					1.1886	AVRG		2.8609
11)AM 2-Chlorophenol		1.4383669	1.4084272	1.3470740	1.3486721	1.3076952				
	1.2842352	1.2953845					1.3471	AVRG		4.3149
12)AM n-Decane		2.3650267	2.3049480	2.1597692	2.1370364	2.0063061				
	1.9542787	1.9331149					2.1229	AVRG		7.9608
13)AM 1,3-Dichlorobenzene		1.6207128	1.5742621	1.5169399	1.4872749	1.4399642				
	1.4054384	1.3966886					1.4916	AVRG		5.6928
14)AMC 1,4-Dichlorobenzene		1.5871124	1.5525881	1.5079407	1.4984003	1.4338689				
	1.3922911	1.4047839					1.4824	AVRG		5.0253
15)AM 1,2-Dichlorobenzene		1.4937906	1.4611721	1.4313520	1.3964096	1.3654873				
	1.3296864	1.3226256					1.4001	AVRG		4.6706
16)AM bis(2-Chloroisopropyl) e		3.0917311	2.9258235	2.8284136	2.7577600	2.6442490				
	2.5266937	2.5516923					2.7609	AVRG		7.4441

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
17)AM Benzyl alcohol		0.9186783	0.9110652	0.8881934	0.9108681	0.9118841				
	0.8939967	0.9142149					0.9070	AVRG		1.2462
18)AM o-Cresol		1.1252198	1.1495366	1.1364888	1.0914313	1.0688168				
	1.0612983	1.0705308					1.1005	AVRG		3.2830
19)AM m,p-Cresols		1.4348226	1.4396407	1.4458597	1.4201318	1.4141550				
	1.3792427	1.1768992					1.3873	AVRG		6.8739
20)AMP N-Nitrosodipropylamine		1.0756844	1.1031370	1.0962580	1.0702665	1.0572175				
	0.9874344	0.9987091					1.0555	AVRG		4.3099
21)A p-Toluidine		1.4865906	1.5008128	1.4589656	1.5153191	1.4654947				
	1.6627919	1.4464872					1.5052	AVRG		4.8869
22)A m-Toluidine		1.5523958	1.5012833	1.5026374	1.4519985	1.5786652				
	1.4612528	1.0659300					1.4449	AVRG		11.9841
23)AM Hexachloroethane		0.6502386	0.6325396	0.6244911	0.6124869	0.6080134				
	0.6001885	0.6088391					0.6195	AVRG		2.8015
25)SA Nitrobenzene-d5		0.4515322	0.4294793	0.4053184	0.3923503	0.3504075				
	0.3323848	0.3162404					0.3825	AVRG		13.2963
26)AM Nitrobenzene		0.4482032	0.4283675	0.4010913	0.3881056	0.3469597				
	0.3238710	0.3052334					0.3774	AVRG		14.2224
27)AM Isophorone		0.8031609	0.7703936	0.7311369	0.6878921	0.6252859				
	0.5588558						0.6961	AVRG		13.1859
28)AMC 2-Nitrophenol		0.2241057	0.2033811	0.1887315	0.1850785	0.1731356				
	0.1602553	0.1541095					0.1841	AVRG		13.2725
29)AM 2,4-Dimethylphenol		0.3670010	0.3613838	0.3297952	0.3226170	0.2912825				
	0.2773269	0.2643694					0.3163	AVRG		12.6919
30)AM bis(2-Chloroethoxy)metha		0.4386894	0.4106338	0.4017024	0.3859874	0.3491261				
	0.3309025	0.3056730					0.3747	AVRG		12.6973
31)AMC 2,4-Dichlorophenol		0.3237318	0.3205083	0.3062696	0.2885907	0.2641984				
	0.2485878	0.2324927					0.2835	AVRG		12.6581
32)AM Benzoic acid			0.1941530	0.2258764	0.2306876	0.2409529				
	0.2242414	0.2254073					0.2236	AVRG		7.0083

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
33)AM 1,2,4-Trichlorobenzene		0.4168548	0.3919075	0.3646005	0.3515923	0.3117999				
	0.2926587	0.2756470					0.3436	AVRG		15.2299
34)AM alpha-Terpineol		0.4381019	0.4140368	0.3911870	0.3718644	0.3377096				
	0.3148773	0.2995062					0.3668	AVRG		14.0830
35)AM Naphthalene	1.1598220	1.1187170	1.0155715	0.9087943	0.8434979	0.7267566				
	0.6790905	0.6345506					0.8859	AVRG		22.5630
36)AM 4-Chloroaniline		0.3697426	0.3899856	0.3689472	0.3546536	0.3227448				
	0.2962176	0.2792623					0.3402	AVRG		12.2013
37)AMC Hexachlorobutadiene		0.2340030	0.2267176	0.2119394	0.2067073	0.1880253				
	0.1787513	0.1654321					0.2017	AVRG		12.5262
38)AMC 4-Chloro-3-methylphenol		0.3178162	0.3177088	0.3182333	0.3029918	0.2795062				
	0.2610270	0.2481169					0.2922	AVRG		10.0530
39)AM 2-Methylnaphthalene	0.7721728	0.7554204	0.6925696	0.6517062	0.6075065	0.5501956				
	0.4995558	0.4802280					0.6262	AVRG		17.7563
40)A Phthalic anhydride		0.0445584	0.0396724	0.0702441	0.0706862	0.0614556				
	0.0777714	0.0798034					0.0635	AVRG		24.8947
41)AM 1-Methylnaphthalene	0.7079348	0.7114739	0.6604934	0.6158114	0.5759505	0.5103185				
	0.4730229	0.4429804					0.5872	AVRG		17.7532
43)AMP Hexachlorocyclopentadien		0.2627850	0.3484728	0.2722704	0.2755578	0.3384869				
	0.2562807	0.2444863					0.2855	AVRG		14.3711
44)AM 2,3-Dichloroaniline		0.6950893	0.6858969	0.6687116	0.6777771	0.6502029				
	0.6514957	0.6455315					0.6678	AVRG		2.8958
45)AMC 2,4,6-Trichlorophenol		0.3828581	0.4081387	0.3898861	0.3942371	0.3897415				
	0.3852291	0.3856338					0.3908	AVRG		2.1792
46)AM 2,4,5-Trichlorophenol		0.3983827	0.4146250	0.4029753	0.4126076	0.4016613				
	0.4097010	0.3936839					0.4048	AVRG		1.9120
47)SA 2-Fluorobiphenyl		1.4378572	1.3875228	1.3194600	1.3275091	1.2151963				
	1.2024398	1.2013550					1.2988	AVRG		7.3201
48)AM 2-Chloronaphthalene	1.3578640	1.2684116	1.1948891	1.1521117	1.1597321	1.0741082				
	1.0702050	1.0553765					1.1666	AVRG		9.0615

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
49)AM o-Nitroaniline		0.3990308	0.4092296	0.4016897	0.4088828	0.4107432				
	0.4061581	0.4019333					0.4054	AVRG		1.1136
50)A 1,4-Dinitrobenzene		0.1819949	0.2084734	0.2028050	0.2036565	0.2105099				
	0.1993344	0.1914971					0.1998	AVRG		5.0061
51)AM m-Nitroaniline		0.2060920	0.2941801	0.2786419	0.2844350	0.2977899				
	0.2780765	0.2797764					0.2741	AVRG		11.3070
52)AM Dimethylphthalate		1.4244094	1.3832036	1.3196790	1.2842914	1.2127085				
	1.2100615	1.1215985					1.2794	AVRG		8.2967
53)A m-Dinitrobenzene		0.2178607	0.2261410	0.2278321	0.2284145	0.2370853				
	0.2279270	0.2207879					0.2266	AVRG		2.7139
54)AM 2,6-Dinitrotoluene		0.3236758	0.3300681	0.3152253	0.3152960	0.3178336				
	0.3105968	0.3068628					0.3171	AVRG		2.4625
55)AM 2,4-Dinitrotoluene		0.3792936	0.4067531	0.4039607	0.4010873	0.4087927				
	0.3888543	0.3759180					0.3950	AVRG		3.4194
56)AM Acenaphthylene	1.9154140	1.8303482	1.7664662	1.6439213	1.6212729	1.4843732				
	1.4791472	1.4409575					1.6477	AVRG		10.7021
57)AMC Acenaphthene	1.3076977	1.2029547	1.2186523	1.1730983	1.1496895	1.1269057				
	1.0844669	1.0849077					1.1685	AVRG		6.4066
58)AMP 2,4-Dinitrophenol			0.1310366	0.1268022	0.1400358	0.1760159				
	0.1591262	0.1601394					0.1489	AVRG		12.9294
59)AM Dibenzofuran		1.6288959	1.5978905	1.4704981	1.4602374	1.3595445				
	1.3196552	1.2927020					1.4471	AVRG		9.1093
60)A 2,3,4,6-Tetrachloropheno		0.3066488	0.3266039	0.3443105	0.3489674	0.3618598				
	0.3466708	0.3426949					0.3397	AVRG		5.2658
61)AM Diethylphthalate		1.3158399	1.3259552	1.2325012	1.2106364	1.1544325				
	1.1018545	1.0683853					1.2014	AVRG		8.2871
62)AMP 4-Nitrophenol		0.1412979	0.1933708	0.1802291	0.1996780	0.2247531				
	0.1970026	0.1903838					0.1895	AVRG		13.3266
63)AM Fluorene	1.3926283	1.3404378	1.3585117	1.2612579	1.2526497	1.1977981				
	1.1606829	1.1441942					1.2635	AVRG		7.3800

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
64)AM 4-Chlorophenylphenylethe		0.6995964	0.7157483	0.6768103	0.6707791	0.6484496				
	0.6290855	0.6145140					0.6650	AVRG		5.5108
65)AM p-Nitroaniline		0.1204855	0.1823516	0.2212133	0.2351198	0.2662257				
	0.2358377	0.2401152					0.2145	AVRG		22.6258
66)SA 2,4,6-Tribromophenol		0.1592087	0.1779660	0.1738541	0.1797099	0.1916739				
	0.1794990	0.1793212					0.1773	AVRG		5.4529
68)AM 2-Methyl-4,6-dinitrophen		0.0812444	0.1285649	0.1288703	0.1345608	0.1497132				
	0.1450890	0.1362101					0.1292	AVRG		17.4574
69)AMC Diphenylamine		0.7190101	0.6687832	0.6813361	0.6713996	0.6176278				
	0.6435373	0.6219792					0.6605	AVRG		5.4075
70)AM 1,2-Diphenylhydrazine		0.9706446	0.9020162	0.8723042	0.8570628	0.7729037				
	0.7822786	0.7551213					0.8446	AVRG		9.3147
71)AM 4-Bromophenylphenylether		0.2566376	0.2433561	0.2538691	0.2531301	0.2377409				
	0.2454033	0.2368726					0.2467	AVRG		3.2308
72)AM Hexachlorobenzene		0.2626492	0.2637071	0.2577079	0.2549329	0.2416715				
	0.2513637	0.2454319					0.2539	AVRG		3.2791
73)AMC Pentachlorophenol		0.1031857	0.1371404	0.1463387	0.1473830	0.1544057				
	0.1574536	0.1545135					0.1429	AVRG		13.1568
74)AM n-Octadecane		0.7527690	0.7216567	0.6813104	0.6704692	0.6163541				
	0.6169834	0.6007750					0.6658	AVRG		8.6725
75)A Dinoseb		0.1293566	0.1835685	0.1812310	0.1917232	0.2101943				
	0.1937751	0.1904957					0.1829	AVRG		13.8832
76)AM Phenanthrene	1.1656804	1.1523920	1.0978290	1.0310442	1.0087030	0.9394787				
	0.9288561	0.8926263					1.0271	AVRG		10.1231
77)AM Anthracene	1.1891924	1.1529501	1.1067004	1.0562159	1.0316994	0.9691883				
	0.9374510	0.9019038					1.0432	AVRG		9.8775
78)AM Carbazole	0.7504998	0.8248981	0.6943779	0.7643184	0.7706468	0.7550904				
	0.7326375	0.7057913					0.7498	AVRG		5.4332
79)AM Di-n-butylphthalate		1.3087714	1.2821259	1.1595806	1.1237663	1.0228089				
	0.9731287	0.9314819					1.1145	AVRG		13.1993

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
80)AMC Fluoranthene	1.0737156	1.0848744	1.1050982	0.9777402	0.9731306	0.9149053				
	0.8563215	0.8042310					0.9738	AVRG		11.3563
82)AM Pyrene	2.0727502	1.8569578	1.6628072	1.8378055	1.8001102	1.5668781				
	1.8633811	1.8047789					1.8082	AVRG		8.2491
83)SA p-Terphenyl-d14		1.1052355	1.0498264	1.1665742	1.1614203	1.0643725				
	1.2208210	1.1906209					1.1370	AVRG		5.7062
84)AM Butylbenzylphthalate		0.7678354	0.6894157	0.7283801	0.7093741	0.6889535				
	0.7144709	0.7026002					0.7144	AVRG		3.8277
85)AM bis(2-Ethylhexyl)phthala		0.8426022	0.9209113	0.7521200	0.7409165	0.8483417				
	0.7543294	0.7418502					0.8002	AVRG		8.8404
86)AM Benzo(a)anthracene	1.3032878	1.1994338	1.1508585	1.1078723	1.1271204	1.0915429				
	1.0568827	1.0669120					1.1380	AVRG		7.1295
87)AM Chrysene	1.0942645	1.1019342	1.0489407	1.0170129	1.0177488	0.9974802				
	0.9658756	0.9715249					1.0268	AVRG		5.0053
88)A Methoxychlor		0.8657284	0.8622244	0.8205352	0.8183220	0.8197206				
	0.7684841	0.7541817					0.8156	AVRG		5.1844
89)A Methylenebis(2-chloroani		0.0547537	0.0894502	0.1098869	0.1301709	0.1664357				
	0.1476641	0.1552650					0.1219	AVRG		32.6896
90)AMC Di-n-octylphthalate		1.0937066	1.2267188	0.9402864	0.9296823	1.0919016				
	0.9390280	0.9495454					1.0244	AVRG		11.2175
92)AM Benzo(b)fluoranthene	1.2405415	1.2652714	1.3077108	1.3188969	1.3411788	1.3233975				
	1.2766419	1.2748775					1.2936	AVRG		2.6534
93)AM Benzo(k)fluoranthene	1.3436307	1.2167124	1.2828361	1.2501926	1.2419204	1.2840373				
	1.2343684	1.1324006					1.2483	AVRG		4.9036
94)AMC Benzo(a)pyrene	1.0638667	1.0508599	1.0871357	1.0787913	1.1036545	1.0762381				
	1.0780714	1.0791044					1.0772	AVRG		1.4373
95)AM Indeno(1,2,3-cd)pyrene	0.8097883	0.8469505	0.7136610	0.8289103	0.8497259	0.7457221				
	0.8694515	0.8985534					0.8203	AVRG		7.6034
96)AM Dibenzo(a,h)anthracene	0.5650816	0.6748796	0.5861741	0.6921339	0.7193054	0.6234256				
	0.7270731	0.7475263					0.6669	AVRG		10.1915

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
97)AM Benzo(ghi)perylene	0.8337383	0.6727792	0.5685684	0.6772501	0.6667133	0.5902630				
	0.6785979	0.7183343					0.6758	AVRG		11.9526
98)A Dibenzo(a,e)pyrene		0.3735205	0.2485748	0.4049526	0.3887817	0.3481363				
	0.3701898	0.4306331					0.3664	AVRG		15.9121
100)BM 1,4-Dioxane		0.5966280	0.5756786	0.5903901	0.5726059	0.5617971				
	0.5758045	0.5935372					0.5809	AVRG		2.2046
101)B Methyl methacrylate		0.3409108	0.3178911	0.3208229	0.3157115	0.3109641				
	0.3200487	0.3216517					0.3211	AVRG		2.9432
102)B Ethyl methacrylate		1.3379404	1.2671306	1.2412595	1.2116885	1.1639466				
	1.1654818	1.1880808					1.2251	AVRG		5.1199
103)B 2-Picoline		1.6181313	1.6001179	1.5655102	1.5595006	1.4398090				
	1.4533493	1.4814151					1.5311	AVRG		4.7079
104)B N-Nitrosomethylethylamin		0.7502714	0.7063071	0.6939749	0.7069380	0.6793707				
	0.6888932	0.7096985					0.7051	AVRG		3.2316
105)B Methyl methanesulfonate		0.9340699	0.8884394	0.8924508	0.9041083	0.8368927				
	0.7986887	0.8089244					0.8662	AVRG		5.9473
106)B N-Nitrosodiethylamine		0.7400285	0.7292394	0.6962086	0.6914460	0.6757261				
	0.6807547	0.7100429					0.7033	AVRG		3.4470
107)B Ethyl methanesulfonate		1.0577221	1.0957277	1.0774169	1.0625984	1.0367299				
	1.0191292	1.0487060					1.0569	AVRG		2.4006
108)BM Benzaldehyde		1.3776828	1.3008191	1.2472631	1.2315318	1.1124333				
	1.0250225	1.0201248					1.1878	AVRG		11.6332
109)B Pentachloroethane		0.6214295	0.6086572	0.6019212	0.6013146	0.5738164				
	0.5879910	0.6075337					0.6004	AVRG		2.5670
110)BM N-Nitrosopyrrolidine		0.7245959	0.7027440	0.7044796	0.7211298	0.6489107				
	0.6518840	0.6947827					0.6926	AVRG		4.4315
111)BM Acetophenone		2.0203902	1.9885205	1.8928600	1.9164874	1.8420520				
	1.7919100	1.9051936					1.9082	AVRG		4.1292
112)B N-Nitrosomorpholine		1.1603149	1.1380426	1.1139151	1.1146473	1.0703264				
	1.0475578	1.0801971					1.1036	AVRG		3.5918

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b	m1	m2	7	8								
113)B o-Toluidine				2.1457359	2.1034499	1.9959417	1.9625859	1.8713854				
			1.8594438	1.9181277					1.9795	AVRG		5.5883
115)B N-Nitrosopiperidine				0.2030591	0.1994638	0.1969911	0.1946185	0.1958415				
			0.1954426	0.2031351					0.1984	AVRG		1.8039
116)B a,a-Dimethylphenethylami				1.0921637	1.1278427	1.2016894	1.1881684	1.2204786				
			1.1951413	1.2000923					1.1751	AVRG		3.9726
117)BM 2,6-Dichlorophenol				0.2930892	0.3036913	0.3151271	0.3050109	0.3107793				
			0.3114608	0.3216624					0.3087	AVRG		2.9681
118)B Hexachloropropene				0.1840322	0.2146510	0.2095733	0.2160772	0.2130321				
			0.2098923	0.2111599					0.2083	AVRG		5.2741
119)BM Caprolactam				0.1137976	0.1129193	0.1157968	0.1128480	0.1180145				
			0.1184146	0.1231791					0.1164	AVRG		3.2231
120)B N-Nitrosodi-n-butylamine				0.3737433	0.3609323	0.3123360	0.2985734	0.2899076				
			0.2892894	0.2939904					0.3170	AVRG		11.1858
121)B Safrole				0.3372589	0.3450602	0.3270968	0.3283924	0.3205838				
			0.3175817	0.3267451					0.3290	AVRG		2.8743
123)B 1,2,4,5-Tetrachlorobenze				0.6824402	0.6624398	0.6603464	0.6268731	0.6251483				
			0.6196423	0.6380107					0.6450	AVRG		3.6668
124)BM 1,1-Biphenyl				1.6997341	1.5725137	1.5362190	1.4661800	1.4092922				
			1.3811416	1.3971137					1.4946	AVRG		7.7424
125)B Isosafrole				0.5935867	0.5706112	0.5687878	0.5575233	0.5465797				
			0.5534605	0.5644107					0.5650	AVRG		2.6956
126)B 1,4-Naphthoquinone				0.5153533	0.4625209	0.3879161	0.3660398	0.3293984				
			0.3067188	0.3184930					0.3838	AVRG		20.4624
127)B Pentachlorobenzene				0.5477347	0.5443475	0.5231362	0.5016987	0.5165359				
			0.5028318	0.5137534					0.5214	AVRG		3.5346
128)B 1-Naphthylamine				1.1292254	1.1269121	1.1211085	1.0762938	1.0504216				
			1.0033431	1.0012688					1.0727	AVRG		5.2323
129)B 2-Naphthylamine				1.0731150	1.1507348	1.1646565	1.1255471	1.0988730				
			1.0328542	1.0334768					1.0970	AVRG		4.8526

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b m1 m2	7	8								
130)B 5-Nitro-o-toluidine		0.2849795	0.3051205	0.3232008	0.3222468	0.3408373				
	0.3283124	0.3378150					0.3204	AVRG		6.0888
132)B 1,3,5-Trinitrobenzene		0.1503702	0.1842281	0.1676834	0.1729994	0.1661265				
	0.1660535	0.1800523					0.1696	AVRG		6.5148
133)B Phenacetin		0.3292563	0.3658872	0.3670105	0.3627285	0.3736811				
	0.3706212	0.3713665					0.3629	AVRG		4.2167
134)B Diallate		0.3718235	0.3527588	0.3417395	0.3232392	0.3248393				
	0.3218094	0.3254862					0.3374	AVRG		5.6536
135)B Cis Diallate		0.5019712	0.4656377	0.4582694	0.4485974	0.4545225				
	0.4530353	0.4643313					0.4638	AVRG		3.8616
136)B Trans Diallate		0.4374394	0.4150104	0.4020464	0.3802814	0.3821639				
	0.3785993	0.3829250					0.3969	AVRG		5.6536
137)BM50Atrazine		0.2729841	0.2581446	0.2416894	0.2299588	0.2026279				
	0.1805569	0.1730630					0.2227	AVRG		17.2352
138)B 4-Aminobiphenyl		0.6479622	0.6592271	0.7555292	0.7352552	0.7109726				
	0.6875953	0.6790605					0.6965	AVRG		5.6599
139)B Pentachloronitrobenzene		0.1161125	0.1187005	0.1164460	0.1071788	0.1109633				
	0.1109901	0.1100580					0.1129	AVRG		3.7001
140)B Pronamide		0.3829221	0.3730215	0.3658668	0.3481320	0.3487505				
	0.3451024	0.3458705					0.3585	AVRG		4.2654
141)B 4-Nitroquinoline-1-oxide		0.0198314	0.0187424	0.0171119	0.0158825	0.0135728				
	0.0120420	0.0100417					0.0153	AVRG		23.4249
142)B Methapyrilene		0.6459810	0.6506595	0.5753704	0.5278613	0.4637443				
	0.4341796	0.3974798					0.5279	AVRG		19.1277
143)B Isodrin		0.1570640	0.1567395	0.1441806	0.1442165	0.1419044				
	0.1419695	0.1431524					0.1470	AVRG		4.6287
144)BM Benzidine		0.1670181	0.2436882	0.2532063	0.2673557	0.2967965				
	0.2660106	0.2236771					0.2454	AVRG		16.8250
146)B Aramite		0.1092515	0.0991900	0.1088896	0.1007717	0.0904764				
	0.0891654	0.0933894					0.0987	AVRG		8.3359

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b | m1 | m2	7	8								
147)B Kepone		0.1588294	0.1563583	0.1488406	0.1367375	0.1343245				
	0.1305246	0.1398370					0.1436	AVRG		7.7339
148)B p-(Dimethylamino)azobenz		0.5229410	0.4894379	0.5159605	0.4828449	0.4789191				
	0.4903855	0.5202913					0.5001	AVRG		3.7722
149)B Chlorobenzilate		0.5812926	0.5308278	0.5435545	0.5070900	0.4812714				
	0.4915744	0.5189260					0.5221	AVRG		6.4835
150)B 3,3'-Dimethylbenzidine		0.6307503	0.6859793	0.6780517	0.6639636	0.6597823				
	0.6168333	0.6055550					0.6487	AVRG		4.7954
151)B 2-Acetylaminofluorene		0.2536382	0.3133728	0.2966283	0.3227135	0.3562969				
	0.3329914	0.3337201					0.3156	AVRG		10.4617
152)BM 3,3'-Dichlorobenzidine		0.2514748	0.2985906	0.3084499	0.3180388	0.3438911				
	0.3220834	0.3275199					0.3100	AVRG		9.5182
154)B 7,12-Dimethylbenz(a)anth		0.7878902	0.7175533	0.7801858	0.7153664	0.6919218				
	0.7151249	0.7437282					0.7360	AVRG		4.9145
155)B 3-Methylcholanthrene		0.1197150	0.1201937	0.1101657	0.1069439	0.1068306				
	0.1130794	0.1150144					0.1131	AVRG		4.8888
157)D Triethylphosphorothioate										
							0.0000	AVRG	#	-1.0000
159)D Thionazine										
							0.0000	AVRG	#	-1.0000
160)DM Tributylphosphate										
							0.0000	AVRG	#	-1.0000
162)D Sulfotepp										
							0.0000	AVRG	#	-1.0000
163)D Phorate										
							0.0000	AVRG	#	-1.0000
164)D Dimethoate										
							0.0000	AVRG	#	-1.0000
165)D Disulfoton										
							0.0000	AVRG	#	-1.0000

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b | m1 | m2	7	8								
166)D Methyl parathion							0.0000	AVRG	#	-1.0000
167)D Parathion							0.0000	AVRG	#	-1.0000
169)D Famphur							0.0000	AVRG	#	-1.0000
171)E p-Phenylenediamine							0.0000	AVRG	#	-1.0000
173)E Hexachlorophene							0.0000	AVRG	#	-1.0000
175)F bis(Chloromethyl)ether							0.0000	AVRG	#	-1.0000
176)F Thiophenol							0.0000	AVRG	#	-1.0000
178)F 4-Chlorothiophenol							0.0000	AVRG	#	-1.0000
179)F 4-Chlorothioanisole							0.0000	AVRG	#	-1.0000
180)F Phthalic acid							0.0000	AVRG	#	-1.0000
182)F Hydroxymethyl phthalimid							0.0000	AVRG	#	-1.0000
183)F Diphenyl sulfide							0.0000	AVRG	#	-1.0000
185)F Diphenyl disulfide							0.0000	AVRG	#	-1.0000
186)F Phenyl sulfone							0.0000	AVRG	#	-1.0000
187)F Octachlorostyrene							0.0000	AVRG	#	-1.0000

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b | m1 | m2	7	8								
189)F 2,2'-Dichlorobenzil							0.0000	AVRG	#	-1.0000
190)F bis(p-Chlorophenyl)disul							0.0000	AVRG	#	-1.0000
191)F bis(p-Chlorophenyl)sulfo							0.0000	AVRG	#	-1.0000
193)J 1-Hexanol							0.0000	AVRG	#	-1.0000
195)J Quinoline							0.0000	AVRG	#	-1.0000
197)J 5-Methylchrysene							0.0000	AVRG	#	-1.0000
198)J 1-Nitropyrene							0.0000	AVRG	#	-1.0000
200)J Benzo(j)fluoranthene							0.0000	AVRG	#	-1.0000
201)J Dibenzo(a,j)acridine							0.0000	AVRG	#	-1.0000
202)J Dibenz(a,h)acridine							0.0000	AVRG	#	-1.0000
203)J 7H-Dibenzo(c,g)carbazole							0.0000	AVRG	#	-1.0000
204)J Dibenzo(a,l)pyrene							0.0000	AVRG	#	-1.0000
205)J Dibenzo(a,h)pyrene							0.0000	AVRG	#	-1.0000
206)J Dibenzo(a,i)pyrene							0.0000	AVRG	#	-1.0000

(#) = Out of Range ($) = Individual RF Out of Range

Response Factor Report MSD6
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Last Update : Sun Sep 04 15:01:57 2011
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound			1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r^2
b	m1	m2	7	8								

AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0104.D
Acq On : 01 Sep 2011 11:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-07|ICAL|1|SVM|1|M2
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:41:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	143332	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	490233	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	271568	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	408545	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.844	12.853	1.000	233847	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.282	15.285	1.000	144731	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.844	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.844	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.282	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.844	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.844	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.759	48360	10.42	ng/uL	0.00
8) Phenol-d5	99	4.564	4.576	0.916	60793	10.08	ng/uL	-0.01
25) Nitrobenzene-d5	82	5.522	5.531	0.880	55339	11.80	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.397	7.403	0.908	97619	11.07	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.000	9.006	1.104	10809	8.98	ng/uL	0.00
83) p-Terphenyl-d14	244	11.475	11.481	0.893	64614	9.72	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.584	2.590	0.518	35048	10.15	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	2.800	2.808	0.562	31694	10.08	ng/uL	99
4) Pyridine	79	2.840	2.843	0.570	45990	10.33	ng/uL	96
6) p-Benzoquinone	54	4.229	4.232	0.848	4906	6.11	ng/uL	87
7) Aniline	66	4.661	4.672	0.935	28000	9.65	ng/uL	94
9) Phenol	94	4.579	4.593	0.918	61332	10.49	ng/uL	98
10) bis(2-Chloroethyl) ether	63	4.698	4.707	0.942	44480	10.44	ng/uL	99
11) 2-Chlorophenol	128	4.775	4.780	0.958	51541	10.68	ng/uL	95
12) n-Decane	43	4.778	4.783	0.958	84746	11.14	ng/uL	96
13) 1,3-Dichlorobenzene	146	4.928	4.934	0.989	58075	10.87	ng/uL	98
14) 1,4-Dichlorobenzene	146	4.999	5.005	1.003	56871	10.71	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.150	5.153	1.033	53527	10.67	ng/uL	97
16) bis(2-Chloroisopropyl)...	45	5.209	5.218	1.045	110786	11.20	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0104.D
Acq On : 01 Sep 2011 11:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-07|ICAL|1|SVM|1|M2
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:41:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17)	Benzyl alcohol	108	5.084	5.096	1.020	32919	10.13	ng/uL	98
18)	o-Cresol	107	5.164	5.175	1.036	40320	10.22	ng/uL	98
19)	m,p-Cresols	107	5.315	5.335	1.066	51414	10.34	ng/uL	99
20)	N-Nitrosodipropylamine	70	5.343	5.391	1.072	38545	10.19	ng/uL	93
21)	p-Toluidine	106	5.400	5.408	1.083	53269	9.88	ng/uL	96
22)	m-Toluidine	106	5.431	5.442	1.089	55627	10.29	ng/uL	96
23)	Hexachloroethane	117	5.488	5.497	1.101	23300	10.50	ng/uL	97
26)	Nitrobenzene	77	5.539	5.553	0.883	54931	11.88	ng/uL	98
27)	Isophorone	82	5.772	5.795	0.920	98434	11.54	ng/uL	100
28)	2-Nitrophenol	139	5.860	5.872	0.934	27466	12.17	ng/uL	96
29)	2,4-Dimethylphenol	122	5.860	5.872	0.934	44979	11.60	ng/uL	97
30)	bis(2-Chloroethoxy)met...	93	5.971	5.980	0.952	53765	11.71	ng/uL	96
31)	2,4-Dichlorophenol	162	6.099	6.107	0.972	39676	11.42	ng/uL	99
33)	1,2,4-Trichlorobenzene	180	6.201	6.204	0.989	51089	11.75	ng/uL	98
34)	alpha-Terpineol	59	6.272	6.281	1.000	53693	11.95	ng/uL	99
35)	Naphthalene	128	6.295	6.301	1.004	137108	11.08	ng/uL	98
36)	4-Chloroaniline	127	6.323	6.332	1.008	45315	10.87	ng/uL	97
37)	Hexachlorobutadiene	225	6.400	6.403	1.020	28679	11.60	ng/uL	99
38)	4-Chloro-3-methylphenol	107	6.801	6.809	1.084	38951	10.88	ng/uL	98
39)	2-Methylnaphthalene	142	7.019	7.022	1.119	92583	11.25	ng/uL	98
40)	Phthalic anhydride	104	7.062	7.076	1.126	5461	7.02	ng/uL	82
41)	1-Methylnaphthalene	142	7.127	7.133	1.136	87197	11.29	ng/uL	96
43)	Hexachlorocyclopentadiene	237	7.176	7.179	0.880	17841	9.21	ng/uL	100
44)	2,3-Dichloroaniline	161	7.312	7.321	0.897	47191	10.41	ng/uL	97
45)	2,4,6-Trichlorophenol	196	7.304	7.309	0.896	25993	9.80	ng/uL	100
46)	2,4,5-Trichlorophenol	196	7.338	7.346	0.900	27047	9.84	ng/uL	97
48)	2-Chloronaphthalene	162	7.545	7.551	0.926	86115	10.87	ng/uL	98
49)	o-Nitroaniline	65	7.636	7.647	0.937	27091	9.84	ng/uL	96
50)	1,4-Dinitrobenzene	168	7.784	7.795	0.955	12356	9.11	ng/uL	94
51)	m-Nitroaniline	138	8.079	8.094	0.991	13992	7.52	ng/uL	96
52)	Dimethylphthalate	163	7.818	7.838	0.959	96706	11.13	ng/uL	98
53)	m-Dinitrobenzene	168	7.863	7.878	0.965	14791	9.62	ng/uL	94
54)	2,6-Dinitrotoluene	165	7.895	7.906	0.969	21975	10.21	ng/uL	97
55)	2,4-Dinitrotoluene	165	8.327	8.344	1.022	25751	9.60	ng/uL	97
56)	Acenaphthylene	152	7.997	8.008	0.981	124266	11.11	ng/uL	99
57)	Acenaphthene	154	8.184	8.193	1.004	81671	10.29	ng/uL	94
59)	Dibenzofuran	168	8.366	8.375	1.026	110589	11.26	ng/uL	96
60)	2,3,4,6-Tetrachlorophenol	232	8.483	8.491	1.041	20819	9.03	ng/uL	98
61)	Diethylphthalate	149	8.574	8.585	1.052	89335	10.95	ng/uL	99
62)	4-Nitrophenol	139	8.216	8.236	1.008	9593	7.46	ng/uL	95
63)	Fluorene	166	8.739	8.750	1.072	91005	10.61	ng/uL	98
64)	4-Chlorophenylphenylether	204	8.722	8.730	1.070	47497	10.52	ng/uL	98
65)	p-Nitroaniline	138	8.739	8.758	1.072	8180	5.62	ng/uL	87
68)	2-Methyl-4,6-dinitroph...	198	8.767	8.784	0.897	8298	6.29	ng/uL	92
69)	Diphenylamine	169	8.847	8.858	0.905	73437	10.89	ng/uL	99
70)	1,2-Diphenylhydrazine	77	8.895	8.903	0.910	99138	11.49	ng/uL	96
71)	4-Bromophenylphenylether	248	9.256	9.264	0.947	26212	10.40	ng/uL	97
72)	Hexachlorobenzene	284	9.335	9.341	0.956	26826	10.34	ng/uL	98
73)	Pentachlorophenol	266	9.537	9.543	0.976	10539	7.22	ng/uL	96
74)	n-Octadecane	57	9.577	9.582	0.980	76885	11.31	ng/uL	99
75)	Dinoseb	211	9.719	9.725	0.995	13212	7.07	ng/uL	95
76)	Phenanthrene	178	9.793	9.801	1.002	117701	11.22	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0104.D
Acq On : 01 Sep 2011 11:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-07|ICAL|1|SVM|1|M2
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:41:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

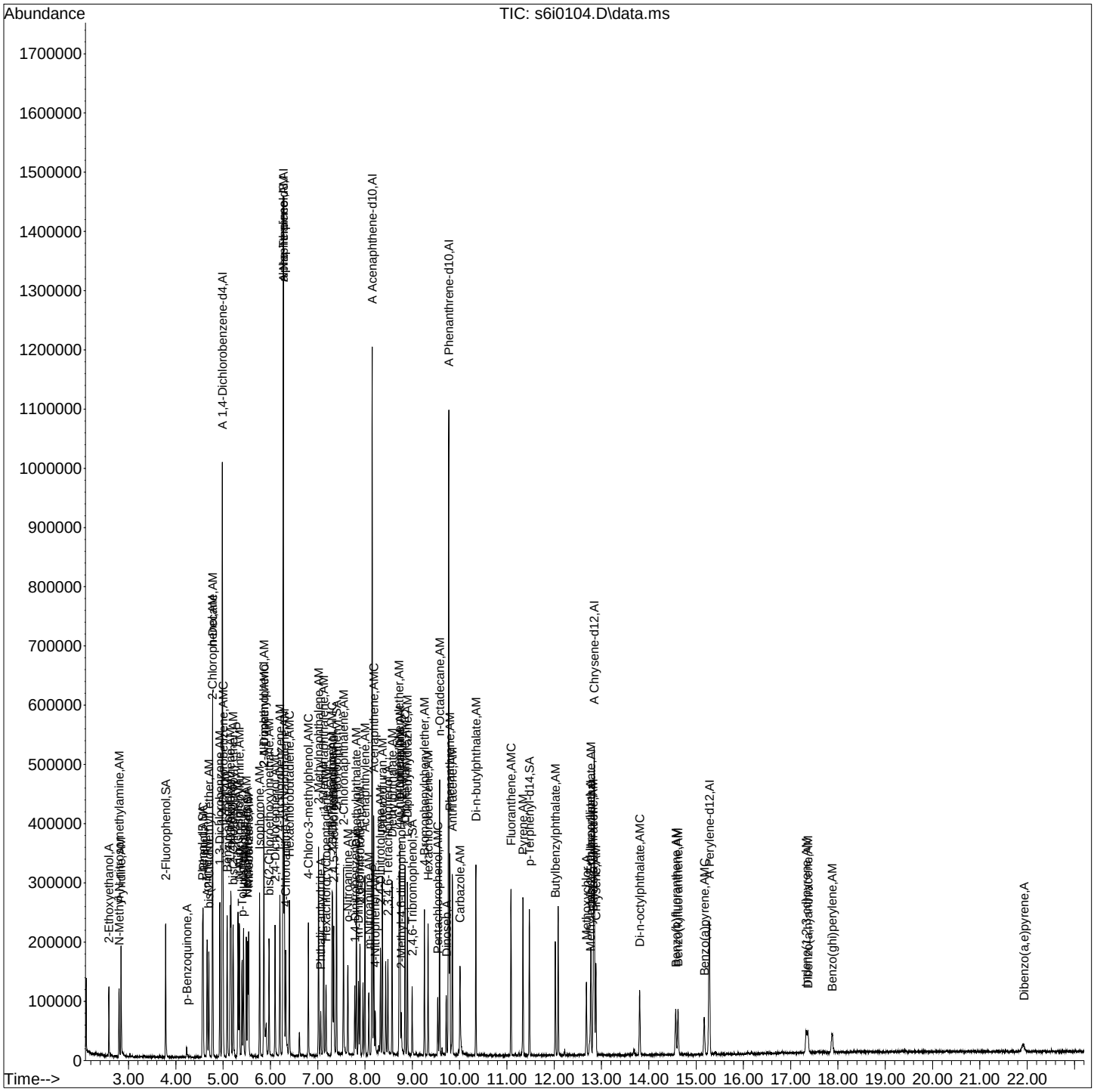
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
77)	Anthracene	178	9.847	9.858	1.008	117758	11.05	ng/uL	98
78)	Carbazole	167	10.009	10.014	1.024	84252	11.00	ng/uL	97
79)	Di-n-butylphthalate	149	10.344	10.350	1.059	133673	11.74	ng/uL	99
80)	Fluoranthene	202	11.086	11.094	1.135	110805	11.14	ng/uL	98
82)	Pyrene	202	11.338	11.347	0.883	108561	10.27	ng/uL	99
84)	Butylbenzylphthalate	149	12.023	12.026	0.936	44889	10.75	ng/uL	97
85)	bis(2-Ethylhexyl)phtha...	149	12.773	12.776	0.994	49260	10.53	ng/uL	98
86)	Benzo(a)anthracene	228	12.825	12.833	0.998	70121	10.54	ng/uL	96
87)	Chrysene	228	12.881	12.890	1.003	64421	10.73	ng/uL	98
88)	Methoxychlor	227	12.682	12.685	0.987	50612	10.61	ng/uL	100
89)	Methylenebis(2-chloroa...	231	12.765	12.765	0.994	3201	4.49	ng/uL	80
90)	Di-n-octylphthalate	149	13.808	13.811	1.075	63940	10.68	ng/uL	91
92)	Benzo(b)fluoranthene	252	14.572	14.581	0.954	45781	9.78	ng/uL	97
93)	Benzo(k)fluoranthene	252	14.620	14.632	0.957	44024	9.75	ng/uL	97
94)	Benzo(a)pyrene	252	15.174	15.177	0.993	38023	9.76	ng/uL	96
95)	Indeno(1,2,3-cd)pyrene	276	17.328	17.351	1.134	30645	10.32	ng/uL	70
96)	Dibenzo(a,h)anthracene	278	17.365	17.371	1.136	24419	10.12	ng/uL	83
97)	Benzo(ghi)perylene	276	17.874	17.885	1.170	24343	9.96	ng/uL	95
98)	Dibenzo(a,e)pyrene	302	21.931	21.926	1.435	13515	10.19	ng/uL	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0104.D
Acq On : 01 Sep 2011 11:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-07|ICAL|1|SVM|1|M2
Misc : |MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:41:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0105.D
Acq On : 01 Sep 2011 11:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-06|ICAL|1|SVM|1|M3
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 14:57:23 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	140260	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	503675	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.153	8.156	1.000	271344	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	439389	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	295807	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.282	15.285	1.000	174716	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.153	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.153	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.282	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.153	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.759	92674	20.40	ng/uL	0.00
8) Phenol-d5	99	4.567	4.576	0.916	119472	20.24	ng/uL	0.00
25) Nitrobenzene-d5	82	5.522	5.531	0.880	108159	22.45	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	188248	21.37	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.000	9.006	1.104	24145	20.07	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	155273	18.47	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.587	2.590	0.519	68366	20.24	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.803	2.808	0.562	61568	20.02	ng/uL	100
4) Pyridine	79	2.840	2.843	0.570	87313	20.03	ng/uL	99
6) p-Benzoquinone	54	4.229	4.232	0.848	7494	9.53	ng/uL	97
7) Aniline	66	4.667	4.672	0.936	57422	20.22	ng/uL	100
9) Phenol	94	4.582	4.593	0.919	121076	21.16	ng/uL	98
10) bis(2-Chloroethyl) ether	63	4.698	4.707	0.942	83261	19.98	ng/uL	98
11) 2-Chlorophenol	128	4.778	4.780	0.958	98773	20.91	ng/uL	97
12) n-Decane	43	4.780	4.783	0.959	161646	21.71	ng/uL	96
13) 1,3-Dichlorobenzene	146	4.931	4.934	0.989	110403	21.11	ng/uL	99
14) 1,4-Dichlorobenzene	146	4.999	5.005	1.003	108883	20.95	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.150	5.153	1.033	102472	20.87	ng/uL	98
16) bis(2-Chloroisopropyl)...	45	5.212	5.218	1.046	205188	21.19	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0105.D
Acq On : 01 Sep 2011 11:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-06|ICAL|1|SVM|1|M3
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 14:57:23 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17)	Benzyl alcohol	108	5.087	5.096	1.021	63893	20.09	ng/uL	99
18)	o-Cresol	107	5.170	5.175	1.037	80617	20.89	ng/uL	99
19)	m,p-Cresols	107	5.323	5.335	1.068	100962	20.76	ng/uL	99
20)	N-Nitrosodipropylamine	70	5.352	5.391	1.074	77363	20.90	ng/uL	100
21)	p-Toluidine	106	5.400	5.408	1.083	105252	19.94	ng/uL	98
22)	m-Toluidine	106	5.434	5.442	1.090	105285	19.91	ng/uL	98
23)	Hexachloroethane	117	5.491	5.497	1.101	44360	20.42	ng/uL	99
26)	Nitrobenzene	77	5.545	5.553	0.884	107879	22.70	ng/uL	99
27)	Isophorone	82	5.775	5.795	0.921	194014	22.13	ng/uL	99
28)	2-Nitrophenol	139	5.863	5.872	0.935	51219	22.09	ng/uL	99
29)	2,4-Dimethylphenol	122	5.866	5.872	0.935	91010	22.85	ng/uL	96
30)	bis(2-Chloroethoxy)met...	93	5.974	5.980	0.952	103413	21.92	ng/uL	98
31)	2,4-Dichlorophenol	162	6.102	6.107	0.973	80716	22.61	ng/uL	99
32)	Benzoic acid	105	5.937	5.988	0.947	48895	17.37	ng/uL	90
33)	1,2,4-Trichlorobenzene	180	6.201	6.204	0.989	98697	22.09	ng/uL	99
34)	alpha-Terpineol	59	6.272	6.281	1.000	104270	22.58	ng/uL	99
35)	Naphthalene	128	6.295	6.301	1.004	255759	20.12	ng/uL	98
36)	4-Chloroaniline	127	6.326	6.332	1.009	98213	22.93	ng/uL	95
37)	Hexachlorobutadiene	225	6.403	6.403	1.021	57096	22.49	ng/uL	97
38)	4-Chloro-3-methylphenol	107	6.804	6.809	1.085	80011	21.75	ng/uL	99
39)	2-Methylnaphthalene	142	7.019	7.022	1.119	174415	20.62	ng/uL	97
40)	Phthalic anhydride	104	7.073	7.076	1.128	9991	12.50	ng/uL	85
41)	1-Methylnaphthalene	142	7.127	7.133	1.136	166337	20.96	ng/uL	99
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	47278	24.41	ng/uL	99
44)	2,3-Dichloroaniline	161	7.315	7.321	0.897	93057	20.54	ng/uL	100
45)	2,4,6-Trichlorophenol	196	7.304	7.309	0.896	55373	20.89	ng/uL	96
46)	2,4,5-Trichlorophenol	196	7.341	7.346	0.900	56253	20.49	ng/uL	98
48)	2-Chloronaphthalene	162	7.548	7.551	0.926	162113	20.49	ng/uL	98
49)	o-Nitroaniline	65	7.642	7.647	0.937	55521	20.19	ng/uL	98
50)	1,4-Dinitrobenzene	168	7.789	7.795	0.955	28284	20.87	ng/uL	94
51)	m-Nitroaniline	138	8.085	8.094	0.992	39912	21.46	ng/uL	99
52)	Dimethylphthalate	163	7.824	7.838	0.960	187662	21.62	ng/uL	100
53)	m-Dinitrobenzene	168	7.869	7.878	0.965	30681	19.96	ng/uL	95
54)	2,6-Dinitrotoluene	165	7.897	7.906	0.969	44781	20.82	ng/uL	100
55)	2,4-Dinitrotoluene	165	8.332	8.344	1.022	55185	20.60	ng/uL	98
56)	Acenaphthylene	152	8.003	8.008	0.982	239660	21.44	ng/uL	99
57)	Acenaphthene	154	8.187	8.193	1.004	165337	20.86	ng/uL	97
58)	2,4-Dinitrophenol	184	8.190	8.199	1.005	17778	17.61	ng/uL	99
59)	Dibenzofuran	168	8.369	8.375	1.026	216789	22.08	ng/uL	96
60)	2,3,4,6-Tetrachlorophenol	232	8.486	8.491	1.041	44311	19.23	ng/uL	96
61)	Diethylphthalate	149	8.579	8.585	1.052	179895	22.07	ng/uL	100
62)	4-Nitrophenol	139	8.221	8.236	1.008	26235	20.41	ng/uL	99
63)	Fluorene	166	8.744	8.750	1.072	184312	21.50	ng/uL	98
64)	4-Chlorophenylphenylether	204	8.724	8.730	1.070	97107	21.53	ng/uL	99
65)	p-Nitroaniline	138	8.744	8.758	1.072	24740	17.00	ng/uL	90
68)	2-Methyl-4,6-dinitroph...	198	8.773	8.784	0.898	28245	19.90	ng/uL	97
69)	Diphenylamine	169	8.849	8.858	0.906	146928	20.25	ng/uL	99
70)	1,2-Diphenylhydrazine	77	8.900	8.903	0.911	198168	21.36	ng/uL	99
71)	4-Bromophenylphenylether	248	9.259	9.264	0.947	53464	19.73	ng/uL	96
72)	Hexachlorobenzene	284	9.338	9.341	0.956	57935	20.77	ng/uL	96
73)	Pentachlorophenol	266	9.540	9.543	0.976	30129	19.19	ng/uL	96
74)	n-Octadecane	57	9.580	9.582	0.980	158544	21.68	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0105.D
Acq On : 01 Sep 2011 11:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-06|ICAL|1|SVM|1|M3
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 14:57:23 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

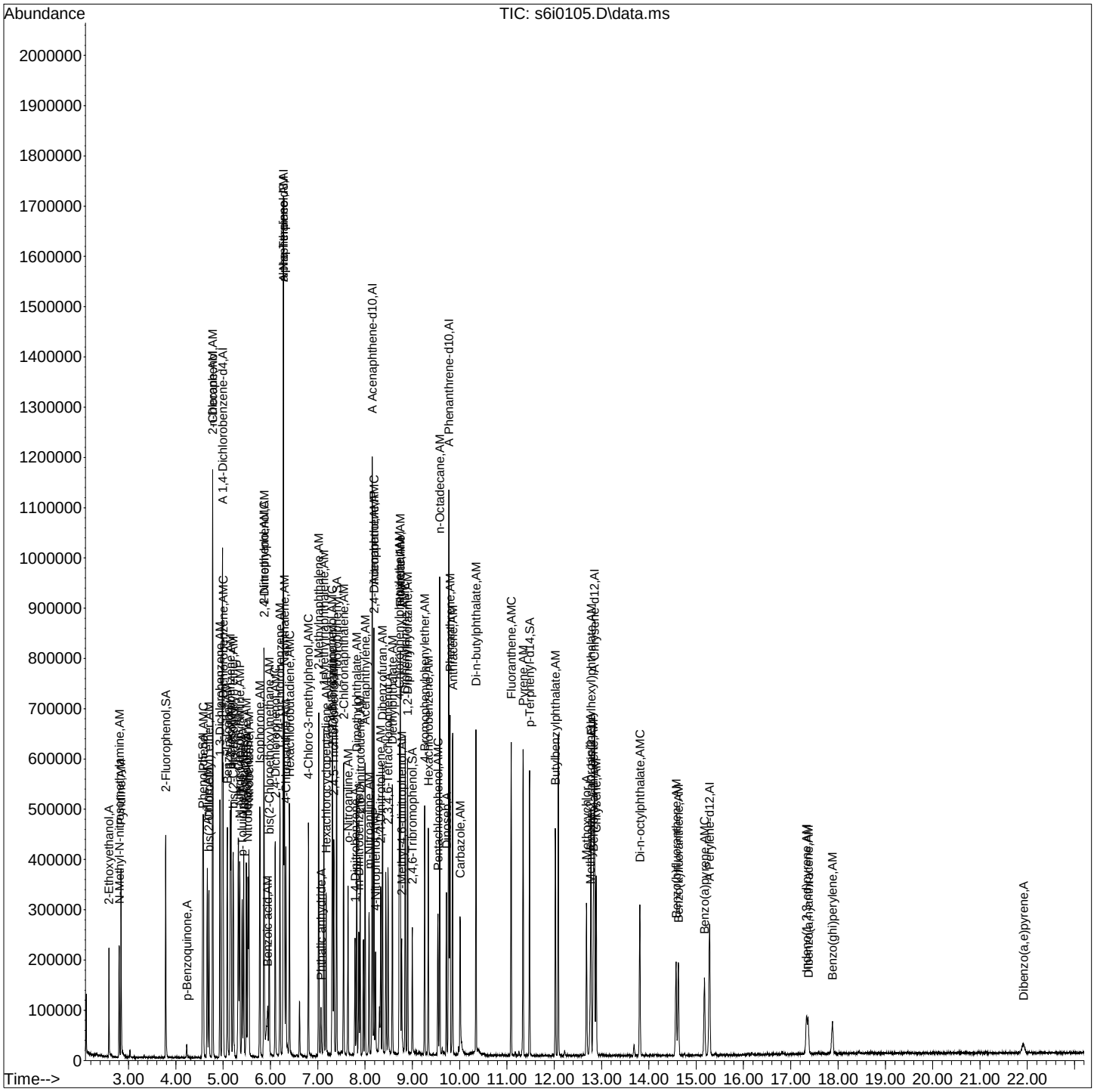
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	9.719	9.725	0.994	40329	20.07	ng/uL	96
76)	Phenanthrene	178	9.796	9.801	1.002	241187	21.38	ng/uL	98
77)	Anthracene	178	9.852	9.858	1.008	243136	21.22	ng/uL	99
78)	Carbazole	167	10.012	10.014	1.024	152551	18.52	ng/uL	98
79)	Di-n-butylphthalate	149	10.347	10.350	1.059	281676	23.01	ng/uL	99
80)	Fluoranthene	202	11.088	11.094	1.135	242784	22.70	ng/uL	98
82)	Pyrene	202	11.341	11.347	0.883	245935	18.39	ng/uL	100
84)	Butylbenzylphthalate	149	12.023	12.026	0.936	101967	19.30	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	12.776	12.776	0.994	136206	23.02	ng/uL	100
86)	Benzo(a)anthracene	228	12.827	12.833	0.998	170216	20.23	ng/uL	98
87)	Chrysene	228	12.887	12.890	1.003	155142	20.43	ng/uL	99
88)	Methoxychlor	227	12.682	12.685	0.987	127526	21.14	ng/uL	99
89)	Methylenebis(2-chloroa...	231	12.765	12.765	0.993	13230	14.67	ng/uL	91
90)	Di-n-octylphthalate	149	13.810	13.811	1.075	181436	23.95	ng/uL	99
92)	Benzo(b)fluoranthene	252	14.575	14.581	0.954	114239	20.22	ng/uL	99
93)	Benzo(k)fluoranthene	252	14.626	14.632	0.957	112066	20.55	ng/uL	98
94)	Benzo(a)pyrene	252	15.174	15.177	0.993	94970	20.18	ng/uL	94
95)	Indeno(1,2,3-cd)pyrene	276	17.331	17.351	1.134	62344	17.40	ng/uL	85
96)	Dibenzo(a,h)anthracene	278	17.371	17.371	1.137	51207	17.58	ng/uL	70
97)	Benzo(ghi)perylene	276	17.879	17.885	1.170	49669	16.83	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	21.920	21.926	1.434	21715	13.57	ng/uL#	66

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0105.D
Acq On : 01 Sep 2011 11:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-06|ICAL|1|SVM|1|M3
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 14:57:23 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0106.D
Acq On : 01 Sep 2011 12:29
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.1|ICAL|1|SVM|1|M4
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 14:57:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.988	4.988	1.000	141235	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.278	6.278	1.000	535120	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.156	8.156	1.000	283134	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	428260	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	225359	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	115495	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.988	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.988	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.988	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	189336	41.39	ng/uL	0.00
8) Phenol-d5	99	4.576	4.576	0.917	241826	40.69	ng/uL	0.00
25) Nitrobenzene-d5	82	5.531	5.531	0.881	216894	42.38	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.403	7.403	0.908	373584	40.64	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.003	9.006	1.104	49224	39.22	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	262898	41.04	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.590	2.590	0.519	138495	40.71	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.806	2.808	0.563	124198	40.10	ng/uL	100
4) Pyridine	79	2.840	2.843	0.569	179505	40.90	ng/uL	100
6) p-Benzoquinone	54	4.235	4.232	0.849	40090	50.64	ng/uL	100
7) Aniline	66	4.673	4.672	0.937	116004	40.56	ng/uL	100
9) Phenol	94	4.590	4.593	0.920	243152	42.21	ng/uL	100
10) bis(2-Chloroethyl) ether	63	4.707	4.707	0.944	167447	39.90	ng/uL	100
11) 2-Chlorophenol	128	4.781	4.780	0.958	190254	40.00	ng/uL	100
12) n-Decane	43	4.783	4.783	0.959	305035	40.69	ng/uL	100
13) 1,3-Dichlorobenzene	146	4.934	4.934	0.989	214245	40.68	ng/uL	100
14) 1,4-Dichlorobenzene	146	5.002	5.005	1.003	212974	40.69	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.153	5.153	1.033	202157	40.89	ng/uL	100
16) bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	399471	40.98	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0106.D
Acq On : 01 Sep 2011 12:29
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.1|ICAL|1|SVM|1|M4
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 14:57:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17) Benzyl alcohol	108	5.096	5.096	1.022	125444	39.17	ng/uL	100
18) o-Cresol	107	5.173	5.175	1.037	160512	41.31	ng/uL	100
19) m,p-Cresols	107	5.335	5.335	1.069	204206	41.69	ng/uL	100
20) N-Nitrosodipropylamine	70	5.366	5.391	1.076	154830	41.54	ng/uL	100
21) p-Toluidine	106	5.406	5.408	1.084	206057	38.77	ng/uL	100
22) m-Toluidine	106	5.443	5.442	1.091	212225	39.86	ng/uL	100
23) Hexachloroethane	117	5.494	5.497	1.101	88200	40.32	ng/uL	100
26) Nitrobenzene	77	5.551	5.553	0.884	214632	42.51	ng/uL	100
27) Isophorone	82	5.786	5.795	0.922	391246	42.01	ng/uL	100
28) 2-Nitrophenol	139	5.869	5.872	0.935	100994	41.00	ng/uL	100
29) 2,4-Dimethylphenol	122	5.872	5.872	0.935	176480	41.71	ng/uL	100
30) bis(2-Chloroethoxy)met...	93	5.980	5.980	0.952	214959	42.89	ng/uL	100
31) 2,4-Dichlorophenol	162	6.108	6.107	0.973	163891	43.22	ng/uL	100
32) Benzoic acid	105	5.991	5.988	0.954	120871	40.42	ng/uL	100
33) 1,2,4-Trichlorobenzene	180	6.204	6.204	0.988	195105	41.09	ng/uL	100
34) alpha-Terpineol	59	6.281	6.281	1.000	209332	42.66	ng/uL	100
35) Naphthalene	128	6.301	6.301	1.004	486314	36.02	ng/uL	100
36) 4-Chloroaniline	127	6.332	6.332	1.009	197431	43.38	ng/uL	100
37) Hexachlorobutadiene	225	6.403	6.403	1.020	113413	42.04	ng/uL	100
38) 4-Chloro-3-methylphenol	107	6.809	6.809	1.085	170293	43.56	ng/uL	100
39) 2-Methylnaphthalene	142	7.025	7.022	1.119	348741	38.82	ng/uL	100
40) Phthalic anhydride	104	7.074	7.076	1.127	37589	44.28	ng/uL	100
41) 1-Methylnaphthalene	142	7.133	7.133	1.136	329533	39.08	ng/uL	100
43) Hexachlorocyclopentadiene	237	7.179	7.179	0.880	77089	38.15	ng/uL	100
44) 2,3-Dichloroaniline	161	7.321	7.321	0.898	189335	40.05	ng/uL	100
45) 2,4,6-Trichlorophenol	196	7.309	7.309	0.896	110390	39.90	ng/uL	100
46) 2,4,5-Trichlorophenol	196	7.346	7.346	0.901	114096	39.82	ng/uL	100
48) 2-Chloronaphthalene	162	7.551	7.551	0.926	326202	39.50	ng/uL	100
49) o-Nitroaniline	65	7.648	7.647	0.938	113732	39.64	ng/uL	100
50) 1,4-Dinitrobenzene	168	7.793	7.795	0.955	57421	40.61	ng/uL	100
51) m-Nitroaniline	138	8.094	8.094	0.992	78893	40.66	ng/uL	100
52) Dimethylphthalate	163	7.835	7.838	0.961	373646	41.26	ng/uL	100
53) m-Dinitrobenzene	168	7.878	7.878	0.966	64507	40.22	ng/uL	100
54) 2,6-Dinitrotoluene	165	7.906	7.906	0.969	89251	39.77	ng/uL	100
55) 2,4-Dinitrotoluene	165	8.341	8.344	1.023	114375	40.91	ng/uL	100
56) Acenaphthylene	152	8.006	8.008	0.982	465450	39.91	ng/uL	100
57) Acenaphthene	154	8.193	8.193	1.005	332144	40.16	ng/uL	100
58) 2,4-Dinitrophenol	184	8.196	8.199	1.005	35902	34.07	ng/uL	100
59) Dibenzofuran	168	8.375	8.375	1.027	416348	40.65	ng/uL	100
60) 2,3,4,6-Tetrachlorophenol	232	8.492	8.491	1.041	97486	40.55	ng/uL	100
61) Diethylphthalate	149	8.585	8.585	1.053	348963	41.04	ng/uL	100
62) 4-Nitrophenol	139	8.233	8.236	1.009	51029	38.04	ng/uL	100
63) Fluorene	166	8.747	8.750	1.072	357105	39.93	ng/uL	100
64) 4-Chlorophenylphenylether	204	8.727	8.730	1.070	191628	40.71	ng/uL	100
65) p-Nitroaniline	138	8.756	8.758	1.074	62633	41.26	ng/uL	100
68) 2-Methyl-4,6-dinitroph...	198	8.781	8.784	0.899	55190	39.90	ng/uL	100
69) Diphenylamine	169	8.858	8.858	0.906	291789	41.26	ng/uL	100
70) 1,2-Diphenylhydrazine	77	8.904	8.903	0.911	373573	41.31	ng/uL	100
71) 4-Bromophenylphenylether	248	9.262	9.264	0.948	108722	41.16	ng/uL	100
72) Hexachlorobenzene	284	9.341	9.341	0.956	110366	40.60	ng/uL	100
73) Pentachlorophenol	266	9.543	9.543	0.976	62671	40.96	ng/uL	100
74) n-Octadecane	57	9.583	9.582	0.981	291778	40.93	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0106.D
Acq On : 01 Sep 2011 12:29
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.1|ICAL|1|SVM|1|M4
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 14:57:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

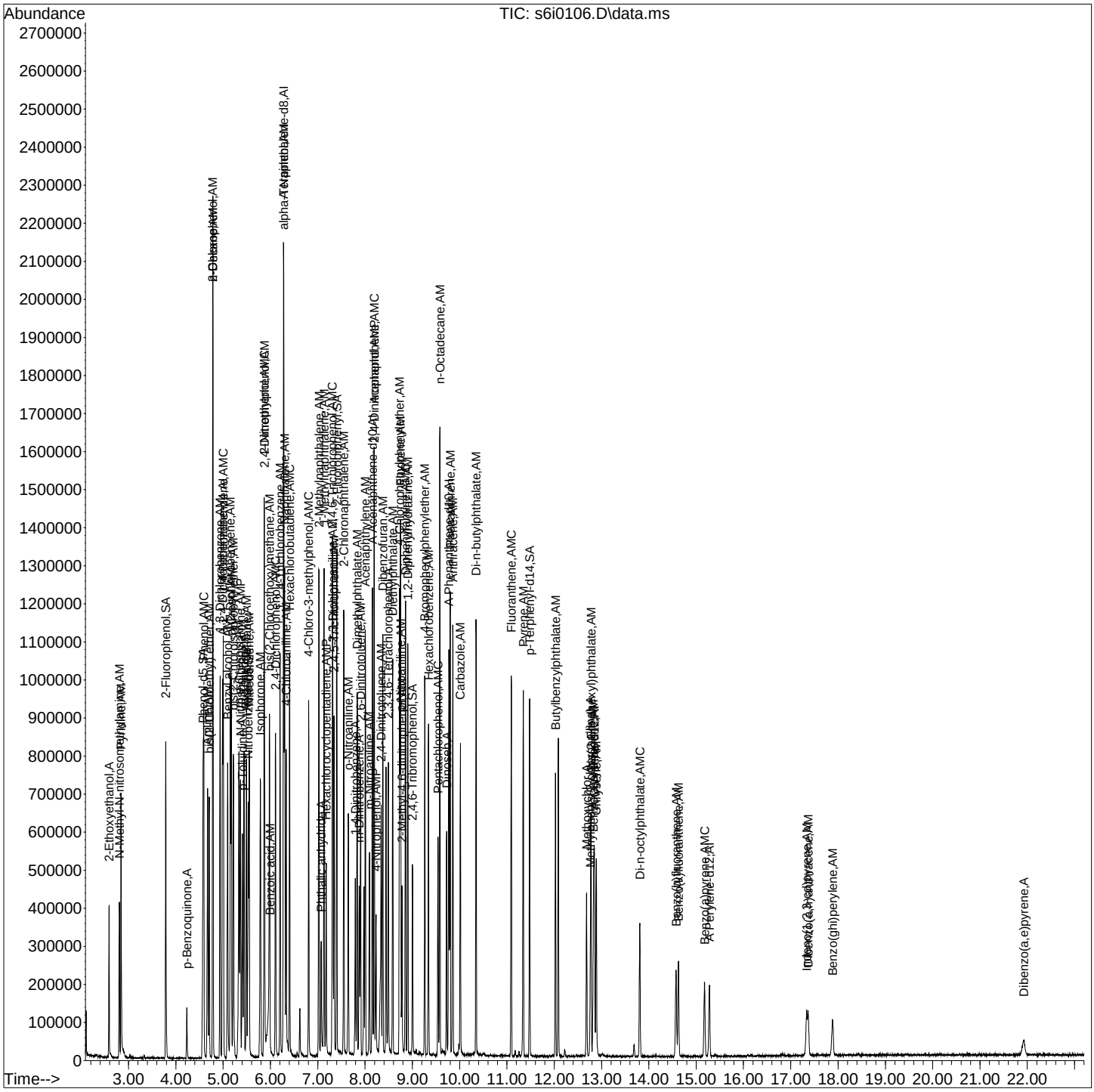
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	9.725	9.725	0.995	77614	39.63	ng/uL	100
76)	Phenanthrene	178	9.801	9.801	1.003	441555	40.15	ng/uL	100
77)	Anthracene	178	9.855	9.858	1.008	452335	40.50	ng/uL	100
78)	Carbazole	167	10.015	10.014	1.025	327327	40.78	ng/uL	100
79)	Di-n-butylphthalate	149	10.347	10.350	1.059	496602	41.62	ng/uL	100
80)	Fluoranthene	202	11.091	11.094	1.135	418727	40.16	ng/uL	100
82)	Pyrene	202	11.344	11.347	0.883	414166	40.66	ng/uL	100
84)	Butylbenzylphthalate	149	12.026	12.026	0.936	164147	40.78	ng/uL	100
85)	bis(2-Ethylhexyl)phtha...	149	12.776	12.776	0.994	169497	37.60	ng/uL	100
86)	Benzo(a)anthracene	228	12.830	12.833	0.998	249669	38.94	ng/uL	100
87)	Chrysene	228	12.887	12.890	1.003	229193	39.62	ng/uL	100
88)	Methoxychlor	227	12.685	12.685	0.987	184915	40.24	ng/uL	100
89)	Methylenebis(2-chloroa...	231	12.765	12.765	0.993	24764	36.04	ng/uL	100
90)	Di-n-octylphthalate	149	13.808	13.811	1.075	211902	36.72	ng/uL	100
92)	Benzo(b)fluoranthene	252	14.575	14.581	0.954	152326	40.78	ng/uL	100
93)	Benzo(k)fluoranthene	252	14.629	14.632	0.957	144391	40.06	ng/uL	100
94)	Benzo(a)pyrene	252	15.180	15.177	0.993	124595	40.06	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	17.334	17.351	1.134	95735	40.42	ng/uL	85
96)	Dibenzo(a,h)anthracene	278	17.365	17.371	1.136	79938	41.51	ng/uL	100
97)	Benzo(ghi)perylene	276	17.882	17.885	1.170	78219	40.09	ng/uL	100
98)	Dibenzo(a,e)pyrene	302	21.926	21.926	1.435	46770	44.21	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0106.D
Acq On : 01 Sep 2011 12:29
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.1|ICAL|1|SVM|1|M4
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 14:57:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0107.D
Acq On : 01 Sep 2011 13:03
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-08|ICAL|1|SVM|1|M1
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 08:42:50 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	149080	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	486316	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	272693	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.767	9.773	1.000	403198	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.842	12.853	1.000	205910	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.277	15.285	1.000	115240	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.767	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.767	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.767	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0d	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0d	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	5.531	0.000	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0d	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0d	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0d	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
35) Naphthalene	128	6.292	6.301	1.003	14101	1.15	ng/uL	97
39) 2-Methylnaphthalene	142	7.017	7.022	1.119	9388	1.15	ng/uL	97
41) 1-Methylnaphthalene	142	7.128	7.133	1.136	8607	1.12	ng/uL	89
48) 2-Chloronaphthalene	162	7.542	7.551	0.925	9257	1.16	ng/uL	95
56) Acenaphthylene	152	7.994	8.008	0.981	13058	1.16	ng/uL	82
57) Acenaphthene	154	8.182	8.193	1.004	8915	1.12	ng/uL	90
63) Fluorene	166	8.739	8.750	1.072	9494	1.10	ng/uL	98
76) Phenanthrene	178	9.790	9.801	1.002	11750	1.13	ng/uL	94
77) Anthracene	178	9.847	9.858	1.008	11987	1.14	ng/uL	97
78) Carbazole	167	10.006	10.014	1.024	7565	1.00	ng/uL	94
80) Fluoranthene	202	11.083	11.094	1.135	10823	1.10	ng/uL	96
82) Pyrene	202	11.336	11.347	0.883	10670	1.15	ng/uL	87
86) Benzo(a)anthracene	228	12.827	12.833	0.999	6709	1.15	ng/uL	85

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0107.D
Acq On : 01 Sep 2011 13:03
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-08|ICAL|1|SVM|1|M1
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 08:42:50 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

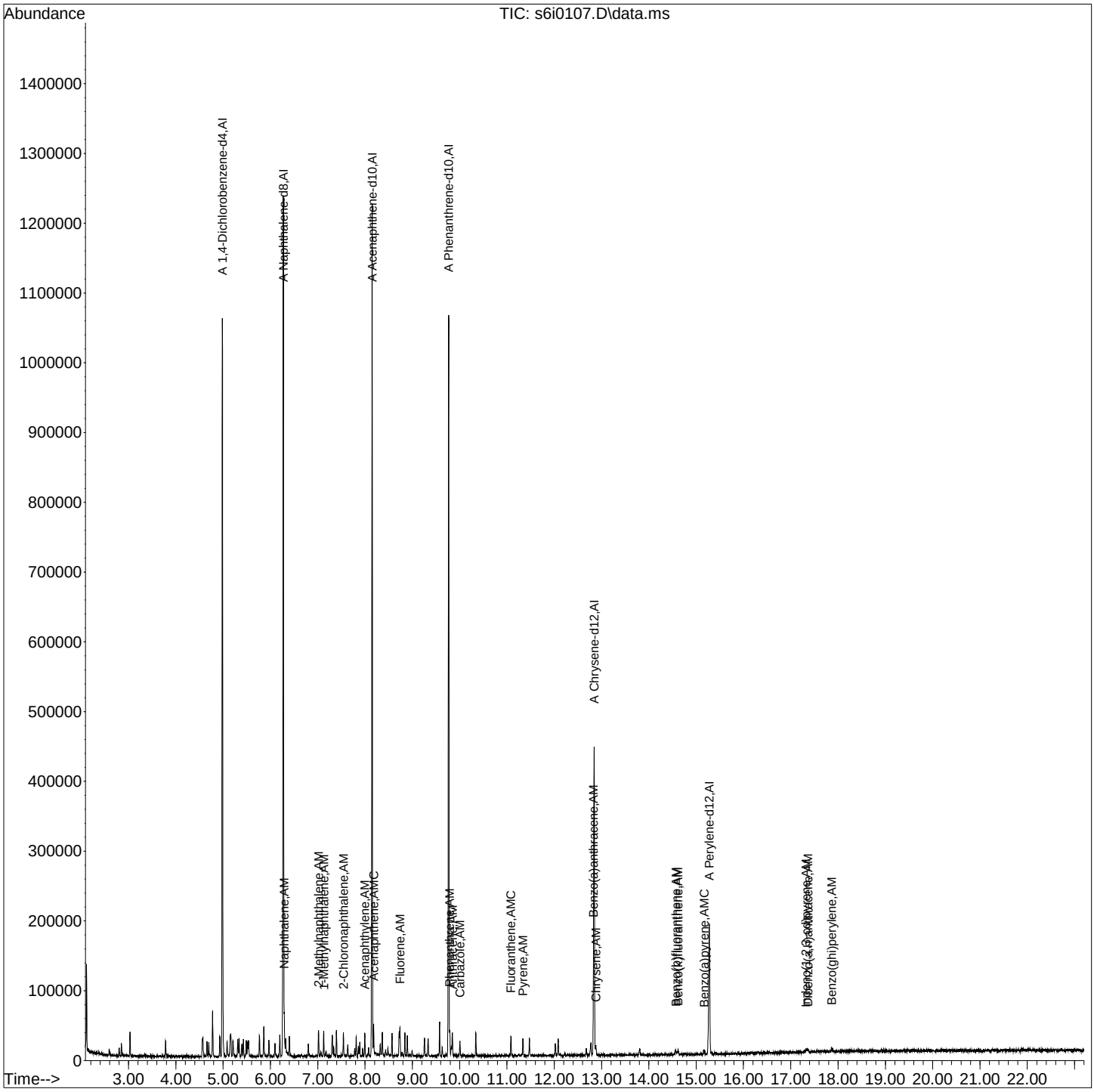
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
87) Chrysene	228	12.881	12.890	1.003	5633	1.07	ng/uL	71
92) Benzo(b)fluoranthene	252	14.569	14.581	0.954	3574	0.96	ng/uL#	63
93) Benzo(k)fluoranthene	252	14.618	14.632	0.957	3871	1.08	ng/uL	95
94) Benzo(a)pyrene	252	15.172	15.177	0.993	3065	0.99	ng/uL	83
95) Indeno(1,2,3-cd)pyrene	276	17.323	17.351	1.134	2333	0.99	ng/uL	91
96) Dibenzo(a,h)anthracene	278	17.360	17.371	1.136	1628	0.85	ng/uL	73
97) Benzo(ghi)perylene	276	17.865	17.885	1.169	2402	1.23	ng/uL	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0107.D
Acq On : 01 Sep 2011 13:03
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-08|ICAL|1|SVM|1|M1
Misc : |MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 08:42:50 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0108.D
Acq On : 01 Sep 2011 13:37
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-04|ICAL|1|SVM|1|M5
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 04 14:57:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	147339	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.278	6.278	1.000	572570	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.156	8.156	1.000	286938	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	441983	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.853	12.853	1.000	234123	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	120018	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.853	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.853	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.156	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.853	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.278	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.853	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	239441	50.18	ng/uL	0.00
8) Phenol-d5	99	4.582	4.576	0.919	310603	50.10	ng/uL	0.00
25) Nitrobenzene-d5	82	5.534	5.531	0.881	280810	51.28	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.403	7.403	0.908	476141	51.11	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.009	9.006	1.105	64457	50.67	ng/uL	0.00
83) p-Terphenyl-d14	244	11.481	11.481	0.893	339894	51.07	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.593	2.590	0.520	177033	49.88	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.811	2.808	0.564	162412	50.26	ng/uL	98
4) Pyridine	79	2.843	2.843	0.570	231662	50.60	ng/uL	98
6) p-Benzoquinone	54	4.232	4.232	0.849	54160	65.58	ng/uL	99
7) Aniline	66	4.675	4.672	0.938	150573	50.47	ng/uL	99
9) Phenol	94	4.596	4.593	0.922	310813	51.72	ng/uL	98
10) bis(2-Chloroethyl) ether	63	4.710	4.707	0.945	212527	48.54	ng/uL	97
11) 2-Chlorophenol	128	4.783	4.780	0.960	248390	50.06	ng/uL	98
12) n-Decane	43	4.783	4.783	0.960	393586	50.33	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.937	4.934	0.990	273917	49.85	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.005	5.005	1.004	275966	50.54	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.156	5.153	1.034	257182	49.87	ng/uL	99
16) bis(2-Chloroisopropyl)...	45	5.218	5.218	1.047	507907	49.94	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0108.D
Acq On : 01 Sep 2011 13:37
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-04|ICAL|1|SVM|1|M5
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 04 14:57:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17)	Benzyl alcohol	108	5.099	5.096	1.023	167758	50.21	ng/uL	98
18)	o-Cresol	107	5.176	5.175	1.038	201013	49.59	ng/uL	99
19)	m,p-Cresols	107	5.338	5.335	1.071	261551	51.19	ng/uL	99
20)	N-Nitrosodipropylamine	70	5.372	5.391	1.078	197115	50.70	ng/uL	95
21)	p-Toluidine	106	5.409	5.408	1.085	279082	50.34	ng/uL	96
22)	m-Toluidine	106	5.445	5.442	1.092	267420	48.14	ng/uL	100
23)	Hexachloroethane	117	5.494	5.497	1.102	112804	49.43	ng/uL	100
26)	Nitrobenzene	77	5.553	5.553	0.885	277772	51.42	ng/uL	100
27)	Isophorone	82	5.792	5.795	0.923	492333	49.41	ng/uL	99
28)	2-Nitrophenol	139	5.869	5.872	0.935	132463	50.26	ng/uL	99
29)	2,4-Dimethylphenol	122	5.877	5.872	0.936	230901	51.01	ng/uL	98
30)	bis(2-Chloroethoxy)met...	93	5.983	5.980	0.953	276256	51.51	ng/uL	99
31)	2,4-Dichlorophenol	162	6.110	6.107	0.973	206548	50.90	ng/uL	99
32)	Benzoic acid	105	6.005	5.988	0.957	165106	51.60	ng/uL	95
33)	1,2,4-Trichlorobenzene	180	6.204	6.204	0.988	251639	49.53	ng/uL	99
34)	alpha-Terpineol	59	6.284	6.281	1.001	266148	50.70	ng/uL	98
35)	Naphthalene	128	6.301	6.301	1.004	603702	41.79	ng/uL	98
36)	4-Chloroaniline	127	6.335	6.332	1.009	253830	52.12	ng/uL	99
37)	Hexachlorobutadiene	225	6.403	6.403	1.020	147943	51.25	ng/uL	99
38)	4-Chloro-3-methylphenol	107	6.812	6.809	1.085	216855	51.85	ng/uL	98
39)	2-Methylnaphthalene	142	7.025	7.022	1.119	434800	45.23	ng/uL	96
40)	Phthalic anhydride	104	7.076	7.076	1.127	50591	55.70	ng/uL	96
41)	1-Methylnaphthalene	142	7.133	7.133	1.136	412215	45.69	ng/uL	98
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	98835	48.26	ng/uL	96
44)	2,3-Dichloroaniline	161	7.321	7.321	0.898	243100	50.75	ng/uL	99
45)	2,4,6-Trichlorophenol	196	7.312	7.309	0.897	141402	50.44	ng/uL	100
46)	2,4,5-Trichlorophenol	196	7.349	7.346	0.901	147991	50.96	ng/uL	99
48)	2-Chloronaphthalene	162	7.554	7.551	0.926	415964	49.71	ng/uL	99
49)	o-Nitroaniline	65	7.650	7.647	0.938	146655	50.43	ng/uL	99
50)	1,4-Dinitrobenzene	168	7.795	7.795	0.956	73046	50.98	ng/uL	99
51)	m-Nitroaniline	138	8.099	8.094	0.993	102019	51.88	ng/uL	100
52)	Dimethylphthalate	163	7.841	7.838	0.961	460640	50.19	ng/uL	100
53)	m-Dinitrobenzene	168	7.883	7.878	0.967	81926	50.41	ng/uL	82
54)	2,6-Dinitrotoluene	165	7.909	7.906	0.970	113088	49.72	ng/uL	98
55)	2,4-Dinitrotoluene	165	8.347	8.344	1.023	143859	50.78	ng/uL	97
56)	Acenaphthylene	152	8.008	8.008	0.982	581506	49.20	ng/uL	99
57)	Acenaphthene	154	8.196	8.193	1.005	412362	49.19	ng/uL	99
58)	2,4-Dinitrophenol	184	8.199	8.199	1.005	50227	47.04	ng/uL#	75
59)	Dibenzofuran	168	8.378	8.375	1.027	523747	50.46	ng/uL	100
60)	2,3,4,6-Tetrachlorophenol	232	8.494	8.491	1.041	125165	51.37	ng/uL	96
61)	Diethylphthalate	149	8.588	8.585	1.053	434222	50.39	ng/uL	99
62)	4-Nitrophenol	139	8.239	8.236	1.010	71619	52.68	ng/uL	94
63)	Fluorene	166	8.753	8.750	1.073	449291	49.57	ng/uL	99
64)	4-Chlorophenylphenylether	204	8.730	8.730	1.070	240590	50.43	ng/uL	99
65)	p-Nitroaniline	138	8.764	8.758	1.075	84331	54.81	ng/uL	99
68)	2-Methyl-4,6-dinitroph...	198	8.790	8.784	0.899	74342	52.08	ng/uL	98
69)	Diphenylamine	169	8.861	8.858	0.907	370934	50.82	ng/uL	99
70)	1,2-Diphenylhydrazine	77	8.906	8.903	0.911	473509	50.74	ng/uL	100
71)	4-Bromophenylphenylether	248	9.267	9.264	0.948	139849	51.30	ng/uL	99
72)	Hexachlorobenzene	284	9.344	9.341	0.956	140845	50.20	ng/uL	99
73)	Pentachlorophenol	266	9.546	9.543	0.977	81426	51.56	ng/uL	97
74)	n-Octadecane	57	9.583	9.582	0.981	370420	50.35	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0108.D
Acq On : 01 Sep 2011 13:37
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-04|ICAL|1|SVM|1|M5
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 04 14:57:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

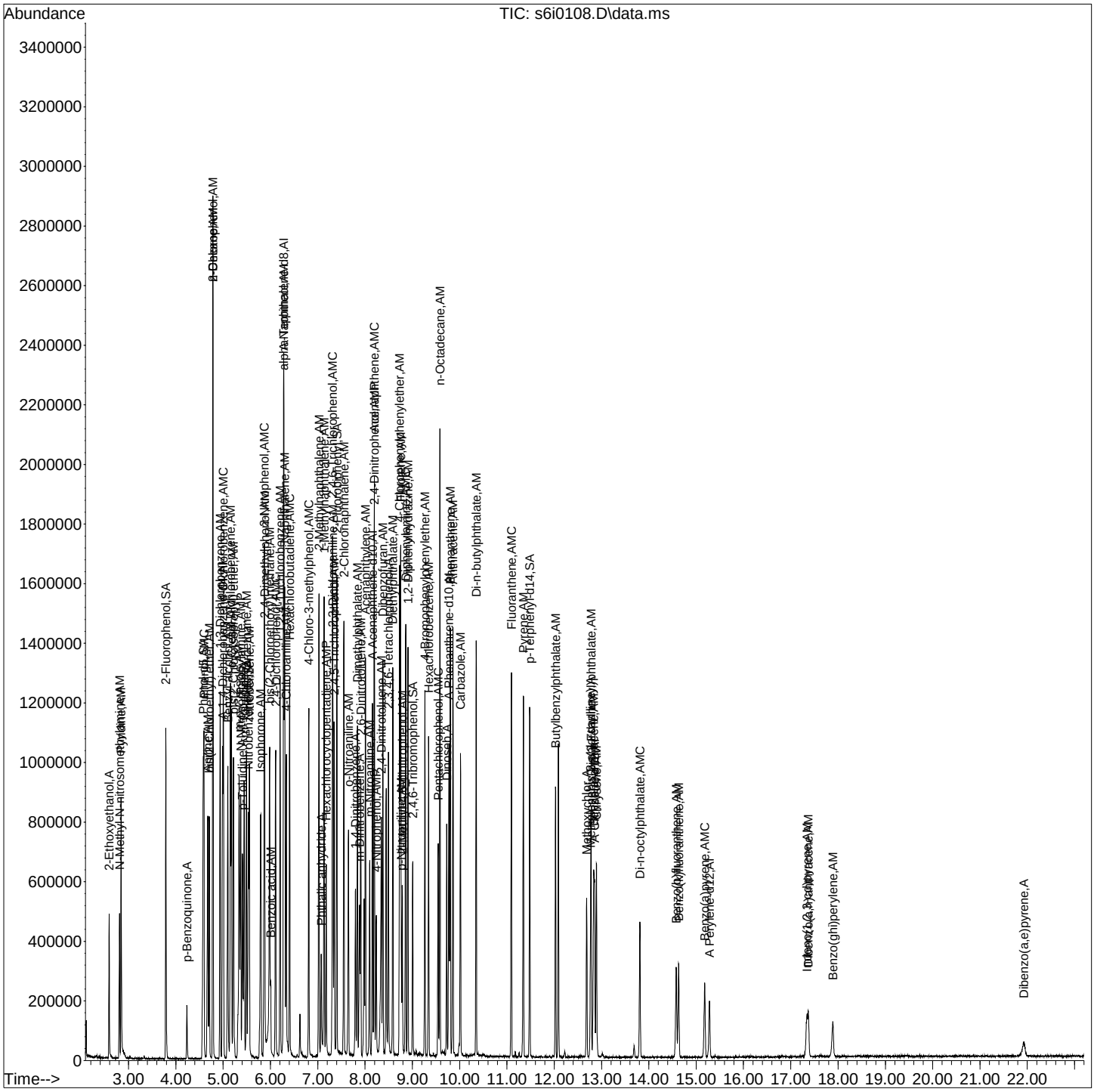
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Dinoseb	211	9.728	9.725	0.995	105923	52.41	ng/uL	98
76) Phenanthrene	178	9.804	9.801	1.003	557287	49.11	ng/uL	99
77) Anthracene	178	9.861	9.858	1.009	569992	49.45	ng/uL	99
78) Carbazole	167	10.017	10.014	1.025	425766	51.39	ng/uL	99
79) Di-n-butylphthalate	149	10.350	10.350	1.059	620857	50.41	ng/uL	99
80) Fluoranthene	202	11.094	11.094	1.135	537634	49.97	ng/uL	99
82) Pyrene	202	11.347	11.347	0.883	526809	49.78	ng/uL	99
84) Butylbenzylphthalate	149	12.029	12.026	0.936	207601	49.65	ng/uL	100
85) bis(2-Ethylhexyl)phtha...	149	12.779	12.776	0.994	216832	46.30	ng/uL	97
86) Benzo(a)anthracene	228	12.836	12.833	0.999	329856	49.52	ng/uL	99
87) Chrysene	228	12.890	12.890	1.003	297848	49.56	ng/uL	99
88) Methoxychlor	227	12.685	12.685	0.987	239485	50.17	ng/uL	100
89) Methylenebis(2-chloroa...	231	12.768	12.765	0.993	38095	53.37	ng/uL	98
90) Di-n-octylphthalate	149	13.811	13.811	1.075	272075	45.38	ng/uL	99
92) Benzo(b)fluoranthene	252	14.578	14.581	0.954	201207	51.84	ng/uL	98
93) Benzo(k)fluoranthene	252	14.632	14.632	0.958	186316	49.75	ng/uL	99
94) Benzo(a)pyrene	252	15.177	15.177	0.993	165573	51.23	ng/uL	99
95) Indeno(1,2,3-cd)pyrene	276	17.343	17.351	1.135	127478	51.79	ng/uL	89
96) Dibenzo(a,h)anthracene	278	17.368	17.371	1.137	107912	53.92	ng/uL	56
97) Benzo(ghi)perylene	276	17.888	17.885	1.171	100022	49.33	ng/uL	98
98) Dibenzo(a,e)pyrene	302	21.929	21.926	1.435	58326	53.05	ng/uL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0108.D
Acq On : 01 Sep 2011 13:37
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-04|ICAL|1|SVM|1|M5
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 04 14:57:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0109.D
Acq On : 01 Sep 2011 14:11
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-03|ICAL|1|SVM|1|M6
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 14:57:43 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	147079	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.281	6.278	1.000	626639	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.159	8.156	1.000	304285	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.779	9.773	1.000	498139	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.862	12.853	1.000	284353	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	124885	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.281	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.159	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.862	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.281	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.159	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.862	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.281	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.281	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.159	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.862	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.281	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.862	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.792	3.789	0.760	372703	78.24	ng/uL	0.00
8) Phenol-d5	99	4.590	4.576	0.920	492099	79.51	ng/uL	0.01
25) Nitrobenzene-d5	82	5.542	5.531	0.882	439158	73.28	ng/uL	0.01
47) 2-Fluorobiphenyl	172	7.409	7.403	0.908	739532	74.85	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.017	9.006	1.105	116647	86.48	ng/uL	0.01
83) p-Terphenyl-d14	244	11.486	11.481	0.893	605315	74.89	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.593	2.590	0.519	278438	78.60	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.814	2.808	0.564	258036	80.00	ng/uL	96
4) Pyridine	79	2.843	2.843	0.570	354262	77.52	ng/uL	99
6) p-Benzoquinone	54	4.235	4.232	0.849	42928	52.07	ng/uL	98
7) Aniline	66	4.681	4.672	0.938	238345	80.02	ng/uL	95
9) Phenol	94	4.607	4.593	0.923	486691	81.12	ng/uL	98
10) bis(2-Chloroethyl) ether	63	4.715	4.707	0.945	335911	76.86	ng/uL	93
11) 2-Chlorophenol	128	4.789	4.780	0.960	384669	77.66	ng/uL	99
12) n-Decane	43	4.786	4.783	0.959	590171	75.61	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.940	4.934	0.990	423577	77.23	ng/uL	97
14) 1,4-Dichlorobenzene	146	5.008	5.005	1.003	421784	77.38	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.159	5.153	1.034	401669	78.02	ng/uL	98
16) bis(2-Chloroisopropyl)...	45	5.224	5.218	1.047	777827	76.62	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0109.D
Acq On : 01 Sep 2011 14:11
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-03|ICAL|1|SVM|1|M6
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 14:57:43 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
17)	Benzyl alcohol	108	5.110	5.096	1.024	268238	80.43	ng/uL	98	
18)	o-Cresol	107	5.184	5.175	1.039	314401	77.70	ng/uL	97	
19)	m,p-Cresols	107	5.349	5.335	1.072	415985	81.55	ng/uL	99	
20)	N-Nitrosodipropylamine	70	5.389	5.391	1.080	310989	80.13	ng/uL	95	
21)	p-Toluidine	106	5.414	5.408	1.085	431087	77.89	ng/uL	96	
22)	m-Toluidine	106	5.457	5.442	1.093	464377	83.75	ng/uL	98	
23)	Hexachloroethane	117	5.497	5.497	1.101	178852	78.51	ng/uL	100	
26)	Nitrobenzene	77	5.565	5.553	0.886	434837	73.55	ng/uL	100	
27)	Isophorone	82	5.812	5.795	0.925	783657	71.86	ng/uL	100	
28)	2-Nitrophenol	139	5.877	5.872	0.936	216987	75.23	ng/uL	99	
29)	2,4-Dimethylphenol	122	5.883	5.872	0.937	365058	73.68	ng/uL	99	
30)	bis(2-Chloroethoxy)met...	93	5.991	5.980	0.954	437552	74.55	ng/uL	98	
31)	2,4-Dichlorophenol	162	6.119	6.107	0.974	331114	74.56	ng/uL	99	
32)	Benzoic acid	105	6.045	5.988	0.962	301981	86.23	ng/uL	92	
33)	1,2,4-Trichlorobenzene	180	6.210	6.204	0.989	390772	70.28	ng/uL	98	
34)	alpha-Terpineol	59	6.292	6.281	1.002	423244	73.66	ng/uL	98	
35)	Naphthalene	128	6.306	6.301	1.004	910828	57.61	ng/uL	97	A
36)	4-Chloroaniline	127	6.343	6.332	1.010	404489	75.89	ng/uL	98	
37)	Hexachlorobutadiene	225	6.409	6.403	1.020	235648	74.59	ng/uL	99	
38)	4-Chloro-3-methylphenol	107	6.821	6.809	1.086	350299	76.52	ng/uL	99	
39)	2-Methylnaphthalene	142	7.031	7.022	1.119	689548	65.54	ng/uL	100	
40)	Phthalic anhydride	104	7.088	7.076	1.128	77021	77.48	ng/uL	94	
41)	1-Methylnaphthalene	142	7.139	7.133	1.137	639571	64.77	ng/uL	99	
43)	Hexachlorocyclopentadiene	237	7.182	7.179	0.880	205993	94.86	ng/uL	97	
44)	2,3-Dichloroaniline	161	7.329	7.321	0.898	395694	77.89	ng/uL	99	
45)	2,4,6-Trichlorophenol	196	7.318	7.309	0.897	237185	79.78	ng/uL	98	
46)	2,4,5-Trichlorophenol	196	7.355	7.346	0.901	244439	79.38	ng/uL	98	
48)	2-Chloronaphthalene	162	7.560	7.551	0.927	653670	73.66	ng/uL	97	
49)	o-Nitroaniline	65	7.659	7.647	0.939	249966	81.06	ng/uL	99	
50)	1,4-Dinitrobenzene	168	7.807	7.795	0.957	128110	84.31	ng/uL	98	
51)	m-Nitroaniline	138	8.114	8.094	0.994	181226	86.90	ng/uL	98	
52)	Dimethylphthalate	163	7.855	7.838	0.963	738018	75.83	ng/uL	99	
53)	m-Dinitrobenzene	168	7.901	7.878	0.968	144283	83.71	ng/uL	85	
54)	2,6-Dinitrotoluene	165	7.920	7.906	0.971	193424	80.19	ng/uL	67	
55)	2,4-Dinitrotoluene	165	8.361	8.344	1.025	248779	82.80	ng/uL	96	
56)	Acenaphthylene	152	8.017	8.008	0.983	903345	72.07	ng/uL	97	
57)	Acenaphthene	154	8.202	8.193	1.005	685801	77.15	ng/uL	97	
58)	2,4-Dinitrophenol	184	8.213	8.199	1.007	107118	94.59	ng/uL#	32	
59)	Dibenzofuran	168	8.386	8.375	1.028	827378	75.16	ng/uL	97	
60)	2,3,4,6-Tetrachlorophenol	232	8.500	8.491	1.042	220217	85.22	ng/uL	98	
61)	Diethylphthalate	149	8.600	8.585	1.054	702553	76.87	ng/uL	97	
62)	4-Nitrophenol	139	8.256	8.236	1.012	136778	94.87	ng/uL	94	
63)	Fluorene	166	8.759	8.750	1.073	728944	75.84	ng/uL	100	
64)	4-Chlorophenylphenylether	204	8.739	8.730	1.071	394627	78.01	ng/uL	99	
65)	p-Nitroaniline	138	8.790	8.758	1.077	162017	99.30	ng/uL	97	
68)	2-Methyl-4,6-dinitroph...	198	8.804	8.784	0.900	149156	92.72	ng/uL	97	
69)	Diphenylamine	169	8.869	8.858	0.907	615329	74.80	ng/uL	98	
70)	1,2-Diphenylhydrazine	77	8.915	8.903	0.912	770027	73.21	ng/uL	98	
71)	4-Bromophenylphenylether	248	9.273	9.264	0.948	236856	77.09	ng/uL	99	
72)	Hexachlorobenzene	284	9.352	9.341	0.956	240772	76.14	ng/uL	99	
73)	Pentachlorophenol	266	9.551	9.543	0.977	153831	86.43	ng/uL	98	
74)	n-Octadecane	57	9.591	9.582	0.981	614060	74.06	ng/uL	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0109.D
Acq On : 01 Sep 2011 14:11
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-03|ICAL|1|SVM|1|M6
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 14:57:43 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

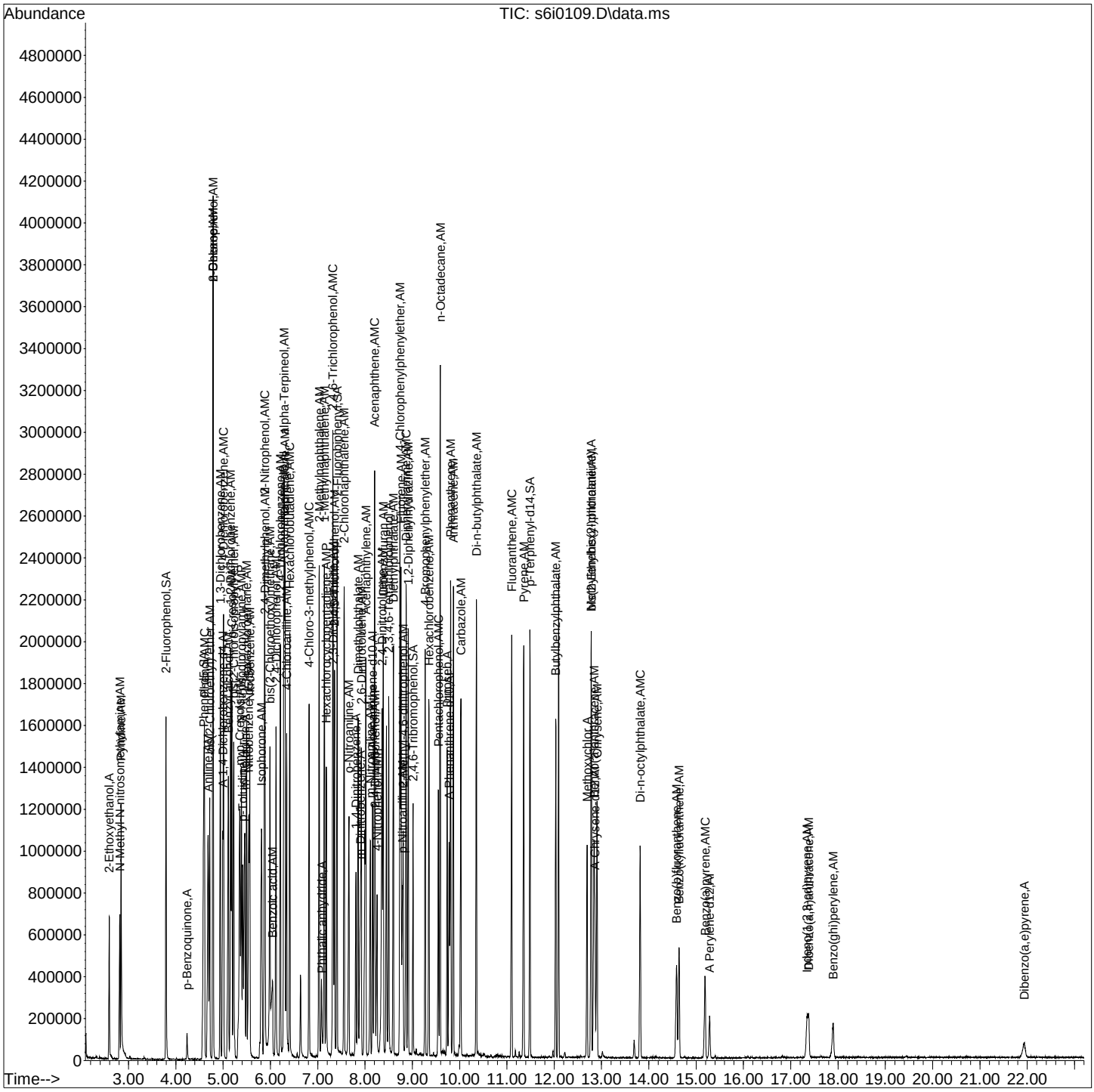
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Dinoseb	211	9.736	9.725	0.996	209412	91.94	ng/uL	98
76) Phenanthrene	178	9.810	9.801	1.003	935982	73.18	ng/uL	98
77) Anthracene	178	9.870	9.858	1.009	965581	74.33	ng/uL	97
78) Carbazole	167	10.026	10.014	1.025	752280	80.57	ng/uL	98
79) Di-n-butylphthalate	149	10.356	10.350	1.059	1019002	73.42	ng/uL	97
80) Fluoranthene	202	11.103	11.094	1.135	911500	75.17	ng/uL	98
82) Pyrene	202	11.356	11.347	0.883	891093	69.32	ng/uL	97
84) Butylbenzylphthalate	149	12.032	12.026	0.935	391812	77.15	ng/uL	99
85) bis(2-Ethylhexyl)phtha...	149	12.785	12.776	0.994	482457	84.82	ng/uL	96
86) Benzo(a)anthracene	228	12.842	12.833	0.998	620767	76.73	ng/uL	98
87) Chrysene	228	12.904	12.890	1.003	567273	77.71	ng/uL	99
88) Methoxychlor	227	12.694	12.685	0.987	466180	80.40	ng/uL	97
89) Methylenebis(2-chloroa...	231	12.779	12.765	0.994	94653	109.19	ng/uL	94
90) Di-n-octylphthalate	149	13.816	13.811	1.074	620971	85.27	ng/uL	98
92) Benzo(b)fluoranthene	252	14.586	14.581	0.954	330545	81.85	ng/uL	99
93) Benzo(k)fluoranthene	252	14.640	14.632	0.958	320714	82.29	ng/uL	99
94) Benzo(a)pyrene	252	15.192	15.177	0.994	268812	79.93	ng/uL	99
95) Indeno(1,2,3-cd)pyrene	276	17.343	17.351	1.135	186259	72.72	ng/uL	89
96) Dibenzo(a,h)anthracene	278	17.377	17.371	1.137	155713	74.78	ng/uL	67
97) Benzo(ghi)perylene	276	17.897	17.885	1.171	147430	69.88	ng/uL	98
98) Dibenzo(a,e)pyrene	302	21.937	21.926	1.435	86954	76.01	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0109.D
Acq On : 01 Sep 2011 14:11
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-03|ICAL|1|SVM|1|M6
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 04 14:57:43 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0110.D
Acq On : 01 Sep 2011 14:44
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-02|ICAL|1|SVM|1|M7
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 04 14:57:48 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	149567	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.284	6.278	1.000	666826	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.162	8.156	1.000	296258	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.778	9.773	1.000	446082	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.856	12.853	1.000	197589	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	93458	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.778	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.856	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.778	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.856	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.778	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.856	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.856	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.794	3.789	0.760	466090	96.22	ng/uL	0.00
8) Phenol-d5	99	4.596	4.576	0.921	615371	97.77	ng/uL	0.02
25) Nitrobenzene-d5	82	5.545	5.531	0.882	554107	86.89	ng/uL	0.01
47) 2-Fluorobiphenyl	172	7.412	7.403	0.908	890581	92.58	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.017	9.006	1.105	132945	101.23	ng/uL	0.01
83) p-Terphenyl-d14	244	11.486	11.481	0.893	603052	107.37	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
2) 2-Ethoxyethanol	59	2.595	2.590	0.520	356996	99.09	ng/uL	98	
3) N-Methyl-N-nitrosometh...	74	2.820	2.808	0.565	322520	98.33	ng/uL	98	
4) Pyridine	79	2.843	2.843	0.570	455657	98.05	ng/uL	99	
6) p-Benzoquinone	54	4.241	4.232	0.850	115135	137.34	ng/uL	99	A
7) Aniline	66	4.684	4.672	0.939	302105	99.75	ng/uL	90	
9) Phenol	94	4.610	4.593	0.924	611908	100.30	ng/uL	97	
10) bis(2-Chloroethyl) ether	63	4.721	4.707	0.946	446713	100.51	ng/uL	82	
11) 2-Chlorophenol	128	4.792	4.780	0.960	480198	95.33	ng/uL	98	
12) n-Decane	43	4.789	4.783	0.960	730739	92.06	ng/uL	100	
13) 1,3-Dichlorobenzene	146	4.942	4.934	0.990	525518	94.22	ng/uL	97	
14) 1,4-Dichlorobenzene	146	5.011	5.005	1.004	520602	93.92	ng/uL	99	
15) 1,2-Dichlorobenzene	146	5.161	5.153	1.034	497193	94.97	ng/uL	98	
16) bis(2-Chloroisopropyl)...	45	5.227	5.218	1.047	944775	91.52	ng/uL	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0110.D
Acq On : 01 Sep 2011 14:44
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-02|ICAL|1|SVM|1|M7
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 04 14:57:48 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
17)	Benzyl alcohol	108	5.116	5.096	1.025	334281	98.57	ng/uL	99	
18)	o-Cresol	107	5.190	5.175	1.040	396838	96.44	ng/uL	98	
19)	m,p-Cresols	107	5.357	5.335	1.073	515723	99.42	ng/uL	97	
20)	N-Nitrosodipropylamine	70	5.394	5.391	1.081	369219	93.55	ng/uL	95	
21)	p-Toluidine	106	5.420	5.408	1.086	621747	110.47	ng/uL	98	
22)	m-Toluidine	106	5.468	5.442	1.096	546388	96.90	ng/uL	96	
23)	Hexachloroethane	117	5.496	5.497	1.101	224421	96.88	ng/uL	99	
26)	Nitrobenzene	77	5.567	5.553	0.886	539914	85.82	ng/uL	98	
27)	Isophorone	82	5.820	5.795	0.926	931649	80.28	ng/uL	98	
28)	2-Nitrophenol	139	5.877	5.872	0.935	267156	87.04	ng/uL	99	
29)	2,4-Dimethylphenol	122	5.889	5.872	0.937	462322	87.69	ng/uL	97	
30)	bis(2-Chloroethoxy)met...	93	5.994	5.980	0.954	551636	88.32	ng/uL	97	
31)	2,4-Dichlorophenol	162	6.122	6.107	0.974	414412	87.69	ng/uL	99	
32)	Benzoic acid	105	6.068	5.988	0.966	373825	100.31	ng/uL	92	
33)	1,2,4-Trichlorobenzene	180	6.213	6.204	0.989	487881	82.46	ng/uL	98	
34)	alpha-Terpineol	59	6.295	6.281	1.002	524921	85.86	ng/uL	95	
35)	Naphthalene	128	6.309	6.301	1.004	1132088	67.28	ng/uL	95	A
36)	4-Chloroaniline	127	6.346	6.332	1.010	493814	87.07	ng/uL	97	
37)	Hexachlorobutadiene	225	6.409	6.403	1.020	297990	88.64	ng/uL	100	
38)	4-Chloro-3-methylphenol	107	6.823	6.809	1.086	435149	89.33	ng/uL	99	
39)	2-Methylnaphthalene	142	7.034	7.022	1.119	832792	74.38	ng/uL	97	
40)	Phthalic anhydride	104	7.090	7.076	1.128	129650	122.56	ng/uL	80	A
41)	1-Methylnaphthalene	142	7.144	7.133	1.137	788560	75.04	ng/uL	98	
43)	Hexachlorocyclopentadiene	237	7.181	7.179	0.880	189813	89.77	ng/uL	97	
44)	2,3-Dichloroaniline	161	7.329	7.321	0.898	482527	97.56	ng/uL	99	
45)	2,4,6-Trichlorophenol	196	7.321	7.309	0.897	285318	98.57	ng/uL	98	
46)	2,4,5-Trichlorophenol	196	7.358	7.346	0.901	303443	101.21	ng/uL	95	
48)	2-Chloronaphthalene	162	7.562	7.551	0.927	792642	91.74	ng/uL	96	
49)	o-Nitroaniline	65	7.662	7.647	0.939	300819	100.19	ng/uL	99	
50)	1,4-Dinitrobenzene	168	7.809	7.795	0.957	147636	99.79	ng/uL	98	
51)	m-Nitroaniline	138	8.116	8.094	0.994	205956	101.44	ng/uL	97	
52)	Dimethylphthalate	163	7.858	7.838	0.963	896226	94.58	ng/uL	99	
53)	m-Dinitrobenzene	168	7.909	7.878	0.969	168813	100.60	ng/uL	86	
54)	2,6-Dinitrotoluene	165	7.926	7.906	0.971	230042	97.96	ng/uL	70	
55)	2,4-Dinitrotoluene	165	8.363	8.344	1.025	288003	98.46	ng/uL	94	
56)	Acenaphthylene	152	8.020	8.008	0.983	1095523	89.77	ng/uL	97	
57)	Acenaphthene	154	8.204	8.193	1.005	803205	92.80	ng/uL	98	
58)	2,4-Dinitrophenol	184	8.216	8.199	1.007	117856	106.90	ng/uL#	42	
59)	Dibenzofuran	168	8.389	8.375	1.028	977396	91.20	ng/uL	97	
60)	2,3,4,6-Tetrachlorophenol	232	8.503	8.491	1.042	256760	102.06	ng/uL	97	
61)	Diethylphthalate	149	8.605	8.585	1.054	816083	91.72	ng/uL	97	
62)	4-Nitrophenol	139	8.261	8.236	1.012	145909	103.94	ng/uL	96	
63)	Fluorene	166	8.761	8.750	1.073	859654	91.86	ng/uL	99	
64)	4-Chlorophenylphenylether	204	8.741	8.730	1.071	465929	94.60	ng/uL	99	
65)	p-Nitroaniline	138	8.793	8.758	1.077	174672	109.96	ng/uL	98	
68)	2-Methyl-4,6-dinitroph...	198	8.810	8.784	0.901	161804	112.32	ng/uL	98	
69)	Diphenylamine	169	8.875	8.858	0.908	717676	97.43	ng/uL	99	
70)	1,2-Diphenylhydrazine	77	8.918	8.903	0.912	872401	92.62	ng/uL	96	
71)	4-Bromophenylphenylether	248	9.276	9.264	0.949	273675	99.47	ng/uL	99	
72)	Hexachlorobenzene	284	9.352	9.341	0.956	280322	98.99	ng/uL	99	
73)	Pentachlorophenol	266	9.551	9.543	0.977	175593	110.17	ng/uL	98	
74)	n-Octadecane	57	9.591	9.582	0.981	688063	92.67	ng/uL	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0110.D
Acq On : 01 Sep 2011 14:44
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-02|ICAL|1|SVM|1|M7
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 04 14:57:48 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

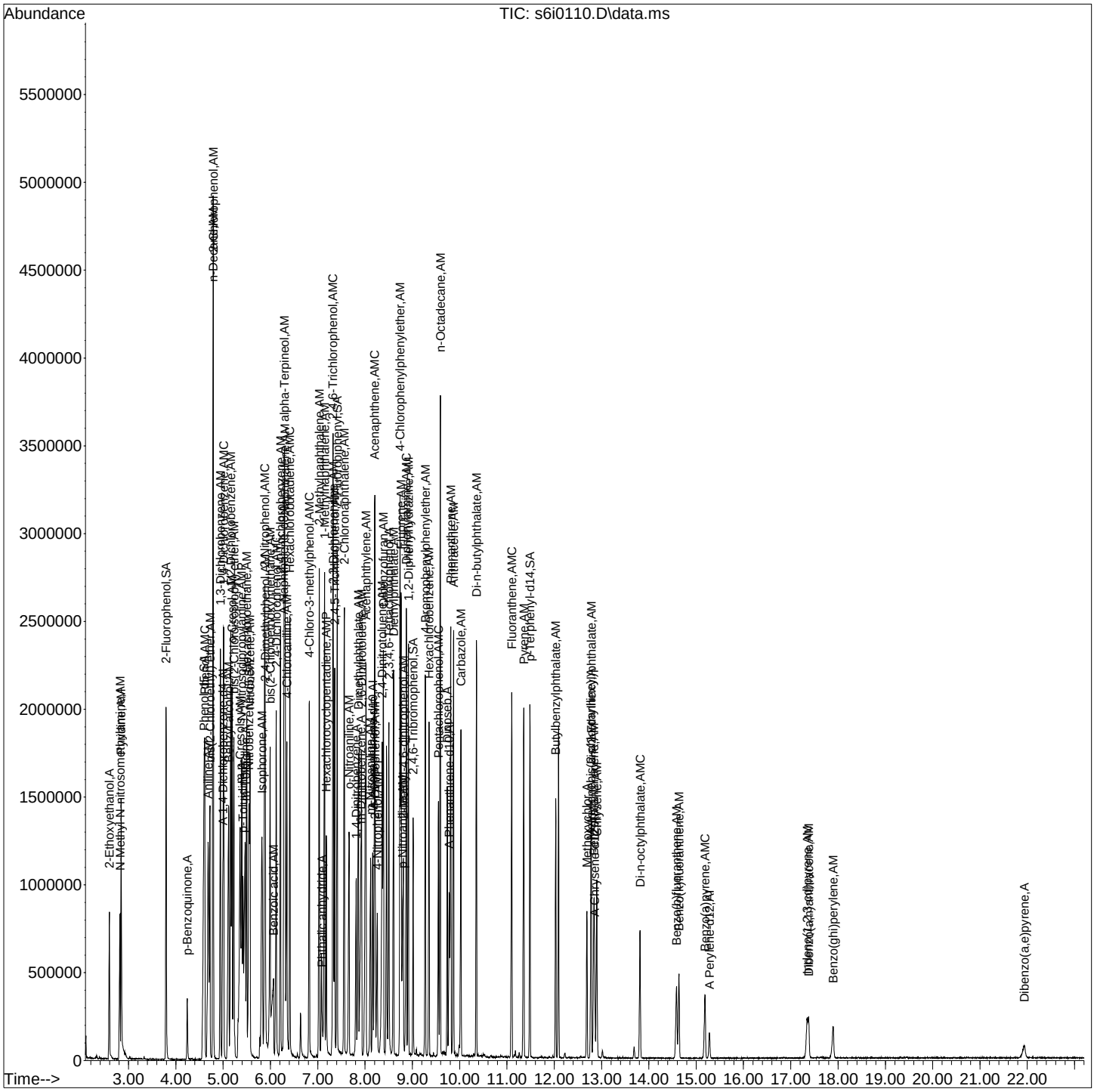
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
75) Dinoseb	211	9.739	9.725	0.996	216099	105.94	ng/uL	100	
76) Phenanthrene	178	9.813	9.801	1.003	1035865	90.44	ng/uL	97	
77) Anthracene	178	9.872	9.858	1.010	1045450	89.87	ng/uL	96	
78) Carbazole	167	10.026	10.014	1.025	817041	97.71	ng/uL	98	
79) Di-n-butylphthalate	149	10.355	10.350	1.059	1085238	87.31	ng/uL	96	
80) Fluoranthene	202	11.103	11.094	1.135	954974	87.94	ng/uL	97	
82) Pyrene	202	11.355	11.347	0.883	920459	103.05	ng/uL	97	
84) Butylbenzylphthalate	149	12.032	12.026	0.936	352929	100.01	ng/uL	98	
85) bis(2-Ethylhexyl)phtha...	149	12.782	12.776	0.994	372618	94.27	ng/uL	97	
86) Benzo(a)anthracene	228	12.839	12.833	0.999	522071	92.87	ng/uL	99	
87) Chrysene	228	12.898	12.890	1.003	477116	94.06	ng/uL	100	
88) Methoxychlor	227	12.691	12.685	0.987	379610	94.22	ng/uL	99	
89) Methylenebis(2-chloroa...	231	12.771	12.765	0.993	72942	121.09	ng/uL	95	A
90) Di-n-octylphthalate	149	13.813	13.811	1.074	463854	91.67	ng/uL	100	
92) Benzo(b)fluoranthene	252	14.583	14.581	0.954	298281	98.69	ng/uL	99	
93) Benzo(k)fluoranthene	252	14.637	14.632	0.958	288404	98.89	ng/uL	99	
94) Benzo(a)pyrene	252	15.186	15.177	0.994	251886	100.08	ng/uL	98	
95) Indeno(1,2,3-cd)pyrene	276	17.348	17.351	1.135	203143	105.99	ng/uL	88	
96) Dibenzo(a,h)anthracene	278	17.379	17.371	1.137	169877	109.01	ng/uL	95	
97) Benzo(ghi)perylene	276	17.896	17.885	1.171	158551	100.42	ng/uL	99	
98) Dibenzo(a,e)pyrene	302	21.937	21.926	1.436	86493	101.03	ng/uL	94	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0110.D
Acq On : 01 Sep 2011 14:44
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-02|ICAL|1|SVM|1|M7
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 04 14:57:48 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0111.D
Acq On : 01 Sep 2011 15:18
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-01|ICAL|1|SVM|1|M8
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 14:57:53 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	140988	40.00	ng/uL #	0.00
24) A Naphthalene-d8	136	6.284	6.278	1.000	672695	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.162	8.156	1.000	284140	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.779	9.773	1.000	438624	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.859	12.853	1.000	186947	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	97424	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.859	12.853	1.000	0m	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.859	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.162	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.859	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.991	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.284	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.859	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.795	3.789	0.760	525667	115.13	ng/uL	0.00
8) Phenol-d5	99	4.599	4.576	0.921	704348	118.72	ng/uL	0.02
25) Nitrobenzene-d5	82	5.551	5.531	0.883	638200	99.20	ng/uL	0.02
47) 2-Fluorobiphenyl	172	7.415	7.403	0.908	1024059	111.00	ng/uL	0.01
66) 2,4,6-Tribromophenol	330	9.020	9.006	1.105	152857	121.36	ng/uL	0.01 A
83) p-Terphenyl-d14	244	11.489	11.481	0.893	667749	125.66	ng/uL	0.00 A

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.598	2.590	0.521	401088	118.11	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	2.820	2.808	0.565	371015	119.99	ng/uL	97
4) Pyridine	79	2.843	2.843	0.570	515904	117.77	ng/uL	99
6) p-Benzoquinone	54	4.243	4.232	0.850	124311	157.30	ng/uL	98 A
7) Aniline	66	4.687	4.672	0.939	343763	120.41	ng/uL	87 A
9) Phenol	94	4.616	4.593	0.925	542750	94.37	ng/uL	98
10) bis(2-Chloroethyl) ether	63	4.721	4.707	0.946	514192	122.73	ng/uL	80 A
11) 2-Chlorophenol	128	4.792	4.780	0.960	547901	115.39	ng/uL	98
12) n-Decane	43	4.789	4.783	0.960	817638	109.27	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.942	4.934	0.990	590749	112.36	ng/uL	96
14) 1,4-Dichlorobenzene	146	5.011	5.005	1.004	594173	113.71	ng/uL	98
15) 1,2-Dichlorobenzene	146	5.161	5.153	1.034	559423	113.36	ng/uL	98
16) bis(2-Chloroisopropyl)...	45	5.227	5.218	1.047	1079274	110.91	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0111.D
Acq On : 01 Sep 2011 15:18
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-01|ICAL|1|SVM|1|M8
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 14:57:53 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
17)	Benzyl alcohol	108	5.121	5.096	1.026	386680	120.96	ng/uL	98	A
18)	o-Cresol	107	5.192	5.175	1.040	452796	116.73	ng/uL	97	
19)	m,p-Cresols	107	5.360	5.335	1.074	497786	101.80	ng/uL	91	
20)	N-Nitrosodipropylamine	70	5.400	5.391	1.082	422418	113.54	ng/uL	96	
21)	p-Toluidine	106	5.420	5.408	1.086	611812	115.32	ng/uL	98	
22)	m-Toluidine	106	5.474	5.442	1.097	450850	84.82	ng/uL#	66	
23)	Hexachloroethane	117	5.497	5.497	1.101	257517	117.93	ng/uL	99	
26)	Nitrobenzene	77	5.570	5.553	0.886	615987	97.05	ng/uL	98	
27)	Isophorone	82	5.775	5.795	0.919	63073	5.39	ng/uL	100	
28)	2-Nitrophenol	139	5.880	5.872	0.936	311006	100.44	ng/uL	100	
29)	2,4-Dimethylphenol	122	5.891	5.872	0.938	533520	100.31	ng/uL	98	
30)	bis(2-Chloroethoxy)met...	93	5.997	5.980	0.954	616874	97.90	ng/uL	97	
31)	2,4-Dichlorophenol	162	6.124	6.107	0.975	469190	98.42	ng/uL	98	
32)	Benzoic acid	105	6.079	5.988	0.967	454891	121.00	ng/uL	90	A
33)	1,2,4-Trichlorobenzene	180	6.213	6.204	0.989	556279	93.20	ng/uL	98	
34)	alpha-Terpineol	59	6.298	6.281	1.002	604429	98.00	ng/uL	95	
35)	Naphthalene	128	6.312	6.301	1.005	1280577	75.45	ng/uL	94	A
36)	4-Chloroaniline	127	6.349	6.332	1.010	563575	98.50	ng/uL	98	
37)	Hexachlorobutadiene	225	6.411	6.403	1.020	333856	98.45	ng/uL	99	
38)	4-Chloro-3-methylphenol	107	6.826	6.809	1.086	500721	101.90	ng/uL	99	
39)	2-Methylnaphthalene	142	7.034	7.022	1.119	969141	85.81	ng/uL	99	A
40)	Phthalic anhydride	104	7.096	7.076	1.129	161050	150.91	ng/uL	80	A
41)	1-Methylnaphthalene	142	7.145	7.133	1.137	893972	84.33	ng/uL	97	A
43)	Hexachlorocyclopentadiene	237	7.184	7.179	0.880	208405	102.77	ng/uL	100	
44)	2,3-Dichloroaniline	161	7.332	7.321	0.898	550264	116.00	ng/uL	98	
45)	2,4,6-Trichlorophenol	196	7.326	7.309	0.898	328722	118.41	ng/uL	99	
46)	2,4,5-Trichlorophenol	196	7.361	7.346	0.902	335584	116.70	ng/uL	98	
48)	2-Chloronaphthalene	162	7.565	7.551	0.927	899624	108.56	ng/uL	95	
49)	o-Nitroaniline	65	7.665	7.647	0.939	342616	118.98	ng/uL	99	
50)	1,4-Dinitrobenzene	168	7.812	7.795	0.957	163236	115.04	ng/uL	95	
51)	m-Nitroaniline	138	8.122	8.094	0.995	238487	122.47	ng/uL	99	A
52)	Dimethylphthalate	163	7.863	7.838	0.963	956073	105.20	ng/uL	97	
53)	m-Dinitrobenzene	168	7.915	7.878	0.970	188204	116.93	ng/uL	83	
54)	2,6-Dinitrotoluene	165	7.929	7.906	0.971	261576	116.13	ng/uL	73	
55)	2,4-Dinitrotoluene	165	8.369	8.344	1.025	320440	114.22	ng/uL#	72	
56)	Acenaphthylene	152	8.023	8.008	0.983	1228301	104.94	ng/uL	96	
57)	Acenaphthene	154	8.207	8.193	1.006	924797	111.41	ng/uL	98	
58)	2,4-Dinitrophenol	184	8.221	8.199	1.007	136506	129.09	ng/uL#	41	A
59)	Dibenzofuran	168	8.392	8.375	1.028	1101925	107.20	ng/uL	96	
60)	2,3,4,6-Tetrachlorophenol	232	8.506	8.491	1.042	292120	121.07	ng/uL	96	A
61)	Diethylphthalate	149	8.608	8.585	1.055	910713	106.72	ng/uL	96	
62)	4-Nitrophenol	139	8.267	8.236	1.013	162287	120.54	ng/uL	95	A
63)	Fluorene	166	8.764	8.750	1.074	975334	108.67	ng/uL	99	
64)	4-Chlorophenylphenylether	204	8.741	8.730	1.071	523824	110.89	ng/uL	98	
65)	p-Nitroaniline	138	8.801	8.758	1.078	204679	134.34	ng/uL	97	A
68)	2-Methyl-4,6-dinitroph...	198	8.815	8.784	0.901	179235	126.53	ng/uL	98	A
69)	Diphenylamine	169	8.878	8.858	0.908	818445	113.00	ng/uL	98	
70)	1,2-Diphenylhydrazine	77	8.920	8.903	0.912	993643	107.28	ng/uL	96	
71)	4-Bromophenylphenylether	248	9.276	9.264	0.949	311694	115.21	ng/uL	99	
72)	Hexachlorobenzene	284	9.355	9.341	0.957	322957	115.99	ng/uL	99	
73)	Pentachlorophenol	266	9.554	9.543	0.977	203320	129.74	ng/uL	98	A
74)	n-Octadecane	57	9.594	9.582	0.981	790543	108.29	ng/uL	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0111.D
Acq On : 01 Sep 2011 15:18
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-01|ICAL|1|SVM|1|M8
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 14:57:53 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

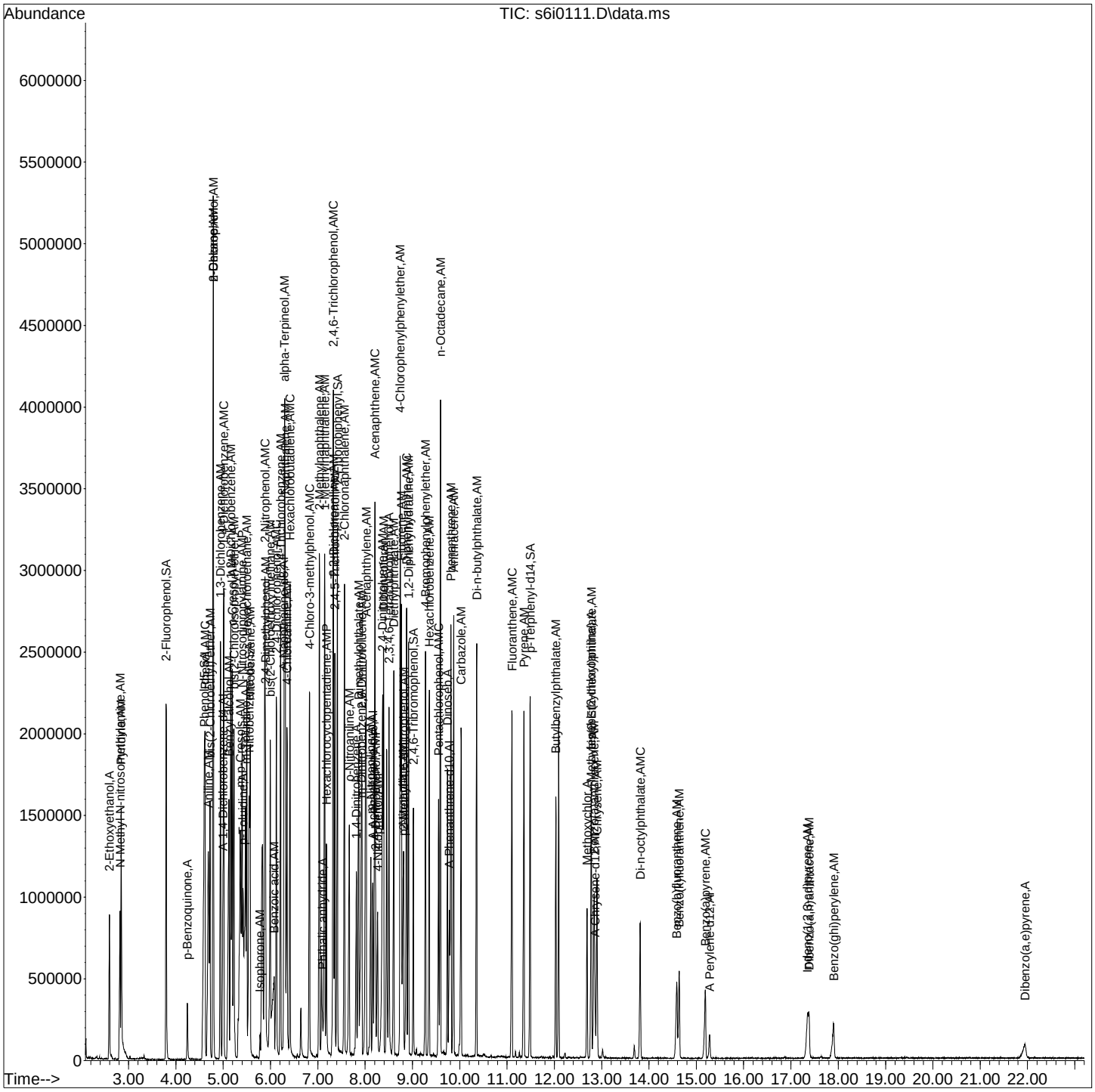
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
75) Dinoseb	211	9.742	9.725	0.996	250668	124.98	ng/uL	98	A
76) Phenanthrene	178	9.816	9.801	1.004	1174582	104.29	ng/uL	97	
77) Anthracene	178	9.872	9.858	1.010	1186790	103.75	ng/uL	96	
78) Carbazole	167	10.029	10.014	1.026	928731	112.96	ng/uL	97	
79) Di-n-butylphthalate	149	10.358	10.350	1.059	1225711	100.29	ng/uL	96	
80) Fluoranthene	202	11.106	11.094	1.136	1058265	99.11	ng/uL	97	
82) Pyrene	202	11.358	11.347	0.883	1012194	119.77	ng/uL	96	
84) Butylbenzylphthalate	149	12.032	12.026	0.936	394047	118.01	ng/uL	99	
85) bis(2-Ethylhexyl)phtha...	149	12.782	12.776	0.994	416060	111.26	ng/uL	96	
86) Benzo(a)anthracene	228	12.839	12.833	0.998	598368	112.51	ng/uL	98	
87) Chrysene	228	12.901	12.890	1.003	544871	113.53	ng/uL	99	
88) Methoxychlor	227	12.691	12.685	0.987	422976	110.96	ng/uL	98	
89) Methylenebis(2-chloroa...	231	12.773	12.765	0.993	87079	152.79	ng/uL	95	A
90) Di-n-octylphthalate	149	13.813	13.811	1.074	532544	111.23	ng/uL	100	
92) Benzo(b)fluoranthene	252	14.589	14.581	0.955	372611	118.27	ng/uL	98	
93) Benzo(k)fluoranthene	252	14.640	14.632	0.958	330969	108.86	ng/uL	99	
94) Benzo(a)pyrene	252	15.189	15.177	0.994	315392	120.21	ng/uL	99	A
95) Indeno(1,2,3-cd)pyrene	276	17.345	17.351	1.135	262622	131.44	ng/uL	90	A
96) Dibenzo(a,h)anthracene	278	17.382	17.371	1.138	218481	134.50	ng/uL	95	A
97) Benzo(ghi)perylene	276	17.902	17.885	1.172	209949	127.56	ng/uL	98	A
98) Dibenzo(a,e)pyrene	302	21.946	21.926	1.436	125862	141.04	ng/uL	92	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0111.D
Acq On : 01 Sep 2011 15:18
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-01|ICAL|1|SVM|1|M8
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 14:57:53 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I **Injection Date:** 01-SEP-11 15:52

Data File: s090111.B\s6i0112.D **Init. Cal. Date(s)** 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110812-09.1 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD **Method Update:** 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2954	1.41753		.01		9.42798	20		Averaged	
S	Phenol-d5	1.6832	1.80119		.01		7.00986	20		Averaged	
S	Nitrobenzene-d5	0.3825	0.41919		.01		9.59216	20		Averaged	
S	2-Fluorobiphenyl	1.2988	1.31548		.01		1.28426	20		Averaged	
S	2,4,6-Tribromophenol	0.1773	0.20303		.01		14.51213	20		Averaged	
S	p-Terphenyl-d14	1.137	1.34797		.01		18.55497	20		Averaged	
	2-Ethoxyethanol	0.9635	1.00512		.01		4.31967	20		Averaged	
	N-Methyl-N-nitrosomethylami	0.8772	0.86338		.01		-1.57547	20		Averaged	
	Pyridine	1.2428	1.0889		.01		-12.38333	20		Averaged	
	p-Benzoquinone	0.2242	0.26371		.01		17.62266	20		Averaged	
	Phenol	1.6316	1.64991		.01		1.12221	20		Averaged	ccc
	Aniline	0.81	0.73449		.01		-9.32222	20		Averaged	
	bis(2-Chloroethyl) ether	1.1886	1.16855		.01		-1.68686	20		Averaged	
	2-Chlorophenol	1.3471	1.32919		.01		-1.32952	20		Averaged	
	n-Decane	2.1229	2.36649		.01		11.4744	20		Averaged	
	1,3-Dichlorobenzene	1.4916	1.53976		.01		3.22875	20		Averaged	
	1,4-Dichlorobenzene	1.4824	1.51945		.01		2.49933	20		Averaged	ccc
	Benzyl alcohol	0.907	0.92748		.01		2.25799	20		Averaged	
	1,2-Dichlorobenzene	1.4001	1.41899		.01		1.34919	20		Averaged	
	o-Cresol	1.1005	1.13397		.01		3.04134	20		Averaged	
	bis(2-Chloroisopropyl)ether	2.7609	2.80887		.01		1.73748	20		Averaged	
	m,p-Cresols	1.3873	1.46453		.01		5.56693	20		Averaged	
	N-Nitrosodipropylamine	1.0555	1.12208		.05		6.30791	20		Averaged	spcc
	p-Toluidine	1.5052	1.24486		.01		-17.29604	20		Averaged	
	m-Toluidine	1.4449	1.37079		.01		-5.12907	20		Averaged	
	Hexachloroethane	0.6195	0.6246		.01		0.82324	20		Averaged	
	Nitrobenzene	0.3774	0.42198		.01		11.8124	20		Averaged	
	Isophorone	0.6961	0.72356		.01		3.94484	20		Averaged	
	2-Nitrophenol	0.1841	0.18873		.01		2.51494	20		Averaged	ccc
	2,4-Dimethylphenol	0.3163	0.3289		.01		3.98356	20		Averaged	
	bis(2-Chloroethoxy)methane	0.3747	0.38812		.01		3.58153	20		Averaged	
	Benzoic acid	0.2236	0.26057		.01		16.53399	20		Averaged	
	2,4-Dichlorophenol	0.2835	0.29546		.01		4.21869	20		Averaged	ccc
	1,2,4-Trichlorobenzene	0.3436	0.35756		.01		4.06286	20		Averaged	
	alpha-Terpineol	0.3668	0.37286		.01		1.65213	20		Averaged	
	Naphthalene	0.8859	0.90524		.01		2.18309	20		Averaged	
	4-Chloroaniline	0.3402	0.3409		.01		0.20576	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 01-SEP-11 15:52

Data File: s090111.B\s6i0112.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-09.1 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Hexachlorobutadiene	0.2017	0.2203		.01		9.22162	20		Averaged	ccc
4-Chloro-3-methylphenol	0.2922	0.32005		.01		9.53114	20		Averaged	ccc
2-Methylnaphthalene	0.6262	0.67113		.01		7.17502	20		Averaged	
Phthalic Anhydride	0.0635	0.19153		.01		201.62205	20	*	Averaged	
1-Methylnaphthalene	0.5872	0.62149		.01		5.83958	20		Averaged	
Hexachlorocyclopentadiene	0.2855	0.20195		.05		-29.26445	20	*	Averaged	spcc
2,4,6-Trichlorophenol	0.3908	0.39151		.01		0.18168	20		Averaged	ccc
2,3-Dichloroaniline	0.6678	0.67341		.01		0.84007	20		Averaged	
2,4,5-Trichlorophenol	0.4048	0.42306		.01		4.51087	20		Averaged	
2-Chloronaphthalene	1.1666	1.18818		.01		1.84982	20		Averaged	
o-Nitroaniline	0.4054	0.40009		.01		-1.30982	20		Averaged	
1,4-Dinitrobenzene	0.1998	0.207		.01		3.6036	20		Averaged	
Dimethylphthalate	1.2794	1.36799		.01		6.92434	20		Averaged	
m-Dinitrobenzene	0.2266	0.22451		.01		-0.92233	20		Averaged	
2,6-Dinitrotoluene	0.3171	0.3218		.01		1.48218	20		Averaged	
Acenaphthylene	1.6477	1.71713		.01		4.21375	20		Averaged	
m-Nitroaniline	0.2741	0.26109		.01		-4.74644	20		Averaged	
Acenaphthene	1.1685	1.14797		.01		-1.75695	20		Averaged	ccc
2,4-Dinitrophenol	0.1489	0.12412		.05		-16.64204	20		Averaged	spcc
4-Nitrophenol	0.1895	0.16872		.05		-10.9657	20		Averaged	spcc
2,4-Dinitrotoluene	0.395	0.41451		.01		4.93924	20		Averaged	
Dibenzofuran	1.4471	1.52525		.01		5.40046	20		Averaged	
2,3,4,6-Tetrachlorophenol	0.3397	0.35101		.01		3.32941	20		Averaged	
Diethylphthalate	1.2014	1.28869		.01		7.26569	20		Averaged	
4-Chlorophenylphenylether	0.665	0.67942		.01		2.16842	20		Averaged	
Fluorene	1.2635	1.26484		.01		0.10605	20		Averaged	
p-Nitroaniline	0.2145	0.23417		.01		9.17016	20		Averaged	
2-Methyl-4,6-dinitrophenol	0.1292	0.12721		.01		-1.54025	20		Averaged	
Diphenylamine	0.6605	0.71248		.01		7.8698	20		Averaged	ccc
1,2-Diphenylhydrazine	0.8446	0.89625		.01		6.11532	20		Averaged	
4-Bromophenylphenylether	0.2467	0.25339		.01		2.7118	20		Averaged	
Hexachlorobenzene	0.2539	0.2664		.01		4.9232	20		Averaged	
Pentachlorophenol	0.1429	0.13784		.01		-3.54094	20		Averaged	ccc
n-Octadecane	0.6658	0.71794		.01		7.83118	20		Averaged	
Dinoseb	0.1829	0.18244		.01		-0.2515	20		Averaged	
Phenanthrene	1.0271	1.05486		.01		2.70276	20		Averaged	
Anthracene	1.0432	1.05797		.01		1.41584	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 01-SEP-11 15:52

Data File: s090111.B\s6i0112.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-09.1 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Carbazole	0.7498	0.86739		.01		15.68285	20		Averaged	
Di-n-butylphthalate	1.1145	1.20895		.01		8.47465	20		Averaged	
Fluoranthene	0.9738	0.97178		.01		-0.20743	20		Averaged	ccc
Pyrene	1.8082	1.89705		.01		4.91373	20		Averaged	
Butylbenzylphthalate	0.7144	0.76703		.01		7.36702	20		Averaged	
Methoxychlor	0.8156	0.79287		.01		-2.78691	20		Averaged	
4,4'-Methylenebis(2-chloroanili	0.1219	0.13594		.01		11.51764	20		Averaged	
bis(2-Ethylhexyl)phthalate	0.8002	0.84003		.01		4.97751	20		Averaged	
Benzo(a)anthracene	1.138	1.13074		.01		-0.63796	20		Averaged	
Chrysene	1.0268	1.01732		.01		-0.92326	20		Averaged	
Di-n-octylphthalate	1.0244	1.00451		.01		-1.94162	20		Averaged	ccc
Benzo(b)fluoranthene	1.2936	1.35738		.01		4.93043	20		Averaged	
Benzo(k)fluoranthene	1.2483	1.22909		.01		-1.53889	20		Averaged	
Benzo(a)pyrene	1.0772	1.06571		.01		-1.06665	20		Averaged	ccc
Indeno(1,2,3-cd)pyrene	0.8203	0.82978		.01		1.15567	20		Averaged	
Dibenzo(a,h)anthracene	0.6669	0.69179		.01		3.73219	20		Averaged	
Benzo(ghi)perylene	0.6758	0.67138		.01		-0.65404	20		Averaged	
Dibenzo(a,e)pyrene	0.3664	0.34684		.01		-5.33843	20		Averaged	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0112.D
Acq On : 01 Sep 2011 15:52
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-09.1|ICV|1|SVM|1|MICV
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:45:34 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156775	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	585307	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.156	8.156	1.000	307343	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	468986	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	239452	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	119693	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156775	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	585307	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.156	8.156	1.000	307343	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	468986	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	239452	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	119693	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	585307	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.156	8.156	1.000	307343	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	468986	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	239452	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	583221	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	119693	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156775	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	585307	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.156	8.156	1.000	307343	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	468986	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	239452	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156775	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	585307	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	239452	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	119693	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.759	222234	43.77	ng/uL	0.00
8) Phenol-d5	99	4.579	4.576	0.918	282382	42.80	ng/uL	0.00
25) Nitrobenzene-d5	82	5.531	5.531	0.881	245352	43.83	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.403	7.403	0.908	404303	40.51	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.006	9.006	1.104	62399	45.80	ng/uL	0.00
83) p-Terphenyl-d14	244	11.481	11.481	0.893	322773	47.42	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.587	2.590	0.519	157577	41.73	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.806	2.808	0.563	135357	39.37	ng/uL	98
4) Pyridine	79	2.840	2.843	0.570	170712	35.05	ng/uL	98
6) p-Benzoquinone	54	4.232	4.232	0.849	41343	47.05	ng/uL	97
7) Aniline	66	4.673	4.672	0.937	115150	36.27	ng/uL	97
9) Phenol	94	4.593	4.593	0.921	258664	40.45	ng/uL	97
10) bis(2-Chloroethyl) ether	63	4.707	4.707	0.944	183200	39.32	ng/uL	98
11) 2-Chlorophenol	128	4.783	4.780	0.960	208384	39.47	ng/uL	93
12) n-Decane	43	4.783	4.783	0.960	371006	44.59	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.934	4.934	0.990	241396	41.29	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.002	5.005	1.003	238211	41.00	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.156	5.153	1.034	222462	40.54	ng/uL	98
16) bis(2-Chloroisopropyl)...	45	5.218	5.218	1.047	440361	40.69	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0112.D
Acq On : 01 Sep 2011 15:52
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-09.1|ICV|1|SVM|1|MICV
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:45:34 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
17)	Benzyl alcohol	108	5.096	5.096	1.022	145405	40.90	ng/uL	98	
18)	o-Cresol	107	5.176	5.175	1.038	177778	41.22	ng/uL	98	
19)	m,p-Cresols	107	5.332	5.335	1.070	229602	42.23	ng/uL	98	
20)	N-Nitrosodipropylamine	70	5.366	5.391	1.076	175914	42.52	ng/uL	100	
21)	p-Toluidine	106	5.406	5.408	1.084	195163	33.08	ng/uL	99	
22)	m-Toluidine	106	5.443	5.442	1.092	214906	37.95	ng/uL	98	
23)	Hexachloroethane	117	5.491	5.497	1.101	97921	40.33	ng/uL	99	
26)	Nitrobenzene	77	5.551	5.553	0.885	246989	44.72	ng/uL	99	
27)	Isophorone	82	5.786	5.795	0.922	423506	41.58	ng/uL	100	
28)	2-Nitrophenol	139	5.869	5.872	0.935	110464	41.00	ng/uL	97	
29)	2,4-Dimethylphenol	122	5.872	5.872	0.936	192506	41.60	ng/uL	99	
30)	bis(2-Chloroethoxy)met...	93	5.980	5.980	0.953	227169	41.44	ng/uL	99	
31)	2,4-Dichlorophenol	162	6.108	6.107	0.973	172932	41.69	ng/uL	99	
32)	Benzoic acid	105	5.991	5.988	0.955	152513	46.62	ng/uL	92	
33)	1,2,4-Trichlorobenzene	180	6.204	6.204	0.989	209282	41.63	ng/uL	99	
34)	alpha-Terpineol	59	6.281	6.281	1.001	218235	40.67	ng/uL	92	
35)	Naphthalene	128	6.301	6.301	1.004	529842	40.88	ng/uL	99	
36)	4-Chloroaniline	127	6.332	6.332	1.009	199532	40.08	ng/uL	99	
37)	Hexachlorobutadiene	225	6.403	6.403	1.020	128942	43.70	ng/uL	99	
38)	4-Chloro-3-methylphenol	107	6.809	6.809	1.085	187327	43.81	ng/uL	99	
39)	2-Methylnaphthalene	142	7.022	7.022	1.119	392820	42.87	ng/uL	99	
40)	Phthalic anhydride	104	7.076	7.076	1.128	112101	120.73	ng/uL	90	A
41)	1-Methylnaphthalene	142	7.133	7.133	1.137	363761	42.33	ng/uL	99	
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	62067	28.30	ng/uL	99	
44)	2,3-Dichloroaniline	161	7.318	7.321	0.897	206968	40.34	ng/uL	98	
45)	2,4,6-Trichlorophenol	196	7.309	7.309	0.896	120329	40.07	ng/uL	100	
46)	2,4,5-Trichlorophenol	196	7.346	7.346	0.901	130023	41.80	ng/uL	97	
48)	2-Chloronaphthalene	162	7.551	7.551	0.926	365180	40.74	ng/uL	100	
49)	o-Nitroaniline	65	7.648	7.647	0.938	122965	39.48	ng/uL	99	
50)	1,4-Dinitrobenzene	168	7.795	7.795	0.956	63621	41.45	ng/uL	97	
51)	m-Nitroaniline	138	8.094	8.094	0.992	80243	38.10	ng/uL	96	
52)	Dimethylphthalate	163	7.835	7.838	0.961	420441	42.77	ng/uL	99	
53)	m-Dinitrobenzene	168	7.881	7.878	0.966	69001	39.63	ng/uL	96	
54)	2,6-Dinitrotoluene	165	7.909	7.906	0.970	98903	40.60	ng/uL	99	
55)	2,4-Dinitrotoluene	165	8.341	8.344	1.023	127397	41.98	ng/uL	98	
56)	Acenaphthylene	152	8.006	8.008	0.982	527747	41.68	ng/uL	99	
57)	Acenaphthene	154	8.193	8.193	1.005	352820	39.30	ng/uL	99	
58)	2,4-Dinitrophenol	184	8.196	8.199	1.005	38146	33.35	ng/uL	97	
59)	Dibenzofuran	168	8.375	8.375	1.027	468775	42.16	ng/uL	100	
60)	2,3,4,6-Tetrachlorophenol	232	8.492	8.491	1.041	107880	41.33	ng/uL	98	
61)	Diethylphthalate	149	8.585	8.585	1.053	396071	42.91	ng/uL	100	
62)	4-Nitrophenol	139	8.233	8.236	1.009	51856	35.61	ng/uL	97	
63)	Fluorene	166	8.747	8.750	1.072	388741	40.04	ng/uL	100	
64)	4-Chlorophenylphenylether	204	8.727	8.730	1.070	208815	40.87	ng/uL	99	
65)	p-Nitroaniline	138	8.759	8.758	1.074	71971	43.67	ng/uL	99	
68)	2-Methyl-4,6-dinitroph...	198	8.784	8.784	0.899	59660	39.39	ng/uL	97	
69)	Diphenylamine	169	8.855	8.858	0.906	334145	43.15	ng/uL	99	
70)	1,2-Diphenylhydrazine	77	8.904	8.903	0.911	420331	42.45	ng/uL	99	
71)	4-Bromophenylphenylether	248	9.264	9.264	0.948	118837	41.08	ng/uL	100	
72)	Hexachlorobenzene	284	9.341	9.341	0.956	124936	41.96	ng/uL	99	
73)	Pentachlorophenol	266	9.543	9.543	0.976	64644	38.58	ng/uL	98	
74)	n-Octadecane	57	9.583	9.582	0.981	336704	43.14	ng/uL	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0112.D
Acq On : 01 Sep 2011 15:52
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-09.1|ICV|1|SVM|1|MICV
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:45:34 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

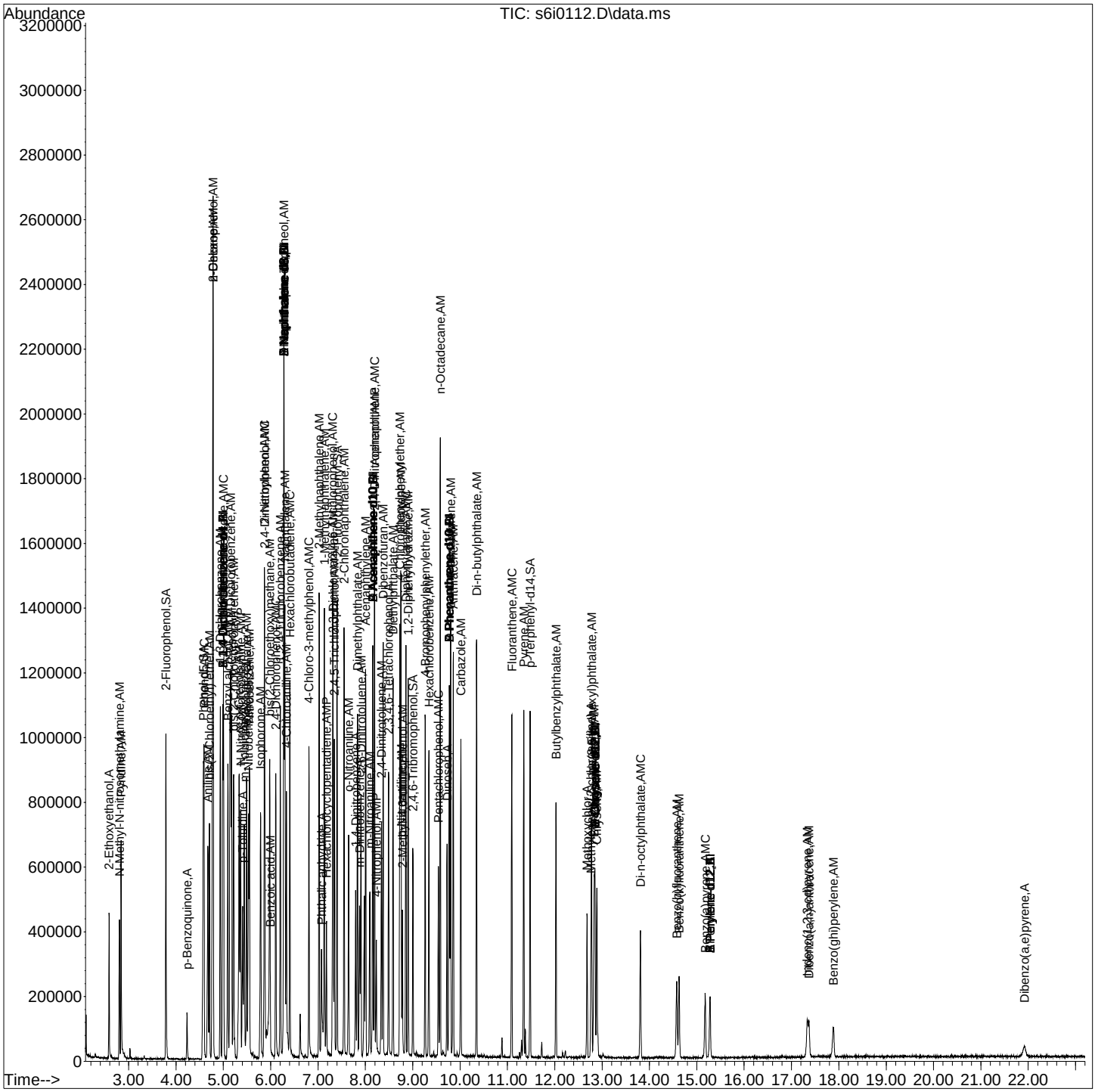
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	9.725	9.725	0.995	85563	39.90	ng/uL	99
76)	Phenanthrene	178	9.801	9.801	1.003	494713	41.08	ng/uL	100
77)	Anthracene	178	9.858	9.858	1.009	496175	40.57	ng/uL	99
78)	Carbazole	167	10.017	10.014	1.025	406793	46.27	ng/uL	99
79)	Di-n-butylphthalate	149	10.350	10.350	1.059	566979	43.39	ng/uL	99
80)	Fluoranthene	202	11.094	11.094	1.135	455753	39.92	ng/uL	100
82)	Pyrene	202	11.347	11.347	0.883	454253	41.97	ng/uL	99
84)	Butylbenzylphthalate	149	12.026	12.026	0.936	183667	42.94	ng/uL	100
85)	bis(2-Ethylhexyl)phtha...	149	12.776	12.776	0.994	201148	41.99	ng/uL	99
86)	Benzo(a)anthracene	228	12.833	12.833	0.999	270758	39.75	ng/uL	99
87)	Chrysene	228	12.887	12.890	1.003	243599	39.63	ng/uL	99
88)	Methoxychlor	227	12.683	12.685	0.987	189855	38.89	ng/uL	99
89)	Methylenebis(2-chloroa...	231	12.765	12.765	0.993	32552	44.59	ng/uL	96
90)	Di-n-octylphthalate	149	13.808	13.811	1.075	240532	39.22	ng/uL	100
92)	Benzo(b)fluoranthene	252	14.575	14.581	0.954	162469	41.97	ng/uL	98
93)	Benzo(k)fluoranthene	252	14.626	14.632	0.957	147114	39.39	ng/uL	99
94)	Benzo(a)pyrene	252	15.177	15.177	0.993	127558	39.57	ng/uL	97
95)	Indeno(1,2,3-cd)pyrene	276	17.331	17.351	1.134	99319	40.46	ng/uL	86
96)	Dibenzo(a,h)anthracene	278	17.368	17.371	1.137	82802	41.49	ng/uL	79
97)	Benzo(ghi)perylene	276	17.885	17.885	1.171	80360	39.74	ng/uL	100
98)	Dibenzo(a,e)pyrene	302	21.923	21.926	1.435	41514	37.86	ng/uL	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0112.D
Acq On : 01 Sep 2011 15:52
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-09.1|ICV|1|SVM|1|MICV
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 06 08:45:34 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0113.D
Acq On : 01 Sep 2011 16:27
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-17|ICAL|1|SVM|1|A2
Misc : |MIX[B]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 14:58:05 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	146443	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	494457	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	276455	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	415907	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.842	12.853	1.000	199686	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.277	15.285	1.000	101207	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.842	12.853	1.000	0m	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.556	5.531	0.886	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	21843	10.27	ng/uL	97
101) Methyl methacrylate	100	2.587	2.587	0.519	12481	10.62	ng/uL#	91
102) Ethyl methacrylate	69	3.104	3.107	0.623	48983	10.92	ng/uL	99
103) 2-Picoline	93	3.368	3.368	0.676	59241	10.57	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.434	3.439	0.689	27468	10.64	ng/uL	100
105) Methyl methanesulfonate	80	3.661	3.670	0.735	34197	10.78	ng/uL	97
106) N-Nitrosodiethylamine	102	3.996	4.005	0.802	27093	10.52	ng/uL	98
107) Ethyl methanesulfonate	79	4.235	4.243	0.850	38724	10.01	ng/uL	99
108) Benzaldehyde	77	4.576	4.579	0.918	50438	11.60	ng/uL	99
109) Pentachloroethane	167	4.721	4.724	0.948	22751	10.35	ng/uL	98
110) N-Nitrosopyrrolidine	100	5.335	5.372	1.071	26528	10.46	ng/uL	99
111) Acetophenone	105	5.357	5.366	1.075	73968	10.59	ng/uL	98
112) N-Nitrosomorpholine	56	5.371	5.403	1.078	42480	10.51	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0113.D
Acq On : 01 Sep 2011 16:27
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-17|ICAL|1|SVM|1|A2
Misc : |MIX[B]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 14:58:05 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

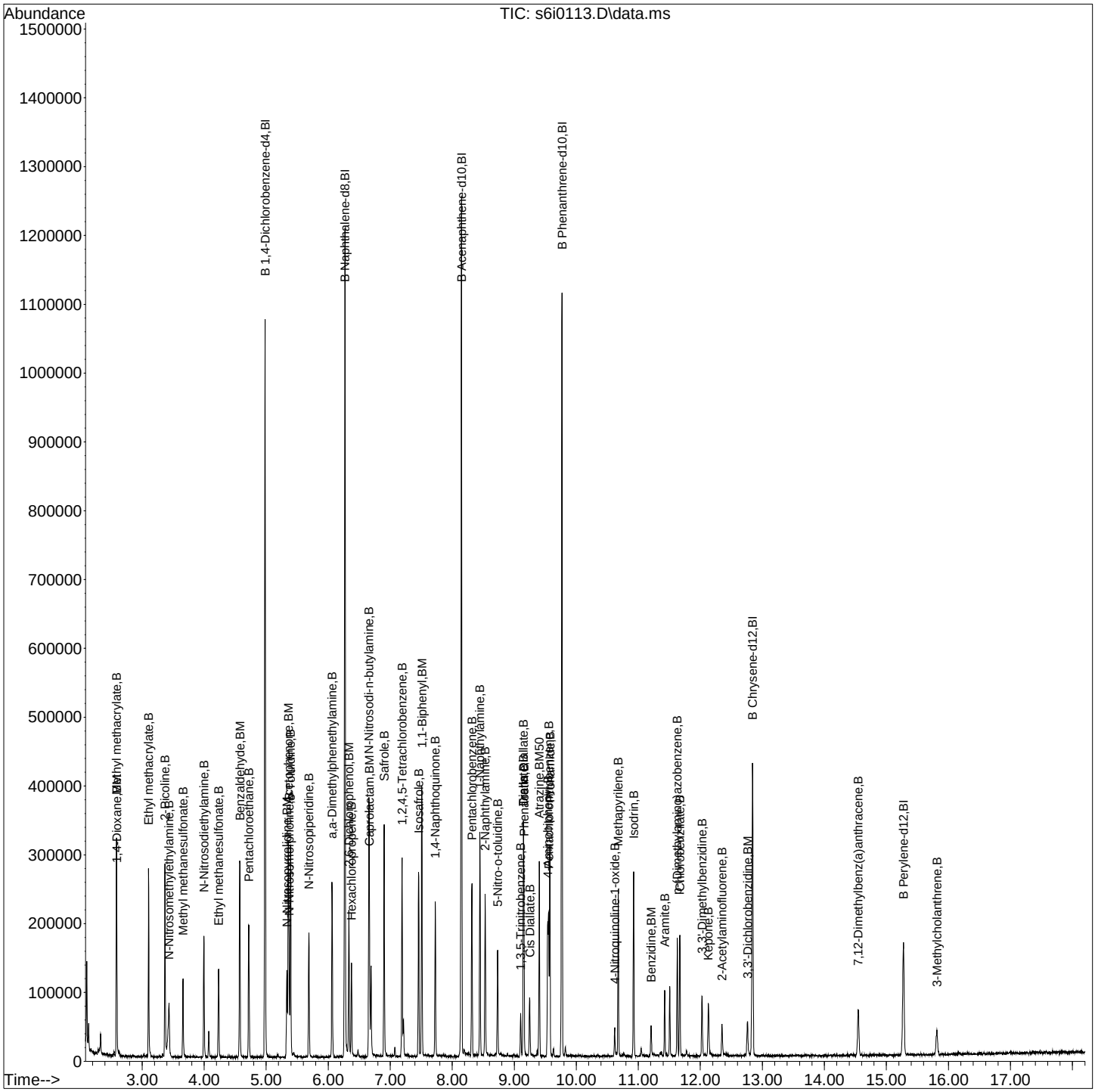
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.394	5.403	1.083	78557	10.84	ng/uL	98
115) N-Nitrosopiperidine	114	5.690	5.698	0.907	25101	10.24	ng/uL	99
116) a,a-Dimethylphenethyla...	58	6.062	6.065	0.966	135007	9.29	ng/uL	99
117) 2,6-Dichlorophenol	162	6.335	6.340	1.010	36230	9.49	ng/uL	100
118) Hexachloropropene	213	6.377	6.377	1.017	22749	8.83	ng/uL	95
119) Caprolactam	113	6.664	6.699	1.063	14067	9.77	ng/uL	99
120) N-Nitrosodi-n-butylamine	84	6.659	6.670	1.062	46200	11.79	ng/uL	90
121) Safrole	162	6.903	6.909	1.101	41690	10.25	ng/uL	97
123) 1,2,4,5-Tetrachloroben...	216	7.193	7.196	0.883	47166	10.58	ng/uL	96
124) 1,1-Biphenyl	154	7.511	7.517	0.922	117475	11.37	ng/uL	99
125) Isosafrole	162	7.460	7.466	0.915	41025	10.51	ng/uL	98
126) 1,4-Naphthoquinone	158	7.727	7.733	0.948	35618	12.50	ng/uL	98
127) Pentachlorobenzene	250	8.318	8.321	1.021	37856	10.50	ng/uL	98
128) 1-Naphthylamine	143	8.446	8.454	1.036	78045	10.53	ng/uL	98
129) 2-Naphthylamine	143	8.531	8.540	1.047	74167	9.78	ng/uL	99
130) 5-Nitro-o-toluidine	152	8.733	8.741	1.071	19696	8.90	ng/uL	100
132) 1,3,5-Trinitrobenzene	75	9.102	9.111	0.932	15635	8.86	ng/uL	96
133) Phenacetin	108	9.156	9.176	0.937	34235	9.07	ng/uL	97
134) Diallate	86	9.145	9.151	0.936	38661	11.02	ng/uL	100
135) Cis Diallate	86	9.250	9.253	0.947	7829	1.62	ng/uL	95
136) Trans Diallate	86	9.145	9.151	0.936	38661	9.37	ng/uL	100
137) Atrazine	200	9.403	9.418	0.962	28384	11.82	ng/uL	97
138) 4-Aminobiphenyl	169	9.540	9.546	0.976	67373	9.30	ng/uL	98
139) Pentachloronitrobenzene	237	9.554	9.560	0.978	12073	10.28	ng/uL	92
140) Pronamide	173	9.574	9.585	0.980	39815	10.68	ng/uL	97
141) 4-Nitroquinoline-1-oxide	101	10.620	10.623	1.087	2062	11.65	ng/uL	84
142) Methapyrilene	58	10.676	10.679	1.093	67167	11.28	ng/uL	100
143) Isodrin	193	10.926	10.929	1.118	16331	10.68	ng/uL	99
144) Benzidine	184	11.205	11.214	1.147	17366	6.71	ng/uL	99
146) Aramite	185	11.424	11.427	0.890	5454	11.07	ng/uL	97
147) Kepone	272	12.128	12.134	0.944	7929	11.06	ng/uL	93
148) p-(Dimethylamino)azobe...	120	11.628	11.634	0.906	26106	10.46	ng/uL	98
149) Chlorobenzilate	251	11.671	11.674	0.909	29019	11.13	ng/uL	99
150) 3,3'-Dimethylbenzidine	212	12.029	12.032	0.937	31488	9.72	ng/uL	100
151) 2-Acetylaminofluorene	181	12.350	12.359	0.962	12662	8.04	ng/uL	96
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	12554	8.11	ng/uL	96
154) 7,12-Dimethylbenz(a)an...	256	14.544	14.552	0.952	19935	10.71	ng/uL	98
155) 3-Methylcholanthrene	269	15.814	15.817	1.035	3029	10.58	ng/uL	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0113.D
Acq On : 01 Sep 2011 16:27
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-17|ICAL|1|SVM|1|A2
Misc : |MIX[B]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 14:58:05 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0114.D
Acq On : 01 Sep 2011 16:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-16|ICAL|1|SVM|1|A3
Misc : |MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 14:58:11 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	149309	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	508062	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.151	8.156	1.000	285946	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	436763	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.845	12.853	1.000	246920	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	141871	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.488	5.531	0.875	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.590	2.593	0.520	42977	19.82	ng/uL	97
101) Methyl methacrylate	100	2.584	2.587	0.519	23732	19.80	ng/uL#	92
102) Ethyl methacrylate	69	3.104	3.107	0.623	94597	20.69	ng/uL	97
103) 2-Picoline	93	3.368	3.368	0.676	119456	20.90	ng/uL	97
104) N-Nitrosomethylethylamine	88	3.437	3.439	0.690	52729	20.04	ng/uL	98
105) Methyl methanesulfonate	80	3.664	3.670	0.735	66326	20.51	ng/uL	97
106) N-Nitrosodiethylamine	102	3.999	4.005	0.803	54441	20.74	ng/uL	96
107) Ethyl methanesulfonate	79	4.238	4.243	0.851	81801	20.74	ng/uL	100
108) Benzaldehyde	77	4.576	4.579	0.918	97112	21.90	ng/uL	99
109) Pentachloroethane	167	4.721	4.724	0.948	45439	20.28	ng/uL	96
110) N-Nitrosopyrrolidine	100	5.340	5.372	1.072	52463	20.29	ng/uL	100
111) Acetophenone	105	5.360	5.366	1.076	148452	20.84	ng/uL	97
112) N-Nitrosomorpholine	56	5.375	5.403	1.079	84960	20.62	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0114.D
Acq On : 01 Sep 2011 16:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-16|ICAL|1|SVM|1|A3
Misc : |MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 14:58:11 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

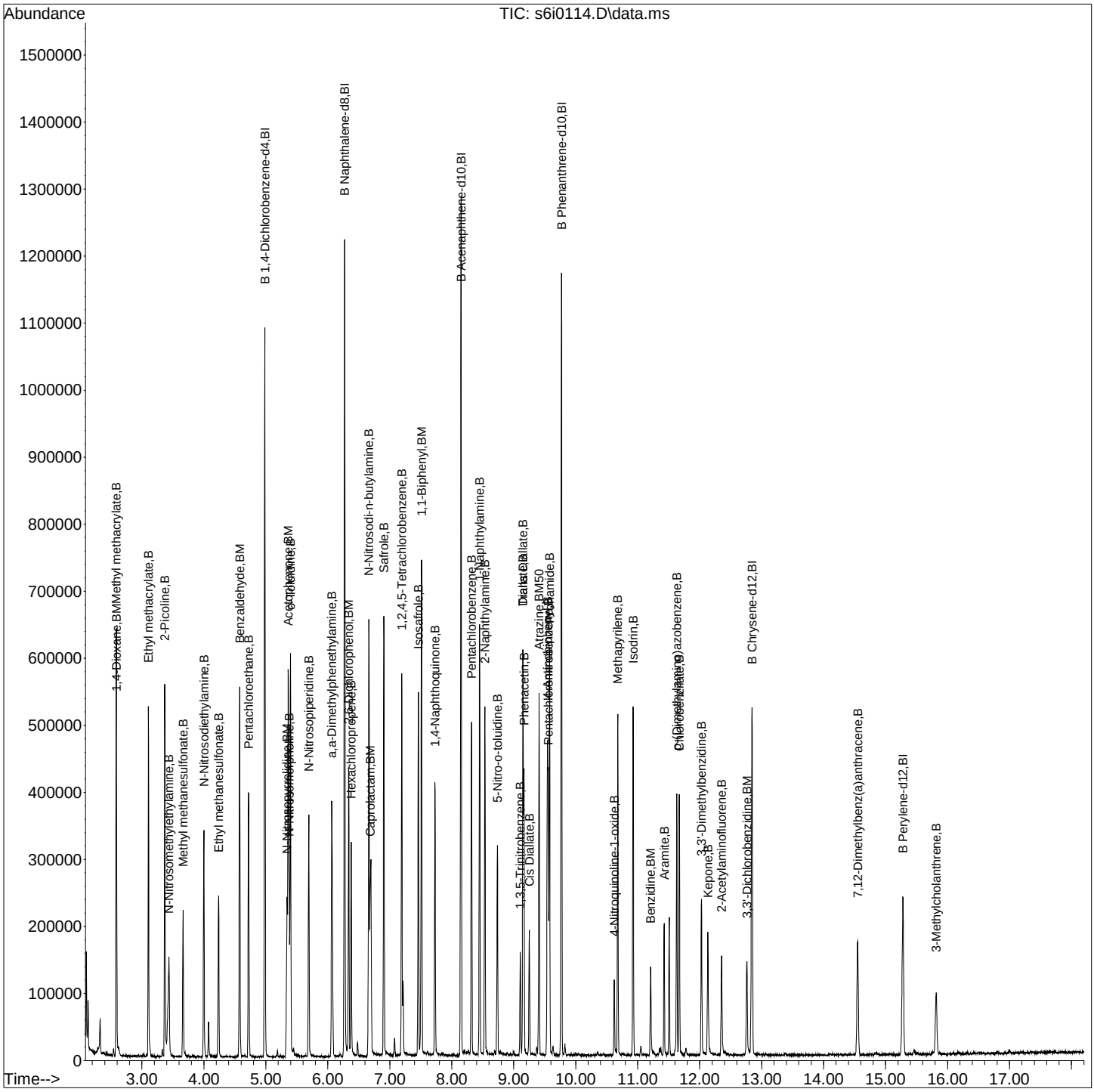
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.397	5.403	1.083	157032	21.25	ng/uL	99
115) N-Nitrosopiperidine	114	5.693	5.698	0.908	50670	20.11	ng/uL	98
116) a,a-Dimethylphenethyla...	58	6.062	6.065	0.966	286507	19.20	ng/uL	99
117) 2,6-Dichlorophenol	162	6.335	6.340	1.010	77147	19.68	ng/uL	99
118) Hexachloropropene	213	6.378	6.377	1.017	54528	20.61	ng/uL	97
119) Caprolactam	113	6.684	6.699	1.066	28685	19.40	ng/uL	98
120) N-Nitrosodi-n-butylamine	84	6.662	6.670	1.062	91688	22.77	ng/uL	90
121) Safrole	162	6.903	6.909	1.101	87656	20.98	ng/uL	98
123) 1,2,4,5-Tetrachloroben...	216	7.193	7.196	0.883	94711	20.54	ng/uL	97
124) 1,1-Biphenyl	154	7.511	7.517	0.922	224827	21.04	ng/uL	99
125) Isosafrole	162	7.460	7.466	0.915	81582	20.20	ng/uL	98
126) 1,4-Naphthoquinone	158	7.730	7.733	0.948	66128	22.44	ng/uL	98
127) Pentachlorobenzene	250	8.318	8.321	1.021	77827	20.88	ng/uL	97
128) 1-Naphthylamine	143	8.449	8.454	1.037	161118	21.01	ng/uL	100
129) 2-Naphthylamine	143	8.534	8.540	1.047	164524	20.98	ng/uL	99
130) 5-Nitro-o-toluidine	152	8.736	8.741	1.072	43624	19.05	ng/uL	99
132) 1,3,5-Trinitrobenzene	75	9.105	9.111	0.932	40232	21.72	ng/uL	99
133) Phenacetin	108	9.165	9.176	0.938	79903	20.16	ng/uL	100
134) Diallate	86	9.148	9.151	0.936	77036	20.91	ng/uL	97
135) Cis Diallate	86	9.250	9.253	0.947	15253	3.01	ng/uL	100
136) Trans Diallate	86	9.148	9.151	0.936	77036	17.77	ng/uL	97
137) Atrazine	200	9.409	9.418	0.963	56374	22.35	ng/uL	100
138) 4-Aminobiphenyl	169	9.543	9.546	0.977	143963	18.93	ng/uL	100
139) Pentachloronitrobenzene	237	9.557	9.560	0.978	25922	21.02	ng/uL	97
140) Pronamide	173	9.580	9.585	0.981	81461	20.81	ng/uL	97
141) 4-Nitroquinoline-1-oxide	101	10.623	10.623	1.087	4093	22.01	ng/uL	87
142) Methapyrilene	58	10.677	10.679	1.093	142092	22.72	ng/uL	99
143) Isodrin	193	10.927	10.929	1.118	34229	21.32	ng/uL	100
144) Benzidine	184	11.208	11.214	1.147	53217	19.57	ng/uL	99
146) Aramite	185	11.427	11.427	0.890	12246	20.09	ng/uL	95
147) Kepone	272	12.134	12.134	0.945	19304	21.77	ng/uL	97
148) p-(Dimethylamino)azobe...	120	11.631	11.634	0.906	60426	19.57	ng/uL	99
149) Chlorobenzilate	251	11.671	11.674	0.909	65536	20.34	ng/uL	98
150) 3,3'-Dimethylbenzidine	212	12.029	12.032	0.937	84691	21.15	ng/uL	100
151) 2-Acetylaminofluorene	181	12.353	12.359	0.962	38689	19.86	ng/uL	98
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	36864	19.26	ng/uL	96
154) 7,12-Dimethylbenz(a)an...	256	14.550	14.552	0.952	50900	19.50	ng/uL	96
155) 3-Methylcholanthrene	269	15.814	15.817	1.035	8526	21.25	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0114.D
Acq On : 01 Sep 2011 16:55
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-16|ICAL|1|SVM|1|A3
Misc : |MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 14:58:11 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0115.D
Acq On : 01 Sep 2011 17:24
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.1|ICAL|1|SVM|1|A4
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 14:58:16 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	149076	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	504444	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	281896	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	437181	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.845	12.853	1.000	226027	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.277	15.285	1.000	106358	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	0m	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.277	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.795	3.789	0.762	0d	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.451	5.531	0.869	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	88013	40.65	ng/uL	100
101) Methyl methacrylate	100	2.587	2.587	0.519	47827	39.96	ng/uL	100
102) Ethyl methacrylate	69	3.107	3.107	0.624	185042	40.53	ng/uL	100
103) 2-Picoline	93	3.368	3.368	0.676	233380	40.90	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.439	3.439	0.690	103455	39.37	ng/uL	100
105) Methyl methanesulfonate	80	3.670	3.670	0.737	133043	41.21	ng/uL	100
106) N-Nitrosodiethylamine	102	4.005	4.005	0.804	103788	39.59	ng/uL	100
107) Ethyl methanesulfonate	79	4.243	4.243	0.852	160617	40.78	ng/uL	100
108) Benzaldehyde	77	4.579	4.579	0.919	185937	42.00	ng/uL	100
109) Pentachloroethane	167	4.724	4.724	0.948	89732	40.10	ng/uL	100
110) N-Nitrosopyrrolidine	100	5.354	5.372	1.075	105021	40.68	ng/uL	100
111) Acetophenone	105	5.366	5.366	1.077	282180	39.68	ng/uL	100
112) N-Nitrosomorpholine	56	5.386	5.403	1.081	166058	40.37	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0115.D
Acq On : 01 Sep 2011 17:24
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.1|ICAL|1|SVM|1|A4
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 14:58:16 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

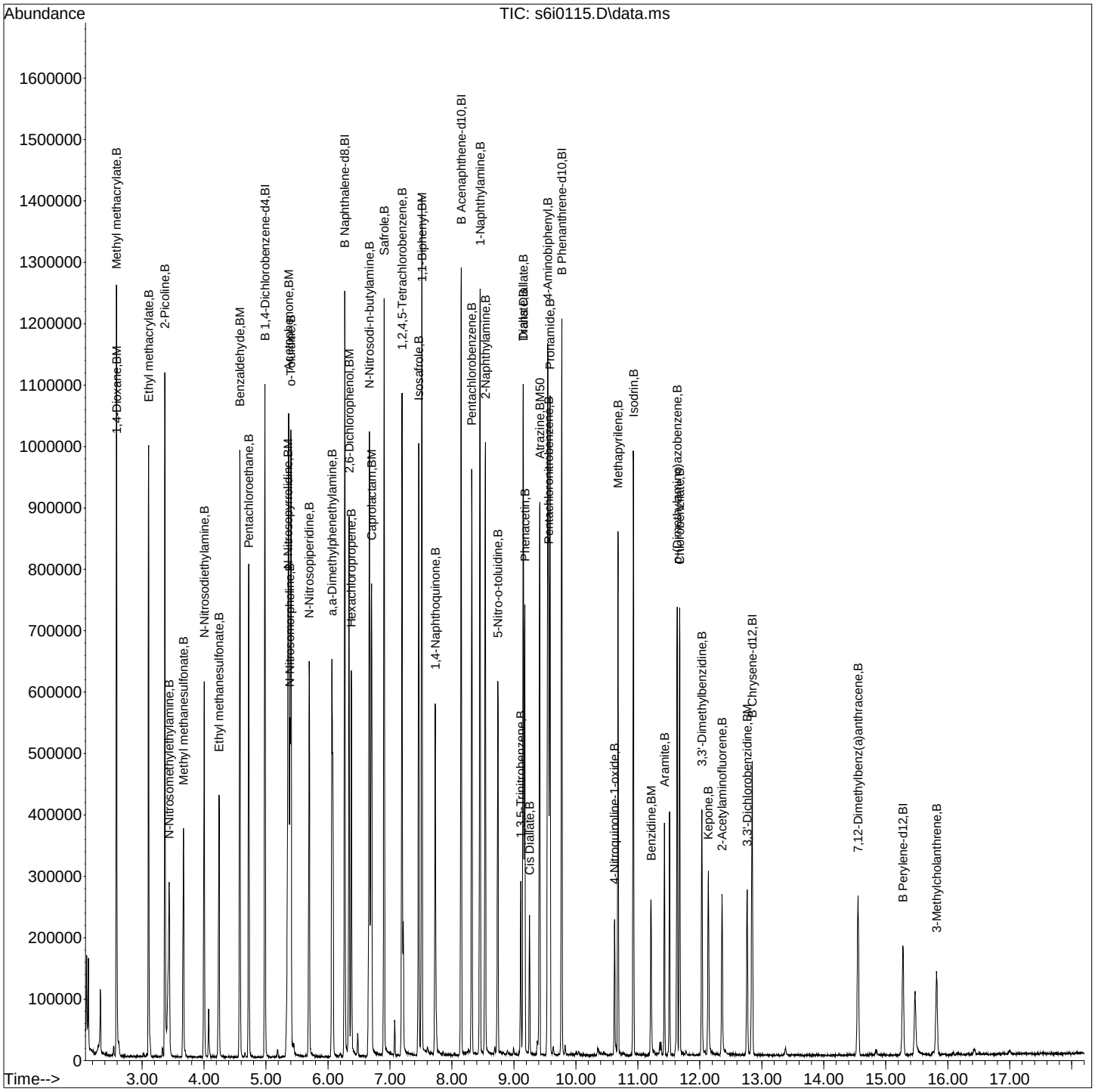
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.403	5.403	1.084	297547	40.33	ng/uL	100
115) N-Nitrosopiperidine	114	5.698	5.698	0.908	99371	39.72	ng/uL	100
116) a,a-Dimethylphenethyla...	58	6.065	6.065	0.967	606185	40.91	ng/uL	100
117) 2,6-Dichlorophenol	162	6.340	6.340	1.011	158964	40.83	ng/uL	100
118) Hexachloropropene	213	6.377	6.377	1.017	105718	40.24	ng/uL	100
119) Caprolactam	113	6.704	6.699	1.069	58413	39.78	ng/uL	100
120) N-Nitrosodi-n-butylamine	84	6.670	6.670	1.063	157556	39.42	ng/uL	100
121) Safrole	162	6.909	6.909	1.101	165002	39.77	ng/uL	100
123) 1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	186149	40.95	ng/uL	100
124) 1,1-Biphenyl	154	7.517	7.517	0.922	433054	41.11	ng/uL	100
125) Isosafrole	162	7.466	7.466	0.916	160339	40.27	ng/uL	100
126) 1,4-Naphthoquinone	158	7.733	7.733	0.949	109352	37.64	ng/uL	100
127) Pentachlorobenzene	250	8.321	8.321	1.021	147470	40.13	ng/uL	100
128) 1-Naphthylamine	143	8.454	8.454	1.037	316036	41.81	ng/uL	100
129) 2-Naphthylamine	143	8.540	8.540	1.048	328312	42.47	ng/uL	100
130) 5-Nitro-o-toluidine	152	8.741	8.741	1.073	91109	40.35	ng/uL	100
132) 1,3,5-Trinitrobenzene	75	9.111	9.111	0.932	73308	39.54	ng/uL	100
133) Phenacetin	108	9.176	9.176	0.939	160450	40.45	ng/uL	100
134) Diallate	86	9.151	9.151	0.936	149402	40.52	ng/uL	100
135) Cis Diallate	86	9.253	9.253	0.947	30052	5.93	ng/uL	100
136) Trans Diallate	86	9.151	9.151	0.936	149402	34.44	ng/uL	100
137) Atrazine	200	9.418	9.418	0.964	105662	41.85	ng/uL	100
138) 4-Aminobiphenyl	169	9.546	9.546	0.977	330303	43.39	ng/uL	100
139) Pentachloronitrobenzene	237	9.560	9.560	0.978	50908	41.25	ng/uL	100
140) Pronamide	173	9.585	9.585	0.981	159950	40.82	ng/uL	100
141) 4-Nitroquinoline-1-oxide	101	10.623	10.623	1.087	7481	40.20	ng/uL	100
142) Methapyrilene	58	10.679	10.679	1.093	251541	40.18	ng/uL	100
143) Isodrin	193	10.929	10.929	1.118	63033	39.22	ng/uL	100
144) Benzidine	184	11.214	11.214	1.147	110697	40.67	ng/uL	100
146) Aramite	185	11.427	11.427	0.890	24612	44.11	ng/uL	100
147) Kepone	272	12.134	12.134	0.945	33642	41.45	ng/uL	100
148) p-(Dimethylamino)azobe...	120	11.634	11.634	0.906	116621	41.27	ng/uL	100
149) Chlorobenzilate	251	11.674	11.674	0.909	122858	41.65	ng/uL	100
150) 3,3'-Dimethylbenzidine	212	12.032	12.032	0.937	153258	41.81	ng/uL	100
151) 2-Acetylaminofluorene	181	12.359	12.359	0.962	67046	37.59	ng/uL	100
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	69718	39.80	ng/uL	100
154) 7,12-Dimethylbenz(a)an...	256	14.552	14.552	0.953	82979	42.40	ng/uL	100
155) 3-Methylcholanthrene	269	15.817	15.817	1.035	11717	38.95	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0115.D
Acq On : 01 Sep 2011 17:24
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.1|ICAL|1|SVM|1|A4
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 14:58:16 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0116.D
Acq On : 01 Sep 2011 17:53
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-14|ICAL|1|SVM|1|A5
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 14:58:22 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	152595	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	522565	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.151	8.156	1.000	298879	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	472168	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.845	12.853	1.000	271592	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	146013	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.845	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.454	5.531	0.870	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	109221	49.28	ng/uL	100
101) Methyl methacrylate	100	2.587	2.587	0.519	60220	49.15	ng/uL	97
102) Ethyl methacrylate	69	3.107	3.107	0.624	231122	49.45	ng/uL	98
103) 2-Picoline	93	3.368	3.368	0.676	297465	50.93	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.442	3.439	0.691	134844	50.13	ng/uL	96
105) Methyl methanesulfonate	80	3.672	3.670	0.737	172453	52.19	ng/uL	99
106) N-Nitrosodiethylamine	102	4.008	4.005	0.804	131889	49.15	ng/uL	98
107) Ethyl methanesulfonate	79	4.246	4.243	0.852	202684	50.27	ng/uL	100
108) Benzaldehyde	77	4.582	4.579	0.920	234907	51.84	ng/uL	99
109) Pentachloroethane	167	4.721	4.724	0.948	114697	50.08	ng/uL	100
110) N-Nitrosopyrrolidine	100	5.360	5.372	1.076	137551	52.06	ng/uL	98
111) Acetophenone	105	5.369	5.366	1.078	365558	50.22	ng/uL	98
112) N-Nitrosomorpholine	56	5.391	5.403	1.082	212612	50.50	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0116.D
Acq On : 01 Sep 2011 17:53
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-14|ICAL|1|SVM|1|A5
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 14:58:22 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

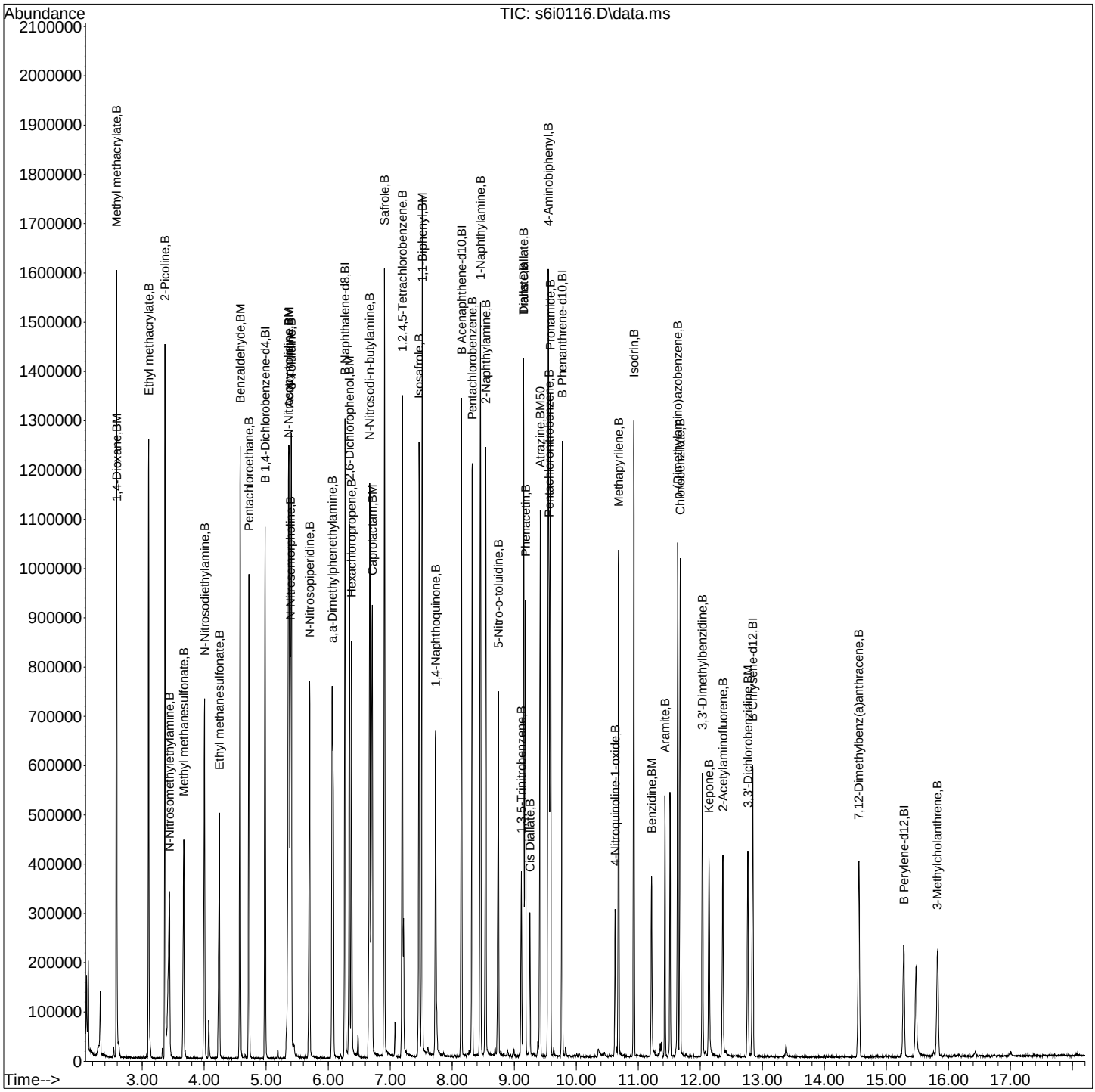
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.406	5.403	1.085	374351	49.57	ng/uL	98
115) N-Nitrosopiperidine	114	5.701	5.698	0.909	127126	49.06	ng/uL	98
116) a,a-Dimethylphenethyla...	58	6.065	6.065	0.967	776119	50.56	ng/uL	100
117) 2,6-Dichlorophenol	162	6.343	6.340	1.011	199235	49.40	ng/uL	99
118) Hexachloropropene	213	6.377	6.377	1.017	141143	51.86	ng/uL	99
119) Caprolactam	113	6.713	6.699	1.070	73713	48.46	ng/uL	96
120) N-Nitrosodi-n-butylamine	84	6.670	6.670	1.063	195030	47.10	ng/uL	98
121) Safrole	162	6.909	6.909	1.101	214508	49.91	ng/uL	99
123) 1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	234199	48.60	ng/uL	99
124) 1,1-Biphenyl	154	7.517	7.517	0.922	547763	49.05	ng/uL	98
125) Isosafrole	162	7.466	7.466	0.916	208290	49.34	ng/uL	99
126) 1,4-Naphthoquinone	158	7.733	7.733	0.949	136752	44.40	ng/uL	98
127) Pentachlorobenzene	250	8.324	8.321	1.021	187434	48.11	ng/uL	99
128) 1-Naphthylamine	143	8.457	8.454	1.038	402102	50.17	ng/uL	99
129) 2-Naphthylamine	143	8.543	8.540	1.048	420503	51.30	ng/uL	99
130) 5-Nitro-o-toluidine	152	8.744	8.741	1.073	120391	50.29	ng/uL	99
132) 1,3,5-Trinitrobenzene	75	9.117	9.111	0.933	102106	50.99	ng/uL	98
133) Phenacetin	108	9.182	9.176	0.940	214086	49.97	ng/uL	99
134) Diallate	86	9.151	9.151	0.936	190779	47.90	ng/uL	98
135) Cis Diallate	86	9.250	9.253	0.947	39715	7.25	ng/uL	99
136) Trans Diallate	86	9.151	9.151	0.936	190779	40.72	ng/uL	98
137) Atrazine	200	9.421	9.418	0.964	135724	49.78	ng/uL	100
138) 4-Aminobiphenyl	169	9.549	9.546	0.977	433955	52.78	ng/uL	99
139) Pentachloronitrobenzene	237	9.560	9.560	0.978	63258	47.46	ng/uL	97
140) Pronamide	173	9.585	9.585	0.981	205471	48.55	ng/uL	99
141) 4-Nitroquinoline-1-oxide	101	10.625	10.623	1.087	9374	46.64	ng/uL	93
142) Methapyrilene	58	10.682	10.679	1.093	311549	46.08	ng/uL	99
143) Isodrin	193	10.929	10.929	1.118	85118	49.04	ng/uL	96
144) Benzidine	184	11.214	11.214	1.147	157796	53.68	ng/uL	100
146) Aramite	185	11.430	11.427	0.890	34211	51.03	ng/uL	98
147) Kepone	272	12.140	12.134	0.945	46421	47.60	ng/uL	96
148) p-(Dimethylamino)azobe...	120	11.637	11.634	0.906	163921	48.27	ng/uL	99
149) Chlorobenzilate	251	11.677	11.674	0.909	172152	48.56	ng/uL	99
150) 3,3'-Dimethylbenzidine	212	12.035	12.032	0.937	225409	51.18	ng/uL	100
151) 2-Acetylaminofluorene	181	12.364	12.359	0.963	109558	51.12	ng/uL	97
152) 3,3'-Dichlorobenzidine	252	12.768	12.762	0.994	107971	51.30	ng/uL	98
154) 7,12-Dimethylbenz(a)an...	256	14.555	14.552	0.952	130566	48.60	ng/uL	98
155) 3-Methylcholanthrene	269	15.822	15.817	1.035	19519	47.26	ng/uL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0116.D
Acq On : 01 Sep 2011 17:53
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-14|ICAL|1|SVM|1|A5
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 14:58:22 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0117.D
Acq On : 01 Sep 2011 18:22
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-13|ICAL|1|SVM|1|A6
Misc : |MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 14:58:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	158454	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	528634	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	299197	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.776	9.773	1.000	474256	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.847	12.853	1.000	279305	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.282	15.285	1.000	158859	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.282	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.502	5.531	0.877	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.595	2.593	0.521	178038	77.37	ng/uL	99
101) Methyl methacrylate	100	2.590	2.587	0.520	98547	77.46	ng/uL#	89
102) Ethyl methacrylate	69	3.110	3.107	0.624	368864	76.01	ng/uL	99
103) 2-Picoline	93	3.371	3.368	0.677	456287	75.23	ng/uL	97
104) N-Nitrosomethylethylamine	88	3.445	3.439	0.691	215298	77.08	ng/uL	97
105) Methyl methanesulfonate	80	3.681	3.670	0.739	265218	77.29	ng/uL	99
106) N-Nitrosodiethylamine	102	4.013	4.005	0.806	214143	76.86	ng/uL	100
107) Ethyl methanesulfonate	79	4.255	4.243	0.854	328548	78.48	ng/uL	98
108) Benzaldehyde	77	4.584	4.579	0.920	352539	74.92	ng/uL	98
109) Pentachloroethane	167	4.724	4.724	0.948	181847	76.46	ng/uL	100
110) N-Nitrosopyrrolidine	100	5.372	5.372	1.078	205645	74.95	ng/uL	96
111) Acetophenone	105	5.374	5.366	1.079	583761	77.23	ng/uL	99
112) N-Nitrosomorpholine	56	5.403	5.403	1.084	339195	77.59	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0117.D
Acq On : 01 Sep 2011 18:22
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-13|ICAL|1|SVM|1|A6
Misc : |MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 14:58:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

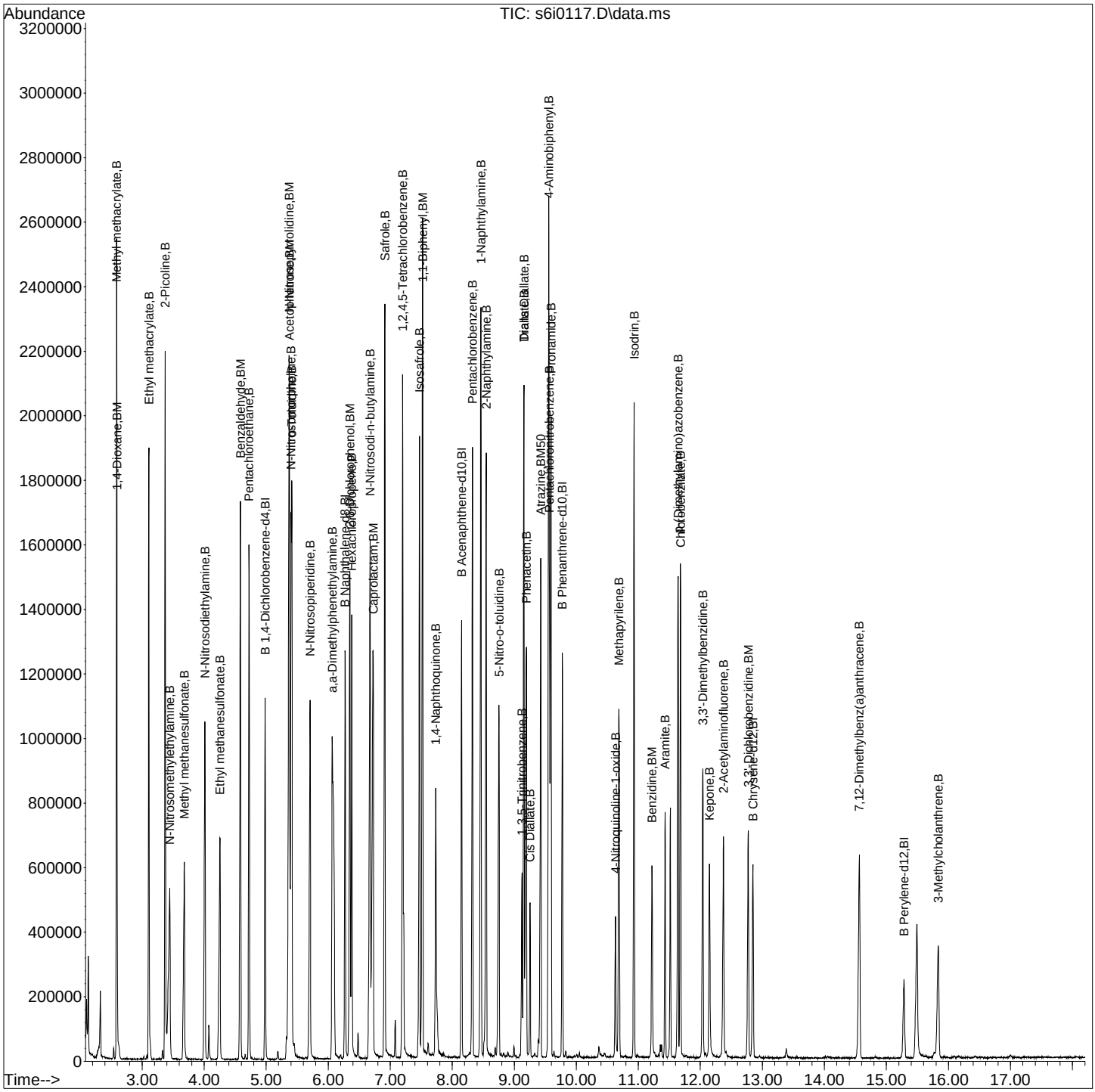
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.414	5.403	1.087	593057	75.63	ng/uL	97
115) N-Nitrosopiperidine	114	5.710	5.698	0.910	207057	78.98	ng/uL	98
116) a,a-Dimethylphenethyla...	58	6.065	6.065	0.967	1290373	83.09	ng/uL	99
117) 2,6-Dichlorophenol	162	6.349	6.340	1.012	328577	80.54	ng/uL	100
118) Hexachloropropene	213	6.380	6.377	1.017	225232	81.80	ng/uL	99
119) Caprolactam	113	6.727	6.699	1.072	124773	81.09	ng/uL	99
120) N-Nitrosodi-n-butylamine	84	6.676	6.670	1.064	306510	73.17	ng/uL	96
121) Safrole	162	6.914	6.909	1.102	338943	77.96	ng/uL	98
123) 1,2,4,5-Tetrachloroben...	216	7.201	7.196	0.884	374085	77.54	ng/uL	97
124) 1,1-Biphenyl	154	7.522	7.517	0.923	843312	75.43	ng/uL	97
125) Isosafrole	162	7.474	7.466	0.917	327070	77.39	ng/uL	99
126) 1,4-Naphthoquinone	158	7.736	7.733	0.949	197110	63.92	ng/uL	97
127) Pentachlorobenzene	250	8.327	8.321	1.022	309092	79.25	ng/uL	99
128) 1-Naphthylamine	143	8.463	8.454	1.038	628566	78.34	ng/uL	98
129) 2-Naphthylamine	143	8.548	8.540	1.049	657559	80.13	ng/uL	98
130) 5-Nitro-o-toluidine	152	8.756	8.741	1.074	203955	85.11	ng/uL	98
132) 1,3,5-Trinitrobenzene	75	9.122	9.111	0.933	157573	78.34	ng/uL	98
133) Phenacetin	108	9.196	9.176	0.941	354441	82.37	ng/uL	100
134) Diallate	86	9.156	9.151	0.937	308114	77.03	ng/uL	99
135) Cis Diallate	86	9.253	9.253	0.947	64668	11.76	ng/uL	97
136) Trans Diallate	86	9.156	9.151	0.937	308114	65.47	ng/uL	99
137) Atrazine	200	9.429	9.418	0.965	192195	70.18	ng/uL	99
138) 4-Aminobiphenyl	169	9.554	9.546	0.977	674366	81.66	ng/uL	99
139) Pentachloronitrobenzene	237	9.565	9.560	0.978	105250	78.61	ng/uL	95
140) Pronamide	173	9.594	9.585	0.981	330794	77.82	ng/uL	98
141) 4-Nitroquinoline-1-oxide	101	10.631	10.623	1.087	12874	63.77	ng/uL	84
142) Methapyrilene	58	10.688	10.679	1.093	439867	64.78	ng/uL	99
143) Isodrin	193	10.932	10.929	1.118	134598	77.21	ng/uL	100
144) Benzidine	184	11.219	11.214	1.148	281515	95.35	ng/uL	98
146) Aramite	185	11.432	11.427	0.890	50541	73.31	ng/uL	97
147) Kepone	272	12.146	12.134	0.945	75035	74.81	ng/uL	99
148) p-(Dimethylamino)azobe...	120	11.643	11.634	0.906	267529	76.61	ng/uL	100
149) Chlorobenzilate	251	11.682	11.674	0.909	268843	73.75	ng/uL	98
150) 3,3'-Dimethylbenzidine	212	12.040	12.032	0.937	368561	81.37	ng/uL	100
151) 2-Acetylaminofluorene	181	12.373	12.359	0.963	199031	90.31	ng/uL	98
152) 3,3'-Dichlorobenzidine	252	12.773	12.762	0.994	192101	88.74	ng/uL	100
154) 7,12-Dimethylbenz(a)an...	256	14.564	14.552	0.953	219836	75.21	ng/uL	97
155) 3-Methylcholanthrene	269	15.837	15.817	1.036	33942	75.54	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0117.D
Acq On : 01 Sep 2011 18:22
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-13|ICAL|1|SVM|1|A6
Misc : |MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 14:58:28 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0118.D
Acq On : 01 Sep 2011 18:50
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-12|ICAL|1|SVM|1|A7
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 04 14:58:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.848	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	161063	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	540967	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.151	8.156	1.000	306664	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.779	9.773	1.000	475336	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.848	12.853	1.000	269822	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	140305	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.848	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.151	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.779	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.848	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.848	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.457	5.531	0.870	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.596	2.593	0.521	231852	99.12	ng/uL	99
101) Methyl methacrylate	100	2.593	2.587	0.520	128870	99.66	ng/uL#	85
102) Ethyl methacrylate	69	3.110	3.107	0.624	469290	95.14	ng/uL	98
103) 2-Picoline	93	3.374	3.368	0.677	585202	94.92	ng/uL	98
104) N-Nitrosomethylethylamine	88	3.448	3.439	0.692	277388	97.71	ng/uL	97
105) Methyl methanesulfonate	80	3.684	3.670	0.739	321598	92.20	ng/uL	99
106) N-Nitrosodiethylamine	102	4.016	4.005	0.806	274111	96.79	ng/uL	100
107) Ethyl methanesulfonate	79	4.261	4.243	0.855	410360	96.43	ng/uL	98
108) Benzaldehyde	77	4.587	4.579	0.921	412733	86.29	ng/uL	99
109) Pentachloroethane	167	4.727	4.724	0.949	236759	97.94	ng/uL	99
110) N-Nitrosopyrrolidine	100	5.377	5.372	1.079	262486	94.11	ng/uL	97
111) Acetophenone	105	5.375	5.366	1.079	721526	93.91	ng/uL	98
112) N-Nitrosomorpholine	56	5.409	5.403	1.086	421807	94.92	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0118.D
Acq On : 01 Sep 2011 18:50
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-12|ICAL|1|SVM|1|A7
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 04 14:58:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

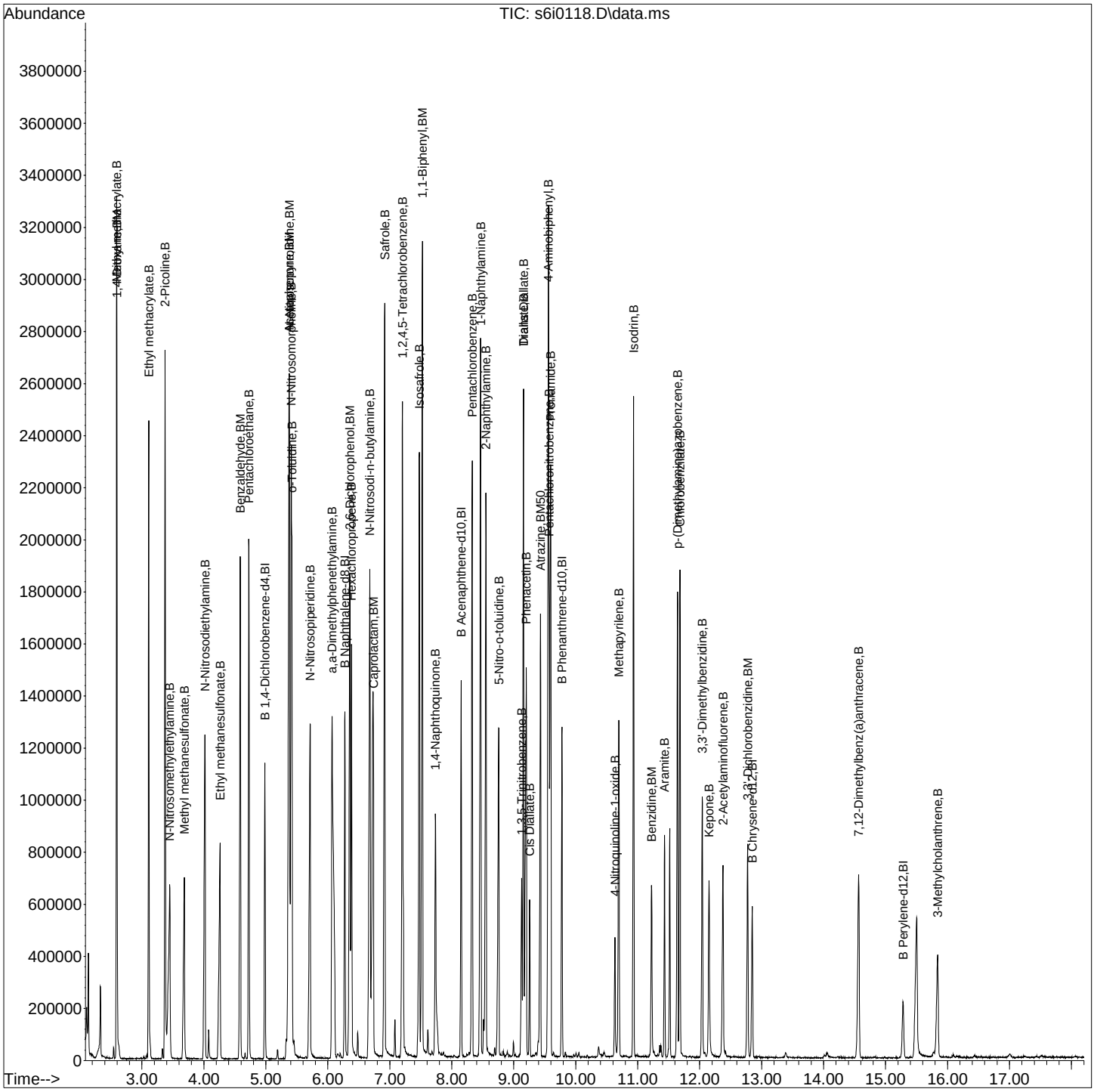
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
113) o-Toluidine	106	5.420	5.403	1.088	748719	93.93	ng/uL	98	
115) N-Nitrosopiperidine	114	5.713	5.698	0.910	264320	98.53	ng/uL	98	
116) a,a-Dimethylphenethyla...	58	6.068	6.065	0.967	1616330	101.71	ng/uL	99	
117) 2,6-Dichlorophenol	162	6.355	6.340	1.013	421225	100.90	ng/uL	99	
118) Hexachloropropene	213	6.380	6.377	1.017	283862	100.74	ng/uL	99	
119) Caprolactam	113	6.736	6.699	1.073	160146	101.71	ng/uL	96	
120) N-Nitrosodi-n-butylamine	84	6.676	6.670	1.064	391240	91.27	ng/uL	95	
121) Safrole	162	6.917	6.909	1.102	429503	96.54	ng/uL	97	
123) 1,2,4,5-Tetrachloroben...	216	7.204	7.196	0.884	475055	96.07	ng/uL	98	
124) 1,1-Biphenyl	154	7.526	7.517	0.923	1058866	92.41	ng/uL	97	
125) Isosafrole	162	7.477	7.466	0.917	424316	97.96	ng/uL	100	
126) 1,4-Naphthoquinone	158	7.736	7.733	0.949	235149	74.40	ng/uL	97	
127) Pentachlorobenzene	250	8.330	8.321	1.022	385501	96.43	ng/uL	99	
128) 1-Naphthylamine	143	8.466	8.454	1.039	769223	93.54	ng/uL	98	
129) 2-Naphthylamine	143	8.551	8.540	1.049	791848	94.15	ng/uL	97	
130) 5-Nitro-o-toluidine	152	8.759	8.741	1.075	251704	102.48	ng/uL	100	
132) 1,3,5-Trinitrobenzene	75	9.128	9.111	0.933	197328	97.88	ng/uL	99	
133) Phenacetin	108	9.202	9.176	0.941	440424	102.12	ng/uL	100	
134) Diallate	86	9.156	9.151	0.936	382419	95.38	ng/uL	99	
135) Cis Diallate	86	9.256	9.253	0.947	80754	14.65	ng/uL	100	
136) Trans Diallate	86	9.156	9.151	0.936	382419	81.08	ng/uL	99	
137) Atrazine	200	9.432	9.418	0.965	214563	78.17	ng/uL	99	
138) 4-Aminobiphenyl	169	9.557	9.546	0.977	817097	98.72	ng/uL	98	
139) Pentachloronitrobenzene	237	9.569	9.560	0.978	131894	98.29	ng/uL	96	
140) Pronamide	173	9.597	9.585	0.981	410099	96.26	ng/uL	98	
141) 4-Nitroquinoline-1-oxide	101	10.631	10.623	1.087	14310	70.72	ng/uL	85	
142) Methapyrilene	58	10.697	10.679	1.094	515953	75.81	ng/uL	99	
143) Isodrin	193	10.932	10.929	1.118	168708	96.56	ng/uL	100	
144) Benzidine	184	11.222	11.214	1.148	316111	106.83	ng/uL	100	A
146) Aramite	185	11.432	11.427	0.890	60147	90.31	ng/uL	98	
147) Kepone	272	12.151	12.134	0.946	88046	90.87	ng/uL	99	
148) p-(Dimethylamino)azobe...	120	11.643	11.634	0.906	330792	98.06	ng/uL	100	
149) Chlorobenzilate	251	11.683	11.674	0.909	331594	94.16	ng/uL	98	
150) 3,3'-Dimethylbenzidine	212	12.041	12.032	0.937	416088	95.09	ng/uL	100	
151) 2-Acetylaminofluorene	181	12.379	12.359	0.964	224621	105.50	ng/uL	97	
152) 3,3'-Dichlorobenzidine	252	12.774	12.762	0.994	217263	103.90	ng/uL	99	
154) 7,12-Dimethylbenz(a)an...	256	14.567	14.552	0.953	250839	97.17	ng/uL	98	
155) 3-Methylcholanthrene	269	15.842	15.817	1.037	39664	99.95	ng/uL	95	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0118.D
Acq On : 01 Sep 2011 18:50
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-12|ICAL|1|SVM|1|A7
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 04 14:58:38 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0119.D
Acq On : 01 Sep 2011 19:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-11|ICAL|1|SVM|1|A8
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 04 14:58:45 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	149037	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	502818	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	286875	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.776	9.773	1.000	448827	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.847	12.853	1.000	232678	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.282	15.285	1.000	117962	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.282	15.316	1.000	0m	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	0m	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.776	9.773	1.000	0m	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	0m	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	0m	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.847	12.853	1.000	0m	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.282	15.285	1.000	0m	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.508	5.531	0.878	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
100) 1,4-Dioxane	88	2.595	2.593	0.521	265377	122.61	ng/uL	99	A
101) Methyl methacrylate	100	2.593	2.587	0.520	143814	120.19	ng/uL#	84	A
102) Ethyl methacrylate	69	3.110	3.107	0.624	531204	116.38	ng/uL	97	
103) 2-Picoline	93	3.374	3.368	0.677	662357	116.10	ng/uL	97	
104) N-Nitrosomethylethylamine	88	3.453	3.439	0.693	317314	120.79	ng/uL	95	A
105) Methyl methanesulfonate	80	3.686	3.670	0.740	361679	112.06	ng/uL	99	
106) N-Nitrosodiethylamine	102	4.022	4.005	0.807	317468	121.14	ng/uL	100	A
107) Ethyl methanesulfonate	79	4.263	4.243	0.855	468888	119.07	ng/uL	97	
108) Benzaldehyde	77	4.590	4.579	0.921	456109	103.06	ng/uL	99	
109) Pentachloroethane	167	4.726	4.724	0.948	271635	121.43	ng/uL	99	A
110) N-Nitrosopyrrolidine	100	5.380	5.372	1.079	310645	120.37	ng/uL	96	A
111) Acetophenone	105	5.374	5.366	1.078	851833	119.81	ng/uL	100	
112) N-Nitrosomorpholine	56	5.414	5.403	1.086	482968	117.46	ng/uL	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0119.D
Acq On : 01 Sep 2011 19:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-11|ICAL|1|SVM|1|A8
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 04 14:58:45 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE

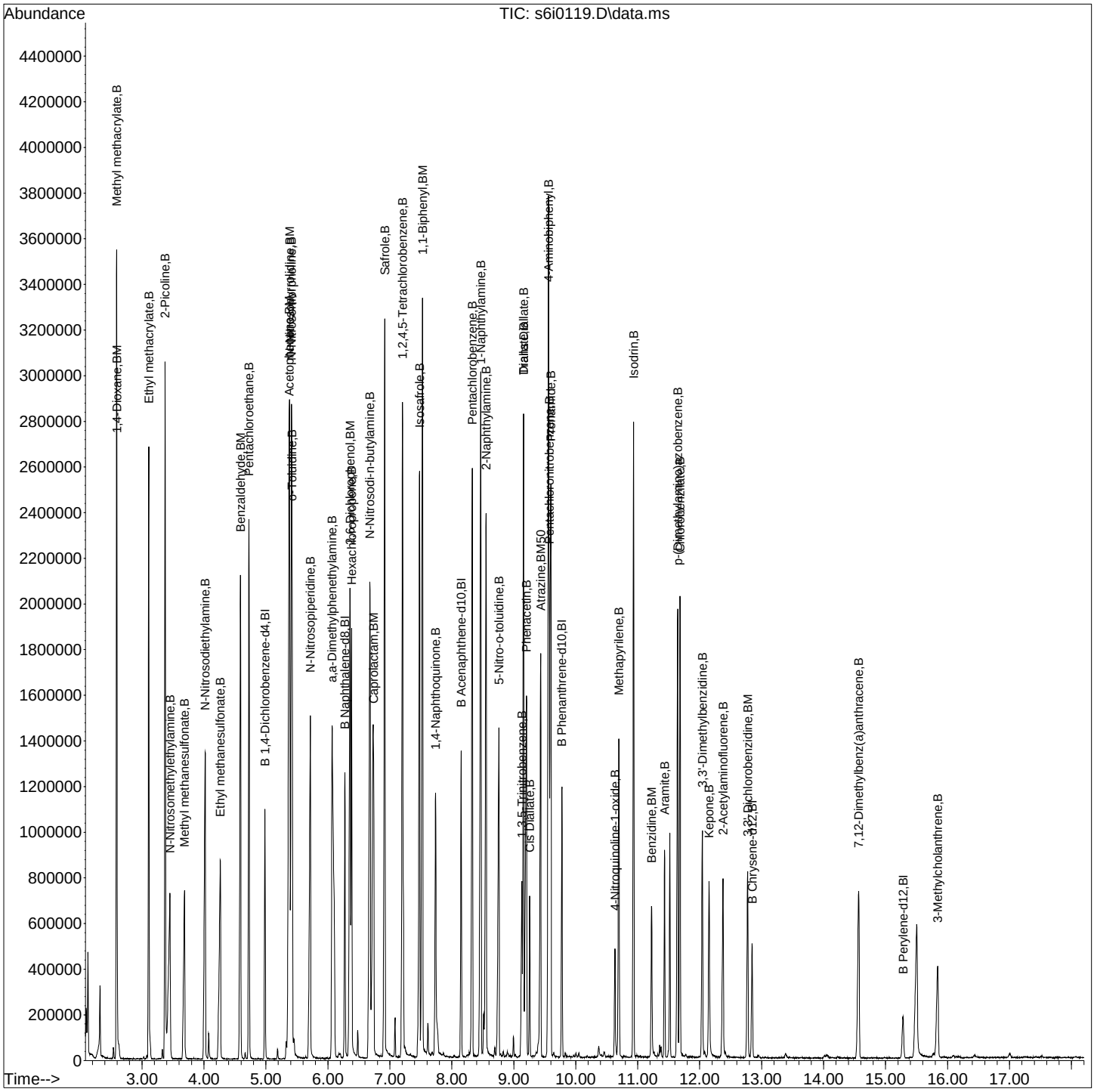
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
113) o-Toluidine	106	5.423	5.403	1.088	857616	116.28	ng/uL	97	
115) N-Nitrosopiperidine	114	5.718	5.698	0.911	306420	122.89	ng/uL	96	A
116) a,a-Dimethylphenethyla...	58	6.068	6.065	0.967	1810284	122.55	ng/uL	98	A
117) 2,6-Dichlorophenol	162	6.357	6.340	1.013	485213	125.04	ng/uL	98	A
118) Hexachloropropene	213	6.383	6.377	1.017	318525	121.62	ng/uL	99	A
119) Caprolactam	113	6.735	6.699	1.073	185810	126.96	ng/uL	96	A
120) N-Nitrosodi-n-butylamine	84	6.679	6.670	1.064	443471	111.30	ng/uL	95	
121) Safrole	162	6.917	6.909	1.102	492880	119.19	ng/uL	97	
123) 1,2,4,5-Tetrachloroben...	216	7.204	7.196	0.884	549088	118.70	ng/uL	99	
124) 1,1-Biphenyl	154	7.528	7.517	0.924	1202391	112.17	ng/uL	96	
125) Isosafrole	162	7.480	7.466	0.918	485746	119.88	ng/uL	100	
126) 1,4-Naphthoquinone	158	7.738	7.733	0.949	274103	92.71	ng/uL	99	A
127) Pentachlorobenzene	250	8.329	8.321	1.022	442149	118.23	ng/uL	98	
128) 1-Naphthylamine	143	8.469	8.454	1.039	861717	112.01	ng/uL	98	
129) 2-Naphthylamine	143	8.554	8.540	1.050	889436	113.05	ng/uL	97	
130) 5-Nitro-o-toluidine	152	8.761	8.741	1.075	290732	126.54	ng/uL	99	A
132) 1,3,5-Trinitrobenzene	75	9.131	9.111	0.934	242437	127.36	ng/uL	99	A
133) Phenacetin	108	9.205	9.176	0.942	500038	122.79	ng/uL	99	A
134) Diallate	86	9.156	9.151	0.937	438261	115.77	ng/uL	98	
135) Cis Diallate	86	9.256	9.253	0.947	93782	18.02	ng/uL	100	A
136) Trans Diallate	86	9.156	9.151	0.937	438261	98.40	ng/uL	98	
137) Atrazine	200	9.435	9.418	0.965	233026	89.91	ng/uL	99	
138) 4-Aminobiphenyl	169	9.560	9.546	0.978	914342	116.99	ng/uL	97	
139) Pentachloronitrobenzene	237	9.571	9.560	0.979	148191	116.96	ng/uL	93	
140) Pronamide	173	9.600	9.585	0.982	465708	115.76	ng/uL	98	
141) 4-Nitroquinoline-1-oxide	101	10.631	10.623	1.087	13521	70.77	ng/uL#	72	
142) Methapyrilene	58	10.696	10.679	1.094	535199	83.28	ng/uL	97	A
143) Isodrin	193	10.935	10.929	1.119	192752	116.83	ng/uL	100	
144) Benzidine	184	11.222	11.214	1.148	301177	107.79	ng/uL	99	A
146) Aramite	185	11.435	11.427	0.890	65189	113.50	ng/uL	97	
147) Kepone	272	12.151	12.134	0.946	97611	116.83	ng/uL	100	
148) p-(Dimethylamino)azobe...	120	11.645	11.634	0.906	363181	124.84	ng/uL	99	A
149) Chlorobenzilate	251	11.682	11.674	0.909	362228	119.28	ng/uL	99	
150) 3,3'-Dimethylbenzidine	212	12.043	12.032	0.937	422698	112.02	ng/uL	99	
151) 2-Acetylaminofluorene	181	12.376	12.359	0.963	232948	126.88	ng/uL	98	A
152) 3,3'-Dichlorobenzidine	252	12.776	12.762	0.994	228620	126.78	ng/uL	99	A
154) 7,12-Dimethylbenz(a)an...	256	14.566	14.552	0.953	263195	121.27	ng/uL	97	A
155) 3-Methylcholanthrene	269	15.839	15.817	1.036	40702	121.99	ng/uL	98	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0119.D
Acq On : 01 Sep 2011 19:20
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-11|ICAL|1|SVM|1|A8
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 04 14:58:45 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Fri Sep 02 13:26:20 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I **Injection Date:** 01-SEP-11 19:47

Data File: s090111.B\s6i0120.D **Init. Cal. Date(s)** 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110825-18.1 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD **Method Update:** 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	Nitrobenzene-d5	0.3825	0.00106		.01		-99.72288	20	*	Averaged
	Methyl methacrylate	0.3211	0.33694		.01		4.93304	20		Averaged
	1,4-Dioxane	0.5809	0.59827		.01		2.99019	20		Averaged
	Ethyl methacrylate	1.2251	1.24868		.01		1.92474	20		Averaged
	2-Picoline	1.5311	1.54286		.01		0.76808	20		Averaged
	N-Nitrosomethylethylamine	0.7051	0.73902		.01		4.81067	20		Averaged
	Methyl methanesulfonate	0.8662	0.92619		.01		6.92565	20		Averaged
	N-Nitrosodiethylamine	0.7033	0.7193		.01		2.27499	20		Averaged
	Ethyl Methanesulfonate	1.0569	1.00386		.01		-5.01845	20		Averaged
	Benzaldehyde	1.1878	1.19863		.01		0.91177	20		Averaged
	Pentachloroethane	0.6004	0.62966		.01		4.87342	20		Averaged
	N-Nitrosopyrrolidine	0.6926	0.75378		.01		8.83338	20		Averaged
	Acetophenone	1.9082	1.93502		.01		1.40551	20		Averaged
	N-Nitrosomorpholine	1.1036	1.12892		.01		2.29431	20		Averaged
	o-Toluidine	1.9795	2.04833		.01		3.47714	20		Averaged
	N-Nitrosopiperidine	0.1984	0.20544		.01		3.54839	20		Averaged
	a,a-Dimethylphenethylamine	1.1751	1.20034		.01		2.1479	20		Averaged
	2,6-Dichlorophenol	0.3087	0.33871		.01		9.72141	20		Averaged
	Hexachloropropene	0.2083	0.24055		.01		15.48248	20		Averaged
	N-Nitrosodi-n-butylamine	0.317	0.33235		.01		4.84227	20		Averaged
	Caprolactam	0.1164	0.12087		.01		3.84021	20		Averaged
	Safrole	0.329	0.32611		.01		-0.87842	20		Averaged
	1,2,4,5-Tetrachlorobenzene	0.645	0.64734		.01		0.36279	20		Averaged
	Isosafrole	0.565	0.60435		.01		6.9646	20		Averaged
	1,1'-Biphenyl	1.4946	1.49941		.01		0.32183	20		Averaged
	1,4-Naphthoquinone	0.3838	0.39335		.01		2.48828	20		Averaged
	Pentachlorobenzene	0.5214	0.55751		.01		6.92558	20		Averaged
	1-Naphthylamine	1.0727	1.14193		.01		6.45381	20		Averaged
	2-Naphthylamine	1.097	1.25841		.01		14.71376	20		Averaged
	5-Nitro-o-toluidine	0.3204	0.34678		.01		8.23346	20		Averaged
	1,3,5-Trinitrobenzene	0.1696	0.16632		.01		-1.93396	20		Averaged
	Trans Diallate	0.3969	0.35807		.01		-9.78332	20		Averaged
	Diallate	0.3374	0.30436		.01		-9.79253	20		Averaged
	Phenacetin	0.3629	0.39497		.01		8.83715	20		Averaged
	Cis Diallate	0.4638	0.74299		.01		60.19621	20	*	Averaged
	Atrazine	0.2227	0.23018		.01		3.35878	20		Averaged
	4-Aminobiphenyl	0.6965	0.82045		.01		17.79612	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 01-SEP-11 19:47

Data File: s090111.B\s6i0120.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110825-18.1 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Pentachloronitrobenzene	0.1129	0.11386		.01		0.85031	20		Averaged
Pronamide	0.3585	0.37228		.01		3.84379	20		Averaged
4-Nitroquinoline-1-oxide	0.0153	0.01608		.01		5.09804	20		Averaged
Methapyrilene	0.5279	0.51168		.01		-3.07255	20		Averaged
Isodrin	0.147	0.13318		.01		-9.40136	20		Averaged
Benzidine	0.2454	0.35809		.01		45.92095	20	*	Averaged
Aramite	0.0987	0.09174		.01		-7.05167	20		Averaged
p-(Dimethylamino)azobenzene	0.5001	0.49752		.01		-0.5159	20		Averaged
Chlorobenzilate	0.5221	0.52497		.01		0.5497	20		Averaged
3,3'-Dimethylbenzidine	0.6487	0.70955		.01		9.3803	20		Averaged
Kepone	0.1436	0.16179		.01		12.66713	20		Averaged
2-Acetylaminofluorene	0.3156	0.35626		.01		12.8834	20		Averaged
3,3'-Dichlorobenzidine	0.31	0.3363		.01		8.48387	20		Averaged
7,12Dimethylbenz(a)anthracene	0.736	0.68725		.01		-6.62364	20		Averaged
3-Methylcholanthrene	0.1131	0.12504		.01		10.55703	20		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0120.D
Acq On : 01 Sep 2011 19:47
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-18.1|ICV|1|SVM|1|AICV
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 06 08:45:40 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164064	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	544722	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.151	8.156	1.000	316526	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	493457	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.845	12.853	1.000	279760	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	144148	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164064	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	544722	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.151	8.156	1.000	316526	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	493457	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.845	12.853	1.000	279760	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	144148	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	544722	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.151	8.156	1.000	316526	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	493457	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.845	12.853	1.000	279760	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	548813	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	144148	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164064	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	544722	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.151	8.156	1.000	316526	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	493457	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.845	12.853	1.000	279760	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	164064	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	544722	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.845	12.853	1.000	279760	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	144148	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.446	5.531	0.868	575	0.11	ng/uL	-0.09
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.596	2.593	0.521	98154	41.19	ng/uL	99
101) Methyl methacrylate	100	2.590	2.587	0.520	55280	41.97	ng/uL	97
102) Ethyl methacrylate	69	3.107	3.107	0.624	204864	40.77	ng/uL	99
103) 2-Picoline	93	3.371	3.368	0.677	253128	40.31	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.442	3.439	0.691	121247	41.93	ng/uL	97
105) Methyl methanesulfonate	80	3.670	3.670	0.737	151955	42.77	ng/uL	98
106) N-Nitrosodiethylamine	102	4.005	4.005	0.804	118011	40.91	ng/uL	99
107) Ethyl methanesulfonate	79	4.246	4.243	0.852	164697	37.99	ng/uL	100
108) Benzaldehyde	77	4.579	4.579	0.919	196652	40.36	ng/uL	99
109) Pentachloroethane	167	4.721	4.724	0.948	103304	41.95	ng/uL	95
110) N-Nitrosopyrrolidine	100	5.357	5.372	1.075	123668	43.53	ng/uL	98
111) Acetophenone	105	5.369	5.366	1.078	317467	40.56	ng/uL	98
112) N-Nitrosomorpholine	56	5.389	5.403	1.082	185215	40.92	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0120.D
Acq On : 01 Sep 2011 19:47
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-18.1|ICV|1|SVM|1|AICV
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 06 08:45:40 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

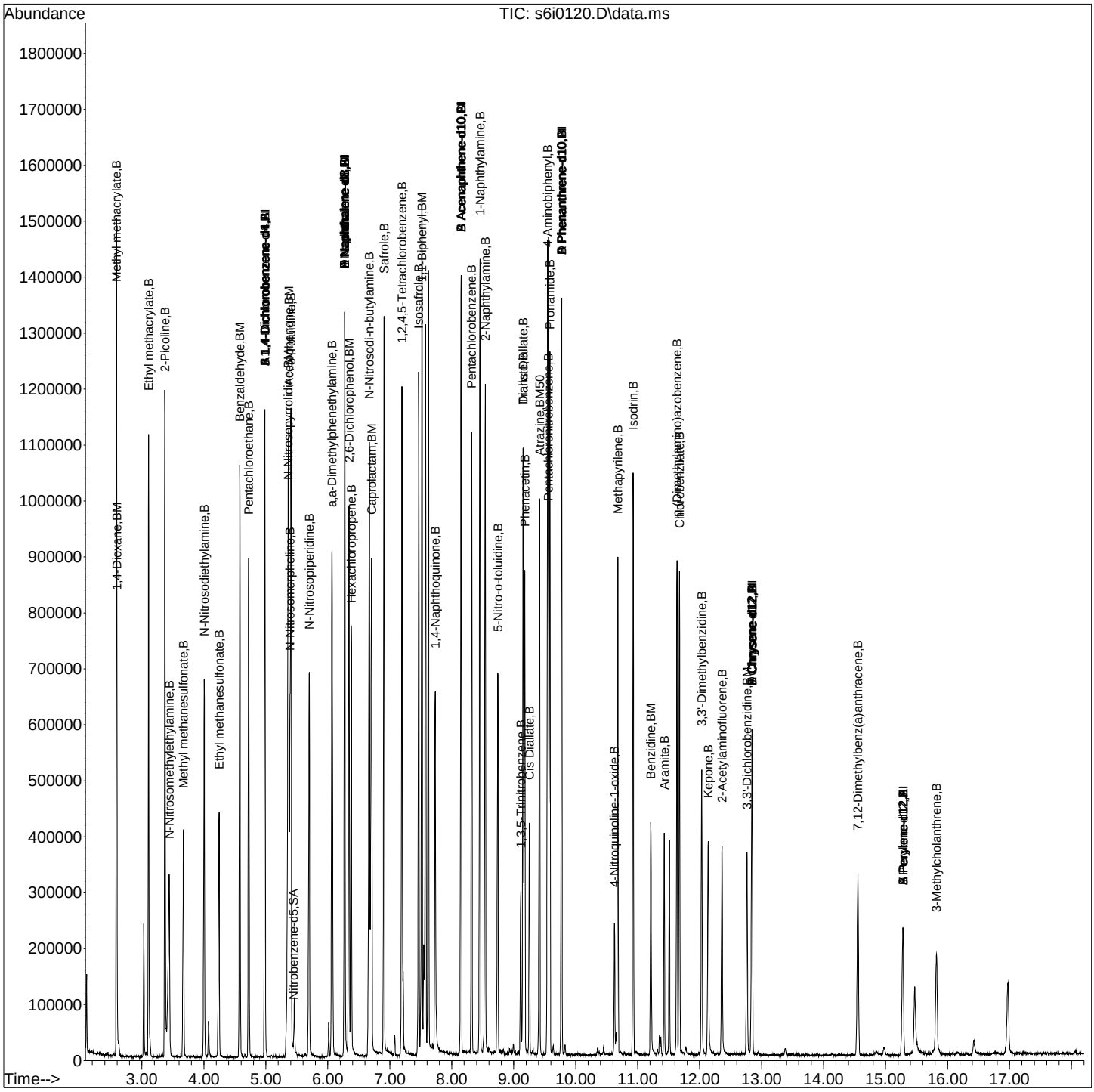
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.406	5.403	1.085	336058	41.39	ng/uL	98
115) N-Nitrosopiperidine	114	5.701	5.698	0.909	111907	41.43	ng/uL	98
116) a,a-Dimethylphenethyla...	58	6.068	6.065	0.967	653849	40.86	ng/uL	100
117) 2,6-Dichlorophenol	162	6.341	6.340	1.011	184505	43.89	ng/uL	98
118) Hexachloropropene	213	6.380	6.377	1.017	131034	46.18	ng/uL	96
119) Caprolactam	113	6.707	6.699	1.069	65843	41.53	ng/uL	96
120) N-Nitrosodi-n-butylamine	84	6.670	6.670	1.063	181038	41.94	ng/uL	97
121) Safrole	162	6.906	6.909	1.101	177641	39.65	ng/uL	100
123) 1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	204899	40.15	ng/uL	99
124) 1,1-Biphenyl	154	7.517	7.517	0.922	474602	40.13	ng/uL	99
125) Isosafrole	162	7.466	7.466	0.916	191292	42.79	ng/uL	98
126) 1,4-Naphthoquinone	158	7.733	7.733	0.949	124506	41.00	ng/uL	99
127) Pentachlorobenzene	250	8.321	8.321	1.021	176465	42.77	ng/uL	98
128) 1-Naphthylamine	143	8.455	8.454	1.037	361450	42.58	ng/uL	99
129) 2-Naphthylamine	143	8.540	8.540	1.048	398319	45.88	ng/uL	99
130) 5-Nitro-o-toluidine	152	8.744	8.741	1.073	109764	43.30	ng/uL	98
132) 1,3,5-Trinitrobenzene	75	9.114	9.111	0.933	82072	39.22	ng/uL	100
133) Phenacetin	108	9.179	9.176	0.939	194902	43.53	ng/uL	100
134) Diallate	86	9.151	9.151	0.936	150187	36.08	ng/uL	99
135) Cis Diallate	86	9.250	9.253	0.947	54995	9.61	ng/uL	94
136) Trans Diallate	86	9.151	9.151	0.936	150187	30.67	ng/uL	99
137) Atrazine	200	9.418	9.418	0.964	113582	41.34	ng/uL	97
138) 4-Aminobiphenyl	169	9.546	9.546	0.977	404858	47.12	ng/uL	100
139) Pentachloronitrobenzene	237	9.557	9.560	0.978	56186	40.33	ng/uL	97
140) Pronamide	173	9.586	9.585	0.981	183703	41.53	ng/uL	99
141) 4-Nitroquinoline-1-oxide	101	10.623	10.623	1.087	7934	41.99	ng/uL	91
142) Methapyrilene	58	10.679	10.679	1.093	252490	38.77	ng/uL	99
143) Isodrin	193	10.927	10.929	1.118	65721	36.23	ng/uL	99
144) Benzidine	184	11.211	11.214	1.147	176701	58.37	ng/uL	100
146) Aramite	185	11.427	11.427	0.890	25665	37.17	ng/uL	96
147) Kepone	272	12.137	12.134	0.945	45261	45.05	ng/uL	98
148) p-(Dimethylamino)azobe...	120	11.634	11.634	0.906	139185	39.79	ng/uL	98
149) Chlorobenzilate	251	11.674	11.674	0.909	146867	40.22	ng/uL	99
150) 3,3'-Dimethylbenzidine	212	12.032	12.032	0.937	198503	43.75	ng/uL	99
151) 2-Acetylaminofluorene	181	12.362	12.359	0.962	99667	45.15	ng/uL	98
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	94082	43.39	ng/uL	99
154) 7,12-Dimethylbenz(a)an...	256	14.552	14.552	0.952	99066	37.35	ng/uL	97
155) 3-Methylcholanthrene	269	15.820	15.817	1.035	18024	44.21	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0120.D
Acq On : 01 Sep 2011 19:47
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-18.1|ICV|1|SVM|1|AICV
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 06 08:45:40 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I **Injection Date:** 04-SEP-11 14:41

Data File: s090411.B\s6i0404.D **Init. Cal. Date(s)** 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110825-15.4 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD **Method Update:** 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	Nitrobenzene-d5	0.3825	0.00027		.01		-99.92941	20	*	Averaged
	Methyl methacrylate	0.3211	0.32862		.01		2.34195	20		Averaged
	1,4-Dioxane	0.5809	0.58702		.01		1.05354	20		Averaged
	Ethyl methacrylate	1.2251	1.24368		.01		1.51661	20		Averaged
	2-Picoline	1.5311	1.54165		.01		0.68905	20		Averaged
	N-Nitrosomethylethylamine	0.7051	0.67168		.01		-4.73975	20		Averaged
	Methyl methanesulfonate	0.8662	0.868		.01		0.2078	20		Averaged
	N-Nitrosodiethylamine	0.7033	0.67451		.01		-4.09356	20		Averaged
	Ethyl Methanesulfonate	1.0569	1.03577		.01		-1.99924	20		Averaged
	Benzaldehyde	1.1878	1.21102		.01		1.95487	20		Averaged
	Pentachloroethane	0.6004	0.59618		.01		-0.70286	20		Averaged
	N-Nitrosopyrrolidine	0.6926	0.68026		.01		-1.78169	20		Averaged
	Acetophenone	1.9082	1.8222		.01		-4.50687	20		Averaged
	N-Nitrosomorpholine	1.1036	1.0599		.01		-3.95977	20		Averaged
	o-Toluidine	1.9795	1.91973		.01		-3.01945	20		Averaged
	N-Nitrosopiperidine	0.1984	0.19695		.01		-0.73085	20		Averaged
	a,a-Dimethylphenethylamine	1.1751	1.07329		.01		-8.66394	20		Averaged
	2,6-Dichlorophenol	0.3087	0.30946		.01		0.24619	20		Averaged
	Hexachloropropene	0.2083	0.24236		.01		16.35142	20		Averaged
	N-Nitrosodi-n-butylamine	0.317	0.30141		.01		-4.91798	20		Averaged
	Caprolactam	0.1164	0.11149		.01		-4.21821	20		Averaged
	Safrole	0.329	0.33291		.01		1.18845	20		Averaged
	1,2,4,5-Tetrachlorobenzene	0.645	0.64877		.01		0.5845	20		Averaged
	Isosafrole	0.565	0.55841		.01		-1.16637	20		Averaged
	1,1'-Biphenyl	1.4946	1.52554		.01		2.07012	20		Averaged
	1,4-Naphthoquinone	0.3838	0.37123		.01		-3.27514	20		Averaged
	Pentachlorobenzene	0.5214	0.52188		.01		0.09206	20		Averaged
	1-Naphthylamine	1.0727	1.08771		.01		1.39927	20		Averaged
	2-Naphthylamine	1.097	1.12461		.01		2.51686	20		Averaged
	5-Nitro-o-toluidine	0.3204	0.30334		.01		-5.32459	20		Averaged
	1,3,5-Trinitrobenzene	0.1696	0.17308		.01		2.05189	20		Averaged
	Trans Diallate	0.3969	0.38912		.01		-1.96019	20		Averaged
	Diallate	0.3374	0.33075		.01		-1.97095	20		Averaged
	Phenacetin	0.3629	0.35858		.01		-1.19041	20		Averaged
	Cis Diallate	0.4638	0.46352		.01		-0.06037	20		Averaged
	Atrazine	0.2227	0.2375		.01		6.64571	20		Averaged
	4-Aminobiphenyl	0.6965	0.75241		.01		8.02728	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 04-SEP-11 14:41

Data File: s090411.B\s6i0404.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110825-15.4 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Pentachloronitrobenzene	0.1129	0.10944		.01		-3.06466	20		Averaged
Pronamide	0.3585	0.35539		.01		-0.8675	20		Averaged
4-Nitroquinoline-1-oxide	0.0153	0.01753		.01		14.57516	20		Averaged
Methapyrilene	0.5279	0.54724		.01		3.66357	20		Averaged
Isodrin	0.147	0.14054		.01		-4.39456	20		Averaged
Benzidine	0.2454	0.27818		.01		13.35778	20		Averaged
Aramite	0.0987	0.10397		.01		5.33941	20		Averaged
p-(Dimethylamino)azobenzene	0.5001	0.5175		.01		3.4793	20		Averaged
Chlorobenzilate	0.5221	0.52031		.01		-0.34285	20		Averaged
3,3'-Dimethylbenzidine	0.6487	0.72169		.01		11.25173	20		Averaged
Kepone	0.1436	0.15588		.01		8.55153	20		Averaged
2-Acetylaminofluorene	0.3156	0.31636		.01		0.24081	20		Averaged
3,3'-Dichlorobenzidine	0.31	0.29831		.01		-3.77097	20		Averaged
7,12Dimethylbenz(a)anthracene	0.736	0.77293		.01		5.01766	20		Averaged
3-Methylcholanthrene	0.1131	0.10302		.01		-8.91247	20		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0404.D
Acq On : 04 Sep 2011 14:41
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.4|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 04 15:03:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	148647	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.269	6.278	1.000	485490	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.148	8.156	1.000	272484	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	413519	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.842	12.853	1.000	208327	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.274	15.285	1.000	93282	40.00	ng/uL	-0.01
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	148647	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.269	6.278	1.000	485490	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.148	8.156	1.000	272484	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	413519	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.842	12.853	1.000	208327	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.274	15.285	1.000	93282	40.00	ng/uL	-0.01
156) D Naphthalene-d8	136	6.269	6.278	1.000	485490	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.148	8.156	1.000	272484	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	413519	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.842	12.853	1.000	208327	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.269	6.278	1.000	485482	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.274	15.316	1.000	93282	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	148647	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.269	6.278	1.000	485490	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.148	8.156	1.000	272484	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	413519	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.842	12.853	1.000	208327	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	148647	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.269	6.278	1.000	485490	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.842	12.853	1.000	208327	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.274	15.285	1.000	93282	40.00	ng/uL	-0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.576	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	5.457	5.531	0.870	131	0.03	ng/uL	-0.07
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	87259	40.42	ng/uL	97
101) Methyl methacrylate	100	2.587	2.587	0.519	48848	40.93	ng/uL	96
102) Ethyl methacrylate	69	3.107	3.107	0.624	184869	40.61	ng/uL	98
103) 2-Picoline	93	3.371	3.368	0.677	229162	40.28	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.439	3.439	0.690	99843	38.11	ng/uL	99
105) Methyl methanesulfonate	80	3.670	3.670	0.737	129025	40.08	ng/uL	99
106) N-Nitrosodiethylamine	102	4.005	4.005	0.804	100264	38.36	ng/uL	100
107) Ethyl methanesulfonate	79	4.243	4.243	0.852	153964	39.20	ng/uL	99
108) Benzaldehyde	77	4.579	4.579	0.919	180015	40.78	ng/uL	99
109) Pentachloroethane	167	4.721	4.724	0.948	88621	39.72	ng/uL	100
110) N-Nitrosopyrrolidine	100	5.352	5.372	1.074	101119	39.28	ng/uL	98
111) Acetophenone	105	5.366	5.366	1.077	270864	38.20	ng/uL	97
112) N-Nitrosomorpholine	56	5.386	5.403	1.081	157551	38.42	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0404.D
Acq On : 04 Sep 2011 14:41
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.4|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 04 15:03:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

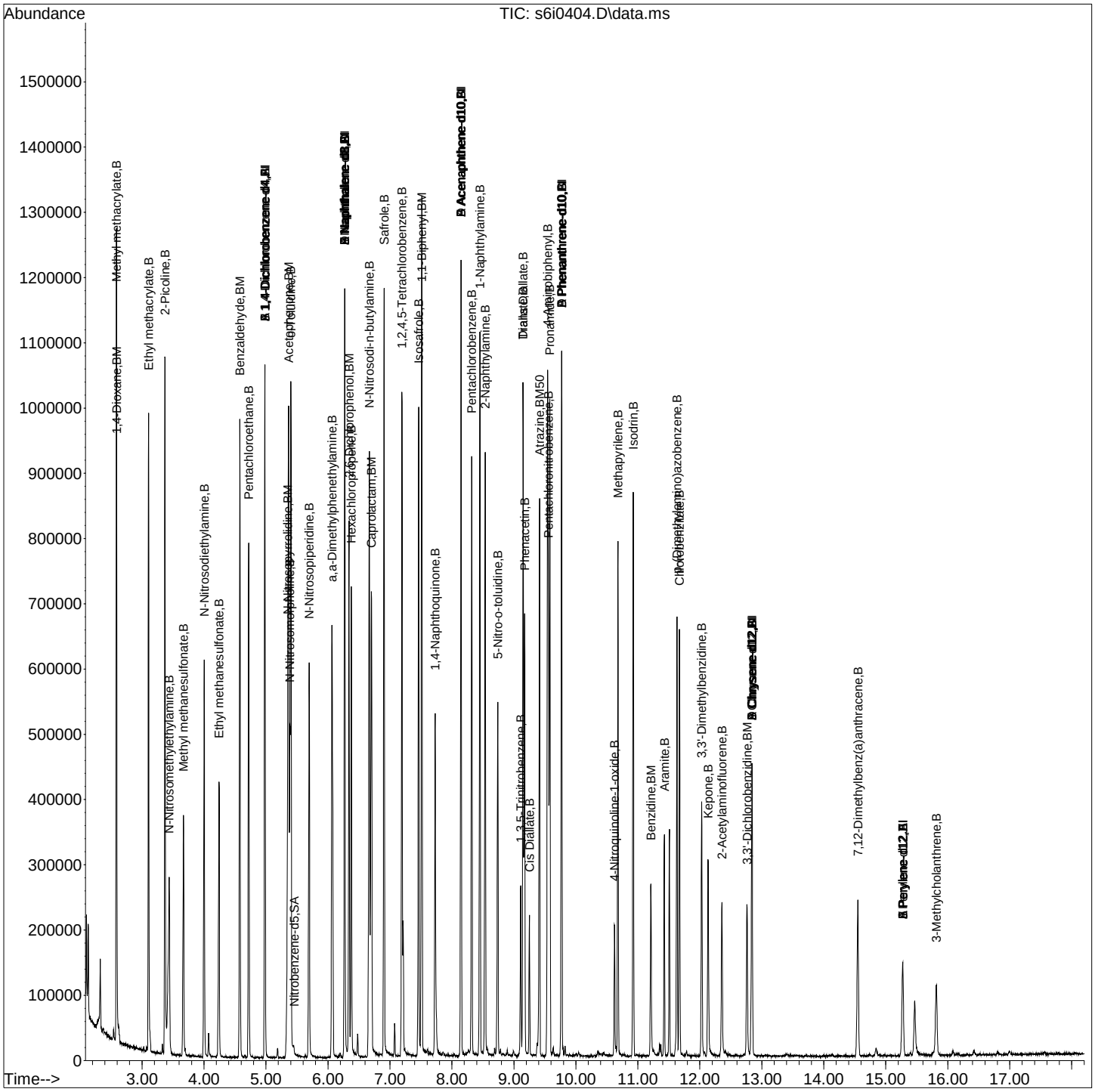
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.403	5.403	1.084	285362	38.79	ng/uL	99
115) N-Nitrosopiperidine	114	5.698	5.698	0.909	95617	39.71	ng/uL	97
116) a,a-Dimethylphenethyla...	58	6.065	6.065	0.967	521070	36.53	ng/uL	100
117) 2,6-Dichlorophenol	162	6.340	6.340	1.011	150241	40.10	ng/uL	99
118) Hexachloropropene	213	6.377	6.377	1.017	117662	46.53	ng/uL	99
119) Caprolactam	113	6.701	6.699	1.069	54129	38.31	ng/uL	99
120) N-Nitrosodi-n-butylamine	84	6.667	6.670	1.063	146332	38.04	ng/uL	99
121) Safrole	162	6.906	6.909	1.102	161625	40.48	ng/uL	96
123) 1,2,4,5-Tetrachloroben...	216	7.193	7.196	0.883	176779	40.23	ng/uL	99
124) 1,1-Biphenyl	154	7.514	7.517	0.922	415685	40.83	ng/uL	99
125) Isosafrole	162	7.463	7.466	0.916	152159	39.53	ng/uL	100
126) 1,4-Naphthoquinone	158	7.730	7.733	0.949	101155	38.69	ng/uL	99
127) Pentachlorobenzene	250	8.321	8.321	1.021	142204	40.03	ng/uL	99
128) 1-Naphthylamine	143	8.452	8.454	1.037	296383	40.56	ng/uL	100
129) 2-Naphthylamine	143	8.537	8.540	1.048	306438	41.01	ng/uL	100
130) 5-Nitro-o-toluidine	152	8.741	8.741	1.073	82656	37.88	ng/uL	98
132) 1,3,5-Trinitrobenzene	75	9.111	9.111	0.933	71572	40.81	ng/uL	99
133) Phenacetin	108	9.173	9.176	0.939	148278	39.52	ng/uL	99
134) Diallate	86	9.148	9.151	0.936	136773	39.21	ng/uL	99
135) Cis Diallate	86	9.250	9.253	0.947	28751	6.00	ng/uL	94
136) Trans Diallate	86	9.148	9.151	0.936	136773	33.33	ng/uL	99
137) Atrazine	200	9.415	9.418	0.964	98209	42.65	ng/uL	98
138) 4-Aminobiphenyl	169	9.546	9.546	0.977	311135	43.21	ng/uL	99
139) Pentachloronitrobenzene	237	9.557	9.560	0.978	45254	38.77	ng/uL	94
140) Pronamide	173	9.580	9.585	0.981	146959	39.65	ng/uL	100
141) 4-Nitroquinoline-1-oxide	101	10.623	10.623	1.087	7250	45.78	ng/uL	95
142) Methapyrilene	58	10.679	10.679	1.093	226295	41.47	ng/uL	99
143) Isodrin	193	10.924	10.929	1.118	58116	38.23	ng/uL	100
144) Benzidine	184	11.211	11.214	1.147	115034	45.34	ng/uL	99
146) Aramite	185	11.427	11.427	0.890	21659	42.12	ng/uL	98
147) Kepone	272	12.134	12.134	0.945	32473	43.41	ng/uL	99
148) p-(Dimethylamino)azobe...	120	11.631	11.634	0.906	107810	41.39	ng/uL	100
149) Chlorobenzilate	251	11.671	11.674	0.909	108395	39.86	ng/uL	99
150) 3,3'-Dimethylbenzidine	212	12.029	12.032	0.937	150348	44.50	ng/uL	99
151) 2-Acetylaminofluorene	181	12.356	12.359	0.962	65906	40.09	ng/uL	94
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	62147	38.49	ng/uL	98
154) 7,12-Dimethylbenz(a)an...	256	14.549	14.552	0.953	72100	42.01	ng/uL	98
155) 3-Methylcholanthrene	269	15.814	15.817	1.035	9610	36.42	ng/uL	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0404.D
Acq On : 04 Sep 2011 14:41
Operator : JMB3
InstName : MSD6
Sample : |WBN110825-15.4|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 04 15:03:47 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I **Injection Date:** 04-SEP-11 15:09

Data File: s090411.B\s6i0405.D **Init. Cal. Date(s)** 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110812-05.4 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD **Method Update:** 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2954	1.28781		.01		-0.58592	20		Averaged	
S	Phenol-d5	1.6832	1.65945		.01		-1.411	20		Averaged	
S	Nitrobenzene-d5	0.3825	0.40159		.01		4.99085	20		Averaged	
S	2-Fluorobiphenyl	1.2988	1.34727		.01		3.73191	20		Averaged	
S	2,4,6-Tribromophenol	0.1773	0.19025		.01		7.304	20		Averaged	
S	p-Terphenyl-d14	1.137	1.1259		.01		-0.97625	20		Averaged	
	2-Ethoxyethanol	0.9635	0.96724		.01		0.38817	20		Averaged	
	N-Methyl-N-nitrosomethylami	0.8772	0.8839		.01		0.76379	20		Averaged	
	Pyridine	1.2428	1.28225		.01		3.17428	20		Averaged	
	p-Benzoquinone	0.2242	0.20835		.01		-7.06958	20		Averaged	
	Phenol	1.6316	1.68323		.01		3.16438	20		Averaged	ccc
	Aniline	0.81	0.8238		.01		1.7037	20		Averaged	
	bis(2-Chloroethyl) ether	1.1886	1.15688		.01		-2.66869	20		Averaged	
	2-Chlorophenol	1.3471	1.33792		.01		-0.68146	20		Averaged	
	n-Decane	2.1229	2.15997		.01		1.7462	20		Averaged	
	1,3-Dichlorobenzene	1.4916	1.48763		.01		-0.26616	20		Averaged	
	1,4-Dichlorobenzene	1.4824	1.53859		.01		3.79047	20		Averaged	ccc
	Benzyl alcohol	0.907	0.90494		.01		-0.22712	20		Averaged	
	1,2-Dichlorobenzene	1.4001	1.42183		.01		1.55203	20		Averaged	
	o-Cresol	1.1005	1.10238		.01		0.17083	20		Averaged	
	bis(2-Chloroisopropyl)ether	2.7609	2.75836		.01		-0.092	20		Averaged	
	m,p-Cresols	1.3873	1.39766		.01		0.74677	20		Averaged	
	N-Nitrosodipropylamine	1.0555	1.09547		.05		3.78683	20		Averaged	spcc
	p-Toluidine	1.5052	1.49945		.01		-0.38201	20		Averaged	
	m-Toluidine	1.4449	1.52548		.01		5.57686	20		Averaged	
	Hexachloroethane	0.6195	0.6067		.01		-2.06618	20		Averaged	
	Nitrobenzene	0.3774	0.39494		.01		4.64759	20		Averaged	
	Isophorone	0.6961	0.71554		.01		2.7927	20		Averaged	
	2-Nitrophenol	0.1841	0.18695		.01		1.54807	20		Averaged	ccc
	2,4-Dimethylphenol	0.3163	0.33933		.01		7.28106	20		Averaged	
	Benzoic acid	0.2236	0.22333		.01		-0.12075	20		Averaged	
	bis(2-Chloroethoxy)methane	0.3747	0.3912		.01		4.40352	20		Averaged	
	2,4-Dichlorophenol	0.2835	0.29496		.01		4.04233	20		Averaged	ccc
	1,2,4-Trichlorobenzene	0.3436	0.36256		.01		5.51804	20		Averaged	
	alpha-Terpineol	0.3668	0.37951		.01		3.4651	20		Averaged	
	Naphthalene	0.8859	0.90714		.01		2.39756	20		Averaged	
	4-Chloroaniline	0.3402	0.37648		.01		10.66432	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 04-SEP-11 15:09

Data File: s090411.B\s6i0405.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-05.4 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Hexachlorobutadiene	0.2017	0.21413		.01		6.16262	20		Averaged	ccc
4-Chloro-3-methylphenol	0.2922	0.31031		.01		6.19781	20		Averaged	ccc
2-Methylnaphthalene	0.6262	0.65421		.01		4.47301	20		Averaged	
Phthalic Anhydride	0.0635	0.05642		.01		-11.14961	20		Averaged	
1-Methylnaphthalene	0.5872	0.59849		.01		1.92268	20		Averaged	
Hexachlorocyclopentadiene	0.2855	0.33625		.05		17.77583	20		Averaged	spcc
2,4,6-Trichlorophenol	0.3908	0.40211		.01		2.89406	20		Averaged	ccc
2,3-Dichloroaniline	0.6678	0.68937		.01		3.23001	20		Averaged	
2,4,5-Trichlorophenol	0.4048	0.42555		.01		5.12599	20		Averaged	
2-Chloronaphthalene	1.1666	1.16405		.01		-0.21858	20		Averaged	
o-Nitroaniline	0.4054	0.40537		.01		-0.0074	20		Averaged	
1,4-Dinitrobenzene	0.1998	0.20655		.01		3.37838	20		Averaged	
Dimethylphthalate	1.2794	1.32355		.01		3.45084	20		Averaged	
m-Dinitrobenzene	0.2266	0.23719		.01		4.67343	20		Averaged	
2,6-Dinitrotoluene	0.3171	0.32689		.01		3.08735	20		Averaged	
Acenaphthylene	1.6477	1.67506		.01		1.6605	20		Averaged	
m-Nitroaniline	0.2741	0.28516		.01		4.03502	20		Averaged	
2,4-Dinitrophenol	0.1489	0.14134		.05		-5.07723	20		Averaged	spcc
Acenaphthene	1.1685	1.15846		.01		-0.85922	20		Averaged	ccc
4-Nitrophenol	0.1895	0.17228		.05		-9.08707	20		Averaged	spcc
2,4-Dinitrotoluene	0.395	0.41395		.01		4.79747	20		Averaged	
Dibenzofuran	1.4471	1.50446		.01		3.96379	20		Averaged	
2,3,4,6-Tetrachlorophenol	0.3397	0.3641		.01		7.18281	20		Averaged	
Diethylphthalate	1.2014	1.25307		.01		4.30082	20		Averaged	
4-Chlorophenylphenylether	0.665	0.69472		.01		4.46917	20		Averaged	
p-Nitroaniline	0.2145	0.22611		.01		5.41259	20		Averaged	
Fluorene	1.2635	1.2773		.01		1.0922	20		Averaged	
2-Methyl-4,6-dinitrophenol	0.1292	0.14695		.01		13.73839	20		Averaged	
Diphenylamine	0.6605	0.67177		.01		1.70628	20		Averaged	ccc
1,2-Diphenylhydrazine	0.8446	0.84477		.01		0.02013	20		Averaged	
4-Bromophenylphenylether	0.2467	0.24767		.01		0.39319	20		Averaged	
Hexachlorobenzene	0.2539	0.25781		.01		1.53998	20		Averaged	
Pentachlorophenol	0.1429	0.16113		.01		12.75717	20		Averaged	ccc
n-Octadecane	0.6658	0.65534		.01		-1.57104	20		Averaged	
Dinoseb	0.1829	0.21411		.01		17.06397	20		Averaged	
Phenanthrene	1.0271	1.01266		.01		-1.4059	20		Averaged	
Anthracene	1.0432	1.03669		.01		-0.62404	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 04-SEP-11 15:09

Data File: s090411.B\s6i0405.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-05.4 **Method:** s090411.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Carbazole	0.7498	0.7923		.01		5.66818	20		Averaged	
Di-n-butylphthalate	1.1145	1.13337		.01		1.69314	20		Averaged	
Fluoranthene	0.9738	0.9926		.01		1.93058	20		Averaged	ccc
Pyrene	1.8082	1.76226		.01		-2.54065	20		Averaged	
Butylbenzylphthalate	0.7144	0.67312		.01		-5.77828	20		Averaged	
Methoxychlor	0.8156	0.84347		.01		3.41712	20		Averaged	
4,4'-Methylenebis(2-chloroanili	0.1219	0.1069		.01		-12.30517	20		Averaged	
bis(2-Ethylhexyl)phthalate	0.8002	0.72424		.01		-9.49263	20		Averaged	
Benzo(a)anthracene	1.138	1.1176		.01		-1.79262	20		Averaged	
Chrysene	1.0268	1.02016		.01		-0.64667	20		Averaged	
Di-n-octylphthalate	1.0244	0.95329		.01		-6.94162	20		Averaged	ccc
Benzo(b)fluoranthene	1.2936	1.25807		.01		-2.7466	20		Averaged	
Benzo(k)fluoranthene	1.2483	1.22821		.01		-1.60939	20		Averaged	
Benzo(a)pyrene	1.0772	1.06616		.01		-1.02488	20		Averaged	ccc
Indeno(1,2,3-cd)pyrene	0.8203	0.83556		.01		1.8603	20		Averaged	
Dibenzo(a,h)anthracene	0.6669	0.6846		.01		2.65407	20		Averaged	
Benzo(ghi)perylene	0.6758	0.66135		.01		-2.13821	20		Averaged	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0405.D
Acq On : 04 Sep 2011 15:09
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.4|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 15:26:54 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	141346	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	535240	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.153	8.156	1.000	275841	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	432656	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	235379	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.277	15.285	1.000	132450	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	141346	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	535240	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.153	8.156	1.000	275841	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	432656	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	235379	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.277	15.285	1.000	132450	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	535240	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.153	8.156	1.000	275841	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	432656	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	235379	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	534193	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	132450	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	141346	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	535240	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.153	8.156	1.000	275841	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	432656	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	235379	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	141346	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	535240	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	235379	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.277	15.285	1.000	132450	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	182027	39.76	ng/uL	0.00
8) Phenol-d5	99	4.576	4.576	0.918	234556	39.43	ng/uL	0.00
25) Nitrobenzene-d5	82	5.531	5.531	0.881	214949	41.99	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	371633	41.49	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.003	9.006	1.104	52479	42.92	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	265013	39.61	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.590	2.590	0.520	136716	40.16	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.809	2.808	0.563	124936	40.30	ng/uL	97
4) Pyridine	79	2.843	2.843	0.570	181241	41.27	ng/uL	97
6) p-Benzoquinone	54	4.232	4.232	0.849	29450	37.17	ng/uL	100
7) Aniline	66	4.673	4.672	0.937	116441	40.68	ng/uL	99
9) Phenol	94	4.590	4.593	0.921	237918	41.26	ng/uL	99
10) bis(2-Chloroethyl) ether	63	4.707	4.707	0.944	163520	38.93	ng/uL	98
11) 2-Chlorophenol	128	4.783	4.780	0.960	189110	39.73	ng/uL	99
12) n-Decane	43	4.781	4.783	0.959	305303	40.70	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.934	4.934	0.990	210271	39.89	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.002	5.005	1.003	217474	41.52	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.153	5.153	1.034	200970	40.62	ng/uL	99
16) bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	389883	39.96	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0405.D
Acq On : 04 Sep 2011 15:09
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.4|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 15:26:54 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17) Benzyl alcohol	108	5.096	5.096	1.022	127909	39.91	ng/uL	98
18) o-Cresol	107	5.173	5.175	1.038	155817	40.07	ng/uL	99
19) m,p-Cresols	107	5.332	5.335	1.070	197554	40.30	ng/uL	99
20) N-Nitrosodipropylamine	70	5.366	5.391	1.076	154841	41.51	ng/uL	99
21) p-Toluidine	106	5.406	5.408	1.084	211941	39.85	ng/uL	98
22) m-Toluidine	106	5.440	5.442	1.091	215620	42.23	ng/uL	99
23) Hexachloroethane	117	5.491	5.497	1.101	85754	39.17	ng/uL	98
26) Nitrobenzene	77	5.551	5.553	0.885	211390	41.86	ng/uL	99
27) Isophorone	82	5.786	5.795	0.922	382983	41.12	ng/uL	100
28) 2-Nitrophenol	139	5.866	5.872	0.935	100065	40.62	ng/uL	98
29) 2,4-Dimethylphenol	122	5.872	5.872	0.936	181623	42.92	ng/uL	96
30) bis(2-Chloroethoxy)met...	93	5.977	5.980	0.952	209387	41.76	ng/uL	99
31) 2,4-Dichlorophenol	162	6.105	6.107	0.973	157872	41.62	ng/uL	99
32) Benzoic acid	105	5.982	5.988	0.953	119536	39.96	ng/uL	93
33) 1,2,4-Trichlorobenzene	180	6.201	6.204	0.988	194057	42.21	ng/uL	100
34) alpha-Terpineol	59	6.278	6.281	1.000	203128	41.39	ng/uL	98
35) Naphthalene	128	6.298	6.301	1.004	485535	40.96	ng/uL	100
36) 4-Chloroaniline	127	6.332	6.332	1.009	201509	44.26	ng/uL	96
37) Hexachlorobutadiene	225	6.403	6.403	1.020	114610	42.47	ng/uL	98
38) 4-Chloro-3-methylphenol	107	6.809	6.809	1.085	166091	42.48	ng/uL	100
39) 2-Methylnaphthalene	142	7.022	7.022	1.119	350157	41.79	ng/uL	99
40) Phthalic anhydride	104	7.071	7.076	1.127	30199	35.57	ng/uL	98
41) 1-Methylnaphthalene	142	7.130	7.133	1.136	320338	40.77	ng/uL	100
43) Hexachlorocyclopentadiene	237	7.179	7.179	0.880	92752	47.11	ng/uL	100
44) 2,3-Dichloroaniline	161	7.318	7.321	0.898	190156	41.29	ng/uL	99
45) 2,4,6-Trichlorophenol	196	7.307	7.309	0.896	110919	41.16	ng/uL	99
46) 2,4,5-Trichlorophenol	196	7.344	7.346	0.901	117383	42.05	ng/uL	99
48) 2-Chloronaphthalene	162	7.548	7.551	0.926	321092	39.91	ng/uL	99
49) o-Nitroaniline	65	7.645	7.647	0.938	111818	40.00	ng/uL	100
50) 1,4-Dinitrobenzene	168	7.793	7.795	0.956	56976	41.36	ng/uL	99
51) m-Nitroaniline	138	8.091	8.094	0.992	78660	41.61	ng/uL	100
52) Dimethylphthalate	163	7.832	7.838	0.961	365089	41.38	ng/uL	100
53) m-Dinitrobenzene	168	7.878	7.878	0.966	65427	41.87	ng/uL	100
54) 2,6-Dinitrotoluene	165	7.903	7.906	0.969	90169	41.24	ng/uL	99
55) 2,4-Dinitrotoluene	165	8.338	8.344	1.023	114185	41.92	ng/uL	98
56) Acenaphthylene	152	8.003	8.008	0.982	462051	40.66	ng/uL	99
57) Acenaphthene	154	8.190	8.193	1.005	319551	39.65	ng/uL	99
58) 2,4-Dinitrophenol	184	8.193	8.199	1.005	38987	37.98	ng/uL#	73
59) Dibenzofuran	168	8.372	8.375	1.027	414992	41.59	ng/uL	99
60) 2,3,4,6-Tetrachlorophenol	232	8.489	8.491	1.041	100435	42.88	ng/uL	100
61) Diethylphthalate	149	8.582	8.585	1.053	345649	41.72	ng/uL	100
62) 4-Nitrophenol	139	8.230	8.236	1.009	47522	36.36	ng/uL	95
63) Fluorene	166	8.747	8.750	1.073	352332	40.44	ng/uL	100
64) 4-Chlorophenylphenylether	204	8.727	8.730	1.070	191632	41.79	ng/uL	98
65) p-Nitroaniline	138	8.750	8.758	1.073	62371	42.17	ng/uL	98
68) 2-Methyl-4,6-dinitroph...	198	8.781	8.784	0.899	63578	45.50	ng/uL	99
69) Diphenylamine	169	8.855	8.858	0.906	290647	40.68	ng/uL	99
70) 1,2-Diphenylhydrazine	77	8.901	8.903	0.911	365496	40.01	ng/uL	100
71) 4-Bromophenylphenylether	248	9.262	9.264	0.948	107155	40.15	ng/uL	99
72) Hexachlorobenzene	284	9.341	9.341	0.956	111545	40.61	ng/uL	98
73) Pentachlorophenol	266	9.543	9.543	0.977	69715	45.10	ng/uL	99
74) n-Octadecane	57	9.580	9.582	0.981	283535	39.37	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0405.D
Acq On : 04 Sep 2011 15:09
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.4|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 15:26:54 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

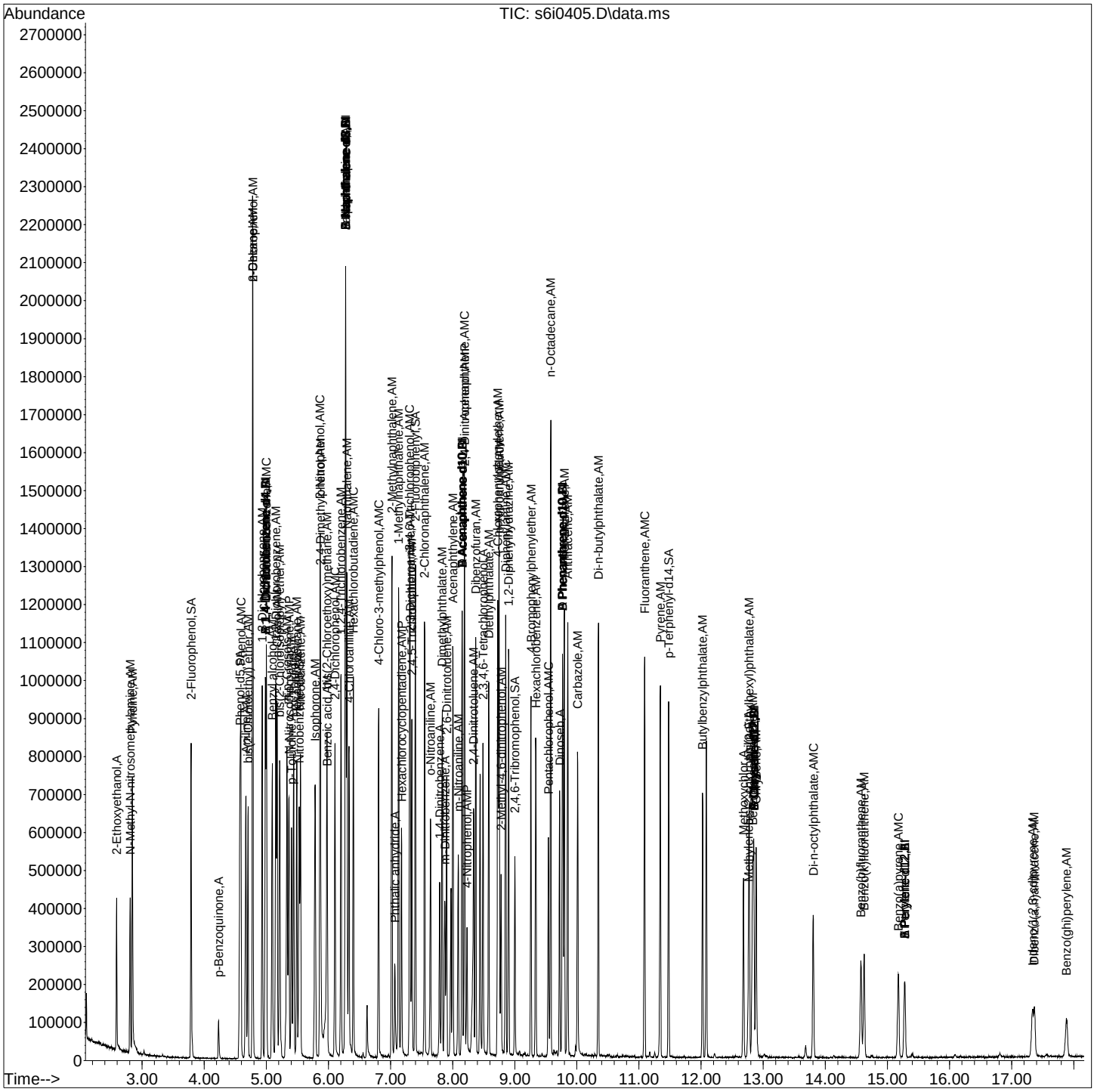
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75) Dinoseb	211	9.725	9.725	0.995	92636	46.82	ng/uL	98
76) Phenanthrene	178	9.799	9.801	1.003	438133	39.44	ng/uL	99
77) Anthracene	178	9.855	9.858	1.009	448532	39.75	ng/uL	100
78) Carbazole	167	10.012	10.014	1.025	342795	42.27	ng/uL	99
79) Di-n-butylphthalate	149	10.347	10.350	1.059	490361	40.68	ng/uL	100
80) Fluoranthene	202	11.091	11.094	1.135	429453	40.77	ng/uL	100
82) Pyrene	202	11.344	11.347	0.883	414799	38.98	ng/uL	99
84) Butylbenzylphthalate	149	12.023	12.026	0.936	158438	37.69	ng/uL	100
85) bis(2-Ethylhexyl)phtha...	149	12.774	12.776	0.994	170472	36.21	ng/uL	98
86) Benzo(a)anthracene	228	12.830	12.833	0.998	263060	39.28	ng/uL	99
87) Chrysene	228	12.887	12.890	1.003	240125	39.74	ng/uL	99
88) Methoxychlor	227	12.683	12.685	0.987	198535	41.37	ng/uL	99
89) Methylenebis(2-chloroa...	231	12.762	12.765	0.993	25162	35.06	ng/uL	97
90) Di-n-octylphthalate	149	13.808	13.811	1.075	224385	37.22	ng/uL	99
92) Benzo(b)fluoranthene	252	14.572	14.581	0.954	166631	38.90	ng/uL	99
93) Benzo(k)fluoranthene	252	14.626	14.632	0.957	162677	39.36	ng/uL	99
94) Benzo(a)pyrene	252	15.175	15.177	0.993	141213	39.59	ng/uL	98
95) Indeno(1,2,3-cd)pyrene	276	17.334	17.351	1.135	110670	40.74	ng/uL	88
96) Dibenzo(a,h)anthracene	278	17.362	17.371	1.137	90675	41.06	ng/uL	99
97) Benzo(ghi)perylene	276	17.880	17.885	1.170	87596	39.15	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0405.D
Acq On : 04 Sep 2011 15:09
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.4|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 15:26:54 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I **Injection Date:** 06-SEP-11 11:38

Data File: s090611.B\s6i0602.D **Init. Cal. Date(s)** 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110812-05.3 **Method:** s090611.B\MSD6_625c_090411.m

Quant Type ISTD **Method Update:** 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2954	1.30906		.01		1.0545	20		Averaged	
S	Phenol-d5	1.6832	1.68579		.01		0.15387	20		Averaged	
S	Nitrobenzene-d5	0.3825	0.40202		.01		5.10327	20		Averaged	
S	2-Fluorobiphenyl	1.2988	1.3607		.01		4.76594	20		Averaged	
S	2,4,6-Tribromophenol	0.1773	0.18929		.01		6.76255	20		Averaged	
S	p-Terphenyl-d14	1.137	1.16416		.01		2.38874	20		Averaged	
	2-Ethoxyethanol	0.9635	0.9559		.01		-0.78879	20		Averaged	
	N-Methyl-N-nitrosomethylami	0.8772	0.86407		.01		-1.49681	20		Averaged	
	Pyridine	1.2428	1.26958		.01		2.15481	20		Averaged	
	p-Benzoquinone	0.2242	0.21354		.01		-4.75468	20		Averaged	
	Phenol	1.6316	1.66558		.01		2.08262	20		Averaged	ccc
	Aniline	0.81	0.79433		.01		-1.93457	20		Averaged	
	bis(2-Chloroethyl) ether	1.1886	1.14732		.01		-3.47299	20		Averaged	
	2-Chlorophenol	1.3471	1.36199		.01		1.10534	20		Averaged	
	n-Decane	2.1229	2.13579		.01		0.60719	20		Averaged	
	1,3-Dichlorobenzene	1.4916	1.53152		.01		2.67632	20		Averaged	
	1,4-Dichlorobenzene	1.4824	1.5272		.01		3.02213	20		Averaged	ccc
	Benzyl alcohol	0.907	0.88505		.01		-2.42007	20		Averaged	
	1,2-Dichlorobenzene	1.4001	1.43013		.01		2.14485	20		Averaged	
	o-Cresol	1.1005	1.09911		.01		-0.12631	20		Averaged	
	bis(2-Chloroisopropyl)ether	2.7609	2.71487		.01		-1.66721	20		Averaged	
	m,p-Cresols	1.3873	1.39406		.01		0.48728	20		Averaged	
	N-Nitrosodipropylamine	1.0555	1.07898		.05		2.22454	20		Averaged	spcc
	p-Toluidine	1.5052	1.46322		.01		-2.789	20		Averaged	
	m-Toluidine	1.4449	1.49031		.01		3.14278	20		Averaged	
	Hexachloroethane	0.6195	0.61191		.01		-1.22518	20		Averaged	
	Nitrobenzene	0.3774	0.3922		.01		3.92157	20		Averaged	
	Isophorone	0.6961	0.71624		.01		2.89326	20		Averaged	
	2-Nitrophenol	0.1841	0.19553		.01		6.20858	20		Averaged	ccc
	2,4-Dimethylphenol	0.3163	0.34173		.01		8.03984	20		Averaged	
	Benzoic acid	0.2236	0.23552		.01		5.33095	20		Averaged	
	bis(2-Chloroethoxy)methane	0.3747	0.40905		.01		9.16733	20		Averaged	
	2,4-Dichlorophenol	0.2835	0.3048		.01		7.51323	20		Averaged	ccc
	1,2,4-Trichlorobenzene	0.3436	0.37463		.01		9.03085	20		Averaged	
	alpha-Terpineol	0.3668	0.37907		.01		3.34515	20		Averaged	
	Naphthalene	0.8859	0.91252		.01		3.00485	20		Averaged	
	4-Chloroaniline	0.3402	0.37471		.01		10.14403	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 06-SEP-11 11:38

Data File: s090611.B\s6i0602.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-05.3 **Method:** s090611.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Hexachlorobutadiene	0.2017	0.21996		.01		9.05305	20		Averaged	ccc
4-Chloro-3-methylphenol	0.2922	0.30523		.01		4.45927	20		Averaged	ccc
2-Methylnaphthalene	0.6262	0.65558		.01		4.69179	20		Averaged	
Phthalic Anhydride	0.0635	0.05699		.01		-10.25197	20		Averaged	
1-Methylnaphthalene	0.5872	0.61568		.01		4.85014	20		Averaged	
Hexachlorocyclopentadiene	0.2855	0.3534		.05		23.78284	20	*	Averaged	spcc
2,4,6-Trichlorophenol	0.3908	0.40832		.01		4.48311	20		Averaged	ccc
2,3-Dichloroaniline	0.6678	0.70051		.01		4.89817	20		Averaged	
2,4,5-Trichlorophenol	0.4048	0.44513		.01		9.96294	20		Averaged	
2-Chloronaphthalene	1.1666	1.19862		.01		2.74473	20		Averaged	
o-Nitroaniline	0.4054	0.39781		.01		-1.87222	20		Averaged	
1,4-Dinitrobenzene	0.1998	0.21749		.01		8.85385	20		Averaged	
Dimethylphthalate	1.2794	1.30596		.01		2.07597	20		Averaged	
m-Dinitrobenzene	0.2266	0.239		.01		5.4722	20		Averaged	
2,6-Dinitrotoluene	0.3171	0.33507		.01		5.66698	20		Averaged	
Acenaphthylene	1.6477	1.69051		.01		2.59817	20		Averaged	
m-Nitroaniline	0.2741	0.28392		.01		3.58263	20		Averaged	
2,4-Dinitrophenol	0.1489	0.14559		.05		-2.22297	20		Averaged	spcc
Acenaphthene	1.1685	1.19167		.01		1.98288	20		Averaged	ccc
4-Nitrophenol	0.1895	0.17209		.05		-9.18734	20		Averaged	spcc
2,4-Dinitrotoluene	0.395	0.40913		.01		3.57722	20		Averaged	
Dibenzofuran	1.4471	1.52701		.01		5.52208	20		Averaged	
2,3,4,6-Tetrachlorophenol	0.3397	0.35261		.01		3.80041	20		Averaged	
Diethylphthalate	1.2014	1.26033		.01		4.90511	20		Averaged	
4-Chlorophenylphenylether	0.665	0.70295		.01		5.70677	20		Averaged	
Fluorene	1.2635	1.30835		.01		3.54966	20		Averaged	
p-Nitroaniline	0.2145	0.21549		.01		0.46154	20		Averaged	
2-Methyl-4,6-dinitrophenol	0.1292	0.15428		.01		19.41176	20		Averaged	
Diphenylamine	0.6605	0.6762		.01		2.37699	20		Averaged	ccc
1,2-Diphenylhydrazine	0.8446	0.85875		.01		1.67535	20		Averaged	
4-Bromophenylphenylether	0.2467	0.25128		.01		1.85651	20		Averaged	
Hexachlorobenzene	0.2539	0.26176		.01		3.09571	20		Averaged	
Pentachlorophenol	0.1429	0.16017		.01		12.08537	20		Averaged	ccc
n-Octadecane	0.6658	0.64527		.01		-3.08351	20		Averaged	
Dinoseb	0.1829	0.21624		.01		18.22854	20		Averaged	
Phenanthrene	1.0271	1.03348		.01		0.62117	20		Averaged	
Anthracene	1.0432	1.04291		.01		-0.0278	20		Averaged	

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 06-SEP-11 11:38

Data File: s090611.B\s6i0602.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110812-05.3 **Method:** s090611.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Carbazole	0.7498	0.77514		.01		3.37957	20		Averaged	
Di-n-butylphthalate	1.1145	1.13137		.01		1.51368	20		Averaged	
Fluoranthene	0.9738	0.98972		.01		1.63483	20		Averaged	ccc
Pyrene	1.8082	1.87701		.01		3.80544	20		Averaged	
Butylbenzylphthalate	0.7144	0.69417		.01		-2.83175	20		Averaged	
Methoxychlor	0.8156	0.80417		.01		-1.40142	20		Averaged	
4,4'-Methylenebis(2-chloroanili	0.1219	0.06443		.01		-47.1452	20	*	Averaged	
bis(2-Ethylhexyl)phthalate	0.8002	0.66173		.01		-17.30442	20		Averaged	
Benzo(a)anthracene	1.138	1.09796		.01		-3.51845	20		Averaged	
Chrysene	1.0268	1.02636		.01		-0.04285	20		Averaged	
Di-n-octylphthalate	1.0244	0.84009		.01		-17.992	20		Averaged	ccc
Benzo(b)fluoranthene	1.2936	1.27213		.01		-1.65971	20		Averaged	
Benzo(k)fluoranthene	1.2483	1.24825		.01		-0.00401	20		Averaged	
Benzo(a)pyrene	1.0772	1.06964		.01		-0.70182	20		Averaged	ccc
Indeno(1,2,3-cd)pyrene	0.8203	0.84812		.01		3.39144	20		Averaged	
Dibenzo(a,h)anthracene	0.6669	0.69592		.01		4.35148	20		Averaged	
Benzo(ghi)perylene	0.6758	0.68883		.01		1.92809	20		Averaged	
Dibenzo(a,e)pyrene	0.3664	0.38582		.01		5.30022	20		Averaged	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0602.D
Acq On : 06 Sep 2011 11:38
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.3|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 06 13:44:30 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	144927	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	539001	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.150	8.156	1.000	276445	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	431512	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.847	12.853	1.000	224199	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.277	15.285	1.000	119677	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	144927	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	539001	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.150	8.156	1.000	276445	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	431512	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.847	12.853	1.000	224199	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.277	15.285	1.000	119677	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	539001	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.150	8.156	1.000	276445	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	431512	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.847	12.853	1.000	224199	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	538983	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	119677	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	144927	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	539001	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.150	8.156	1.000	276445	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	431512	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.847	12.853	1.000	224199	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	144927	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	539001	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.847	12.853	1.000	224199	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.277	15.285	1.000	119677	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.759	189718	40.42	ng/uL	0.00
8) Phenol-d5	99	4.573	4.576	0.917	244316	40.06	ng/uL	0.00
25) Nitrobenzene-d5	82	5.528	5.531	0.881	216688	42.04	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	376160	41.91	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.003	9.006	1.105	52327	42.70	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	261004	40.96	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.584	2.590	0.518	138536	39.69	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.803	2.808	0.562	125227	39.40	ng/uL	98
4) Pyridine	79	2.837	2.843	0.569	183997	40.86	ng/uL	98
6) p-Benzoquinone	54	4.226	4.232	0.848	30947	38.10	ng/uL	98
7) Aniline	66	4.667	4.672	0.936	115120	39.23	ng/uL	98
9) Phenol	94	4.587	4.593	0.920	241388	40.83	ng/uL	99
10) bis(2-Chloroethyl) ether	63	4.704	4.707	0.944	166277	38.61	ng/uL	98
11) 2-Chlorophenol	128	4.778	4.780	0.958	197389	40.44	ng/uL	97
12) n-Decane	43	4.778	4.783	0.958	309534	40.24	ng/uL	99
13) 1,3-Dichlorobenzene	146	4.931	4.934	0.989	221959	41.07	ng/uL	100
14) 1,4-Dichlorobenzene	146	4.999	5.005	1.003	221333	41.21	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.150	5.153	1.033	207265	40.86	ng/uL	99
16) bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	393458	39.33	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0602.D
Acq On : 06 Sep 2011 11:38
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.3|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 06 13:44:30 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
17) Benzyl alcohol	108	5.093	5.096	1.022	128268	39.03	ng/uL	99
18) o-Cresol	107	5.173	5.175	1.038	159291	39.95	ng/uL	99
19) m,p-Cresols	107	5.329	5.335	1.069	202037	40.20	ng/uL	99
20) N-Nitrosodipropylamine	70	5.360	5.391	1.075	156374	40.89	ng/uL	100
21) p-Toluidine	106	5.403	5.408	1.084	212060	38.88	ng/uL	97
22) m-Toluidine	106	5.440	5.442	1.091	215986	41.26	ng/uL	98
23) Hexachloroethane	117	5.488	5.497	1.101	88683	39.51	ng/uL	98
26) Nitrobenzene	77	5.548	5.553	0.884	211394	41.57	ng/uL	99
27) Isophorone	82	5.781	5.795	0.921	386052	41.16	ng/uL	99
28) 2-Nitrophenol	139	5.863	5.872	0.934	105392	42.48	ng/uL	99
29) 2,4-Dimethylphenol	122	5.869	5.872	0.935	184192	43.22	ng/uL	98
30) bis(2-Chloroethoxy)met...	93	5.977	5.980	0.952	220479	43.67	ng/uL	100
31) 2,4-Dichlorophenol	162	6.105	6.107	0.973	164287	43.01	ng/uL	99
32) Benzoic acid	105	5.980	5.988	0.953	126943	42.14	ng/uL	91
33) 1,2,4-Trichlorobenzene	180	6.201	6.204	0.988	201925	43.61	ng/uL	100
34) alpha-Terpineol	59	6.278	6.281	1.000	204318	41.34	ng/uL	98
35) Naphthalene	128	6.298	6.301	1.004	491848	41.20	ng/uL	100
36) 4-Chloroaniline	127	6.332	6.332	1.009	201968	44.05	ng/uL	97
37) Hexachlorobutadiene	225	6.400	6.403	1.020	118556	43.63	ng/uL	100
38) 4-Chloro-3-methylphenol	107	6.806	6.809	1.085	164520	41.78	ng/uL	99
39) 2-Methylnaphthalene	142	7.020	7.022	1.119	353356	41.88	ng/uL	99
40) Phthalic anhydride	104	7.074	7.076	1.127	30716	35.92	ng/uL	92
41) 1-Methylnaphthalene	142	7.130	7.133	1.136	331851	41.94	ng/uL	99
43) Hexachlorocyclopentadiene	237	7.176	7.179	0.880	97696	49.52	ng/uL	98
44) 2,3-Dichloroaniline	161	7.315	7.321	0.898	193652	41.96	ng/uL	99
45) 2,4,6-Trichlorophenol	196	7.307	7.309	0.896	112878	41.79	ng/uL	98
46) 2,4,5-Trichlorophenol	196	7.343	7.346	0.901	123053	43.98	ng/uL	96
48) 2-Chloronaphthalene	162	7.548	7.551	0.926	331353	41.10	ng/uL	99
49) o-Nitroaniline	65	7.645	7.647	0.938	109972	39.25	ng/uL	96
50) 1,4-Dinitrobenzene	168	7.790	7.795	0.956	60125	43.55	ng/uL	97
51) m-Nitroaniline	138	8.091	8.094	0.993	78487	41.43	ng/uL	98
52) Dimethylphthalate	163	7.829	7.838	0.961	361025	40.83	ng/uL	100
53) m-Dinitrobenzene	168	7.875	7.878	0.966	66071	42.19	ng/uL	96
54) 2,6-Dinitrotoluene	165	7.900	7.906	0.969	92628	42.27	ng/uL	97
55) 2,4-Dinitrotoluene	165	8.338	8.344	1.023	113102	41.44	ng/uL	100
56) Acenaphthylene	152	8.003	8.008	0.982	467332	41.04	ng/uL	99
57) Acenaphthene	154	8.190	8.193	1.005	329432	40.79	ng/uL	98
58) 2,4-Dinitrophenol	184	8.193	8.199	1.005	40248	39.12	ng/uL#	75
59) Dibenzofuran	168	8.372	8.375	1.027	422135	42.21	ng/uL	98
60) 2,3,4,6-Tetrachlorophenol	232	8.489	8.491	1.041	97476	41.52	ng/uL	96
61) Diethylphthalate	149	8.580	8.585	1.053	348412	41.96	ng/uL	100
62) 4-Nitrophenol	139	8.230	8.236	1.010	47574	36.32	ng/uL	91
63) Fluorene	166	8.744	8.750	1.073	361688	41.42	ng/uL	100
64) 4-Chlorophenylphenylether	204	8.724	8.730	1.070	194328	42.28	ng/uL	97
65) p-Nitroaniline	138	8.753	8.758	1.074	59570	40.19	ng/uL	94
68) 2-Methyl-4,6-dinitroph...	198	8.778	8.784	0.898	66573	47.77	ng/uL	98
69) Diphenylamine	169	8.852	8.858	0.906	291790	40.95	ng/uL	99
70) 1,2-Diphenylhydrazine	77	8.901	8.903	0.911	370559	40.67	ng/uL	100
71) 4-Bromophenylphenylether	248	9.261	9.264	0.948	108431	40.74	ng/uL	98
72) Hexachlorobenzene	284	9.338	9.341	0.956	112952	41.23	ng/uL	100
73) Pentachlorophenol	266	9.543	9.543	0.977	69115	44.83	ng/uL	98
74) n-Octadecane	57	9.577	9.582	0.980	278441	38.77	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0602.D
Acq On : 06 Sep 2011 11:38
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.3|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 06 13:44:30 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

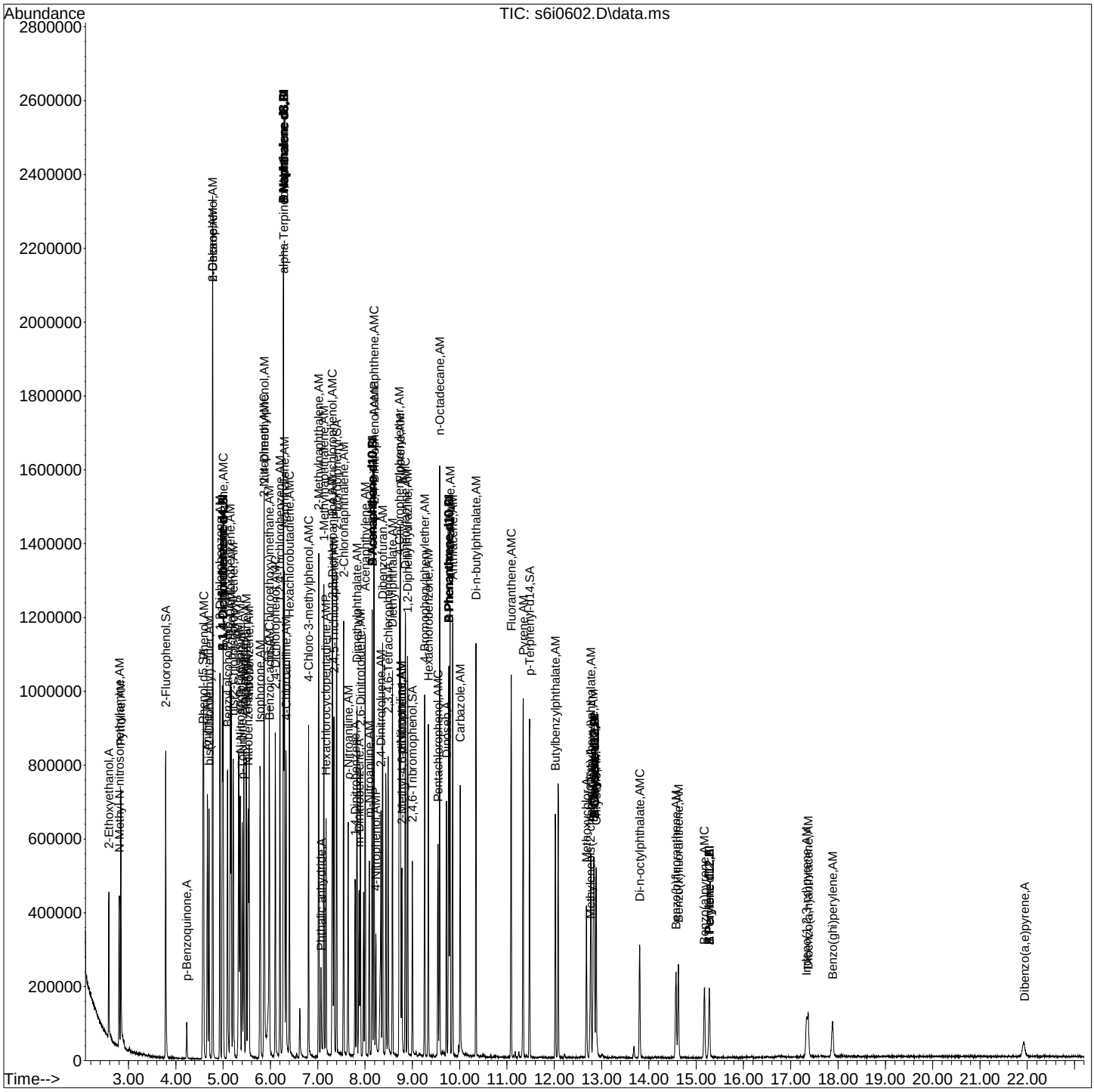
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	9.722	9.725	0.995	93309	47.29	ng/uL	100
76)	Phenanthrene	178	9.799	9.801	1.003	445961	40.25	ng/uL	100
77)	Anthracene	178	9.852	9.858	1.008	450027	39.99	ng/uL	99
78)	Carbazole	167	10.012	10.014	1.025	334481	41.35	ng/uL	99
79)	Di-n-butylphthalate	149	10.347	10.350	1.059	488198	40.60	ng/uL	99
80)	Fluoranthene	202	11.089	11.094	1.135	427077	40.66	ng/uL	99
82)	Pyrene	202	11.344	11.347	0.883	420823	41.52	ng/uL	98
84)	Butylbenzylphthalate	149	12.023	12.026	0.936	155633	38.87	ng/uL	98
85)	bis(2-Ethylhexyl)phtha...	149	12.773	12.776	0.994	148360	33.08	ng/uL	100
86)	Benzo(a)anthracene	228	12.830	12.833	0.999	246161	38.59	ng/uL	98
87)	Chrysene	228	12.887	12.890	1.003	230110	39.98	ng/uL	99
88)	Methoxychlor	227	12.680	12.685	0.987	180295	39.44	ng/uL	99
89)	Methylenebis(2-chloroa...	231	12.762	12.765	0.993	14445	21.13	ng/uL	89
90)	Di-n-octylphthalate	149	13.805	13.811	1.075	188347	32.80	ng/uL	100
92)	Benzo(b)fluoranthene	252	14.572	14.581	0.954	152245	39.34	ng/uL	98
93)	Benzo(k)fluoranthene	252	14.626	14.632	0.957	149387	40.00	ng/uL	99
94)	Benzo(a)pyrene	252	15.172	15.177	0.993	128011	39.72	ng/uL	98
95)	Indeno(1,2,3-cd)pyrene	276	17.331	17.351	1.134	101500	41.35	ng/uL	89
96)	Dibenzo(a,h)anthracene	278	17.365	17.371	1.137	83286	41.74	ng/uL	97
97)	Benzo(ghi)perylene	276	17.882	17.885	1.171	82437	40.77	ng/uL	97
98)	Dibenzo(a,e)pyrene	302	21.940	21.926	1.436	46174	42.12	ng/uL	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0602.D
Acq On : 06 Sep 2011 11:38
Operator : JMB3
InstName : MSD6
Sample : |WBN110812-05.3|CCV|1|SVM|1|MCCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 06 13:44:30 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: MSD6.I

Injection Date: 06-SEP-11 12:13

Data File: s090611.B\s6i0603.D

Init. Cal. Date(s) 01-SEP-11 11:20 - 01-SEP-11 19:20

Lab Sample ID WBN110719-15.3

Method: s090611.B\MSD6_625c_090411.m

Quant Type ISTD

Method Update: 04-SEP-11 15:01

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	Phenol-d5	1.6832	0.00084		.01		-99.9501	20	*	Averaged
S	Nitrobenzene-d5	0.3825	0.00026		.01		-99.93203	20	*	Averaged
	Methyl methacrylate	0.3211	0.29891		.01		-6.91062	20		Averaged
	1,4-Dioxane	0.5809	0.57557		.01		-0.91754	20		Averaged
	Ethyl methacrylate	1.2251	1.17358		.01		-4.20537	20		Averaged
	2-Picoline	1.5311	1.51713		.01		-0.91242	20		Averaged
	N-Nitrosomethylethylamine	0.7051	0.63822		.01		-9.48518	20		Averaged
	Methyl methanesulfonate	0.8662	0.80786		.01		-6.73517	20		Averaged
	N-Nitrosodiethylamine	0.7033	0.64541		.01		-8.2312	20		Averaged
	Ethyl Methanesulfonate	1.0569	0.98831		.01		-6.48973	20		Averaged
	Benzaldehyde	1.1878	1.08008		.01		-9.06887	20		Averaged
	Pentachloroethane	0.6004	0.5989		.01		-0.24983	20		Averaged
	N-Nitrosopyrrolidine	0.6926	0.64491		.01		-6.88565	20		Averaged
	Acetophenone	1.9082	1.75879		.01		-7.82989	20		Averaged
	N-Nitrosomorpholine	1.1036	0.98872		.01		-10.40957	20		Averaged
	o-Toluidine	1.9795	1.84229		.01		-6.93155	20		Averaged
	N-Nitrosopiperidine	0.1984	0.19026		.01		-4.10282	20		Averaged
	a,a-Dimethylphenethylamine	1.1751	1.08595		.01		-7.58659	20		Averaged
	2,6-Dichlorophenol	0.3087	0.29741		.01		-3.65727	20		Averaged
	Hexachloropropene	0.2083	0.24417		.01		17.22036	20		Averaged
	N-Nitrosodi-n-butylamine	0.317	0.30135		.01		-4.93691	20		Averaged
	Caprolactam	0.1164	0.10952		.01		-5.91065	20		Averaged
	Safrole	0.329	0.32333		.01		-1.7234	20		Averaged
	1,2,4,5-Tetrachlorobenzene	0.645	0.63858		.01		-0.99535	20		Averaged
	Isosafrole	0.565	0.56757		.01		0.45487	20		Averaged
	1,1'-Biphenyl	1.4946	1.51641		.01		1.45925	20		Averaged
	1,4-Naphthoquinone	0.3838	0.38022		.01		-0.93278	20		Averaged
	Pentachlorobenzene	0.5214	0.52206		.01		0.12658	20		Averaged
	1-Naphthylamine	1.0727	1.09627		.01		2.19726	20		Averaged
	2-Naphthylamine	1.097	1.14553		.01		4.42388	20		Averaged
	5-Nitro-o-toluidine	0.3204	0.31305		.01		-2.29401	20		Averaged
	1,3,5-Trinitrobenzene	0.1696	0.18289		.01		7.83608	20		Averaged
	Trans Diallate	0.3969	0.37632		.01		-5.18519	20		Averaged
	Diallate	0.3374	0.31988		.01		-5.19265	20		Averaged
	Phenacetin	0.3629	0.35171		.01		-3.08349	20		Averaged
	Cis Diallate	0.4638	0.44653		.01		-3.72359	20		Averaged
	Atrazine	0.2227	0.23665		.01		6.26403	20		Averaged

Continuing Calibration Summary

Instrument ID: MSD6.I **Injection Date:** 06-SEP-11 12:13

Data File: s090611.B\s6i0603.D **Init. Cal. Date(s)** 01-SEP-11 11:20 01-SEP-11 19:20

Lab Sample ID WBN110719-15.3 **Method:** s090611.B\MSD6_625c_090411.m

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
4-Aminobiphenyl	0.6965	0.7274		.01		4.43647	20		Averaged
Pentachloronitrobenzene	0.1129	0.11049		.01		-2.13463	20		Averaged
Pronamide	0.3585	0.35647		.01		-0.56625	20		Averaged
4-Nitroquinoline-1-oxide	0.0153	0.0214		.01		39.86928	20	*	Averaged
Methapyrilene	0.5279	0.5378		.01		1.87536	20		Averaged
Isodrin	0.147	0.13559		.01		-7.7619	20		Averaged
Benzidine	0.2454	0.26753		.01		9.01793	20		Averaged
Aramite	0.0987	0.09611		.01		-2.62411	20		Averaged
p-(Dimethylamino)azobenzene	0.5001	0.48499		.01		-3.0214	20		Averaged
Chlorobenzilate	0.5221	0.5025		.01		-3.75407	20		Averaged
3,3'-Dimethylbenzidine	0.6487	0.65124		.01		0.39155	20		Averaged
Kepone	0.1436	0.15591		.01		8.57242	20		Averaged
2-Acetylaminofluorene	0.3156	0.32049		.01		1.54943	20		Averaged
3,3'-Dichlorobenzidine	0.31	0.30743		.01		-0.82903	20		Averaged
7,12Dimethylbenz(a)anthracene	0.736	0.71573		.01		-2.75408	20		Averaged
3-Methylcholanthrene	0.1131	0.11281		.01		-0.25641	20		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0603.D
Acq On : 06 Sep 2011 12:13
Operator : JMB3
InstName : MSD6
Sample : |WBN110719-15.3|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 13:01:53 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	154270	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.272	6.278	1.000	494641	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.148	8.156	1.000	275266	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.770	9.773	1.000	428501	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.844	12.853	1.000	223584	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.277	15.285	1.000	116608	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	154270	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.272	6.278	1.000	494641	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.148	8.156	1.000	275266	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.770	9.773	1.000	428501	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.844	12.853	1.000	223584	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.277	15.285	1.000	116608	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.272	6.278	1.000	494641	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.148	8.156	1.000	275266	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.770	9.773	1.000	428501	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.844	12.853	1.000	223584	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.272	6.278	1.000	494607	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.277	15.316	1.000	116608	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	154270	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.272	6.278	1.000	494641	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.148	8.156	1.000	275266	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.770	9.773	1.000	428501	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.844	12.853	1.000	223584	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	154270	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.272	6.278	1.000	494641	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.844	12.853	1.000	223584	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.277	15.285	1.000	116608	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.789	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	4.579	4.576	0.919	129	0.02	ng/uL	0.00
25) Nitrobenzene-d5	82	5.479	5.531	0.874	129	0.03	ng/uL	-0.05
47) 2-Fluorobiphenyl	172	0.000	7.403	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	9.006	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	11.481	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.593	2.593	0.520	88793	39.63	ng/uL	94
101) Methyl methacrylate	100	2.587	2.587	0.519	46113	37.23	ng/uL	99
102) Ethyl methacrylate	69	3.107	3.107	0.624	181048	38.32	ng/uL	100
103) 2-Picoline	93	3.368	3.368	0.676	234047	39.63	ng/uL	97
104) N-Nitrosomethylethylamine	88	3.436	3.439	0.690	98458	36.21	ng/uL	100
105) Methyl methanesulfonate	80	3.669	3.670	0.737	124628	37.30	ng/uL	99
106) N-Nitrosodiethylamine	102	4.005	4.005	0.804	99568	36.71	ng/uL	99
107) Ethyl methanesulfonate	79	4.243	4.243	0.852	152467	37.41	ng/uL	97
108) Benzaldehyde	77	4.579	4.579	0.919	166624	36.37	ng/uL	98
109) Pentachloroethane	167	4.721	4.724	0.948	92392	39.90	ng/uL	99
110) N-Nitrosopyrrolidine	100	5.352	5.372	1.074	99491	37.24	ng/uL	98
111) Acetophenone	105	5.366	5.366	1.077	271328	36.87	ng/uL	97
112) N-Nitrosomorpholine	56	5.383	5.403	1.080	152530	35.84	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0603.D
Acq On : 06 Sep 2011 12:13
Operator : JMB3
InstName : MSD6
Sample : |WBN110719-15.3|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 13:01:53 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

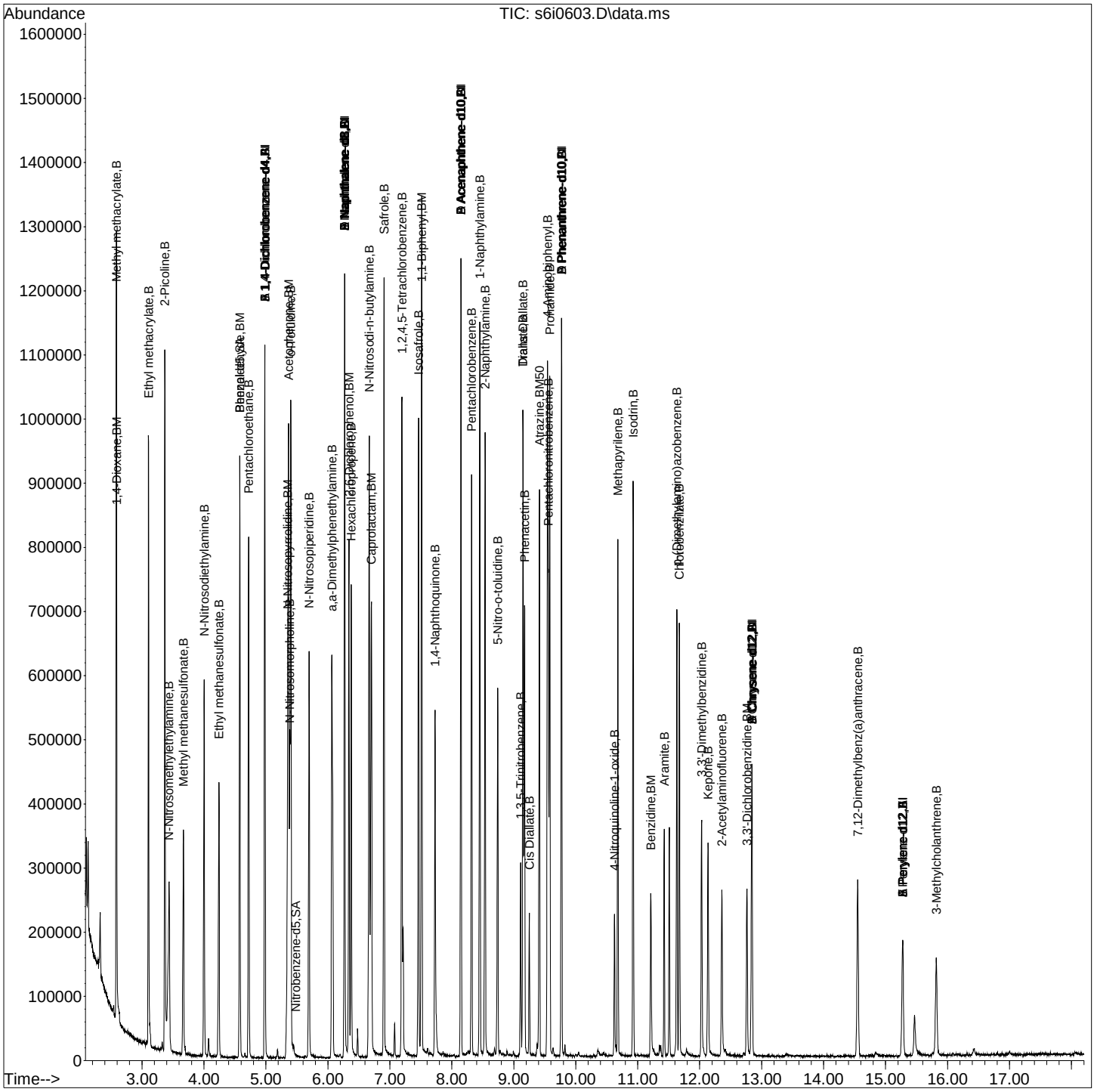
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
113) o-Toluidine	106	5.403	5.403	1.084	284210	37.23	ng/uL	98
115) N-Nitrosopiperidine	114	5.698	5.698	0.908	94110	38.37	ng/uL	99
116) a,a-Dimethylphenethyla...	58	6.065	6.065	0.967	537154	36.97	ng/uL	100
117) 2,6-Dichlorophenol	162	6.340	6.340	1.011	147112	38.54	ng/uL	99
118) Hexachloropropene	213	6.377	6.377	1.017	120776	46.88	ng/uL	99
119) Caprolactam	113	6.701	6.699	1.068	54175	37.63	ng/uL	99
120) N-Nitrosodi-n-butylamine	84	6.667	6.670	1.063	149058	38.03	ng/uL	99
121) Safrole	162	6.906	6.909	1.101	159933	39.32	ng/uL	98
123) 1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	175780	39.60	ng/uL	99
124) 1,1-Biphenyl	154	7.514	7.517	0.922	417416	40.58	ng/uL	99
125) Isosafrole	162	7.463	7.466	0.916	156234	40.18	ng/uL	98
126) 1,4-Naphthoquinone	158	7.730	7.733	0.949	104661	39.63	ng/uL	99
127) Pentachlorobenzene	250	8.321	8.321	1.021	143705	40.05	ng/uL	99
128) 1-Naphthylamine	143	8.452	8.454	1.037	301765	40.88	ng/uL	99
129) 2-Naphthylamine	143	8.537	8.540	1.048	315325	41.77	ng/uL	99
130) 5-Nitro-o-toluidine	152	8.741	8.741	1.073	86173	39.09	ng/uL	97
132) 1,3,5-Trinitrobenzene	75	9.111	9.111	0.933	78367	43.12	ng/uL	99
133) Phenacetin	108	9.173	9.176	0.939	150706	38.76	ng/uL	99
134) Diallate	86	9.148	9.151	0.936	137067	37.92	ng/uL	98
135) Cis Diallate	86	9.250	9.253	0.947	28701	5.78	ng/uL	99
136) Trans Diallate	86	9.148	9.151	0.936	137067	32.24	ng/uL	98
137) Atrazine	200	9.415	9.418	0.964	101403	42.50	ng/uL	99
138) 4-Aminobiphenyl	169	9.546	9.546	0.977	311690	41.77	ng/uL	99
139) Pentachloronitrobenzene	237	9.557	9.560	0.978	47344	39.14	ng/uL	98
140) Pronamide	173	9.582	9.585	0.981	152748	39.77	ng/uL	99
141) 4-Nitroquinoline-1-oxide	101	10.625	10.623	1.088	9171	55.89	ng/uL	95
142) Methapyrilene	58	10.679	10.679	1.093	230448	40.75	ng/uL	99
143) Isodrin	193	10.926	10.929	1.118	58102	36.89	ng/uL	99
144) Benzidine	184	11.211	11.214	1.147	114636	43.61	ng/uL	99
146) Aramite	185	11.427	11.427	0.890	21488	38.94	ng/uL	91
147) Kepone	272	12.134	12.134	0.945	34860	43.42	ng/uL	97
148) p-(Dimethylamino)azobe...	120	11.631	11.634	0.906	108437	38.79	ng/uL	98
149) Chlorobenzilate	251	11.671	11.674	0.909	112352	38.50	ng/uL	99
150) 3,3'-Dimethylbenzidine	212	12.032	12.032	0.937	145607	40.16	ng/uL	100
151) 2-Acetylaminofluorene	181	12.359	12.359	0.962	71656	40.62	ng/uL	95
152) 3,3'-Dichlorobenzidine	252	12.762	12.762	0.994	68737	39.67	ng/uL	98
154) 7,12-Dimethylbenz(a)an...	256	14.549	14.552	0.952	83460	38.90	ng/uL	97
155) 3-Methylcholanthrene	269	15.817	15.817	1.035	13155	39.89	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0603.D
Acq On : 06 Sep 2011 12:13
Operator : JMB3
InstName : MSD6
Sample : |WBN110719-15.3|CCV|1|SVM|1|ACCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 06 13:01:53 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



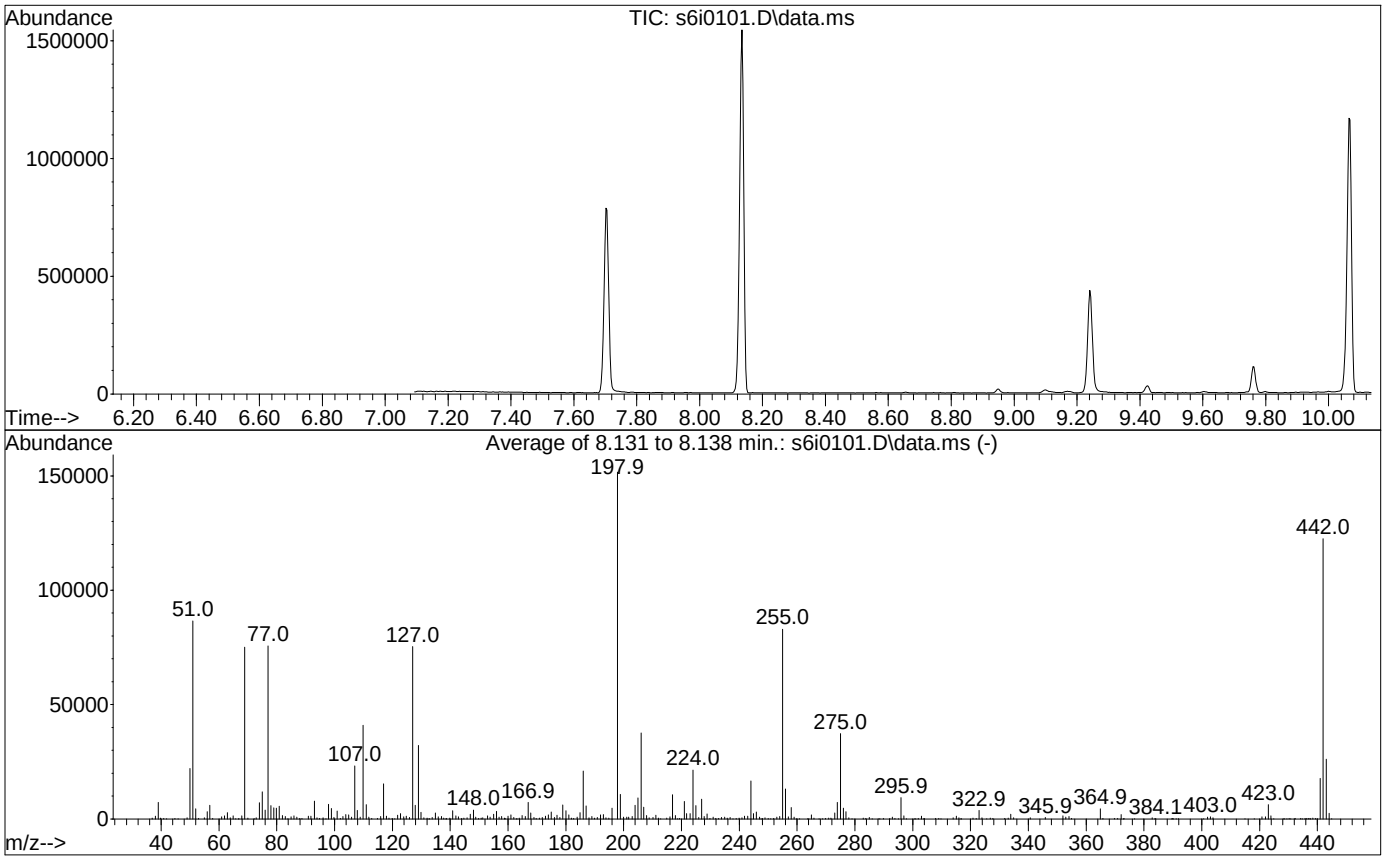
Quality Control Data

DFTPP Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0101.D
Acq On : 01 Sep 2011 09:58
Operator : JMB3
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\DATA\s090111.B\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Tue Jun 08 08:30:12 2010



AutoFind: Scans 335, 336, 337; Background Corrected with Scan 323

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	57.1	86616	PASS
68	69	0.00	2	1.8	1340	PASS
69	198	0.00	100	49.5	75069	PASS
70	69	0.00	2	0.4	295	PASS
127	198	40	60	49.7	75320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	151659	PASS
199	198	5	9	7.0	10671	PASS
275	198	10	30	24.6	37264	PASS
365	198	1	100	2.9	4408	PASS
441	443	0.01	100	67.9	17761	PASS
442	198	40	100	80.8	122549	PASS
443	442	17	23	21.3	26147	PASS

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0101.D
Acq On : 01 Sep 2011 09:58
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 01 10:29:33 2011
Quant Method : C:\msdchem\1\DATA\s090111.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

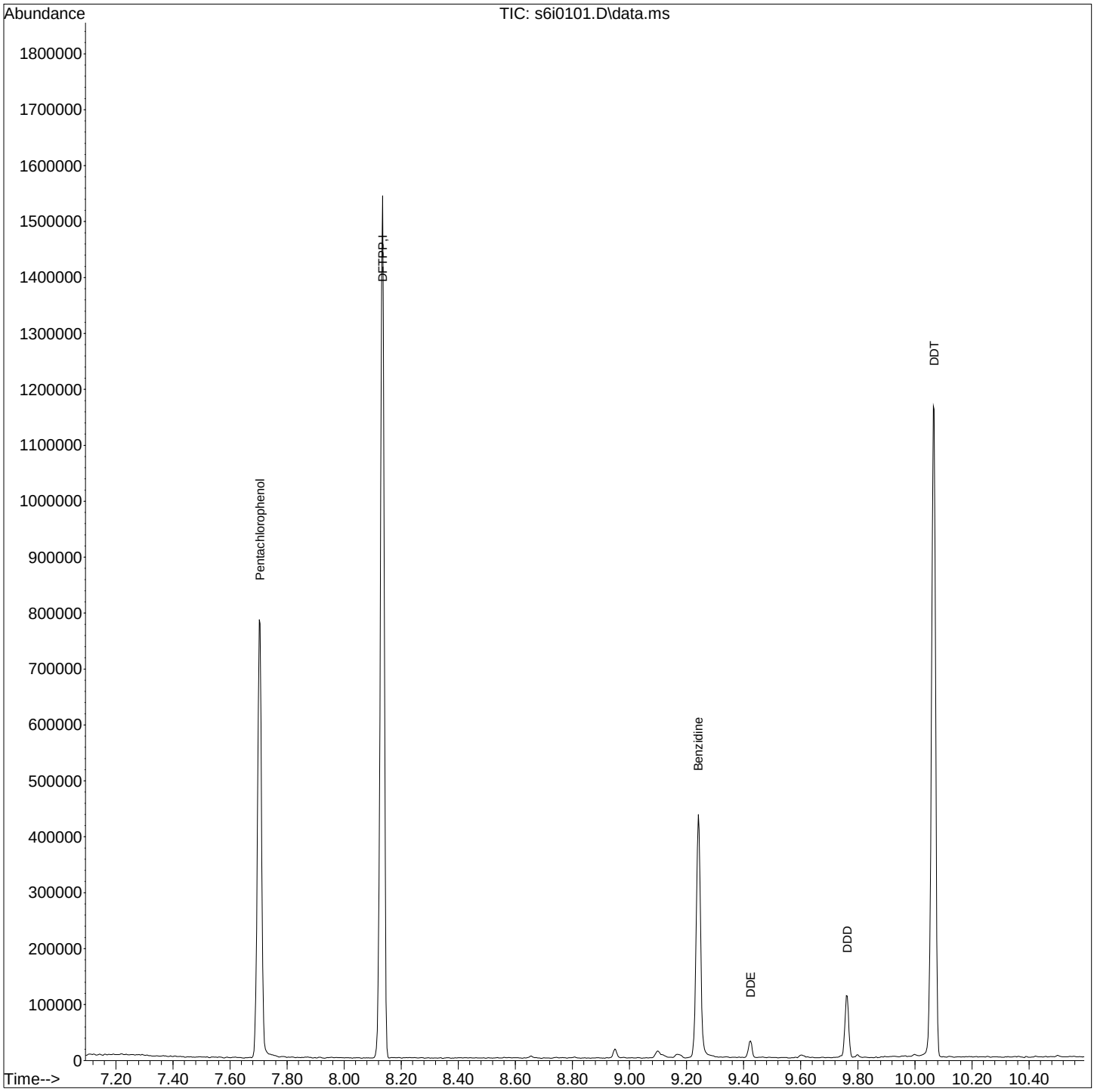
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.134	8.110	1.000	1433743	5.00	ug/l	# 0.02
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	8.134	8.110	1.000	1433743	No Calib	#	
3) Pentachlorophenol	266	7.705	7.681	0.947	90246	3.05	ug/l	97
4) Benzidine	184	9.241	9.210	1.136	183600	1.86	ug/l	99
5) DDE	246	9.424	9.393	1.159	3188	7.64	ug/l	40
6) DDD	235	9.763	9.729	1.200	20398	2.20	ug/l	98
7) DDT	235	10.068	10.037	1.238	218922	3.29	ug/l	99

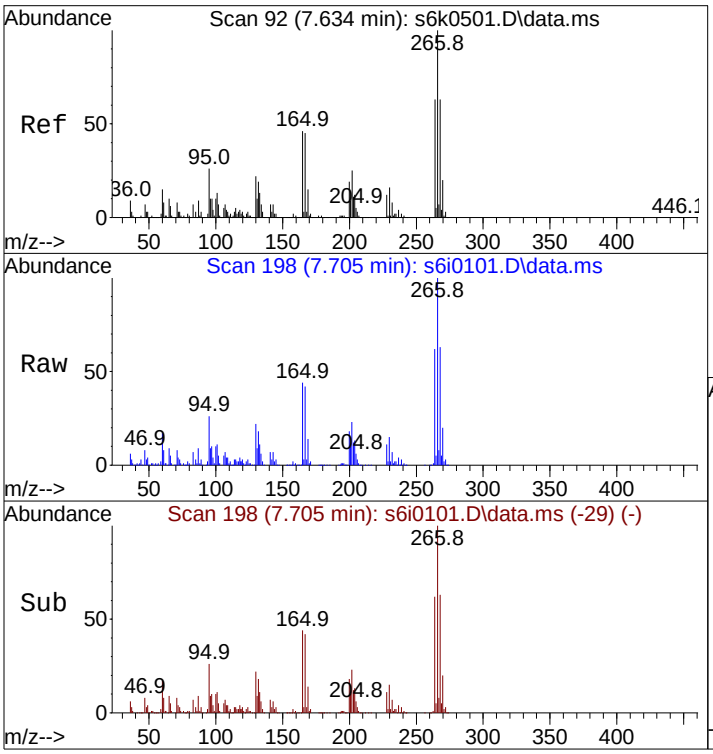
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090111.B\
Data File : s6i0101.D
Acq On : 01 Sep 2011 09:58
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 01 10:29:33 2011
Quant Method : C:\msdchem\1\DATA\s090111.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

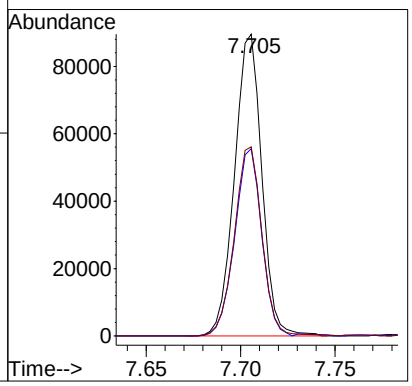


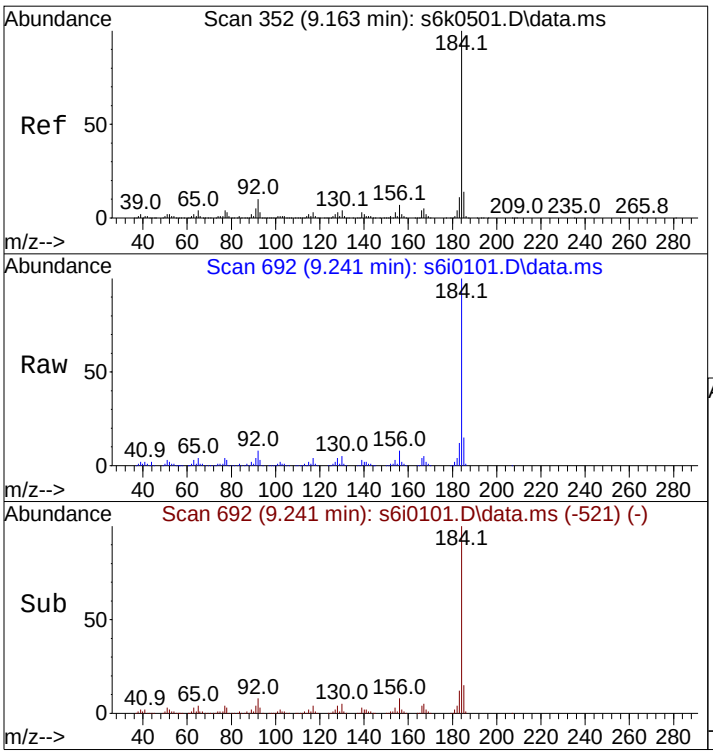


#3
Pentachlorophenol
Concen: 3.05 ug/l
RT: 7.705 min Scan# 198
Delta R.T. 0.025 min
Lab File: s6i0101.D
Acq: 01 Sep 2011 09:58

Tgt Ion:266 Resp: 90246

Ion	Ratio	Lower	Upper
266	100		
264	61.2	0.0	161.9
268	63.3	0.0	166.6

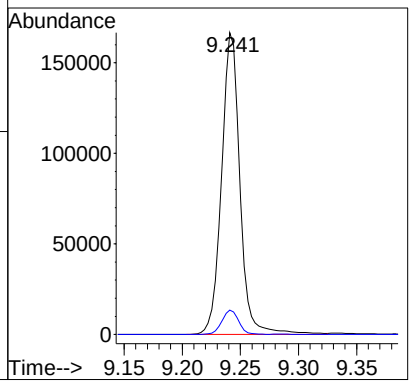


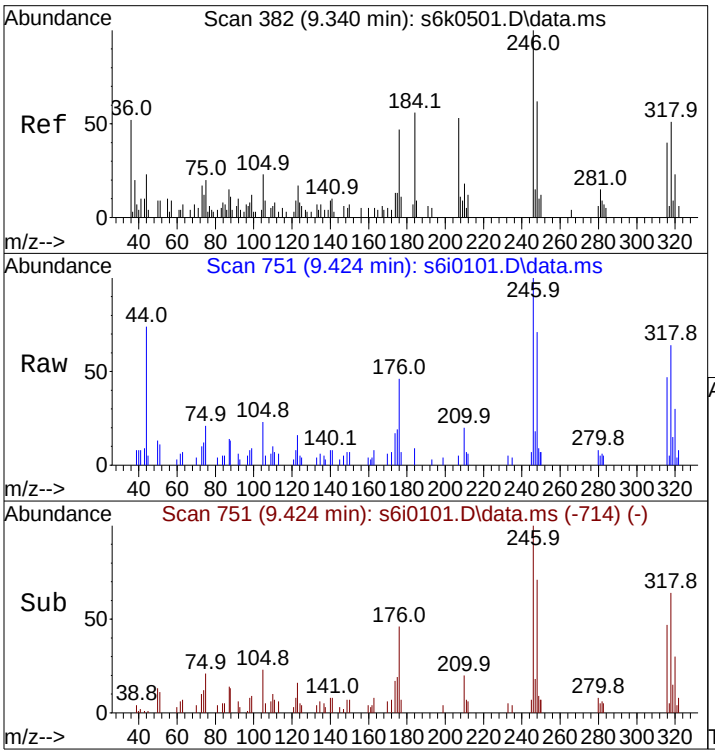


#4
Benzidine
Concen: 1.86 ug/l
RT: 9.241 min Scan# 692
Delta R.T. 0.031 min
Lab File: s6i0101.D
Acq: 01 Sep 2011 09:58

Tgt Ion:184 Resp: 183600

Ion	Ratio	Lower	Upper
184	100		
156	7.5	0.0	107.8

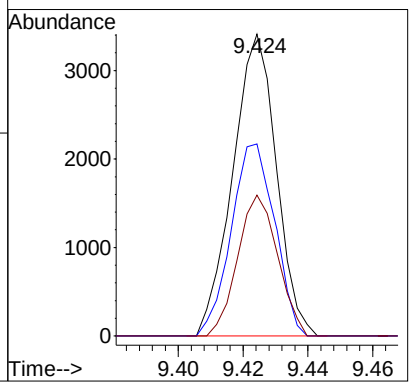


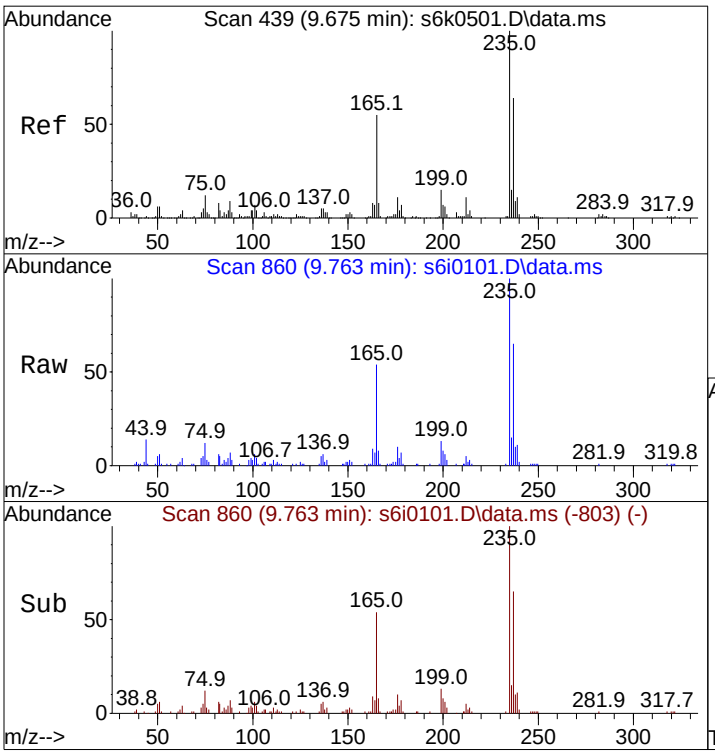


#5
DDE
Concen: 7.64 ug/l
RT: 9.424 min Scan# 751
Delta R.T. 0.031 min
Lab File: s6i0101.D
Acq: 01 Sep 2011 09:58

Tgt Ion:246 Resp: 3188

Ion	Ratio	Lower	Upper
246	100		
318	63.5	0.0	127.3
316	42.8	0.0	121.0

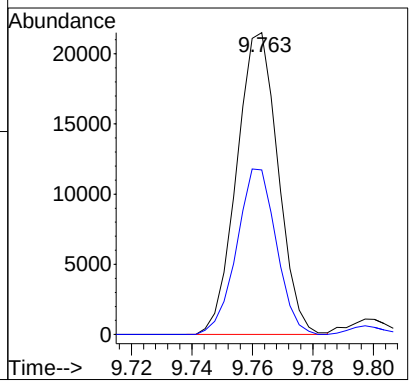


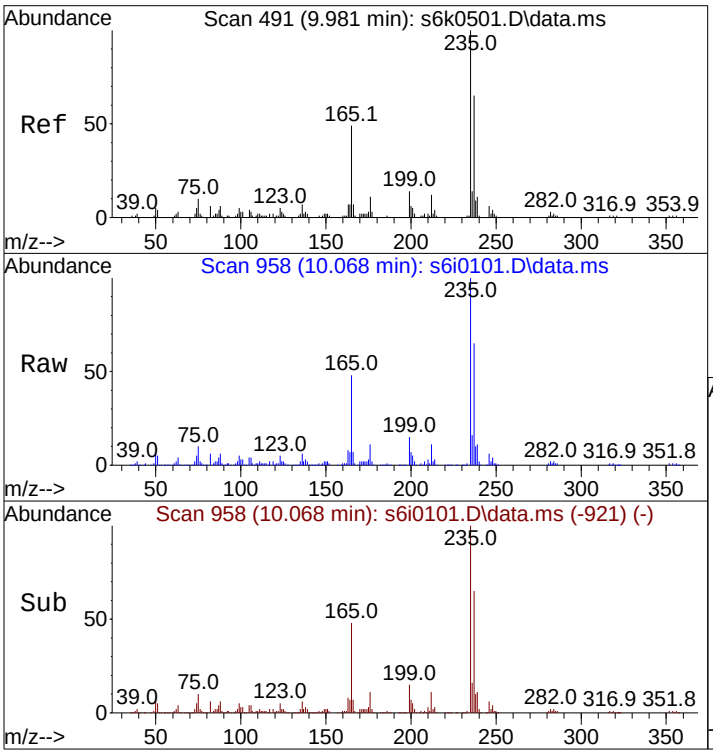


#6
DDD
Concen: 2.20 ug/l
RT: 9.763 min Scan# 860
Delta R.T. 0.034 min
Lab File: s6i0101.D
Acq: 01 Sep 2011 09:58

Tgt Ion:235 Resp: 20398

Ion	Ratio	Lower	Upper
235	100		
165	52.6	0.0	151.3

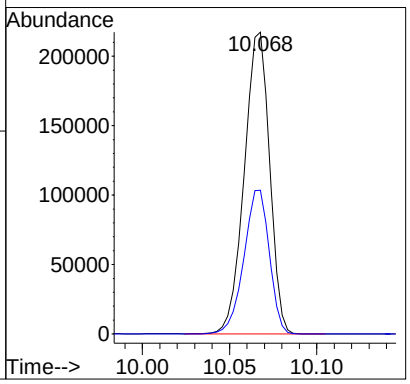




#7
DDT
Concen: 3.29 ug/l
RT: 10.068 min Scan# 958
Delta R.T. 0.031 min
Lab File: s6i0101.D
Acq: 01 Sep 2011 09:58

Tgt Ion:235 Resp: 218922

Ion	Ratio	Lower	Upper
235	100		
165	47.9	0.0	147.5



8270 Breakdown Report

Data File : C:\msdchem\1\DATA\s090111.B\s6i0101.D Vial: 1
Acq On : 01 Sep 2011 09:58 Operator: JMB3
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE Inst : MSD6
Misc : |WBN110823-01| Multiplr: 1.00
IntFile : rteint.p

Compounds	Area/%Breakdown	8270C	8270D
DDE	3188		
DDD	20398		
DDT	218922		
Breakdown	9.73%	Pass(<20)	Pass(<20)

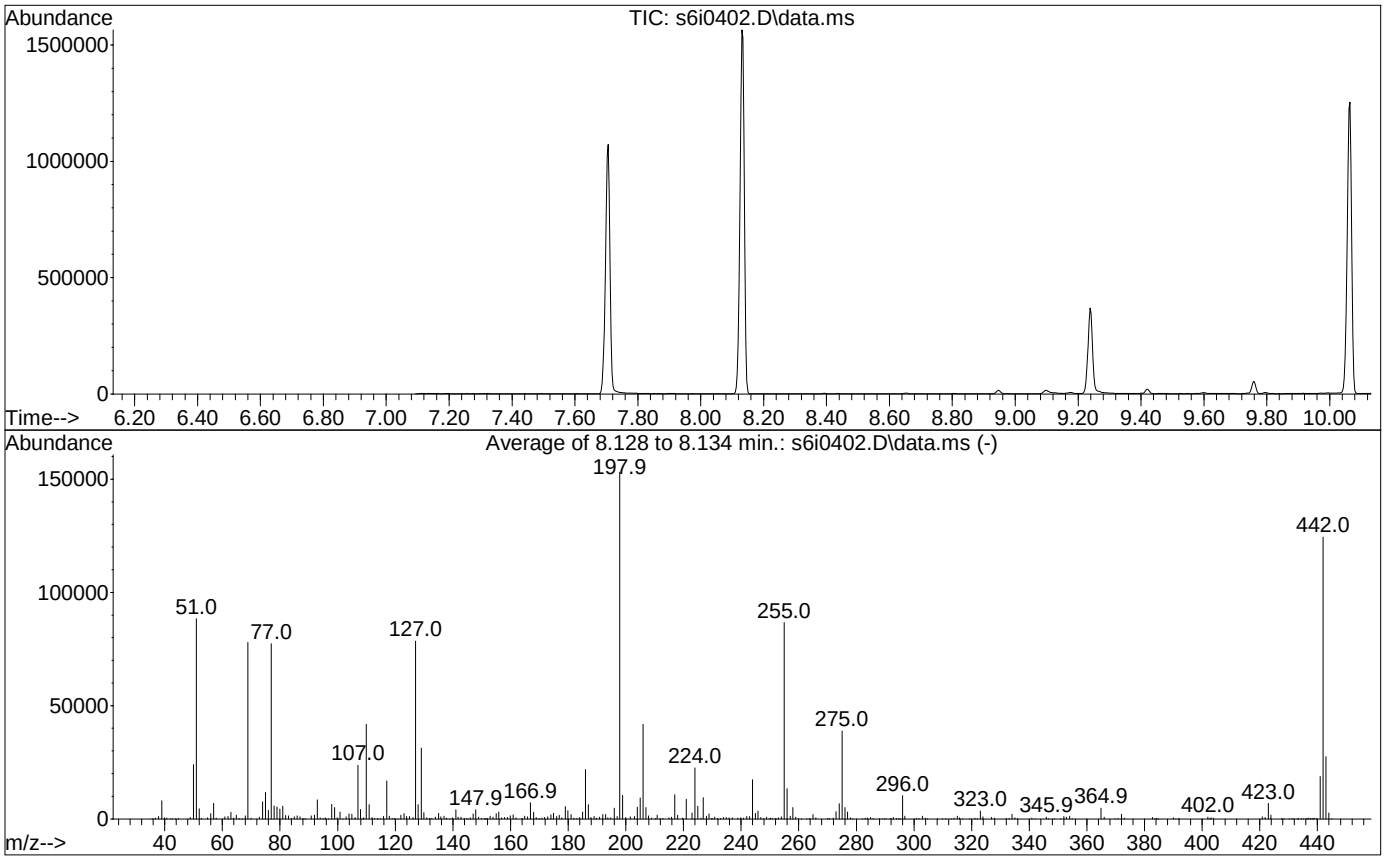
Compounds	Tailing Factor	8270C	8270D
Benzidine	1.08	Pass(<3)	Pass(<2)
Pentachlorophenol	0.75	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0402.D
Acq On : 04 Sep 2011 13:53
Operator : JMB3
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\DATA\s090411.B\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Tue Jun 08 08:30:12 2010



AutoFind: Scans 334, 335, 336; Background Corrected with Scan 324

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	57.7	88315	PASS
68	69	0.00	2	1.7	1334	PASS
69	198	0.00	100	50.9	77984	PASS
70	69	0.00	2	0.5	416	PASS
127	198	40	60	51.2	78464	PASS
197	198	0.00	1	0.7	1082	PASS
198	198	50	100	100.0	153131	PASS
199	198	5	9	6.8	10428	PASS
275	198	10	30	25.4	38840	PASS
365	198	1	100	3.1	4777	PASS
441	443	0.01	100	68.0	18715	PASS
442	198	40	100	81.3	124464	PASS
443	442	17	23	22.1	27536	PASS

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0402.D
Acq On : 04 Sep 2011 13:53
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 14:01:11 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

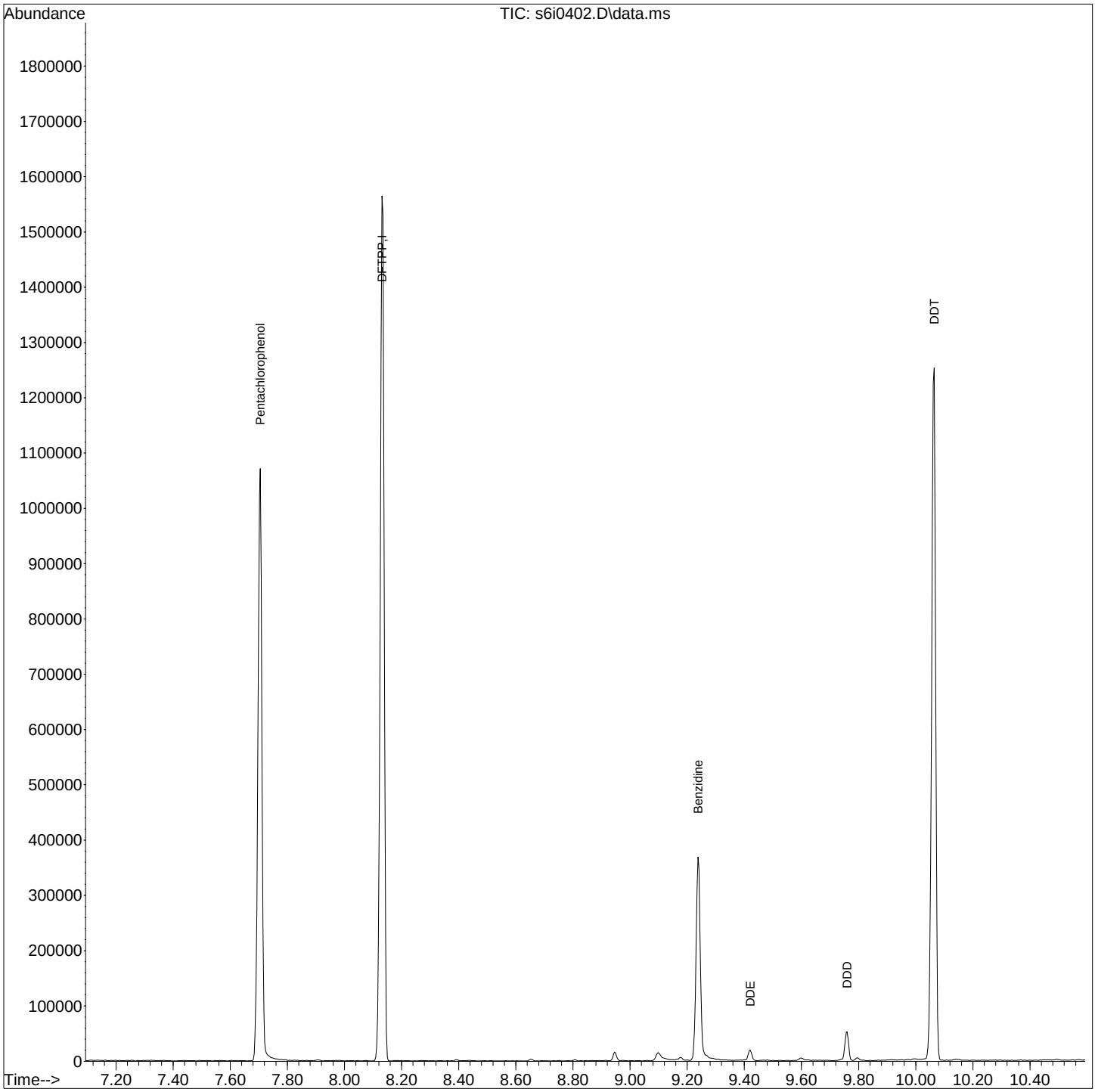
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.131	8.110	1.000	1507353	5.00	ug/l	# 0.02
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	8.131	8.110	1.000	1507353	No Calib	#	
3) Pentachlorophenol	266	7.705	7.681	0.948	126631	4.06	ug/l	96
4) Benzidine	184	9.238	9.210	1.136	155152	1.50	ug/l	97
5) DDE	246	9.421	9.393	1.159	2352	5.36	ug/l	63
6) DDD	235	9.760	9.729	1.200	10373	1.06	ug/l	90
7) DDT	235	10.065	10.037	1.238	233462	3.34	ug/l	99

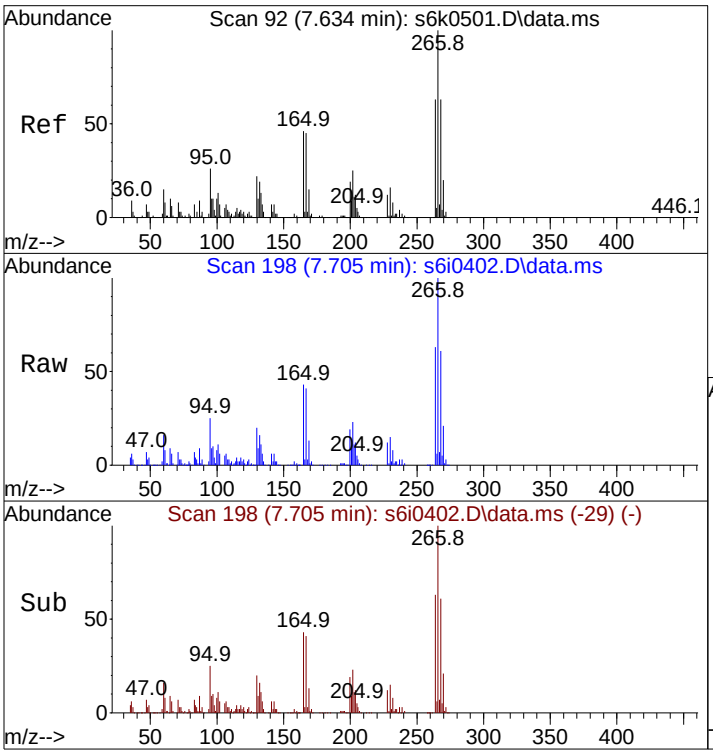
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0402.D
Acq On : 04 Sep 2011 13:53
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 14:01:11 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

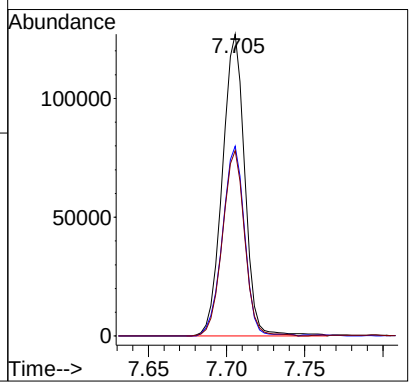


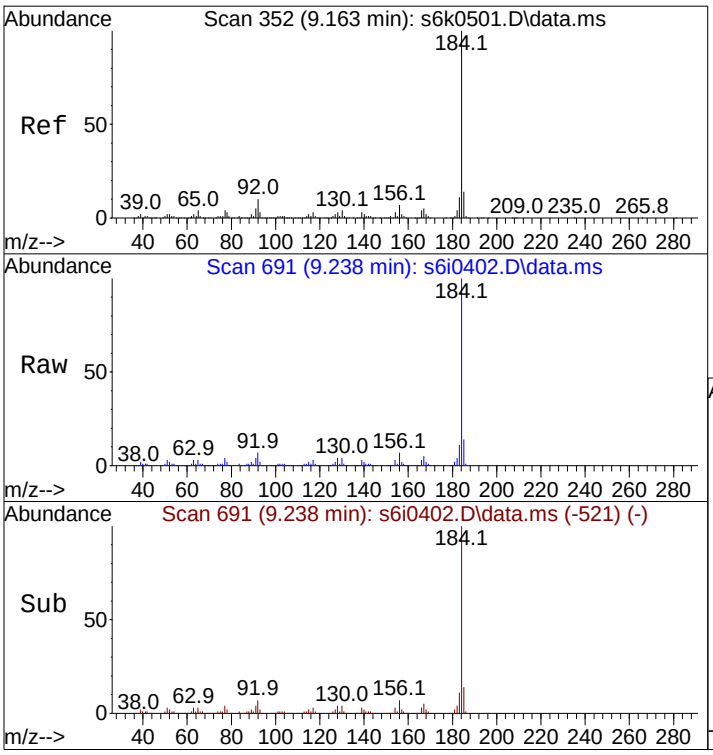


#3
Pentachlorophenol
Concen: 4.06 ug/l
RT: 7.705 min Scan# 198
Delta R.T. 0.025 min
Lab File: s6i0402.D
Acq: 04 Sep 2011 13:53

Tgt Ion:266 Resp: 126631

Ion	Ratio	Lower	Upper
266	100		
264	61.9	0.0	161.9
268	60.7	0.0	166.6

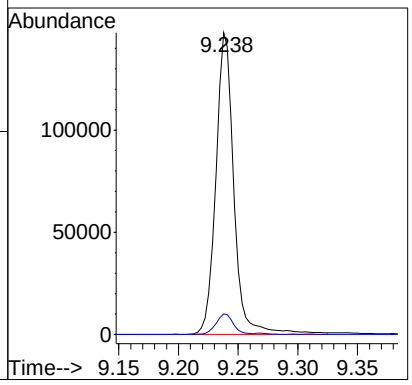


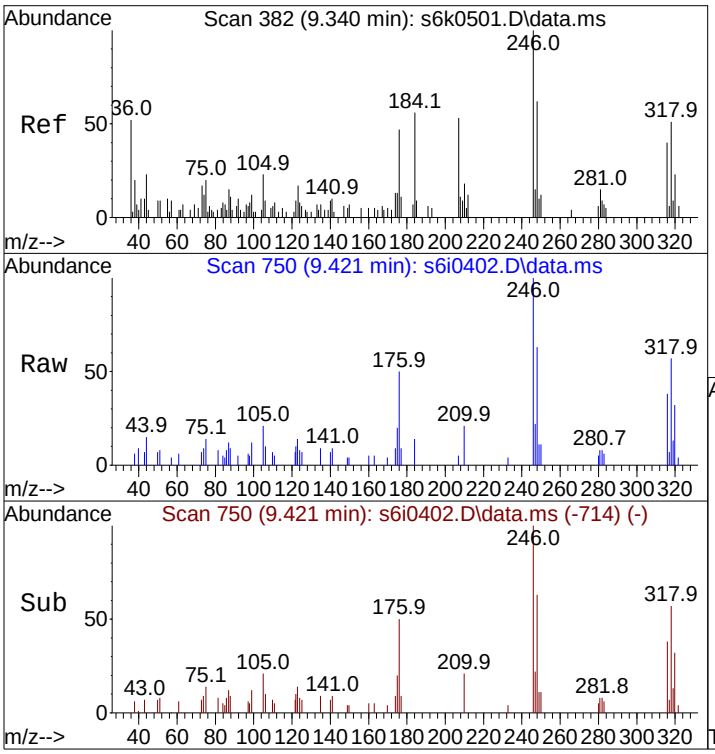


#4
Benzidine
Concen: 1.50 ug/l
RT: 9.238 min Scan# 691
Delta R.T. 0.028 min
Lab File: s6i0402.D
Acq: 04 Sep 2011 13:53

Tgt Ion:184 Resp: 155152

Ion	Ratio	Lower	Upper
184	100		
156	6.6	0.0	107.8

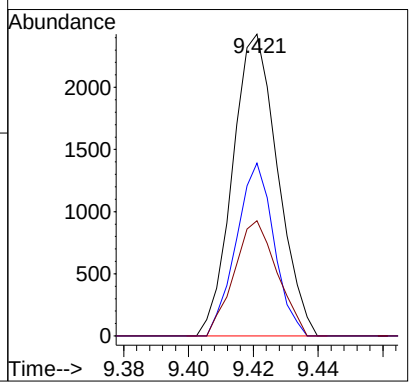


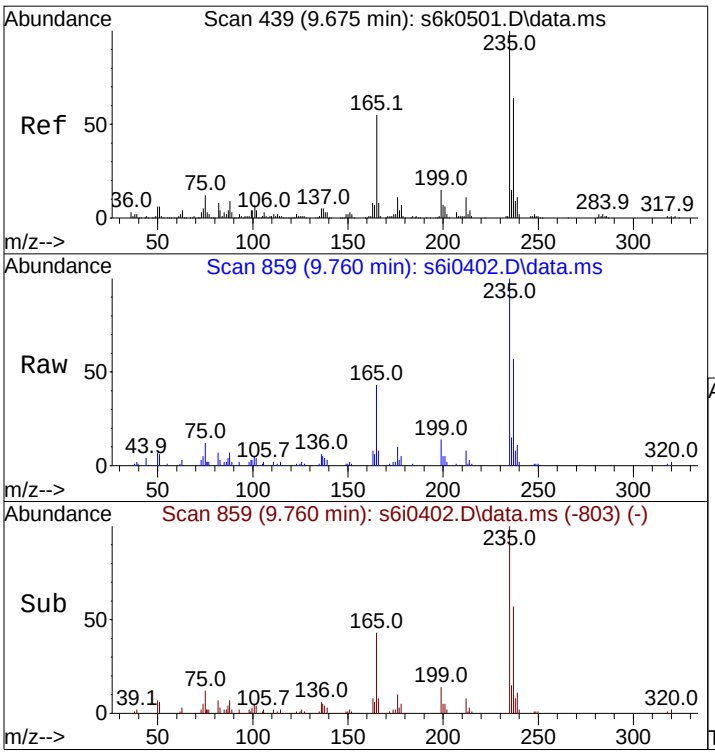


#5
DDE
Concen: 5.36 ug/l
RT: 9.421 min Scan# 750
Delta R.T. 0.028 min
Lab File: s6i0402.D
Acq: 04 Sep 2011 13:53

Tgt Ion:246 Resp: 2352

Ion	Ratio	Lower	Upper
246	100		
318	48.0	0.0	127.3
316	36.3	0.0	121.0

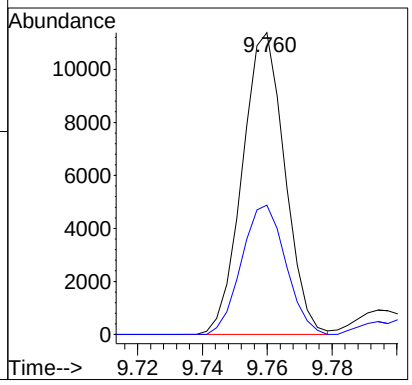


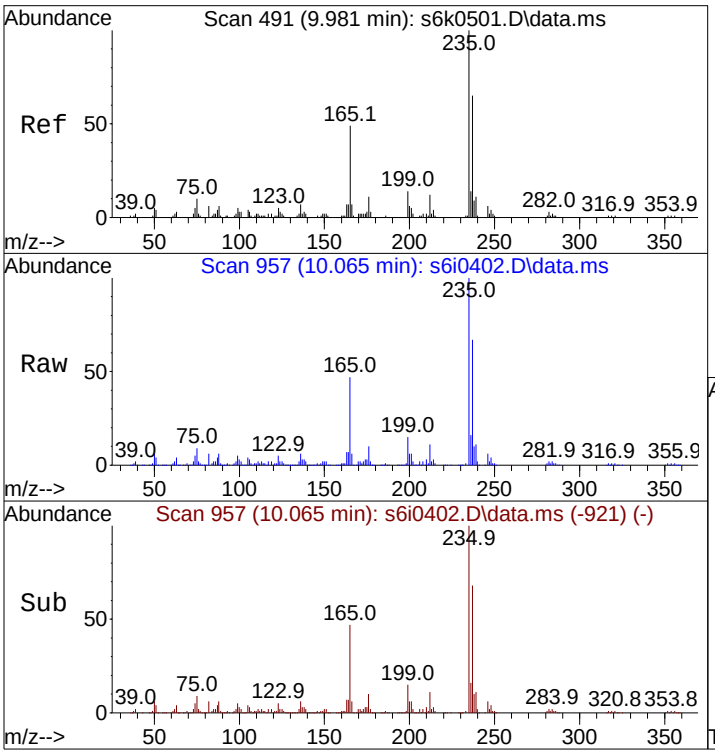


#6
DDD
Concen: 1.06 ug/l
RT: 9.760 min Scan# 859
Delta R.T. 0.031 min
Lab File: s6i0402.D
Acq: 04 Sep 2011 13:53

Tgt Ion:235 Resp: 10373

Ion	Ratio	Lower	Upper
235	100		
165	44.5	0.0	151.3

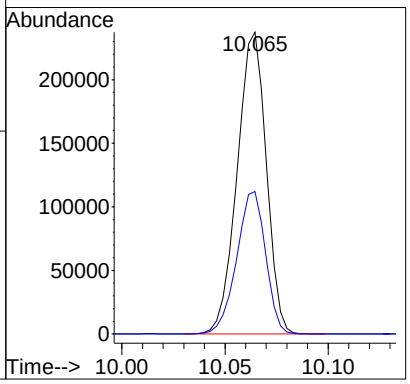




#7
DDT
Concen: 3.34 ug/l
RT: 10.065 min Scan# 957
Delta R.T. 0.028 min
Lab File: s6i0402.D
Acq: 04 Sep 2011 13:53

Tgt Ion:235 Resp: 233462

Ion	Ratio	Lower	Upper
235	100		
165	46.9	0.0	147.5



8270 Breakdown Report

Data File : C:\msdchem\1\DATA\s090411.B\s6i0402.D Vial: 1
Acq On : 04 Sep 2011 13:53 Operator: JMB3
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE Inst : MSD6
Misc : |WBN110823-01| Multiplr: 1.00
IntFile : rteint.p

Compounds	Area/%Breakdown	8270C	8270D
DDE	2352		
DDD	10373		
DDT	233462		
Breakdown	5.17%	Pass(<20)	Pass(<20)

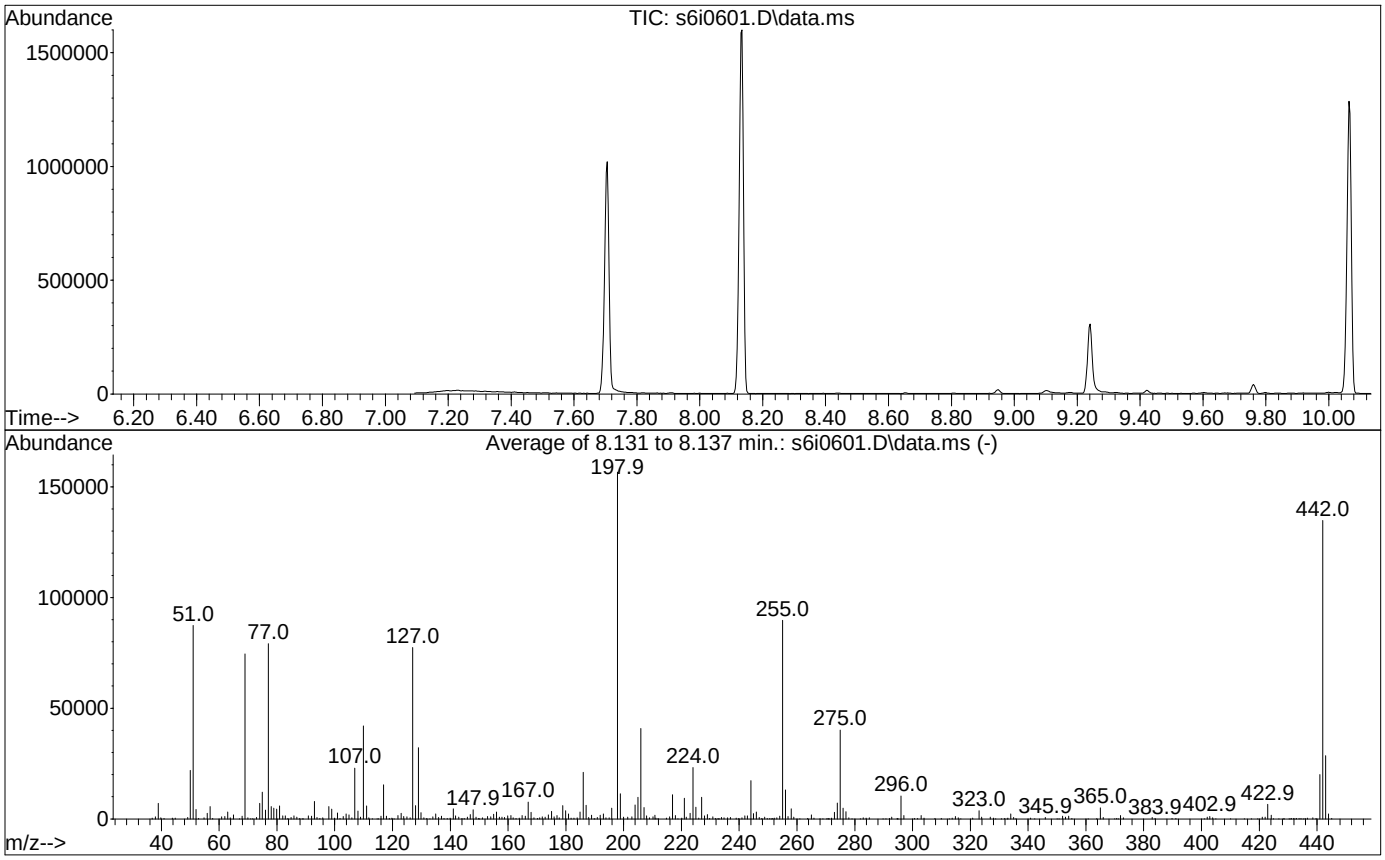
Compounds	Tailing Factor	8270C	8270D
Benzidine	1.13	Pass(<3)	Pass(<2)
Pentachlorophenol	0.80	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0601.D
Acq On : 06 Sep 2011 11:25
Operator : JMB3
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\DATA\s090611.B\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Tue Jun 08 08:30:12 2010



AutoFind: Scans 335, 336, 337; Background Corrected with Scan 324

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.8	87424	PASS
68	69	0.00	2	1.7	1253	PASS
69	198	0.00	100	47.6	74585	PASS
70	69	0.00	2	0.6	462	PASS
127	198	40	60	49.5	77477	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	156672	PASS
199	198	5	9	7.3	11378	PASS
275	198	10	30	25.6	40147	PASS
365	198	1	100	3.2	4968	PASS
441	443	0.01	100	70.4	20064	PASS
442	198	40	100	86.0	134808	PASS
443	442	17	23	21.1	28504	PASS

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0601.D
Acq On : 06 Sep 2011 11:25
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 06 11:32:37 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

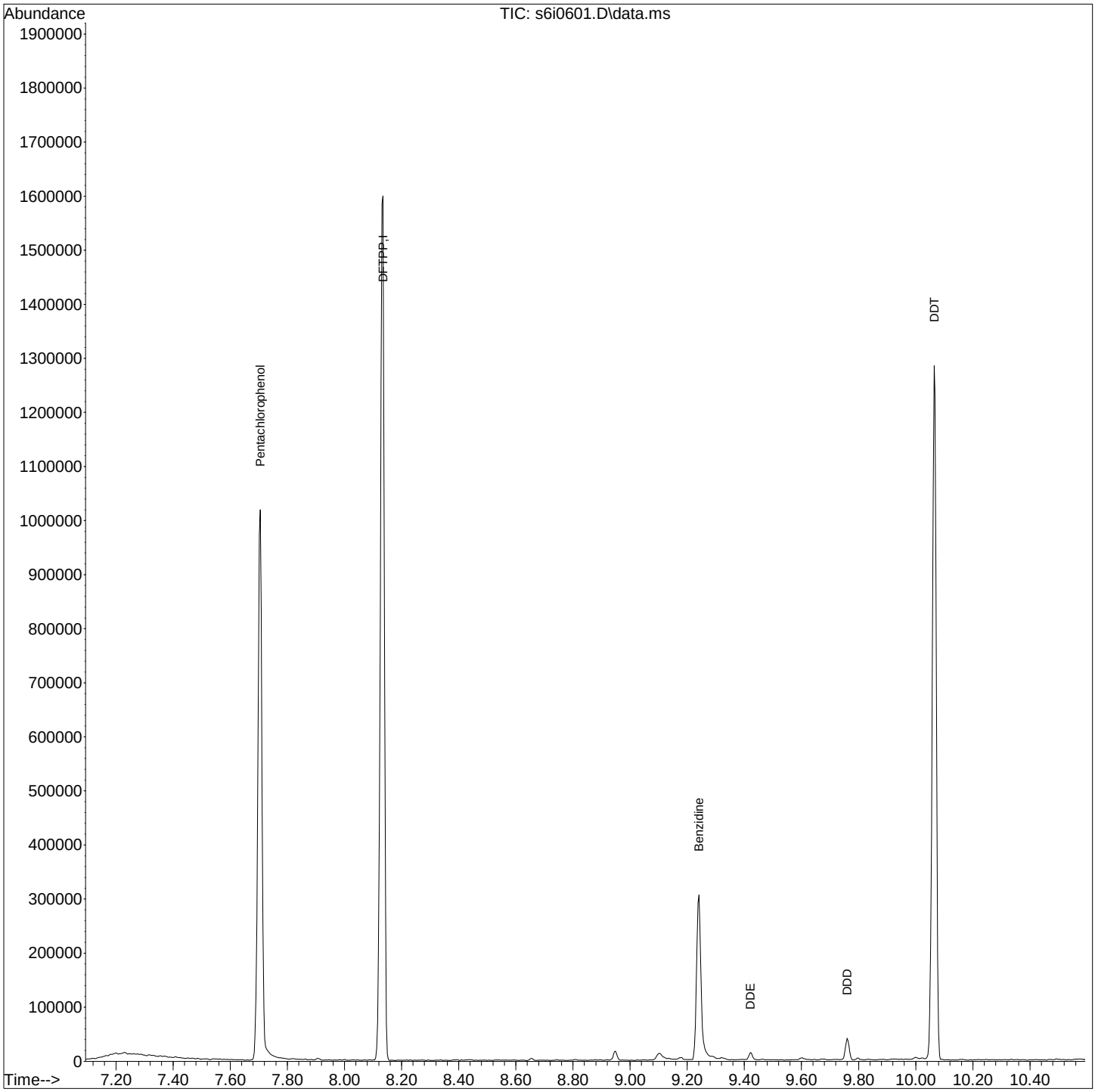
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	8.134	8.134	1.000	1542372	5.00	ug/l	# 0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	8.134	8.134	1.000	1542372	No Calib	#	
3) Pentachlorophenol	266	7.705	7.705	0.947	119596	3.75	ug/l	100
4) Benzidine	184	9.241	9.241	1.136	135392	1.28	ug/l	99
5) DDE	246	9.421	9.421	1.158	1595	3.55	ug/l	84
6) DDD	235	9.760	9.760	1.200	7511	0.75	ug/l	100
7) DDT	235	10.064	10.064	1.237	235902	3.30	ug/l	99

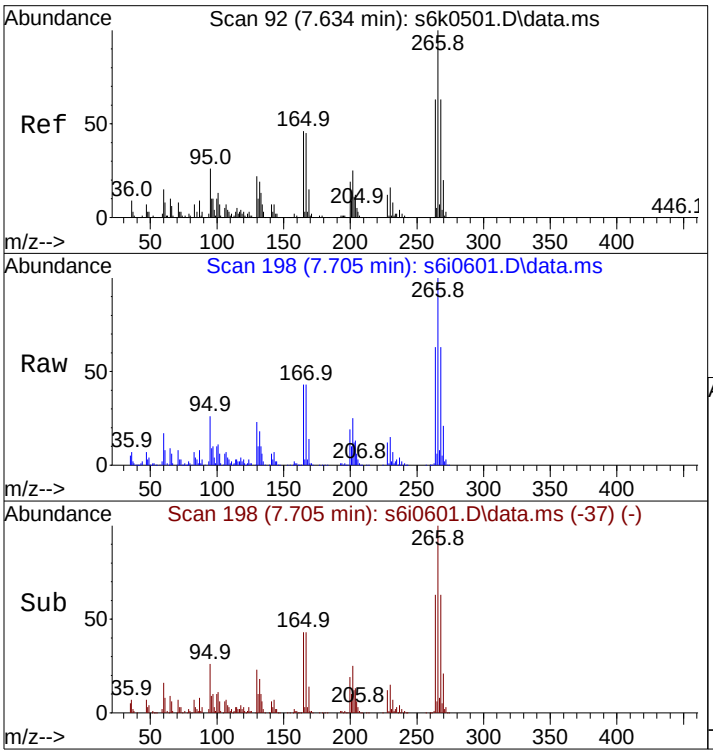
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090611.B\
Data File : s6i0601.D
Acq On : 06 Sep 2011 11:25
Operator : JMB3
InstName : MSD6
Sample : |WBN110823-01|DFTPP|1|SVM|1|TUNE
Misc : |WBN110823-01|
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 06 11:32:37 2011
Quant Method : C:\msdchem\1\DATA\s090611.B\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Tue Jun 08 08:30:12 2010
Response via : Initial Calibration
Integrator: RTE

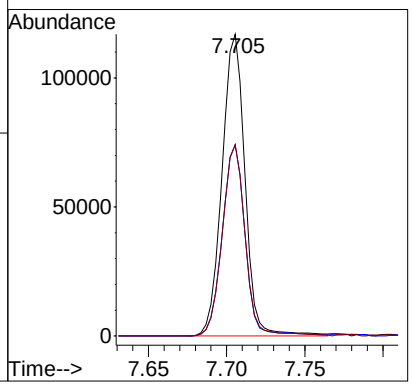


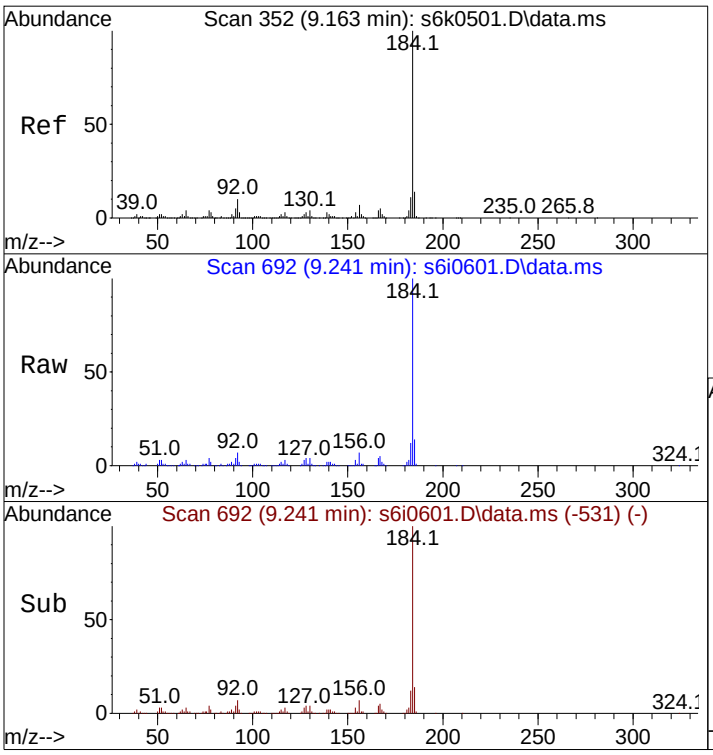


#3
Pentachlorophenol
Concen: 3.75 ug/l
RT: 7.705 min Scan# 198
Delta R.T. 0.000 min
Lab File: s6i0601.D
Acq: 06 Sep 2011 11:25

Tgt Ion:266 Resp: 119596

Ion	Ratio	Lower	Upper
266	100		
264	63.1	0.0	163.3
268	63.1	0.0	163.4

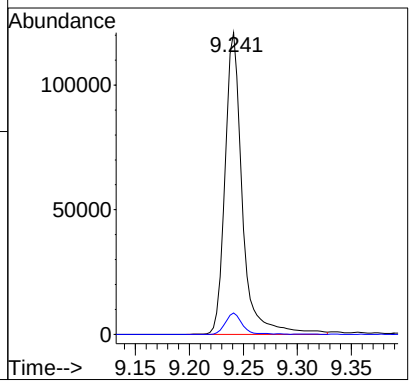


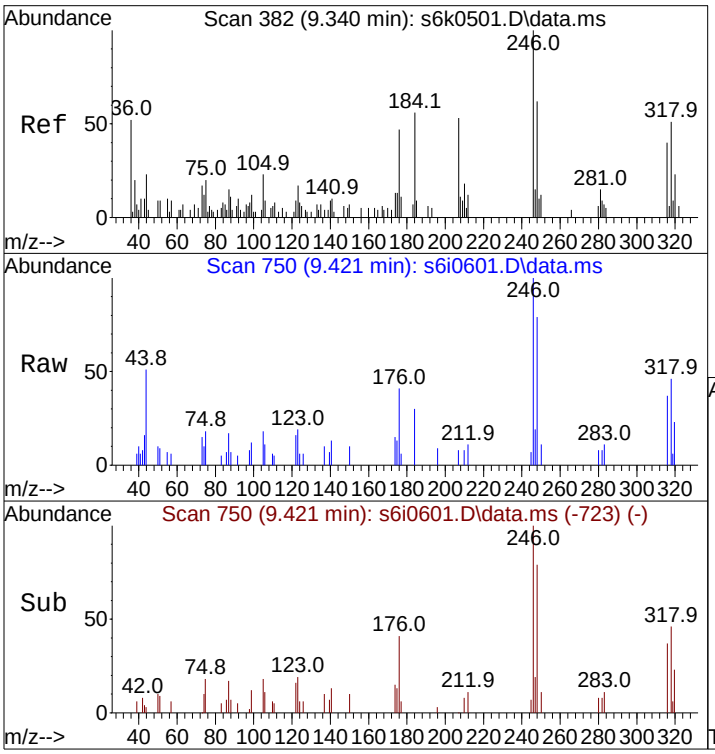


#4
Benzidine
Concen: 1.28 ug/l
RT: 9.241 min Scan# 692
Delta R.T. 0.000 min
Lab File: s6i0601.D
Acq: 06 Sep 2011 11:25

Tgt Ion:184 Resp: 135392

Ion	Ratio	Lower	Upper
184	100		
156	6.9	0.0	107.1

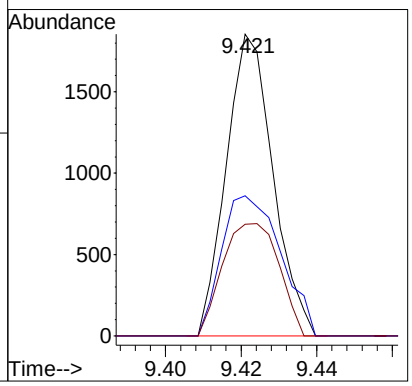


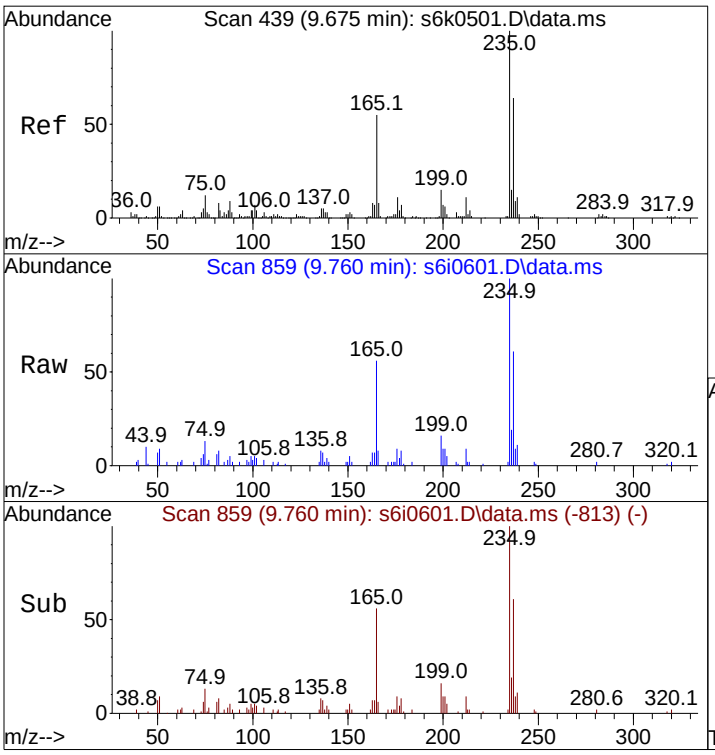


#5
DDE
Concen: 3.55 ug/l
RT: 9.421 min Scan# 750
Delta R.T. 0.000 min
Lab File: s6i0601.D
Acq: 06 Sep 2011 11:25

Tgt Ion:246 Resp: 1595

Ion	Ratio	Lower	Upper
246	100		
318	58.7	0.0	146.4
316	44.8	0.0	137.0

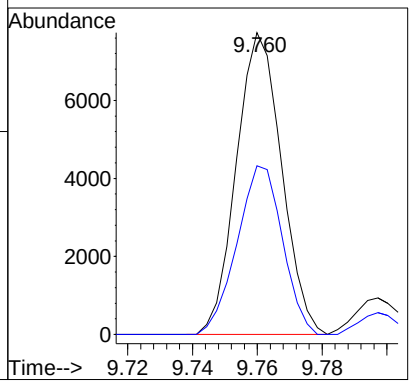


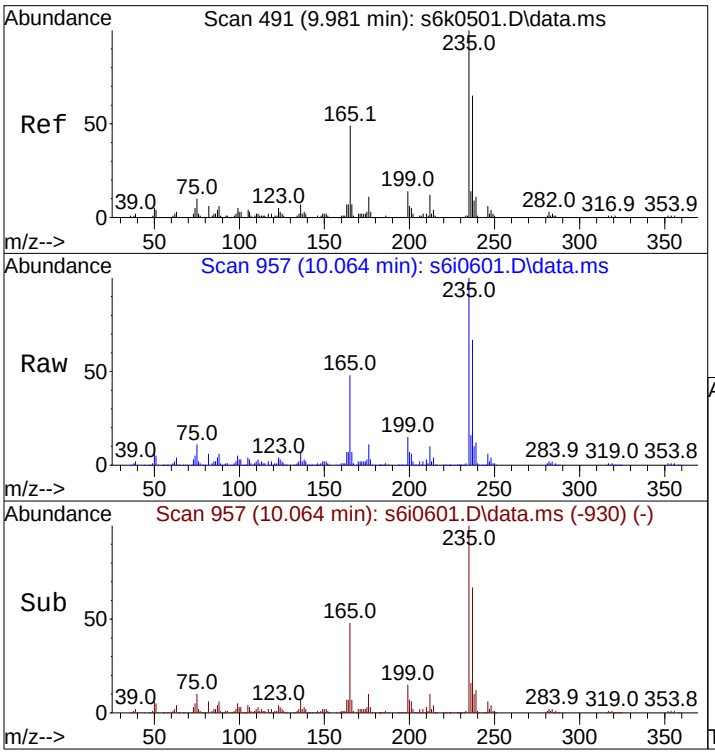


#6
DDD
Concen: 0.75 ug/l
RT: 9.760 min Scan# 859
Delta R.T. 0.000 min
Lab File: s6i0601.D
Acq: 06 Sep 2011 11:25

Tgt Ion:235 Resp: 7511

Ion	Ratio	Lower	Upper
235	100		
165	56.1	0.0	155.9

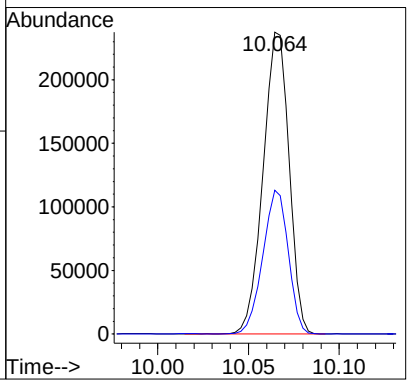




#7
DDT
Concen: 3.30 ug/l
RT: 10.064 min Scan# 957
Delta R.T. 0.000 min
Lab File: s6i0601.D
Acq: 06 Sep 2011 11:25

Tgt Ion:235 Resp: 235902

Ion	Ratio	Lower	Upper
235	100		
165	46.7	0.0	147.6



8270 Breakdown Report

```
Data File : C:\msdchem\1\DATA\s090611.B\s6i0601.D        Vial: 1
Acq On    : 06 Sep 2011  11:25                       Operator: JMB3
Sample    : |WBN110823-01|DFTPP|1|SVM|1|TUNE         Inst    : MSD6
Misc      : |WBN110823-01|                           Multiplr: 1.00
IntFile   : rteint.p
```

Compounds	Area/%Breakdown	8270C	8270D
DDE	1595		
DDD	7511		
DDT	235902		
Breakdown	3.72%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.16	Pass(<3)	Pass(<2)
Pentachlorophenol	0.80	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479916**				
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1138551**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 15:41**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0406.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	0.010	mg/L	0.003	0.010
108-95-2	Phenol	U	0.010	mg/L	0.003	0.010
111-44-4	bis(2-Chloroethyl) ether	U	0.010	mg/L	0.003	0.010
95-57-8	2-Chlorophenol	U	0.010	mg/L	0.003	0.010
39638-32-9	bis(2-Chloroisopropyl)ether	U	0.010	mg/L	0.003	0.010
621-64-7	N-Nitrosodi--n-propylamine	U	0.010	mg/L	0.003	0.010
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane	U	0.010	mg/L	0.003	0.010
98-95-3	Nitrobenzene	U	0.010	mg/L	0.003	0.010
78-59-1	Isophorone	U	0.010	mg/L	0.003	0.010
88-75-5	2-Nitrophenol	U	0.010	mg/L	0.003	0.010
105-67-9	2,4-Dimethylphenol	U	0.010	mg/L	0.003	0.010
111-91-1	bis(2-Chloroethoxy)methane	U	0.010	mg/L	0.003	0.010
120-83-2	2,4-Dichlorophenol	U	0.010	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene	U	0.010	mg/L	0.003	0.010
59-50-7	Parachlorometa cresol	U	0.010	mg/L	0.003	0.010
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene	U	0.001	mg/L	0.0003	0.001
77-47-4	Hexachlorocyclopentadiene	U	0.010	mg/L	0.003	0.010
88-06-2	2,4,6-Trichlorophenol	U	0.010	mg/L	0.003	0.010
91-58-7	2-Chloronaphthalene	U	0.001	mg/L	0.0003	0.001
131-11-3	Dimethylphthalate	U	0.010	mg/L	0.003	0.010
606-20-2	2,6-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
121-14-2	2,4-Dinitrotoluene	U	0.010	mg/L	0.003	0.010
208-96-8	Acenaphthylene	U	0.001	mg/L	0.0003	0.001
83-32-9	Acenaphthene	U	0.001	mg/L	0.0003	0.001
51-28-5	2,4-Dinitrophenol	U	0.020	mg/L	0.005	0.020
84-66-2	Diethylphthalate	U	0.010	mg/L	0.003	0.010
100-02-7	4-Nitrophenol	U	0.010	mg/L	0.003	0.010
86-73-7	Fluorene	U	0.001	mg/L	0.0003	0.001
7005-72-3	4-Chlorophenylphenylether	U	0.010	mg/L	0.003	0.010
534-52-1	2-Methyl-4,6-dinitrophenol	U	0.010	mg/L	0.003	0.010
122-39-4	Diphenylamine	U	0.010	mg/L	0.003	0.010
122-66-7	Azobenzene	U	0.010	mg/L	0.003	0.010
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	0.010	mg/L	0.003	0.010
118-74-1	Hexachlorobenzene	U	0.010	mg/L	0.003	0.010
87-86-5	Pentachlorophenol	U	0.010	mg/L	0.003	0.010
85-01-8	Phenanthrene	U	0.001	mg/L	0.0003	0.001
120-12-7	Anthracene	U	0.001	mg/L	0.0003	0.001

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479916**				
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1138551**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 15:41**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0406.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate	U	0.010	mg/L	0.003	0.010
206-44-0	Fluoranthene	U	0.001	mg/L	0.0003	0.001
129-00-0	Pyrene	U	0.001	mg/L	0.0003	0.001
85-68-7	Butylbenzylphthalate	U	0.010	mg/L	0.003	0.010
117-81-7	bis(2-Ethylhexyl)phthalate	U	0.010	mg/L	0.003	0.010
56-55-3	Benzo(a)anthracene	U	0.001	mg/L	0.0003	0.001
218-01-9	Chrysene	U	0.001	mg/L	0.0003	0.001
117-84-0	Di-n-octylphthalate	U	0.010	mg/L	0.003	0.010
205-99-2	Benzo(b)fluoranthene	U	0.001	mg/L	0.0003	0.001
207-08-9	Benzo(k)fluoranthene	U	0.001	mg/L	0.0003	0.001
50-32-8	Benzo(a)pyrene	U	0.001	mg/L	0.0003	0.001
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.001	mg/L	0.0003	0.001
53-70-3	Dibenzo(a,h)anthracene	U	0.001	mg/L	0.0003	0.001
191-24-2	Benzo(ghi)perylene	U	0.001	mg/L	0.0003	0.001
92-87-5	Benzidine	U	0.010	mg/L	0.003	0.010
91-94-1	3,3'-Dichlorobenzidine	U	0.010	mg/L	0.003	0.010
120-82-1	1,2,4-Trichlorobenzene	U	0.010	mg/L	0.003	0.010

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.0516	0.100	mg/L	51.6	(33%-126%)
2-Fluorobiphenyl	0.0344	0.050	mg/L	68.8	(37%-102%)
2-Fluorophenol	0.0418	0.100	mg/L	41.8	(14%-78%)
Nitrobenzene-d5	0.0405	0.050	mg/L	81.0	(40%-117%)
Phenol-d5	0.0269	0.100	mg/L	26.9	(14%-80%)
p-Terphenyl-d14	0.0452	0.050	mg/L	90.4	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0406.D
Acq On : 04 Sep 2011 15:41
Operator : JMB3
InstName : MSD6
Sample : |1202479916|1138552|1|SVM|1|MB
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:47:51 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	157897	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.148	8.156	1.000	296368	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.767	9.773	1.000	440488	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.839	12.853	1.000	204306	40.00	ng/uL	-0.01
91) A Perylene-d12	264	15.274	15.285	1.000	106330	40.00	ng/uL	-0.01
99) B 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	157897	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.148	8.156	1.000	296368	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.767	9.773	1.000	440488	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.839	12.853	1.000	204306	40.00	ng/uL	-0.01
153) B Perylene-d12	264	15.274	15.285	1.000	106330	40.00	ng/uL	-0.01
156) D Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.148	8.156	1.000	296368	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.767	9.773	1.000	440488	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.839	12.853	1.000	204306	40.00	ng/uL	-0.01
170) E Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.274	15.316	1.000	106330	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	157897	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.148	8.156	1.000	296368	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.767	9.773	1.000	440488	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.839	12.853	1.000	204306	40.00	ng/uL	-0.01
192) J 1,4-Dichlorobenzene-d4	152	4.982	4.988	1.000	157897	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.269	6.278	1.000	538005	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.839	12.853	1.000	204306	40.00	ng/uL	-0.01
199) J Perylene-d12	264	15.274	15.285	1.000	106330	40.00	ng/uL	-0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.786	3.789	0.760	213746	41.80	ng/uL	0.00
8) Phenol-d5	99	4.564	4.576	0.916	178863	26.92	ng/uL	-0.01
25) Nitrobenzene-d5	82	5.522	5.531	0.881	208371	40.50	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.397	7.403	0.908	331104	34.41	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	8.997	9.006	1.104	67844	51.64	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.894	262554	45.21	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	41.80%
8) Phenol-d5	100.000	14 - 80	26.92%
25) Nitrobenzene-d5	50.000	40 - 117	81.00%
47) 2-Fluorobiphenyl	50.000	37 - 102	68.82%
66) 2,4,6-Tribromophenol	100.000	33 - 126	51.64%
83) p-Terphenyl-d14	50.000	44 - 134	90.42%

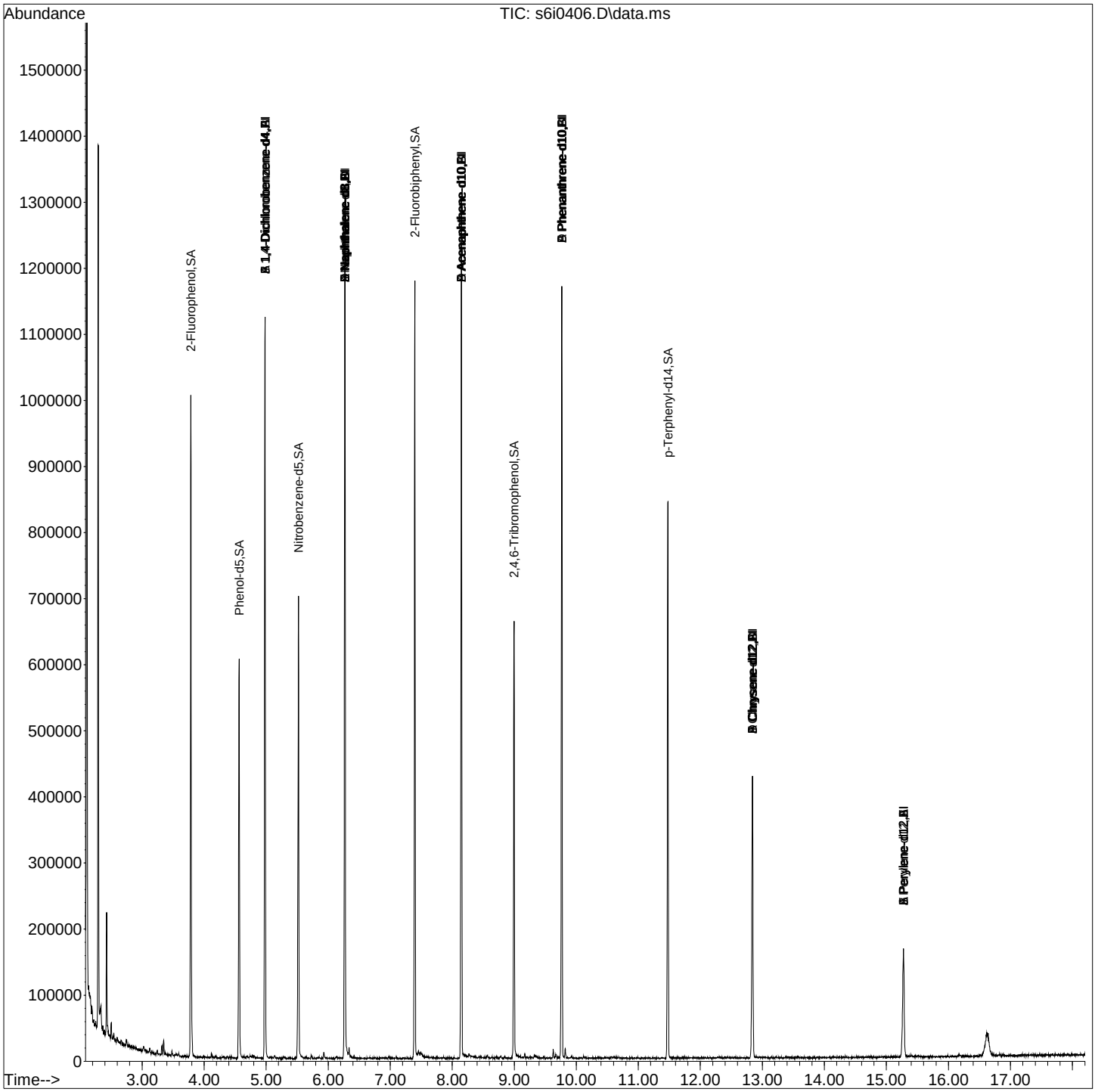
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0406.D
Acq On : 04 Sep 2011 15:41
Operator : JMB3
InstName : MSD6
Sample : |1202479916|1138552|1|SVM|1|MB
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 06 08:47:51 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479917**				
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138551**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 16:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0407.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		0.0254	mg/L	0.003	0.010
108-95-2	Phenol		0.0168	mg/L	0.003	0.010
111-44-4	bis(2-Chloroethyl) ether		0.0359	mg/L	0.003	0.010
95-57-8	2-Chlorophenol		0.0368	mg/L	0.003	0.010
39638-32-9	bis(2-Chloroisopropyl)ether		0.0372	mg/L	0.003	0.010
621-64-7	N-Nitrosodi--n-propylamine		0.0392	mg/L	0.003	0.010
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane		0.0276	mg/L	0.003	0.010
98-95-3	Nitrobenzene		0.040	mg/L	0.003	0.010
78-59-1	Isophorone		0.0411	mg/L	0.003	0.010
88-75-5	2-Nitrophenol		0.0386	mg/L	0.003	0.010
105-67-9	2,4-Dimethylphenol		0.0382	mg/L	0.003	0.010
111-91-1	bis(2-Chloroethoxy)methane		0.0392	mg/L	0.003	0.010
120-83-2	2,4-Dichlorophenol		0.0391	mg/L	0.003	0.010
87-68-3	Hexachlorobutadiene		0.0297	mg/L	0.003	0.010
59-50-7	Parachlorometa cresol		0.0416	mg/L	0.003	0.010
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene		0.0341	mg/L	0.0003	0.001
77-47-4	Hexachlorocyclopentadiene		0.031	mg/L	0.003	0.010
88-06-2	2,4,6-Trichlorophenol		0.0391	mg/L	0.003	0.010
91-58-7	2-Chloronaphthalene		0.0355	mg/L	0.0003	0.001
131-11-3	Dimethylphthalate		0.0426	mg/L	0.003	0.010
606-20-2	2,6-Dinitrotoluene		0.0401	mg/L	0.003	0.010
121-14-2	2,4-Dinitrotoluene		0.040	mg/L	0.003	0.010
208-96-8	Acenaphthylene		0.0377	mg/L	0.0003	0.001
83-32-9	Acenaphthene		0.037	mg/L	0.0003	0.001
51-28-5	2,4-Dinitrophenol		0.0398	mg/L	0.005	0.020
84-66-2	Diethylphthalate		0.0424	mg/L	0.003	0.010
100-02-7	4-Nitrophenol		0.0155	mg/L	0.003	0.010
86-73-7	Fluorene		0.0379	mg/L	0.0003	0.001
7005-72-3	4-Chlorophenylphenylether		0.0379	mg/L	0.003	0.010
534-52-1	2-Methyl-4,6-dinitrophenol		0.0444	mg/L	0.003	0.010
122-39-4	Diphenylamine		0.0386	mg/L	0.003	0.010
122-66-7	Azobenzene		0.0393	mg/L	0.003	0.010
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		0.0379	mg/L	0.003	0.010
118-74-1	Hexachlorobenzene		0.0386	mg/L	0.003	0.010
87-86-5	Pentachlorophenol		0.0411	mg/L	0.003	0.010
85-01-8	Phenanthrene		0.0392	mg/L	0.0003	0.001
120-12-7	Anthracene		0.0384	mg/L	0.0003	0.001

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479917**				
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138551**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 16:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0407.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate		0.0417	mg/L	0.003	0.010
206-44-0	Fluoranthene		0.0405	mg/L	0.0003	0.001
129-00-0	Pyrene		0.0348	mg/L	0.0003	0.001
85-68-7	Butylbenzylphthalate		0.0371	mg/L	0.003	0.010
117-81-7	bis(2-Ethylhexyl)phthalate		0.0379	mg/L	0.003	0.010
56-55-3	Benzo(a)anthracene		0.038	mg/L	0.0003	0.001
218-01-9	Chrysene		0.0384	mg/L	0.0003	0.001
117-84-0	Di-n-octylphthalate		0.040	mg/L	0.003	0.010
205-99-2	Benzo(b)fluoranthene		0.0377	mg/L	0.0003	0.001
207-08-9	Benzo(k)fluoranthene		0.038	mg/L	0.0003	0.001
50-32-8	Benzo(a)pyrene		0.0368	mg/L	0.0003	0.001
193-39-5	Indeno(1,2,3-cd)pyrene		0.0438	mg/L	0.0003	0.001
53-70-3	Dibenzo(a,h)anthracene		0.0453	mg/L	0.0003	0.001
191-24-2	Benzo(ghi)perylene		0.0417	mg/L	0.0003	0.001
92-87-5	Benzidine		0.0541	mg/L	0.003	0.010
91-94-1	3,3'-Dichlorobenzidine		0.0409	mg/L	0.003	0.010
120-82-1	1,2,4-Trichlorobenzene		0.031	mg/L	0.003	0.010

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.0889	0.100	mg/L	88.9	(33%-126%)
2-Fluorobiphenyl	0.0368	0.050	mg/L	73.6	(37%-102%)
2-Fluorophenol	0.049	0.100	mg/L	49.0	(14%-78%)
Nitrobenzene-d5	0.0402	0.050	mg/L	80.3	(40%-117%)
Phenol-d5	0.0314	0.100	mg/L	31.4	(14%-80%)
p-Terphenyl-d14	0.0394	0.050	mg/L	78.8	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0407.D
Acq On : 04 Sep 2011 16:10
Operator : JMB3
InstName : MSD6
Sample : |1202479917|1138552|1|SVM|1|LCS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 08:51:46 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156956	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	598152	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.153	8.156	1.000	313551	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	502981	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	311980	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.285	15.285	1.000	198166	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156956	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	598152	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.153	8.156	1.000	313551	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	502981	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	311980	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.285	15.285	1.000	198166	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	598152	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.153	8.156	1.000	313551	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	502981	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	311980	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	599995	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.285	15.316	1.000	198166	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156956	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	598152	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.153	8.156	1.000	313551	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	502981	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	311980	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156956	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	598152	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	311980	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.285	15.285	1.000	198166	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	249084	49.00	ng/uL	0.00
8) Phenol-d5	99	4.576	4.576	0.918	207525	31.42	ng/uL	0.00
25) Nitrobenzene-d5	82	5.531	5.531	0.881	229715	40.16	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	374839	36.82	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.009	9.006	1.105	123535	88.88	ng/uL	0.00
83) p-Terphenyl-d14	244	11.481	11.481	0.893	349228	39.38	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	49.00%
8) Phenol-d5	100.000	14 - 80	31.42%
25) Nitrobenzene-d5	50.000	40 - 117	80.32%
47) 2-Fluorobiphenyl	50.000	37 - 102	73.64%
66) 2,4,6-Tribromophenol	100.000	33 - 126	88.88%
83) p-Terphenyl-d14	50.000	44 - 134	78.76%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.803	2.808	0.562	87320	25.37	ng/uL	99
4) Pyridine	79	2.840	2.843	0.570	111758	22.92	ng/uL	98
7) Aniline	66	4.667	4.672	0.936	119779	37.69	ng/uL	100
9) Phenol	94	4.587	4.593	0.920	107432	16.78	ng/uL	96
10) bis(2-Chloroethyl) ether	63	4.704	4.707	0.944	167437	35.90	ng/uL	99
11) 2-Chlorophenol	128	4.781	4.780	0.959	194357	36.77	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0407.D
Acq On : 04 Sep 2011 16:10
Operator : JMB3
InstName : MSD6
Sample : |1202479917|1138552|1|SVM|1|LCS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 08:51:46 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
12)	n-Decane	43	4.781	4.783	0.959	218754	26.26	ng/uL	97
13)	1,3-Dichlorobenzene	146	4.934	4.934	0.990	176227	30.11	ng/uL	99
14)	1,4-Dichlorobenzene	146	5.002	5.005	1.003	175108	30.10	ng/uL	99
15)	1,2-Dichlorobenzene	146	5.150	5.153	1.033	168813	30.73	ng/uL	99
16)	bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	403370	37.23	ng/uL	99
17)	Benzyl alcohol	108	5.093	5.096	1.022	119679	33.63	ng/uL	99
18)	o-Cresol	107	5.173	5.175	1.038	143599	33.25	ng/uL	97
19)	m,p-Cresols	107	5.332	5.335	1.070	193000	35.46	ng/uL	90
20)	N-Nitrosodipropylamine	70	5.360	5.391	1.075	162386m	39.21	ng/uL	
23)	Hexachloroethane	117	5.488	5.497	1.101	67082	27.59	ng/uL	96
26)	Nitrobenzene	77	5.551	5.553	0.885	225798	40.01	ng/uL	99
27)	Isophorone	82	5.784	5.795	0.922	427394	41.06	ng/uL	99
28)	2-Nitrophenol	139	5.866	5.872	0.935	106205	38.58	ng/uL	99
29)	2,4-Dimethylphenol	122	5.869	5.872	0.935	180804	38.23	ng/uL	96
30)	bis(2-Chloroethoxy)met...	93	5.977	5.980	0.952	219698	39.21	ng/uL	99
31)	2,4-Dichlorophenol	162	6.108	6.107	0.973	165635	39.07	ng/uL	99
32)	Benzoic acid	105	5.988	5.988	0.954	115710	34.61	ng/uL	93
33)	1,2,4-Trichlorobenzene	180	6.201	6.204	0.988	159328	31.01	ng/uL	99
34)	alpha-Terpineol	59	6.281	6.281	1.001	199436	36.36	ng/uL	100
35)	Naphthalene	128	6.298	6.301	1.004	451841	34.11	ng/uL	99
36)	4-Chloroaniline	127	6.335	6.332	1.010	220808	43.40	ng/uL	100
37)	Hexachlorobutadiene	225	6.403	6.403	1.020	89649	29.73	ng/uL	99
38)	4-Chloro-3-methylphenol	107	6.815	6.809	1.086	181888	41.63	ng/uL	98
39)	2-Methylnaphthalene	142	7.023	7.022	1.119	323464	34.54	ng/uL	97
41)	1-Methylnaphthalene	142	7.130	7.133	1.136	317217	36.12	ng/uL	99
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	69301	30.97	ng/uL	99
44)	2,3-Dichloroaniline	161	7.318	7.321	0.898	195014	37.25	ng/uL	99
45)	2,4,6-Trichlorophenol	196	7.309	7.309	0.896	119713	39.08	ng/uL	98
46)	2,4,5-Trichlorophenol	196	7.346	7.346	0.901	123923	39.05	ng/uL	99
48)	2-Chloronaphthalene	162	7.551	7.551	0.926	324884	35.53	ng/uL	99
49)	o-Nitroaniline	65	7.648	7.647	0.938	125268	39.42	ng/uL	98
51)	m-Nitroaniline	138	8.094	8.094	0.993	89188	41.50	ng/uL	98
52)	Dimethylphthalate	163	7.827	7.838	0.960	427495	42.63	ng/uL	100
54)	2,6-Dinitrotoluene	165	7.903	7.906	0.969	99603	40.07	ng/uL	99
55)	2,4-Dinitrotoluene	165	8.338	8.344	1.023	123939	40.03	ng/uL	98
56)	Acenaphthylene	152	8.003	8.008	0.982	486908	37.70	ng/uL	99
57)	Acenaphthene	154	8.190	8.193	1.005	339121	37.02	ng/uL	99
58)	2,4-Dinitrophenol	184	8.196	8.199	1.005	46436	39.80	ng/uL#	53
59)	Dibenzofuran	168	8.372	8.375	1.027	450021	39.67	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	8.489	8.491	1.041	106110	39.85	ng/uL	97
61)	Diethylphthalate	149	8.582	8.585	1.053	399352	42.41	ng/uL	100
62)	4-Nitrophenol	139	8.241	8.236	1.011	22989	15.47	ng/uL	89
63)	Fluorene	166	8.747	8.750	1.073	374853	37.85	ng/uL	99
64)	4-Chlorophenylphenylether	204	8.725	8.730	1.070	197317	37.85	ng/uL	98
65)	p-Nitroaniline	138	8.759	8.758	1.074	77417	46.05	ng/uL	98
68)	2-Methyl-4,6-dinitroph...	198	8.784	8.784	0.899	72193	44.44	ng/uL	99
69)	Diphenylamine	169	8.858	8.858	0.906	320820	38.63	ng/uL	99
70)	1,2-Diphenylhydrazine	77	8.904	8.903	0.911	417656	39.32	ng/uL	99
71)	4-Bromophenylphenylether	248	9.264	9.264	0.948	117520	37.88	ng/uL	99
72)	Hexachlorobenzene	284	9.341	9.341	0.956	123123	38.56	ng/uL	99
73)	Pentachlorophenol	266	9.549	9.543	0.977	73864	41.10	ng/uL	98
74)	n-Octadecane	57	9.580	9.582	0.980	313422	37.44	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0407.D
Acq On : 04 Sep 2011 16:10
Operator : JMB3
InstName : MSD6
Sample : |1202479917|1138552|1|SVM|1|LCS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 08:51:46 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

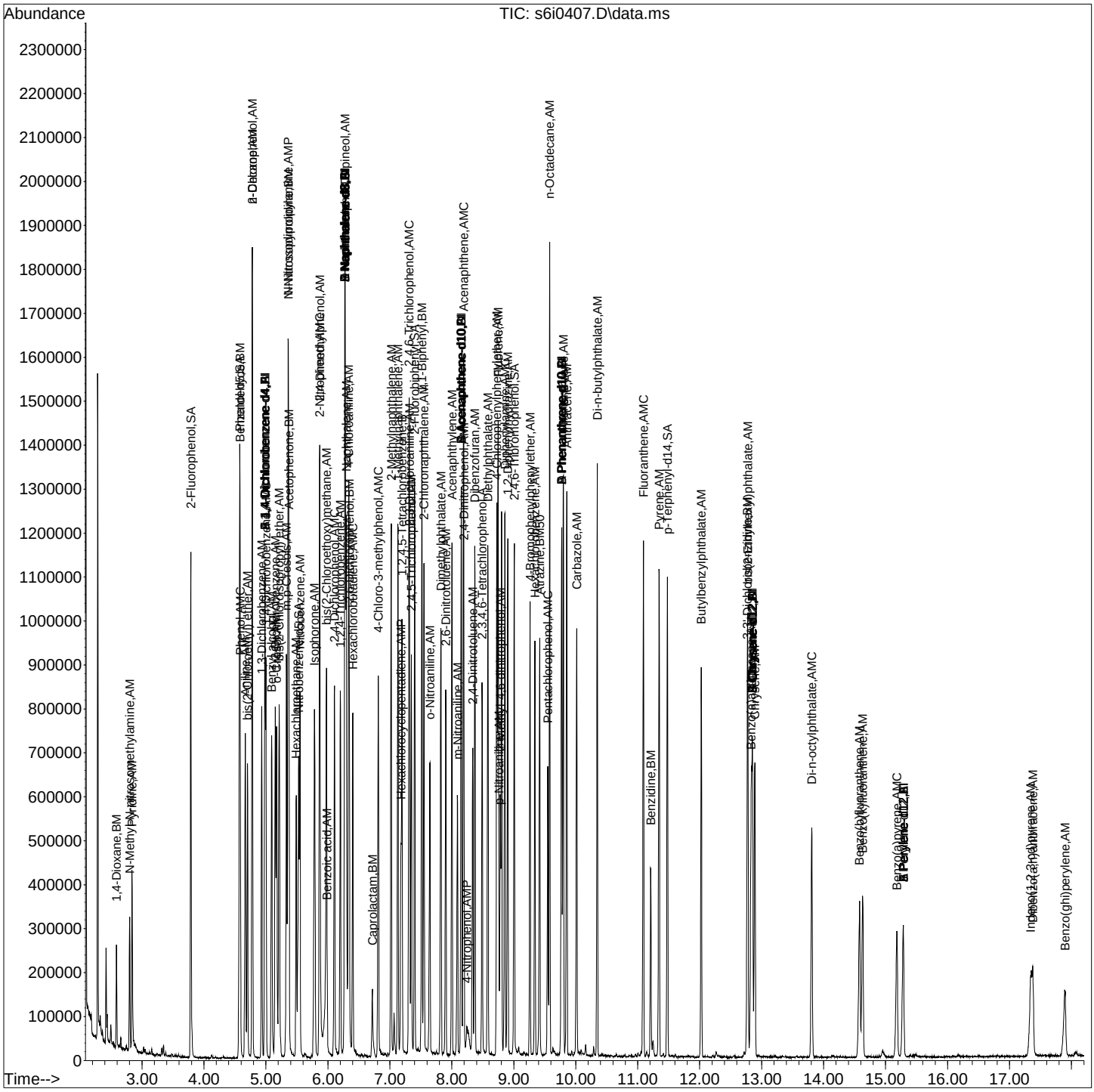
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Phenanthrene	178	9.801	9.801	1.003	505832	39.17	ng/uL	100
77)	Anthracene	178	9.855	9.858	1.008	503579	38.39	ng/uL	100
78)	Carbazole	167	10.017	10.014	1.025	417637	44.30	ng/uL	99
79)	Di-n-butylphthalate	149	10.347	10.350	1.059	584090	41.68	ng/uL	99
80)	Fluoranthene	202	11.091	11.094	1.135	495685	40.48	ng/uL	99
82)	Pyrene	202	11.347	11.347	0.883	490090	34.75	ng/uL	99
84)	Butylbenzylphthalate	149	12.026	12.026	0.936	206435	37.05	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	12.776	12.776	0.994	236746	37.94	ng/uL	100
86)	Benzo(a)anthracene	228	12.830	12.833	0.998	336930	37.96	ng/uL	99
87)	Chrysene	228	12.890	12.890	1.003	307870	38.44	ng/uL	99
90)	Di-n-octylphthalate	149	13.808	13.811	1.075	319622	40.00	ng/uL	99
92)	Benzo(b)fluoranthene	252	14.578	14.581	0.954	241584	37.70	ng/uL	99
93)	Benzo(k)fluoranthene	252	14.629	14.632	0.957	235191	38.03	ng/uL	99
94)	Benzo(a)pyrene	252	15.180	15.177	0.993	196107	36.75	ng/uL	97
95)	Indeno(1,2,3-cd)pyrene	276	17.340	17.351	1.134	177948	43.79	ng/uL	90
96)	Dibenzo(a,h)anthracene	278	17.374	17.371	1.137	149654	45.29	ng/uL	99
97)	Benzo(ghi)perylene	276	17.897	17.885	1.171	139676	41.72	ng/uL	100
100)	1,4-Dioxane	88	2.590	2.593	0.520	58141	25.51	ng/uL	92
108)	Benzaldehyde	77	4.582	4.579	0.919	155439	33.35	ng/uL	99
110)	N-Nitrosopyrrolidine	100	5.363	5.372	1.076	103953	38.25	ng/uL#	4
111)	Acetophenone	105	5.372	5.366	1.078	278235	37.16	ng/uL	98
117)	2,6-Dichlorophenol	162	6.346	6.340	1.011	172325	37.33	ng/uL	99
119)	Caprolactam	113	6.718	6.699	1.071	18656m	10.72	ng/uL	
123)	1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	158740	31.40	ng/uL	96
124)	1,1-Biphenyl	154	7.517	7.517	0.922	423074	36.11	ng/uL	100
137)	Atrazine	200	9.418	9.418	0.964	118118	42.18	ng/uL	100
144)	Benzidine	184	11.211	11.214	1.147	166863	54.08	ng/uL	99
152)	3,3'-Dichlorobenzidine	252	12.768	12.762	0.994	98978	40.94	ng/uL	97

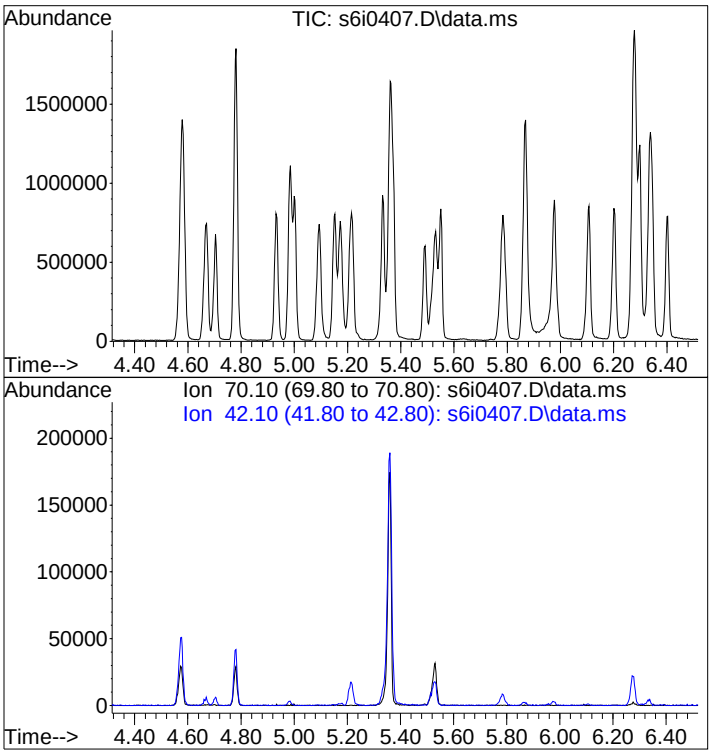
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0407.D
Acq On : 04 Sep 2011 16:10
Operator : JMB3
InstName : MSD6
Sample : |1202479917|1138552|1|SVM|1|LCS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 06 08:51:46 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



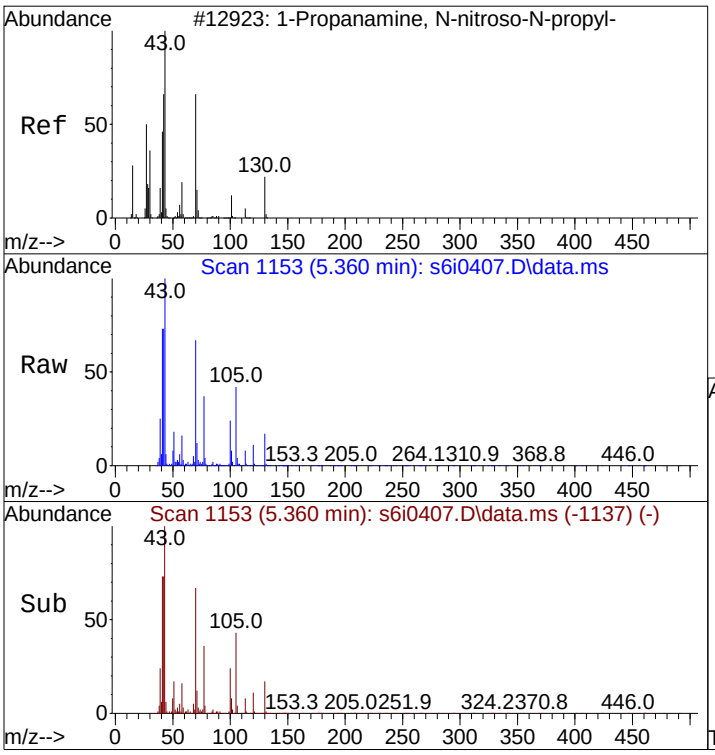


#20 BEFORE analyst integration
N-Nitrosodipropylamine
Concen: Below Cal
Expected RT: 5.39 min

Lab File: s6i0407.D
Acq: 04 Sep 2011 16:10

Tgt Ion: 70

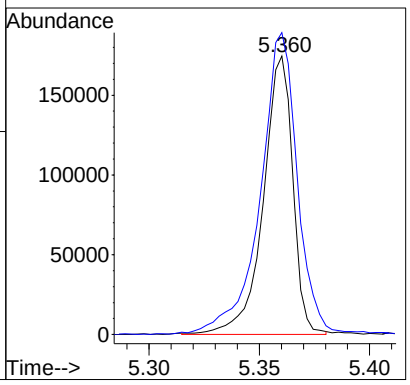
Sig	Exp Ratio
70	100
42	79.8

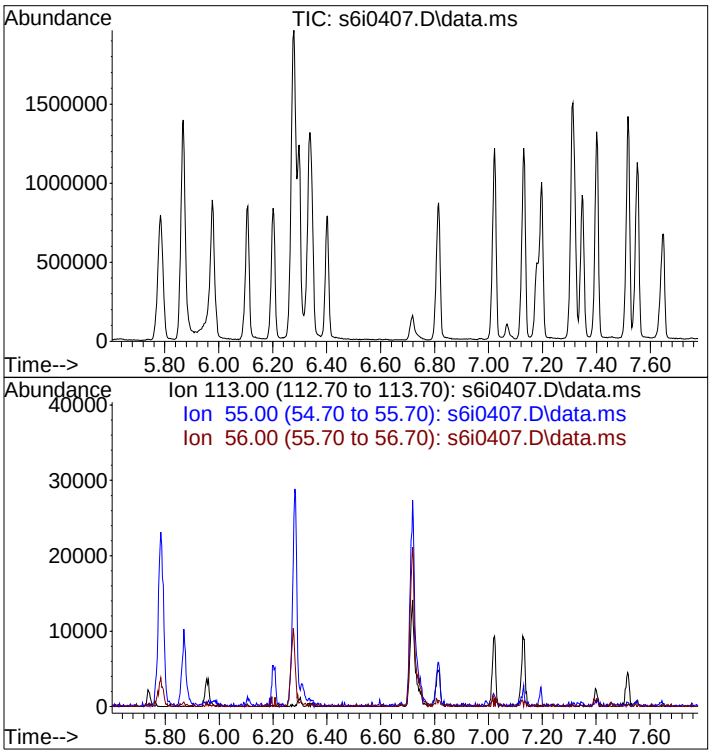


#20 AFTER analyst integration
N-Nitrosodipropylamine
Concen: 39.21 ng/uL MANUALLY INTEGRATED
RT: 5.360 min Scan# 1153
Delta R.T. -0.031 min
Lab File: s6i0407.D
Acq: 04 Sep 2011 16:10

Tgt Ion: 70 Resp: 162386

Ion	Ratio	Lower	Upper
70	100		
42	136.1	49.8	109.8#



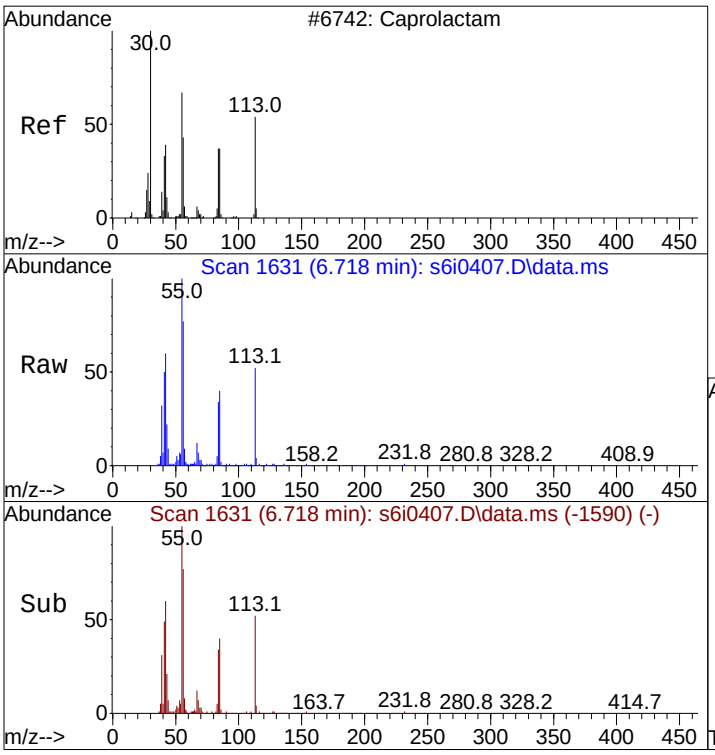


#119 BEFORE analyst integration
Caprolactam
Concen: Below Cal
Expected RT: 6.70 min

Lab File: s6i0407.D
Acq: 04 Sep 2011 16:10

Tgt Ion: 113

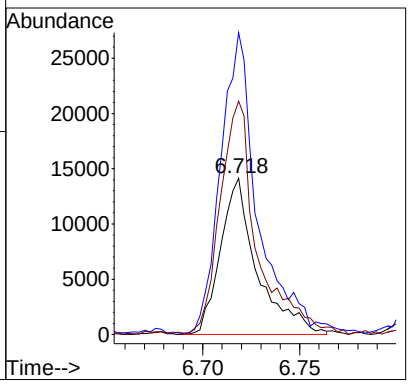
Sig	Exp Ratio
113	100
55	239.1
56	198.6



#119 AFTER analyst integration
Caprolactam
Concen: 10.72 ng/uL MANUALLY INTEGRATED
RT: 6.718 min Scan# 1631
Delta R.T. 0.019 min
Lab File: s6i0407.D
Acq: 04 Sep 2011 16:10

Tgt Ion:113 Resp: 18656

Ion	Ratio	Lower	Upper
113	100		
55	194.4	209.1	269.1#
56	150.3	168.6	228.6#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479918**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860MS**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 18:04**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**400 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0411.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		0.0735	mg/L	0.0075	0.025
108-95-2	Phenol		0.0589	mg/L	0.0075	0.025
111-44-4	bis(2-Chloroethyl) ether		0.0789	mg/L	0.0075	0.025
95-57-8	2-Chlorophenol		0.0797	mg/L	0.0075	0.025
39638-32-9	bis(2-Chloroisopropyl)ether		0.0814	mg/L	0.0075	0.025
621-64-7	N-Nitrosodi--n-propylamine		0.0871	mg/L	0.0075	0.025
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane		0.0601	mg/L	0.0075	0.025
98-95-3	Nitrobenzene		0.0948	mg/L	0.0075	0.025
78-59-1	Isophorone		0.104	mg/L	0.0075	0.025
88-75-5	2-Nitrophenol		0.0959	mg/L	0.0075	0.025
105-67-9	2,4-Dimethylphenol		0.0948	mg/L	0.0075	0.025
111-91-1	bis(2-Chloroethoxy)methane		0.0932	mg/L	0.0075	0.025
120-83-2	2,4-Dichlorophenol		0.0934	mg/L	0.0075	0.025
87-68-3	Hexachlorobutadiene		0.0718	mg/L	0.0075	0.025
59-50-7	Parachlorometa cresol		0.0957	mg/L	0.0075	0.025
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene		0.0843	mg/L	0.00075	0.0025
77-47-4	Hexachlorocyclopentadiene		0.082	mg/L	0.0075	0.025
88-06-2	2,4,6-Trichlorophenol		0.0886	mg/L	0.0075	0.025
91-58-7	2-Chloronaphthalene		0.0802	mg/L	0.00075	0.0025
131-11-3	Dimethylphthalate		0.0951	mg/L	0.0075	0.025
606-20-2	2,6-Dinitrotoluene		0.0898	mg/L	0.0075	0.025
121-14-2	2,4-Dinitrotoluene		0.0885	mg/L	0.0075	0.025
208-96-8	Acenaphthylene		0.0819	mg/L	0.00075	0.0025
83-32-9	Acenaphthene		0.0837	mg/L	0.00075	0.0025
51-28-5	2,4-Dinitrophenol		0.105	mg/L	0.0125	0.050
84-66-2	Diethylphthalate		0.096	mg/L	0.0075	0.025
100-02-7	4-Nitrophenol		0.0587	mg/L	0.0075	0.025
86-73-7	Fluorene		0.0842	mg/L	0.00075	0.0025
7005-72-3	4-Chlorophenylphenylether		0.0856	mg/L	0.0075	0.025
534-52-1	2-Methyl-4,6-dinitrophenol		0.105	mg/L	0.0075	0.025
122-39-4	Diphenylamine		0.0427	mg/L	0.0075	0.025
122-66-7	Azobenzene		0.0878	mg/L	0.0075	0.025
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		0.0823	mg/L	0.0075	0.025
118-74-1	Hexachlorobenzene		0.0849	mg/L	0.0075	0.025
87-86-5	Pentachlorophenol		0.0978	mg/L	0.0075	0.025
85-01-8	Phenanthrene		0.0857	mg/L	0.00075	0.0025
120-12-7	Anthracene		0.0843	mg/L	0.00075	0.0025

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479918**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860MS**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 18:04**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**400 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0411.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate		0.0912	mg/L	0.0075	0.025
206-44-0	Fluoranthene		0.0847	mg/L	0.00075	0.0025
129-00-0	Pyrene		0.0857	mg/L	0.00075	0.0025
85-68-7	Butylbenzylphthalate		0.0834	mg/L	0.0075	0.025
117-81-7	bis(2-Ethylhexyl)phthalate		0.0784	mg/L	0.0075	0.025
56-55-3	Benzo(a)anthracene		0.0819	mg/L	0.00075	0.0025
218-01-9	Chrysene		0.0825	mg/L	0.00075	0.0025
117-84-0	Di-n-octylphthalate		0.0748	mg/L	0.0075	0.025
205-99-2	Benzo(b)fluoranthene		0.0801	mg/L	0.00075	0.0025
207-08-9	Benzo(k)fluoranthene		0.0814	mg/L	0.00075	0.0025
50-32-8	Benzo(a)pyrene		0.0782	mg/L	0.00075	0.0025
193-39-5	Indeno(1,2,3-cd)pyrene		0.0836	mg/L	0.00075	0.0025
53-70-3	Dibenzo(a,h)anthracene		0.0863	mg/L	0.00075	0.0025
191-24-2	Benzo(ghi)perylene		0.0801	mg/L	0.00075	0.0025
92-87-5	Benzidine	J	0.0166	mg/L	0.0075	0.025
91-94-1	3,3'-Dichlorobenzidine		0.0486	mg/L	0.0075	0.025
120-82-1	1,2,4-Trichlorobenzene		0.0726	mg/L	0.0075	0.025

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.195	0.250	mg/L	78.2	(33%-126%)
2-Fluorobiphenyl	0.0853	0.125	mg/L	68.2	(37%-102%)
2-Fluorophenol	0.122	0.250	mg/L	48.7	(14%-78%)
Nitrobenzene-d5	0.0972	0.125	mg/L	77.8	(40%-117%)
Phenol-d5	0.0918	0.250	mg/L	36.7	(14%-80%)
p-Terphenyl-d14	0.0947	0.125	mg/L	75.7	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0411.D
Acq On : 04 Sep 2011 18:04
Operator : JMB3
InstName : MSD6
Sample : |1202479918|1138552|1|SVM|1|MS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 06 08:56:17 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156971	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	544255	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.153	8.156	1.000	304089	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	486266	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	255734	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.283	15.285	1.000	142721	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156971	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	544255	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.153	8.156	1.000	304089	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	486266	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	255734	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.283	15.285	1.000	142721	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	544255	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.153	8.156	1.000	304089	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	486266	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	255734	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	540040	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.283	15.316	1.000	142721	40.00	ng/uL	-0.03
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156971	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	544255	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.153	8.156	1.000	304089	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	486266	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	255734	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156971	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	544255	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	255734	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.283	15.285	1.000	142721	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	247585	48.70	ng/uL	0.00
8) Phenol-d5	99	4.576	4.576	0.918	242619	36.73	ng/uL	0.00
25) Nitrobenzene-d5	82	5.528	5.531	0.881	202395	38.89	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.400	7.403	0.908	336760	34.11	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.009	9.006	1.105	105348	78.15	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	275268	37.87	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	48.70%
8) Phenol-d5	100.000	14 - 80	36.73%
25) Nitrobenzene-d5	50.000	40 - 117	77.78%
47) 2-Fluorobiphenyl	50.000	37 - 102	68.22%
66) 2,4,6-Tribromophenol	100.000	33 - 126	78.15%
83) p-Terphenyl-d14	50.000	44 - 134	75.74%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.803	2.808	0.562	101256	29.41	ng/uL	98
4) Pyridine	79	2.840	2.843	0.570	154498	31.68	ng/uL	99
6) p-Benzoquinone	54	4.229	4.232	0.848	3245	3.69	ng/uL	91
7) Aniline	66	4.667	4.672	0.936	108866	34.25	ng/uL	99
9) Phenol	94	4.587	4.593	0.920	150755	23.54	ng/uL	96
10) bis(2-Chloroethyl) ether	63	4.704	4.707	0.944	147221	31.56	ng/uL	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0411.D
Acq On : 04 Sep 2011 18:04
Operator : JMB3
InstName : MSD6
Sample : |1202479918|1138552|1|SVM|1|MS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 06 08:56:17 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
11)	2-Chlorophenol	128	4.781	4.780	0.959	168541	31.88	ng/uL	98
12)	n-Decane	43	4.778	4.783	0.958	187210	22.47	ng/uL	95
13)	1,3-Dichlorobenzene	146	4.931	4.934	0.989	151962	25.96	ng/uL	99
14)	1,4-Dichlorobenzene	146	5.002	5.005	1.003	153119	26.32	ng/uL	100
15)	1,2-Dichlorobenzene	146	5.150	5.153	1.033	146645	26.69	ng/uL	99
16)	bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	352844	32.57	ng/uL	99
17)	Benzyl alcohol	108	5.096	5.096	1.022	119470	33.57	ng/uL	98
18)	o-Cresol	107	5.173	5.175	1.038	134421	31.13	ng/uL	99
19)	m,p-Cresols	107	5.332	5.335	1.070	191597	35.19	ng/uL	91
20)	N-Nitrosodipropylamine	70	5.357	5.391	1.075	144264	34.83	ng/uL#	30
23)	Hexachloroethane	117	5.488	5.497	1.101	58481	24.05	ng/uL	98
26)	Nitrobenzene	77	5.551	5.553	0.885	194703	37.92	ng/uL	100
27)	Isophorone	82	5.786	5.795	0.922	395135	41.72	ng/uL	98
28)	2-Nitrophenol	139	5.866	5.872	0.935	96087	38.36	ng/uL	99
29)	2,4-Dimethylphenol	122	5.869	5.872	0.935	163160	37.92	ng/uL	95
30)	bis(2-Chloroethoxy)met...	93	5.977	5.980	0.952	189934	37.26	ng/uL	97
31)	2,4-Dichlorophenol	162	6.107	6.107	0.973	144127	37.37	ng/uL	98
32)	Benzoic acid	105	6.008	5.988	0.957	212379	69.82	ng/uL	82
33)	1,2,4-Trichlorobenzene	180	6.201	6.204	0.988	135738	29.04	ng/uL	98
35)	Naphthalene	128	6.298	6.301	1.004	406468	33.72	ng/uL	99
36)	4-Chloroaniline	127	6.335	6.332	1.010	188325	40.68	ng/uL	99
37)	Hexachlorobutadiene	225	6.400	6.403	1.020	78773	28.71	ng/uL	100
38)	4-Chloro-3-methylphenol	107	6.815	6.809	1.086	152188	38.28	ng/uL	100
39)	2-Methylnaphthalene	142	7.022	7.022	1.119	288594	33.87	ng/uL	99
41)	1-Methylnaphthalene	142	7.130	7.133	1.136	277768	34.76	ng/uL	99
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	71175	32.80	ng/uL	99
44)	2,3-Dichloroaniline	161	7.318	7.321	0.898	170963	33.67	ng/uL	96
45)	2,4,6-Trichlorophenol	196	7.309	7.309	0.896	105260	35.43	ng/uL	100
46)	2,4,5-Trichlorophenol	196	7.352	7.346	0.902	113240	36.80	ng/uL	96
48)	2-Chloronaphthalene	162	7.551	7.551	0.926	284331	32.06	ng/uL	99
49)	o-Nitroaniline	65	7.648	7.647	0.938	107457	34.87	ng/uL	98
51)	m-Nitroaniline	138	8.094	8.094	0.993	71836	34.47	ng/uL	97
52)	Dimethylphthalate	163	7.827	7.838	0.960	369913	38.03	ng/uL	100
54)	2,6-Dinitrotoluene	165	7.903	7.906	0.969	86581	35.92	ng/uL	87
55)	2,4-Dinitrotoluene	165	8.338	8.344	1.023	106282	35.40	ng/uL	94
56)	Acenaphthylene	152	8.003	8.008	0.982	410428	32.76	ng/uL	100
57)	Acenaphthene	154	8.190	8.193	1.005	297326	33.47	ng/uL	98
58)	2,4-Dinitrophenol	184	8.199	8.199	1.006	47677	42.13	ng/uL#	27
59)	Dibenzofuran	168	8.375	8.375	1.027	391427	35.58	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	8.491	8.491	1.041	93575	36.24	ng/uL	98
61)	Diethylphthalate	149	8.588	8.585	1.053	350645	38.39	ng/uL	100
62)	4-Nitrophenol	139	8.270	8.236	1.014	33841	23.49	ng/uL	92
63)	Fluorene	166	8.747	8.750	1.073	323637	33.69	ng/uL	100
64)	4-Chlorophenylphenylether	204	8.727	8.730	1.070	173166	34.25	ng/uL	98
65)	p-Nitroaniline	138	8.761	8.758	1.075	59760	36.65	ng/uL	93
68)	2-Methyl-4,6-dinitroph...	198	8.784	8.784	0.899	66217	42.17	ng/uL	98
69)	Diphenylamine	169	8.852	8.858	0.906	137117	17.08	ng/uL	98
70)	1,2-Diphenylhydrazine	77	8.903	8.903	0.911	360690	35.13	ng/uL	99
71)	4-Bromophenylphenylether	248	9.261	9.264	0.948	98726	32.92	ng/uL	99
72)	Hexachlorobenzene	284	9.341	9.341	0.956	104853	33.97	ng/uL	99
73)	Pentachlorophenol	266	9.548	9.543	0.977	67924	39.10	ng/uL	99
74)	n-Octadecane	57	9.580	9.582	0.980	270114	33.37	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0411.D
Acq On : 04 Sep 2011 18:04
Operator : JMB3
InstName : MSD6
Sample : |1202479918|1138552|1|SVM|1|MS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 06 08:56:17 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

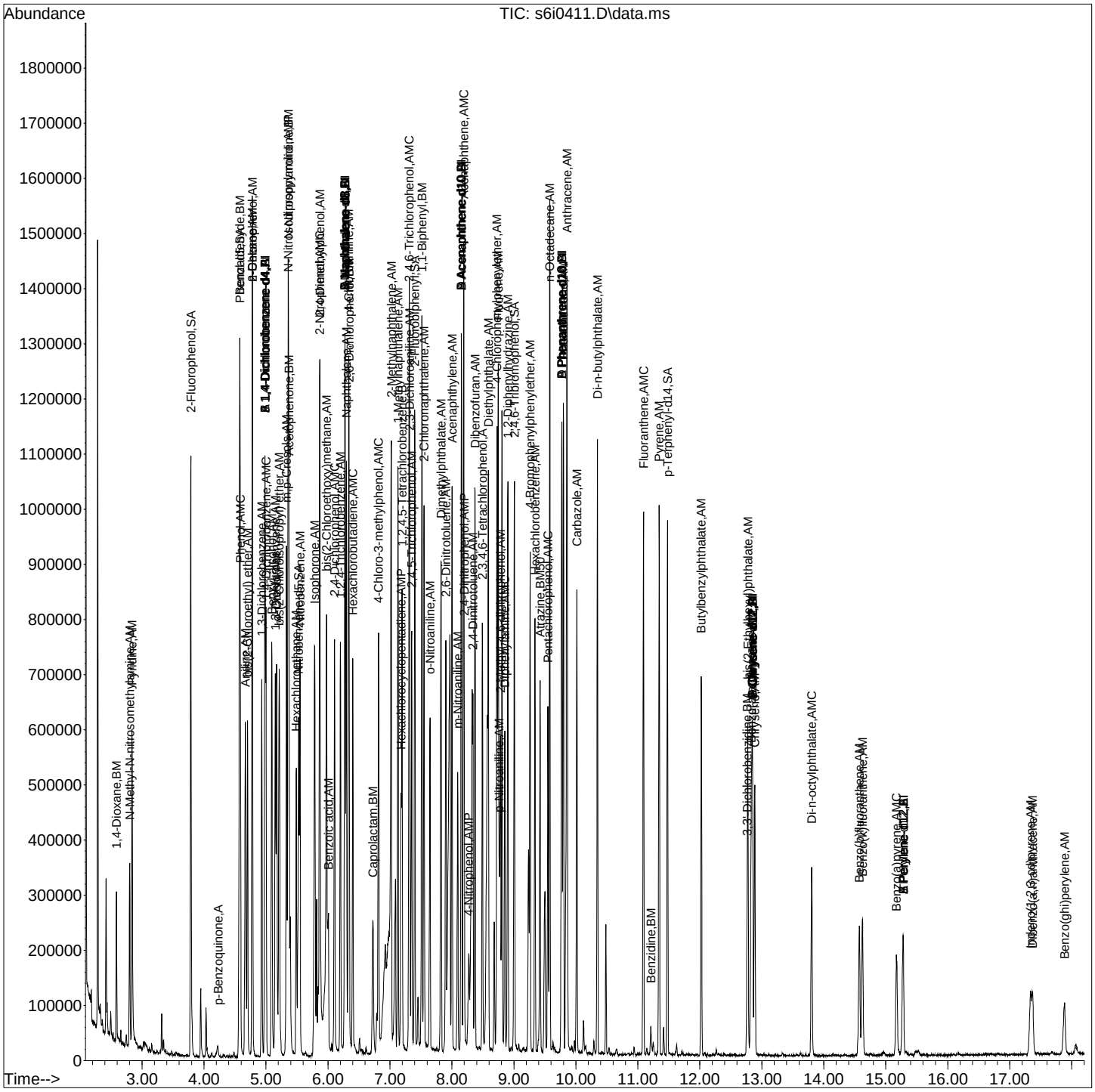
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Phenanthrene	178	9.799	9.801	1.003	428108	34.29	ng/uL	99
77)	Anthracene	178	9.855	9.858	1.008	427415	33.70	ng/uL	100
78)	Carbazole	167	10.014	10.014	1.025	334127	36.66	ng/uL	100
79)	Di-n-butylphthalate	149	10.350	10.350	1.059	493997	36.46	ng/uL	99
80)	Fluoranthene	202	11.091	11.094	1.135	401191	33.89	ng/uL	100
82)	Pyrene	202	11.344	11.347	0.883	396390	34.29	ng/uL	98
84)	Butylbenzylphthalate	149	12.023	12.026	0.936	152404	33.37	ng/uL	100
85)	bis(2-Ethylhexyl)phtha...	149	12.774	12.776	0.994	160485	31.37	ng/uL	97
86)	Benzo(a)anthracene	228	12.830	12.833	0.998	238361	32.76	ng/uL	99
87)	Chrysene	228	12.884	12.890	1.003	216595	32.99	ng/uL	99
90)	Di-n-octylphthalate	149	13.805	13.811	1.074	195985	29.92	ng/uL	99
92)	Benzo(b)fluoranthene	252	14.572	14.581	0.954	147799	32.02	ng/uL	99
93)	Benzo(k)fluoranthene	252	14.623	14.632	0.957	145015	32.56	ng/uL	98
94)	Benzo(a)pyrene	252	15.172	15.177	0.993	120242	31.28	ng/uL	98
95)	Indeno(1,2,3-cd)pyrene	276	17.334	17.351	1.134	97903	33.45	ng/uL	86
96)	Dibenzo(a,h)anthracene	278	17.368	17.371	1.136	82153	34.52	ng/uL	58
97)	Benzo(ghi)perylene	276	17.885	17.885	1.170	77262	32.04	ng/uL	99
100)	1,4-Dioxane	88	2.587	2.593	0.519	66589	29.21	ng/uL	97
108)	Benzaldehyde	77	4.579	4.579	0.918	112814	24.20	ng/uL	97
110)	N-Nitrosopyrrolidine	100	5.363	5.372	1.076	93090	34.25	ng/uL#	1
111)	Acetophenone	105	5.372	5.366	1.078	241121	32.20	ng/uL	98
117)	2,6-Dichlorophenol	162	6.340	6.340	1.010	150715	35.88	ng/uL	100
119)	Caprolactam	113	6.724	6.699	1.072	32292	20.38	ng/uL#	75
123)	1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	138283	28.20	ng/uL	100
124)	1,1-Biphenyl	154	7.517	7.517	0.922	371799	32.72	ng/uL	99
137)	Atrazine	200	9.423	9.418	0.964	80377	29.69	ng/uL	99
144)	Benzidine	184	11.211	11.214	1.147	19841	6.65	ng/uL	99
152)	3,3'-Dichlorobenzidine	252	12.762	12.762	0.993	38541	19.45	ng/uL	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0411.D
Acq On : 04 Sep 2011 18:04
Operator : JMB3
InstName : MSD6
Sample : |1202479918|1138552|1|SVM|1|MS
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 06 08:56:17 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479919**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860MSD**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 18:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**400 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0412.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		0.0778	mg/L	0.0075	0.025
108-95-2	Phenol		0.0644	mg/L	0.0075	0.025
111-44-4	bis(2-Chloroethyl) ether		0.0866	mg/L	0.0075	0.025
95-57-8	2-Chlorophenol		0.0858	mg/L	0.0075	0.025
39638-32-9	bis(2-Chloroisopropyl)ether		0.0861	mg/L	0.0075	0.025
621-64-7	N-Nitrosodi--n-propylamine		0.0953	mg/L	0.0075	0.025
	N-Nitrosodipropylamine					
67-72-1	Hexachloroethane		0.0608	mg/L	0.0075	0.025
98-95-3	Nitrobenzene		0.102	mg/L	0.0075	0.025
78-59-1	Isophorone		0.110	mg/L	0.0075	0.025
88-75-5	2-Nitrophenol		0.0985	mg/L	0.0075	0.025
105-67-9	2,4-Dimethylphenol		0.105	mg/L	0.0075	0.025
111-91-1	bis(2-Chloroethoxy)methane		0.0971	mg/L	0.0075	0.025
120-83-2	2,4-Dichlorophenol		0.101	mg/L	0.0075	0.025
87-68-3	Hexachlorobutadiene		0.0751	mg/L	0.0075	0.025
59-50-7	Parachlorometa cresol		0.102	mg/L	0.0075	0.025
	4-Chloro-3-methylphenol					
91-20-3	Naphthalene		0.0878	mg/L	0.00075	0.0025
77-47-4	Hexachlorocyclopentadiene		0.0865	mg/L	0.0075	0.025
88-06-2	2,4,6-Trichlorophenol		0.0925	mg/L	0.0075	0.025
91-58-7	2-Chloronaphthalene		0.0806	mg/L	0.00075	0.0025
131-11-3	Dimethylphthalate		0.0995	mg/L	0.0075	0.025
606-20-2	2,6-Dinitrotoluene		0.0937	mg/L	0.0075	0.025
121-14-2	2,4-Dinitrotoluene		0.0935	mg/L	0.0075	0.025
208-96-8	Acenaphthylene		0.0833	mg/L	0.00075	0.0025
83-32-9	Acenaphthene		0.086	mg/L	0.00075	0.0025
51-28-5	2,4-Dinitrophenol		0.110	mg/L	0.0125	0.050
84-66-2	Diethylphthalate		0.0985	mg/L	0.0075	0.025
100-02-7	4-Nitrophenol		0.0648	mg/L	0.0075	0.025
86-73-7	Fluorene		0.0856	mg/L	0.00075	0.0025
7005-72-3	4-Chlorophenylphenylether		0.0852	mg/L	0.0075	0.025
534-52-1	2-Methyl-4,6-dinitrophenol		0.115	mg/L	0.0075	0.025
122-39-4	Diphenylamine		0.0431	mg/L	0.0075	0.025
122-66-7	Azobenzene		0.0906	mg/L	0.0075	0.025
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		0.0862	mg/L	0.0075	0.025
118-74-1	Hexachlorobenzene		0.0896	mg/L	0.0075	0.025
87-86-5	Pentachlorophenol		0.103	mg/L	0.0075	0.025
85-01-8	Phenanthrene		0.0889	mg/L	0.00075	0.0025
120-12-7	Anthracene		0.0872	mg/L	0.00075	0.0025

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479919**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138551**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860MSD**	**Method:**	**EPA 625**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1138552**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**09/04/2011 18:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:50**	**Aliquot:**	**400 mL**	**Final Volume:**	**1 mL**
Data File:	**s090411.B\s6i0412.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
84-74-2	Di-n-butylphthalate		0.0937	mg/L	0.0075	0.025
206-44-0	Fluoranthene		0.0893	mg/L	0.00075	0.0025
129-00-0	Pyrene		0.0894	mg/L	0.00075	0.0025
85-68-7	Butylbenzylphthalate		0.0864	mg/L	0.0075	0.025
117-81-7	bis(2-Ethylhexyl)phthalate		0.0818	mg/L	0.0075	0.025
56-55-3	Benzo(a)anthracene		0.0856	mg/L	0.00075	0.0025
218-01-9	Chrysene		0.0875	mg/L	0.00075	0.0025
117-84-0	Di-n-octylphthalate		0.0811	mg/L	0.0075	0.025
205-99-2	Benzo(b)fluoranthene		0.0866	mg/L	0.00075	0.0025
207-08-9	Benzo(k)fluoranthene		0.0842	mg/L	0.00075	0.0025
50-32-8	Benzo(a)pyrene		0.0832	mg/L	0.00075	0.0025
193-39-5	Indeno(1,2,3-cd)pyrene		0.093	mg/L	0.00075	0.0025
53-70-3	Dibenzo(a,h)anthracene		0.098	mg/L	0.00075	0.0025
191-24-2	Benzo(ghi)perylene		0.090	mg/L	0.00075	0.0025
92-87-5	Benzidine	J	0.0201	mg/L	0.0075	0.025
91-94-1	3,3'-Dichlorobenzidine		0.0544	mg/L	0.0075	0.025
120-82-1	1,2,4-Trichlorobenzene		0.078	mg/L	0.0075	0.025

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	0.198	0.250	mg/L	79.1	(33%-126%)
2-Fluorobiphenyl	0.0841	0.125	mg/L	67.3	(37%-102%)
2-Fluorophenol	0.129	0.250	mg/L	51.4	(14%-78%)
Nitrobenzene-d5	0.102	0.125	mg/L	81.5	(40%-117%)
Phenol-d5	0.100	0.250	mg/L	40.1	(14%-80%)
p-Terphenyl-d14	0.0965	0.125	mg/L	77.2	(44%-134%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0412.D
Acq On : 04 Sep 2011 18:32
Operator : JMB3
InstName : MSD6
Sample : |1202479919|1138552|1|SVM|1|MSD
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 06 08:57:14 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156700	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	6.275	6.278	1.000	547234	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	8.153	8.156	1.000	313608	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	9.773	9.773	1.000	499398	40.00	ng/uL	0.00
81) A Chrysene-d12	240	12.850	12.853	1.000	263961	40.00	ng/uL	0.00
91) A Perylene-d12	264	15.280	15.285	1.000	149784	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156700	40.00	ng/uL	0.00
114) B Naphthalene-d8	136	6.275	6.278	1.000	547234	40.00	ng/uL	0.00
122) B Acenaphthene-d10	164	8.153	8.156	1.000	313608	40.00	ng/uL	0.00
131) B Phenanthrene-d10	188	9.773	9.773	1.000	499398	40.00	ng/uL	0.00
145) B Chrysene-d12	240	12.850	12.853	1.000	263961	40.00	ng/uL	0.00
153) B Perylene-d12	264	15.280	15.285	1.000	149784	40.00	ng/uL	0.00
156) D Naphthalene-d8	136	6.275	6.278	1.000	547234	40.00	ng/uL	0.00
158) D Acenaphthene-d10	164	8.153	8.156	1.000	313608	40.00	ng/uL	0.00
161) D Phenanthrene-d10	188	9.773	9.773	1.000	499398	40.00	ng/uL	0.00
168) D Chrysene-d12	240	12.850	12.853	1.000	263961	40.00	ng/uL	0.00
170) E Naphthalene-d8	136	6.275	6.278	1.000	548407	40.00	ng/uL	0.00
172) E Perylene-d12	264	15.280	15.316	1.000	149784	40.00	ng/uL	-0.04
174) F 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156700	40.00	ng/uL	0.00
177) F Naphthalene-d8	136	6.275	6.278	1.000	547234	40.00	ng/uL	0.00
181) F Acenaphthene-d10	164	8.153	8.156	1.000	313608	40.00	ng/uL	0.00
184) F Phenanthrene-d10	188	9.773	9.773	1.000	499398	40.00	ng/uL	0.00
188) F Chrysene-d12	240	12.850	12.853	1.000	263961	40.00	ng/uL	0.00
192) J 1,4-Dichlorobenzene-d4	152	4.985	4.988	1.000	156700	40.00	ng/uL	0.00
194) J Naphthalene-d8	136	6.275	6.278	1.000	547234	40.00	ng/uL	0.00
196) J Chrysene-d12	240	12.850	12.853	1.000	263961	40.00	ng/uL	0.00
199) J Perylene-d12	264	15.280	15.285	1.000	149784	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.789	3.789	0.760	260839	51.40	ng/uL	0.00
8) Phenol-d5	99	4.576	4.576	0.918	264419	40.10	ng/uL	0.00
25) Nitrobenzene-d5	82	5.528	5.531	0.881	213315	40.76	ng/uL	0.00
47) 2-Fluorobiphenyl	172	7.403	7.403	0.908	342413	33.63	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	9.009	9.006	1.105	109993	79.12	ng/uL	0.00
83) p-Terphenyl-d14	244	11.478	11.481	0.893	289600	38.60	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	14 - 78	51.40%
8) Phenol-d5	100.000	14 - 80	40.10%
25) Nitrobenzene-d5	50.000	40 - 117	81.52%
47) 2-Fluorobiphenyl	50.000	37 - 102	67.26%
66) 2,4,6-Tribromophenol	100.000	33 - 126	79.12%
83) p-Terphenyl-d14	50.000	44 - 134	77.20%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.803	2.808	0.562	106982	31.13	ng/uL	99
4) Pyridine	79	2.840	2.843	0.570	163487	33.58	ng/uL	99
6) p-Benzoquinone	54	4.226	4.232	0.848	3786	4.31	ng/uL	95
7) Aniline	66	4.670	4.672	0.937	120997	38.13	ng/uL	95
9) Phenol	94	4.590	4.593	0.921	164585	25.75	ng/uL	96
10) bis(2-Chloroethyl) ether	63	4.704	4.707	0.944	161237	34.63	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0412.D
Acq On : 04 Sep 2011 18:32
Operator : JMB3
InstName : MSD6
Sample : |1202479919|1138552|1|SVM|1|MSD
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 06 08:57:14 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
11)	2-Chlorophenol	128	4.781	4.780	0.959	181072	34.31	ng/uL	98
12)	n-Decane	43	4.778	4.783	0.958	185239	22.27	ng/uL	97
13)	1,3-Dichlorobenzene	146	4.931	4.934	0.989	158713	27.16	ng/uL	99
14)	1,4-Dichlorobenzene	146	5.002	5.005	1.003	160202	27.59	ng/uL	99
15)	1,2-Dichlorobenzene	146	5.153	5.153	1.034	154679	28.20	ng/uL	98
16)	bis(2-Chloroisopropyl)...	45	5.215	5.218	1.046	372233	34.42	ng/uL	100
17)	Benzyl alcohol	108	5.096	5.096	1.022	126281	35.54	ng/uL	97
18)	o-Cresol	107	5.173	5.175	1.038	144655	33.55	ng/uL	99
19)	m,p-Cresols	107	5.332	5.335	1.070	205771	37.86	ng/uL	91
20)	N-Nitrosodipropylamine	70	5.360	5.391	1.075	157626	38.12	ng/uL#	33
23)	Hexachloroethane	117	5.491	5.497	1.101	59039	24.33	ng/uL	98
26)	Nitrobenzene	77	5.551	5.553	0.885	209660	40.61	ng/uL	100
27)	Isophorone	82	5.786	5.795	0.922	417178	43.80	ng/uL	99
28)	2-Nitrophenol	139	5.866	5.872	0.935	99276	39.41	ng/uL	99
29)	2,4-Dimethylphenol	122	5.872	5.872	0.936	182509	42.18	ng/uL	90
30)	bis(2-Chloroethoxy)met...	93	5.977	5.980	0.952	199121	38.85	ng/uL	94
31)	2,4-Dichlorophenol	162	6.107	6.107	0.973	156528	40.36	ng/uL	99
32)	Benzoic acid	105	6.011	5.988	0.958	231628	75.74	ng/uL	85
33)	1,2,4-Trichlorobenzene	180	6.201	6.204	0.988	146690	31.21	ng/uL	99
34)	alpha-Terpineol	59	6.275	6.281	1.000	11447	2.28	ng/uL	96
35)	Naphthalene	128	6.298	6.301	1.004	425762	35.13	ng/uL	99
36)	4-Chloroaniline	127	6.335	6.332	1.010	204423	43.92	ng/uL	100
37)	Hexachlorobutadiene	225	6.400	6.403	1.020	82849	30.03	ng/uL	96
38)	4-Chloro-3-methylphenol	107	6.818	6.809	1.086	163801	40.98	ng/uL	99
39)	2-Methylnaphthalene	142	7.022	7.022	1.119	301540	35.20	ng/uL	97
41)	1-Methylnaphthalene	142	7.130	7.133	1.136	289505	36.03	ng/uL	99
43)	Hexachlorocyclopentadiene	237	7.179	7.179	0.880	77450	34.60	ng/uL	98
44)	2,3-Dichloroaniline	161	7.321	7.321	0.898	182611	34.88	ng/uL	98
45)	2,4,6-Trichlorophenol	196	7.312	7.309	0.897	113301	36.98	ng/uL	98
46)	2,4,5-Trichlorophenol	196	7.352	7.346	0.902	118391	37.30	ng/uL	98
48)	2-Chloronaphthalene	162	7.551	7.551	0.926	294651	32.22	ng/uL	99
49)	o-Nitroaniline	65	7.648	7.647	0.938	114968	36.17	ng/uL	100
51)	m-Nitroaniline	138	8.096	8.094	0.993	80373	37.39	ng/uL	99
52)	Dimethylphthalate	163	7.827	7.838	0.960	399362	39.81	ng/uL	100
54)	2,6-Dinitrotoluene	165	7.903	7.906	0.969	93144	37.47	ng/uL	82
55)	2,4-Dinitrotoluene	165	8.338	8.344	1.023	115847	37.41	ng/uL	95
56)	Acenaphthylene	152	8.003	8.008	0.982	430219	33.30	ng/uL	99
57)	Acenaphthene	154	8.190	8.193	1.005	315232	34.41	ng/uL	98
58)	2,4-Dinitrophenol	184	8.199	8.199	1.006	51418	44.06	ng/uL#	25
59)	Dibenzofuran	168	8.372	8.375	1.027	411200	36.24	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	8.494	8.491	1.042	100147	37.60	ng/uL	97
61)	Diethylphthalate	149	8.588	8.585	1.053	371069	39.40	ng/uL	100
62)	4-Nitrophenol	139	8.273	8.236	1.015	38495	25.91	ng/uL	96
63)	Fluorene	166	8.747	8.750	1.073	339182	34.24	ng/uL	98
64)	4-Chlorophenylphenylether	204	8.727	8.730	1.070	177740	34.09	ng/uL	99
65)	p-Nitroaniline	138	8.764	8.758	1.075	63856	37.97	ng/uL	92
68)	2-Methyl-4,6-dinitroph...	198	8.784	8.784	0.899	73987	45.88	ng/uL	98
69)	Diphenylamine	169	8.855	8.858	0.906	142079	17.23	ng/uL	99
70)	1,2-Diphenylhydrazine	77	8.903	8.903	0.911	382088	36.23	ng/uL	99
71)	4-Bromophenylphenylether	248	9.261	9.264	0.948	106216	34.48	ng/uL	98
72)	Hexachlorobenzene	284	9.341	9.341	0.956	113548	35.82	ng/uL	99
73)	Pentachlorophenol	266	9.551	9.543	0.977	73709	41.31	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0412.D
Acq On : 04 Sep 2011 18:32
Operator : JMB3
InstName : MSD6
Sample : |1202479919|1138552|1|SVM|1|MSD
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 06 08:57:14 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE

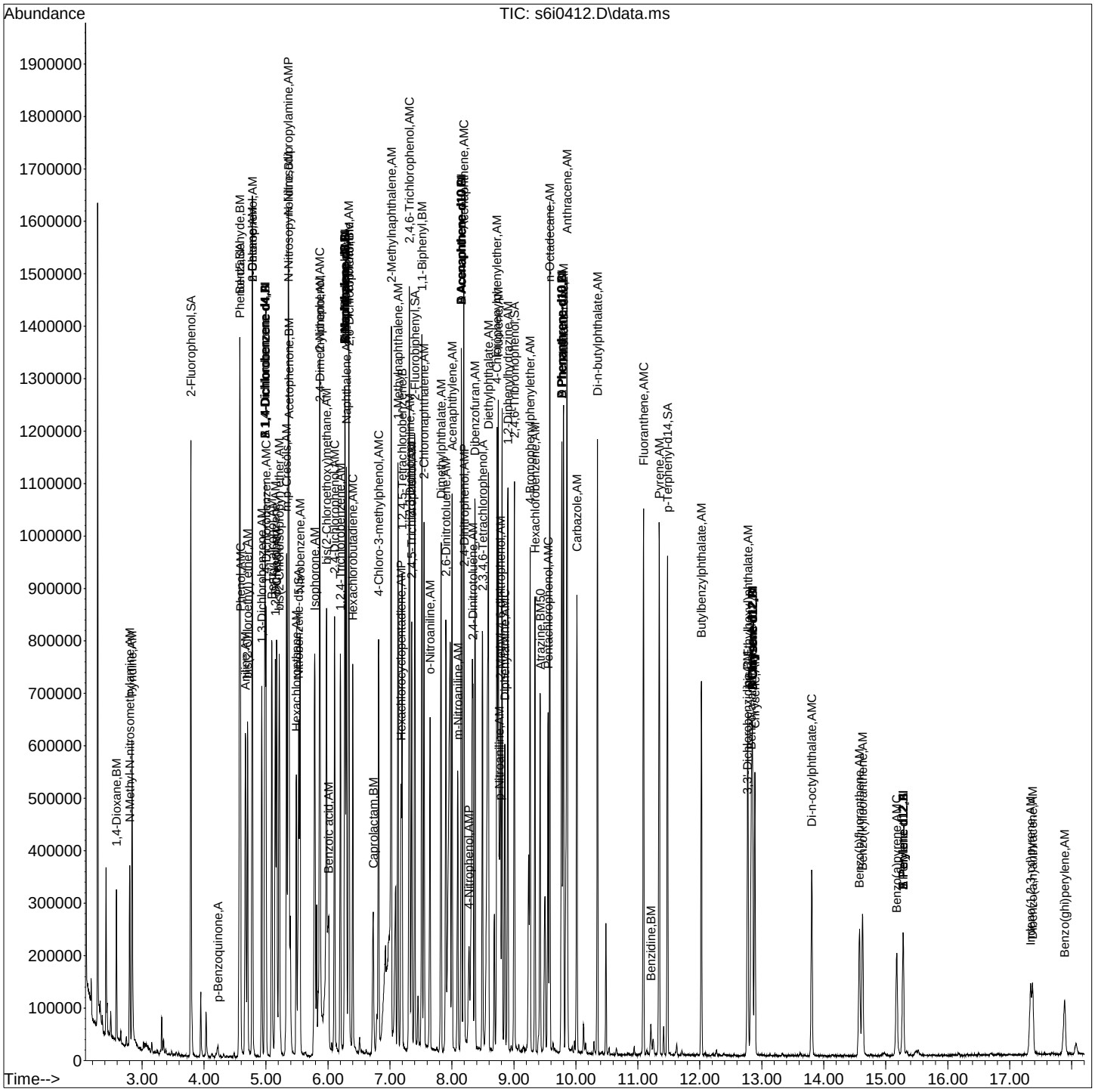
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
74)	n-Octadecane	57	9.580	9.582	0.980	286705	34.49	ng/uL	99
76)	Phenanthrene	178	9.801	9.801	1.003	455731	35.54	ng/uL	100
77)	Anthracene	178	9.855	9.858	1.008	454256	34.88	ng/uL	100
78)	Carbazole	167	10.017	10.014	1.025	367512	39.26	ng/uL	99
79)	Di-n-butylphthalate	149	10.350	10.350	1.059	521703	37.49	ng/uL	100
80)	Fluoranthene	202	11.091	11.094	1.135	434138	35.71	ng/uL	100
82)	Pyrene	202	11.347	11.347	0.883	426545	35.75	ng/uL	99
84)	Butylbenzylphthalate	149	12.026	12.026	0.936	162965	34.57	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	12.776	12.776	0.994	172717	32.71	ng/uL	98
86)	Benzo(a)anthracene	228	12.830	12.833	0.998	257201	34.25	ng/uL	99
87)	Chrysene	228	12.887	12.890	1.003	237072	34.99	ng/uL	98
90)	Di-n-octylphthalate	149	13.805	13.811	1.074	219170	32.42	ng/uL	99
92)	Benzo(b)fluoranthene	252	14.575	14.581	0.954	167826	34.65	ng/uL	95
93)	Benzo(k)fluoranthene	252	14.623	14.632	0.957	157422	33.68	ng/uL	98
94)	Benzo(a)pyrene	252	15.174	15.177	0.993	134233	33.28	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	17.334	17.351	1.134	114277	37.20	ng/uL	87
96)	Dibenzo(a,h)anthracene	278	17.365	17.371	1.136	97897	39.20	ng/uL	100
97)	Benzo(ghi)perylene	276	17.885	17.885	1.171	91053	35.98	ng/uL	99
100)	1,4-Dioxane	88	2.587	2.593	0.519	71766	31.54	ng/uL	96
108)	Benzaldehyde	77	4.579	4.579	0.918	114649	24.64	ng/uL	99
110)	N-Nitrosopyrrolidine	100	5.363	5.372	1.076	102980	37.95	ng/uL#	5
111)	Acetophenone	105	5.372	5.366	1.078	256249	34.28	ng/uL	100
117)	2,6-Dichlorophenol	162	6.340	6.340	1.010	161625	38.27	ng/uL	99
119)	Caprolactam	113	6.730	6.699	1.072	37165	23.33	ng/uL#	70
123)	1,2,4,5-Tetrachloroben...	216	7.196	7.196	0.883	146957	29.06	ng/uL	98
124)	1,1-Biphenyl	154	7.517	7.517	0.922	389448	33.24	ng/uL	100
137)	Atrazine	200	9.426	9.418	0.965	84849	30.51	ng/uL	100
144)	Benzidine	184	11.211	11.214	1.147	24575	8.02	ng/uL	98
152)	3,3'-Dichlorobenzidine	252	12.765	12.762	0.993	44523	21.76	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\s090411.B\
Data File : s6i0412.D
Acq On : 04 Sep 2011 18:32
Operator : JMB3
InstName : MSD6
Sample : |1202479919|1138552|1|SVM|1|MSD
Misc : |MSD625_L|UBN110329-01.4| MIX[A,B]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 06 08:57:14 2011
Quant Method : C:\msdchem\1\DATA\s090411.B\MSD6_625c_090411.m
Quant Title : BNA01 SubList :
QLast Update : Sun Sep 04 15:01:57 2011
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 1138551 **Verified by:** _____

Analyst: Victoria Quinlan

Method: EPA 625

Lab SOP: GL-OA-E-013 REV# 24

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202479916 MB	02-SEP-2011 16:50:00	1000	5	1	13	1	0.001
1202479917 LCS	02-SEP-2011 16:50:00	1000	5	1	13	1	0.001
285124001	02-SEP-2011 16:50:00	1000	7	1	13	1	0.001
1202479918 MS (285124001)	02-SEP-2011 16:50:00	400	7	1	13	1	0.0025
1202479919 MSD (285124001)	02-SEP-2011 16:50:00	400	7	1	13	1	0.0025
285124004	02-SEP-2011 16:50:00	970	7	1	13	1	0.00103
285124007	02-SEP-2011 16:50:00	800	7	1	13	1	0.00125

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202479917	BENZIDINE LCS	UE110817-03	1	mL
LCS	1202479917	BNA LCS w/o Benzidine 50ppm	UE110817-19	1	mL
MS	1202479918	BENZIDINE LCS	UE110817-03	1	mL
MS	1202479918	BNA LCS w/o Benzidine 50ppm	UE110817-19	1	mL
MSD	1202479919	BENZIDINE LCS	UE110817-03	1	mL
MSD	1202479919	BNA LCS w/o Benzidine 50ppm	UE110817-19	1	mL
SURR	All	BNA for all Surrogate	UE110728-28	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1607921	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1609473	10	mL
REGNT	All	Methylene Chloride	1609831-D	360	mL
SOURC	All	SODIUM SULFATE	1594298	30	g

Comments:

Sample 4001 was a significantly lighter shade of pink when acid was added and remained so during the acid phases compared to the MS/MSD 4001. Sample was also a lighter shade of yellow during the base phase. 20mL of CH2CL2 was used to rinse the salt thistles.

Verified By: AAW

Final Solvent: CH2CL2

ORGANIC RUN LOG - INSTRUMENT ID#MSD6

GEL ORGANIC RUN LOG

DATE: 1-Sep-11 METHOD: See Data OPERATOR: JMB3 REVIEWED BY: _____

REVIEWED DATE: _____

Multiplier Voltage: 1800
Internal Std ID: WBN110329-01.3

Calibration & QC Information:
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP: GL-OA-E-009

Solvent Lot: 157459-D
Sequence Number: S090111.B

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
09/01/2011 09:58	s6i0101.D	WBN110823-01	TUNE	DFTPP	1	1	JMB3	
09/01/2011 10:12	s6i0102.D	IBLK	IBLK	BLANK	1	2	JMB3	
09/01/2011 10:46	s6i0103.D	WBN110812-08	M1	DUSE	1	3	JMB3	DUSE: see s6i0107
09/01/2011 11:20	s6i0104.D	WBN110812-07	M2	ICAL	1	4	JMB3	
09/01/2011 11:55	s6i0105.D	WBN110812-06	M3	ICAL	1	5	JMB3	
09/01/2011 12:29	s6i0106.D	WBN110812-05.1	M4	ICAL	1	6	JMB3	
09/01/2011 13:03	s6i0107.D	WBN110812-08	M1	ICAL	1	3	JMB3	
09/01/2011 13:37	s6i0108.D	WBN110812-04	M5	ICAL	1	7	JMB3	
09/01/2011 14:11	s6i0109.D	WBN110812-03	M6	ICAL	1	8	JMB3	
09/01/2011 14:44	s6i0110.D	WBN110812-02	M7	ICAL	1	9	JMB3	
09/01/2011 15:18	s6i0111.D	WBN110812-01	M8	ICAL	1	10	JMB3	
09/01/2011 15:52	s6i0112.D	WBN110812-09.1	MICV	ICV	1	11	JMB3	
09/01/2011 16:27	s6i0113.D	WBN110825-17	A2	ICAL	1	12	JMB3	
09/01/2011 16:55	s6i0114.D	WBN110825-16	A3	ICAL	1	13	JMB3	
09/01/2011 17:24	s6i0115.D	WBN110825-15.1	A4	ICAL	1	14	JMB3	
09/01/2011 17:53	s6i0116.D	WBN110825-14	A5	ICAL	1	15	JMB3	
09/01/2011 18:22	s6i0117.D	WBN110825-13	A6	ICAL	1	16	JMB3	
09/01/2011 18:50	s6i0118.D	WBN110825-12	A7	ICAL	1	17	JMB3	
09/01/2011 19:20	s6i0119.D	WBN110825-11	A8	ICAL	1	18	JMB3	
09/01/2011 19:47	s6i0120.D	WBN110825-18.1	AICV	ICV	1	19	JMB3	
09/01/2011 20:17	s6i0121.D	WBN110823-01	TUNE	DFTPP	1	20	JMB3	
09/01/2011 20:31	s6i0122.D	IBLK	IBLK	BLANK	1	21	JMB3	
09/01/2011 21:05	s6i0123.D	WBN110827-25	P2	ICAL	1	22	JMB3	
09/01/2011 21:33	s6i0124.D	WBN110827-24	P3	ICAL	1	23	JMB3	
09/01/2011 22:01	s6i0125.D	WBN110827-23.1	P4	ICAL	1	24	JMB3	
09/01/2011 22:29	s6i0126.D	WBN110827-22	P5	ICAL	1	25	JMB3	
09/01/2011 22:57	s6i0127.D	WBN110827-21	P6	ICAL	1	26	JMB3	
09/01/2011 23:25	s6i0128.D	WBN110827-20	P7	ICAL	1	27	JMB3	

ORGANIC RUN LOG - INSTRUMENT ID#MSD6

GEL ORGANIC RUN LOG

09/01/2011 23:52	s6i0129.D	WBN110827-19	P8	ICAL	1	28	JMB3	
09/02/2011 00:20	s6i0130.D	WBN110827-26.1	PICV	ICV	1	29	JMB3	
09/02/2011 00:48	s6i0131.D	WBN110802-31	H2	ICAL	1	30	JMB3	
09/02/2011 01:16	s6i0132.D	WBN110802-32	H3	ICAL	1	31	JMB3	
09/02/2011 01:44	s6i0133.D	WBN110802-33.1	H4	ICAL	1	32	JMB3	
09/02/2011 02:11	s6i0134.D	WBN110802-34	H5	ICAL	1	33	JMB3	
09/02/2011 02:39	s6i0135.D	WBN110802-35	H6	ICAL	1	34	JMB3	
09/02/2011 03:07	s6i0136.D	WBN110802-36	H7	ICAL	1	35	JMB3	
09/02/2011 03:35	s6i0137.D	WBN110802-33.1	HCCV	CCV	1	32	JMB3	
09/02/2011 04:04	s6i0138.D	WBN110823-01	TUNE	DFTPP	1	36	JMB3	8270d only
09/02/2011 04:18	s6i0139.D	IBLK	IBLK	BLANK	1	37	JMB3	
09/02/2011 04:52	s6i0140.D	WBN110830-51	N2	ICAL	1	38	JMB3	8270d only
09/02/2011 05:19	s6i0141.D	WBN110830-52	N3	ICAL	1	39	JMB3	8270d only
09/02/2011 05:47	s6i0142.D	WBN110830-53	N4	ICAL	1	40	JMB3	8270d only
09/02/2011 06:15	s6i0143.D	WBN110830-54	N5	ICAL	1	41	JMB3	8270d only
09/02/2011 06:42	s6i0144.D	WBN110830-55	N6	ICAL	1	42	JMB3	8270d only
09/02/2011 07:10	s6i0145.D	WBN110830-56	N7	ICAL	1	43	JMB3	8270d only
09/02/2011 07:39	s6i0146.D	WBN110830-57	N8	ICAL	1	44	JMB3	8270d only
09/02/2011 08:07	s6i0147.D	WBN110830-53	NCCV	CCV	1	40	JMB3	8270d only
09/02/2011 08:34	s6i0148.D	WBN110802-47	B2	ICAL	1	45	JMB3	8270d only
09/02/2011 09:08	s6i0149.D	WBN110802-46	B3	ICAL	1	46	JMB3	8270d only
09/02/2011 09:42	s6i0150.D	WBN110802-45.1	B4	ICAL	1	47	JMB3	8270d only
09/02/2011 10:17	s6i0151.D	WBN110802-44	B5	ICAL	1	48	JMB3	8270d only
09/02/2011 10:50	s6i0152.D	WBN110802-43	B6	ICAL	1	49	JMB3	8270d only
09/02/2011 11:24	s6i0153.D	WBN110802-42	B7	ICAL	1	50	JMB3	8270d only
09/02/2011 11:57	s6i0154.D	WBN110802-41	B8	ICAL	1	51	JMB3	8270d only
09/02/2011 12:32	s6i0155.D	WBN110802-45.1	BCCV	CCV	1	47	JMB3	8270d only

ORGANIC RUN LOG - INSTRUMENT ID#MSD6

GEL ORGANIC RUN LOG

DATE: 4-Sep-11 METHOD: See Data OPERATOR: JMB3 REVIEWED BY:

REVIEWED DATE:

Multiplier Voltage: 1800
Internal Std ID: WBN110329-01.3

Calibration & QC Information:
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP: GL-OA-E-009

Solvent Lot: 157459-D
Sequence Number: S090411.B

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
09/04/2011	13:37	s6i0401.D	WBN110823-01	TUNE	DFTPP	1	1	JMB3	DUSE
09/04/2011	13:53	s6i0402.D	WBN110823-01	TUNE	DFTPP	1	1	JMB3	
09/04/2011	14:08	s6i0403.D	WBN110812-05.4	MCCV	CCV	1	2	JMB3	DUSE: see s6i0405
09/04/2011	14:41	s6i0404.D	WBN110825-15.4	ACCV	CCV	1	3	JMB3	
09/04/2011	15:09	s6i0405.D	WBN110812-05.4	MCCV	CCV	1	2	JMB3	IS1: 141346
09/04/2011	15:41	s6i0406.D	1202479916	MB	1138552	1	4	JMB3	
09/04/2011	16:10	s6i0407.D	1202479917	LCS	1138552	1	5	JMB3	
09/04/2011	16:39	s6i0408.D	1202479767	MB	1138494	1	6	JMB3	
09/04/2011	17:07	s6i0409.D	1202479768	LCS	1138494	1	7	JMB3	
09/04/2011	17:35	s6i0410.D	285124001	ARSL	1138552	1	8	JMB3	DUSE: Fails surr low - MS/MSD pass - see rr s6i0606
09/04/2011	18:04	s6i0411.D	1202479918	MS	1138552	1	9	JMB3	
09/04/2011	18:32	s6i0412.D	1202479919	MSD	1138552	1	10	JMB3	
09/04/2011	19:01	s6i0413.D	285124004	ARSL	1138552	1	11	JMB3	
09/04/2011	19:29	s6i0414.D	285124007	ARSL	1138552	1	12	JMB3	
09/04/2011	19:59	s6i0415.D	285063003	ARSL	1138494	1	13	JMB3	
09/04/2011	20:27	s6i0416.D	1202479769	MS	1138494	1	14	JMB3	
09/04/2011	20:55	s6i0417.D	1202479770	MSD	1138494	1	15	JMB3	
09/04/2011	21:24	s6i0418.D	285063008	ARSL	1138494	1	16	JMB3	
09/04/2011	21:52	s6i0419.D	285063010	ARSL	1138494	1	17	JMB3	
09/04/2011	22:21	s6i0420.D	285063013	ARSL	1138494	1	18	JMB3	
09/04/2011	22:49	s6i0421.D	1202479916	MB	1138552	1	4	JMB3	DUSE: rr not needed - see s6i0406 - file not printed
09/04/2011	23:17	s6i0422.D	1202479917	LCS	1138552	1	5	JMB3	DUSE: rr not needed - see s6i0407 - file not printed
09/04/2011	23:45	s6i0423.D	285124001	ARSL	1138552	1	8	JMB3	DUSE: rr not needed - see s6i0410 - file not printed
09/05/2011	00:13	s6i0424.D	1202479918	MS	1138552	1	9	JMB3	DUSE: rr not needed - see s6i0411 - file not printed
09/05/2011	00:41	s6i0425.D	1202479919	MSD	1138552	1	10	JMB3	DUSE: rr not needed - see s6i0412 - file not printed
09/05/2011	01:10	s6i0426.D	285124004	ARSL	1138552	1	11	JMB3	DUSE: rr not needed - see s6i0413 - file not printed
09/05/2011	01:38	s6i0427.D	285124007	ARSL	1138552	1	12	JMB3	DUSE: rr not needed - see s6i0414 - file not printed

ORGANIC RUN LOG - INSTRUMENT ID#MSD6

GEL ORGANIC RUN LOG

DATE: 6-Sep-11 METHOD: See Data OPERATOR: JMB3 REVIEWED BY: _____

REVIEWED DATE: _____

Multiplier Voltage: 1800
Internal Std ID: WBN110329-01.3

Calibration & QC Information:
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP: GL-OA-E-009

Solvent Lot: 157459-D
Sequence Number: S090611.B

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
09/06/2011	11:25	s6i0601.D	WBN110823-01	TUNE	DFTPP	1	1	JMB3	
09/06/2011	11:38	s6i0602.D	WBN110812-05.3	MCCV	CCV	1	2	JMB3	IS1: 144927
09/06/2011	12:13	s6i0603.D	WBN110719-15.3	ACCV	CCV	1	3	JMB3	
09/06/2011	12:42	s6i0604.D	WBN110812-05.3	MCCV	DUSE	1	2	JMB3	DUSE: see s6i0602
09/06/2011	13:16	s6i0605.D	WBN110827-23.4	PCCV	CCV	1	4	JMB3	
09/06/2011	13:45	s6i0606.D	285124001	ARSL	1138552	1	5	JMB3	

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	EPA 625	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1138552	See Below		

Potentially affected work order(s)(SDG): 285124(11-3386)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202479918) and MSD(1202479919) recovered spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	1. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Originator's Name:

Josh Brooks 06-SEP-11

Data Validator/Group Leader:

Barbara Bailey 07-SEP-11

GC Semivolatile Pesticide Analysis

Case Narrative

Pesticide Case Narrative
ARS International (ARSL)
SDG 11-3386

Method/Analysis Information

Procedure:	**Organochlorine Pesticides and Chlorinated Hydrocarbons**
Analytical Method:	SW846 3535A/8081A
Prep Method:	SW846 3535A
Analytical Batch Number:	1138554
Prep Batch Number:	1138553

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535A/8081A:

Sample ID	Client ID
285124003	NPDES03A199-11-13860
285124006	NPDES03A113-11-13857
1202479920	Method Blank (MB)
1202479921	Laboratory Control Sample (LCS)
1202479924	Laboratory Control Sample (TLCS) – Toxaphene Only LCS
1202479922	285063001(CAPU-11-26374) Matrix Spike (MS)
1202479923	285063001(CAPU-11-26374) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 11.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One or more of the five quantified peaks in the multi-component Toxaphene standard bracketing the samples in this SDG recovered outside of the acceptance criteria with a positive or negative bias; however, the average concentration of the five quantified peaks met the acceptance criteria. Therefore, the non-compliance had no adverse effects on the data.

Several target analytes recovered outside of the acceptance criteria with a positive bias on one analytical column in the CCV standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the client samples; therefore, the non-compliance had no adverse effects on the data.

All analytes were within the established retention time windows for this method.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria in the extracted samples associated with this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
An ARSL sample of similar matrix associated with another SDG (#11-3366) was selected for analysis as the matrix spike and matrix spike duplicate. The associated forms and raw data file were included in this package to summarize the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries (associated with another SDG (#11-3366)) were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries (associated with another SDG (#11-3366)) were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between the MS and MSD (associated with another SDG (#11-3366)) were not within the required acceptance limits due to relatively higher spike recoveries in the MS in comparison with the MSD; however, both the MS and the MSD individually met the spike recovery acceptance criteria. In addition, there were no target analytes detected above the PQL in the client samples. See DER #993978 located in the Miscellaneous Data section.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All reported analyte detections in client and quality control samples were within the established retention time windows. Reported analyte concentrations were confirmed on a dissimilar analytical column.

Sample Dilutions
Samples 285124003 (NPDES03A199-11-13860) (1:10) and 285124006 (NPDES03A113-11-13857) (1:5) were diluted due to high concentrations of non-target analytes within the retention time window of interest.

Sample Re-extraction/Re-analysis
Re-extractions were not required in this SDG.

Florisil
Florisil clean-up was performed on client and quality control samples in this batch.

Miscellaneous Information:

Electronic Package Comment
This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data Exception Reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER #993978 was generated for this SDG. A copy was included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower of the results from either column have been chosen and reported in the data package for the client samples, MB, and LCS's. The matrix QC results were reported from the same analytical column as the parent sample.

The data reported on the forms I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analyte.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7673 Autosampler	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7673 Autosampler	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Ann Fox Date: 09/09/2011

Roadmap for ARSL 11-3386 PEST

This roadmap was analyzed by jam00798 on 09-07-2011, 14:12.
This roadmap was reviewed by jen01212 on 09-07-2011, 14:54.
This roadmap was packaged by hea01125 on 09-09-2011, 13:14.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/090611.b/032f3201.d	285124003	sample	06-SEP-2011	16:55	11-3386.sub	NPDES03A199-11-1386	1.00000	1138554	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711
□	N	/chem/ecd7a.i/090711.b/013f1301.d	285124003	sample	07-SEP-2011	12:17	11-3386.sub	NPDES03A199-11-1386	10.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/035f3501.d	285124006	sample	06-SEP-2011	17:46	11-3386.sub	NPDES03A113-11-1385	1.00000	1138554	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711
□	N	/chem/ecd7a.i/090711.b/014f1401.d	285124006	sample	07-SEP-2011	12:34	11-3386.sub	NPDES03A113-11-1385	5.00000	1138554	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/090611.b/032b3201.d	285124003	sample	06-SEP-2011	16:55	11-3386.sub	NPDES03A199-11-1386	1.00000	1138554	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711
□	N	/chem/ecd7a.i/090711.b/013b1301.d	285124003	sample	07-SEP-2011	12:17	11-3386.sub	NPDES03A199-11-1386	10.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/035b3501.d	285124006	sample	06-SEP-2011	17:46	11-3386.sub	NPDES03A113-11-1385	1.00000	1138554	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711
□	N	/chem/ecd7a.i/090711.b/014b1401.d	285124006	sample	07-SEP-2011	12:34	11-3386.sub	NPDES03A113-11-1385	5.00000	1138554	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/090611.b/023f2301.d	1202479920	mb	06-SEP-2011	14:22	11-3366.sub	PBLK01	1.00000	1138554	USE: LOWER
□	N	/chem/ecd7a.i/090611.b/023f2301A.d	1202479920	mb	06-SEP-2011	14:22	11-3386.sub	PBLK01	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/024f2401.d	1202479921	lcs	06-SEP-2011	14:39	11-3366.sub	PBLK01LCS	1.00000	1138554	USE: LOWER
□	N	/chem/ecd7a.i/090611.b/024f2401A.d	1202479921	lcs	06-SEP-2011	14:39	11-3386.sub	PBLK01LCS	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/025f2501.d	1202479924	lcs	06-SEP-2011	14:56	11-3366.sub	PBLK01TLCS	1.00000	1138554	USE: LOWER
□	N	/chem/ecd7a.i/090611.b/025f2501A.d	1202479924	lcs	06-SEP-2011	14:56	11-3386.sub	PBLK01TLCS	1.00000	1138554	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/090611.b/023b2301.d	1202479920	mb	06-SEP-2011	14:22	11-3366.sub	PBLK01	1.00000	1138554	USE: LOWER
□	N	/chem/ecd7a.i/090611.b/023b2301A.d	1202479920	mb	06-SEP-2011	14:22	11-3386.sub	PBLK01	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/024b2401.d	1202479921	lcs	06-SEP-2011	14:39	11-3366.sub	PBLK01LCS	1.00000	1138554	USE: LOWER
□	N	/chem/ecd7a.i/090611.b/024b2401A.d	1202479921	lcs	06-SEP-2011	14:39	11-3386.sub	PBLK01LCS	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/025b2501.d	1202479924	lcs	06-SEP-2011	14:56	11-3366.sub	PBLK01TLCS	1.00000	1138554	USE: LOWER

☐	N	/chem/ecd7a.i/090611.b/025b2501A.d	1202479924	lcs	06-SEP-2011	14:56	11-3386.sub	PBLK01TLCS	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/027b2701.d	1202479922	ms	06-SEP-2011	15:30	11-3366.sub	CAPU-11-26374MS	1.00000	1138554	USE: LOWER
■	N	/chem/ecd7a.i/090611.b/028b2801.d	1202479923	msd	06-SEP-2011	15:47	11-3366.sub	CAPU-11-26374MSD	1.00000	1138554	USE: LOWER

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3386 GEL Work Order: 285124

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Heather Ann Joy **Name: Heather Joy**

Date: 09 SEP 2011 **Title: Data Validator**

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124003**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**09/07/2011 12:17**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	013b1301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.211	ug/L	0.070	0.211	1
58-89-9	gamma-BHC (Lindane)	U	0.211	ug/L	0.070	0.211	1
319-85-7	beta-BHC	U	0.211	ug/L	0.070	0.211	1
72-43-5	Methoxychlor	U	2.11	ug/L	0.526	2.11	1
319-86-8	delta-BHC	U	0.211	ug/L	0.070	0.211	1
76-44-8	Heptachlor	U	0.211	ug/L	0.070	0.211	1
309-00-2	Aldrin	U	0.211	ug/L	0.070	0.211	1
1024-57-3	Heptachlor epoxide	U	0.211	ug/L	0.070	0.211	1
5103-74-2	gamma-Chlordane	U	0.211	ug/L	0.070	0.211	1
5103-71-9	alpha-Chlordane	U	0.211	ug/L	0.070	0.211	1
959-98-8	Endosulfan I	U	0.211	ug/L	0.070	0.211	1
72-55-9	4,4'-DDE	U	0.421	ug/L	0.105	0.421	1
60-57-1	Dieldrin	U	0.421	ug/L	0.105	0.421	1
72-20-8	Endrin	U	0.421	ug/L	0.105	0.421	1
72-54-8	4,4'-DDD	U	0.421	ug/L	0.105	0.421	1
33213-65-9	Endosulfan II	U	0.421	ug/L	0.105	0.421	1
7421-93-4	Endrin aldehyde	U	0.421	ug/L	0.070	0.421	1
50-29-3	4,4'-DDT	U	0.421	ug/L	0.105	0.421	1
1031-07-8	Endosulfan sulfate	U	0.421	ug/L	0.105	0.421	1
53494-70-5	Endrin ketone	U	0.421	ug/L	0.105	0.421	1
8001-35-2	Toxaphene	U	5.26	ug/L	1.58	5.26	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.947	1.05	ug/L	89.9	(23%-119%)
4cmx	0.741	1.05	ug/L	70.4	(21%-109%)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124006**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**5**
Run Date:	**09/07/2011 12:34**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	014b1401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.105	ug/L	0.035	0.105	1
58-89-9	gamma-BHC (Lindane)	U	0.105	ug/L	0.035	0.105	1
319-85-7	beta-BHC	U	0.105	ug/L	0.035	0.105	1
72-43-5	Methoxychlor	U	1.05	ug/L	0.263	1.05	1
319-86-8	delta-BHC	U	0.105	ug/L	0.035	0.105	1
76-44-8	Heptachlor	U	0.105	ug/L	0.035	0.105	1
309-00-2	Aldrin	U	0.105	ug/L	0.035	0.105	1
1024-57-3	Heptachlor epoxide	U	0.105	ug/L	0.035	0.105	1
5103-74-2	gamma-Chlordane	U	0.105	ug/L	0.035	0.105	1
5103-71-9	alpha-Chlordane	U	0.105	ug/L	0.035	0.105	1
959-98-8	Endosulfan I	U	0.105	ug/L	0.035	0.105	1
72-55-9	4,4'-DDE	U	0.211	ug/L	0.0526	0.211	1
60-57-1	Dieldrin	U	0.211	ug/L	0.0526	0.211	1
72-20-8	Endrin	U	0.211	ug/L	0.0526	0.211	1
72-54-8	4,4'-DDD	U	0.211	ug/L	0.0526	0.211	1
33213-65-9	Endosulfan II	U	0.211	ug/L	0.0526	0.211	1
7421-93-4	Endrin aldehyde	U	0.211	ug/L	0.035	0.211	1
50-29-3	4,4'-DDT	U	0.211	ug/L	0.0526	0.211	1
1031-07-8	Endosulfan sulfate	U	0.211	ug/L	0.0526	0.211	1
53494-70-5	Endrin ketone	U	0.211	ug/L	0.0526	0.211	1
8001-35-2	Toxaphene	U	2.63	ug/L	0.789	2.63	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.742	1.05	ug/L	70.5	(21%-109%)
Decachlorobiphenyl	0.971	1.05	ug/L	92.3	(23%-119%)

QC Summary

Pesticide

Surrogate Recovery Report

SDG Number: 11-3386

Matrix Type: LIQUID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202479920	MB for batch 1138553	76		73		100		101	
1202479921	LCS for batch 1138553	71		69		88		89	
1202479924	LCS for batch 1138553	80		77		113		117	
1202479922	CAPU-11-26374MS	77		77		107		109	
1202479923	CAPU-11-26374MSD	52		53		78		79	
285124003	NPDES03A199-11-13860	74	D	70	D	90	D	91	D
285124006	NPDES03A113-11-13857	71	D	72	D	92	D	95	D

Surrogate		Acceptance Limits
4CMX	= 4cmx	(21%-109%)
DCB	= Decachlorobiphenyl	(23%-119%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138553**
Lab Sample ID: **1202479921**
Instrument: **ECD7A.I**
Analyst: **JXM**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **09/06/2011 14:39**
Prep Batch ID: **1138553**
Batch ID: **1138554**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.429	86	49-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.435	87	51-134
319-85-7	LCS	beta-BHC	0.500	0.0	0.420	84	51-128
72-43-5	LCS	Methoxychlor	5.00	0.0	4.97	99	55-132
319-86-8	LCS	delta-BHC	0.500	0.0	0.461	92	53-136
76-44-8	LCS	Heptachlor	0.500	0.0	0.409	82	37-122
309-00-2	LCS	Aldrin	0.500	0.0	0.401	80	36-117
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.442	88	53-125
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.457	91	50-133
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.445	89	53-137
959-98-8	LCS	Endosulfan I	0.500	0.0	0.322	64	47-126
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.05	84	56-136
60-57-1	LCS	Dieldrin	1.25	0.0	1.14	91	55-134
72-20-8	LCS	Endrin	1.25	0.0	1.08	87	66-143
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.08	86	61-141
33213-65-9	LCS	Endosulfan II	1.25	0.0	0.980	78	50-131
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.04	84	55-133
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.18	94	67-143
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.22	98	59-141
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.25	100	58-135

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138553**
Lab Sample ID: **1202479924**
Instrument: **ECD7A.I**
Analyst: **JXM**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **09/06/2011 14:56**
Prep Batch ID: **1138553**
Batch ID: **1138554**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS	Toxaphene	4.00	0.0	4.71	118	39-144

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **CAPU-11-26374MS**
Lab Sample ID: **1202479922**
Instrument: **ECD7A.I**
Analyst: **JXM**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WG**
Analysis Date: **09/06/2011 15:30**
Prep Batch ID: **1138553**
Batch ID: **1138554**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.526	0.00	U	0.550	104	36-124
58-89-9	MS	gamma-BHC (Lindane)	0.526	0.00	U	0.565	107	39-128
319-85-7	MS	beta-BHC	0.526	0.00	U	0.538	102	35-129
72-43-5	MS	Methoxychlor	5.26	0.00	U	6.05	115	43-135
319-86-8	MS	delta-BHC	0.526	0.00	U	0.585	111	35-137
76-44-8	MS	Heptachlor	0.526	0.00	U	0.534	102	36-116
309-00-2	MS	Aldrin	0.526	0.00	U	0.488	93	31-115
1024-57-3	MS	Heptachlor epoxide	0.526	0.00	U	0.548	104	41-121
5103-74-2	MS	gamma-Chlordane	0.526	0.00	U	0.556	106	40-131
5103-71-9	MS	alpha-Chlordane	0.526	0.00	U	0.598	114	41-135
959-98-8	MS	Endosulfan I	0.526	0.00	U	0.395	75	31-128
72-55-9	MS	4,4'-DDE	1.32	0.00	U	1.49	113	40-134
60-57-1	MS	Dieldrin	1.32	0.00	U	1.39	106	38-133
72-20-8	MS	Endrin	1.32	0.00	U	1.51	115	46-150
72-54-8	MS	4,4'-DDD	1.32	0.00	U	1.54	117	41-142
33213-65-9	MS	Endosulfan II	1.32	0.00	U	1.26	96	38-128
7421-93-4	MS	Endrin aldehyde	1.32	0.00	U	1.38	105	42-128
50-29-3	MS	4,4'-DDT	1.32	0.00	U	1.56	119	40-148
1031-07-8	MS	Endosulfan sulfate	1.32	0.00	U	1.49	113	42-139
53494-70-5	MS	Endrin ketone	1.32	0.00	U	1.48	112	45-132

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **CAPU-11-26374MSD**
Lab Sample ID: **1202479923**
Instrument: **ECD7A.I**
Analyst: **JXM**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **WG**
Analysis Date: **09/06/2011 15:47**
Prep Batch ID: **1138553**
Batch ID: **1138554**
Dilution: **1**

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.526	0.00	U	0.388	74	36-124	35 *	0-20
58-89-9	MSD gamma-BHC (Lindane)	0.526	0.00	U	0.402	76	39-128	34 *	0-20
319-85-7	MSD beta-BHC	0.526	0.00	U	0.382	73	35-129	34 *	0-20
72-43-5	MSD Methoxychlor	5.26	0.00	U	4.41	84	43-135	31 *	0-20
319-86-8	MSD delta-BHC	0.526	0.00	U	0.417	79	35-137	34 *	0-20
76-44-8	MSD Heptachlor	0.526	0.00	U	0.373	71	36-116	36 *	0-20
309-00-2	MSD Aldrin	0.526	0.00	U	0.347	66	31-115	34 *	0-20
1024-57-3	MSD Heptachlor epoxide	0.526	0.00	U	0.396	75	41-121	32 *	0-20
5103-74-2	MSD gamma-Chlordane	0.526	0.00	U	0.405	77	40-131	32 *	0-20
5103-71-9	MSD alpha-Chlordane	0.526	0.00	U	0.435	83	41-135	32 *	0-20
959-98-8	MSD Endosulfan I	0.526	0.00	U	0.286	54	31-128	32 *	0-20
72-55-9	MSD 4,4'-DDE	1.32	0.00	U	1.10	84	40-134	30 *	0-20
60-57-1	MSD Dieldrin	1.32	0.00	U	1.02	77	38-133	31 *	0-20
72-20-8	MSD Endrin	1.32	0.00	U	1.08	82	46-150	33 *	0-20
72-54-8	MSD 4,4'-DDD	1.32	0.00	U	1.06	81	41-142	37 *	0-20
33213-65-9	MSD Endosulfan II	1.32	0.00	U	0.910	69	38-128	32 *	0-20
7421-93-4	MSD Endrin aldehyde	1.32	0.00	U	0.897	68	42-128	43 *	0-20
50-29-3	MSD 4,4'-DDT	1.32	0.00	U	1.13	86	40-148	32 *	0-20
1031-07-8	MSD Endosulfan sulfate	1.32	0.00	U	1.09	83	42-139	31 *	0-20
53494-70-5	MSD Endrin ketone	1.32	0.00	U	1.09	82	45-132	31 *	0-20

Method Blank Summary

SDG Number:	**11-3386**	**Client:**	**ARSL001**	**Matrix:**	**WATER**
Client ID:	**MB for batch 1138553**	**Instrument ID:**	**ECD7A.I_2** **ECD7A.I_1**	**Data File:**	**023b2301.d** **023f2301.d**
Lab Sample ID:	**1202479920**				
Column:	**CLP-2** **CLP-1**	**Prep Date:**	**09/02/2011 16:55**	**Analyzed:**	**09/06/11 14:22**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1138553	**1202479921**	**024f2401.d** **024b2401.d**	**09/06/11**	**1439**
02 LCS for batch 1138553	**1202479924**	**025f2501.d** **025b2501.d**	**09/06/11**	**1456**
03 CAPU-11-26374MS	**1202479922**	**027f2701.d** **027b2701.d**	**09/06/11**	**1530**
04 CAPU-11-26374MSD	**1202479923**	**028f2801.d** **028b2801.d**	**09/06/11**	**1547**
05 NPDES03A199-11-13860	**285124003**	**013f1301.d** **013b1301.d**	**09/07/11**	**1217**
06 NPDES03A113-11-13857	**285124006**	**014f1401.d** **014b1401.d**	**09/07/11**	**1234**

Sample Data

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124003**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**09/07/2011 12:17**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	013b1301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.211	ug/L	0.070	0.211	1
58-89-9	gamma-BHC (Lindane)	U	0.211	ug/L	0.070	0.211	1
319-85-7	beta-BHC	U	0.211	ug/L	0.070	0.211	1
72-43-5	Methoxychlor	U	2.11	ug/L	0.526	2.11	1
319-86-8	delta-BHC	U	0.211	ug/L	0.070	0.211	1
76-44-8	Heptachlor	U	0.211	ug/L	0.070	0.211	1
309-00-2	Aldrin	U	0.211	ug/L	0.070	0.211	1
1024-57-3	Heptachlor epoxide	U	0.211	ug/L	0.070	0.211	1
5103-74-2	gamma-Chlordane	U	0.211	ug/L	0.070	0.211	1
5103-71-9	alpha-Chlordane	U	0.211	ug/L	0.070	0.211	1
959-98-8	Endosulfan I	U	0.211	ug/L	0.070	0.211	1
72-55-9	4,4'-DDE	U	0.421	ug/L	0.105	0.421	1
60-57-1	Dieldrin	U	0.421	ug/L	0.105	0.421	1
72-20-8	Endrin	U	0.421	ug/L	0.105	0.421	1
72-54-8	4,4'-DDD	U	0.421	ug/L	0.105	0.421	1
33213-65-9	Endosulfan II	U	0.421	ug/L	0.105	0.421	1
7421-93-4	Endrin aldehyde	U	0.421	ug/L	0.070	0.421	1
50-29-3	4,4'-DDT	U	0.421	ug/L	0.105	0.421	1
1031-07-8	Endosulfan sulfate	U	0.421	ug/L	0.105	0.421	1
53494-70-5	Endrin ketone	U	0.421	ug/L	0.105	0.421	1
8001-35-2	Toxaphene	U	5.26	ug/L	1.58	5.26	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.947	1.05	ug/L	89.9	(23%-119%)
4cmx	0.741	1.05	ug/L	70.4	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/013f1301.d
Lab Smp Id: 285124003 Client Smp ID: NPDES03A199-11-1386
Inj Date : 07-SEP-2011 12:17
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285124003|10|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:25 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.885	2.884	0.001	19368817	14.7726	0.778	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.090	8.090	0.000	16020322	17.9859	0.947	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/013f1301.d

Page 1

Date : 07-SEP-2011 12:17

Client ID: NPDES03A199-11-1386

Instrument: ecd7a.i

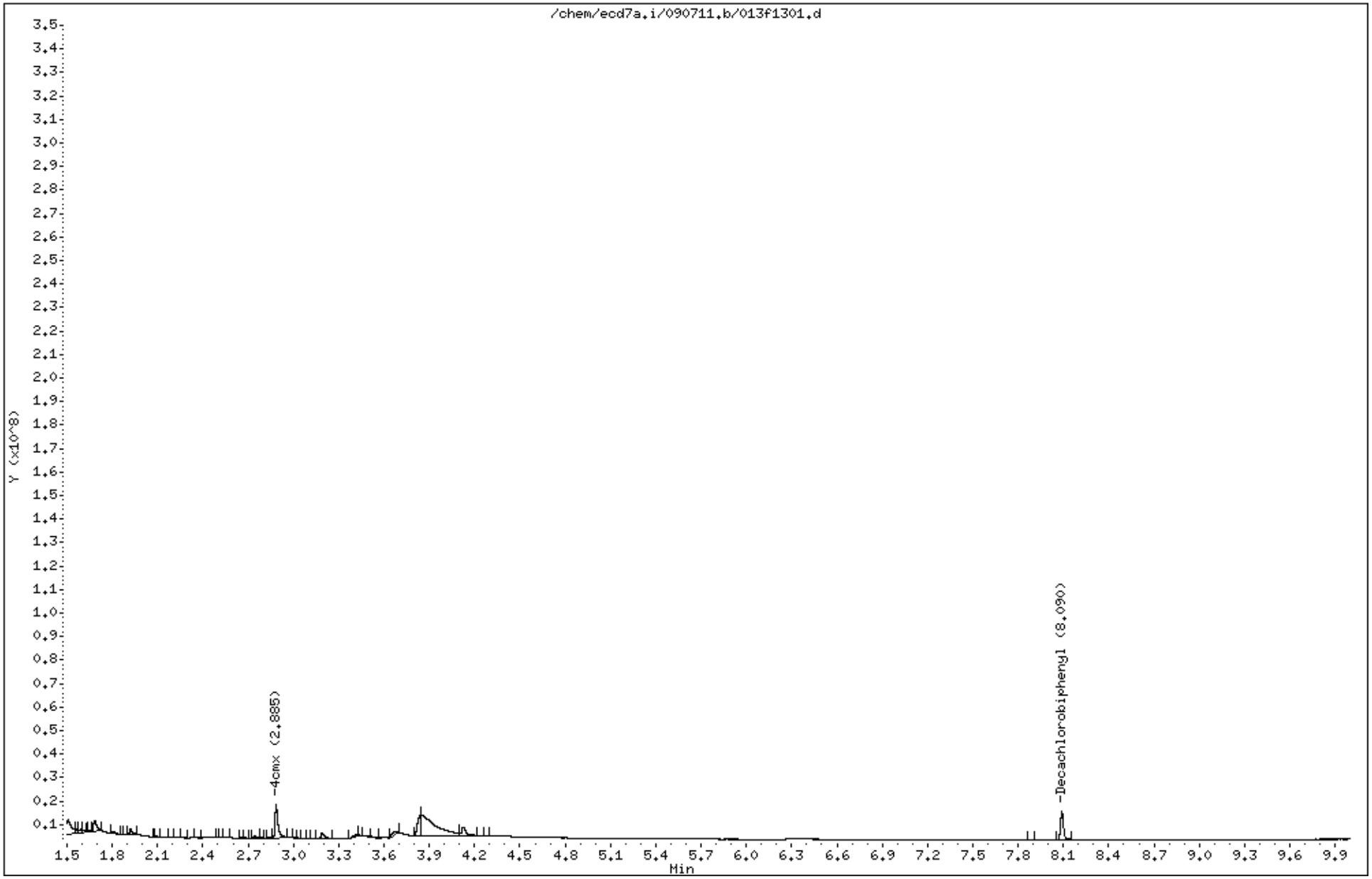
Sample Info: |285124003|10|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/013b1301.d
Lab Smp Id: 285124003 Client Smp ID: NPDES03A199-11-1386
Inj Date : 07-SEP-2011 12:17
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285124003|10|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.923	0.000	19222777	14.0783	0.741	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.703	8.704	-0.001	18826837	18.1166	0.954	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/013b1301.d

Page 1

Date : 07-SEP-2011 12:17

Client ID: NPDES03A199-11-1386

Instrument: ecd7a.i

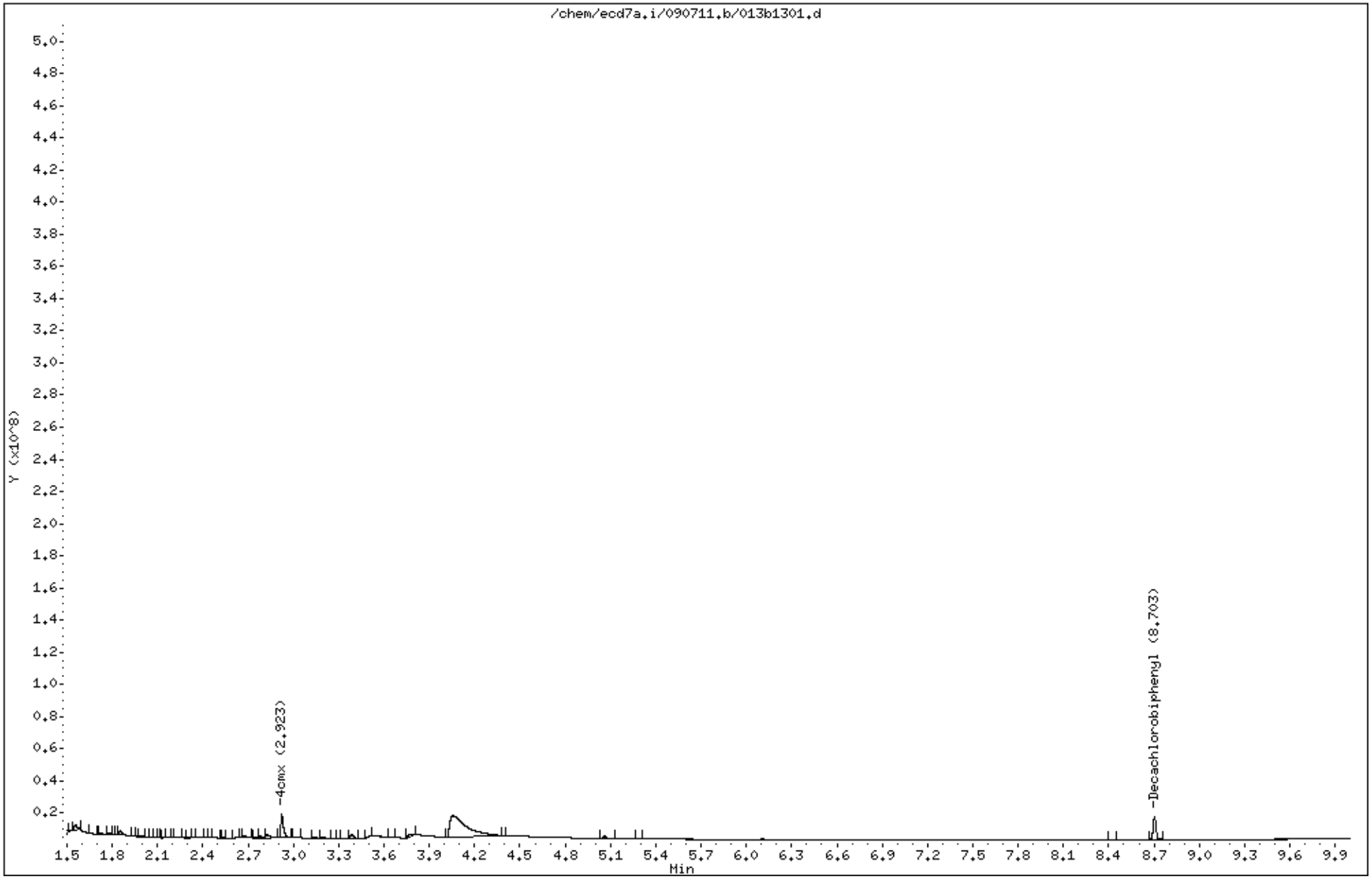
Sample Info: |285124003|10|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124006**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**5**
Run Date:	**09/07/2011 12:34**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**950 mL**	**Final Volume:**	**5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	014b1401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.105	ug/L	0.035	0.105	1
58-89-9	gamma-BHC (Lindane)	U	0.105	ug/L	0.035	0.105	1
319-85-7	beta-BHC	U	0.105	ug/L	0.035	0.105	1
72-43-5	Methoxychlor	U	1.05	ug/L	0.263	1.05	1
319-86-8	delta-BHC	U	0.105	ug/L	0.035	0.105	1
76-44-8	Heptachlor	U	0.105	ug/L	0.035	0.105	1
309-00-2	Aldrin	U	0.105	ug/L	0.035	0.105	1
1024-57-3	Heptachlor epoxide	U	0.105	ug/L	0.035	0.105	1
5103-74-2	gamma-Chlordane	U	0.105	ug/L	0.035	0.105	1
5103-71-9	alpha-Chlordane	U	0.105	ug/L	0.035	0.105	1
959-98-8	Endosulfan I	U	0.105	ug/L	0.035	0.105	1
72-55-9	4,4'-DDE	U	0.211	ug/L	0.0526	0.211	1
60-57-1	Dieldrin	U	0.211	ug/L	0.0526	0.211	1
72-20-8	Endrin	U	0.211	ug/L	0.0526	0.211	1
72-54-8	4,4'-DDD	U	0.211	ug/L	0.0526	0.211	1
33213-65-9	Endosulfan II	U	0.211	ug/L	0.0526	0.211	1
7421-93-4	Endrin aldehyde	U	0.211	ug/L	0.035	0.211	1
50-29-3	4,4'-DDT	U	0.211	ug/L	0.0526	0.211	1
1031-07-8	Endosulfan sulfate	U	0.211	ug/L	0.0526	0.211	1
53494-70-5	Endrin ketone	U	0.211	ug/L	0.0526	0.211	1
8001-35-2	Toxaphene	U	2.63	ug/L	0.789	2.63	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.742	1.05	ug/L	70.5	(21%-109%)
Decachlorobiphenyl	0.971	1.05	ug/L	92.3	(23%-119%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/014f1401.d
Lab Smp Id: 285124006 Client Smp ID: NPDES03A113-11-1385
Inj Date : 07-SEP-2011 12:34
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285124006|5|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:25 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 14
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.884	0.000	36989198	28.2116	0.742	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.090	-0.001	32878629	36.9125	0.971	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/014f1401.d

Date : 07-SEP-2011 12:34

Client ID: NPDES03A113-11-1385

Instrument: ecd7a.i

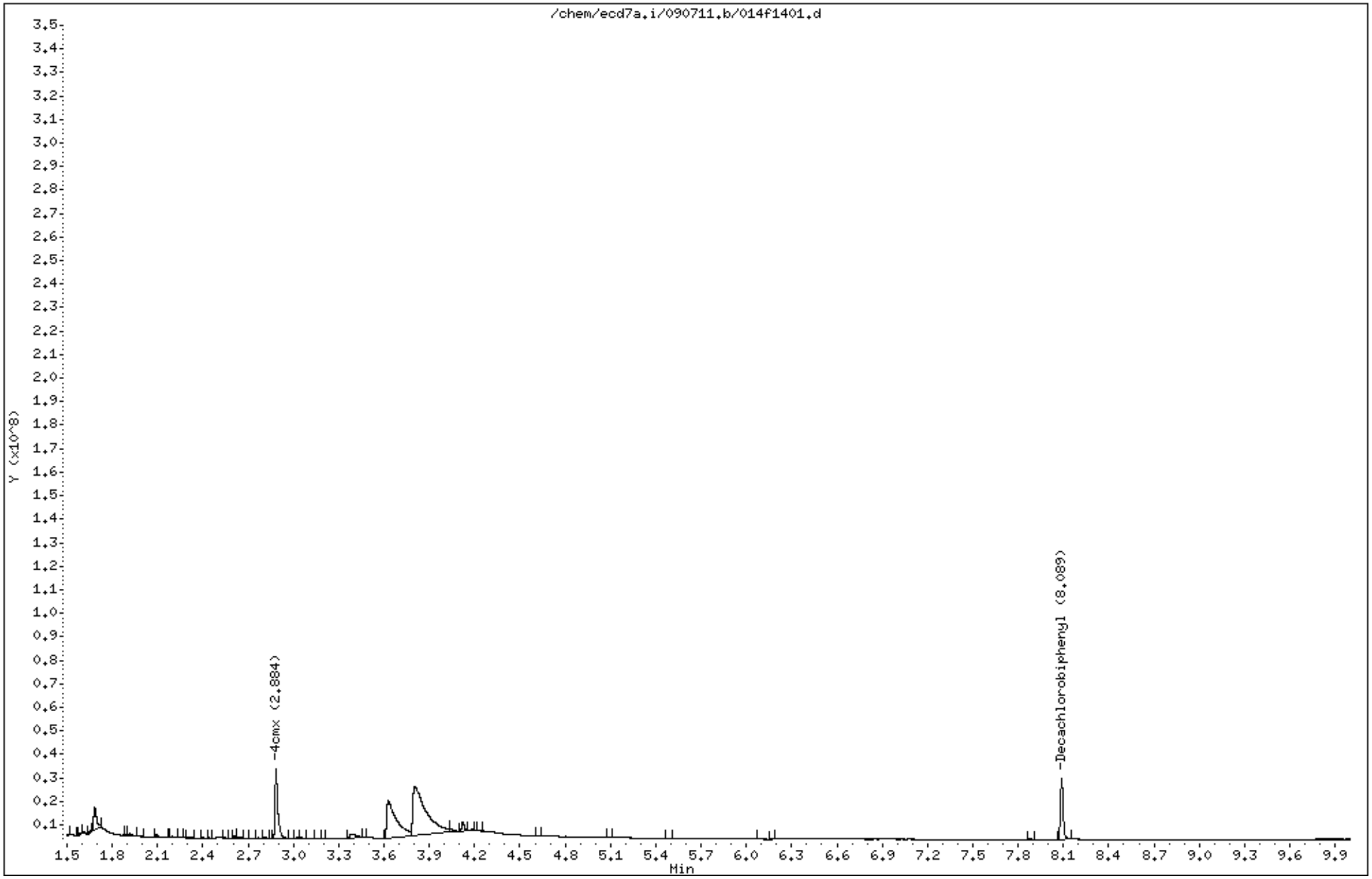
Sample Info: |285124006|5|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/014b1401.d
Lab Smp Id: 285124006 Client Smp ID: NPDES03A113-11-1385
Inj Date : 07-SEP-2011 12:34
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285124006|5|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 14
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.923	0.000	39383666	28.8436	0.759	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.704	8.704	0.000	39590039	38.0966	1.00	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/014b1401.d

Page 1

Date : 07-SEP-2011 12:34

Client ID: NPDES03A113-11-1385

Instrument: ecd7a.i

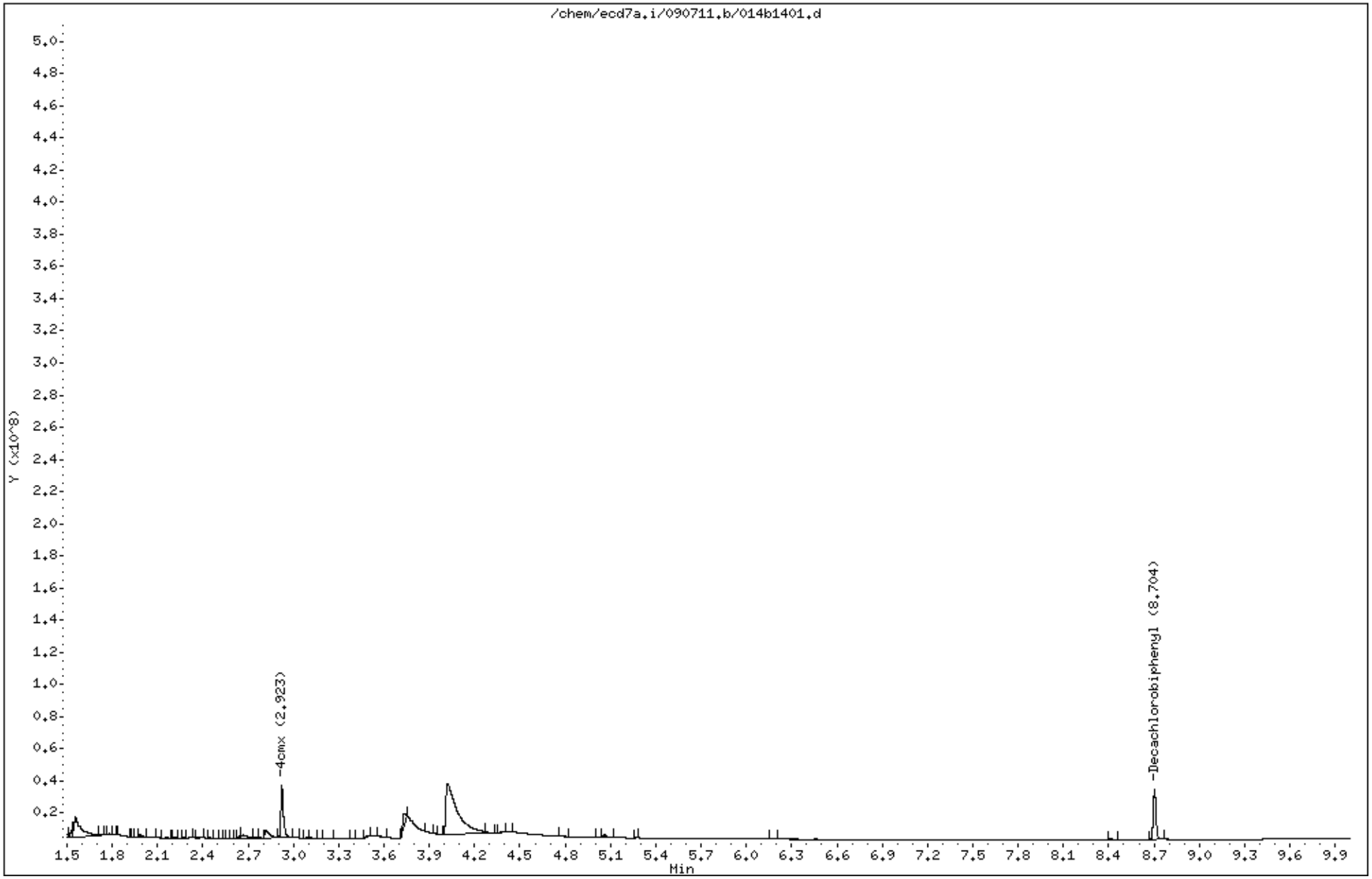
Sample Info: |285124006|5|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



Standard Data

SW846 8081

Calibration Standard Concentration Levels (ug/L)

	Level 1	Level 2	Level 3	Level 4	Level 5	CCV
Hexachlorobenzene	4	20	100	200	400	200
alpha-BHC	4	10	50	100	200	100
gamma-BHC (Lindane)	4	10	50	100	200	100
Heptachlor	4	10	50	100	200	100
Aldrin	4	10	50	100	200	100
beta-BHC	4	10	50	100	200	100
delta-BHC	4	10	50	100	200	100
Heptachlor epoxide	4	10	50	100	200	100
Endosulfan I	4	10	50	100	200	100
gamma-Chlordane	4	10	50	100	200	100
alpha-Chlordane	4	10	50	100	200	100
Mirex	4	10	50	100	200	100
c-Nonachlor	4	10	50	100	200	100
o-Chlordane	4	10	50	100	200	100
t-Nonachlor	4	10	50	100	200	100
2,4-DDD	4	10	50	100	200	100
2,4-DDE	4	10	50	100	200	100
2,4-DDT	4	10	50	100	200	100
4,4'-DDD	8	20	100	200	400	200
4,4'-DDE	8	20	100	200	400	200
4,4'-DDT	8	20	100	200	400	200
Dieldrin	8	20	100	200	400	200
Endrin	8	20	100	200	400	200
Endosulfan II	8	20	100	200	400	200
Endrin aldehyde	8	20	100	200	400	200
Endosulfan sulfate	8	20	100	200	400	200
Endrin ketone	8	20	100	200	400	200
4-CMX (surr)	8	20	100	200	400	200
DCB (surr)	8	20	100	200	400	200
1,2-Dichlorobenzene	20	50	100	150	200	150
Methoxychlor	40	100	500	1000	2000	1000
Chlordane (Technical)	50	100	500	1000	3000	1000
Aroclor 1016	100	250	500	1000	4000	1000
Aroclor 1221	100	250	500	1000	4000	1000
Aroclor 1232	100	250	500	1000	4000	1000
Aroclor 1242	100	250	500	1000	4000	1000
Aroclor 1248	100	250	500	1000	4000	1000
Aroclor 1254	100	250	500	1000	4000	1000
Aroclor 1260	100	250	500	1000	4000	1000

Aroclor 1262	100	250	500	1000	4000	1000
Aroclor 1268	100	250	500	1000	4000	1000
Toxaphene	100	500	1000	2000	3000	2000

Report Date: 06-Sep-2011 13:49

Calibration History

Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Start Cal Date: 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-AUG-2011 17:05	ar1660	/chem/ecd7a.i/082911.b/009f0901.d
14-JUL-2011 09:32	gapa	/chem/ecd7a.i/071411.b/005f0501.d
18-AUG-2011 12:05	chlor	/chem/ecd7a.i/081811.b/011f1101.d
06-SEP-2011 11:31	tox	/chem/ecd7a.i/090611.b/013f1301.d
06-SEP-2011 09:49	indab	/chem/ecd7a.i/090611.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
29-AUG-2011 17:22	ar1660	/chem/ecd7a.i/082911.b/010f1001.d
14-JUL-2011 09:49	gapa	/chem/ecd7a.i/071411.b/006f0601.d
18-AUG-2011 12:22	chlor	/chem/ecd7a.i/081811.b/012f1201.d
06-SEP-2011 11:48	tox	/chem/ecd7a.i/090611.b/014f1401.d
06-SEP-2011 10:06	indab	/chem/ecd7a.i/090611.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
29-AUG-2011 17:39	ar1660	/chem/ecd7a.i/082911.b/011f1101.d
14-JUL-2011 10:06	gapa	/chem/ecd7a.i/071411.b/007f0701.d
18-AUG-2011 12:39	chlor	/chem/ecd7a.i/081811.b/013f1301.d
06-SEP-2011 12:05	tox	/chem/ecd7a.i/090611.b/015f1501.d
06-SEP-2011 10:23	indab	/chem/ecd7a.i/090611.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
18-JUL-2011 16:22	2,4,5-TCP	/chem/ecd7a.i/071811.b/028f2801.d
01-AUG-2011 15:44	ar1221	/chem/ecd7a.i/080111.b/022f2201.d
01-AUG-2011 15:27	ar1232	/chem/ecd7a.i/080111.b/021f2101.d
01-AUG-2011 15:11	ar1248	/chem/ecd7a.i/080111.b/020f2001.d
01-AUG-2011 14:54	ar1242	/chem/ecd7a.i/080111.b/019f1901.d
01-AUG-2011 14:37	ar1254	/chem/ecd7a.i/080111.b/018f1801.d
29-AUG-2011 17:56	ar1660	/chem/ecd7a.i/082911.b/012f1201.d
14-JUL-2011 10:22	gapa	/chem/ecd7a.i/071411.b/008f0801.d
18-AUG-2011 12:55	chlor	/chem/ecd7a.i/081811.b/014f1401.d
06-SEP-2011 12:22	tox	/chem/ecd7a.i/090611.b/016f1601.d
06-SEP-2011 10:40	indab	/chem/ecd7a.i/090611.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
29-AUG-2011 18:13	ar1660	/chem/ecd7a.i/082911.b/013f1301.d
14-JUL-2011 10:39	gapa	/chem/ecd7a.i/071411.b/009f0901.d
18-AUG-2011 13:12	chlor	/chem/ecd7a.i/081811.b/015f1501.d
06-SEP-2011 12:40	tox	/chem/ecd7a.i/090611.b/017f1701.d
06-SEP-2011 10:57	indab	/chem/ecd7a.i/090611.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 13:31 |tox              |/chem/ecd7a.i/090611.b/020f2001.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 12:57 |8081             |/chem/ecd7a.i/090611.b/018f1801.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 13:14 |gapa             |/chem/ecd7a.i/090611.b/019f1901.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 12:22 |tox              |/chem/ecd7a.i/090611.b/016f1601.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 09:32 |chlor            |/chem/ecd7a.i/090611.b/006f0601.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 11:14 |indab            |/chem/ecd7a.i/090611.b/012f1201.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 10:40 |indab            |/chem/ecd7a.i/090611.b/010f1001.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 09:15 |8081             |/chem/ecd7a.i/090611.b/005f0501.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 08:58 |8081             |/chem/ecd7a.i/090611.b/004f0401.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|06-SEP-2011 08:41 |8081             |/chem/ecd7a.i/090611.b/003f0301.d        |
+------------------+-----------------+----------------------------------------+
```

Report Date: 06-Sep-2011 13:48

Calibration History

Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Start Cal Date: 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-AUG-2011 17:05	ar1660	/chem/ecd7a.i/082911.b/009b0901.d
14-JUL-2011 09:32	gapa	/chem/ecd7a.i/071411.b/005b0501.d
18-AUG-2011 12:05	chlor	/chem/ecd7a.i/081811.b/011b1101.d
06-SEP-2011 11:31	tox	/chem/ecd7a.i/090611.b/013b1301.d
06-SEP-2011 09:49	indab	/chem/ecd7a.i/090611.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
29-AUG-2011 17:22	ar1660	/chem/ecd7a.i/082911.b/010b1001.d
14-JUL-2011 09:49	gapa	/chem/ecd7a.i/071411.b/006b0601.d
18-AUG-2011 12:22	chlor	/chem/ecd7a.i/081811.b/012b1201.d
06-SEP-2011 11:48	tox	/chem/ecd7a.i/090611.b/014b1401.d
06-SEP-2011 10:06	indab	/chem/ecd7a.i/090611.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
29-AUG-2011 17:39	ar1660	/chem/ecd7a.i/082911.b/011b1101.d
14-JUL-2011 10:06	gapa	/chem/ecd7a.i/071411.b/007b0701.d
18-AUG-2011 12:39	chlor	/chem/ecd7a.i/081811.b/013b1301.d
06-SEP-2011 12:05	tox	/chem/ecd7a.i/090611.b/015b1501.d
06-SEP-2011 10:23	indab	/chem/ecd7a.i/090611.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
18-JUL-2011 16:22	2,4,5-TCP	/chem/ecd7a.i/071811.b/028b2801.d
01-AUG-2011 15:44	ar1221	/chem/ecd7a.i/080111.b/022b2201.d
01-AUG-2011 15:27	ar1232	/chem/ecd7a.i/080111.b/021b2101.d
01-AUG-2011 15:11	ar1248	/chem/ecd7a.i/080111.b/020b2001.d
01-AUG-2011 14:54	ar1242	/chem/ecd7a.i/080111.b/019b1901.d
01-AUG-2011 14:37	ar1254	/chem/ecd7a.i/080111.b/018b1801.d
29-AUG-2011 17:56	ar1660	/chem/ecd7a.i/082911.b/012b1201.d
14-JUL-2011 10:22	gapa	/chem/ecd7a.i/071411.b/008b0801.d
18-AUG-2011 12:55	chlor	/chem/ecd7a.i/081811.b/014b1401.d
06-SEP-2011 12:22	tox	/chem/ecd7a.i/090611.b/016b1601.d
06-SEP-2011 10:40	indab	/chem/ecd7a.i/090611.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
29-AUG-2011 18:13	ar1660	/chem/ecd7a.i/082911.b/013b1301.d
14-JUL-2011 10:39	gapa	/chem/ecd7a.i/071411.b/009b0901.d
18-AUG-2011 13:12	chlor	/chem/ecd7a.i/081811.b/015b1501.d
06-SEP-2011 12:40	tox	/chem/ecd7a.i/090611.b/017b1701.d
06-SEP-2011 10:57	indab	/chem/ecd7a.i/090611.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 13:31 |tox              |/chem/ecd7a.i/090611.b/020b2001.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 12:57 |8081             |/chem/ecd7a.i/090611.b/018b1801.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 13:14 |gapa             |/chem/ecd7a.i/090611.b/019b1901.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 12:22 |tox              |/chem/ecd7a.i/090611.b/016b1601.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 09:32 |chlor            |/chem/ecd7a.i/090611.b/006b0601.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 11:14 |indab            |/chem/ecd7a.i/090611.b/012b1201.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 10:40 |indab            |/chem/ecd7a.i/090611.b/010b1001.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 09:49 |indab            |/chem/ecd7a.i/090611.b/007b0701.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 09:15 |8081             |/chem/ecd7a.i/090611.b/005b0501.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 08:58 |8081             |/chem/ecd7a.i/090611.b/004b0401.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|06-SEP-2011 08:41 |8081             |/chem/ecd7a.i/090611.b/003b0301.d        |
+------------------+-----------------+----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Sep-2011 13:47 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.887	2.857-2.917	1.263e+06
61 2,4,5-TCP	2.307	2.207-2.407	6.279e+05
59 Hexachlorobenzene	3.178	3.078-3.278	1.005e+06
2 Aroclor-1221	3.005	2.975-3.035	9.805e+03
	3.112	3.082-3.142	4.828e+03
	3.143	3.113-3.173	2.273e+04
3 Aroclor-1016	3.144	3.114-3.174	2.276e+04
	3.410	3.380-3.440	4.394e+04
	3.570	3.540-3.600	2.041e+04
	4.034	4.004-4.064	1.523e+04
	4.057	4.027-4.087	1.819e+04
4 Aroclor-1232	3.406	3.376-3.436	1.743e+04
	3.569	3.539-3.599	8.858e+03
	3.782	3.752-3.812	2.739e+04
	3.892	3.862-3.922	1.078e+04
	4.057	4.027-4.087	9.582e+03
5 alpha-BHC	3.297	3.267-3.327	1.791e+06
6 Aroclor-1242	3.145	3.045-3.245	2.779e+04
	3.407	3.307-3.507	3.932e+04
	3.783	3.683-3.883	2.292e+04
	3.892	3.792-3.992	1.557e+04
	4.057	3.957-4.157	9.205e+03
7 gamma-BHC (Lindane)	3.546	3.516-3.576	1.583e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.874	3.774-3.974	4.843e+04
	4.687	4.587-4.787	2.624e+04
	4.790	4.690-4.890	2.306e+04
	4.865	4.765-4.965	1.546e+05
	4.988	4.888-5.088	1.301e+05
9 Aroclor-1248	3.784	3.684-3.884	1.254e+04
	4.034	3.934-4.134	3.194e+04
	4.057	3.957-4.157	2.763e+04
	4.229	4.129-4.329	1.742e+04
	4.308	4.208-4.408	2.156e+04
10 Heptachlor	3.943	3.913-3.973	1.242e+06
11 Aldrin	4.208	4.178-4.238	1.470e+06
12 beta-BHC	3.612	3.582-3.642	6.394e+05
13 delta-BHC	3.765	3.735-3.795	1.449e+06
14 Heptachlor epoxide	4.746	4.716-4.776	1.290e+06
15 Aroclor-1254	4.564	4.534-4.594	3.399e+04
	4.801	4.771-4.831	5.052e+04
	5.070	5.040-5.100	6.312e+04
	5.355	5.325-5.385	4.590e+04
	5.759	5.729-5.789	5.961e+04
16 Endosulfan I	5.122	5.092-5.152	1.440e+06
17 gamma-Chlordane	4.866	4.836-4.896	1.244e+06
18 alpha-Chlordane	4.990	4.960-5.020	1.225e+06
19 4,4'-DDE	5.062	5.032-5.092	9.499e+05
20 Dieldrin	5.352	5.322-5.382	1.211e+06
21 Aroclor-1260	5.221	5.121-5.321	2.624e+04
	6.077	5.977-6.177	2.684e+04
	6.328	6.228-6.428	2.491e+04
	6.941	6.841-7.041	3.898e+04
	6.993	6.893-7.093	3.868e+04
22 Endrin	5.582	5.552-5.612	9.175e+05
23 Toxaphene	5.797	5.767-5.827	4.563e+04
	5.918	5.888-5.948	2.561e+04
	6.144	6.114-6.174	2.711e+04
	6.486	6.456-6.516	2.915e+04
	6.590	6.560-6.620	3.366e+04
24 Endosulfan II	5.806	5.776-5.836	1.015e+06
25 4,4'-DDD	5.651	5.621-5.681	7.599e+05
26 4,4'-DDT	5.928	5.898-5.958	7.759e+05
27 Endrin aldehyde	6.228	6.198-6.258	8.435e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.428	6.398-6.458	2.974e+05
29 Endosulfan sulfate	6.680	6.650-6.710	8.588e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	6.985	6.955-7.015	1.080e+06
51 Mirex	6.593	6.563-6.623	5.940e+05
52 C-Nonachlor	5.615	5.585-5.645	9.384e+05
53 O-Chlordane	4.654	4.624-4.684	7.796e+05
54 T-Nonachlor	4.973	4.943-5.003	9.163e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.734	4.704-4.764	5.460e+05
58 2,4-DDD	5.229	5.199-5.259	4.596e+05
57 2,4-DDT	5.475	5.445-5.505	5.268e+05
$ 32 Decachlorobiphenyl	8.092	8.062-8.122	7.741e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Sep-2011 13:47 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.926	2.896-2.956	1.359e+06
60 2,4,5-TCP	2.233	2.133-2.333	7.274e+05
59 Hexachlorobenzene	3.291	3.261-3.321	1.250e+06
2 Aroclor-1221	3.125	3.095-3.155	1.135e+04
	3.228	3.198-3.258	8.047e+03
	3.276	3.246-3.306	3.142e+04
3 Aroclor-1016	3.277	3.247-3.307	2.068e+04
	3.764	3.734-3.794	1.109e+04
	3.790	3.760-3.820	1.870e+04
	4.261	4.231-4.291	2.051e+04
	4.302	4.272-4.332	2.077e+04
4 Aroclor-1232	3.276	3.246-3.306	2.077e+04
	3.588	3.558-3.618	9.000e+03
	3.791	3.761-3.821	2.921e+04
	3.980	3.950-4.010	9.501e+03
	4.260	4.230-4.290	1.550e+04
5 alpha-BHC	3.383	3.353-3.413	1.930e+06
6 Aroclor-1242	3.277	3.247-3.307	3.149e+04
	3.588	3.558-3.618	1.342e+04
	3.981	3.951-4.011	4.478e+04
	4.093	4.063-4.123	1.945e+04
	4.301	4.271-4.331	2.756e+04
7 gamma-BHC (Lindane)	3.675	3.645-3.705	1.740e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.949	3.919-3.979	5.428e+04
	4.867	4.837-4.897	3.299e+04
	4.984	4.954-5.014	3.623e+04
	5.094	5.064-5.124	1.747e+05
	5.235	5.205-5.265	1.391e+05
9 Aroclor-1248	3.982	3.952-4.012	2.566e+04
	4.261	4.231-4.291	2.550e+04
	4.302	4.272-4.332	3.283e+04
	4.503	4.473-4.533	3.910e+04
	4.621	4.591-4.651	2.541e+04
10 Heptachlor	4.080	4.050-4.110	1.615e+06
11 Aldrin	4.380	4.350-4.410	1.658e+06
12 beta-BHC	3.737	3.707-3.767	6.969e+05
13 delta-BHC	3.996	3.966-4.026	1.634e+06
14 Heptachlor epoxide	4.903	4.873-4.933	1.458e+06
15 Aroclor-1254	4.894	4.864-4.924	4.875e+04
	5.084	5.054-5.114	4.997e+04
	5.426	5.396-5.456	6.886e+04
	5.736	5.706-5.766	4.971e+04
	5.958	5.928-5.988	7.239e+04
16 Endosulfan I	5.292	5.262-5.322	1.271e+06
17 gamma-Chlordane	5.094	5.064-5.124	1.401e+06
18 alpha-Chlordane	5.235	5.205-5.265	1.361e+06
19 4,4'-DDE	5.397	5.367-5.427	1.251e+06
20 Dieldrin	5.564	5.534-5.594	1.402e+06
21 Aroclor-1260	6.133	6.103-6.163	4.823e+04
	6.428	6.398-6.458	5.469e+04
	6.487	6.457-6.517	2.952e+04
	6.741	6.711-6.771	5.437e+04
	7.462	7.432-7.492	2.228e+04
22 Endrin	5.869	5.839-5.899	1.081e+06
23 Toxaphene	5.843	5.813-5.873	1.785e+04
	6.077	6.047-6.107	3.697e+04
	6.178	6.148-6.208	6.354e+04
	6.454	6.424-6.484	3.676e+04
	6.999	6.969-7.029	3.397e+04
24 Endosulfan II	6.085	6.055-6.115	1.192e+06
25 4,4'-DDD	5.987	5.957-6.017	9.593e+05
26 4,4'-DDT	6.316	6.286-6.346	1.027e+06
27 Endrin aldehyde	6.428	6.398-6.458	9.606e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.037	7.007-7.067	4.467e+05
29 Endosulfan sulfate	6.730	6.700-6.760	9.954e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.299	7.269-7.329	1.332e+06
51 Mirex	7.292	7.262-7.322	8.127e+05
52 C-Nonachlor	5.961	5.931-5.991	1.300e+06
53 O-Chlordane	4.823	4.793-4.853	1.073e+06
54 T-Nonachlor	5.189	5.159-5.219	1.264e+06
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.080	5.050-5.110	8.349e+05
58 2,4-DDD	5.594	5.564-5.624	6.398e+05
57 2,4-DDT	5.908	5.878-5.938	7.722e+05
$ 32 Decachlorobiphenyl	8.708	8.678-8.738	9.326e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/082911.b/009f0901.d
Level 2: /chem/ecd7a.i/082911.b/010f1001.d
Level 3: /chem/ecd7a.i/082911.b/011f1101.d
Level 4: /chem/ecd7a.i/071811.b/028f2801.d
Level 5: /chem/ecd7a.i/082911.b/013f1301.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	627906	+++++	627906	0.000
59 Hexachlorobenzene	1066996	1015319	972938	1001229	970427	1005382	3.912
2 Aroclor-1221(1)	+++++	+++++	+++++	9805	+++++	9805	0.000
(2)	+++++	+++++	+++++	4828	+++++	4828	0.000
(3)	+++++	+++++	+++++	22725	+++++	22725	0.000
3 Aroclor-1016(1)	25497	23403	23072	21040	20791	22761	8.461
(2)	50904	44808	44085	41315	38603	43943	10.468
(3)	23689	20657	20891	19393	17412	20409	11.245
(4)	14588	15139	15888	15203	15337	15231	3.055
(5)	18550	18683	18797	17722	17191	18189	3.847
4 Aroclor-1232(1)	+++++	+++++	+++++	17432	+++++	17432	0.000
(2)	+++++	+++++	+++++	8858	+++++	8858	0.000
(3)	+++++	+++++	+++++	27394	+++++	27394	0.000
(4)	+++++	+++++	+++++	10776	+++++	10776	0.000
(5)	+++++	+++++	+++++	9582	+++++	9582	0.000
5 alpha-BHC	1643009	1714743	1828601	1857849	1912960	1791433	6.145
6 Aroclor-1242(1)	+++++	+++++	+++++	27790	+++++	27790	0.000
(2)	+++++	+++++	+++++	39322	+++++	39322	0.000
(3)	+++++	+++++	+++++	22925	+++++	22925	0.000
(4)	+++++	+++++	+++++	15566	+++++	15566	0.000
(5)	+++++	+++++	+++++	9205	+++++	9205	0.000
7 gamma-BHC (Lindane)	1499817	1524596	1601570	1614898	1673258	1582828	4.449
8 Chlordane (tech.)(1)	46772	47489	49881	49178	48831	48430	2.624
(2)	24976	24633	27264	26917	27403	26238	5.056
(3)	20102	20049	24518	24681	25935	23057	12.041
(4)	143852	149578	161858	158637	159289	154643	4.921
(5)	130004	129849	136057	128894	125916	130144	2.837

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD	
9 Aroclor-1248(1)	+++++	+++++	+++++	12542	+++++	12542	0.000	
(2)	+++++	+++++	+++++	31945	+++++	31945	0.000	
(3)	+++++	+++++	+++++	27627	+++++	27627	0.000	
(4)	+++++	+++++	+++++	17423	+++++	17423	0.000	
(5)	+++++	+++++	+++++	21556	+++++	21556	0.000	
10 Heptachlor	1205526	1198364	1251065	1252029	1303855	1242168	3.426	
11 Aldrin	1395885	1438257	1493187	1487191	1534922	1469888	3.656	
12 beta-BHC	668677	659853	615448	613744	639434	639431	3.916	
13 delta-BHC	1149357	1370506	1498796	1580053	1643809	1448504	13.526	
14 Heptachlor epoxide	1247326	1263306	1312363	1294496	1330446	1289588	2.655	
15 Aroclor-1254(1)	+++++	+++++	+++++	33993	+++++	33993	0.000	
(2)	+++++	+++++	+++++	50524	+++++	50524	0.000	
(3)	+++++	+++++	+++++	63118	+++++	63118	0.000	
(4)	+++++	+++++	+++++	45899	+++++	45899	0.000	
(5)	+++++	+++++	+++++	59606	+++++	59606	0.000	
16 Endosulfan I	1515900	1576474	1434890	1343928	1328496	1439938	7.453	
17 gamma-Chlordane	1139142	1200001	1268353	1268963	1342169	1243726	6.200	
18 alpha-Chlordane	1159962	1194805	1237585	1234583	1297302	1224848	4.207	
19 4,4'-DDE	781750	823575	994355	1031958	1117860	949900	14.995	
20 Dieldrin	1138159	1221602	1242853	1204070	1248146	1210966	3.661	
21 Aroclor-1260(1)	30418	26869	25619	24604	23703	26242	9.964	
(2)	30568	27631	26161	25184	24679	26844	8.816	
(3)	31490	24558	23589	22650	22240	24905	15.211	
(4)	50181	47982	35499	31909	29341	38982	24.388	<-
(5)	45720	42794	36659	33895	34317	38677	13.712	<-
22 Endrin	899788	914555	930740	904155	938370	917522	1.817	
23 Toxaphene(1)	44535	44621	46238	46243	46493	45626	2.110	
(2)	24420	26181	25782	26103	25557	25609	2.774	
(3)	21995	26743	28826	28958	29003	27105	11.105	
(4)	24527	28426	29996	31149	31665	29153	9.843	
(5)	32968	33606	35041	33357	33333	33661	2.390	
24 Endosulfan II	952824	987416	1053852	1040728	1040544	1015073	4.252	
25 4,4'-DDD	622294	728497	799515	810409	838719	759887	11.445	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	693344	716523	796444	823484	849892	775937	8.765
27 Endrin aldehyde	831245	849038	850334	836698	850028	843468	1.054
28 Methoxychlor	306327	306916	285225	285397	303001	297373	3.737
29 Endosulfan sulfate	798186	834599	876244	869265	915459	858751	5.170
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	1086437	1097352	1082234	1053791	1081830	1080329	1.491
51 Mirex	646873	601173	568459	583960	569445	593982	5.457
52 C-Nonachlor	883238	934297	938032	977175	959236	938396	3.767
53 O-Chlordane	805002	787691	768874	780636	755747	779590	2.396
54 T-Nonachlor	901948	913872	910303	937169	918270	916313	1.430
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	544142	552537	553464	552630	527429	546040	2.028
58 2,4-DDD	440570	458667	459497	476263	463020	459603	2.779
57 2,4-DDT	549960	512944	516812	532585	521914	526843	2.824
$ 1 4cmx	1250145	1265112	1269337	1258133	1271044	1262754	0.683
$ 32 Decachlorobiphenyl	802803	790634	766391	750020	760509	774071	2.831

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/082911.b/009b0901.d
Level 2: /chem/ecd7a.i/082911.b/010b1001.d
Level 3: /chem/ecd7a.i/082911.b/011b1101.d
Level 4: /chem/ecd7a.i/071811.b/028b2801.d
Level 5: /chem/ecd7a.i/082911.b/013b1301.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
60 2,4,5-TCP	+++++	+++++	+++++	727431	+++++	727431	0.000
59 Hexachlorobenzene	1358542	1273134	1199296	1226717	1192247	1249987	5.479
2 Aroclor-1221(1)	+++++	+++++	+++++	11353	+++++	11353	0.000
(2)	+++++	+++++	+++++	8047	+++++	8047	0.000
(3)	+++++	+++++	+++++	31418	+++++	31418	0.000
3 Aroclor-1016(1)	21536	20885	20865	19924	20175	20677	3.092
(2)	11483	10995	10902	10741	11323	11089	2.762
(3)	21774	18720	18416	17326	17287	18705	9.792
(4)	23210	21344	19831	18886	19288	20512	8.645
(5)	22642	21282	20240	19659	20030	20771	5.813
4 Aroclor-1232(1)	+++++	+++++	+++++	20770	+++++	20770	0.000
(2)	+++++	+++++	+++++	9000	+++++	9000	0.000
(3)	+++++	+++++	+++++	29207	+++++	29207	0.000
(4)	+++++	+++++	+++++	9501	+++++	9501	0.000
(5)	+++++	+++++	+++++	15504	+++++	15504	0.000
5 alpha-BHC	1769327	1855018	1991487	2008340	2026502	1930135	5.831
6 Aroclor-1242(1)	+++++	+++++	+++++	31493	+++++	31493	0.000
(2)	+++++	+++++	+++++	13417	+++++	13417	0.000
(3)	+++++	+++++	+++++	44778	+++++	44778	0.000
(4)	+++++	+++++	+++++	19452	+++++	19452	0.000
(5)	+++++	+++++	+++++	27561	+++++	27561	0.000
7 gamma-BHC (Lindane)	1657413	1696296	1764620	1780783	1799637	1739750	3.467
8 Chlordane (tech.)(1)	55771	53236	53567	54591	54227	54278	1.824
(2)	32952	30361	32627	34154	34836	32986	5.208
(3)	32462	32963	36468	38806	40467	36233	9.710
(4)	176325	201711	165564	163735	166090	174685	9.097
(5)	138078	139745	139561	139340	138980	139141	0.474

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	25658	+++++	25658	0.000
(2)	+++++	+++++	+++++	25504	+++++	25504	0.000
(3)	+++++	+++++	+++++	32833	+++++	32833	0.000
(4)	+++++	+++++	+++++	39105	+++++	39105	0.000
(5)	+++++	+++++	+++++	25410	+++++	25410	0.000
10 Heptachlor	1547489	1613779	1658408	1644073	1612797	1615309	2.643
11 Aldrin	1588832	1637222	1685287	1686838	1691851	1658006	2.687
12 beta-BHC	663000	679768	711569	713763	716224	696865	3.453
13 delta-BHC	1483319	1547668	1686233	1722810	1732433	1634493	6.872
14 Heptachlor epoxide	1409140	1445216	1480717	1474177	1480796	1458009	2.127
15 Aroclor-1254(1)	+++++	+++++	+++++	48750	+++++	48750	0.000
(2)	+++++	+++++	+++++	49966	+++++	49966	0.000
(3)	+++++	+++++	+++++	68865	+++++	68865	0.000
(4)	+++++	+++++	+++++	49712	+++++	49712	0.000
(5)	+++++	+++++	+++++	72386	+++++	72386	0.000
16 Endosulfan I	1226082	1262077	1299828	1290854	1275128	1270794	2.274
17 gamma-Chlordane	1320893	1362404	1432110	1431258	1458585	1401050	4.086
18 alpha-Chlordane	1308128	1341528	1381504	1381077	1392988	1361045	2.603
19 4,4'-DDE	1122730	1214930	1279953	1296410	1341496	1251104	6.787
20 Dieldrin	1317696	1395646	1431531	1424188	1442684	1402349	3.595
21 Aroclor-1260(1)	52371	46290	48454	47206	46818	48228	5.080
(2)	60336	53808	54328	52736	52260	54694	5.960
(3)	30879	29010	30315	28502	28871	29515	3.471
(4)	58969	52892	53887	52917	53199	54373	4.783
(5)	25395	20204	21200	21409	23192	22280	9.190
22 Endrin	1038770	1069798	1096374	1085690	1113745	1080875	2.633
23 Toxaphene(1)	13425	17630	18944	19331	19924	17851	14.639
(2)	31437	36334	38205	38979	39880	36967	9.078
(3)	54619	62464	65375	66745	68496	63540	8.582
(4)	30098	36027	38152	38841	40684	36761	11.098
(5)	28450	33233	34702	36348	37117	33970	10.102
24 Endosulfan II	1144188	1179178	1217813	1202481	1216033	1191939	2.587
25 4,4'-DDD	894632	911917	973872	987932	1028003	959271	5.752

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 06-SEP-2011 12:40
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Cal Date : 06-Sep-2011 13:47 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	943686	987579	1037274	1057056	1106923	1026504	6.140
27 Endrin aldehyde	945062	981028	960531	953302	963291	960643	1.396
28 Methoxychlor	422772	438029	446730	452140	473874	446709	4.212
29 Endosulfan sulfate	930109	977664	1011662	1022465	1035123	995405	4.248
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	1296592	1332025	1336490	1335394	1360610	1332222	1.721
51 Mirex	913743	822171	763267	783339	780741	812652	7.441
52 C-Nonachlor	1269511	1270879	1284636	1330178	1345449	1300130	2.717
53 O-Chlordane	1112470	1079848	1046957	1071298	1055257	1073166	2.376
54 T-Nonachlor	1272531	1252904	1243454	1281677	1270030	1264119	1.230
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	1080885	834193	747642	762855	748804	834876	17.016
58 2,4-DDD	639894	636126	633206	648703	641039	639793	0.917
57 2,4-DDT	775036	758194	753243	787025	787598	772219	2.068
$ 1 4cmx	1395815	1358527	1358940	1343934	1336454	1358734	1.683
$ 32 Decachlorobiphenyl	979755	964322	909423	895795	913901	932639	3.966

Report Date: 07-Sep-2011 12:16

Calibration History

Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Start Cal Date: 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-AUG-2011 17:05	ar1660	/chem/ecd7a.i/082911.b/009f0901.d
14-JUL-2011 09:32	gapa	/chem/ecd7a.i/071411.b/005f0501.d
18-AUG-2011 12:05	chlor	/chem/ecd7a.i/081811.b/011f1101.d
06-SEP-2011 11:31	tox	/chem/ecd7a.i/090611.b/013f1301.d
07-SEP-2011 10:18	indab	/chem/ecd7a.i/090711.b/006f0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-AUG-2011 17:22	ar1660	/chem/ecd7a.i/082911.b/010f1001.d
14-JUL-2011 09:49	gapa	/chem/ecd7a.i/071411.b/006f0601.d
18-AUG-2011 12:22	chlor	/chem/ecd7a.i/081811.b/012f1201.d
06-SEP-2011 11:48	tox	/chem/ecd7a.i/090611.b/014f1401.d
07-SEP-2011 10:35	indab	/chem/ecd7a.i/090711.b/007f0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-AUG-2011 17:39	ar1660	/chem/ecd7a.i/082911.b/011f1101.d
14-JUL-2011 10:06	gapa	/chem/ecd7a.i/071411.b/007f0701.d
18-AUG-2011 12:39	chlor	/chem/ecd7a.i/081811.b/013f1301.d
06-SEP-2011 12:05	tox	/chem/ecd7a.i/090611.b/015f1501.d
07-SEP-2011 10:52	indab	/chem/ecd7a.i/090711.b/008f0801.d
Cal Level: 4 , Cal Amount: 100.00000		
18-JUL-2011 16:22	2,4,5-TCP	/chem/ecd7a.i/071811.b/028f2801.d
01-AUG-2011 15:44	ar1221	/chem/ecd7a.i/080111.b/022f2201.d
01-AUG-2011 15:27	ar1232	/chem/ecd7a.i/080111.b/021f2101.d
01-AUG-2011 15:11	ar1248	/chem/ecd7a.i/080111.b/020f2001.d
01-AUG-2011 14:54	ar1242	/chem/ecd7a.i/080111.b/019f1901.d
01-AUG-2011 14:37	ar1254	/chem/ecd7a.i/080111.b/018f1801.d
29-AUG-2011 17:56	ar1660	/chem/ecd7a.i/082911.b/012f1201.d
14-JUL-2011 10:22	gapa	/chem/ecd7a.i/071411.b/008f0801.d
18-AUG-2011 12:55	chlor	/chem/ecd7a.i/081811.b/014f1401.d
06-SEP-2011 12:22	tox	/chem/ecd7a.i/090611.b/016f1601.d
07-SEP-2011 11:09	indab	/chem/ecd7a.i/090711.b/009f0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-AUG-2011 18:13	ar1660	/chem/ecd7a.i/082911.b/013f1301.d
14-JUL-2011 10:39	gapa	/chem/ecd7a.i/071411.b/009f0901.d
18-AUG-2011 13:12	chlor	/chem/ecd7a.i/081811.b/015f1501.d
06-SEP-2011 12:40	tox	/chem/ecd7a.i/090611.b/017f1701.d
07-SEP-2011 11:26	indab	/chem/ecd7a.i/090711.b/010f1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|07-SEP-2011 10:01 |chlor            |/chem/ecd7a.i/090711.b/005f0501.d       |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|07-SEP-2011 09:44 |tox              |/chem/ecd7a.i/090711.b/004f0401.d       |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|07-SEP-2011 11:43 |indab            |/chem/ecd7a.i/090711.b/011f1101.d       |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|07-SEP-2011 11:09 |indab            |/chem/ecd7a.i/090711.b/009f0901.d       |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|07-SEP-2011 09:27 |8081             |/chem/ecd7a.i/090711.b/003f0301.d       |
+------------------+-----------------+----------------------------------------+
```

Report Date: 07-Sep-2011 12:16

Calibration History

Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Start Cal Date: 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-AUG-2011 17:05	ar1660	/chem/ecd7a.i/082911.b/009b0901.d
14-JUL-2011 09:32	gapa	/chem/ecd7a.i/071411.b/005b0501.d
18-AUG-2011 12:05	chlor	/chem/ecd7a.i/081811.b/011b1101.d
06-SEP-2011 11:31	tox	/chem/ecd7a.i/090611.b/013b1301.d
07-SEP-2011 10:18	indab	/chem/ecd7a.i/090711.b/006b0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-AUG-2011 17:22	ar1660	/chem/ecd7a.i/082911.b/010b1001.d
14-JUL-2011 09:49	gapa	/chem/ecd7a.i/071411.b/006b0601.d
18-AUG-2011 12:22	chlor	/chem/ecd7a.i/081811.b/012b1201.d
06-SEP-2011 11:48	tox	/chem/ecd7a.i/090611.b/014b1401.d
07-SEP-2011 10:35	indab	/chem/ecd7a.i/090711.b/007b0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-AUG-2011 17:39	ar1660	/chem/ecd7a.i/082911.b/011b1101.d
14-JUL-2011 10:06	gapa	/chem/ecd7a.i/071411.b/007b0701.d
18-AUG-2011 12:39	chlor	/chem/ecd7a.i/081811.b/013b1301.d
06-SEP-2011 12:05	tox	/chem/ecd7a.i/090611.b/015b1501.d
07-SEP-2011 10:52	indab	/chem/ecd7a.i/090711.b/008b0801.d
Cal Level: 4 , Cal Amount: 100.00000		
18-JUL-2011 16:22	2,4,5-TCP	/chem/ecd7a.i/071811.b/028b2801.d
01-AUG-2011 15:44	ar1221	/chem/ecd7a.i/080111.b/022b2201.d
01-AUG-2011 15:27	ar1232	/chem/ecd7a.i/080111.b/021b2101.d
01-AUG-2011 15:11	ar1248	/chem/ecd7a.i/080111.b/020b2001.d
01-AUG-2011 14:54	ar1242	/chem/ecd7a.i/080111.b/019b1901.d
01-AUG-2011 14:37	ar1254	/chem/ecd7a.i/080111.b/018b1801.d
29-AUG-2011 17:56	ar1660	/chem/ecd7a.i/082911.b/012b1201.d
14-JUL-2011 10:22	gapa	/chem/ecd7a.i/071411.b/008b0801.d
18-AUG-2011 12:55	chlor	/chem/ecd7a.i/081811.b/014b1401.d
06-SEP-2011 12:22	tox	/chem/ecd7a.i/090611.b/016b1601.d
07-SEP-2011 11:09	indab	/chem/ecd7a.i/090711.b/009b0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-AUG-2011 18:13	ar1660	/chem/ecd7a.i/082911.b/013b1301.d
14-JUL-2011 10:39	gapa	/chem/ecd7a.i/071411.b/009b0901.d
18-AUG-2011 13:12	chlor	/chem/ecd7a.i/081811.b/015b1501.d
06-SEP-2011 12:40	tox	/chem/ecd7a.i/090611.b/017b1701.d
07-SEP-2011 11:26	indab	/chem/ecd7a.i/090711.b/010b1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|07-SEP-2011 10:01 |chlor            |/chem/ecd7a.i/090711.b/005b0501.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|07-SEP-2011 09:44 |tox              |/chem/ecd7a.i/090711.b/004b0401.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|07-SEP-2011 11:43 |indab            |/chem/ecd7a.i/090711.b/011b1101.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|07-SEP-2011 11:09 |indab            |/chem/ecd7a.i/090711.b/009b0901.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|07-SEP-2011 09:27 |8081             |/chem/ecd7a.i/090711.b/003b0301.d        |
+------------------+-----------------+----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Quant Method : ESTD Target Version : 3.50
Last Update : 07-Sep-2011 12:00 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	10005.000000
Initial:End Threshold	5002.500000
Initial:Area Threshold	100050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.884	2.854-2.914	1.311e+06
61 2,4,5-TCP	2.307	2.207-2.407	6.279e+05
59 Hexachlorobenzene	3.178	3.078-3.278	1.005e+06
2 Aroclor-1221	3.005	2.975-3.035	9.805e+03
	3.112	3.082-3.142	4.828e+03
	3.143	3.113-3.173	2.273e+04
3 Aroclor-1016	3.144	3.114-3.174	2.276e+04
	3.410	3.380-3.440	4.394e+04
	3.570	3.540-3.600	2.041e+04
	4.034	4.004-4.064	1.523e+04
	4.057	4.027-4.087	1.819e+04
4 Aroclor-1232	3.406	3.376-3.436	1.743e+04
	3.569	3.539-3.599	8.858e+03
	3.782	3.752-3.812	2.739e+04
	3.892	3.862-3.922	1.078e+04
	4.057	4.027-4.087	9.582e+03
5 alpha-BHC	3.294	3.264-3.324	1.883e+06
6 Aroclor-1242	3.145	3.045-3.245	2.779e+04
	3.407	3.307-3.507	3.932e+04
	3.783	3.683-3.883	2.292e+04
	3.892	3.792-3.992	1.557e+04
	4.057	3.957-4.157	9.205e+03
7 gamma-BHC (Lindane)	3.543	3.513-3.573	1.668e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.871	3.771-3.971	4.843e+04
	4.683	4.583-4.783	2.624e+04
	4.787	4.687-4.887	2.306e+04
	4.863	4.763-4.963	1.546e+05
	4.986	4.886-5.086	1.301e+05
9 Aroclor-1248	3.784	3.684-3.884	1.254e+04
	4.034	3.934-4.134	3.194e+04
	4.057	3.957-4.157	2.763e+04
	4.229	4.129-4.329	1.742e+04
	4.308	4.208-4.408	2.156e+04
10 Heptachlor	3.939	3.909-3.969	1.386e+06
11 Aldrin	4.204	4.174-4.234	1.594e+06
12 beta-BHC	3.608	3.578-3.638	6.622e+05
13 delta-BHC	3.762	3.732-3.792	1.575e+06
14 Heptachlor epoxide	4.742	4.712-4.772	1.397e+06
15 Aroclor-1254	4.564	4.534-4.594	3.399e+04
	4.801	4.771-4.831	5.052e+04
	5.070	5.040-5.100	6.312e+04
	5.355	5.325-5.385	4.590e+04
	5.759	5.729-5.789	5.961e+04
16 Endosulfan I	5.118	5.088-5.148	1.551e+06
17 gamma-Chlordane	4.862	4.832-4.892	1.331e+06
18 alpha-Chlordane	4.986	4.956-5.016	1.303e+06
19 4,4'-DDE	5.058	5.028-5.088	1.226e+06
20 Dieldrin	5.348	5.318-5.378	1.333e+06
21 Aroclor-1260	5.221	5.121-5.321	2.349e+04
	6.077	5.977-6.177	2.450e+04
	6.328	6.228-6.428	2.204e+04
	6.941	6.841-7.041	2.849e+04
	6.993	6.893-7.093	3.395e+04
22 Endrin	5.578	5.548-5.608	9.901e+05
23 Toxaphene	5.794	5.764-5.824	4.563e+04
	5.914	5.884-5.944	2.561e+04
	6.139	6.109-6.169	2.711e+04
	6.481	6.451-6.511	2.915e+04
	6.587	6.557-6.617	3.366e+04
24 Endosulfan II	5.802	5.772-5.832	1.122e+06
25 4,4'-DDD	5.650	5.620-5.680	8.915e+05
26 4,4'-DDT	5.926	5.896-5.956	9.049e+05
27 Endrin aldehyde	6.225	6.195-6.255	9.685e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.425	6.395-6.455	3.889e+05
29 Endosulfan sulfate	6.676	6.646-6.706	9.669e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	6.981	6.951-7.011	1.279e+06
51 Mirex	6.593	6.563-6.623	5.940e+05
52 C-Nonachlor	5.615	5.585-5.645	9.384e+05
53 O-Chlordane	4.654	4.624-4.684	7.796e+05
54 T-Nonachlor	4.973	4.943-5.003	9.163e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.734	4.704-4.764	5.460e+05
58 2,4-DDD	5.229	5.199-5.259	4.596e+05
57 2,4-DDT	5.475	5.445-5.505	5.268e+05
$ 32 Decachlorobiphenyl	8.090	8.060-8.120	8.907e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Quant Method : ESTD Target Version : 3.50
Last Update : 07-Sep-2011 12:16 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.923	2.893-2.953	1.365e+06
60 2,4,5-TCP	2.233	2.133-2.333	7.274e+05
59 Hexachlorobenzene	3.291	3.261-3.321	1.250e+06
2 Aroclor-1221	3.125	3.095-3.155	1.135e+04
	3.228	3.198-3.258	8.047e+03
	3.276	3.246-3.306	3.142e+04
3 Aroclor-1016	3.277	3.247-3.307	2.068e+04
	3.764	3.734-3.794	1.109e+04
	3.790	3.760-3.820	1.870e+04
	4.261	4.231-4.291	2.051e+04
	4.302	4.272-4.332	2.077e+04
4 Aroclor-1232	3.276	3.246-3.306	2.077e+04
	3.588	3.558-3.618	9.000e+03
	3.791	3.761-3.821	2.921e+04
	3.980	3.950-4.010	9.501e+03
	4.260	4.230-4.290	1.550e+04
5 alpha-BHC	3.379	3.349-3.409	1.982e+06
6 Aroclor-1242	3.277	3.247-3.307	3.149e+04
	3.588	3.558-3.618	1.342e+04
	3.981	3.951-4.011	4.478e+04
	4.093	4.063-4.123	1.945e+04
	4.301	4.271-4.331	2.756e+04
7 gamma-BHC (Lindane)	3.671	3.641-3.701	1.767e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.946	3.916-3.975	5.428e+04
	4.864	4.833-4.894	3.299e+04
	4.979	4.949-5.009	3.623e+04
	5.090	5.060-5.120	1.747e+05
	5.229	5.199-5.260	1.391e+05
9 Aroclor-1248	3.982	3.952-4.012	2.566e+04
	4.261	4.231-4.291	2.550e+04
	4.302	4.272-4.332	3.283e+04
	4.503	4.473-4.533	3.910e+04
	4.621	4.591-4.651	2.541e+04
10 Heptachlor	4.075	4.045-4.105	1.740e+06
11 Aldrin	4.375	4.345-4.405	1.725e+06
12 beta-BHC	3.733	3.703-3.763	6.859e+05
13 delta-BHC	3.991	3.961-4.021	1.657e+06
14 Heptachlor epoxide	4.898	4.868-4.928	1.519e+06
15 Aroclor-1254	4.894	4.864-4.924	4.875e+04
	5.084	5.054-5.114	4.997e+04
	5.426	5.396-5.456	6.886e+04
	5.736	5.706-5.766	4.971e+04
	5.958	5.928-5.988	7.239e+04
16 Endosulfan I	5.287	5.257-5.317	1.355e+06
17 gamma-Chlordane	5.089	5.059-5.119	1.521e+06
18 alpha-Chlordane	5.229	5.199-5.259	1.449e+06
19 4,4'-DDE	5.391	5.361-5.421	1.338e+06
20 Dieldrin	5.558	5.528-5.588	1.502e+06
21 Aroclor-1260	6.133	6.103-6.163	4.823e+04
	6.428	6.398-6.458	5.469e+04
	6.487	6.457-6.517	2.952e+04
	6.741	6.711-6.771	5.437e+04
	7.462	7.432-7.492	2.228e+04
22 Endrin	5.863	5.833-5.893	1.125e+06
23 Toxaphene	5.837	5.807-5.867	1.785e+04
	6.073	6.043-6.103	3.697e+04
	6.172	6.142-6.202	6.354e+04
	6.449	6.419-6.479	3.676e+04
	6.992	6.962-7.022	3.397e+04
24 Endosulfan II	6.079	6.049-6.109	1.278e+06
25 4,4'-DDD	5.983	5.953-6.013	1.035e+06
26 4,4'-DDT	6.311	6.281-6.341	1.143e+06
27 Endrin aldehyde	6.423	6.393-6.453	1.052e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.032	7.002-7.062	5.705e+05
29 Endosulfan sulfate	6.725	6.695-6.755	1.079e+06
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.294	7.264-7.324	1.506e+06
51 Mirex	7.292	7.262-7.322	8.127e+05
52 C-Nonachlor	5.961	5.931-5.991	1.300e+06
53 O-Chlordane	4.823	4.793-4.853	1.073e+06
54 T-Nonachlor	5.189	5.159-5.219	1.264e+06
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.080	5.050-5.110	8.349e+05
58 2,4-DDD	5.594	5.564-5.624	6.398e+05
57 2,4-DDT	5.908	5.878-5.938	7.722e+05
$ 32 Decachlorobiphenyl	8.704	8.674-8.734	1.039e+06

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Cal Date : 07-Sep-2011 12:00 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/082911.b/009f0901.d
Level 2: /chem/ecd7a.i/082911.b/010f1001.d
Level 3: /chem/ecd7a.i/082911.b/011f1101.d
Level 4: /chem/ecd7a.i/071811.b/028f2801.d
Level 5: /chem/ecd7a.i/082911.b/013f1301.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-TCP	+++++	+++++	+++++	627906	+++++	AVRG		627906		0.000e+00
59 Hexachlorobenzene	1066996	1015319	972938	1001229	970427	AVRG		1005382		3.91171
2 Aroclor-1221(1)	+++++	+++++	+++++	9805	+++++	AVRG		9805		0.000e+00
(2)	+++++	+++++	+++++	4828	+++++	AVRG		4828		0.000e+00
(3)	+++++	+++++	+++++	22725	+++++	AVRG		22725		0.000e+00
3 Aroclor-1016(1)	25497	23403	23072	21040	20791	AVRG		22761		8.46099
(2)	50904	44808	44085	41315	38603	AVRG		43943		10.46825
(3)	23689	20657	20891	19393	17412	AVRG		20409		11.24544
(4)	14588	15139	15888	15203	15337	AVRG		15231		3.05494
(5)	18550	18683	18797	17722	17191	AVRG		18189		3.84719
4 Aroclor-1232(1)	+++++	+++++	+++++	17432	+++++	AVRG		17432		0.000e+00
(2)	+++++	+++++	+++++	8858	+++++	AVRG		8858		0.000e+00
(3)	+++++	+++++	+++++	27394	+++++	AVRG		27394		0.000e+00
(4)	+++++	+++++	+++++	10776	+++++	AVRG		10776		0.000e+00
(5)	+++++	+++++	+++++	9582	+++++	AVRG		9582		0.000e+00
5 alpha-BHC	1709452	1803781	1927338	1959582	2015094	AVRG		1883050		6.59416
6 Aroclor-1242(1)	+++++	+++++	+++++	27790	+++++	AVRG		27790		0.000e+00
(2)	+++++	+++++	+++++	39322	+++++	AVRG		39322		0.000e+00
(3)	+++++	+++++	+++++	22925	+++++	AVRG		22925		0.000e+00
(4)	+++++	+++++	+++++	15566	+++++	AVRG		15566		0.000e+00
(5)	+++++	+++++	+++++	9205	+++++	AVRG		9205		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Cal Date : 07-Sep-2011 12:00 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	1527251	1616715	1693707	1719436	1780894	AVRG		1667601		5.88246
8 Chlordane (tech.)(1)	46772	47489	49881	49178	48831	AVRG		48430		2.62376
(2)	24976	24633	27264	26917	27403	AVRG		26238		5.05606
(3)	20102	20049	24518	24681	25935	AVRG		23057		12.04149
(4)	143852	149578	161858	158637	159289	AVRG		154643		4.92136
(5)	130004	129849	136057	128894	125916	AVRG		130144		2.83661
9 Aroclor-1248(1)	+++++	+++++	+++++	12542	+++++	AVRG		12542		0.000e+00
(2)	+++++	+++++	+++++	31945	+++++	AVRG		31945		0.000e+00
(3)	+++++	+++++	+++++	27627	+++++	AVRG		27627		0.000e+00
(4)	+++++	+++++	+++++	17423	+++++	AVRG		17423		0.000e+00
(5)	+++++	+++++	+++++	21556	+++++	AVRG		21556		0.000e+00
10 Heptachlor	1334158	1342107	1400598	1413186	1438176	AVRG		1385645		3.28509
11 Aldrin	1615184	1543444	1591742	1598854	1621015	AVRG		1594048		1.92418
12 beta-BHC	655930	671612	640050	653897	689400	AVRG		662178		2.85268
13 delta-BHC	1401369	1438901	1595075	1674649	1762585	AVRG		1574516		9.74601
14 Heptachlor epoxide	1378602	1368722	1411689	1407678	1417993	AVRG		1396937		1.56368
15 Aroclor-1254(1)	+++++	+++++	+++++	33993	+++++	AVRG		33993		0.000e+00
(2)	+++++	+++++	+++++	50524	+++++	AVRG		50524		0.000e+00
(3)	+++++	+++++	+++++	63118	+++++	AVRG		63118		0.000e+00
(4)	+++++	+++++	+++++	45899	+++++	AVRG		45899		0.000e+00
(5)	+++++	+++++	+++++	59606	+++++	AVRG		59606		0.000e+00
16 Endosulfan I	1701970	1797403	1512476	1426985	1318310	AVRG		1551429		12.66839
17 gamma-Chlordane	1238227	1273142	1348683	1372763	1422543	AVRG		1331072		5.62092
18 alpha-Chlordane	1274326	1249116	1307689	1332275	1351746	AVRG		1303030		3.20606

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Cal Date : 07-Sep-2011 12:00 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	6228873	14646604	103870151	223120294	483939603	LINR	9.85087	1225504		0.99839
20 Dieldrin	1314706	1308744	1356714	1342483	1341465	AVRG		1332822		1.52238
21 Aroclor-1260(1)	3041765	6717177	12809542	24603836	94810660	LINR	-38.92179	23489		0.99998
(2)	3056846	6907683	13080404	25183781	98714430	LINR	-29.62437	24498		1.00000
(3)	3148996	6139593	11794551	22649797	88958573	LINR	-33.83459	22045		0.99999
(4)	5018132	11995542	17749520	31908840	117363176	LINR	-122	28493		0.99957
(5)	4572034	10698600	18329382	33895193	137268093	LINR	-36.12107	33954		0.99978
22 Endrin	973018	979186	1007232	982609	1008490	AVRG		990107		1.67391
23 Toxaphene(1)	44535	44621	46238	46243	46493	AVRG		45626		2.10975
(2)	24420	26181	25782	26103	25557	AVRG		25609		2.77359
(3)	21995	26743	28826	28958	29003	AVRG		27105		11.10541
(4)	24527	28426	29996	31149	31665	AVRG		29153		9.84304
(5)	32968	33606	35041	33357	33333	AVRG		33661		2.38985
24 Endosulfan II	1034934	1149328	1162059	1145149	1116355	AVRG		1121565		4.56790
25 4,4'-DDD	808499	851803	908371	929186	959784	AVRG		891528		6.83035
26 4,4'-DDT	812808	867292	930865	948779	964767	AVRG		904902		7.00644
27 Endrin aldehyde	999160	972718	972920	958494	939128	AVRG		968484		2.27405
28 Methoxychlor	423306	397109	385065	368562	370502	AVRG		388909		5.77535
29 Endosulfan sulfate	949398	940487	978658	975781	990029	AVRG		966871		2.16704
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Cal Date : 07-Sep-2011 12:00 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	1322592	1302880	1283635	1251952	1235150	AVRG		1279242		2.80386
51 Mirex	646873	601173	568459	583960	569445	AVRG		593982		5.45733
52 C-Nonachlor	883238	934297	938032	977175	959236	AVRG		938396		3.76669
53 O-Chlordane	805002	787691	768874	780636	755747	AVRG		779590		2.39618
54 T-Nonachlor	901948	913872	910303	937169	918270	AVRG		916313		1.43046
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	544142	552537	553464	552630	527429	AVRG		546040		2.02847
58 2,4-DDD	440570	458667	459497	476263	463020	AVRG		459603		2.77865
57 2,4-DDT	549960	512944	516812	532585	521914	AVRG		526843		2.82403
$ 1 4cmx	1292253	1298483	1330276	1312071	1322582	AVRG		1311133		1.21487
$ 32 Decachlorobiphenyl	977244	892368	866567	852339	865073	AVRG		890718		5.67023

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Cal Date : 07-Sep-2011 12:00 jam00798

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Cal Date : 07-Sep-2011 12:16 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/082911.b/009b0901.d
Level 2: /chem/ecd7a.i/082911.b/010b1001.d
Level 3: /chem/ecd7a.i/082911.b/011b1101.d
Level 4: /chem/ecd7a.i/071811.b/028b2801.d
Level 5: /chem/ecd7a.i/082911.b/013b1301.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
60 2,4,5-TCP	+++++	+++++	+++++	727431	+++++	727431	0.000
59 Hexachlorobenzene	1358542	1273134	1199296	1226717	1192247	1249987	5.479
2 Aroclor-1221(1)	+++++	+++++	+++++	11353	+++++	11353	0.000
(2)	+++++	+++++	+++++	8047	+++++	8047	0.000
(3)	+++++	+++++	+++++	31418	+++++	31418	0.000
3 Aroclor-1016(1)	21536	20885	20865	19924	20175	20677	3.092
(2)	11483	10995	10902	10741	11323	11089	2.762
(3)	21774	18720	18416	17326	17287	18705	9.792
(4)	23210	21344	19831	18886	19288	20512	8.645
(5)	22642	21282	20240	19659	20030	20771	5.813
4 Aroclor-1232(1)	+++++	+++++	+++++	20770	+++++	20770	0.000
(2)	+++++	+++++	+++++	9000	+++++	9000	0.000
(3)	+++++	+++++	+++++	29207	+++++	29207	0.000
(4)	+++++	+++++	+++++	9501	+++++	9501	0.000
(5)	+++++	+++++	+++++	15504	+++++	15504	0.000
5 alpha-BHC	1815984	1898667	2030350	2046389	2119004	1982079	6.167
6 Aroclor-1242(1)	+++++	+++++	+++++	31493	+++++	31493	0.000
(2)	+++++	+++++	+++++	13417	+++++	13417	0.000
(3)	+++++	+++++	+++++	44778	+++++	44778	0.000
(4)	+++++	+++++	+++++	19452	+++++	19452	0.000
(5)	+++++	+++++	+++++	27561	+++++	27561	0.000
7 gamma-BHC (Lindane)	1630894	1710769	1794622	1816790	1883946	1767404	5.558
8 Chlordane (tech.)(1)	55771	53236	53567	54591	54227	54278	1.824
(2)	32952	30361	32627	34154	34836	32986	5.208
(3)	32462	32963	36468	38806	40467	36233	9.710
(4)	176325	201711	165564	163735	166090	174685	9.097
(5)	138078	139745	139561	139340	138980	139141	0.474

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Cal Date : 07-Sep-2011 12:16 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	25658	+++++	25658	0.000
(2)	+++++	+++++	+++++	25504	+++++	25504	0.000
(3)	+++++	+++++	+++++	32833	+++++	32833	0.000
(4)	+++++	+++++	+++++	39105	+++++	39105	0.000
(5)	+++++	+++++	+++++	25410	+++++	25410	0.000
10 Heptachlor	1624753	1713536	1791612	1773105	1797314	1740064	4.167
11 Aldrin	1596129	1687337	1756919	1769138	1816928	1725290	4.973
12 beta-BHC	606916	663462	697842	724636	736850	685941	7.638
13 delta-BHC	1440142	1538793	1717356	1756341	1830062	1656539	9.755
14 Heptachlor epoxide	1431919	1508464	1551247	1557468	1545786	1518977	3.442
15 Aroclor-1254(1)	+++++	+++++	+++++	48750	+++++	48750	0.000
(2)	+++++	+++++	+++++	49966	+++++	49966	0.000
(3)	+++++	+++++	+++++	68865	+++++	68865	0.000
(4)	+++++	+++++	+++++	49712	+++++	49712	0.000
(5)	+++++	+++++	+++++	72386	+++++	72386	0.000
16 Endosulfan I	1293067	1345750	1366632	1371252	1399453	1355231	2.928
17 gamma-Chlordane	1493916	1492813	1507046	1530899	1580894	1521114	2.417
18 alpha-Chlordane	1381743	1413834	1452849	1474217	1522638	1449056	3.754
19 4,4'-DDE	1234530	1265798	1333947	1379257	1474731	1337653	7.125
20 Dieldrin	1410265	1494868	1513102	1522857	1569392	1502097	3.877
21 Aroclor-1260(1)	52371	46290	48454	47206	46818	48228	5.080
(2)	60336	53808	54328	52736	52260	54694	5.960
(3)	30879	29010	30315	28502	28871	29515	3.471
(4)	58969	52892	53887	52917	53199	54373	4.783
(5)	25395	20204	21200	21409	23192	22280	9.190
22 Endrin	1036379	1095499	1136162	1139421	1215955	1124683	5.852
23 Toxaphene(1)	13425	17630	18944	19331	19924	17851	14.639
(2)	31437	36334	38205	38979	39880	36967	9.078
(3)	54619	62464	65375	66745	68496	63540	8.582
(4)	30098	36027	38152	38841	40684	36761	11.098
(5)	28450	33233	34702	36348	37117	33970	10.102
24 Endosulfan II	1228400	1277936	1302312	1299658	1281832	1278027	2.326
25 4,4'-DDD	937891	961917	1043126	1080407	1151264	1034921	8.426

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-FEB-2011 07:40
End Cal Date : 07-SEP-2011 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Cal Date : 07-Sep-2011 12:16 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	1026432	1082212	1146981	1191053	1269677	1143271	8.258
27 Endrin aldehyde	1028896	1075188	1037518	1050716	1069619	1052387	1.896
28 Methoxychlor	562051	561977	558024	563610	606804	570493	3.576
29 Endosulfan sulfate	1028582	1045345	1077412	1107395	1136976	1079142	4.104
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	1556828	1489916	1476229	1474598	1532082	1505930	2.439
51 Mirex	913743	822171	763267	783339	780741	812652	7.441
52 C-Nonachlor	1269511	1270879	1284636	1330178	1345449	1300130	2.717
53 O-Chlordane	1112470	1079848	1046957	1071298	1055257	1073166	2.376
54 T-Nonachlor	1272531	1252904	1243454	1281677	1270030	1264119	1.230
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	1080885	834193	747642	762855	748804	834876	17.016
58 2,4-DDD	639894	636126	633206	648703	641039	639793	0.917
57 2,4-DDT	775036	758194	753243	787025	787598	772219	2.068
$ 1 4cmx	1366825	1337833	1367823	1362529	1392107	1365423	1.413
$ 32 Decachlorobiphenyl	1129524	1069541	983423	992744	1020775	1039201	5.831

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/007f0701.d
Lab Smp Id: WPE110906-01AB Client Smp ID: INDAB01
Inj Date : 06-SEP-2011 09:49
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009f0901.d
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	6572037	4.00000	3.67	80.00- 120.00	100.00(M)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.546	0.000	5999267	4.00000	3.79	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.615	3.612	0.003	2674707	4.00000	4.18	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	4822102	4.00000	3.88	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.765	0.003	4597428	4.00000	3.17	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.207	4.208	-0.001	5583539	4.00000	3.80	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.746	4.746	0.000	4989306	4.00000	3.87	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.866	4.866	0.000	4556567	4.00000	3.66	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.990	4.990	0.000	4639849	4.00000	3.79	80.00- 120.00	100.00(M)

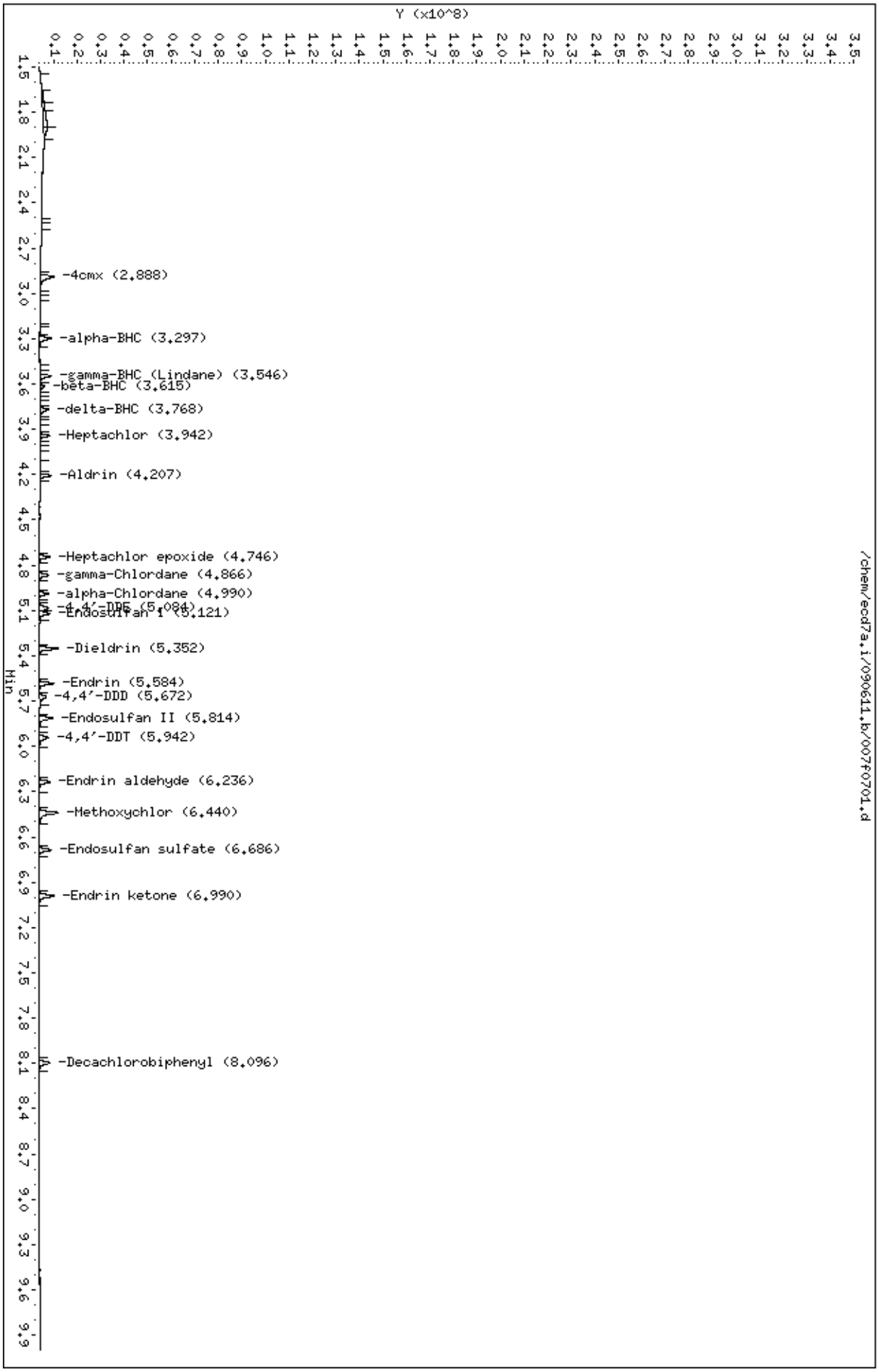
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.121	5.122	-0.001	6063599	4.00000	4.21	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.084	5.062	0.022	6254004	8.00000	6.58	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.352	5.352	0.000	9105271	8.00000	7.52	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.584	5.582	0.002	7198305	8.00000	7.84	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.672	5.651	0.021	4978350	8.00000	6.55	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.814	5.806	0.008	7622590	8.00000	7.51	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.236	6.228	0.008	6649960	8.00000	7.88	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.942	5.928	0.014	5546752	8.00000	7.15	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.686	6.680	0.006	6385492	8.00000	7.44	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.440	6.428	0.012	12253069	40.0000	41.2	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.990	6.985	0.005	8691497	8.00000	8.04	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	10001162	8.00000	7.92	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.092	0.004	6422421	8.00000	8.30	80.00- 120.00	100.00

QC Flag Legend

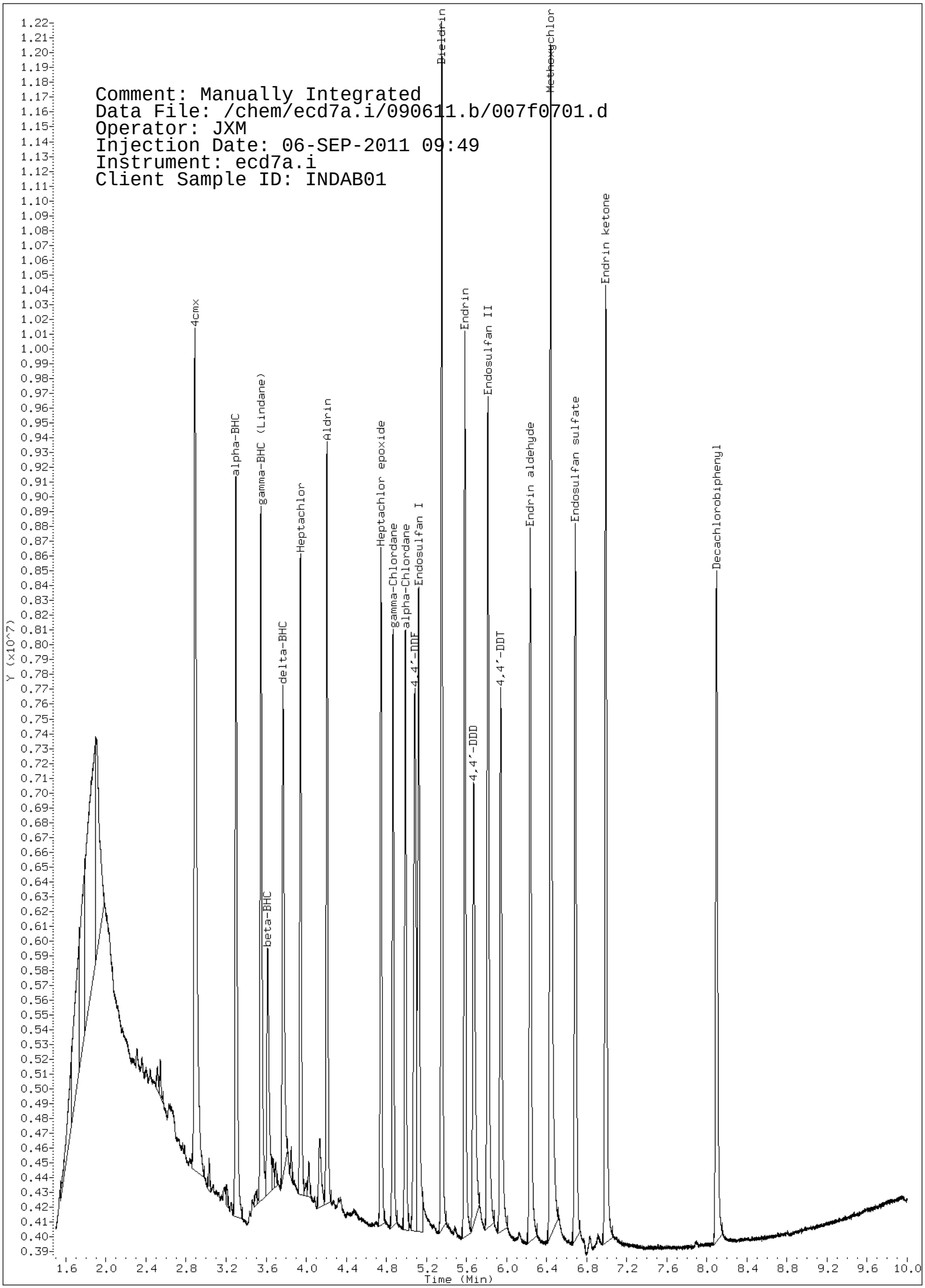
M - Compound response manually integrated.

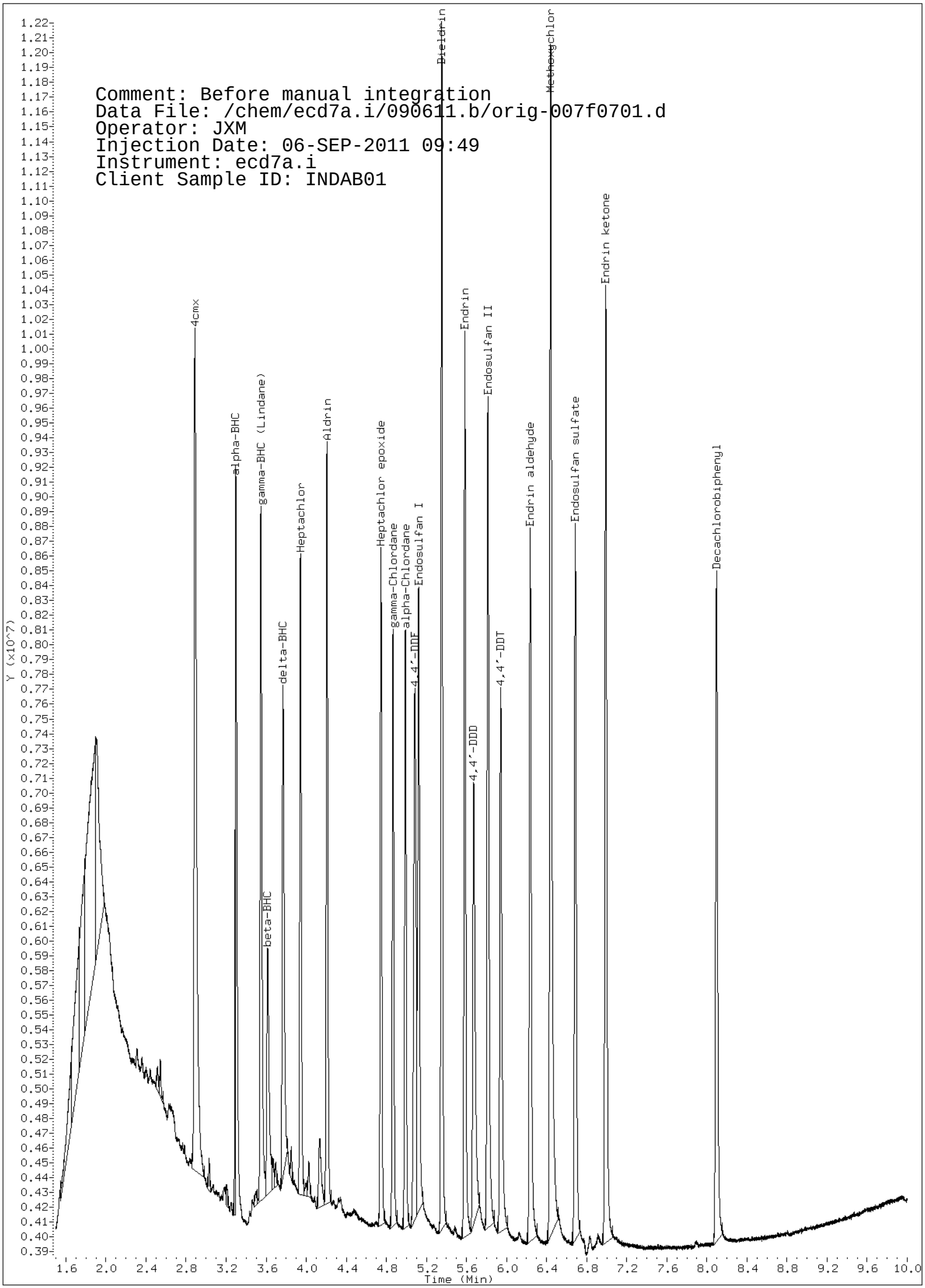
Data File: /chem/ecd7a.i/090611.b/007f0701.d
Date : 06-SEP-2011 09:49
Client ID: INDAB01
Sample Info: IWPE110906-01AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/007f0701.d
Operator: JXM
Injection Date: 06-SEP-2011 09:49
Instrument: ecd7a.i
Client Sample ID: INDAB01
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-007f0701.d
Operator: JXM
Injection Date: 06-SEP-2011 09:49
Instrument: ecd7a.i
Client Sample ID: INDAB01
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/007b0701.d
Lab Smp Id: WPE110906-01AB Client Smp ID: INDAB01
Inj Date : 06-SEP-2011 09:49
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009b0901.d
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	7077307	4.00000	3.67	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	6629653	4.00000	3.81	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.740	3.737	0.003	2652001	4.00000	3.80	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	6189956	4.00000	3.83	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.998	3.996	0.002	5933277	4.00000	3.63	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.378	4.380	-0.002	6355330	4.00000	3.83	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.904	4.903	0.001	5636560	4.00000	3.86	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.094	5.094	0.000	5283572	4.00000	3.77	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.235	5.235	0.000	5232511	4.00000	3.84	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.293   5.292   0.001         4904327 4.00000     3.86  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.412   5.397   0.015         8981842 8.00000     7.18  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.565   5.564   0.001        10541569 8.00000     7.52  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.869   5.869   0.000         8310161 8.00000     7.69  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  6.001   5.987   0.014         7157054 8.00000     7.46  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.089   6.085   0.004         9153502 8.00000     7.68  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.434   6.428   0.006         7560498 8.00000     7.87  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.325   6.316   0.009         7549489 8.00000     7.35  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.735   6.730   0.005         7440873 8.00000     7.48  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.043   7.037   0.006        16910865 40.0000     37.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.304   7.299   0.005        10372739 8.00000     7.79  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.927   2.926   0.001        11166518 8.00000     8.22  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.712   8.708   0.004         7838037 8.00000     8.40  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/007b0701.d

Page 1

Date : 06-SEP-2011 09:49

Client ID: INDAB01

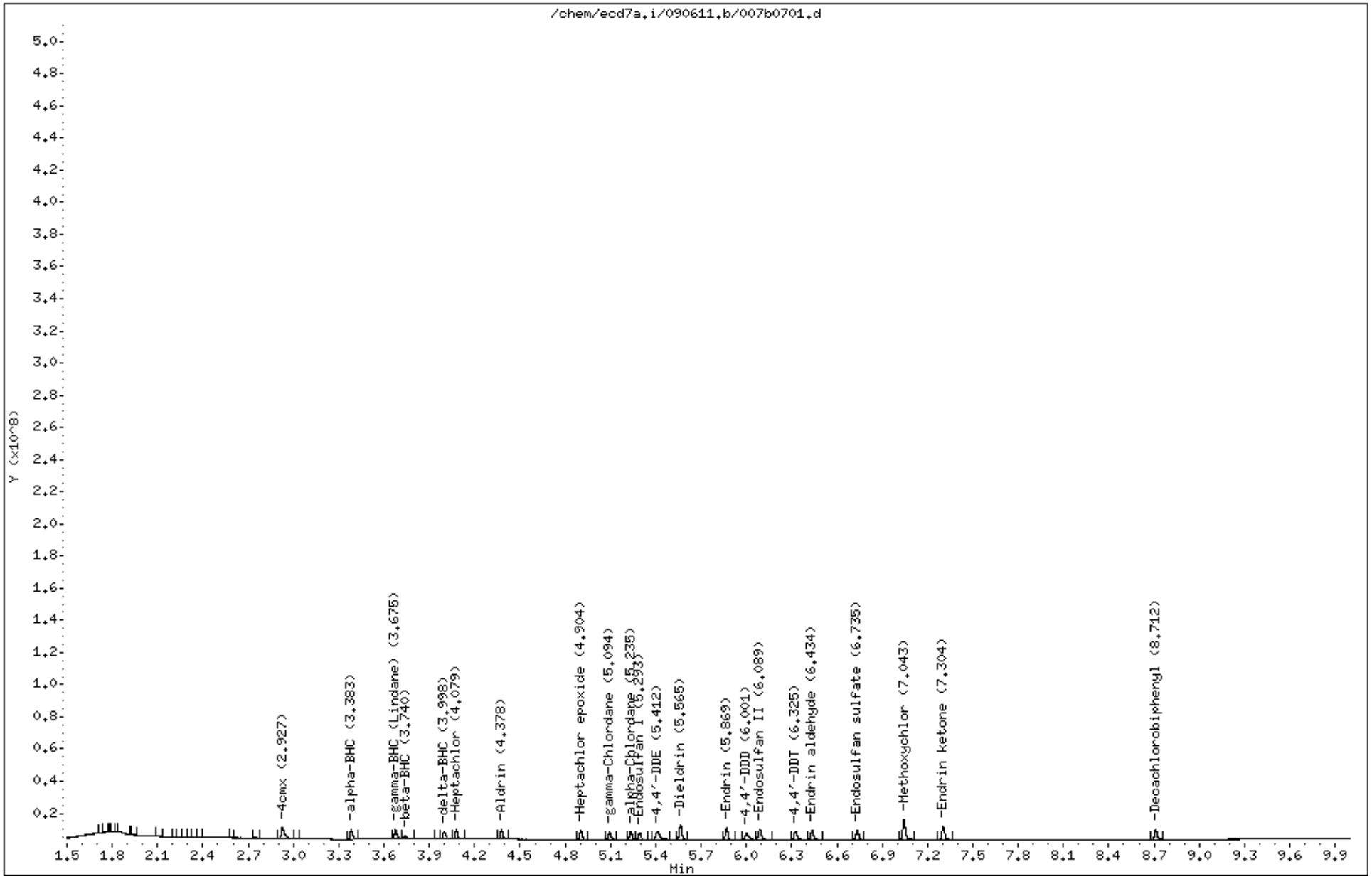
Instrument: ecd7a.i

Sample Info: IWPE110906-01AB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/008f0801.d
Lab Smp Id: WPE110906-02AB Client Smp ID: INDAB02
Inj Date : 06-SEP-2011 10:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010f1001.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	17147429	10.0000	9.57	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.546	0.001	15245955	10.0000	9.63	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.613	3.612	0.001	6598530	10.0000	10.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	11983643	10.0000	9.65	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.765	0.002	13705056	10.0000	9.46	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.206	4.208	-0.002	14382567	10.0000	9.78	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.745	4.746	-0.001	12633062	10.0000	9.80	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.866	4.866	0.000	12000011	10.0000	9.65	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.990	4.990	0.000	11948051	10.0000	9.75	80.00- 120.00	100.00(M)

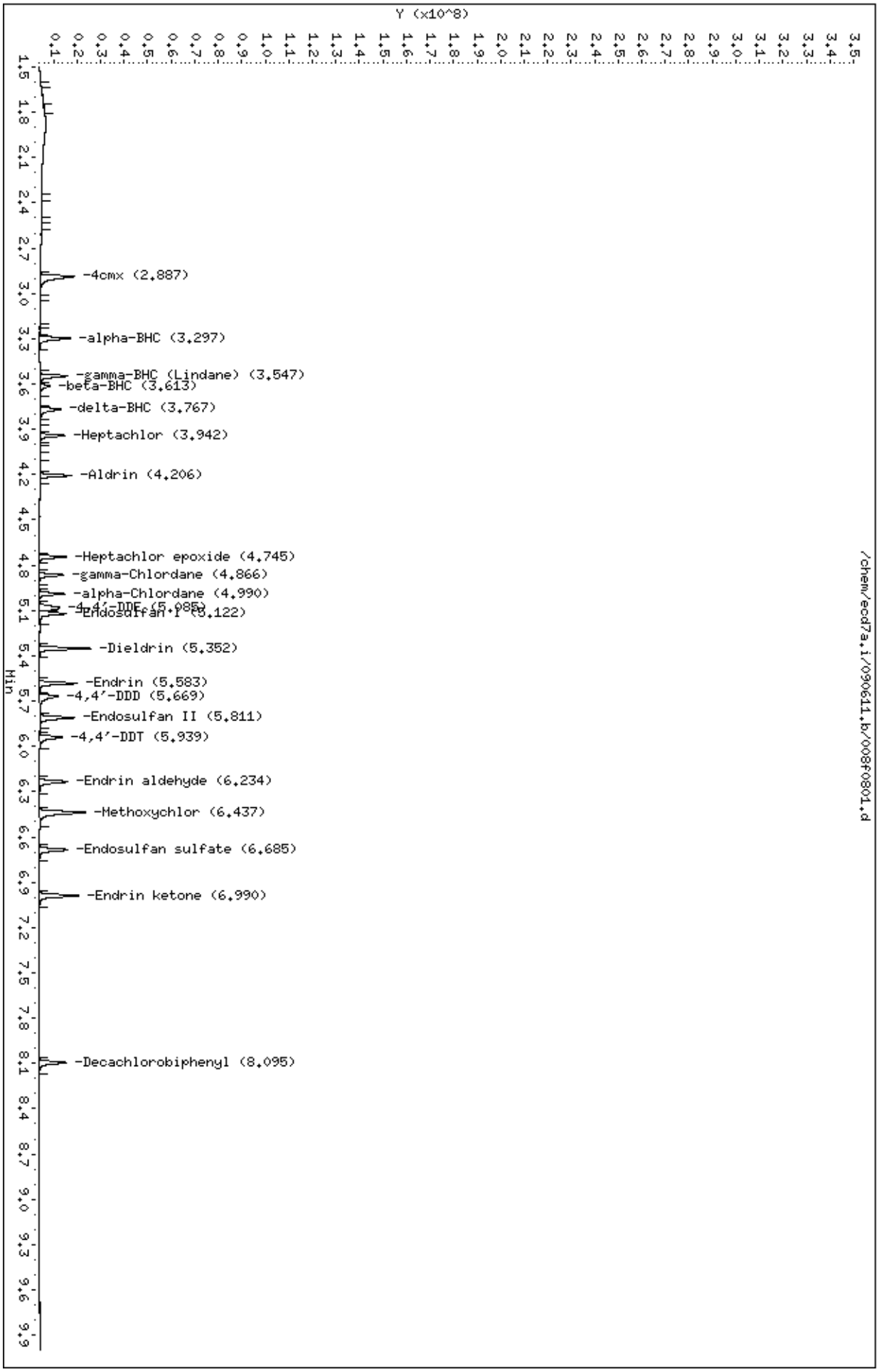
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.122	5.122	0.000	15764741	10.0000	10.9	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.085	5.062	0.023	16471502	20.0000	17.3	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.352	5.352	0.000	24432038	20.0000	20.2	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.583	5.582	0.001	18291093	20.0000	19.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.669	5.651	0.018	14569942	20.0000	19.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.811	5.806	0.005	19748317	20.0000	19.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.234	6.228	0.006	16980753	20.0000	20.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.928	0.011	14330451	20.0000	18.5	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.685	6.680	0.005	16691971	20.0000	19.4	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.437	6.428	0.009	30691629	100.000	103	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.990	6.985	0.005	21947039	20.0000	20.3	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	25302240	20.0000	20.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.092	0.003	15812679	20.0000	20.4	80.00- 120.00	100.00

QC Flag Legend

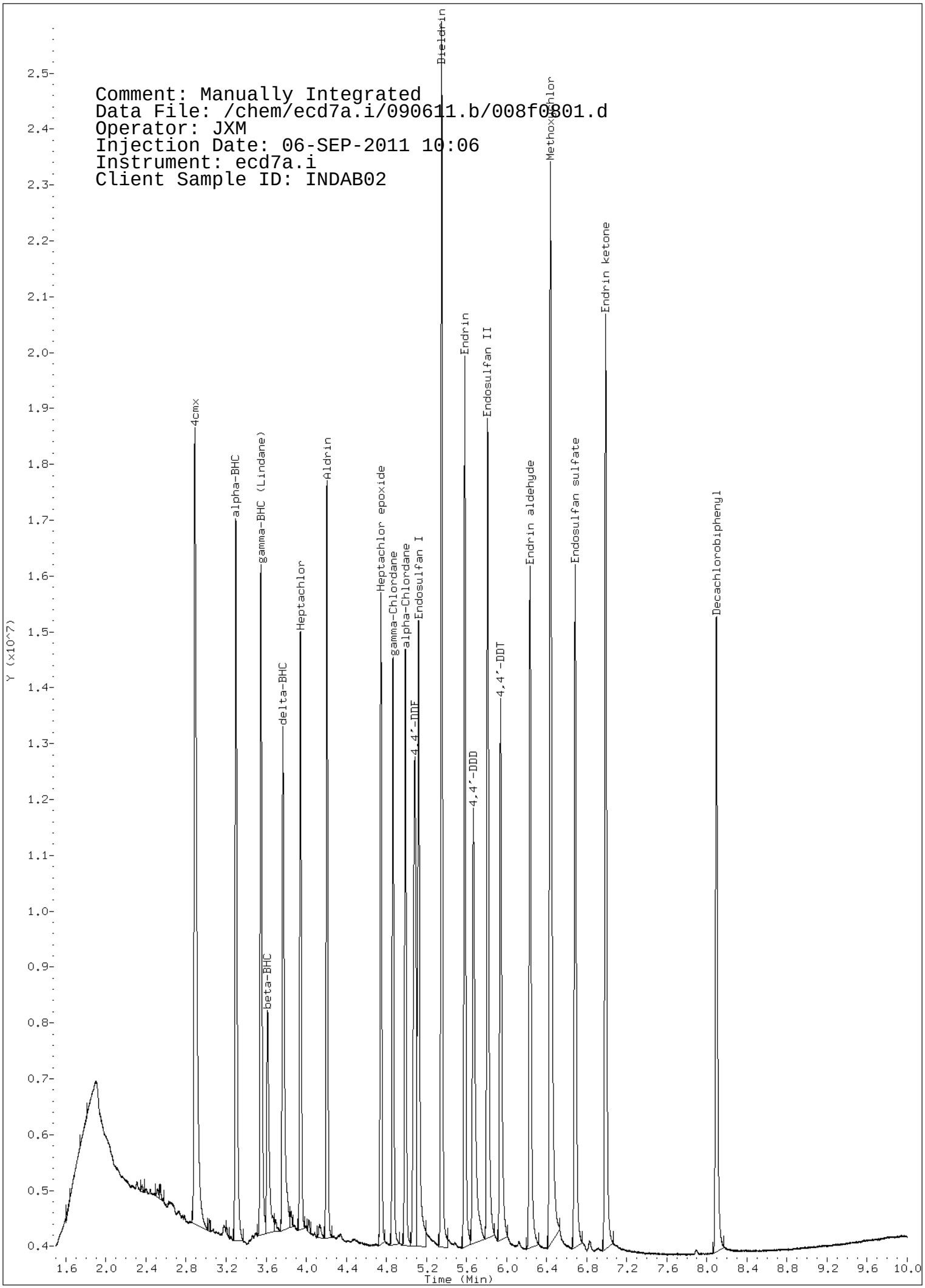
M - Compound response manually integrated.

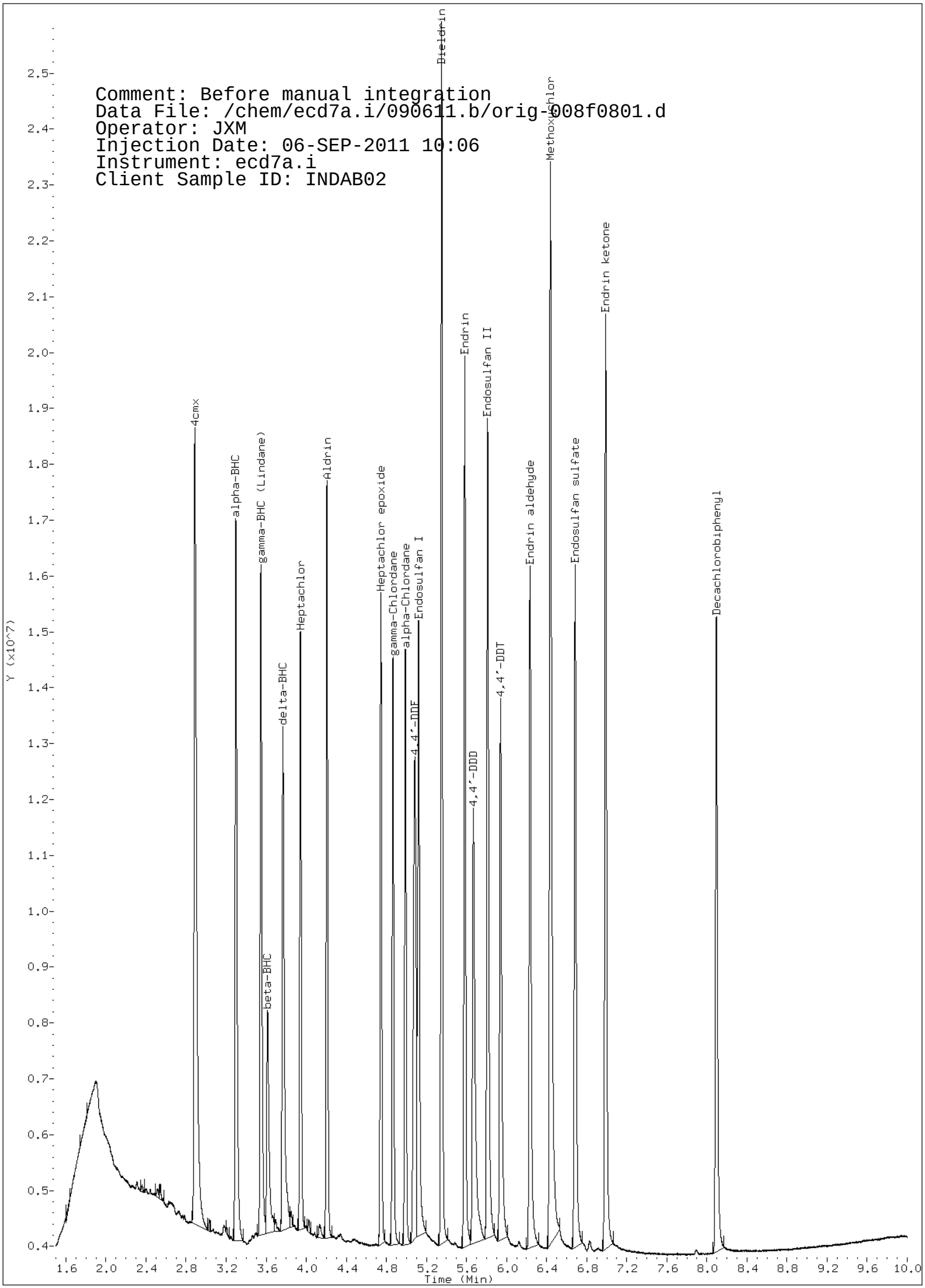
Data File: /chem/ecd7a.i/090611.b/008f0801.d
Date : 06-SEP-2011 10:06
Client ID: INDAB02
Sample Info: IWPE110906-02AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/008f0801.d
Operator: JXM
Injection Date: 06-SEP-2011 10:06
Instrument: ecd7a.i
Client Sample ID: INDAB02
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-008f0801.d
Operator: JXM
Injection Date: 06-SEP-2011 10:06
Instrument: ecd7a.i
Client Sample ID: INDAB02
Dieldrin
Methoxychlor
Endrin ketone
Endrin
Endosulfan II
4cmx
alpha-BHC
gamma-BHC (Lindane)
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Endrin aldehyde
Endosulfan sulfate
Decachlorobiphenyl
Heptachlor
delta-BHC
4,4'-DDE
4,4'-DDD
4,4'-DDT
beta-BHC
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/008b0801.d
Lab Smp Id: WPE110906-02AB Client Smp ID: INDAB02
Inj Date : 06-SEP-2011 10:06
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010b1001.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	18550178	10.0000	9.61	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	16962958	10.0000	9.75	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.739	3.737	0.002	6797679	10.0000	9.75	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	16137791	10.0000	9.99	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.997	3.996	0.001	15476678	10.0000	9.47	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	16372223	10.0000	9.87	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.904	4.903	0.001	14452155	10.0000	9.91	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.094	5.094	0.000	13624043	10.0000	9.72	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	13415276	10.0000	9.86	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                  CAS #: 959-98-8
  5.293   5.292   0.001        12620768 10.0000     9.93  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                      CAS #: 72-55-9
  5.409   5.397   0.012        24298606 20.0000     19.4  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                      CAS #: 60-57-1
  5.563   5.564  -0.001        27912922 20.0000     19.9  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                        CAS #: 72-20-8
  5.869   5.869   0.000        21395951 20.0000     19.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                      CAS #: 72-54-8
  6.000   5.987   0.013        18238342 20.0000     19.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                 CAS #: 33213-65-9
  6.088   6.085   0.003        23583569 20.0000     19.8  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                               CAS #: 7421-93-4
  6.433   6.428   0.005        19620565 20.0000     20.4  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                      CAS #: 50-29-3
  6.325   6.316   0.009        19751582 20.0000     19.2  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                            CAS #: 1031-07-8
  6.735   6.730   0.005        19553273 20.0000     19.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                  CAS #: 72-43-5
  7.043   7.037   0.006        43802925 100.000     98.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                 CAS #: 53494-70-5
  7.303   7.299   0.004        26640491 20.0000     20.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                          CAS #: 877-09-8
  2.927   2.926   0.001        27170531 20.0000     20.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  8.711   8.708   0.003        19286431 20.0000     20.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/008b0801.d

Page 1

Date : 06-SEP-2011 10:06

Client ID: INDAB02

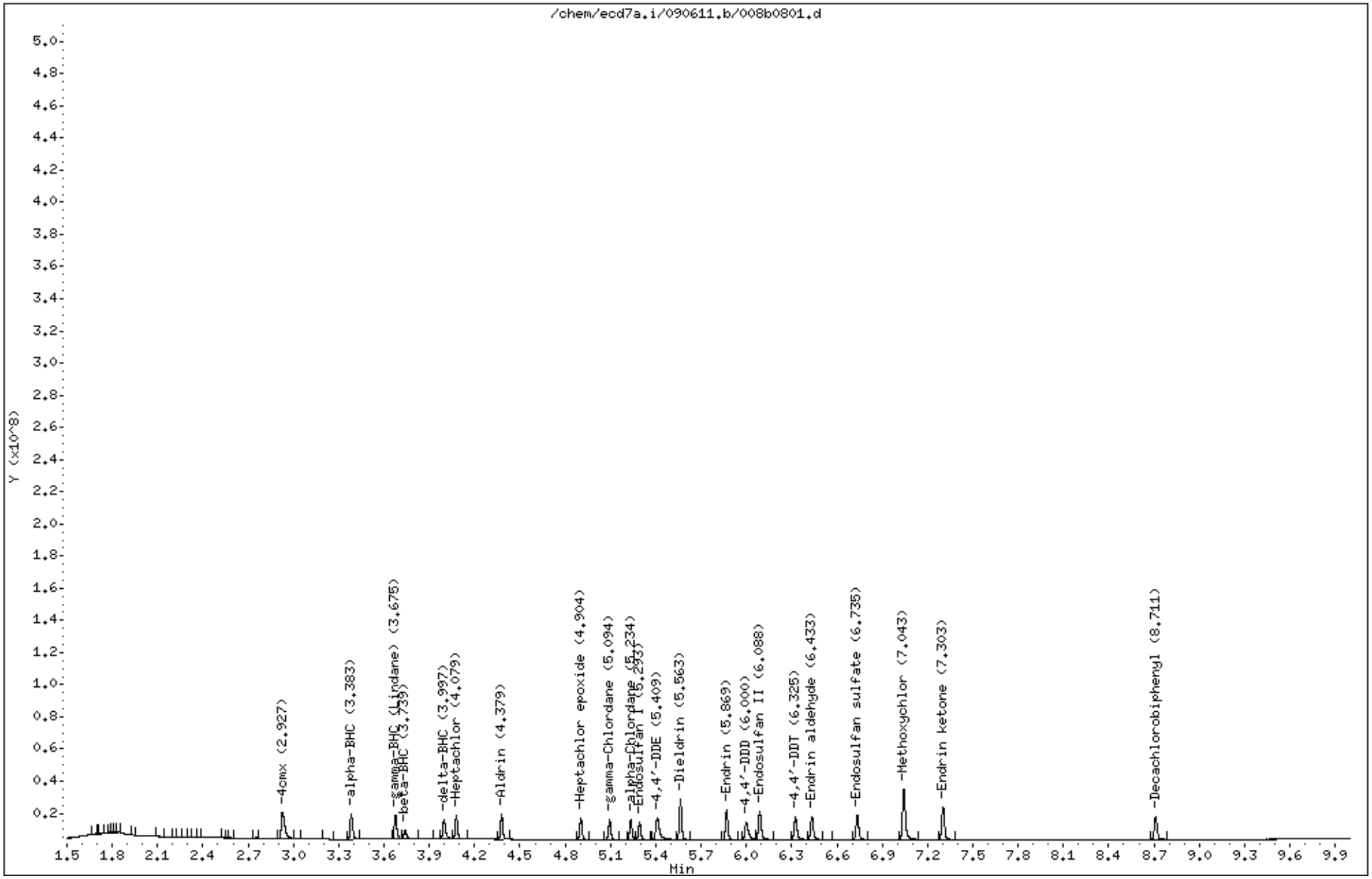
Instrument: ecd7a.i

Sample Info: IWPE110906-02AB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/009f0901.d
Lab Smp Id: WPE110906-03AB Client Smp ID: INDAB03
Inj Date : 06-SEP-2011 10:23
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011f1101.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.297	-0.001	91430061	50.0000	51.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.546	0.001	80078517	50.0000	50.6	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.612	3.612	0.000	30772383	50.0000	48.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.941	3.943	-0.002	62553240	50.0000	50.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.765	3.765	0.000	74939812	50.0000	51.7	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.207	4.208	-0.001	74659347	50.0000	50.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.745	4.746	-0.001	65618147	50.0000	50.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.865	4.866	-0.001	63417629	50.0000	51.0	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	61879260	50.0000	50.5	80.00- 120.00	100.00(M)

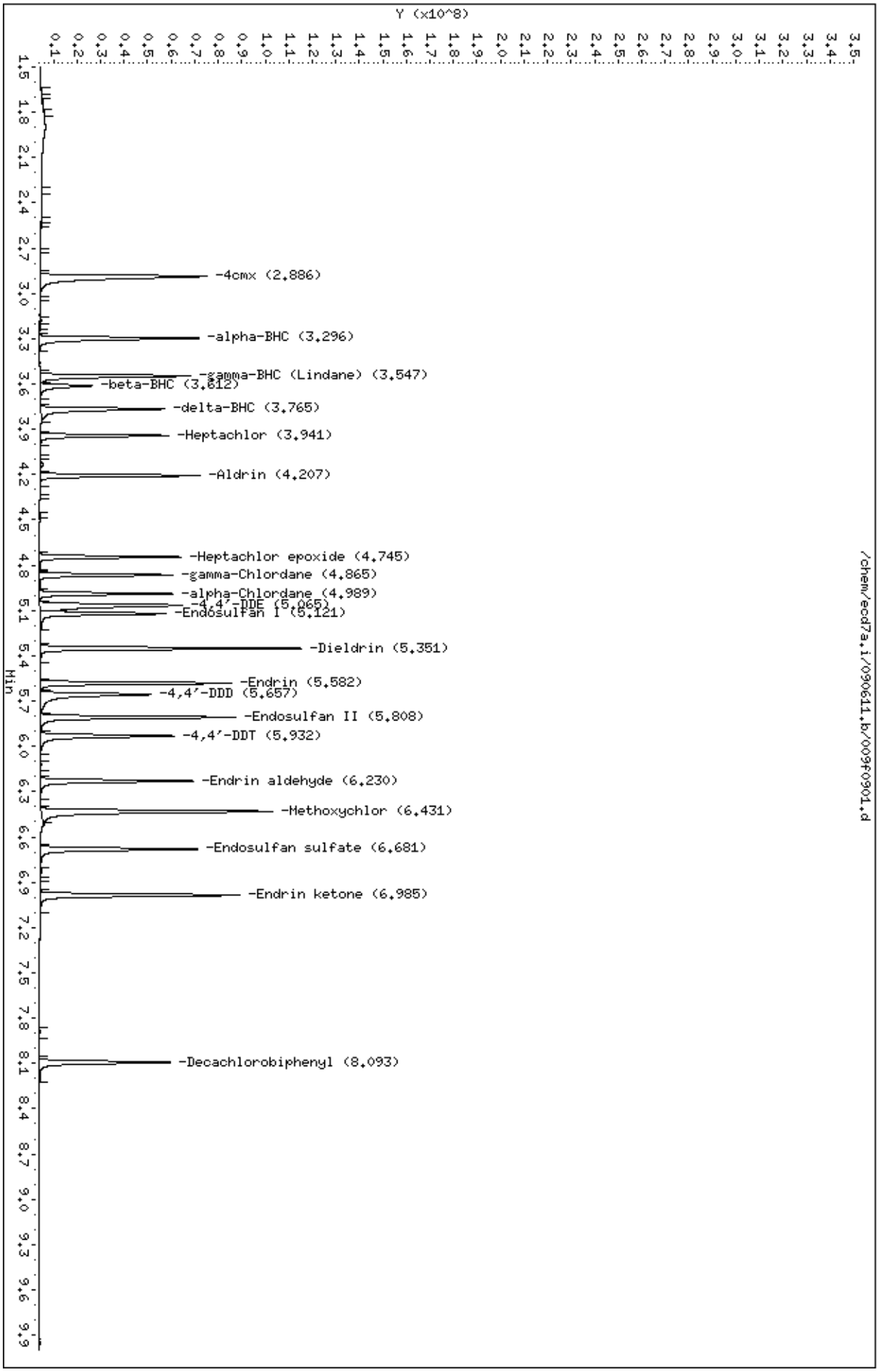
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.121   5.122  -0.001        71744525 50.0000     49.8  80.00- 120.00   100.00(M)
--------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.065   5.062   0.003        99435487 100.000      105  80.00- 120.00   100.00(M)
--------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.351   5.352  -0.001       124285317 100.000      103  80.00- 120.00   100.00(M)
--------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.582   5.582   0.000        93073968 100.000      101  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.657   5.651   0.006        79951537 100.000      105  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.808   5.806   0.002       105385216 100.000      104  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.230   6.228   0.002        85033369 100.000      101  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.932   5.928   0.004        79644450 100.000      103  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.681   6.680   0.001        87624414 100.000      102  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.431   6.428   0.003       142612520 500.000      480  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.985   6.985   0.000       108223384 100.000      100  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.886   2.887  -0.001       126933666 100.000      100  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.093   8.092   0.001        76639093 100.000     99.0  80.00- 120.00   100.00
--------------------------------------------------------------------------------
```

QC Flag Legend

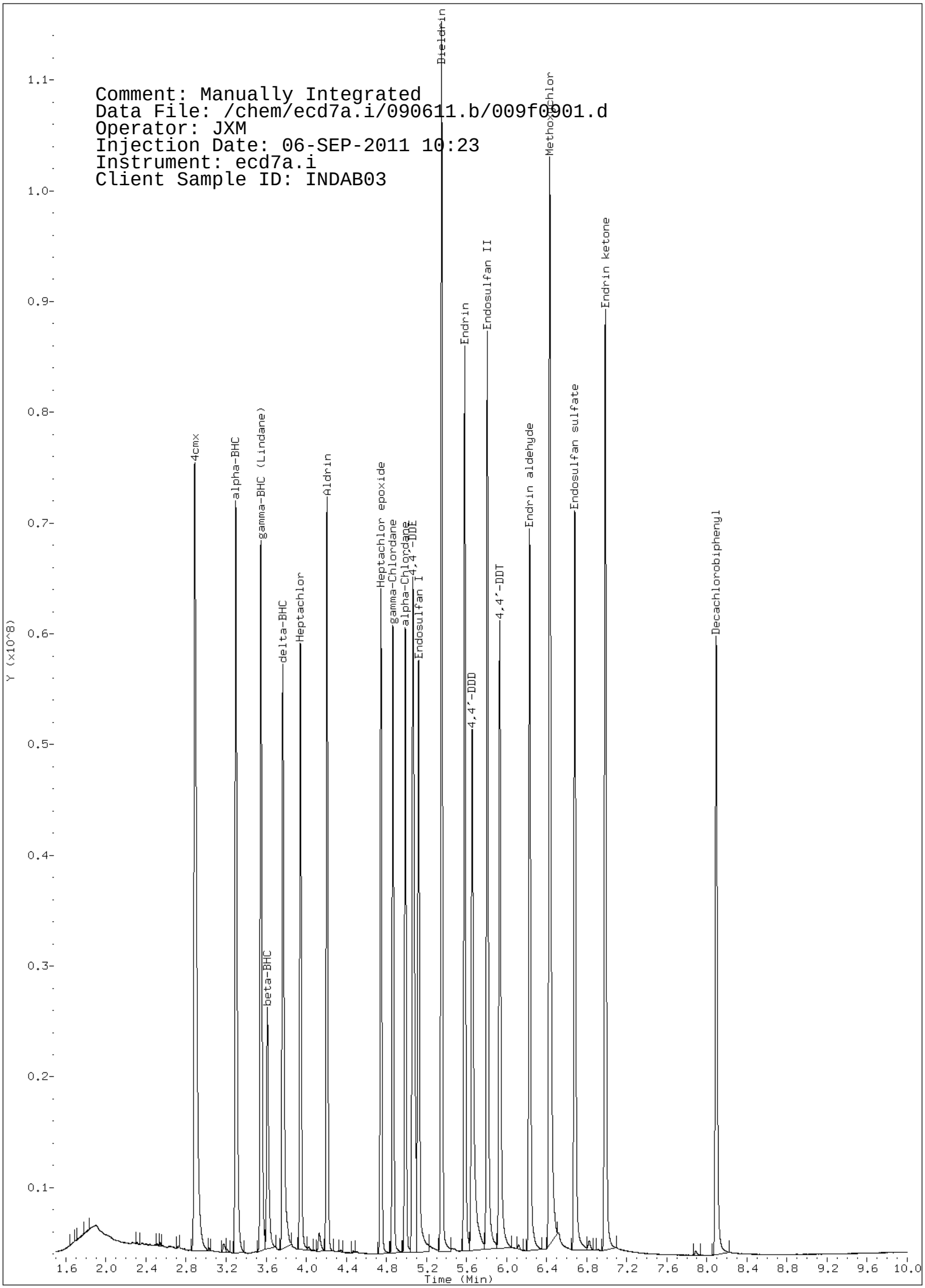
M - Compound response manually integrated.

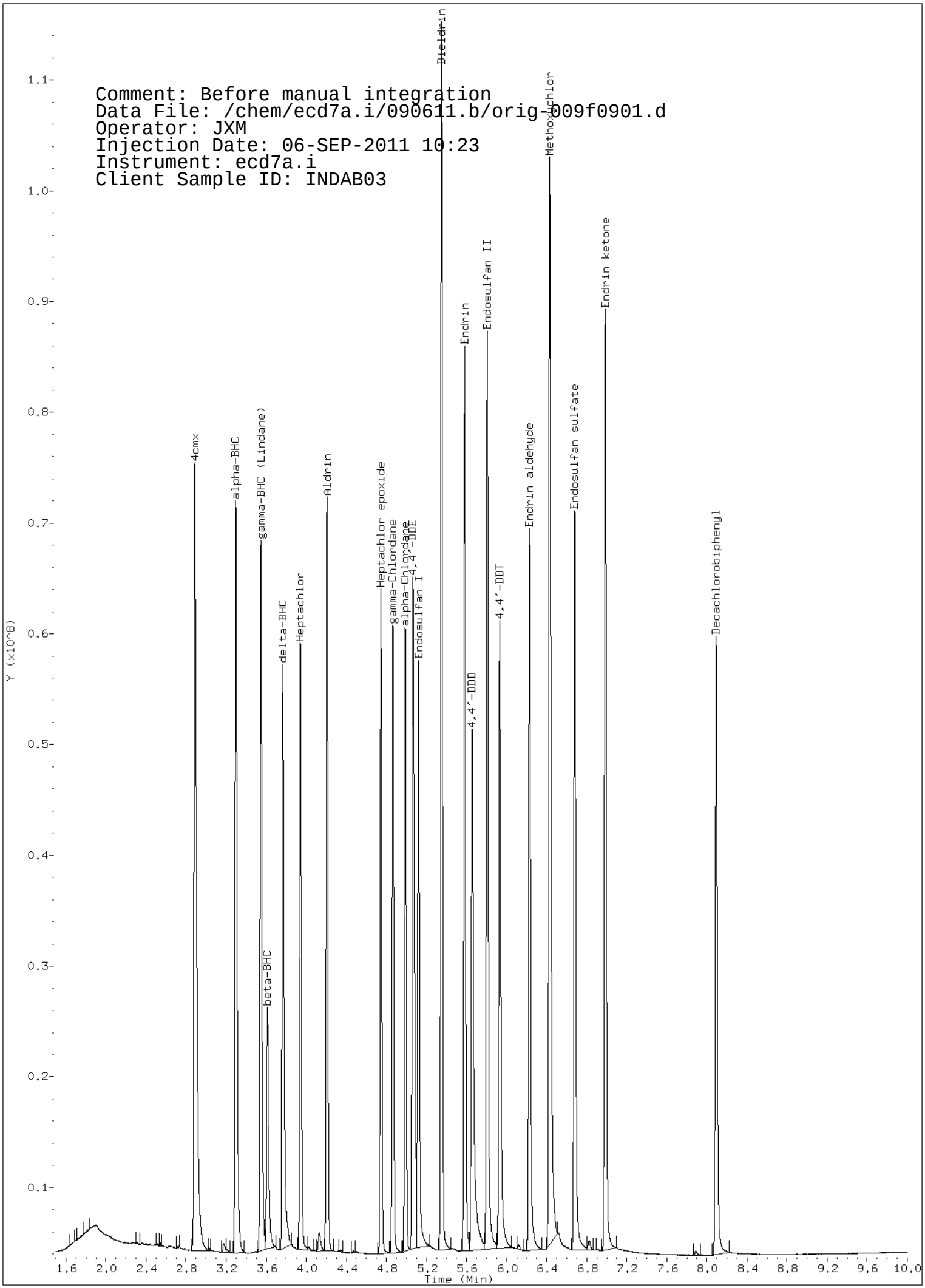
Data File: /chem/ecd7a.i/090611.b/009f0901.d
Date : 06-SEP-2011 10:23
Client ID: INDAB03
Sample Info: IWPE110906-03AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/009f0901.d
Operator: JXM
Injection Date: 06-SEP-2011 10:23
Instrument: ecd7a.i
Client Sample ID: INDAB03
Dieldrin
Methoxychlor
Endrin ketone
Endosulfan II
Endrin
Endosulfan sulfate
Endrin aldehyde
4cmx
alpha-BHC
gamma-BHC (Lindane)
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
4,4'-DDT
Decachlorobiphenyl
delta-BHC
Heptachlor
4,4'-DDD
beta-BHC
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-009f0901.d
Operator: JXM
Injection Date: 06-SEP-2011 10:23
Instrument: ecd7a.i
Client Sample ID: INDAB03
Dieldrin
Methoxychlor
Endrin ketone
Endosulfan II
Endrin
4cmx
alpha-BHC
gamma-BHC (Lindane)
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
4,4'-DDE
Endosulfan I
Endrin aldehyde
Endosulfan sulfate
Decachlorobiphenyl
4,4'-DDT
4,4'-DDD
delta-BHC
Heptachlor
beta-BHC
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/009b0901.d
Lab Smp Id: WPE110906-03AB Client Smp ID: INDAB03
Inj Date : 06-SEP-2011 10:23
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011b1101.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.382	3.383	-0.001	99574362	50.0000	51.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.674	3.675	-0.001	88231017	50.0000	50.7	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.737	3.737	0.000	35578456	50.0000	51.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	82920405	50.0000	51.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.996	3.996	0.000	84311632	50.0000	51.6	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.378	4.380	-0.002	84264342	50.0000	50.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	74035874	50.0000	50.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.093	5.094	-0.001	71605485	50.0000	51.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	69075198	50.0000	50.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.292	5.292	0.000	64991408	50.0000	51.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.400	5.397	0.003	127995255	100.000	102	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.563	5.564	-0.001	143153136	100.000	102	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.868	5.869	-0.001	109637351	100.000	101	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.990	5.987	0.003	97387182	100.000	102	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.085	6.085	0.000	121781345	100.000	102	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.430	6.428	0.002	96053114	100.000	100	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.318	6.316	0.002	103727446	100.000	101	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.731	6.730	0.001	101166235	100.000	102	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.038	7.037	0.001	223365157	500.000	500	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.299	7.299	0.000	133648970	100.000	100	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	135893990	100.000	100	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.709	8.708	0.001	90942325	100.000	97.5	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/009b0901.d

Page 1

Date : 06-SEP-2011 10:23

Client ID: INDAB03

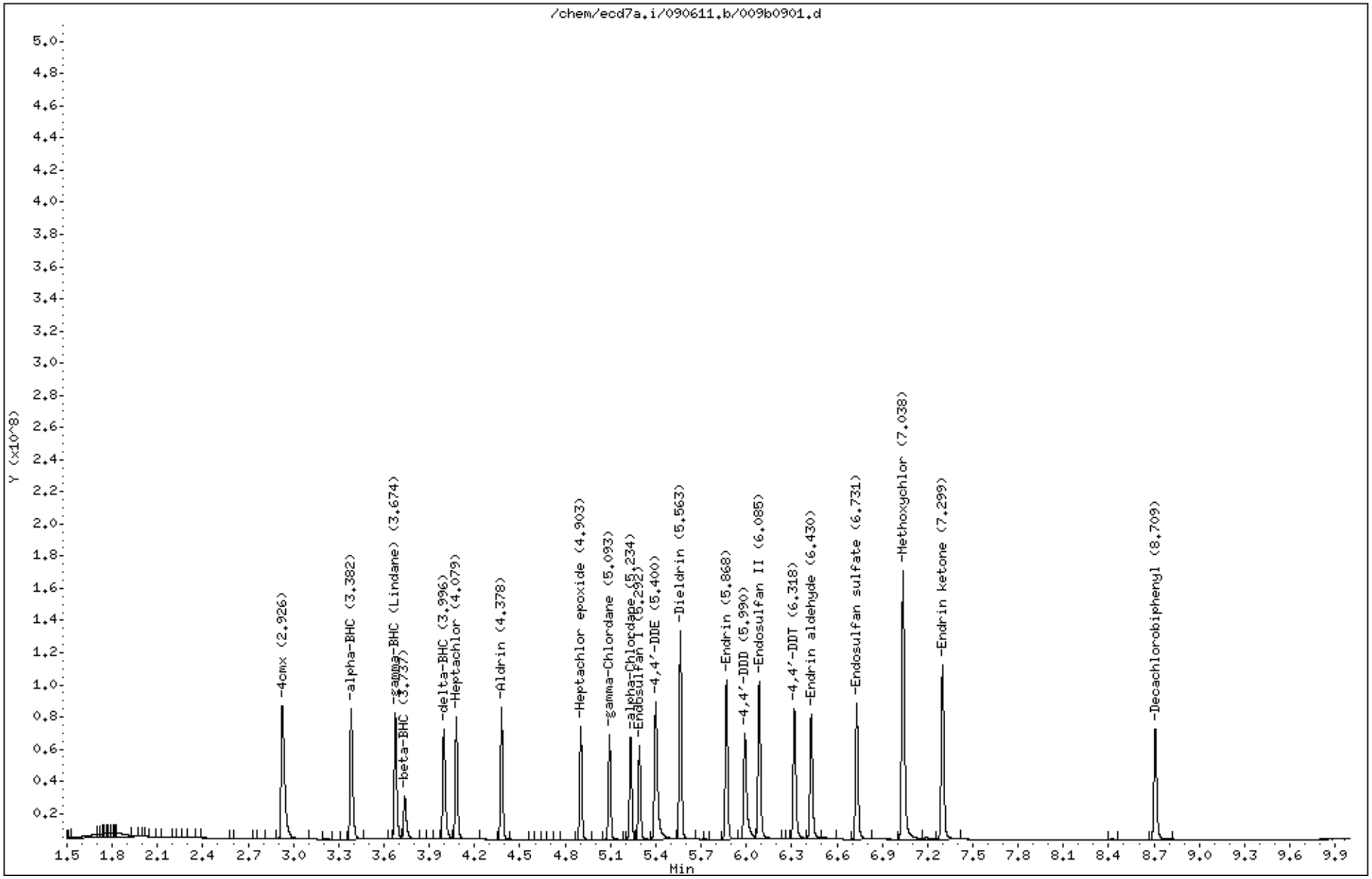
Instrument: ecd7a.i

Sample Info: IWPE110906-03AB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

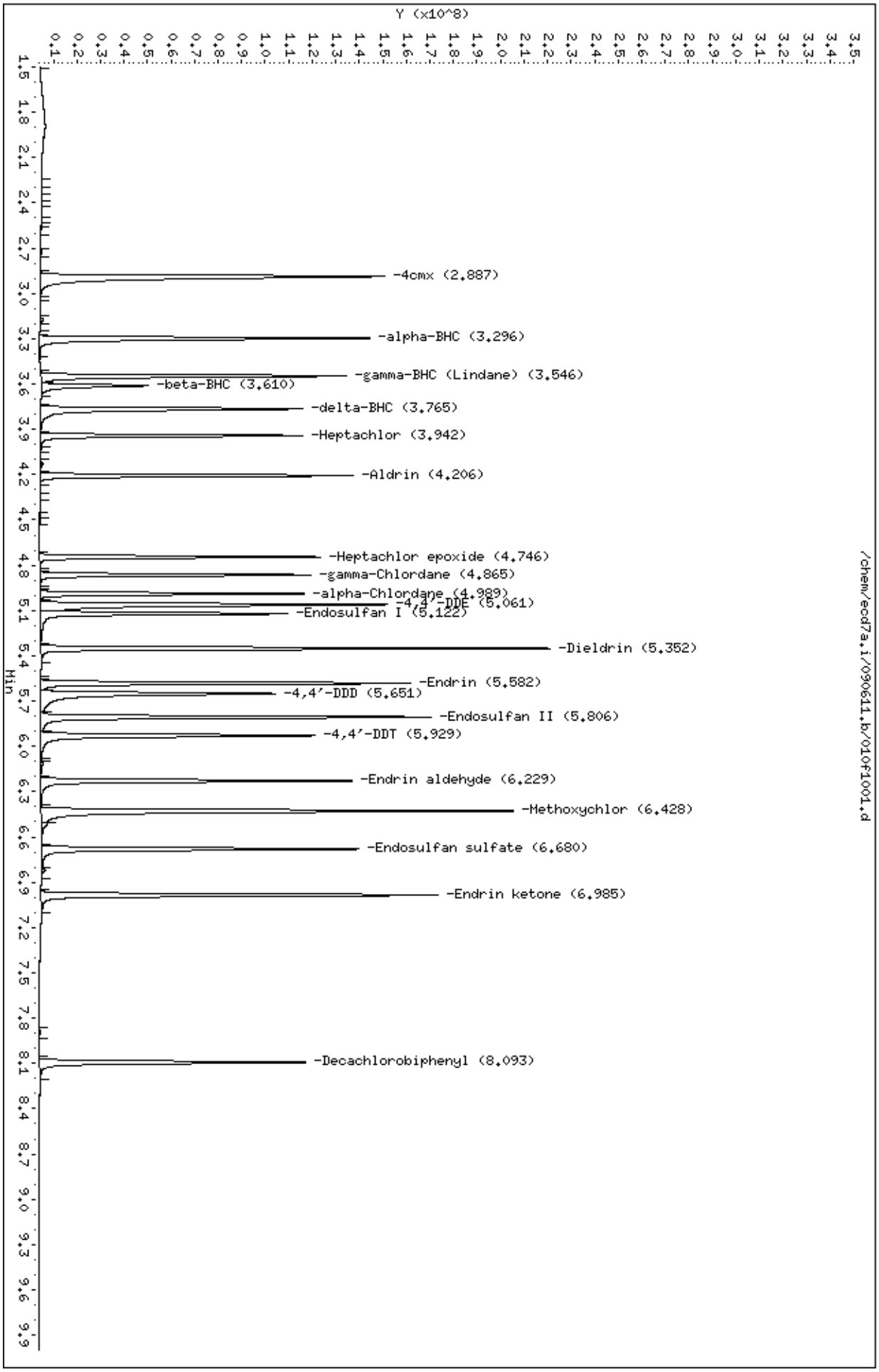
Data file : /chem/ecd7a.i/090611.b/010f1001.d
Lab Smp Id: WPE110906-04AB Client Smp ID: INDAB04
Inj Date : 06-SEP-2011 10:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028f2801.d
Als bottle: 10 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.297	-0.001	185784941	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.546	0.000	161489817	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.610	3.612	-0.002	61374397	100.000	96.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	125202860	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.765	3.765	0.000	158005344	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.206	4.208	-0.002	148719052	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.746	4.746	0.000	129449618	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.865	4.866	-0.001	126896349	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	123458339	100.000	101	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.122   5.122   0.000       134392835 100.000     93.3  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.061   5.062  -0.001       206391642 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.352   5.352   0.000       240813953 200.000      199  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.582   5.582   0.000       180831076 200.000      197  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.651   5.651   0.000       162081872 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.806   5.806   0.000       208145508 200.000      205  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.229   6.228   0.001       167339639 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.929   5.928   0.001       164696898 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.680   6.680   0.000       173853010 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.428   6.428   0.000       285397487 1000.00      960  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.985   6.985   0.000       210758200 200.000      195  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.887   2.887   0.000       251626624 200.000      199  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.093   8.092   0.001       150003976 200.000      194  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/010f1001.d
Date : 06-SEP-2011 10:40
Client ID: INDAB04
Sample Info: IWPE110906-04AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

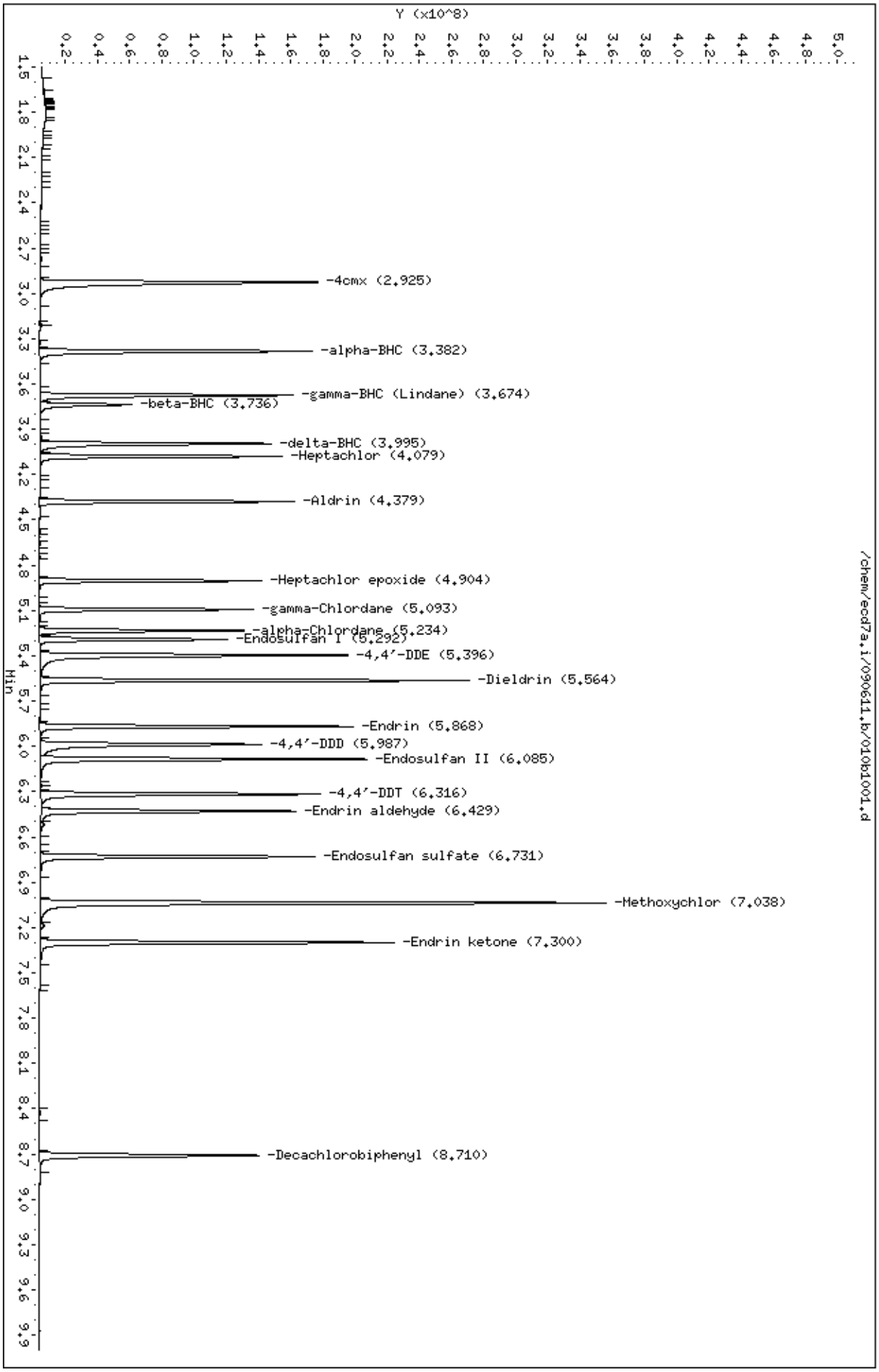
Data file : /chem/ecd7a.i/090611.b/010b1001.d
Lab Smp Id: WPE110906-04AB Client Smp ID: INDAB04
Inj Date : 06-SEP-2011 10:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028b2801.d
Als bottle: 10 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.382	3.383	-0.001	200834003	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.674	3.675	-0.001	178078288	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.736	3.737	-0.001	71376287	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	164407286	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.995	3.996	-0.001	172280984	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	168683779	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.904	4.903	0.001	147417658	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.093	5.094	-0.001	143125776	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	138107679	100.000	101	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.292   5.292   0.000       129085397 100.000      102  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.396   5.397  -0.001       259281932 200.000      207  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.564   5.564   0.000       284837679 200.000      203  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.868   5.869  -0.001       217138002 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.987   5.987   0.000       197586308 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.085   6.085   0.000       240496294 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.429   6.428   0.001       190660414 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.316   6.316   0.000       211411164 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.731   6.730   0.001       204492907 200.000      205  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.038   7.037   0.001       452139945 1000.00     1010  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.300   7.299   0.001       267078834 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.925   2.926  -0.001       268786893 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.710   8.708   0.002       179158964 200.000      192  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/010b1001.d
Date : 06-SEP-2011 10:40
Client ID: INDAB04
Sample Info: IWPE110906-04AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/011f1101.d
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 06-SEP-2011 10:57
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 11 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.297	-0.002	382591964	200.000	214	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.545	3.546	-0.001	334651504	200.000	211	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.609	3.612	-0.003	127886832	200.000	200	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
3.941	3.943	-0.002	260771008	200.000	210	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.763	3.765	-0.002	328761795	200.000	227	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.206	4.208	-0.002	306984395	200.000	209	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.744	4.746	-0.002	266089199	200.000	206	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.863	4.866	-0.003	268433872	200.000	216	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.988	4.990	-0.002	259460433	200.000	212	80.00- 120.00	100.00(AM)

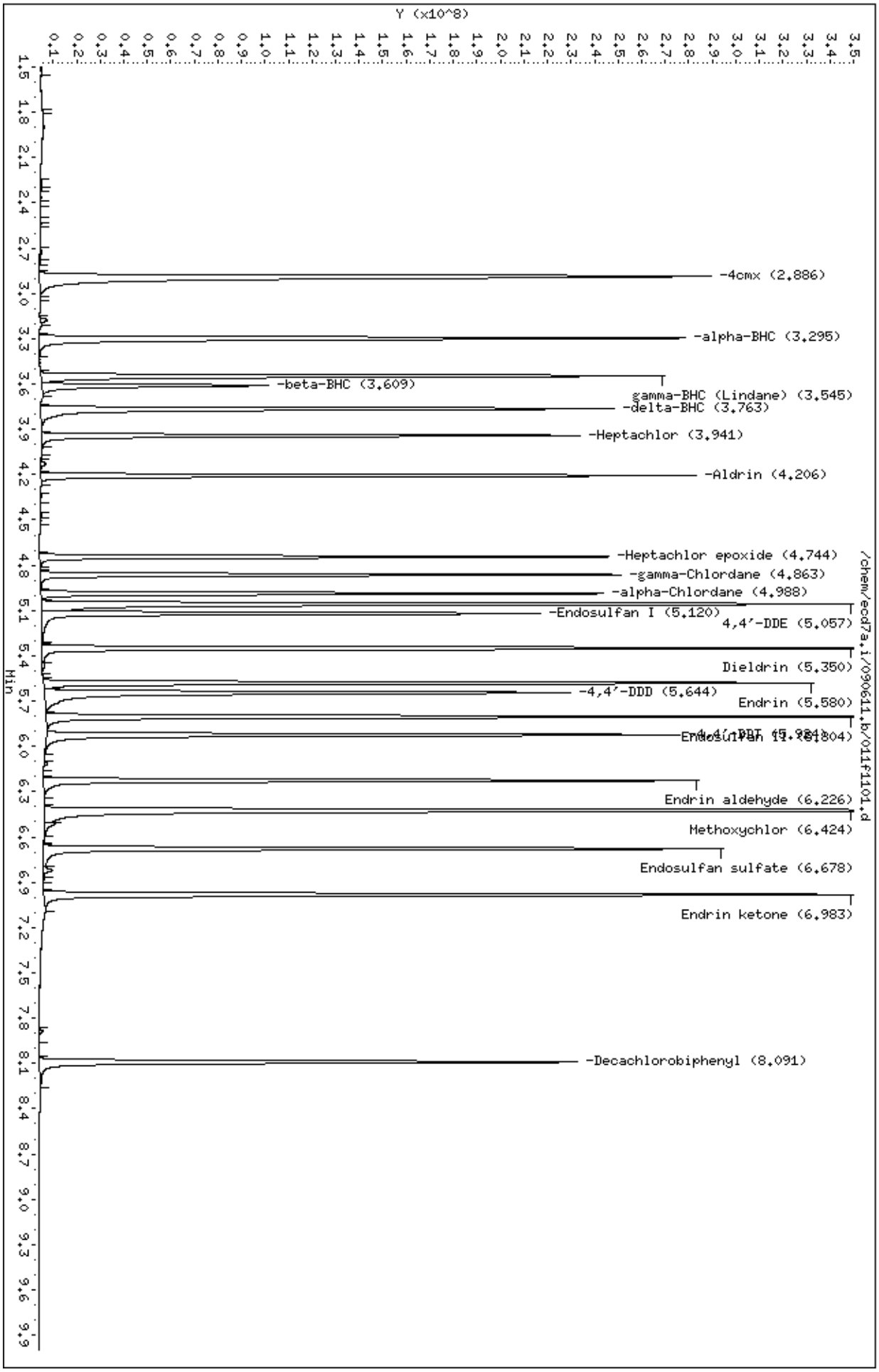
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.120   5.122  -0.002       265699160 200.000      184  80.00- 120.00   100.00(M)
--------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.057   5.062  -0.005       447144196 400.000      471  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.350   5.352  -0.002       499258221 400.000      412  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.580   5.582  -0.002       375347986 400.000      409  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.644   5.651  -0.007       335487729 400.000      441  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.804   5.806  -0.002       416217519 400.000      410  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.226   6.228  -0.002       340011014 400.000      403  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.924   5.928  -0.004       339956758 400.000      438  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.678   6.680  -0.002       366183416 400.000      426  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.424   6.428  -0.004       606001241 2000.00     2040  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.983   6.985  -0.002       432731828 400.000      400  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.886   2.887  -0.001       508417514 400.000      403  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.091   8.092  -0.001       304203499 400.000      393  80.00- 120.00   100.00
--------------------------------------------------------------------------------
```

QC Flag Legend

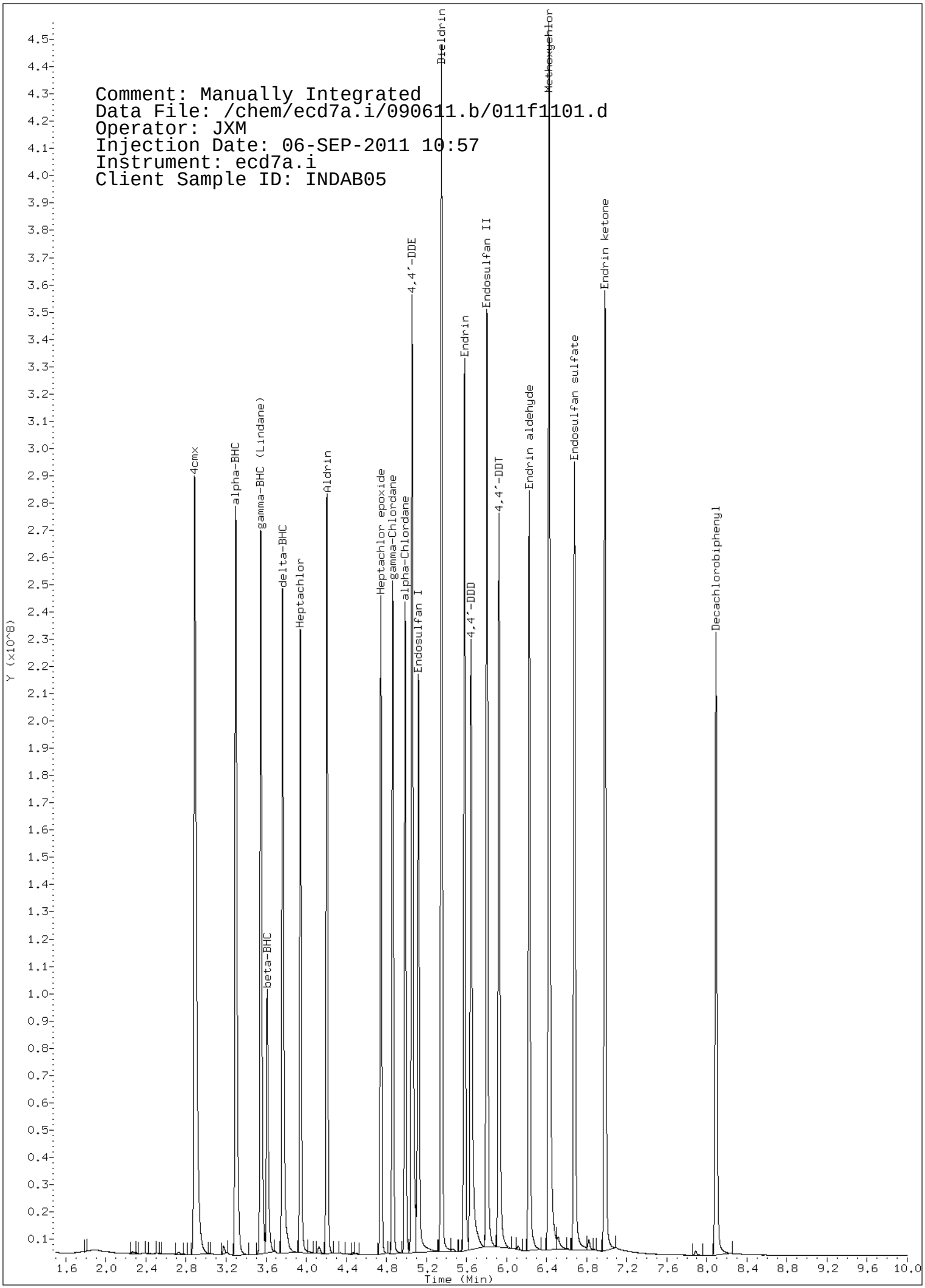
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

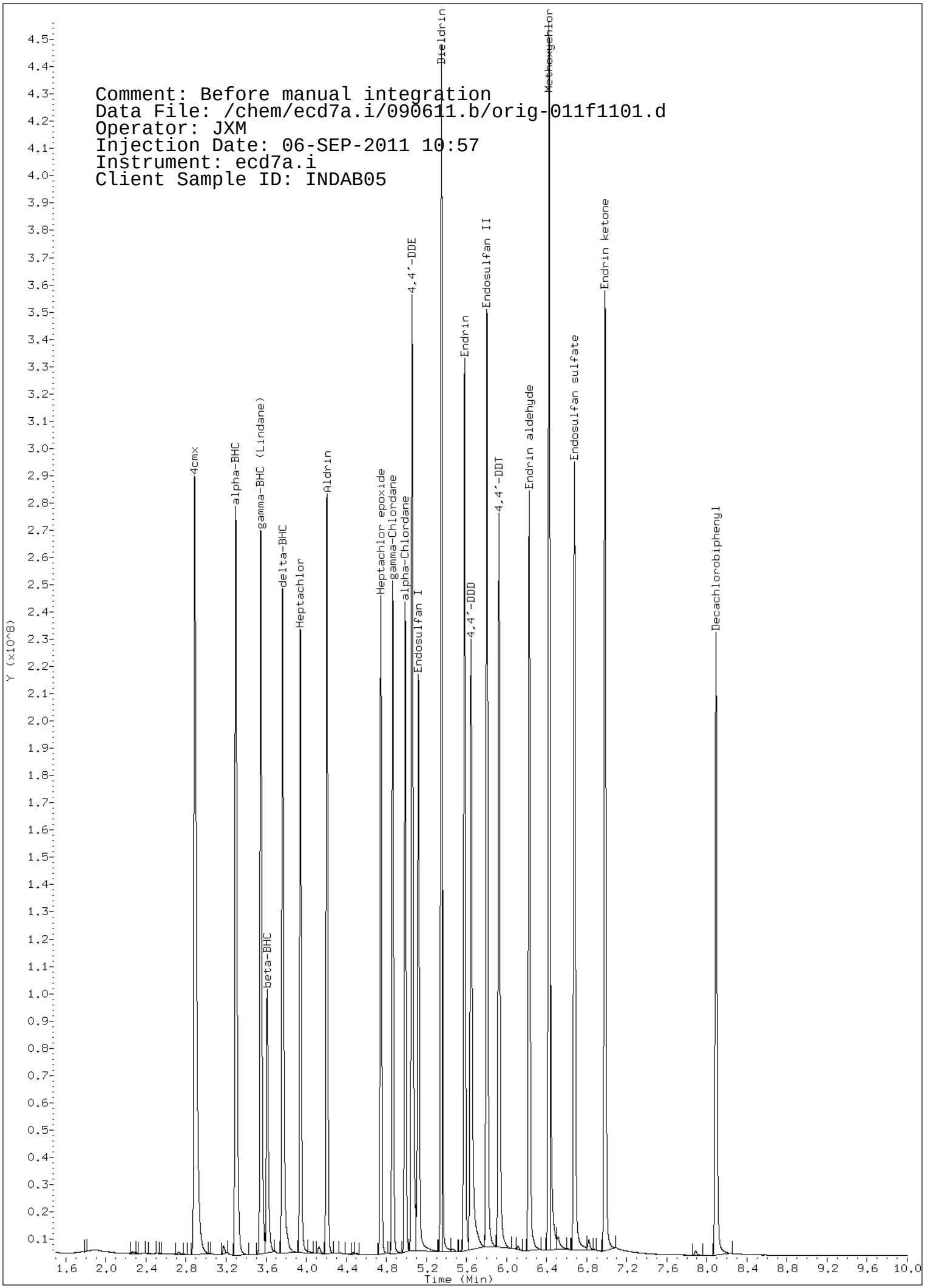
Data File: /chem/ecd7a.i/090611.b/011f1101.d
Date : 06-SEP-2011 10:57
Client ID: INDAB05
Sample Info: IPE110801-02AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/011f1101.d
Operator: JXM
Injection Date: 06-SEP-2011 10:57
Instrument: ecd7a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-011f1101.d
Operator: JXM
Injection Date: 06-SEP-2011 10:57
Instrument: ecd7a.i
Client Sample ID: INDAB05
Dieldrin
Methoxychlor
4,4'-DDE
Endosulfan II
Endrin ketone
Endrin
Endosulfan sulfate
Endrin aldehyde
4,4'-DDT
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Heptachlor
delta-BHC
gamma-BHC (Lindane)
alpha-BHC
4cmx
beta-BHC
4,4'-DDD
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/011b1101.d
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 06-SEP-2011 10:57
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 11 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.382	3.383	-0.001	405300304	200.000	210	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.674	3.675	-0.001	359927442	200.000	207	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.735	3.737	-0.002	143244896	200.000	206	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	322559433	200.000	200	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.994	3.996	-0.002	346486639	200.000	212	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.378	4.380	-0.002	338370205	200.000	204	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.902	4.903	-0.001	296159175	200.000	203	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.093	5.094	-0.001	291717046	200.000	208	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	278597646	200.000	205	80.00- 120.00	100.00(A)

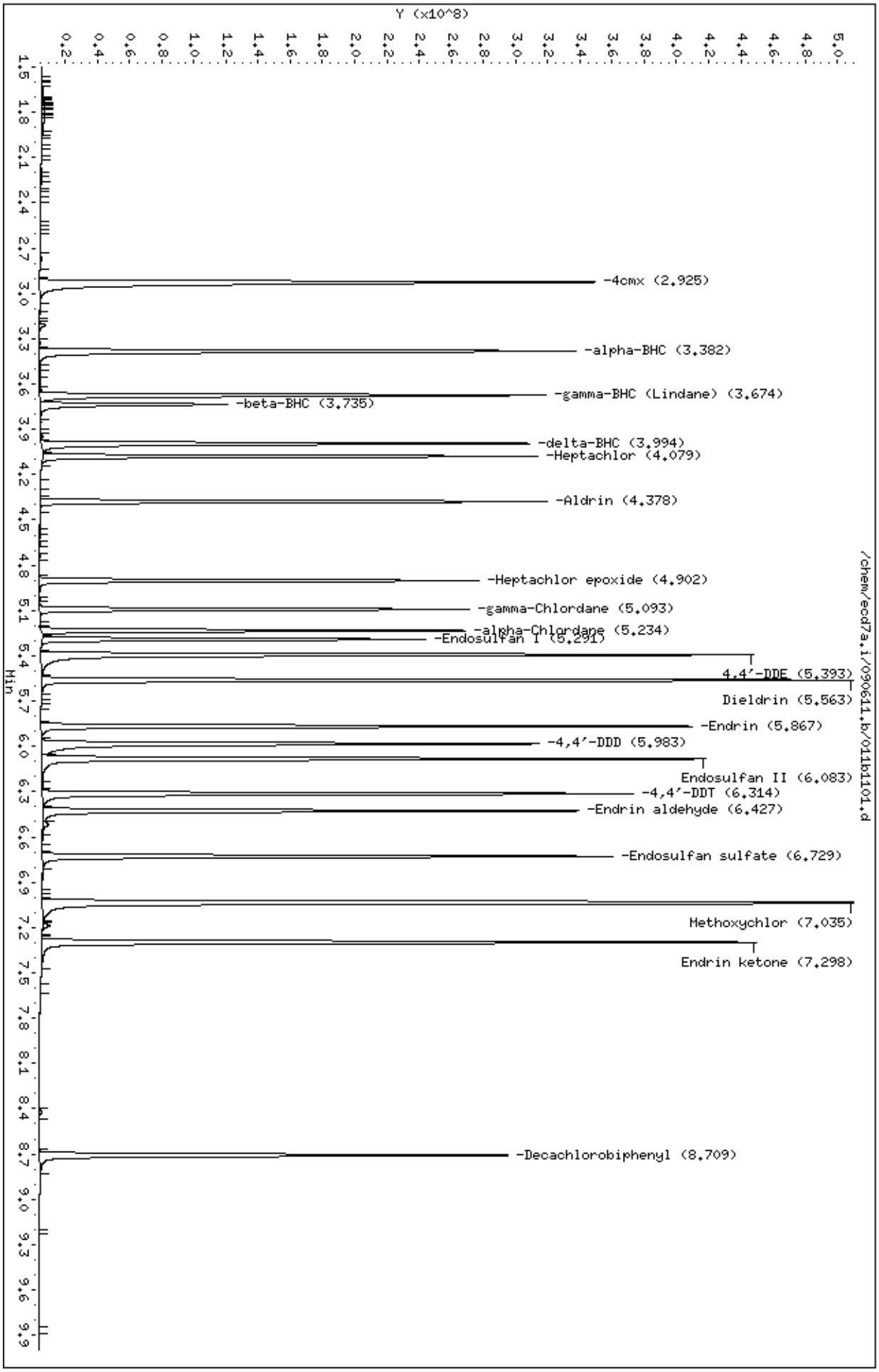
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.291   5.292  -0.001       255025512 200.000      201  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.393   5.397  -0.004       536598561 400.000      429  80.00- 120.00   100.00(AM)
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.563   5.564  -0.001       577073545 400.000      412  80.00- 120.00   100.00(AM)
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.867   5.869  -0.002       445498193 400.000      412  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.983   5.987  -0.004       411201117 400.000      429  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.083   6.085  -0.002       486413191 400.000      408  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.427   6.428  -0.001       385316255 400.000      401  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.314   6.316  -0.002       442769022 400.000      431  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.729   6.730  -0.001       414049217 400.000      416  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.035   7.037  -0.002       947747586 2000.00     2120  80.00- 120.00   100.00(AM)
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.298   7.299  -0.001       544244085 400.000      408  80.00- 120.00   100.00(AM)
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.925   2.926  -0.001       534581646 400.000      393  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.709   8.708   0.001       365560587 400.000      392  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

QC Flag Legend

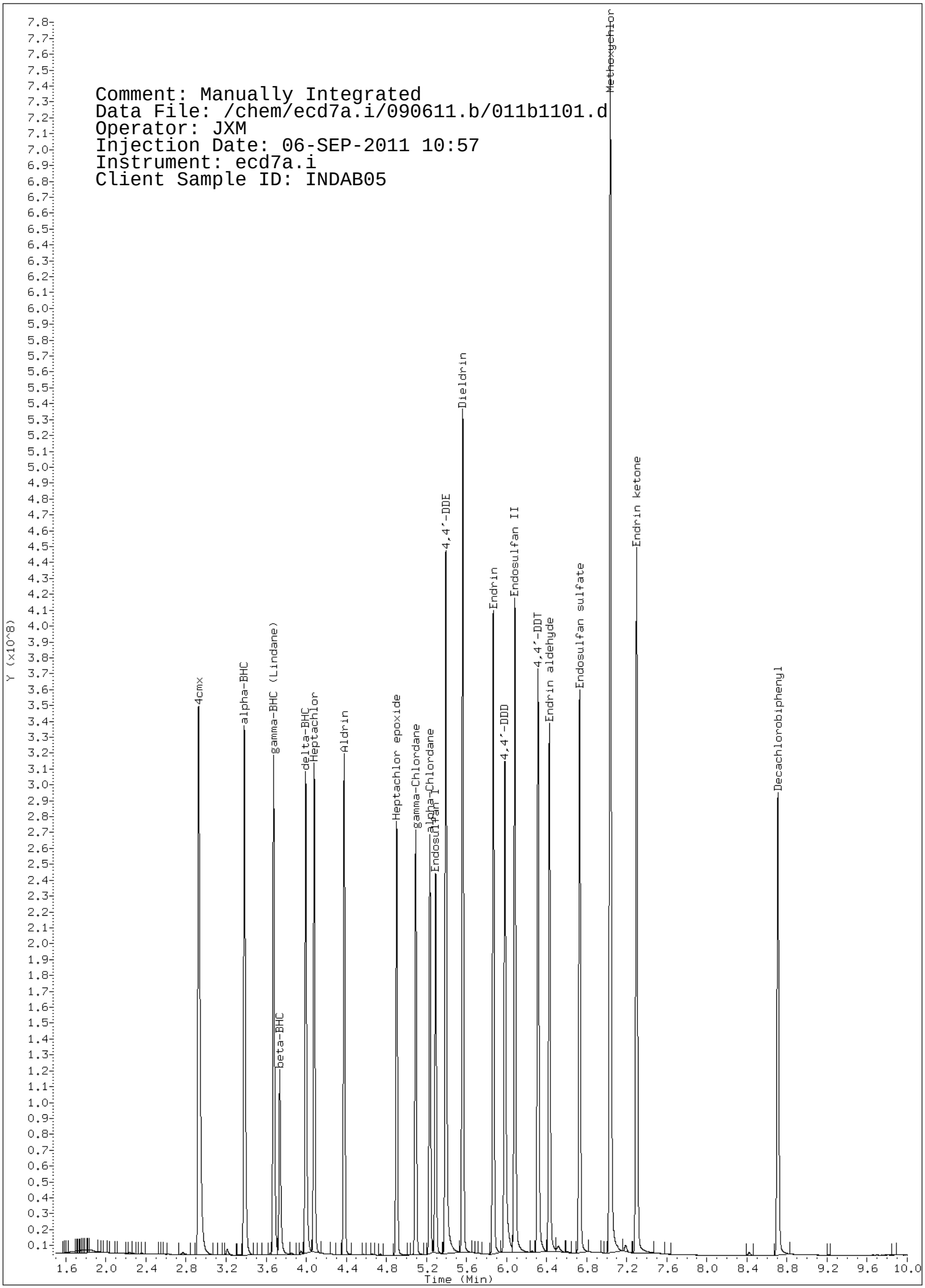
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

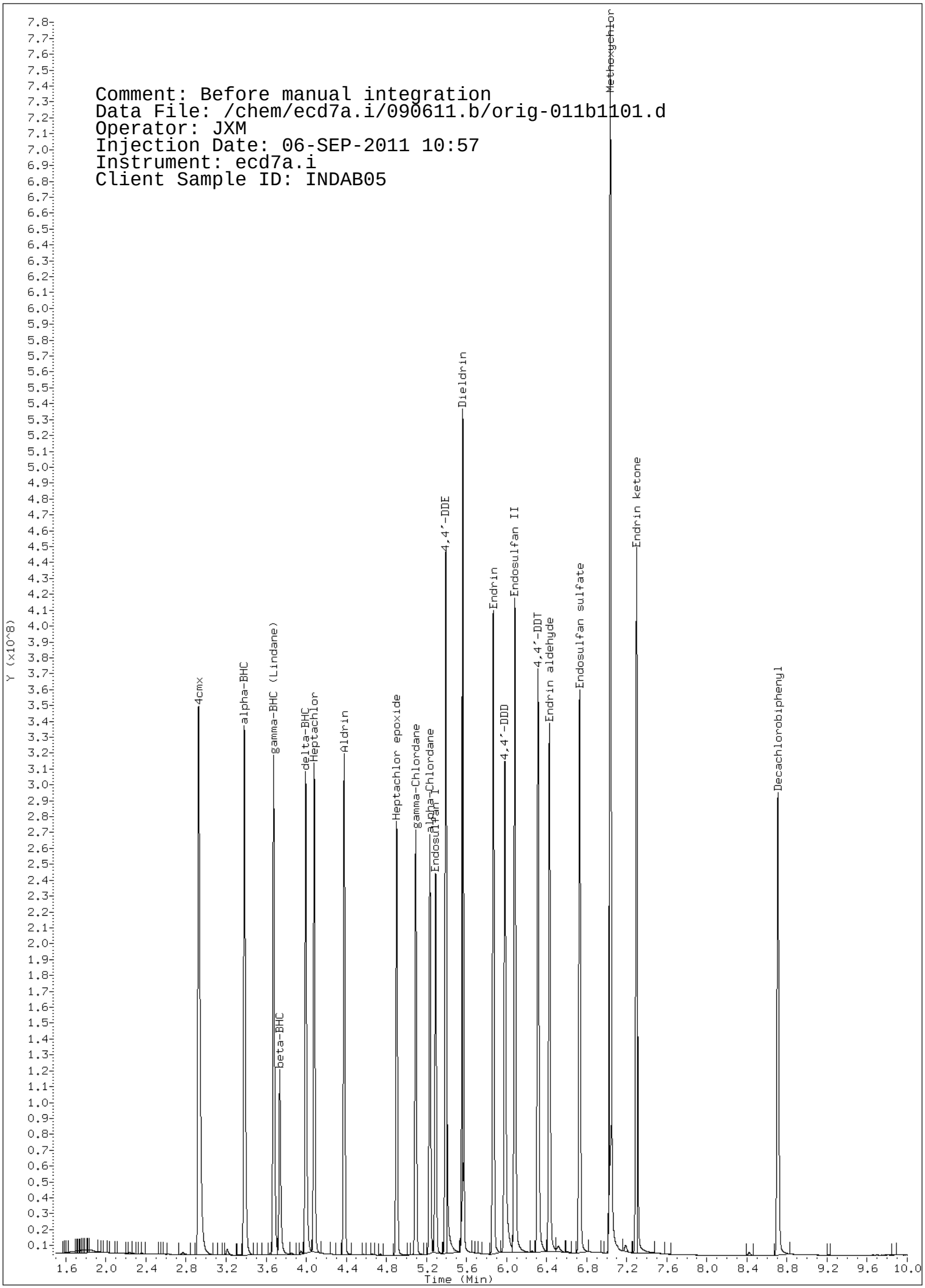
Data File: /chem/ecd7a.i/090611.b/011b1101.d
Date : 06-SEP-2011 10:57
Client ID: INDAB05
Sample Info: IIPE110801-02AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/011b1101.d
Operator: JXM
Injection Date: 06-SEP-2011 10:57
Instrument: ecd7a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
Endosulfan I
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-011b1101.d
Operator: JXM
Injection Date: 06-SEP-2011 10:57
Instrument: ecd7a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
Endosulfan I
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/013f1301.d
Lab Smp Id: WPE110906-11TX Client Smp ID: TOXAPH01
Inj Date : 06-SEP-2011 11:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-11TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009f0901.d
Als bottle: 13 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.806	5.797	0.009	4453536	100.000	97.6	80.00- 120.00	100.00(M)
5.925	5.918	0.007	2441968	100.000	95.4	39.31- 79.31	54.83
6.150	6.144	0.006	2199481	100.000	81.1	42.64- 82.64	49.39
6.492	6.486	0.006	2452663	100.000	84.1	49.79- 89.79	55.07
6.600	6.590	0.010	3296816	100.000	97.9	52.45- 92.45	74.03
Average of Peak Amounts =					91.2		
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	17102738	8.00000	13.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.099	8.092	0.007	10746478	8.00000	13.9	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/013f1301.d

Page 1

Date : 06-SEP-2011 11:31

Client ID: TOXAPH01

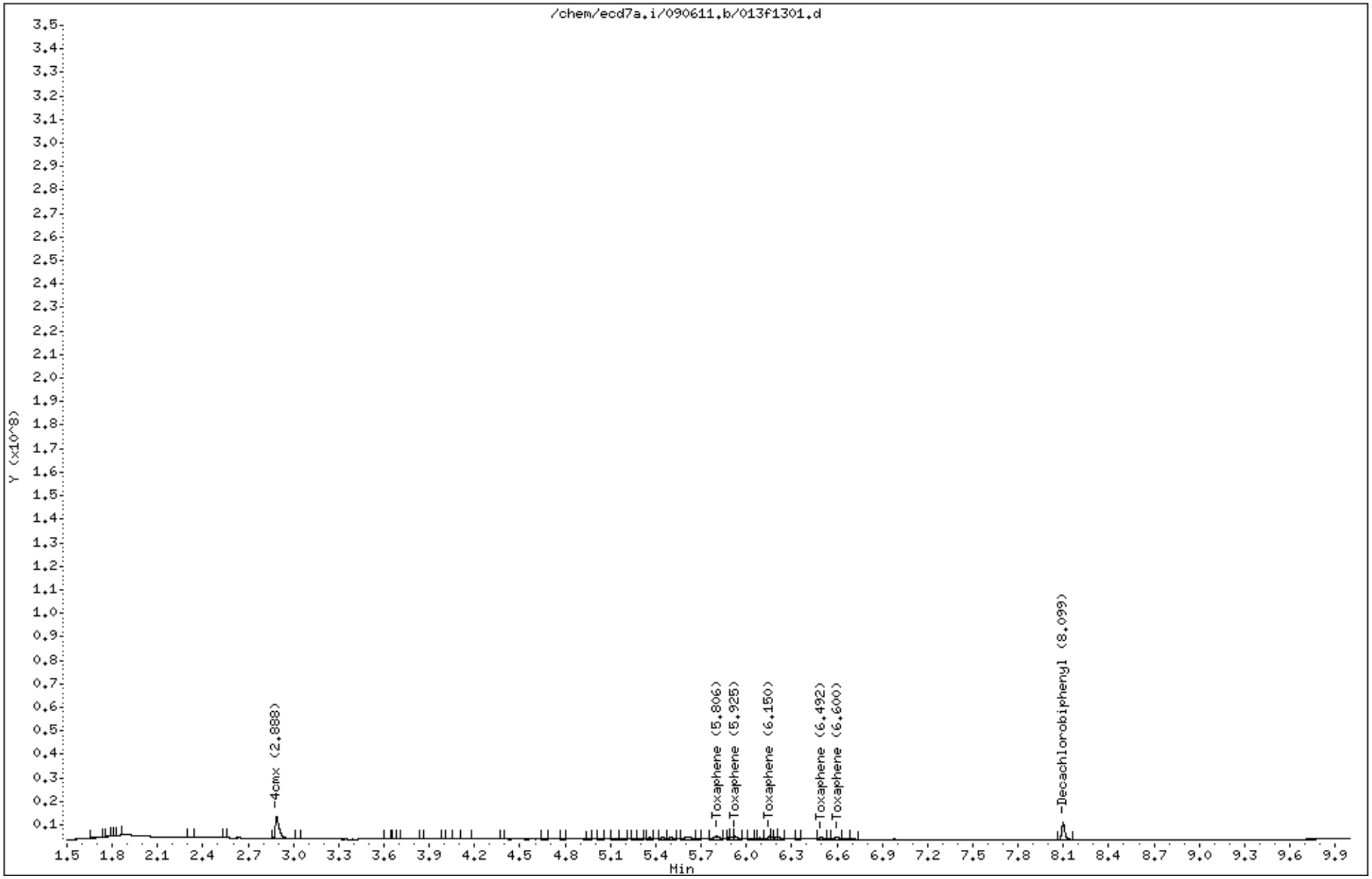
Instrument: ecd7a.i

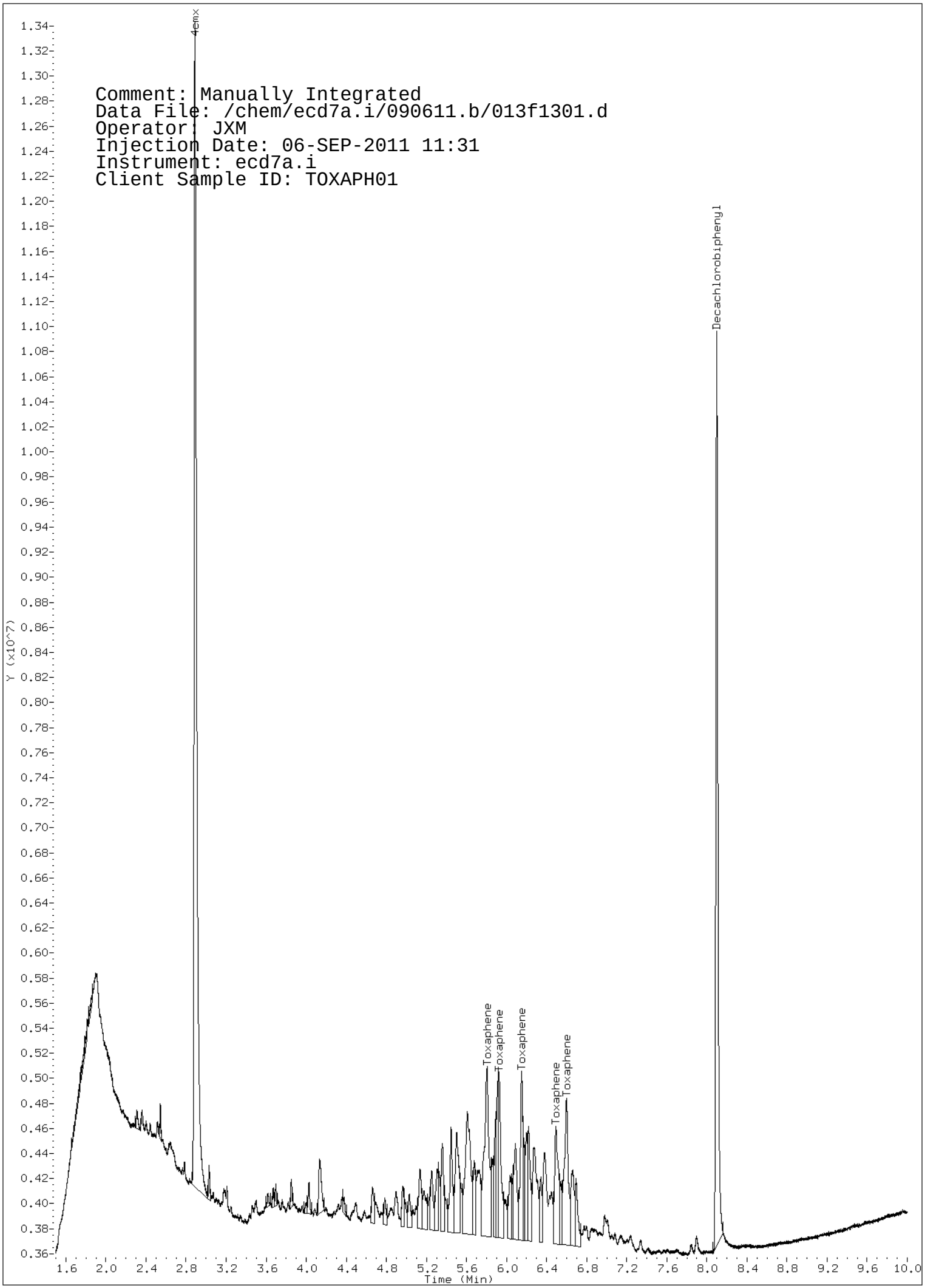
Sample Info: IWPE110906-11TX

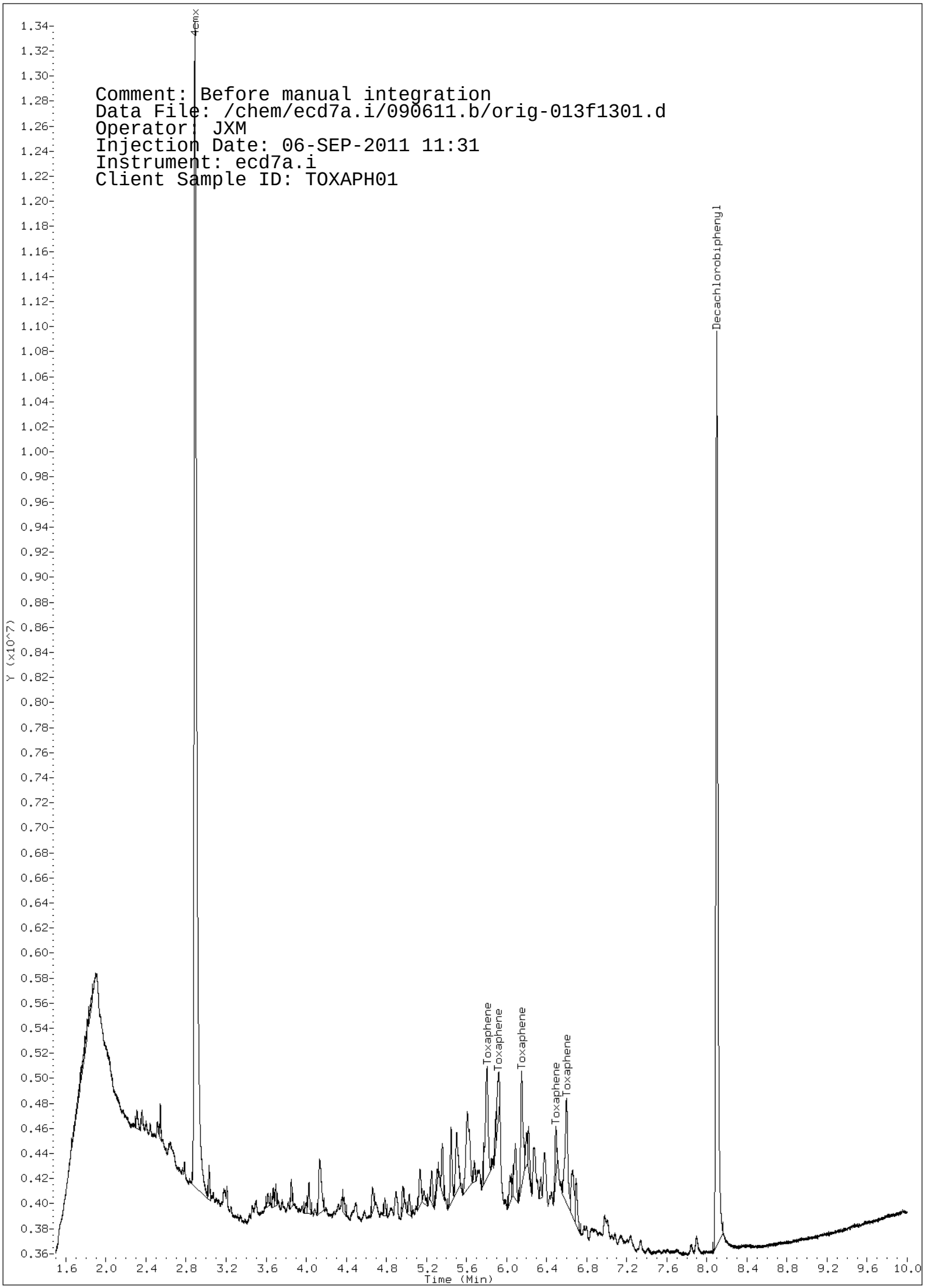
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/013f1301.d
Operator: JXM
Injection Date: 06-SEP-2011 11:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-013f1301.d
Operator: JXM
Injection Date: 06-SEP-2011 11:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/013b1301.d
Lab Smp Id: WPE110906-11TX Client Smp ID: TOXAPH01
Inj Date : 06-SEP-2011 11:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-11TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009b0901.d
Als bottle: 13 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.848	5.843	0.005	1342521	100.000	75.2	80.00- 120.00	100.00(M)
6.083	6.077	0.006	3143696	100.000	85.0	186.88- 226.88	234.16
6.182	6.178	0.004	5461866	100.000	86.0	341.12- 381.12	406.84
6.460	6.454	0.006	3009838	100.000	81.9	189.89- 229.89	224.19
7.005	6.999	0.006	2844987	100.000	83.8	174.16- 214.16	211.91
Average of Peak Amounts =					82.4		
$ 1 4cmx					CAS #: 877-09-8		
2.927	2.926	0.001	18231848	8.00000	13.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.713	8.708	0.005	13307019	8.00000	14.3	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/013b1301.d

Page 1

Date : 06-SEP-2011 11:31

Client ID: TOXAPH01

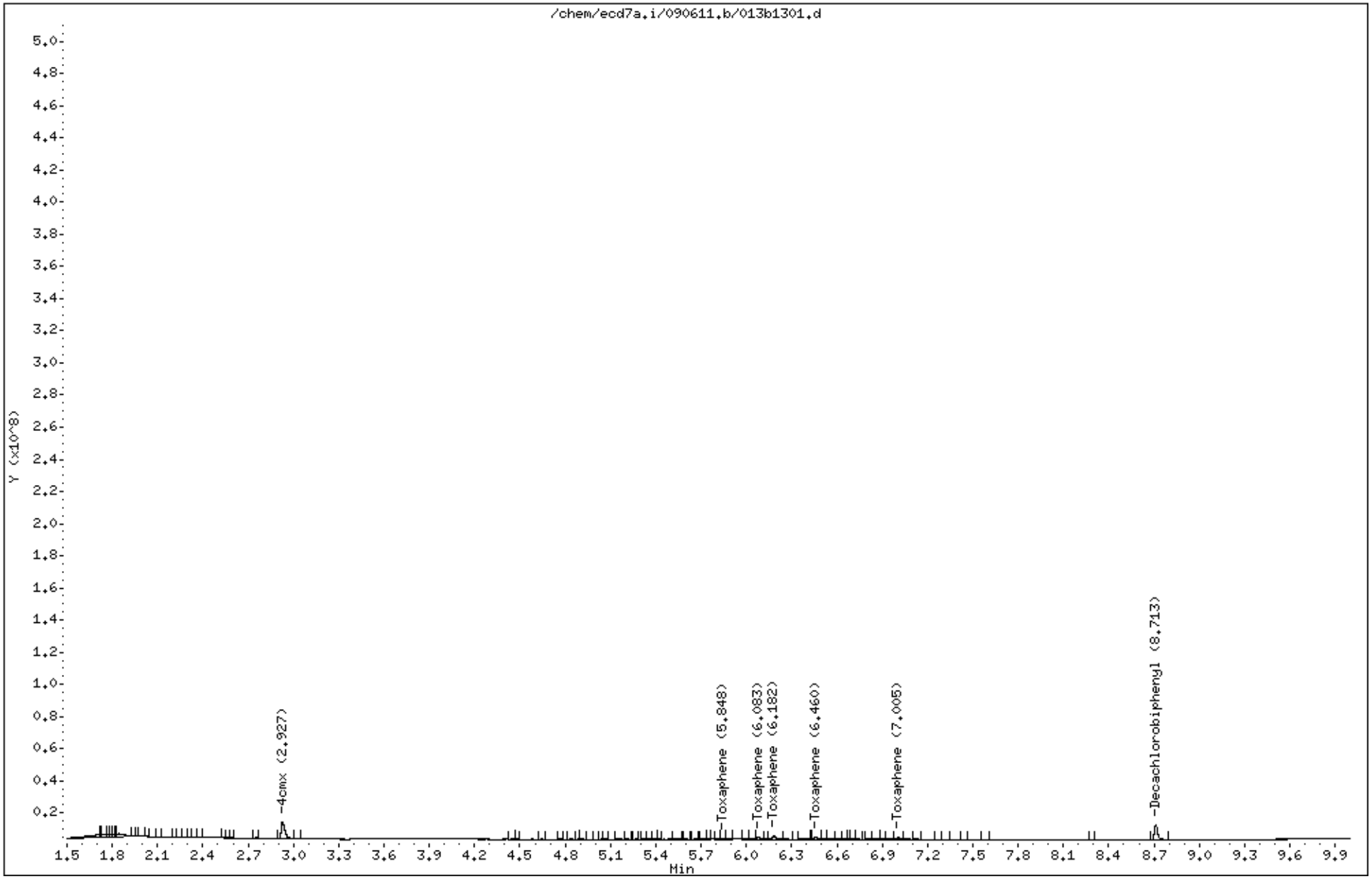
Instrument: ecd7a.i

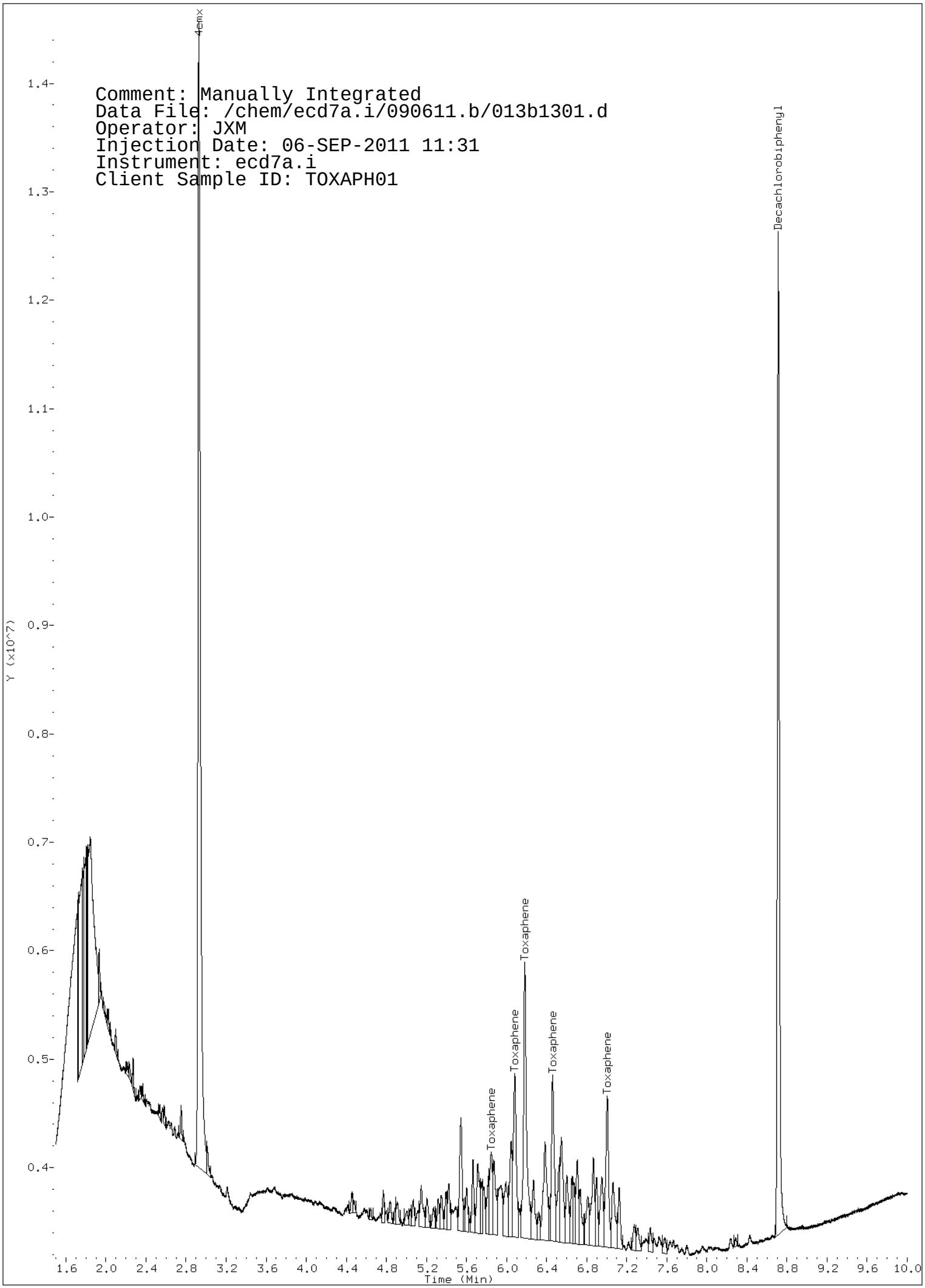
Sample Info: IWPE110906-11TX

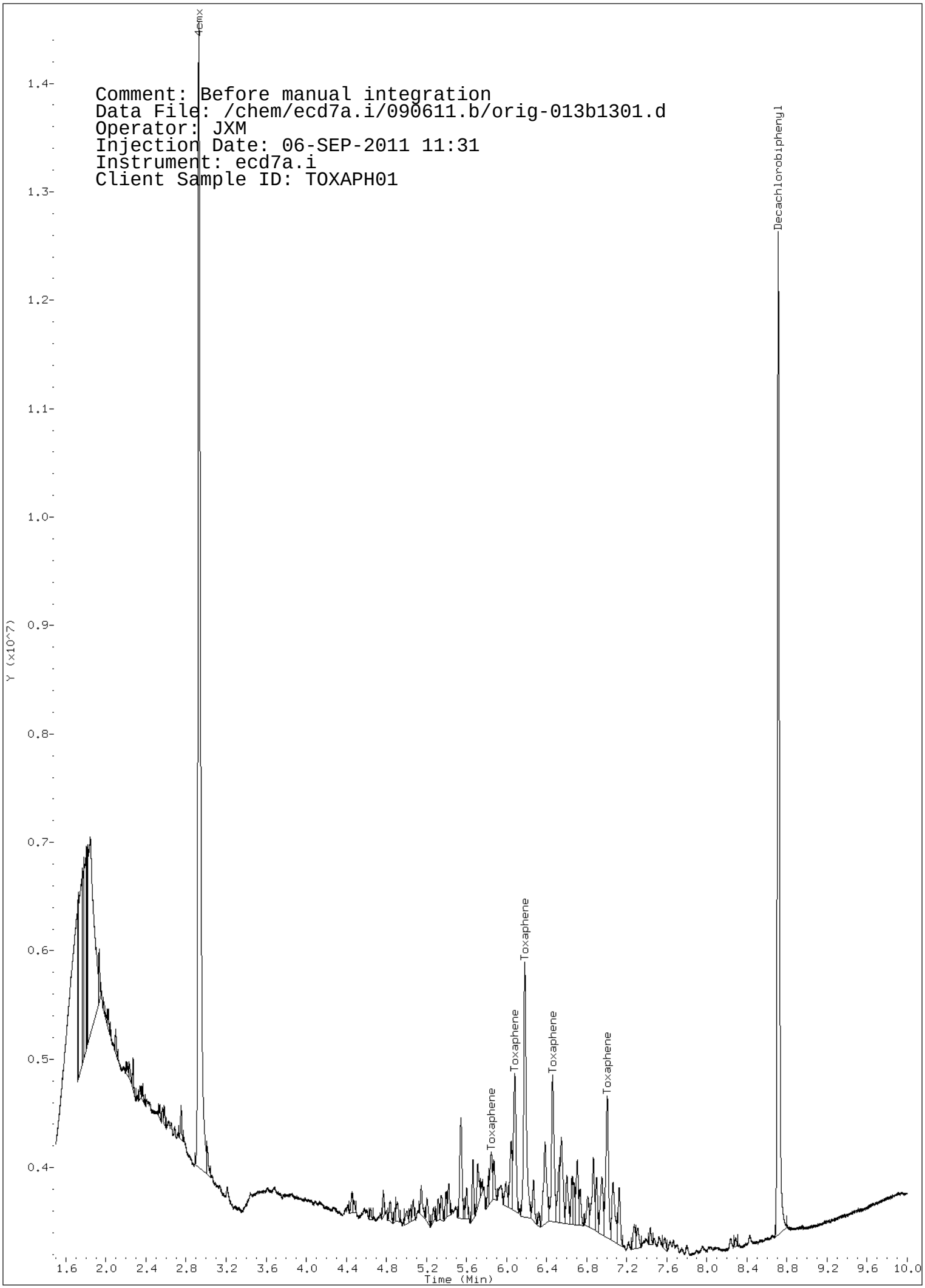
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/013b1301.d
Operator: JXM
Injection Date: 06-SEP-2011 11:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-013b1301.d
Operator: JXM
Injection Date: 06-SEP-2011 11:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/014f1401.d
Lab Smp Id: WPE110906-12TX Client Smp ID: TOXAPH02
Inj Date : 06-SEP-2011 11:48
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-12TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010f1001.d
Als bottle: 14 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.799	5.797	0.002	22310587	500.000	489	80.00- 120.00	100.00(M)
5.921	5.918	0.003	13090266	500.000	511	39.31- 79.31	58.67
6.145	6.144	0.001	13371590	500.000	493	42.64- 82.64	59.93
6.487	6.486	0.001	14213243	500.000	488	49.79- 89.79	63.71
6.594	6.590	0.004	16803022	500.000	499	52.45- 92.45	75.31
Average of Peak Amounts =					496		
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	83907578	20.0000	66.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.092	0.003	51204882	20.0000	66.2	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/014f1401.d

Page 1

Date : 06-SEP-2011 11:48

Client ID: TOXAPH02

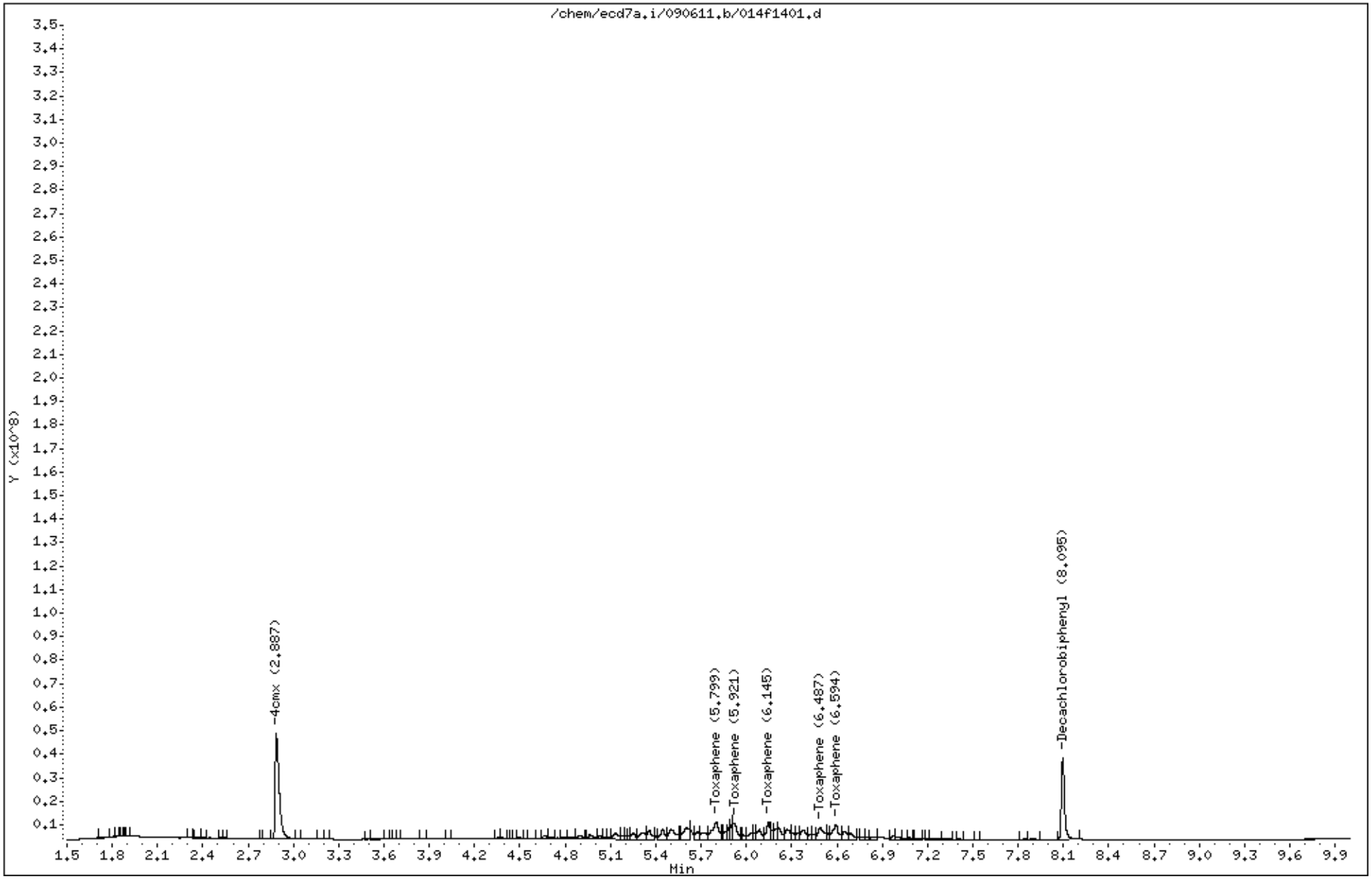
Instrument: ecd7a.i

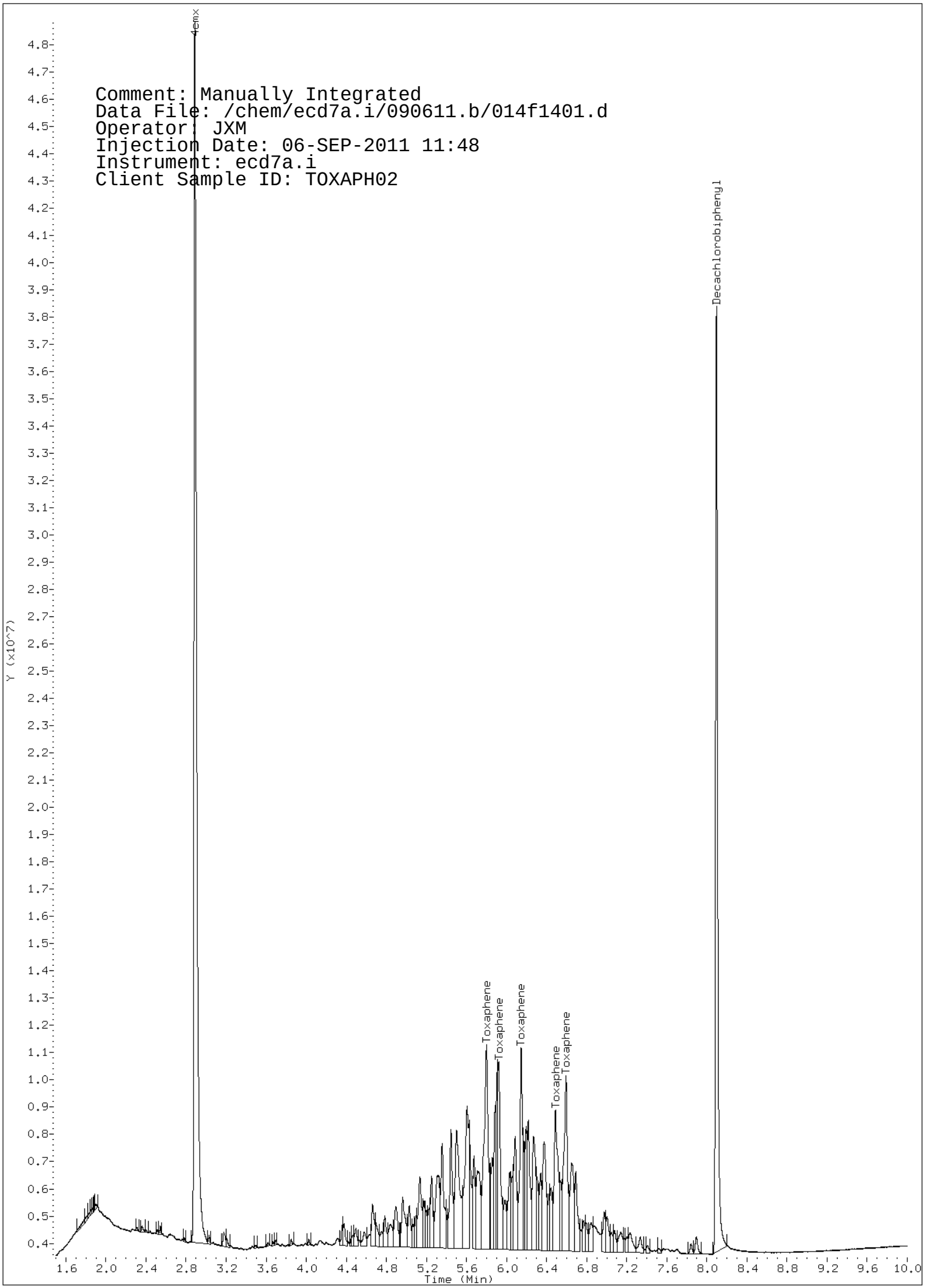
Sample Info: IWPE110906-12TX

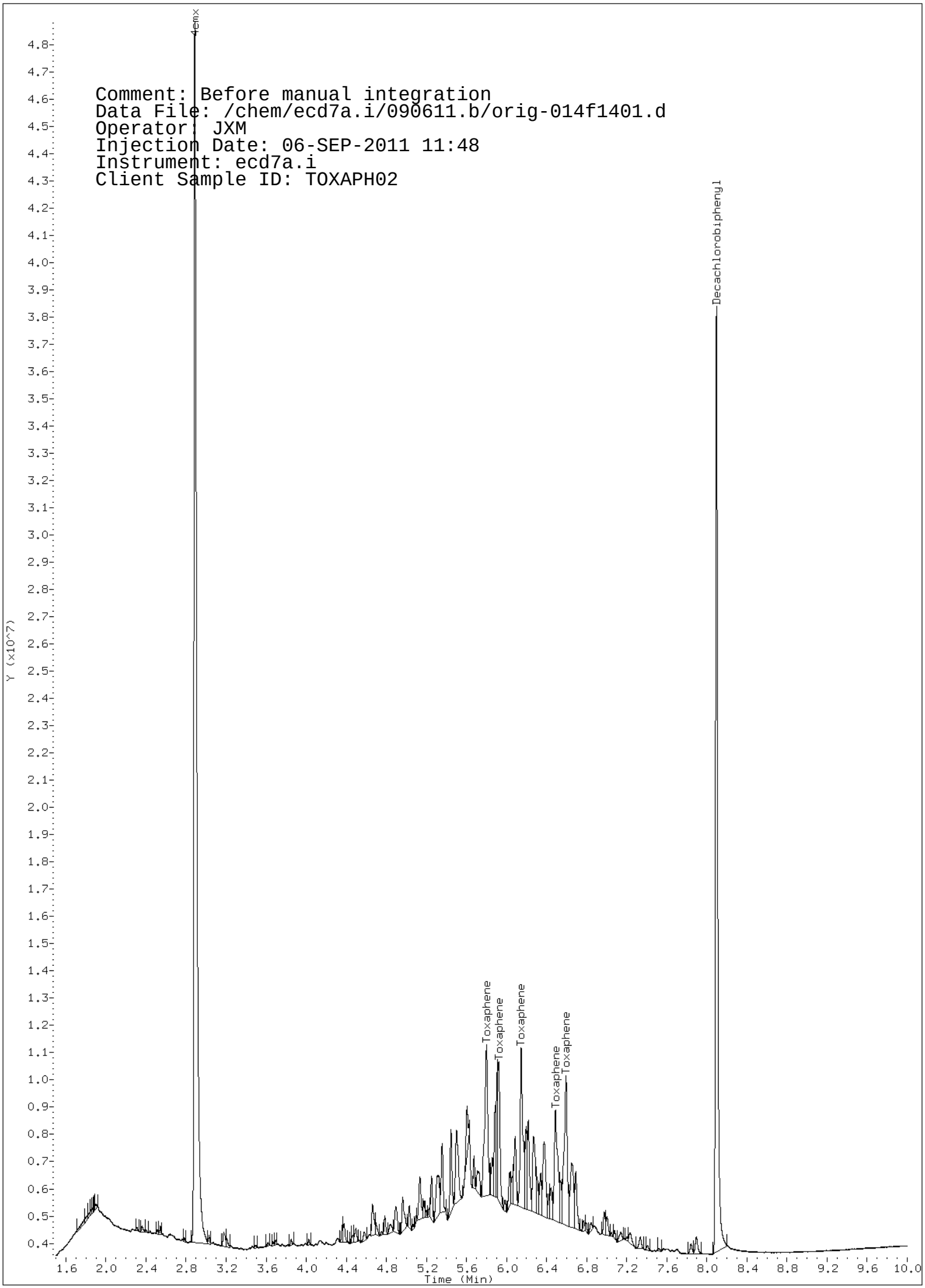
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/014f1401.d
Operator: JXM
Injection Date: 06-SEP-2011 11:48
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-014f1401.d
Operator: JXM
Injection Date: 06-SEP-2011 11:48
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/014b1401.d
Lab Smp Id: WPE110906-12TX Client Smp ID: TOXAPH02
Inj Date : 06-SEP-2011 11:48
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-12TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010b1001.d
Als bottle: 14 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.844	5.843	0.001	8815134	500.000	494	80.00- 120.00	100.00(M)
6.080	6.077	0.003	18167202	500.000	491	186.88- 226.88	206.09
6.179	6.178	0.001	31231846	500.000	492	341.12- 381.12	354.30
6.455	6.454	0.001	18013678	500.000	490	189.89- 229.89	204.35
7.001	6.999	0.002	16616731	500.000	489	174.16- 214.16	188.50
Average of Peak Amounts =					491		
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	88156743	20.0000	64.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.711	8.708	0.003	60397768	20.0000	64.8	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/014b1401.d

Page 1

Date : 06-SEP-2011 11:48

Client ID: TOXAPH02

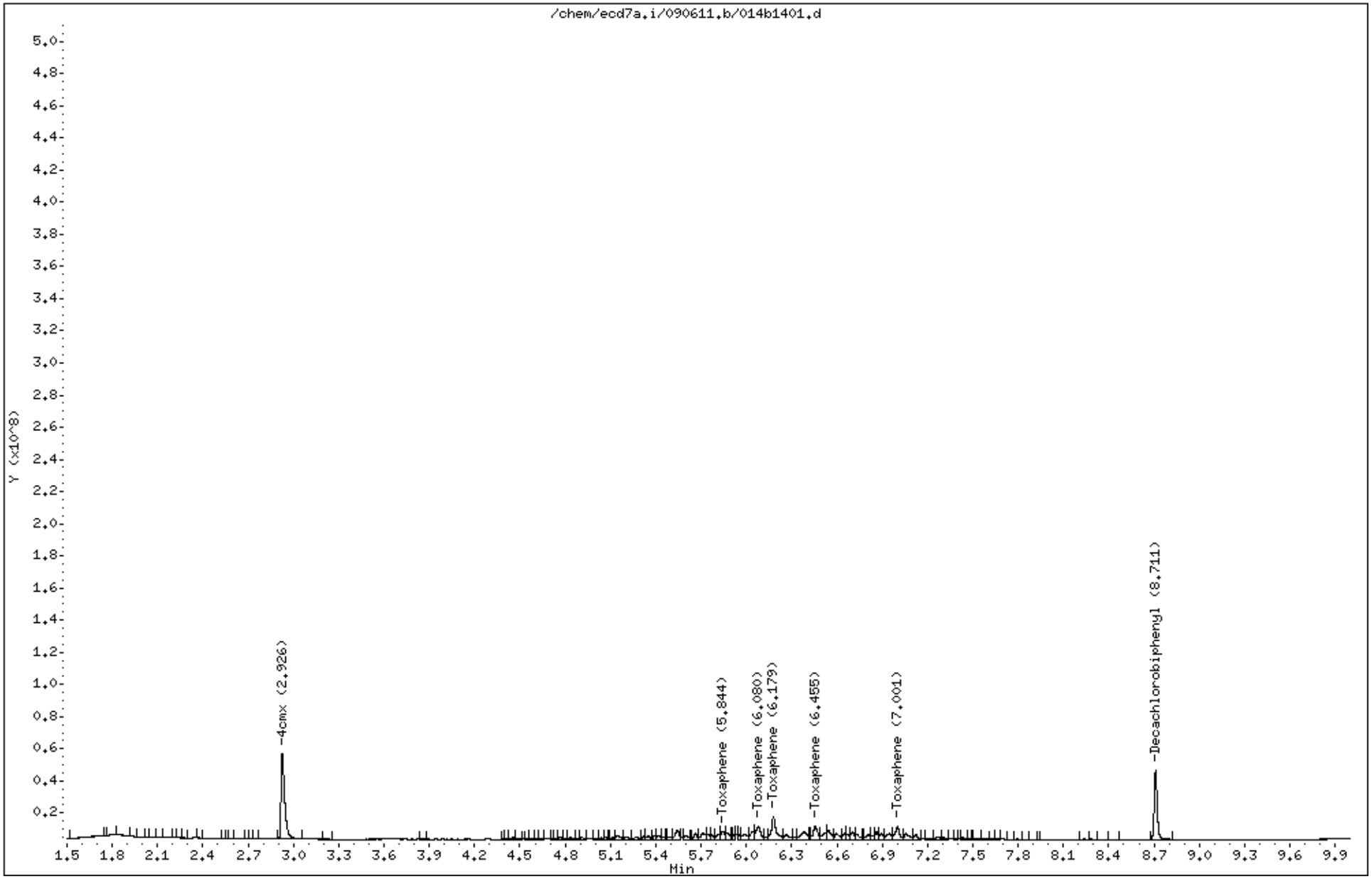
Instrument: ecd7a.i

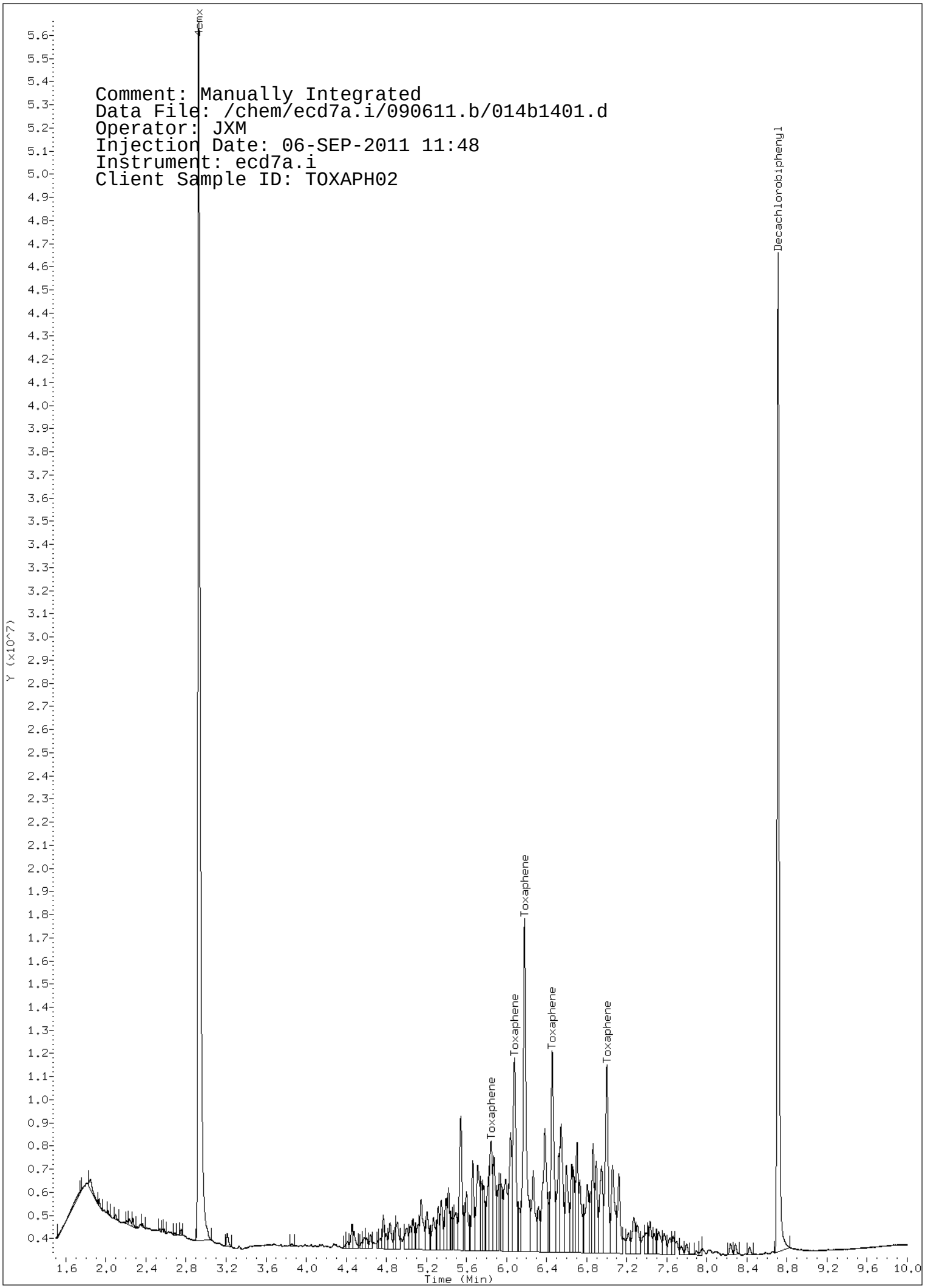
Sample Info: IWPE110906-12TX

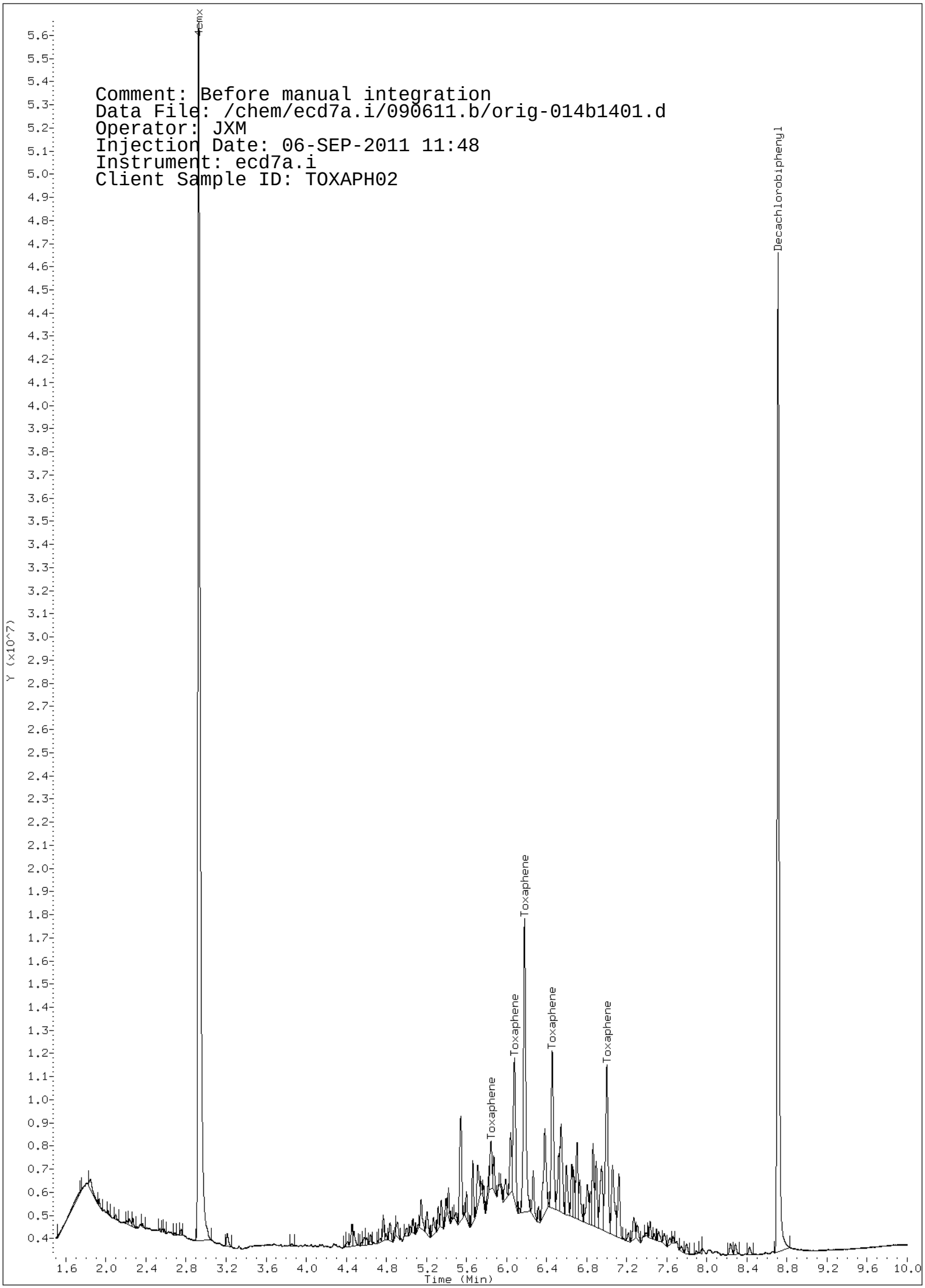
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/014b1401.d
Operator: JXM
Injection Date: 06-SEP-2011 11:48
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-014b1401.d
Operator: JXM
Injection Date: 06-SEP-2011 11:48
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/015f1501.d
Lab Smp Id: WPE110906-13TX Client Smp ID: TOXAPH03
Inj Date : 06-SEP-2011 12:05
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-13TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011f1101.d
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.799	5.797	0.002	46238029	1000.00	1010	80.00- 120.00	100.00(M)
5.920	5.918	0.002	25781677	1000.00	1010	39.31- 79.31	55.76
6.145	6.144	0.001	28826363	1000.00	1060	42.64- 82.64	62.34
6.487	6.486	0.001	29995531	1000.00	1030	49.79- 89.79	64.87
6.592	6.590	0.002	35041295	1000.00	1040	52.45- 92.45	75.78
Average of Peak Amounts =				1.03e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	166250046	100.000	132	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.094	8.092	0.002	102770440	100.000	133	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/015f1501.d

Page 1

Date : 06-SEP-2011 12:05

Client ID: TOXAPH03

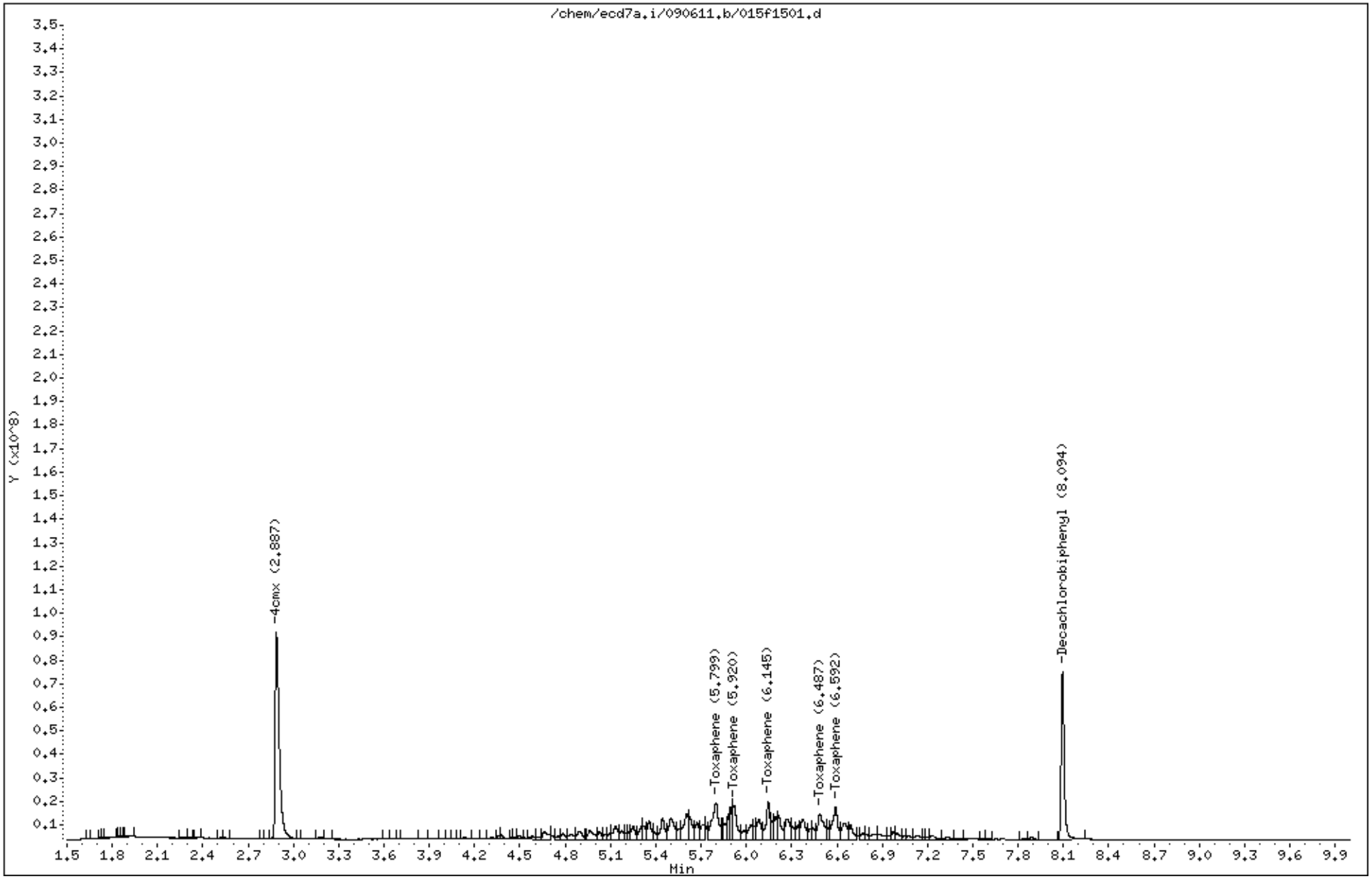
Instrument: ecd7a.i

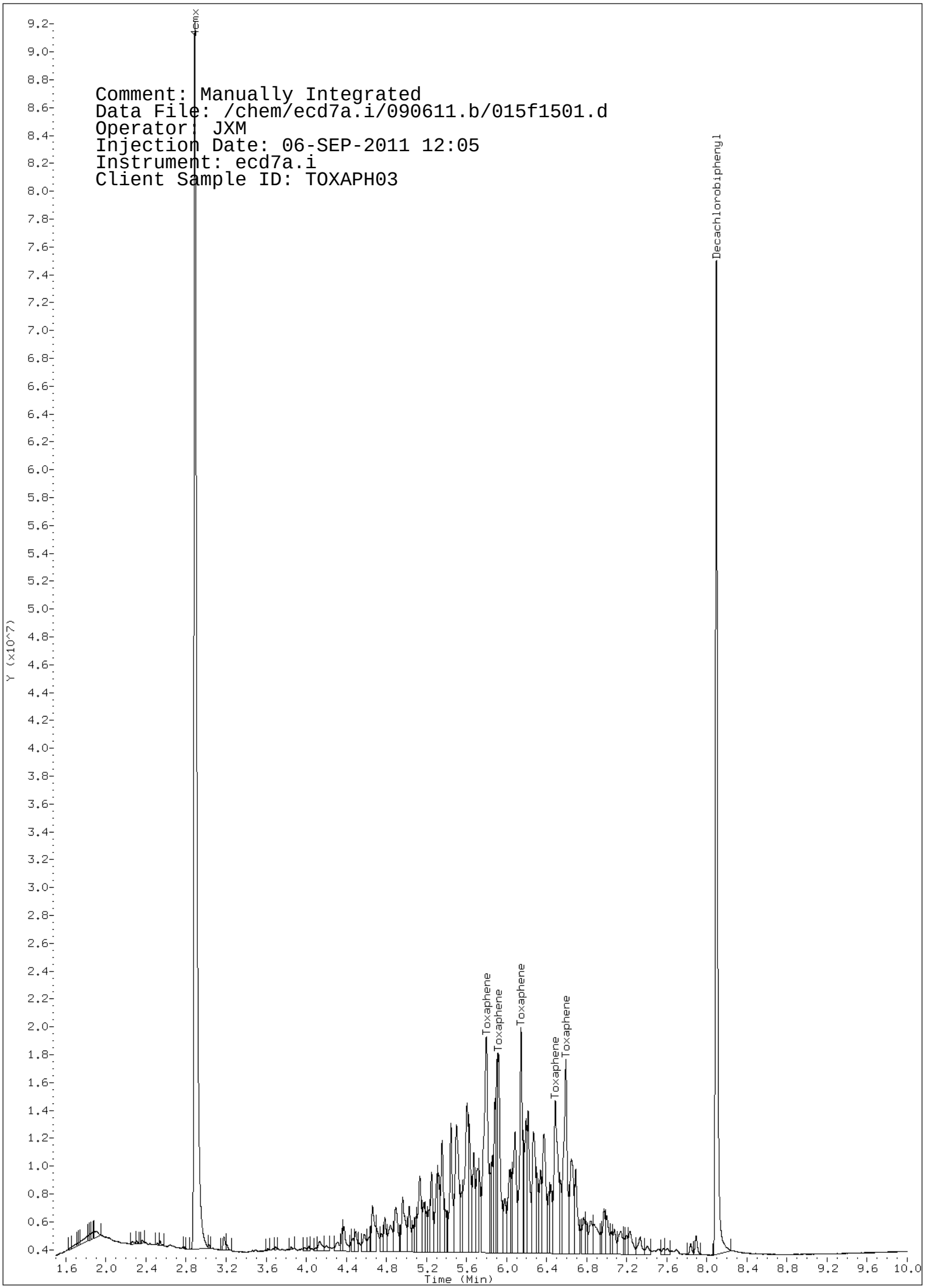
Sample Info: IWPE110906-13TX

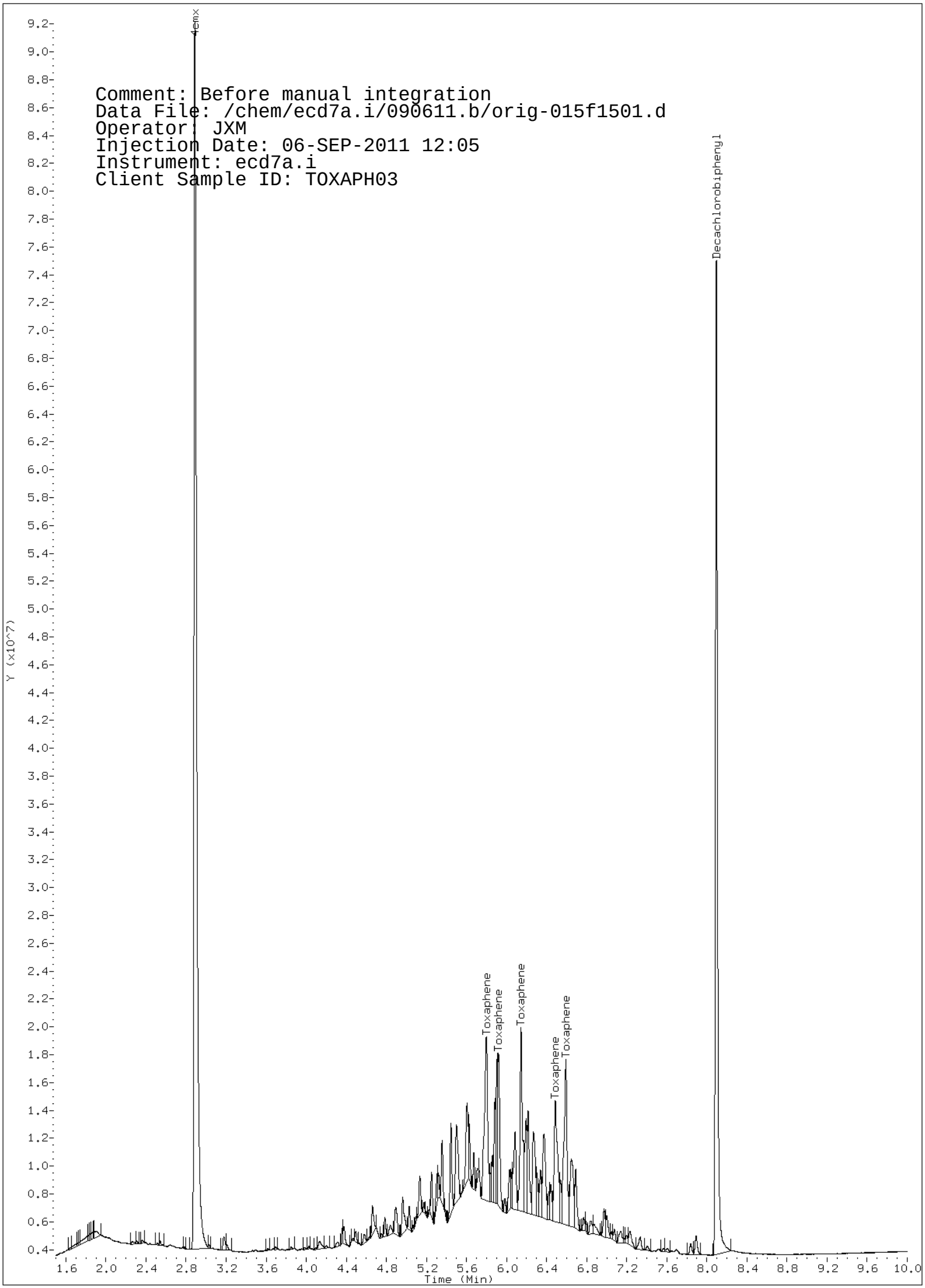
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/015f1501.d
Operator: JXM
Injection Date: 06-SEP-2011 12:05
Instrument: ecd7a.i
Client Sample ID: TOXAPH03
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-015f1501.d
Operator: JXM
Injection Date: 06-SEP-2011 12:05
Instrument: ecd7a.i
Client Sample ID: TOXAPH03
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/015b1501.d
Lab Smp Id: WPE110906-13TX Client Smp ID: TOXAPH03
Inj Date : 06-SEP-2011 12:05
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-13TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011b1101.d
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.843	5.843	0.000	18943793	1000.00	1060	80.00- 120.00	100.00(M)
6.078	6.077	0.001	38204782	1000.00	1030	186.88- 226.88	201.67
6.177	6.178	-0.001	65374887	1000.00	1030	341.12- 381.12	345.10
6.455	6.454	0.001	38151781	1000.00	1040	189.89- 229.89	201.39
7.000	6.999	0.001	34701856	1000.00	1020	174.16- 214.16	183.18
Average of Peak Amounts =				1.04e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.927	2.926	0.001	174169788	100.000	128	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.710	8.708	0.002	120047881	100.000	129	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/015b1501.d

Page 1

Date : 06-SEP-2011 12:05

Client ID: TOXAPH03

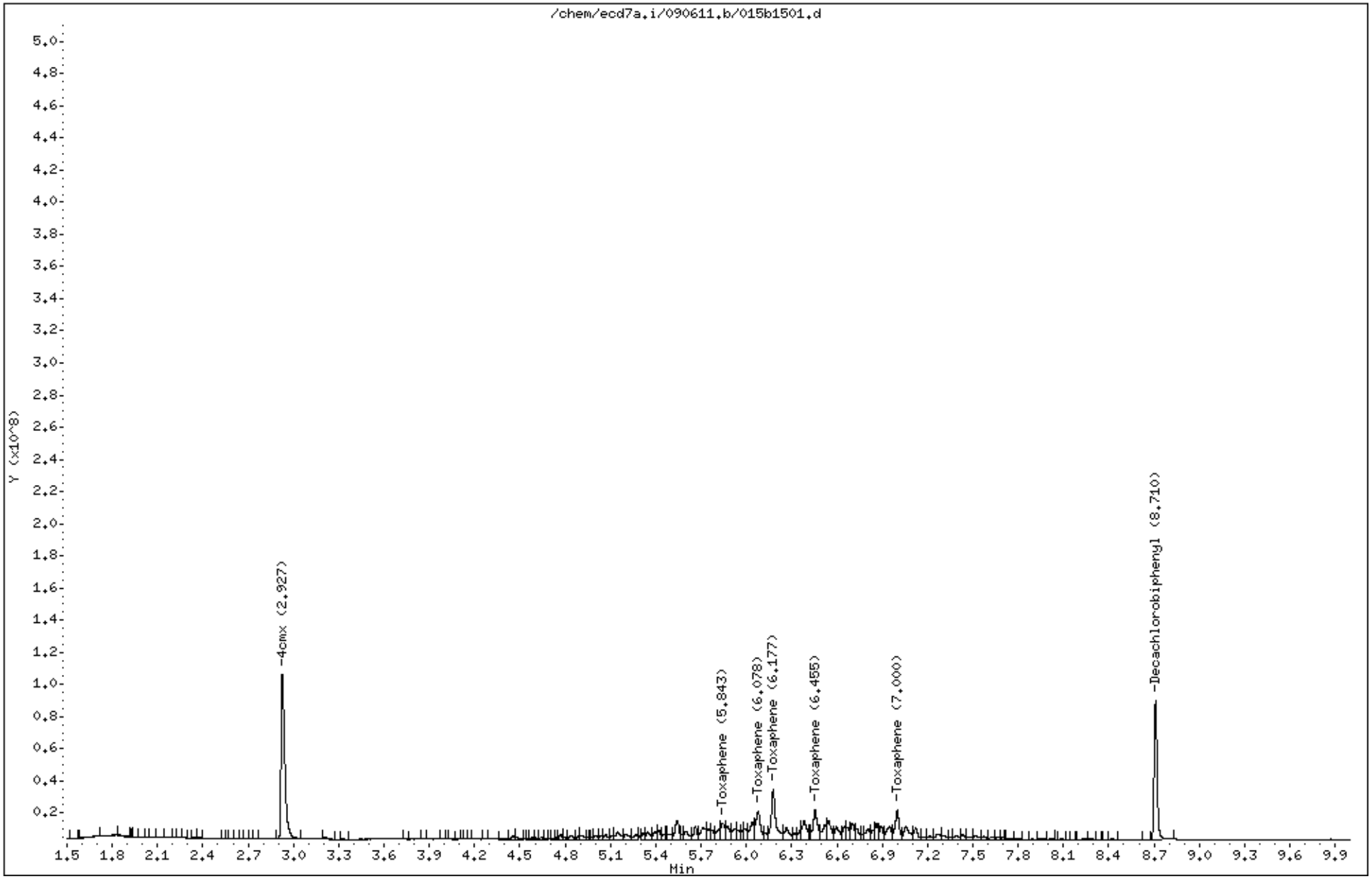
Instrument: ecd7a.i

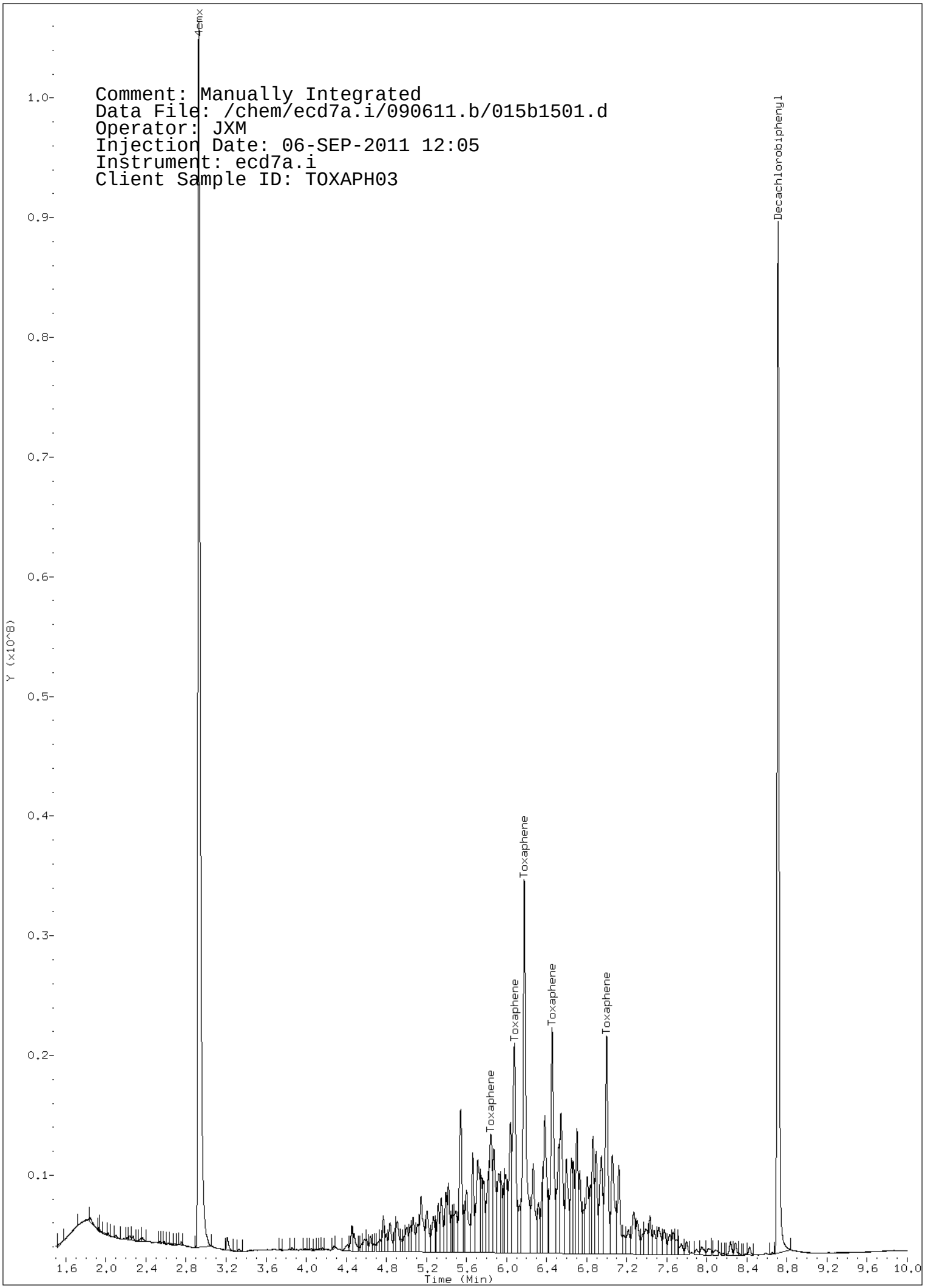
Sample Info: IWPE110906-13TX

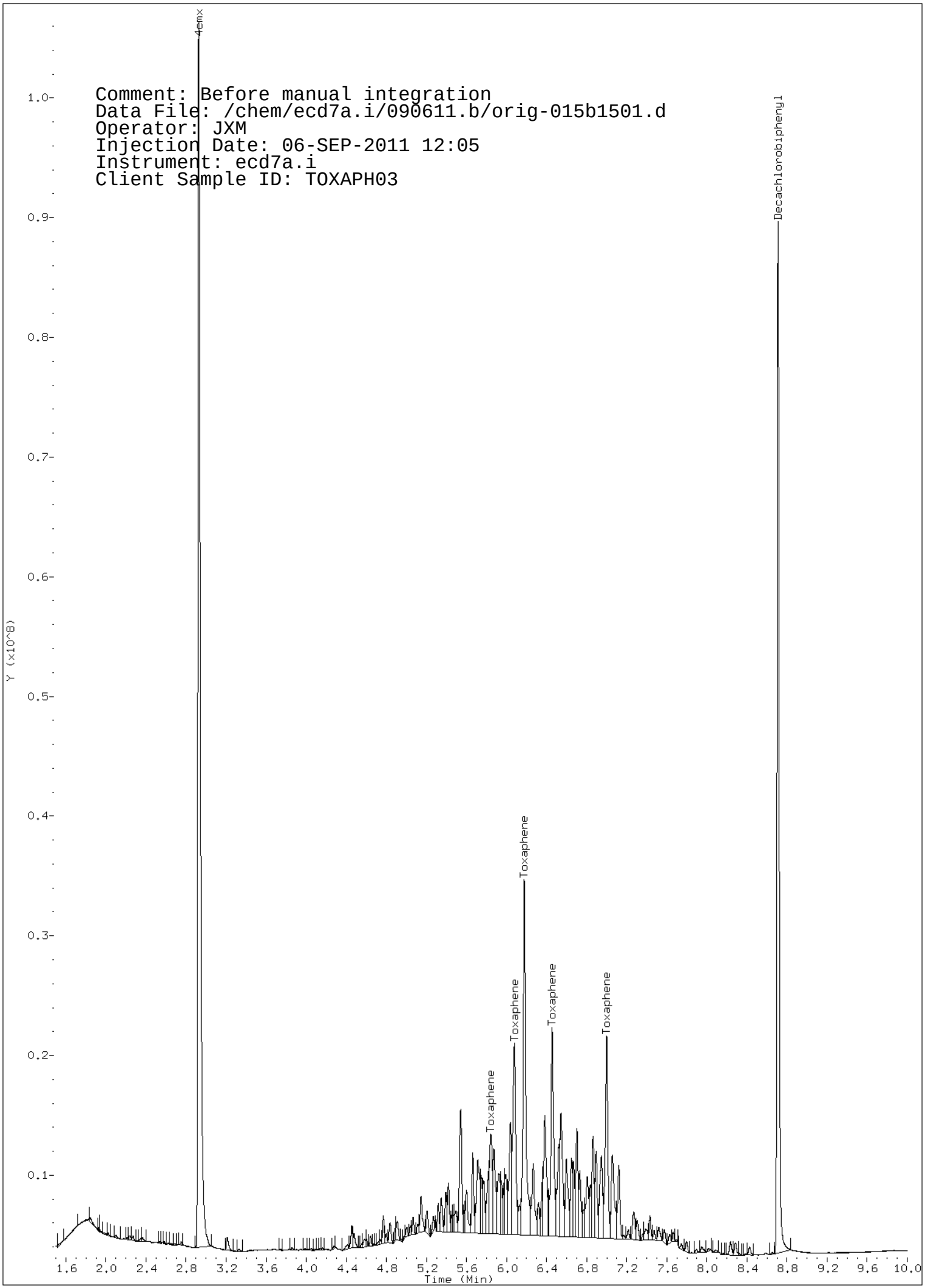
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/015b1501.d
Operator: JXM
Injection Date: 06-SEP-2011 12:05
Instrument: ecd7a.i
Client Sample ID: TOXAPH03
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-015b1501.d
Operator: JXM
Injection Date: 06-SEP-2011 12:05
Instrument: ecd7a.i
Client Sample ID: TOXAPH03
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/016f1601.d
Lab Smp Id: WPE110906-14TX Client Smp ID: TOXAPH04
Inj Date : 06-SEP-2011 12:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-14TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028f2801.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.798	5.797	0.001	92486998	2000.00	2030	80.00- 120.00	100.00(M)
5.918	5.918	0.000	52206648	2000.00	2040	39.31- 79.31	56.45
6.143	6.144	-0.001	57915680	2000.00	2140	42.64- 82.64	62.62
6.485	6.486	-0.001	62297966	2000.00	2140	49.79- 89.79	67.36
6.590	6.590	0.000	66713534	2000.00	1980	52.45- 92.45	72.13
Average of Peak Amounts =				2.06e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	329292348	200.000	261	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.093	8.092	0.001	202030064	200.000	261	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/016f1601.d

Page 1

Date : 06-SEP-2011 12:22

Client ID: TOXAPH04

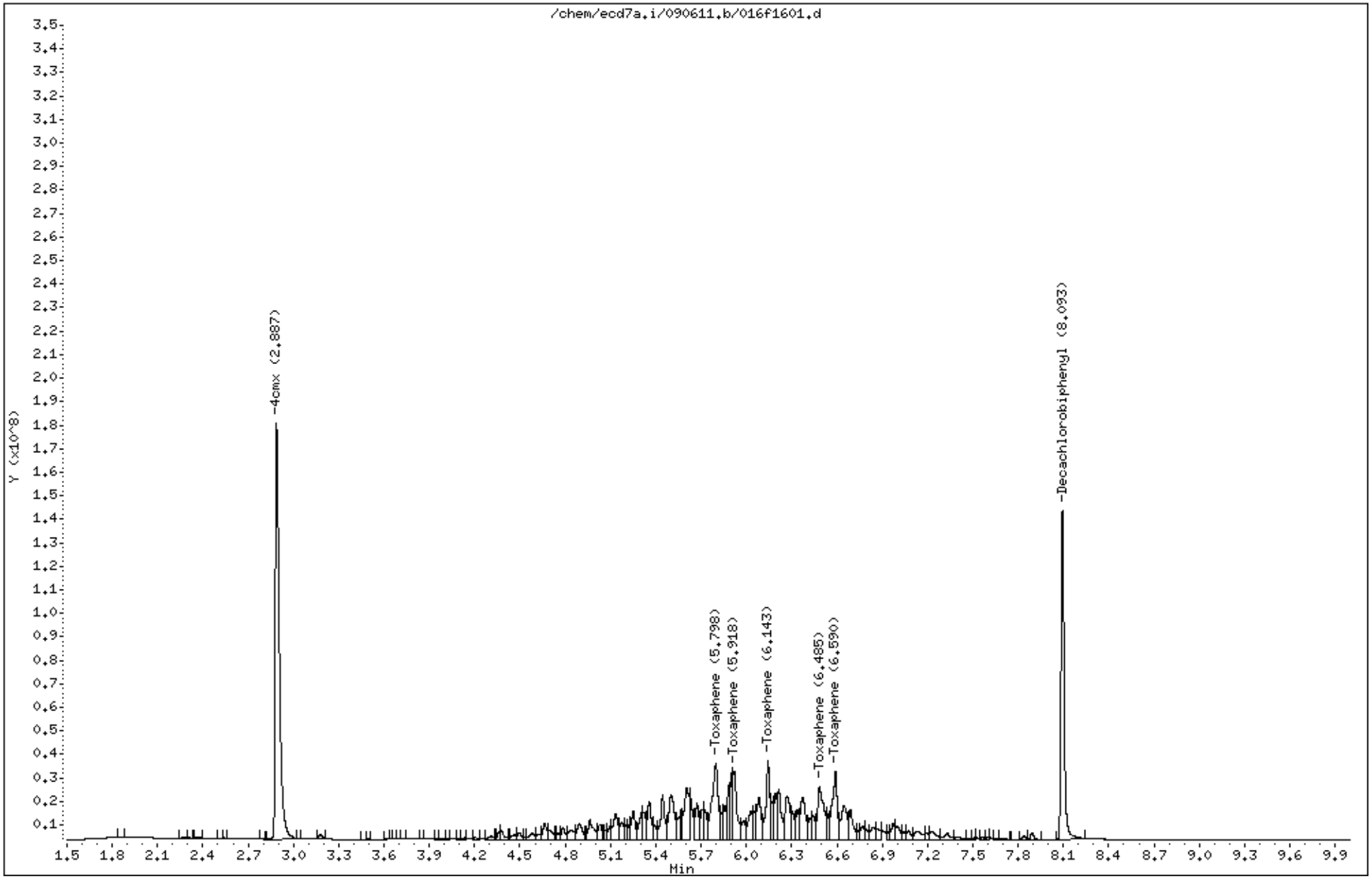
Instrument: ecd7a.i

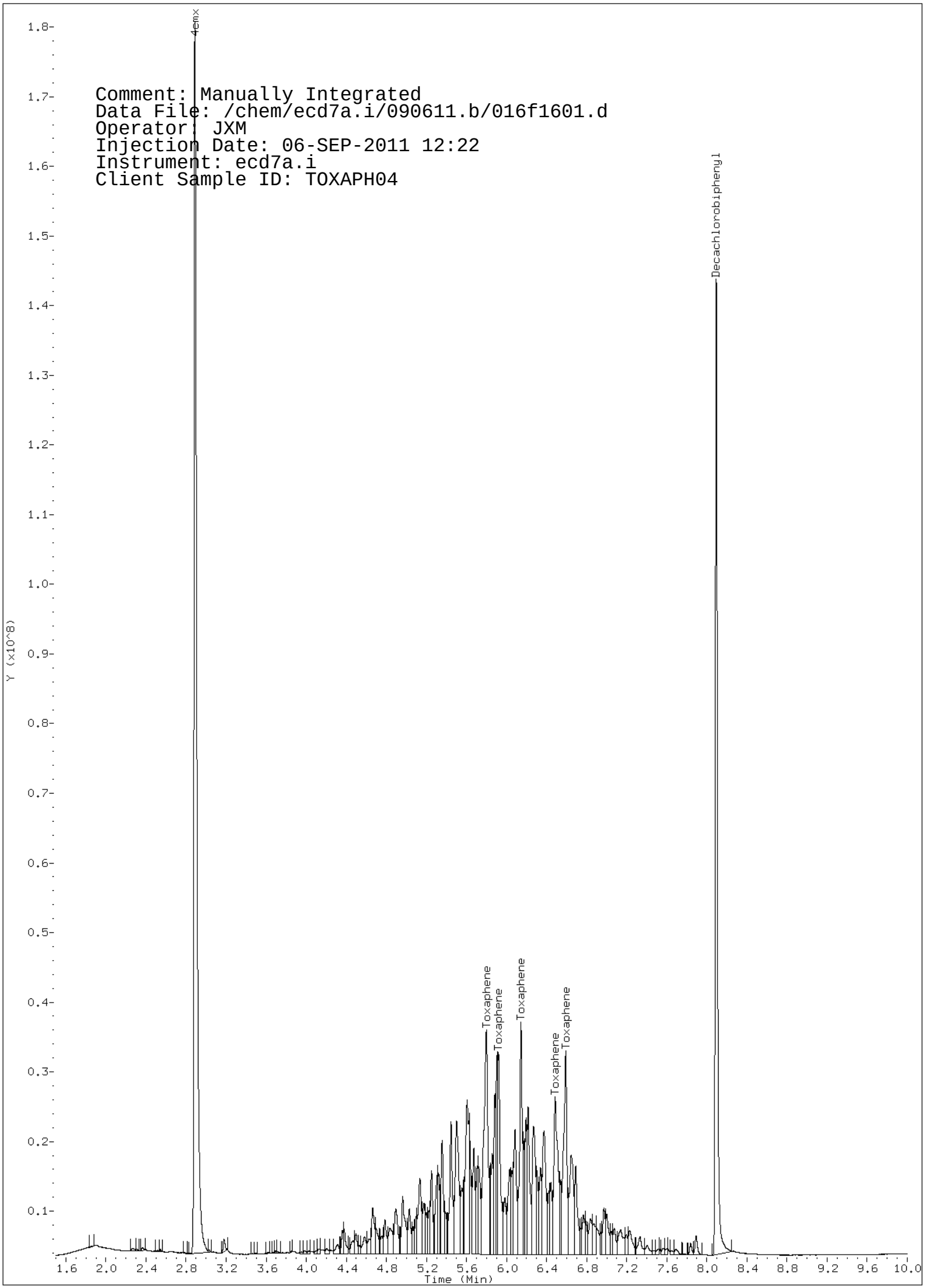
Sample Info: IWPE110906-14TX

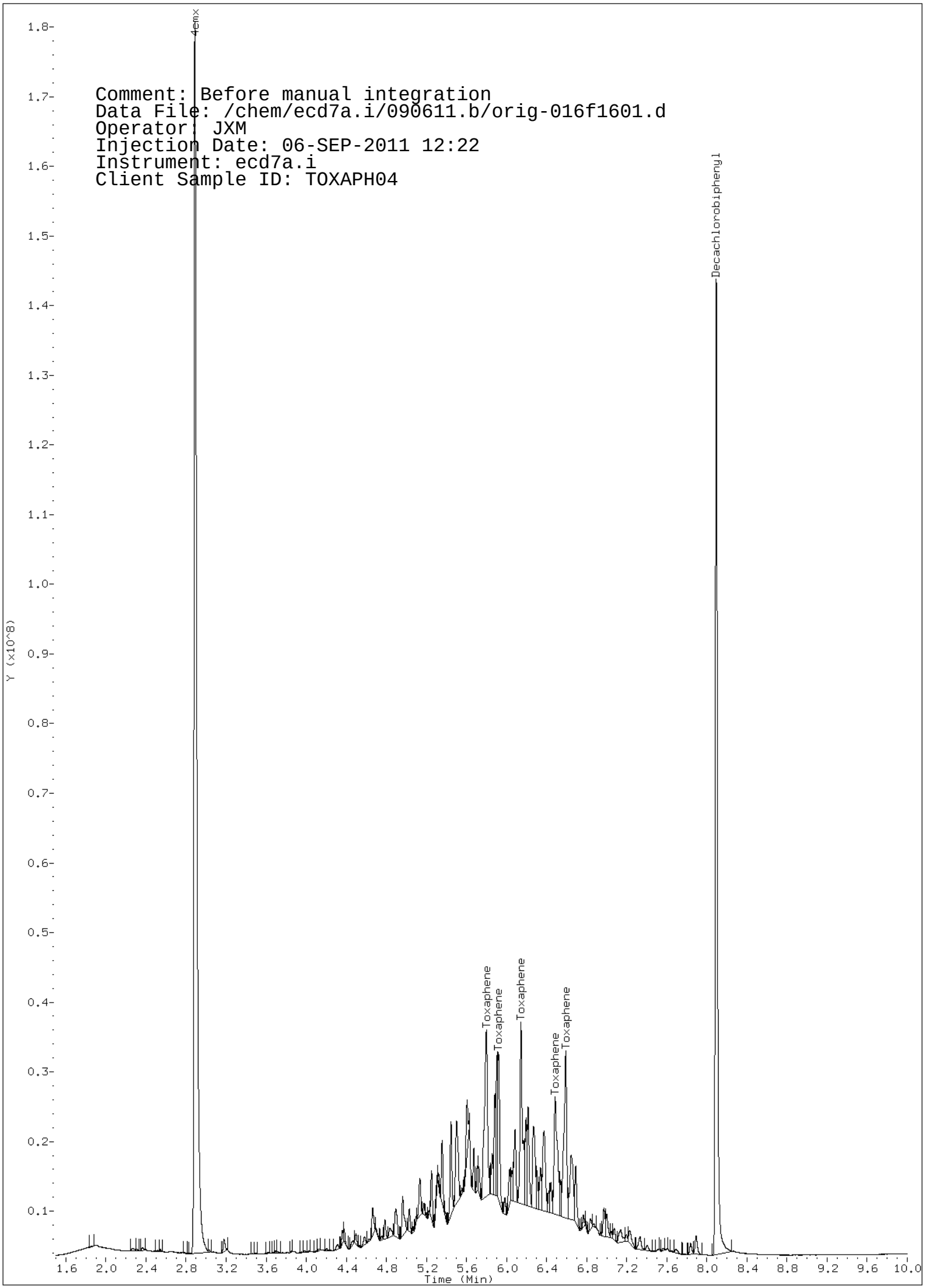
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/016f1601.d
Operator: JXM
Injection Date: 06-SEP-2011 12:22
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-016f1601.d
Operator: JXM
Injection Date: 06-SEP-2011 12:22
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/016b1601.d
Lab Smp Id: WPE110906-14TX Client Smp ID: TOXAPH04
Inj Date : 06-SEP-2011 12:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-14TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028b2801.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.845	5.843	0.002	38661192	2000.00	2160	80.00- 120.00	100.00(M)
6.079	6.077	0.002	77958224	2000.00	2110	186.88- 226.88	201.64
6.178	6.178	0.000	133489661	2000.00	2100	341.12- 381.12	345.28
6.453	6.454	-0.001	77682814	2000.00	2110	189.89- 229.89	200.93
6.999	6.999	0.000	72695521	2000.00	2140	174.16- 214.16	188.03
Average of Peak Amounts =				2.13e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	346929119	200.000	255	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.710	8.708	0.002	240748753	200.000	258	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/016b1601.d

Page 1

Date : 06-SEP-2011 12:22

Client ID: TOXAPH04

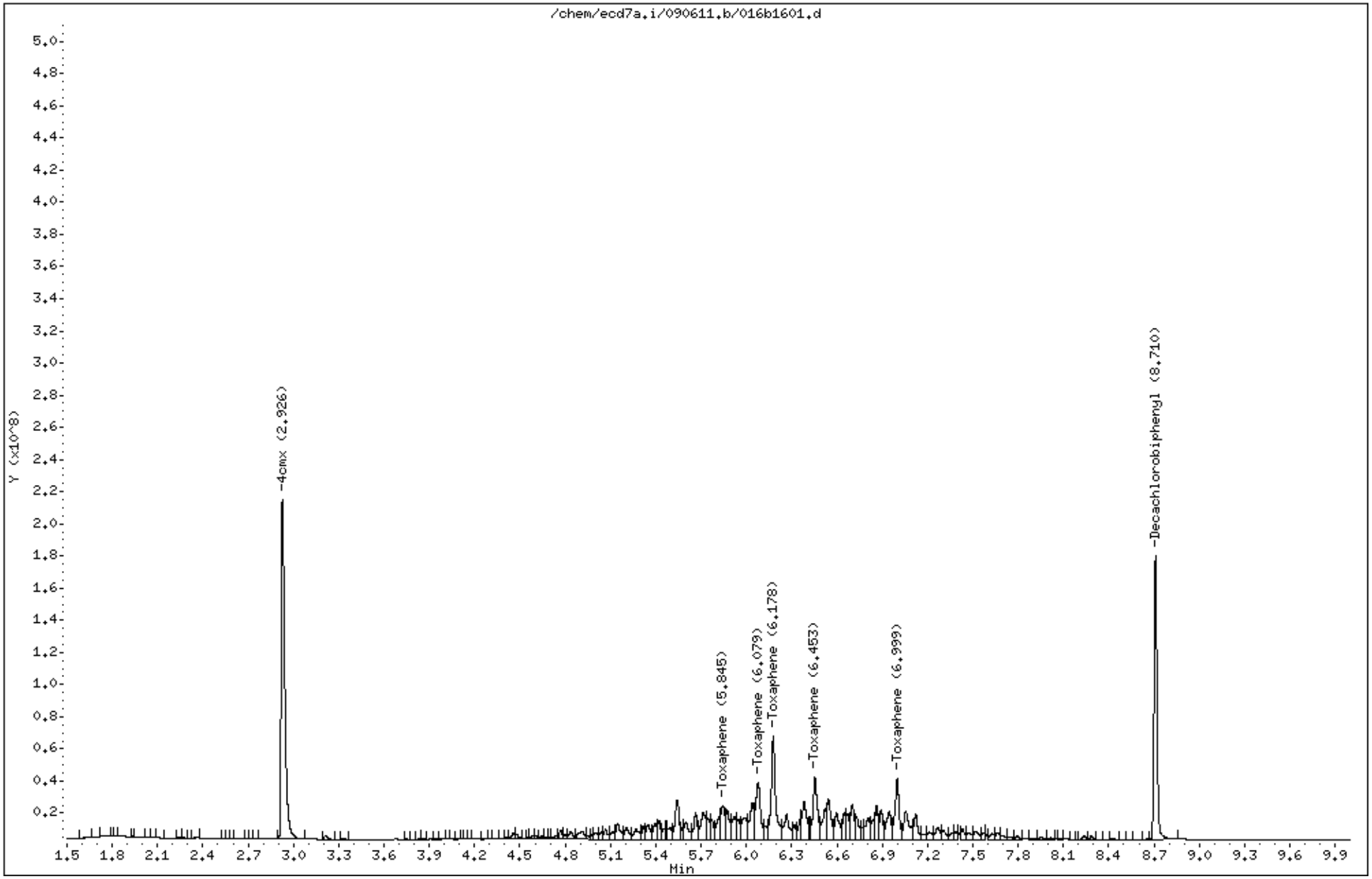
Instrument: ecd7a.i

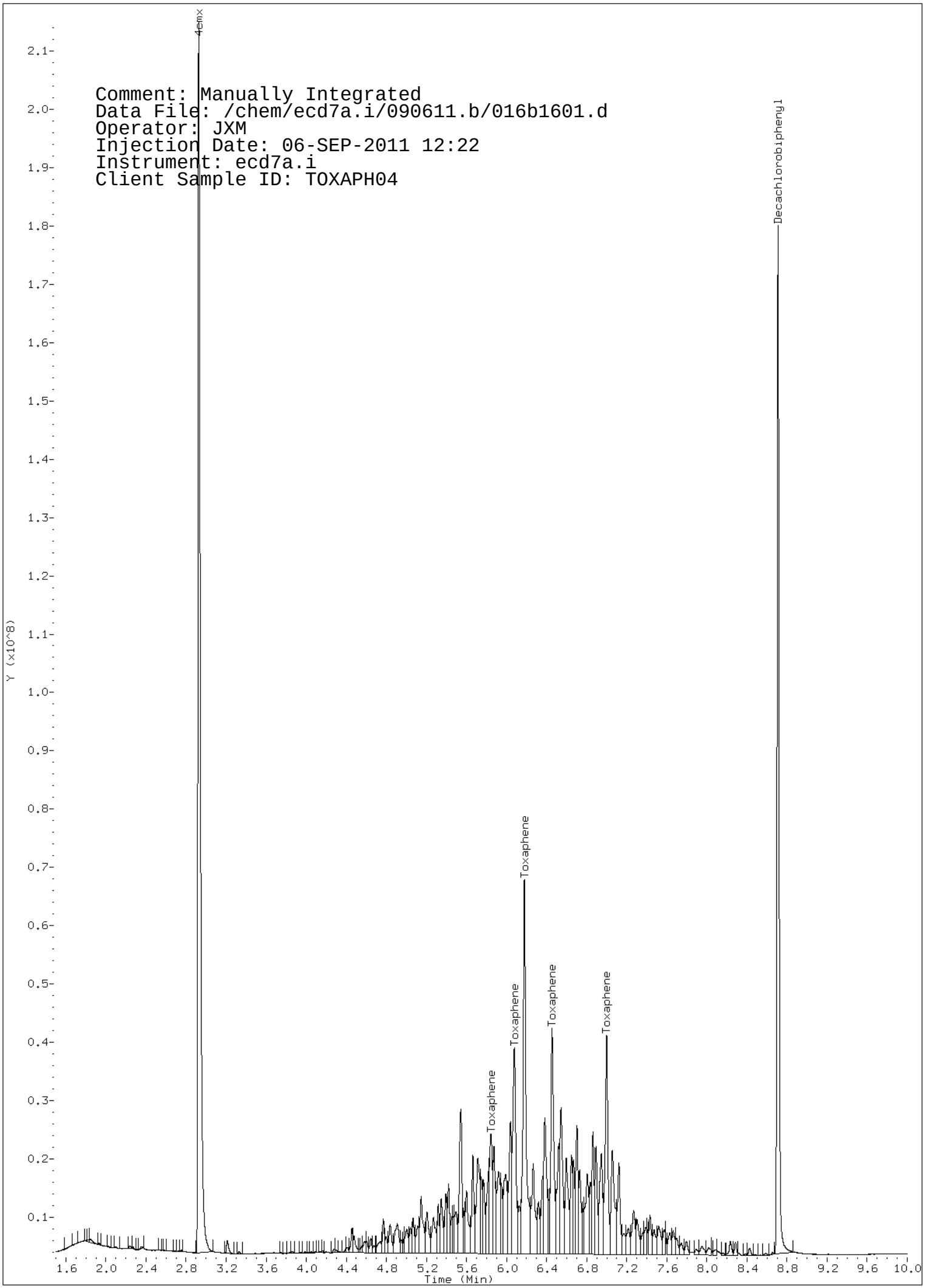
Sample Info: IWPE110906-14TX

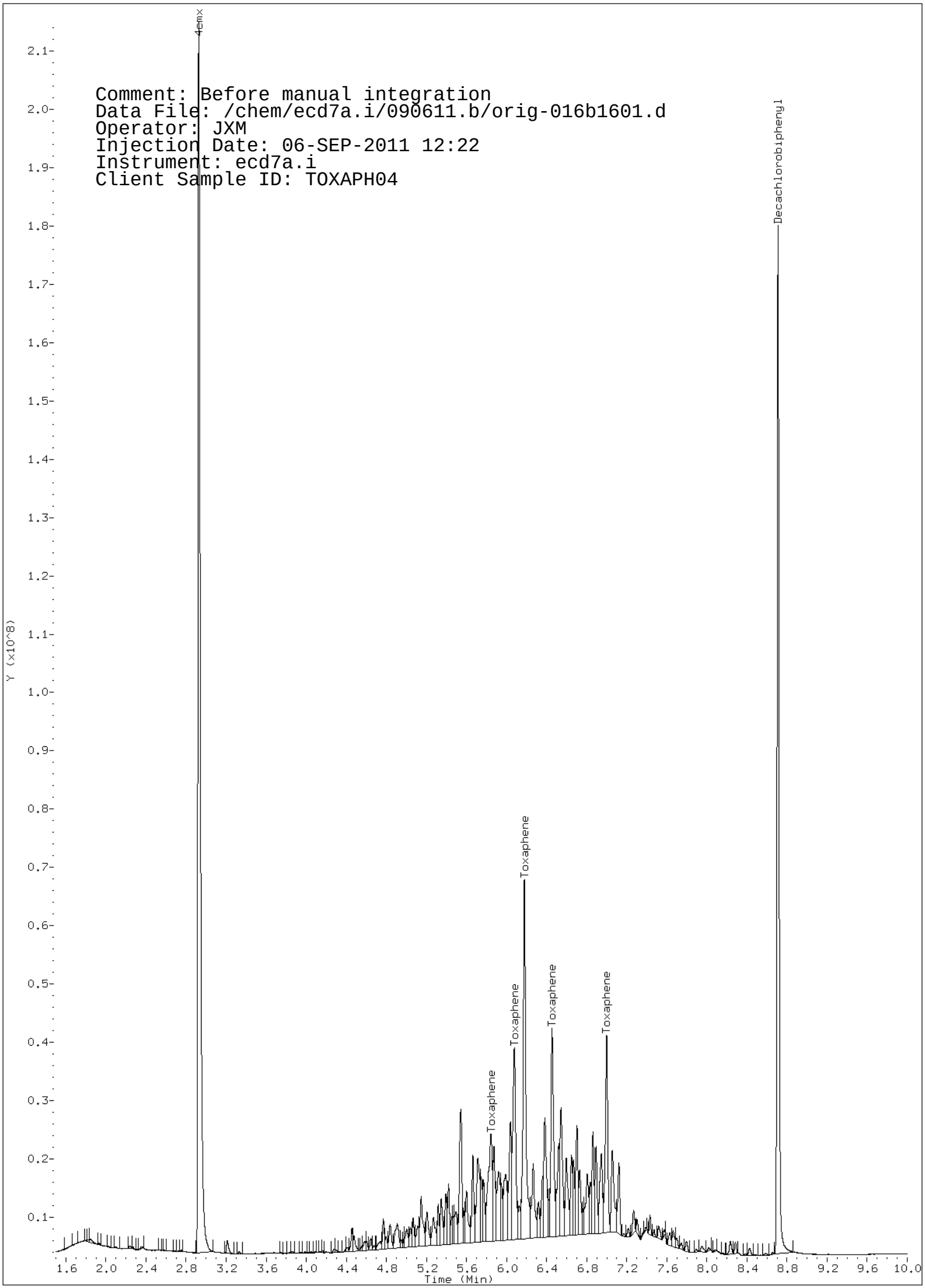
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/016b1601.d
Operator: JXM
Injection Date: 06-SEP-2011 12:22
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-016b1601.d
Operator: JXM
Injection Date: 06-SEP-2011 12:22
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/017f1701.d
Lab Smp Id: IPE110818-40TX Client Smp ID: TOXAPH05
Inj Date : 06-SEP-2011 12:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110818-40TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 17 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.799	5.797	0.002	139478340	3000.00	3060	80.00- 120.00	100.00(AM)
5.917	5.918	-0.001	76672155	3000.00	2990	39.31- 79.31	54.97
6.143	6.144	-0.001	87008976	3000.00	3210	42.64- 82.64	62.38
6.485	6.486	-0.001	94995597	3000.00	3260	49.79- 89.79	68.11
6.590	6.590	0.000	99998378	3000.00	2970	52.45- 92.45	71.69
Average of Peak Amounts =					3.1e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	491917985	400.000	390	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.093	8.092	0.001	293658412	400.000	379	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/017f1701.d

Page 1

Date : 06-SEP-2011 12:40

Client ID: TOXAPH05

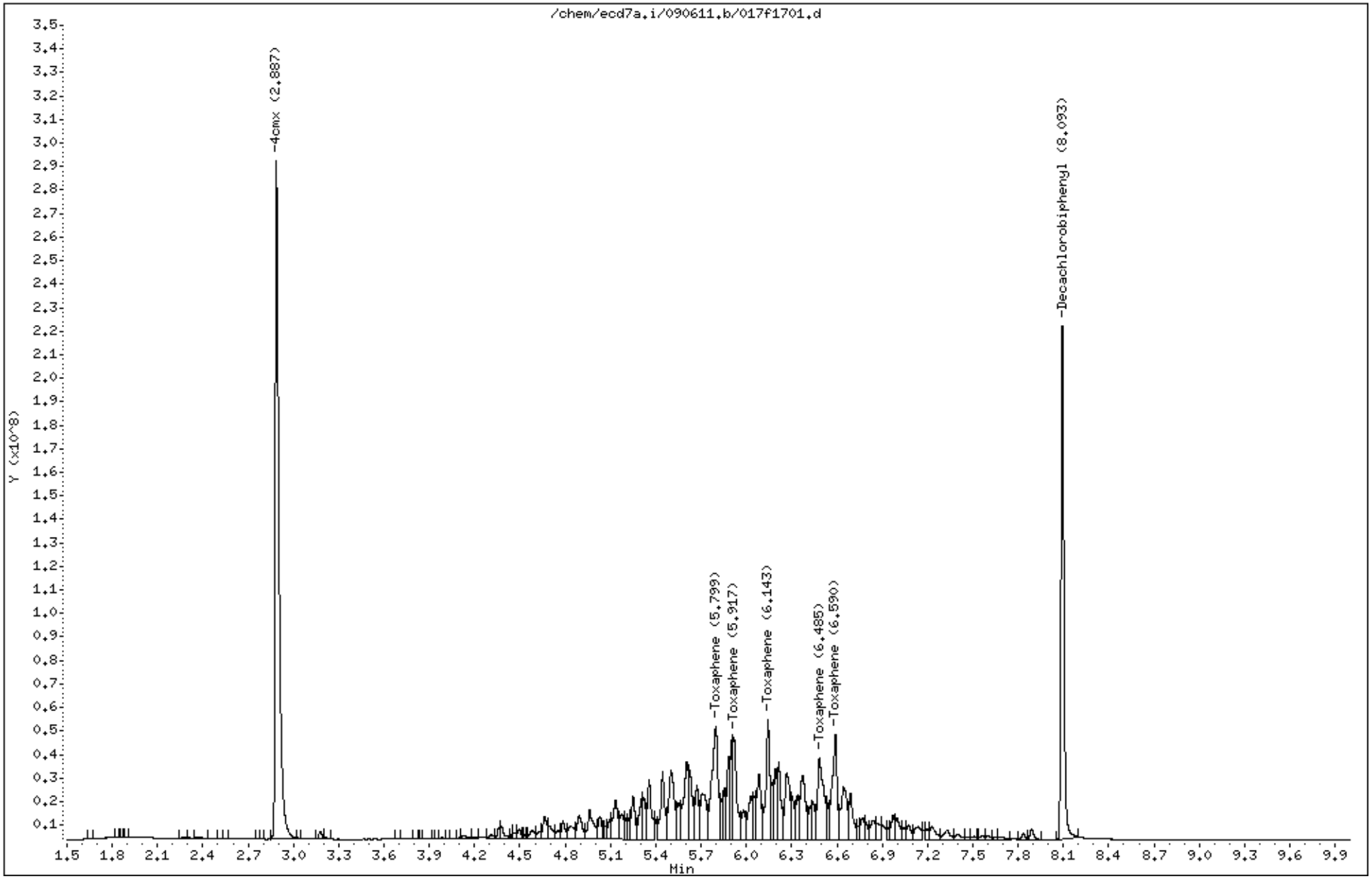
Instrument: ecd7a.i

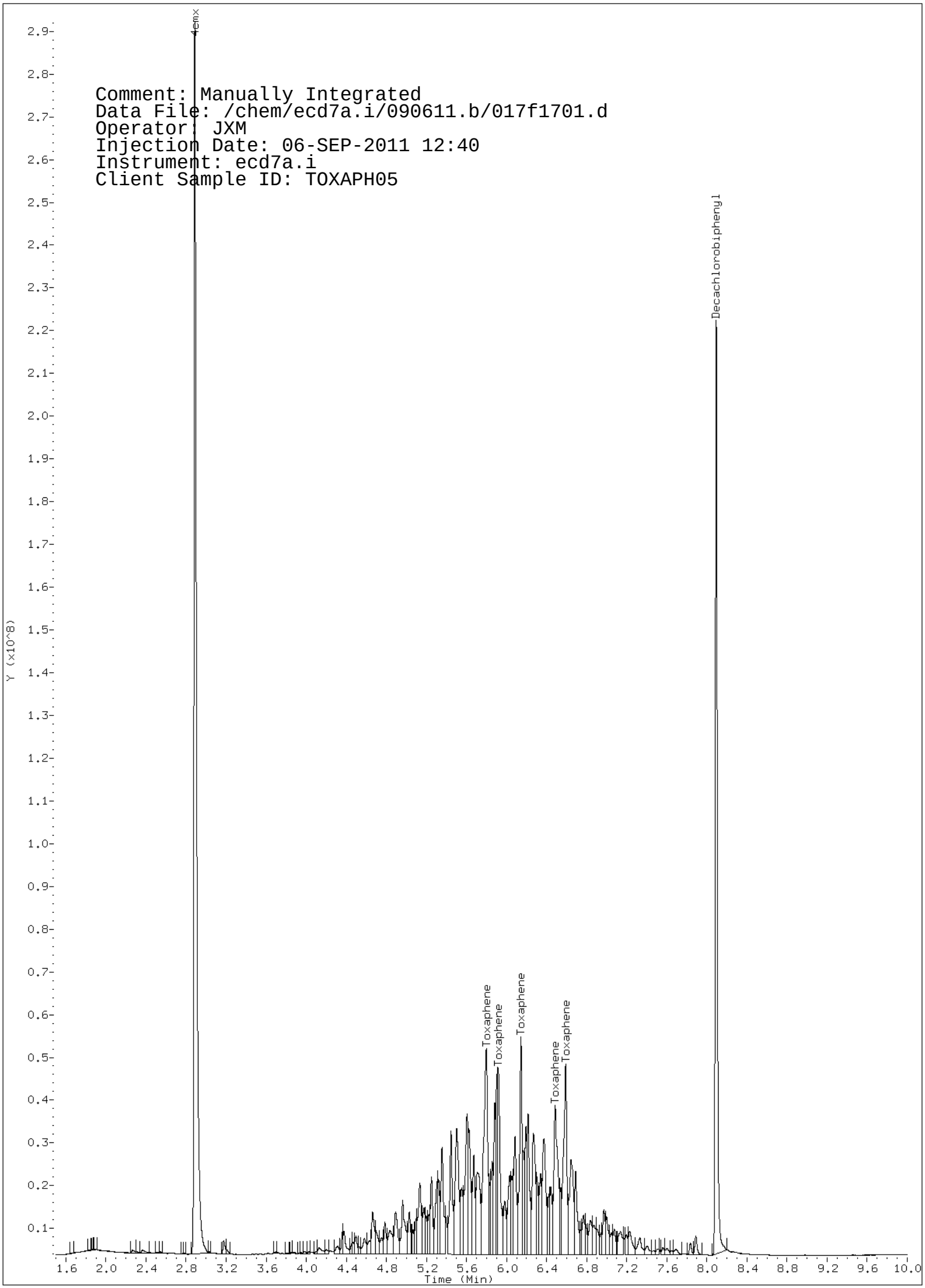
Sample Info: IIPE110818-40TX

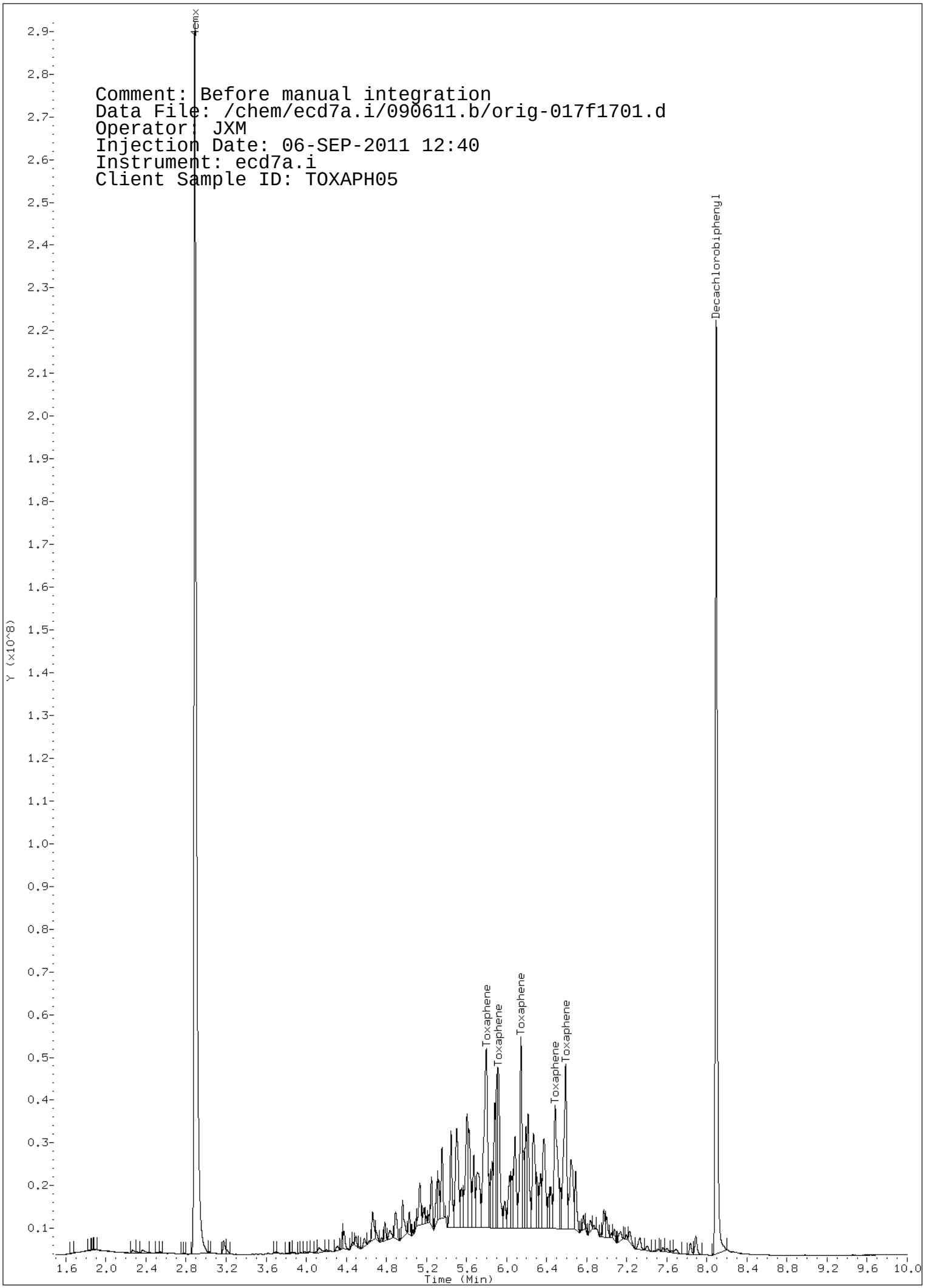
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/017f1701.d
Operator: JXM
Injection Date: 06-SEP-2011 12:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-017f1701.d
Operator: JXM
Injection Date: 06-SEP-2011 12:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/017b1701.d
Lab Smp Id: IPE110818-40TX Client Smp ID: TOXAPH05
Inj Date : 06-SEP-2011 12:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110818-40TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 17 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.843	5.843	0.000	59770640	3000.00	3350	80.00- 120.00	100.00(AM)
6.077	6.077	0.000	119639392	3000.00	3240	186.88- 226.88	200.16
6.178	6.178	0.000	205489053	3000.00	3230	341.12- 381.12	343.80
6.453	6.454	-0.001	122051720	3000.00	3320	189.89- 229.89	204.20
6.999	6.999	0.000	111350079	3000.00	3280	174.16- 214.16	186.30
Average of Peak Amounts =				3.28e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.925	2.926	-0.001	521633246	400.000	384	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.710	8.708	0.002	359972244	400.000	386	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/017b1701.d

Page 1

Date : 06-SEP-2011 12:40

Client ID: TOXAPH05

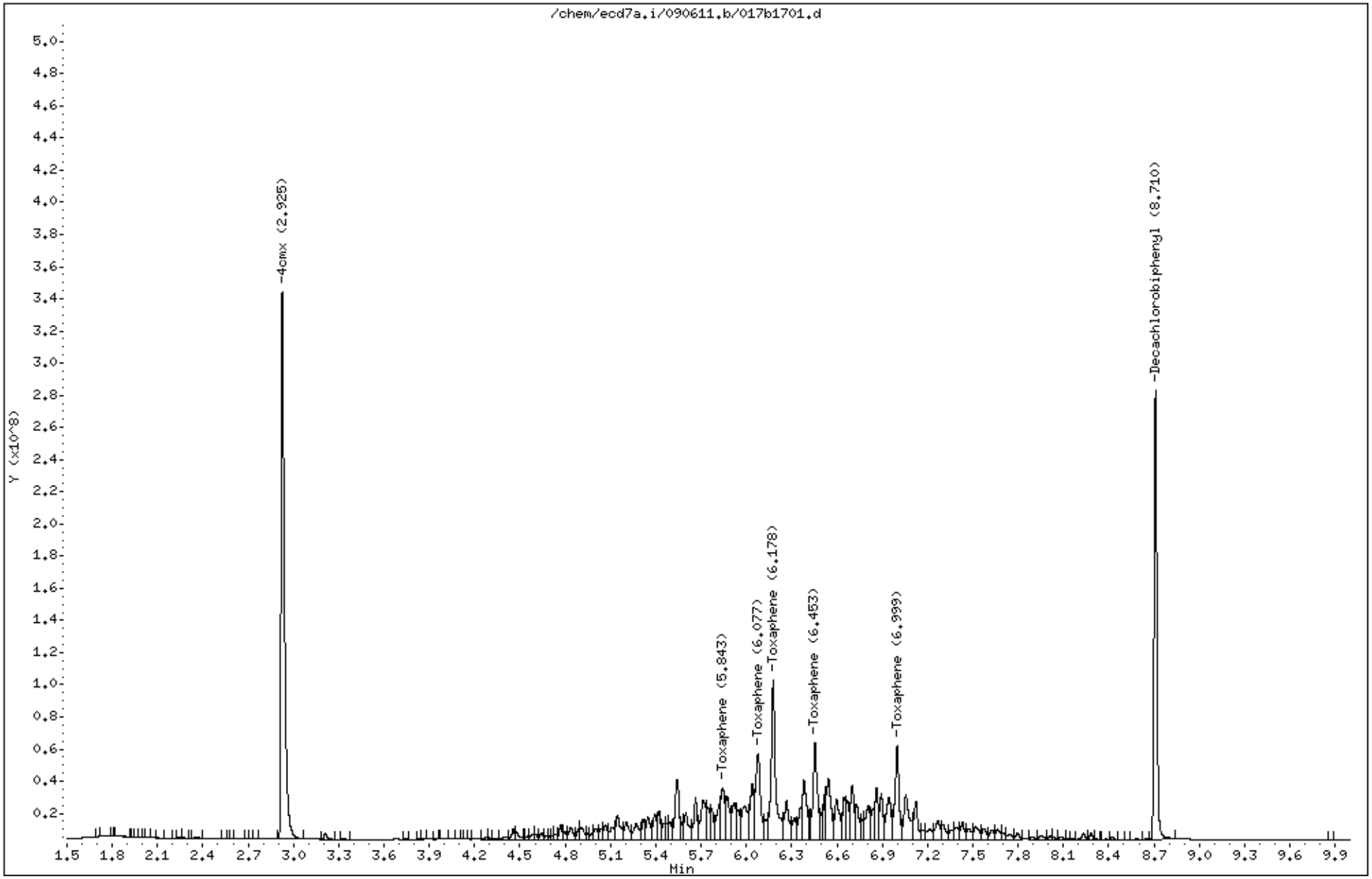
Instrument: ecd7a.i

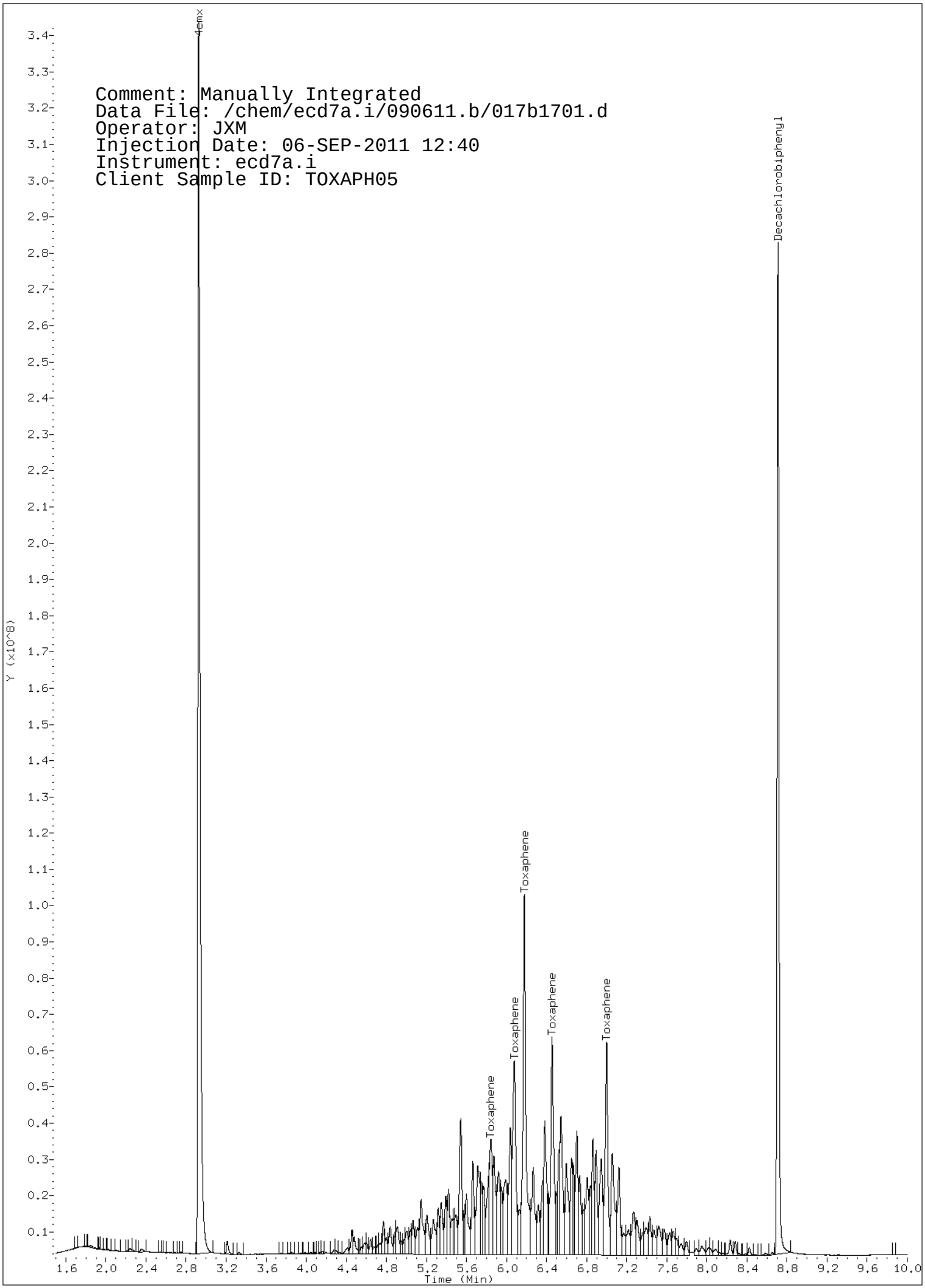
Sample Info: IIPE110818-40TX

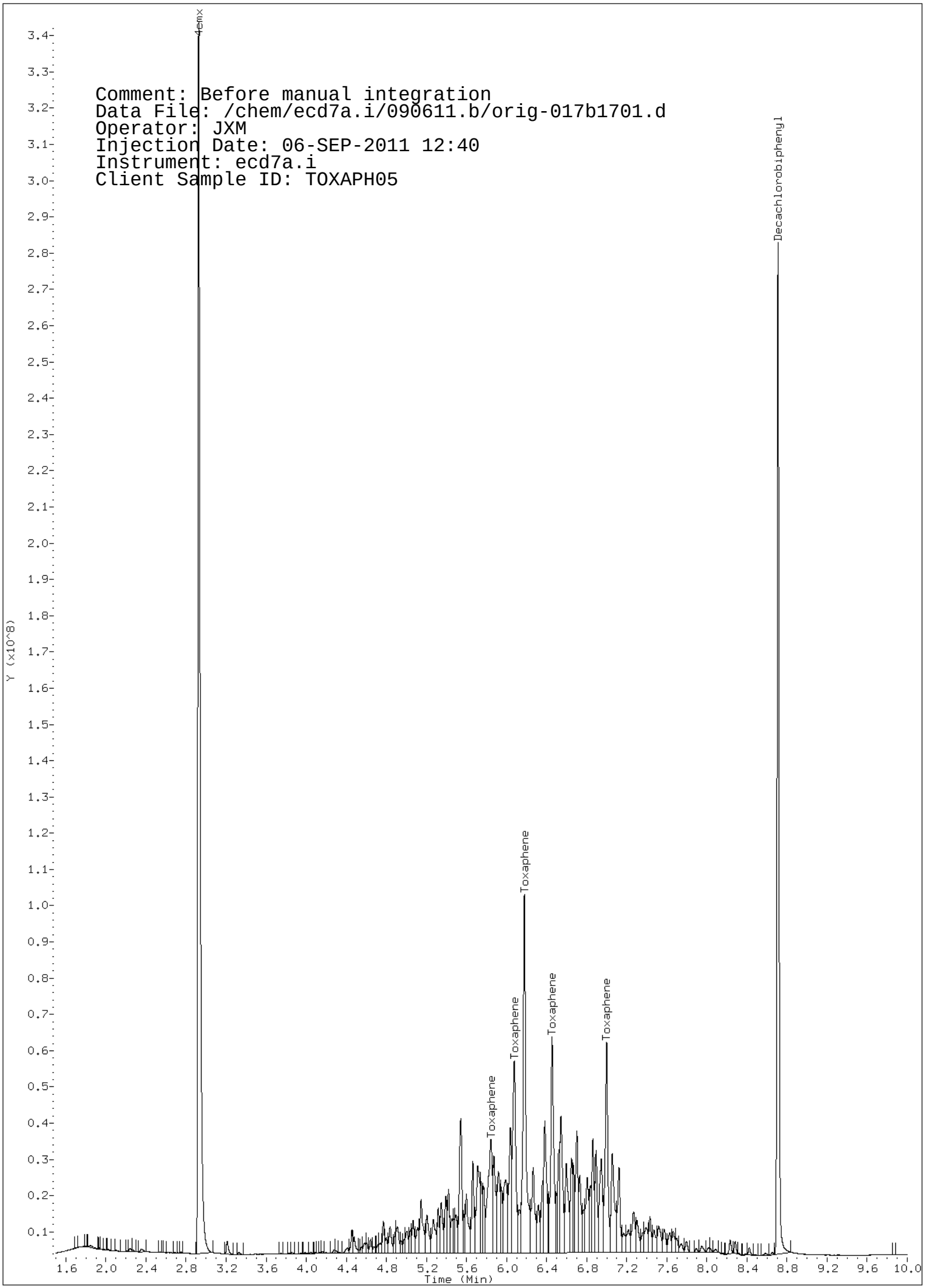
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/017b1701.d
Operator: JXM
Injection Date: 06-SEP-2011 12:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-017b1701.d
Operator: JXM
Injection Date: 06-SEP-2011 12:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/006f0601.d
Lab Smp Id: WPE110906-01AB Client Smp ID: INDAB01
Inj Date : 07-SEP-2011 10:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009f0901.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.294	0.001	6837809	4.00000	3.63	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.544	3.543	0.001	6109005	4.00000	3.66	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.608	0.006	2623720	4.00000	3.96	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.940	3.939	0.001	5336631	4.00000	3.85	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.766	3.762	0.004	5605476	4.00000	3.56	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.204	4.204	0.000	6460735	4.00000	4.05	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.743	4.742	0.001	5514410	4.00000	3.95	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.864	4.862	0.002	4952909	4.00000	3.72	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.987	4.986	0.001	5097302	4.00000	3.91	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.119   5.118   0.001         6807878 4.00000     4.39  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.087   5.058   0.029         6228873 8.00000     14.9  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.350   5.348   0.002        10517646 8.00000     7.89  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.581   5.578   0.003         7784147 8.00000     7.86  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.673   5.650   0.023         6467991 8.00000     7.25  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.812   5.802   0.010         8279469 8.00000     7.38  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.234   6.225   0.009         7993282 8.00000     8.25  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.942   5.926   0.016         6502464 8.00000     7.18  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.685   6.676   0.009         7595180 8.00000     7.86  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.441   6.425   0.016        16932223 40.0000     43.5  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.988   6.981   0.007        10580735 8.00000     8.27  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.886   2.884   0.002        10338027 8.00000     7.88  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.094   8.090   0.004         7817949 8.00000     8.78  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090711.b/006f0601.d

Page 1

Date : 07-SEP-2011 10:18

Client ID: INDAB01

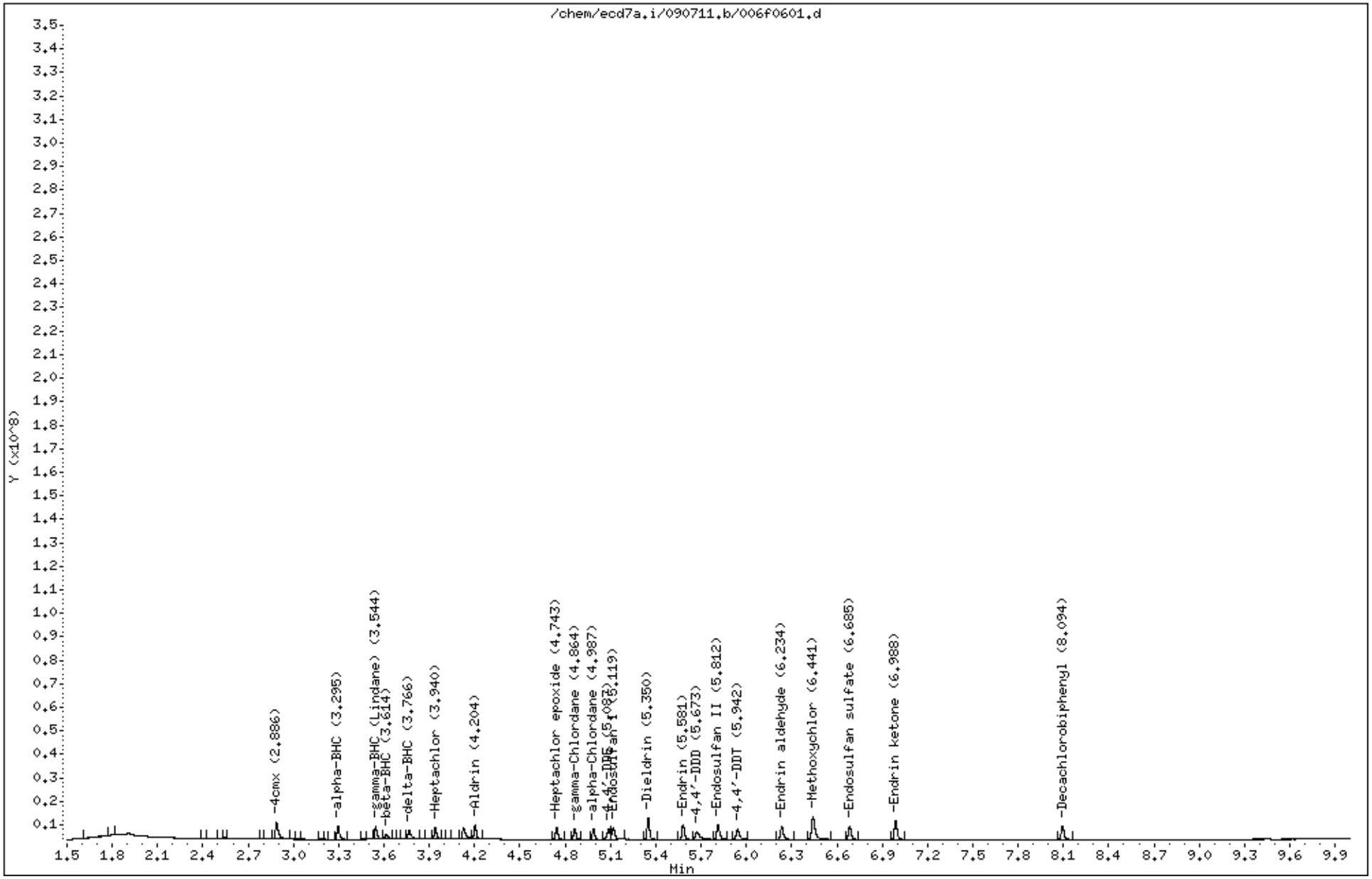
Instrument: ecd7a.i

Sample Info: IWPE110906-01AB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/006b0601.d
Lab Smp Id: WPE110906-01AB Client Smp ID: INDAB01
Inj Date : 07-SEP-2011 10:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:05 Cal File: 009b0901.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.379	3.379	0.000	7263935	4.00000	3.66	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.673	3.671	0.002	6523578	4.00000	3.69	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.737	3.733	0.004	2427666	4.00000	3.54	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.076	4.075	0.001	6499011	4.00000	3.73	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.996	3.991	0.005	5760570	4.00000	3.48	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.375	4.375	0.000	6384516	4.00000	3.70	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.900	4.898	0.002	5727677	4.00000	3.77	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.091	5.089	0.002	5975663	4.00000	3.93	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.231	5.229	0.002	5526972	4.00000	3.81	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.288   5.287   0.001         5172269 4.00000     3.82  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.412   5.391   0.021         9876241 8.00000     7.38  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.560   5.558   0.002        11282120 8.00000     7.51  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.865   5.863   0.002         8291033 8.00000     7.37  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  6.001   5.983   0.018         7503130 8.00000     7.25  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.086   6.079   0.007         9827196 8.00000     7.69  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.431   6.423   0.008         8231165 8.00000     7.82  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.322   6.311   0.011         8211459 8.00000     7.18  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.731   6.725   0.006         8228656 8.00000     7.62  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.042   7.032   0.010        22482029 40.0000     39.4  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.298   7.294   0.004        12454625 8.00000     8.27  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.926   2.923   0.003        10934601 8.00000     8.01  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.707   8.704   0.003         9036193 8.00000     8.70  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090711.b/006b0601.d

Page 1

Date : 07-SEP-2011 10:18

Client ID: INDAB01

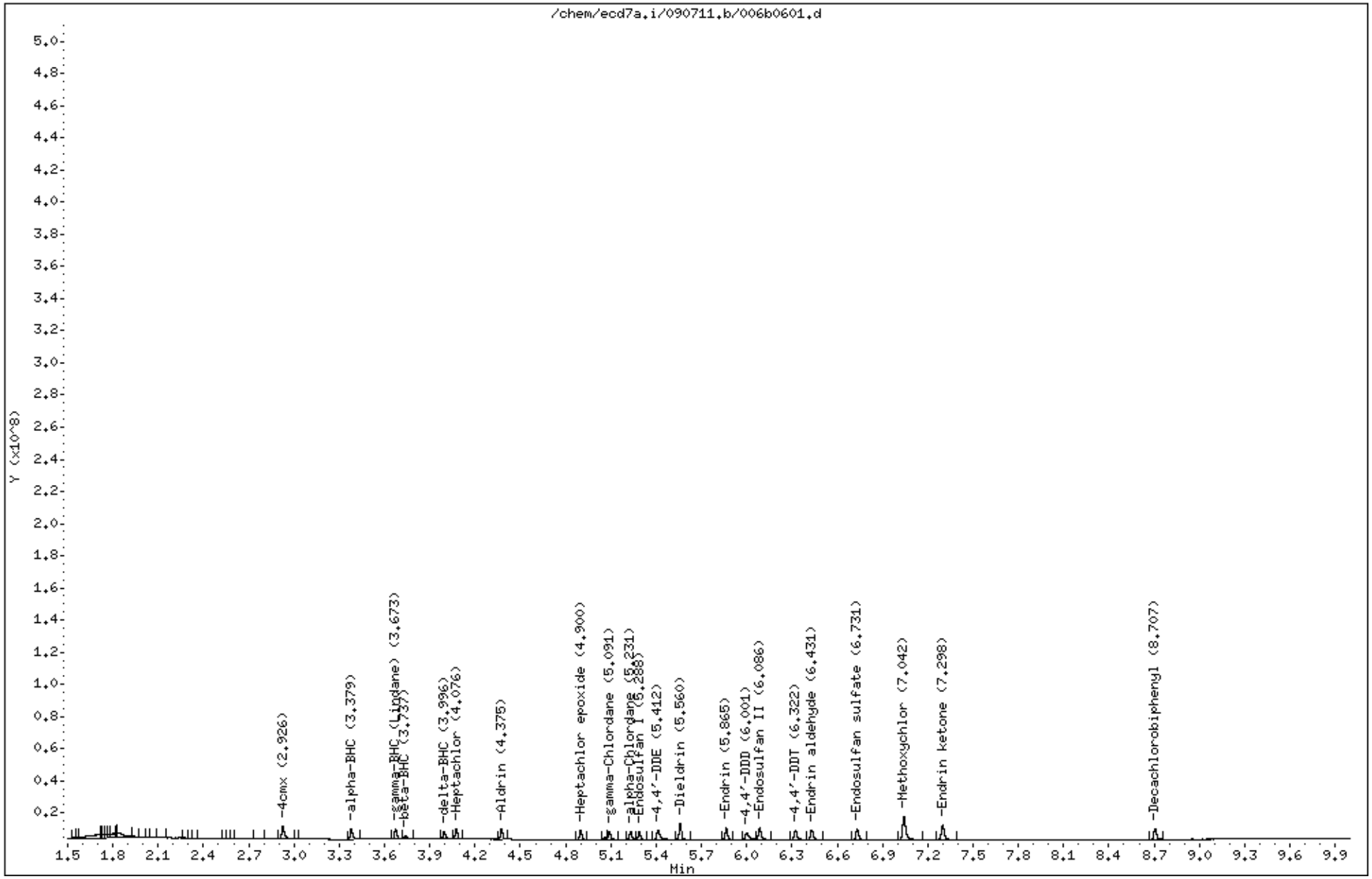
Instrument: ecd7a.i

Sample Info: IWPE110906-01AB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/007f0701.d
Lab Smp Id: WPE110906-02AB Client Smp ID: INDAB02
Inj Date : 07-SEP-2011 10:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010f1001.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.294	0.001	18037806	10.0000	9.58	80.00- 120.00	100.00(M)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.544	3.543	0.001	16167150	10.0000	9.69	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.612	3.608	0.004	6716121	10.0000	10.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.939	3.939	0.000	13421066	10.0000	9.68	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.766	3.762	0.004	14389007	10.0000	9.14	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.204	4.204	0.000	15434437	10.0000	9.68	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.743	4.742	0.001	13687220	10.0000	9.80	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.863	4.862	0.001	12731423	10.0000	9.56	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.987	4.986	0.001	12491159	10.0000	9.59	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.118	5.118	0.000	17974028	10.0000	11.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.090	5.058	0.032	14646604	20.0000	21.8	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.349	5.348	0.001	26174875	20.0000	19.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.580	5.578	0.002	19583715	20.0000	19.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.671	5.650	0.021	17036056	20.0000	19.1	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.810	5.802	0.008	22986555	20.0000	20.5	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.231	6.225	0.006	19454353	20.0000	20.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.942	5.926	0.016	17345830	20.0000	19.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.683	6.676	0.007	18809744	20.0000	19.4	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.425	0.014	39710886	100.000	102	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.987	6.981	0.006	26057601	20.0000	20.4	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.886	2.884	0.002	25969659	20.0000	19.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.094	8.090	0.004	17847364	20.0000	20.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090711.b/007f0701.d

Page 1

Date : 07-SEP-2011 10:35

Client ID: INDAB02

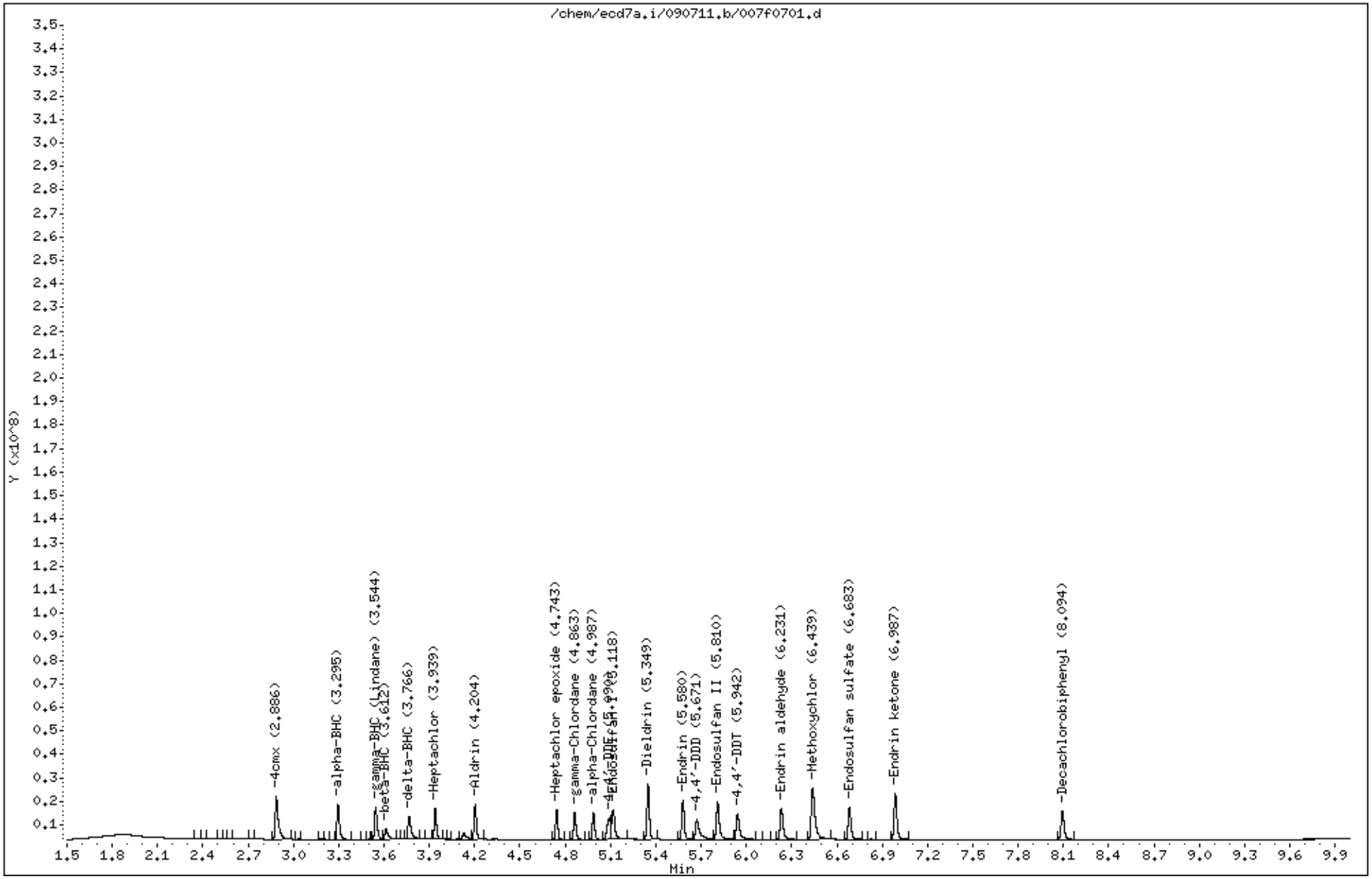
Instrument: ecd7a.i

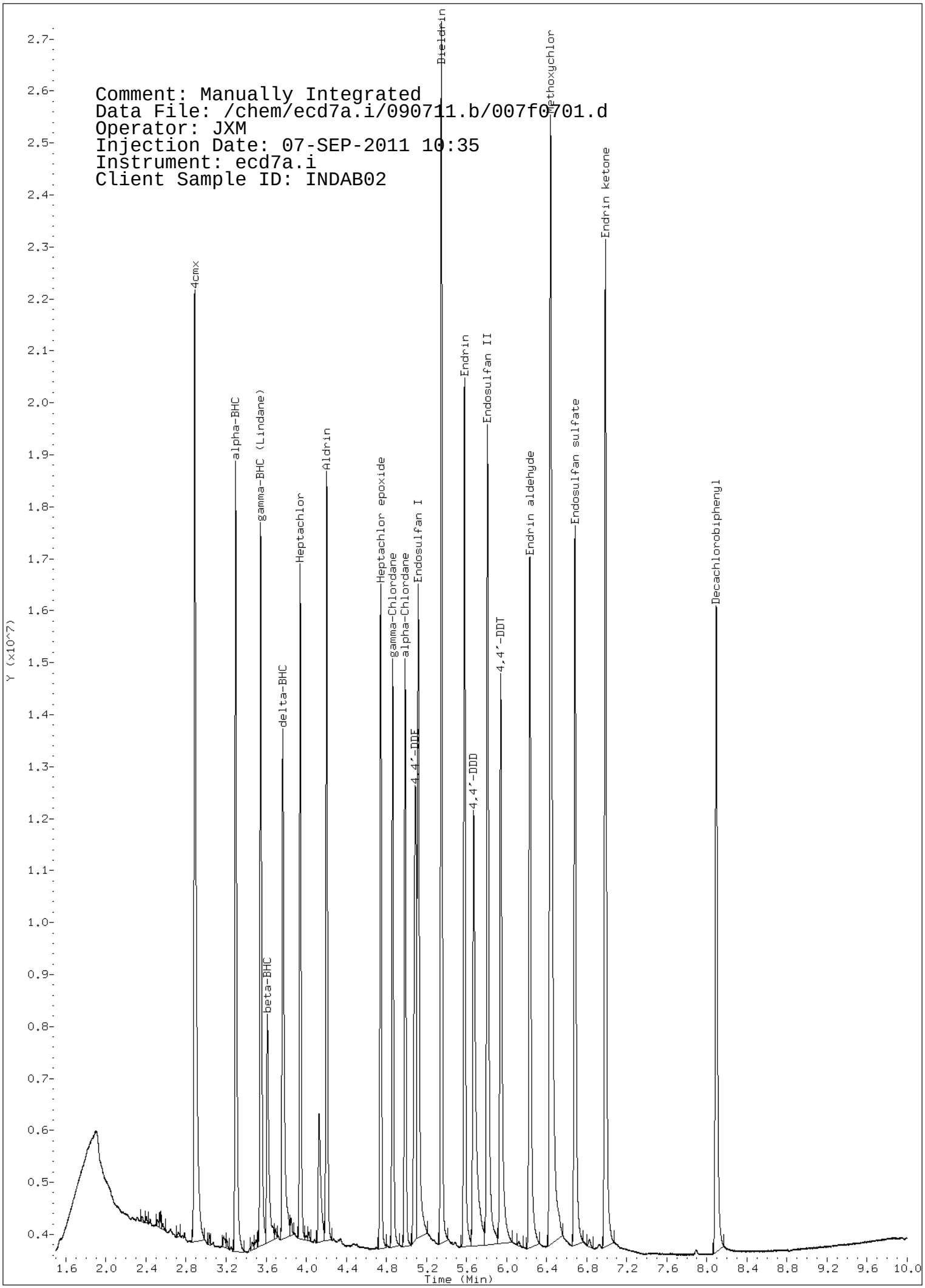
Sample Info: IWPE110906-02AB

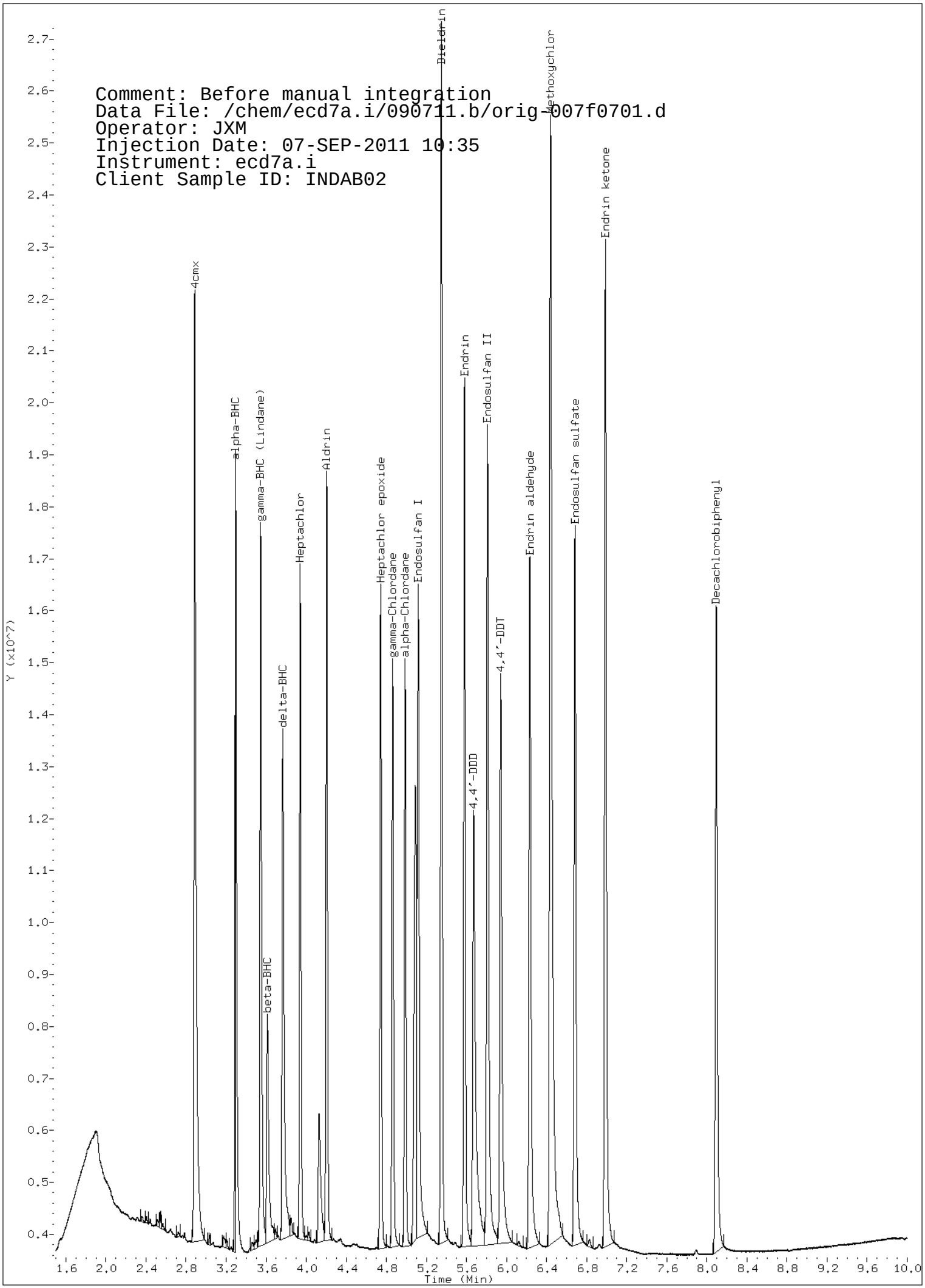
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/007f0701.d
Operator: JXM
Injection Date: 07-SEP-2011 10:35
Instrument: ecd7a.i
Client Sample ID: INDAB02
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-007f0701.d
Operator: JXM
Injection Date: 07-SEP-2011 10:35
Instrument: ecd7a.i
Client Sample ID: INDAB02
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/007b0701.d
Lab Smp Id: WPE110906-02AB Client Smp ID: INDAB02
Inj Date : 07-SEP-2011 10:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:22 Cal File: 010b1001.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.379	3.379	0.000	18986670	10.0000	9.58	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.672	3.671	0.001	17107694	10.0000	9.68	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.735	3.733	0.002	6634624	10.0000	9.67	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.075	4.075	0.000	17135359	10.0000	9.85	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.994	3.991	0.003	15387930	10.0000	9.29	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.375	4.375	0.000	16873368	10.0000	9.78	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.899	4.898	0.001	15084645	10.0000	9.93	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.089	5.089	0.000	14928133	10.0000	9.81	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.229	5.229	0.000	14138342	10.0000	9.76	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.288	5.287	0.001	13457495	10.0000	9.93	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.413	5.391	0.022	25315952	20.0000	18.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.559	5.558	0.001	29897351	20.0000	19.9	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.864	5.863	0.001	21909974	20.0000	19.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.999	5.983	0.016	19238344	20.0000	18.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.083	6.079	0.004	25558712	20.0000	20.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.429	6.423	0.006	21503752	20.0000	20.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.323	6.311	0.012	21644242	20.0000	18.9	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.730	6.725	0.005	20906898	20.0000	19.4	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.040	7.032	0.008	56197660	100.000	98.5	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.298	7.294	0.004	29798312	20.0000	19.8	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.923	0.001	26756652	20.0000	19.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.706	8.704	0.002	21390824	20.0000	20.6	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/007b0701.d

Page 1

Date : 07-SEP-2011 10:35

Client ID: INDAB02

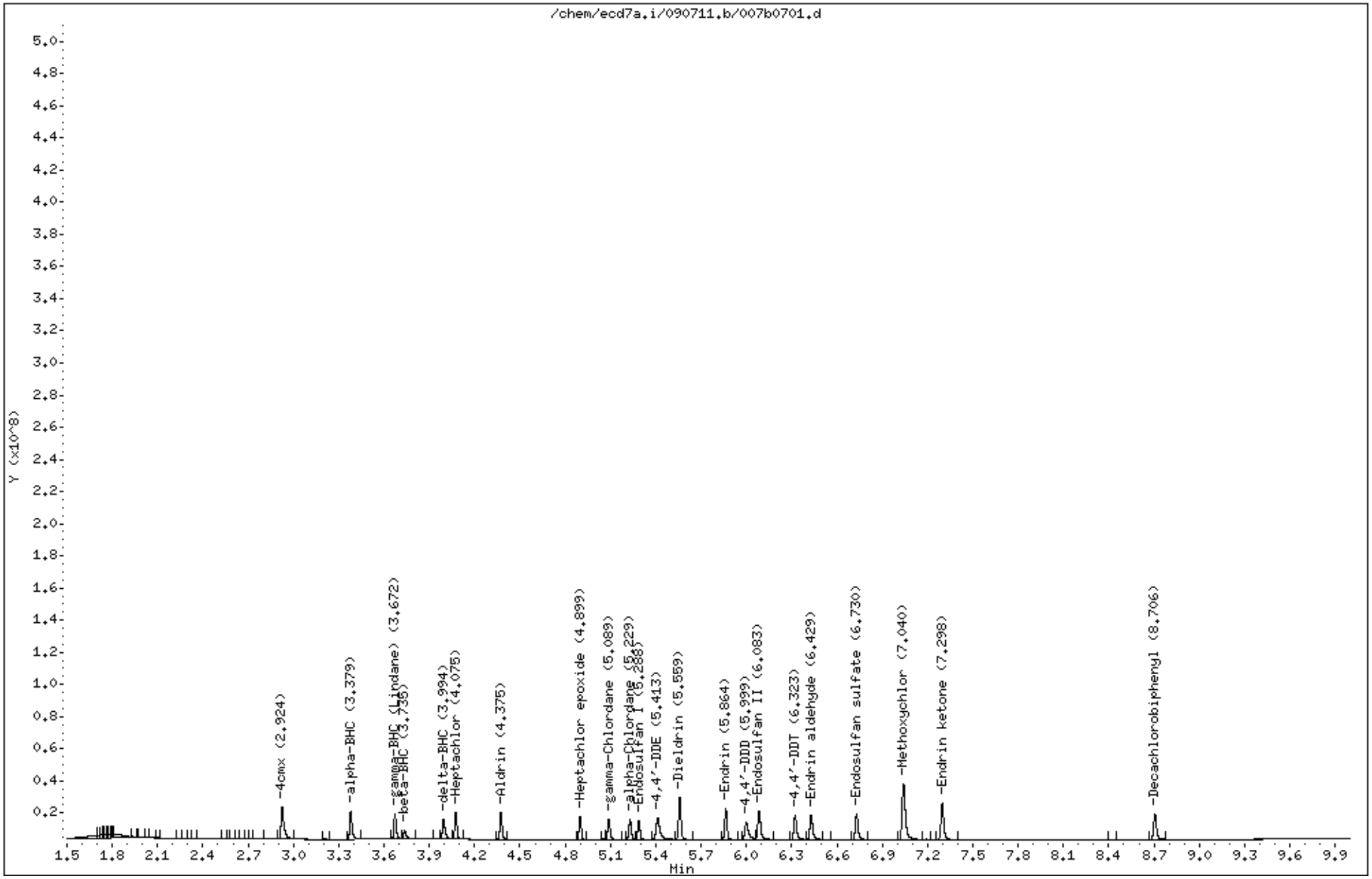
Instrument: ecd7a.i

Sample Info: IWPE110906-02AB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/008f0801.d
Lab Smp Id: WPE110906-03AB Client Smp ID: INDAB03
Inj Date : 07-SEP-2011 10:52
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011f1101.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.294	3.294	0.000	96366923	50.0000	51.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.544	3.543	0.001	84685353	50.0000	50.8	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.609	3.608	0.001	32002483	50.0000	48.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.940	3.939	0.001	70029925	50.0000	50.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.762	3.762	0.000	79753735	50.0000	50.6	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.204	4.204	0.000	79587079	50.0000	49.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.743	4.742	0.001	70584434	50.0000	50.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.862	4.862	0.000	67434132	50.0000	50.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.987	4.986	0.001	65384451	50.0000	50.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.119	5.118	0.001	75623776	50.0000	48.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.064	5.058	0.006	103870151	100.000	94.6	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.349	5.348	0.001	135671409	100.000	102	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.580	5.578	0.002	100723158	100.000	102	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.657	5.650	0.007	90837118	100.000	102	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.805	5.802	0.003	116205874	100.000	104	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.227	6.225	0.002	97291992	100.000	100	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.931	5.926	0.005	93086474	100.000	103	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.679	6.676	0.003	97865815	100.000	101	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.431	6.425	0.006	192532478	500.000	495	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.984	6.981	0.003	128363479	100.000	100	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.885	2.884	0.001	133027576	100.000	101	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.093	8.090	0.003	86656675	100.000	97.3	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/008f0801.d

Page 1

Date : 07-SEP-2011 10:52

Client ID: INDAB03

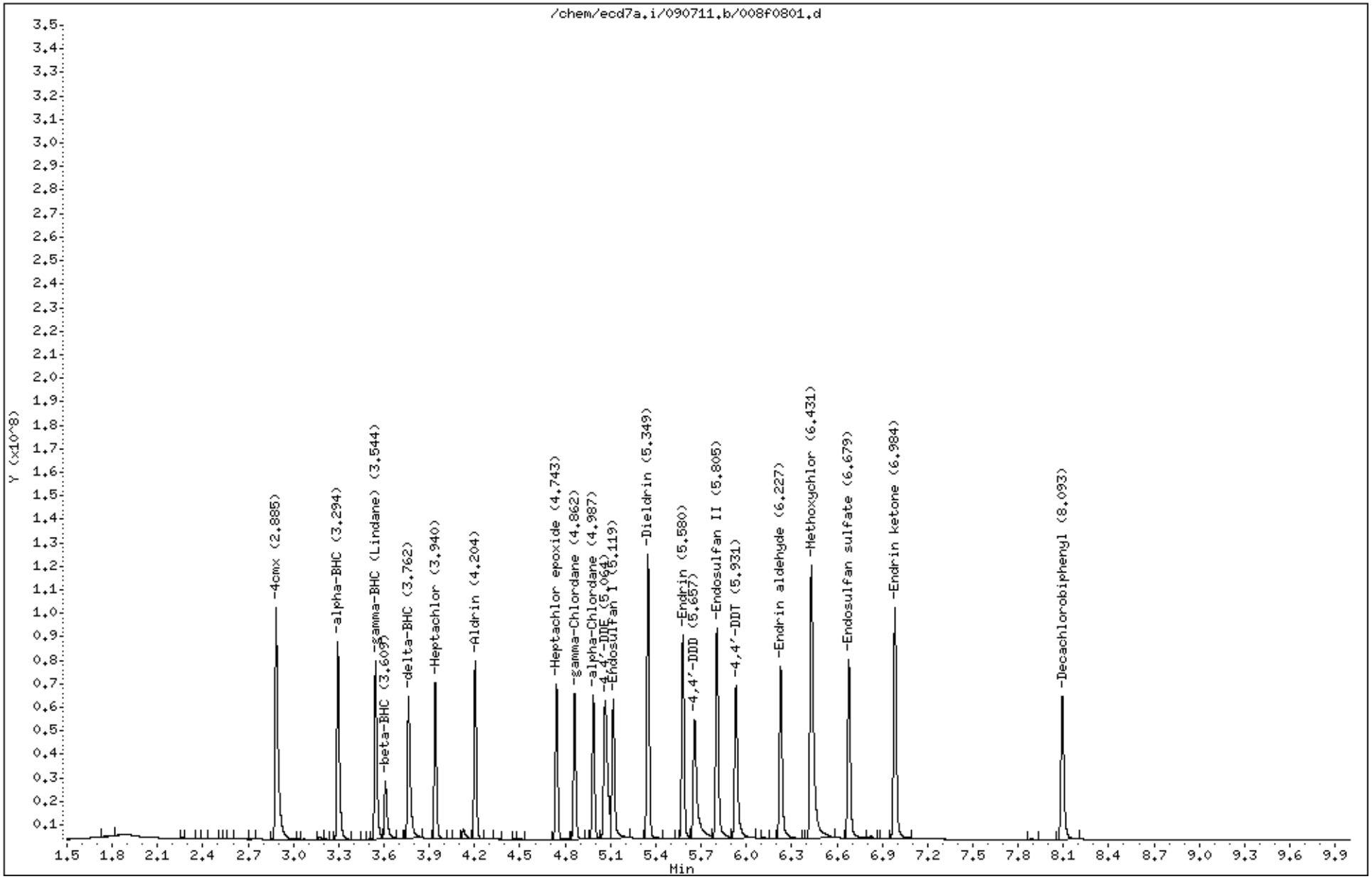
Instrument: ecd7a.i

Sample Info: IWPE110906-03AB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

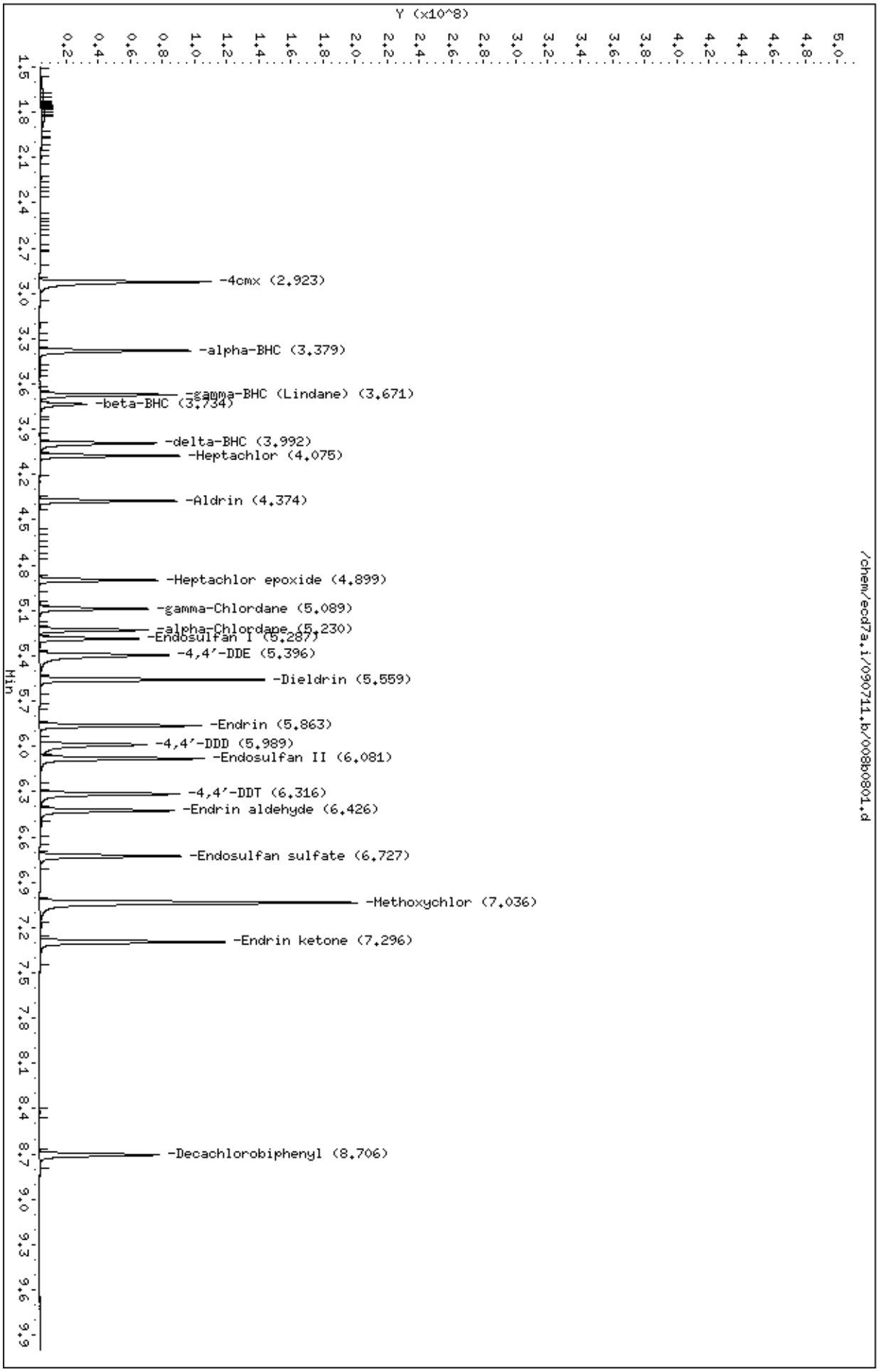
Data file : /chem/ecd7a.i/090711.b/008b0801.d
Lab Smp Id: WPE110906-03AB Client Smp ID: INDAB03
Inj Date : 07-SEP-2011 10:52
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 17:39 Cal File: 011b1101.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.379	3.379	0.000	101517499	50.0000	51.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.671	3.671	0.000	89731096	50.0000	50.8	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.734	3.733	0.001	34892076	50.0000	50.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.075	4.075	0.000	89580587	50.0000	51.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.992	3.991	0.001	85867824	50.0000	51.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.374	4.375	-0.001	87845953	50.0000	50.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.899	4.898	0.001	77562344	50.0000	51.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.089	5.089	0.000	75352322	50.0000	49.5	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.230	5.229	0.001	72642428	50.0000	50.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.287	5.287	0.000	68331600	50.0000	50.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.396	5.391	0.005	133394687	100.000	99.7	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.559	5.558	0.001	151310240	100.000	101	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.863	5.863	0.000	113616245	100.000	101	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.989	5.983	0.006	104312574	100.000	101	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.081	6.079	0.002	130231151	100.000	102	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.426	6.423	0.003	103751800	100.000	98.6	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.316	6.311	0.005	114698129	100.000	100	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.727	6.725	0.002	107741227	100.000	99.8	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.036	7.032	0.004	279012234	500.000	489	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.296	7.294	0.002	147622856	100.000	98.0	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.923	0.000	136782348	100.000	100	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.706	8.704	0.002	98342256	100.000	94.6	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/008b0801.d
Date : 07-SEP-2011 10:52
Client ID: INDAB03
Sample Info: IWPE110906-03AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

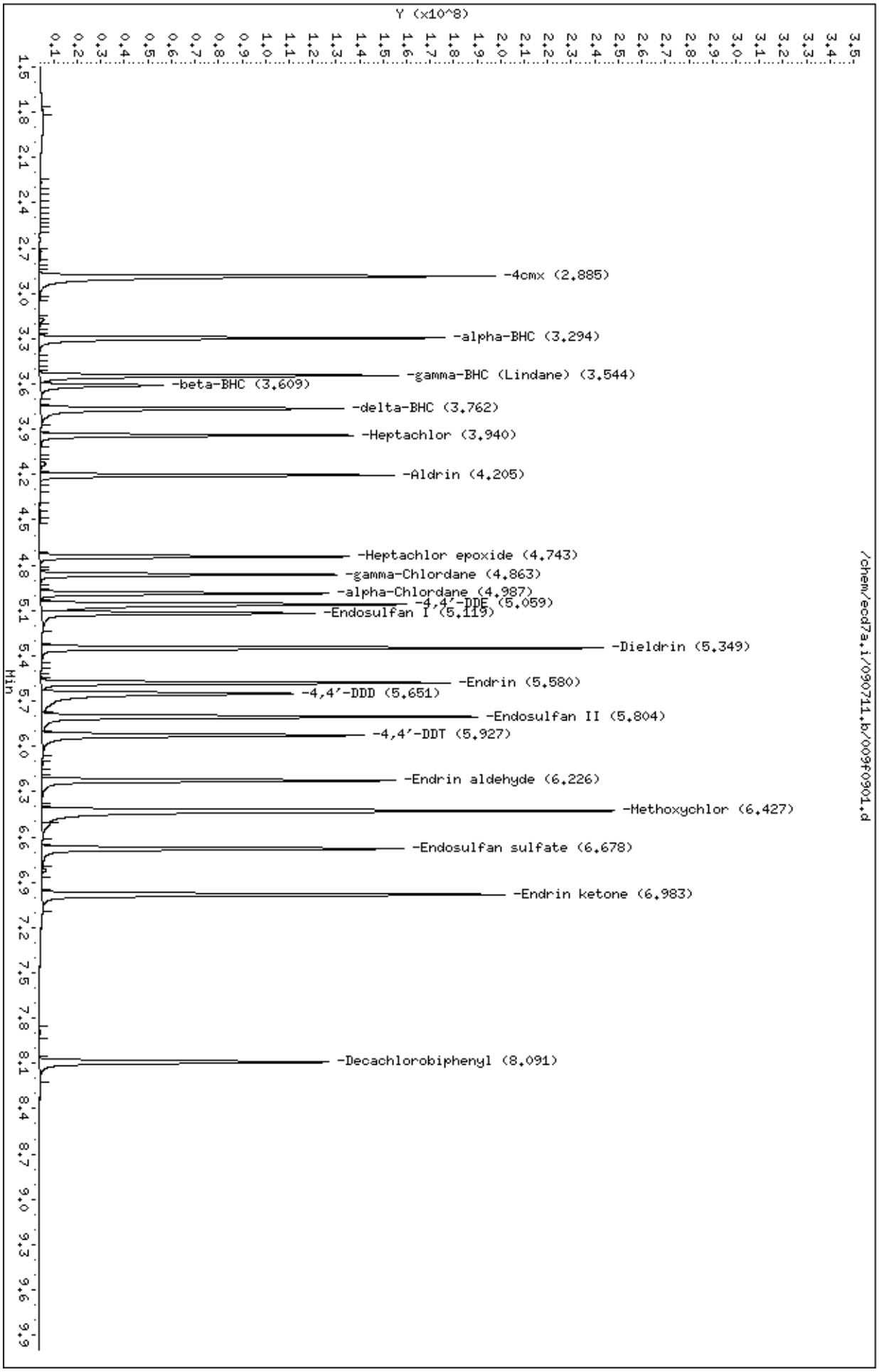
Data file : /chem/ecd7a.i/090711.b/009f0901.d
Lab Smp Id: WPE110906-04AB Client Smp ID: INDAB04
Inj Date : 07-SEP-2011 11:09
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028f2801.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.294	3.294	0.000	195958214	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.544	3.543	0.001	171943627	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.609	3.608	0.001	65389746	100.000	98.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.940	3.939	0.001	141318647	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.762	3.762	0.000	167464857	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.205	4.204	0.001	159885391	100.000	100	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.743	4.742	0.001	140767824	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.863	4.862	0.001	137276317	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.987	4.986	0.001	133227513	100.000	102	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.119   5.118   0.001       142698516 100.000     92.0  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.059   5.058   0.001       223120294 200.000      192  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.349   5.348   0.001       268496648 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.580   5.578   0.002       196521765 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.651   5.650   0.001       185837143 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.804   5.802   0.002       229029772 200.000      204  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.226   6.225   0.001       191698893 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.927   5.926   0.001       189755834 200.000      210  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.678   6.676   0.002       195156234 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.427   6.425   0.002       368561952 1000.00      948  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.983   6.981   0.002       250390448 200.000      196  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.885   2.884   0.001       262414279 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.091   8.090   0.001       170467790 200.000      191  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090711.b/009f0901.d
Date : 07-SEP-2011 11:09
Client ID: INDAB04
Sample Info: IWPE110906-04AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/009b0901.d
Lab Smp Id: WPE110906-04AB Client Smp ID: INDAB04
Inj Date : 07-SEP-2011 11:09
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 18-JUL-2011 16:22 Cal File: 028b2801.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.380	3.379	0.001	204638920	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.672	3.671	0.001	181679011	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.734	3.733	0.001	72463582	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.076	4.075	0.001	177310503	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.993	3.991	0.002	175634081	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.376	4.375	0.001	176913850	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.900	4.898	0.002	155746814	100.000	102	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.090	5.089	0.001	153089944	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.231	5.229	0.002	147421715	100.000	102	80.00- 120.00	100.00

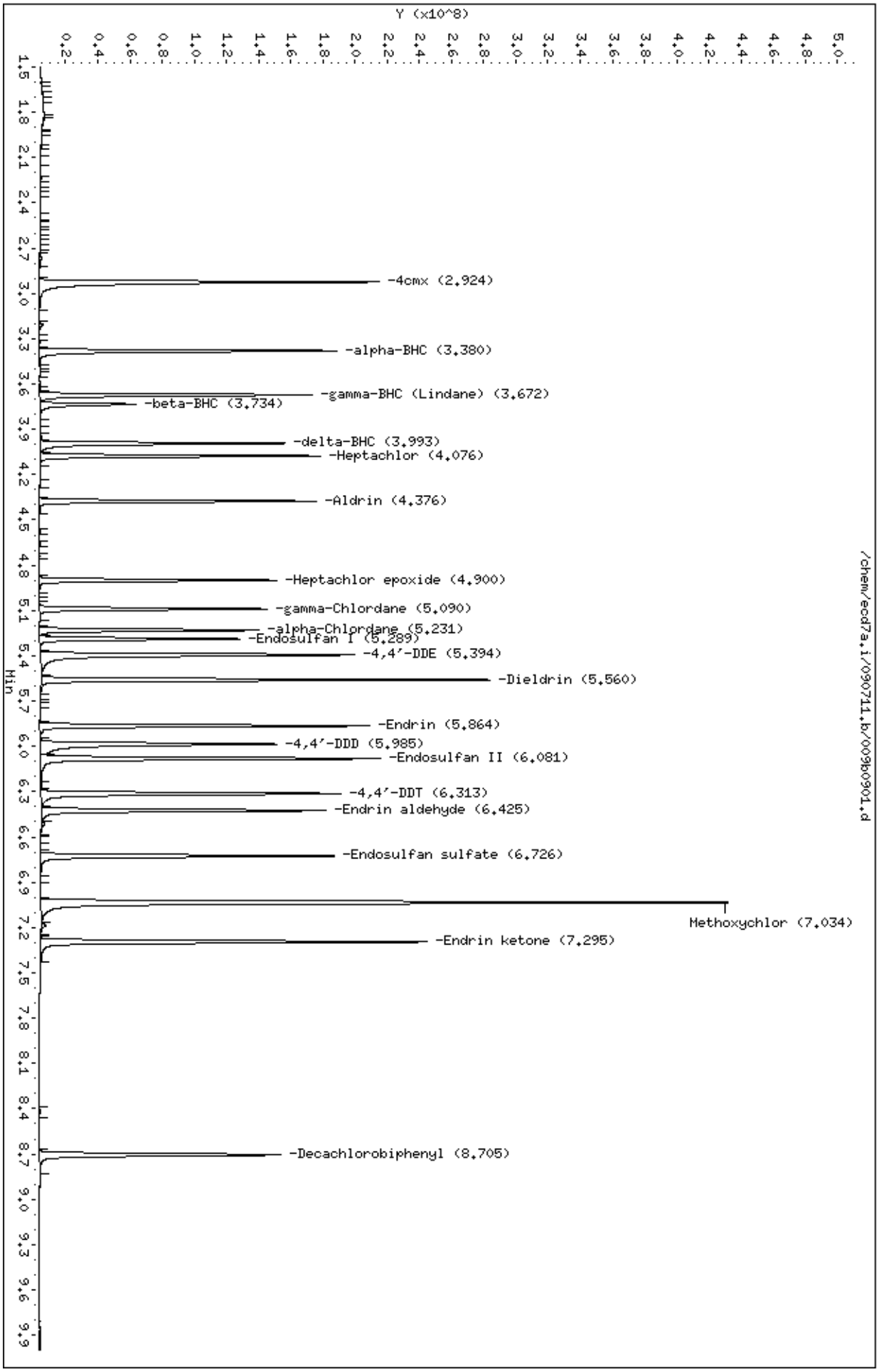
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.289	5.287	0.002	137125183	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.394	5.391	0.003	275851489	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.560	5.558	0.002	304571400	200.000	203	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.864	5.863	0.001	227884258	200.000	203	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.985	5.983	0.002	216081390	200.000	209	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.081	6.079	0.002	259931520	200.000	203	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.425	6.423	0.002	210143272	200.000	200	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.313	6.311	0.002	238210552	200.000	208	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.726	6.725	0.001	221478990	200.000	205	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.034	7.032	0.002	563609656	1000.00	988	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.295	7.294	0.001	294919523	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.923	0.001	272505855	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.705	8.704	0.001	198548732	200.000	191	80.00- 120.00	100.00

QC Flag Legend

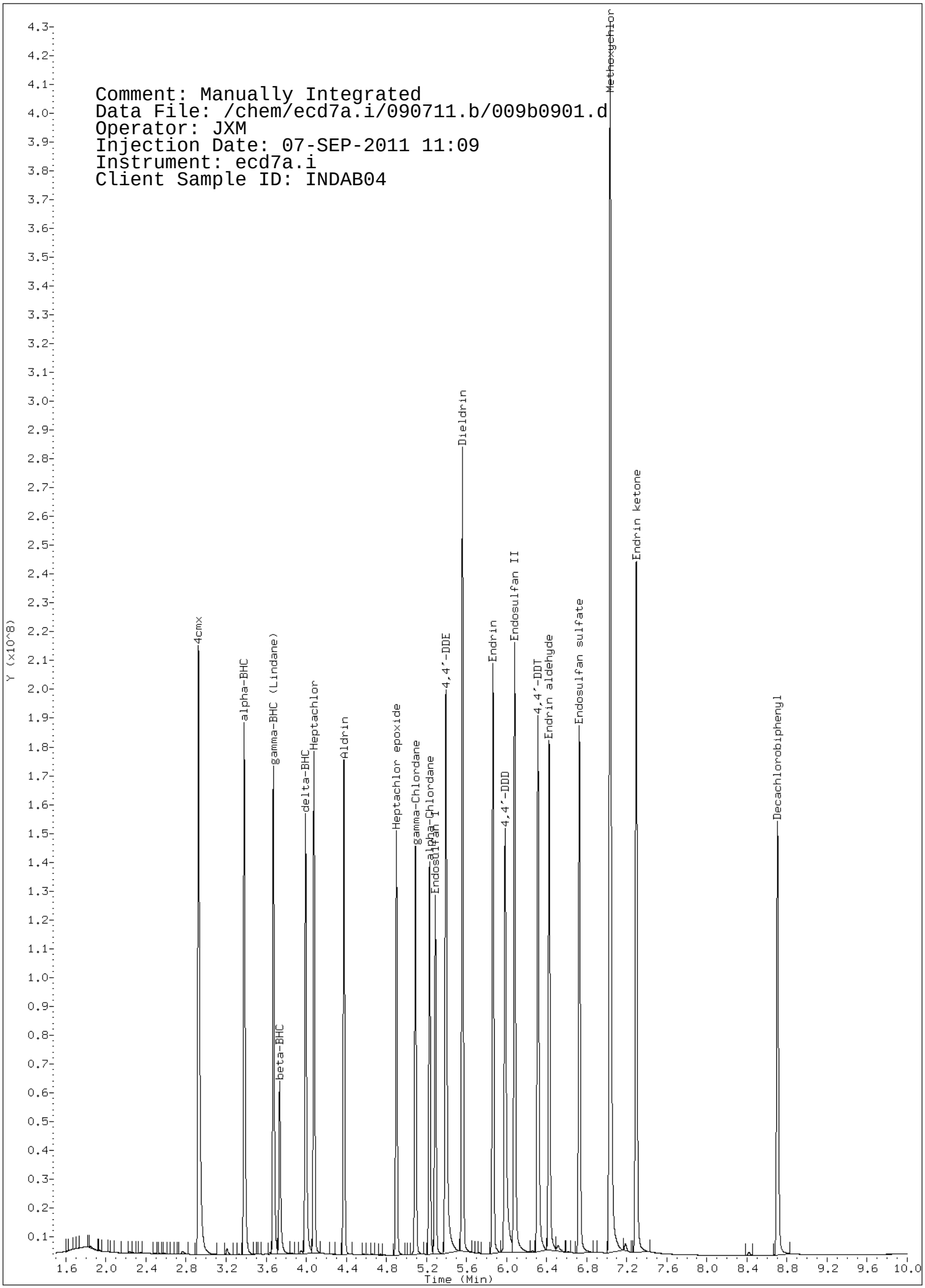
M - Compound response manually integrated.

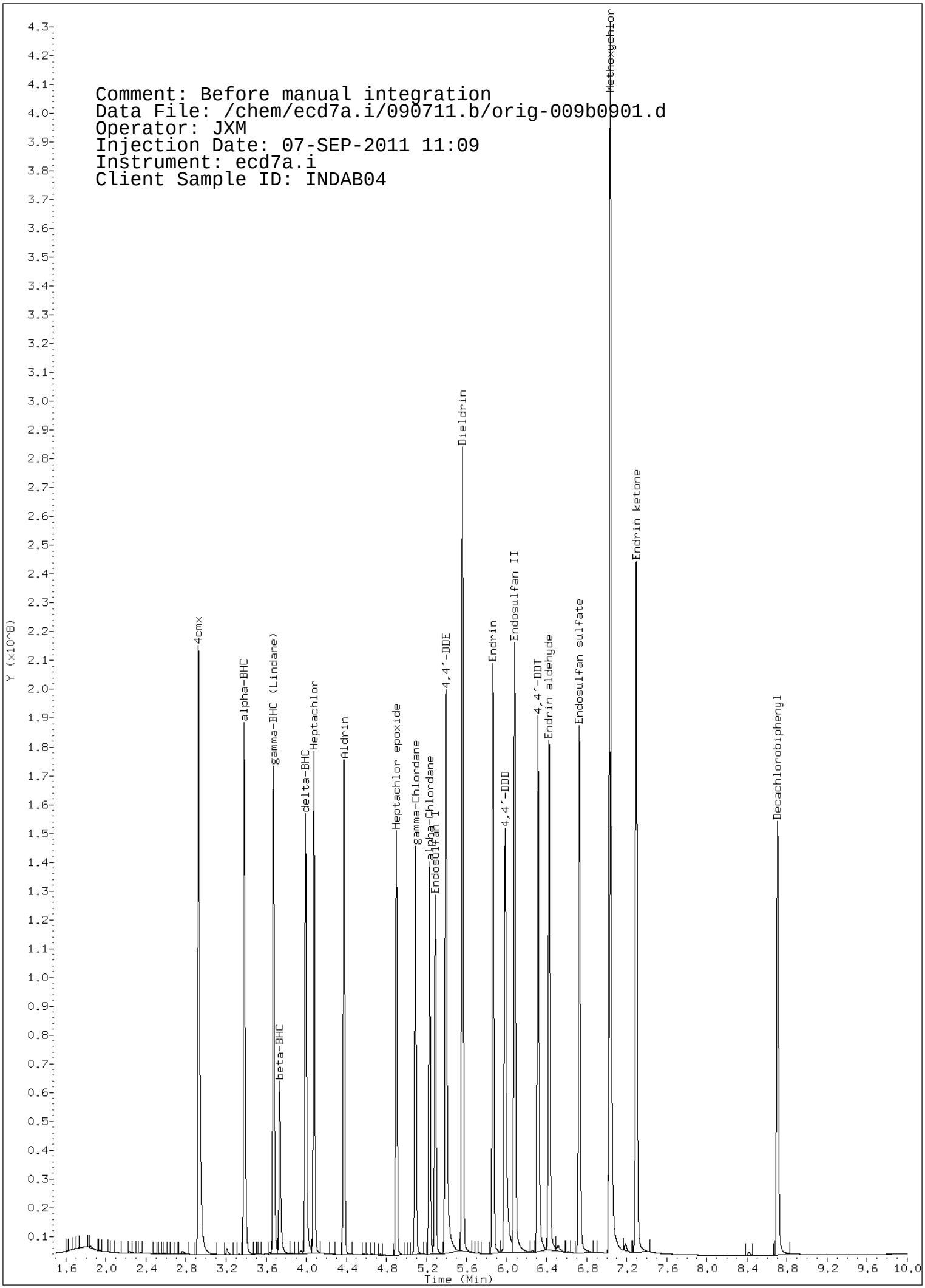
Data File: /chem/ecd7a.i/090711.b/009b0901.d
Date : 07-SEP-2011 11:09
Client ID: INDAB04
Sample Info: IWPE110906-04AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/009b0901.d
Operator: JXM
Injection Date: 07-SEP-2011 11:09
Instrument: ecd7a.i
Client Sample ID: INDAB04
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-009b0901.d
Operator: JXM
Injection Date: 07-SEP-2011 11:09
Instrument: ecd7a.i
Client Sample ID: INDAB04
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/010f1001.d
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 07-SEP-2011 11:26
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.293	3.294	-0.001	403018834	200.000	214	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.543	3.543	0.000	356178851	200.000	214	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.607	3.608	-0.001	137879966	200.000	208	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
3.939	3.939	0.000	287635194	200.000	208	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.760	3.762	-0.002	352517060	200.000	224	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.204	4.204	0.000	324203073	200.000	203	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.742	4.742	0.000	283598549	200.000	203	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.862	4.862	0.000	284508614	200.000	214	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.986	4.986	0.000	270349165	200.000	207	80.00- 120.00	100.00(A)

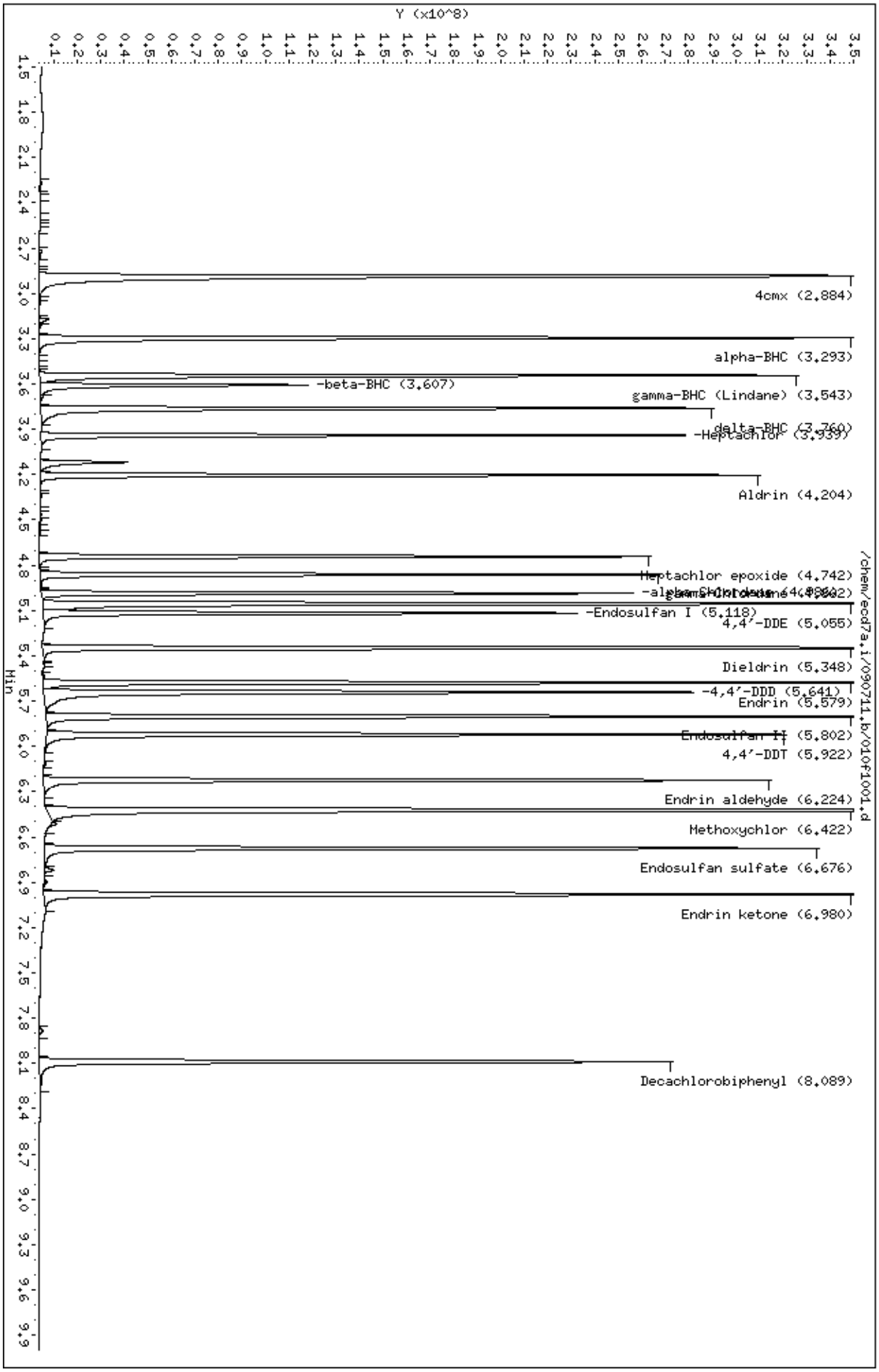
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.118   5.118   0.000       263662028 200.000      170  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.055   5.058  -0.003       483939603 400.000      405  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.348   5.348   0.000       536586168 400.000      402  80.00- 120.00   100.00(AM)
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.579   5.578   0.001       403396174 400.000      407  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.641   5.650  -0.009       383913436 400.000      431  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.802   5.802   0.000       446541979 400.000      398  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.224   6.225  -0.001       375651253 400.000      388  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.922   5.926  -0.004       385906856 400.000      426  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.676   6.676   0.000       396011432 400.000      410  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.422   6.425  -0.003       741004171 2000.00     1900  80.00- 120.00   100.00(M)
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.980   6.981  -0.001       494059953 400.000      386  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.884   2.884   0.000       529032973 400.000      403  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.089   8.090  -0.001       346029079 400.000      388  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

QC Flag Legend

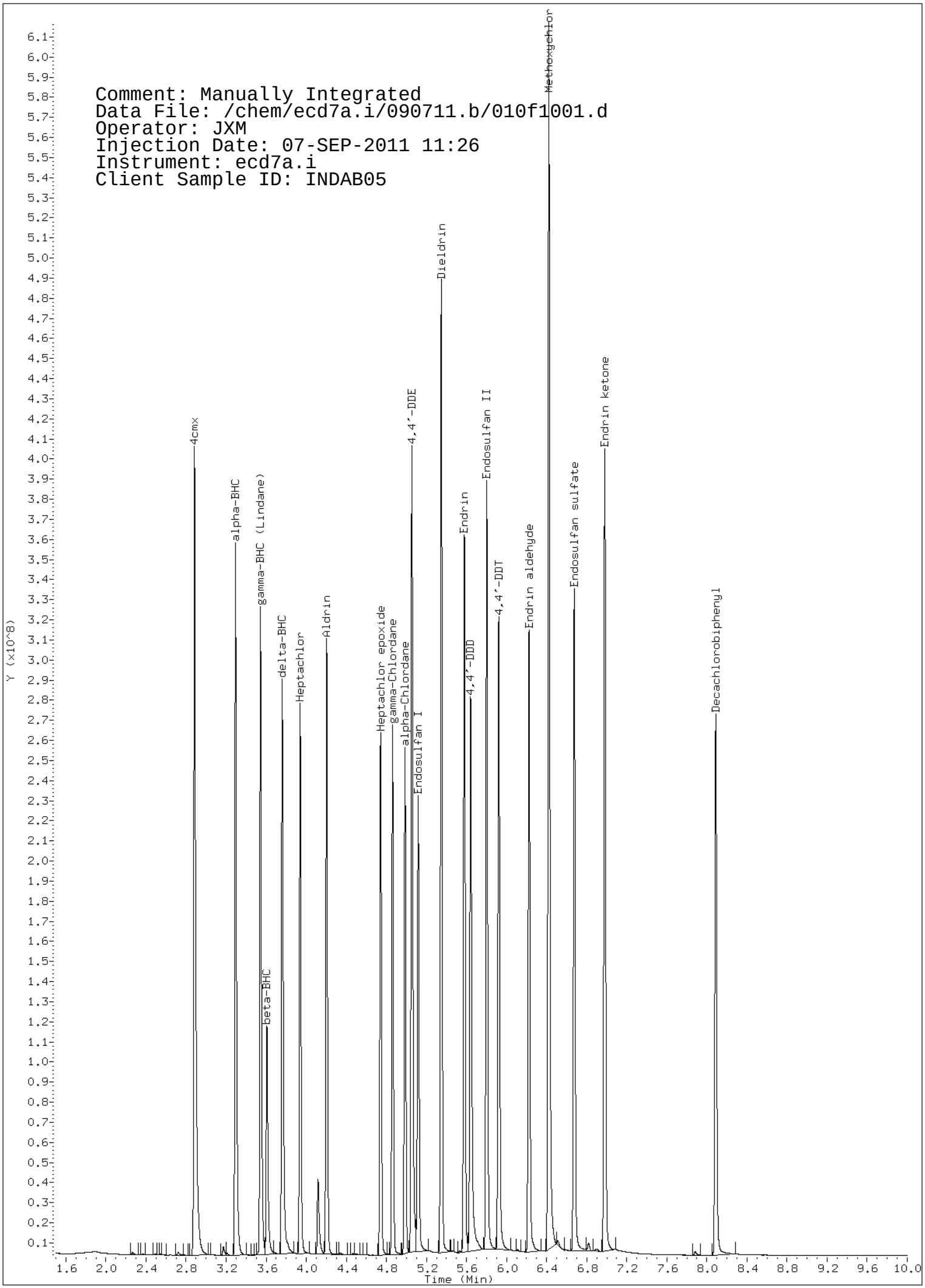
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

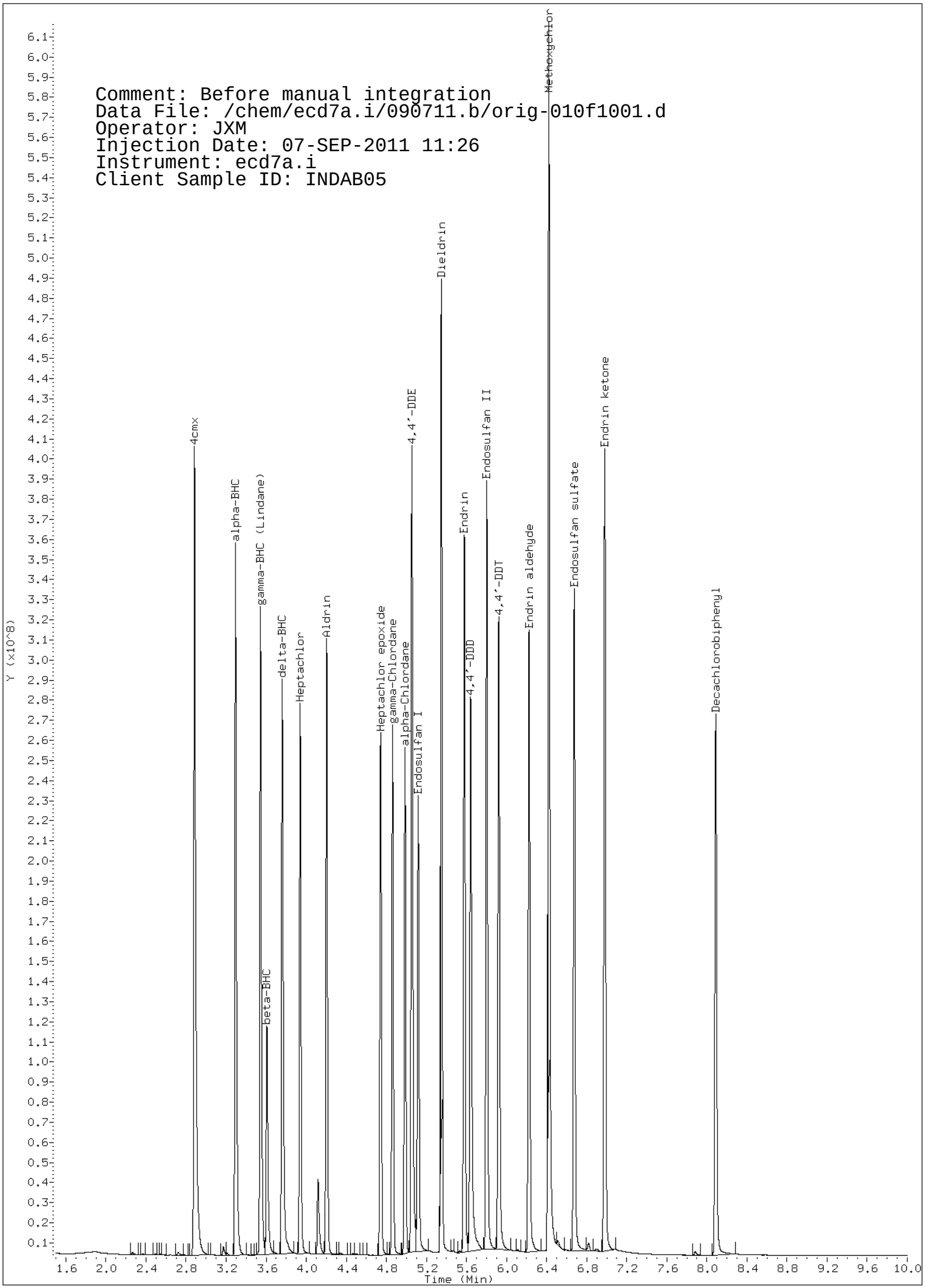
Data File: /chem/ecd7a.i/090711.b/010f1001.d
Date : 07-SEP-2011 11:26
Client ID: INDAB05
Sample Info: IPE110801-02AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/010f1001.d
Operator: JXM
Injection Date: 07-SEP-2011 11:26
Instrument: ecd7a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-010f1001.d
Operator: JXM
Injection Date: 07-SEP-2011 11:26
Instrument: ecd7a.i
Client Sample ID: INDAB05
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/010b1001.d
Lab Smp Id: IPE110801-02AB Client Smp ID: INDAB05
Inj Date : 07-SEP-2011 11:26
Operator : JXM Inst ID: ecd7a.i
Smp Info : |IPE110801-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.378	3.379	-0.001	423800860	200.000	214	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.670	3.671	-0.001	376789215	200.000	213	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.731	3.733	-0.002	147370092	200.000	215	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
4.075	4.075	0.000	359462855	200.000	206	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.990	3.991	-0.001	366012364	200.000	221	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.374	4.375	-0.001	363385661	200.000	211	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.898	4.898	0.000	309157238	200.000	204	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.089	5.089	0.000	316178823	200.000	208	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.229	5.229	0.000	304527598	200.000	210	80.00- 120.00	100.00(AM)

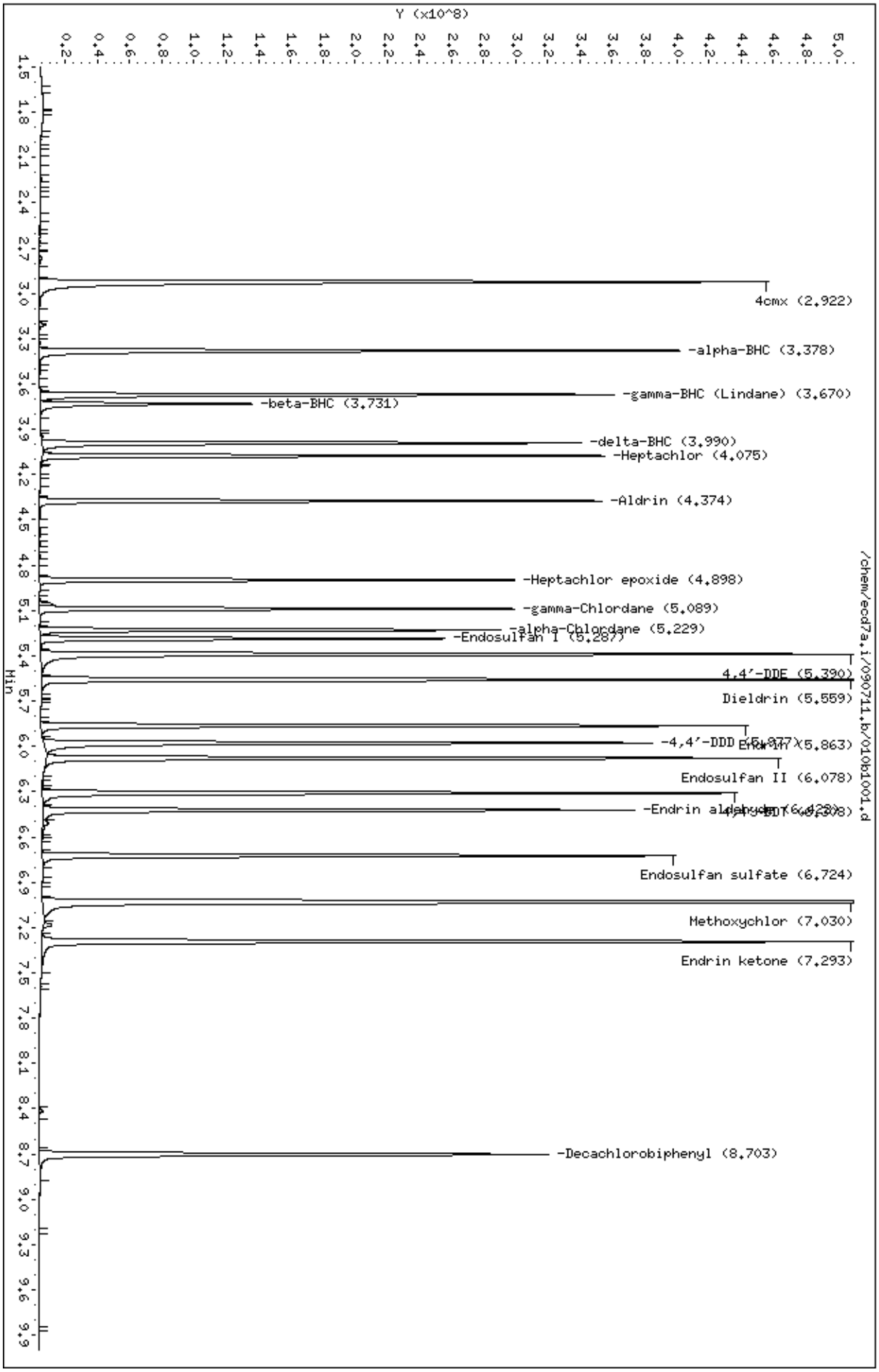
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.287   5.287   0.000       279890632 200.000      206  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.390   5.391  -0.001       589892234 400.000      441  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.559   5.558   0.001       627756995 400.000      418  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.863   5.863   0.000       486381820 400.000      432  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.977   5.983  -0.006       460505765 400.000      445  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.078   6.079  -0.001       512732770 400.000      401  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.422   6.423  -0.001       427847698 400.000      406  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.308   6.311  -0.003       507870695 400.000      444  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.724   6.725  -0.001       454790479 400.000      421  80.00- 120.00   100.00(A)
--------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.030   7.032  -0.002      1213607329 2000.00     2130  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.293   7.294  -0.001       612832750 400.000      407  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.922   2.923  -0.001       556842677 400.000      408  80.00- 120.00   100.00(AM)
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.703   8.704  -0.001       408310081 400.000      393  80.00- 120.00   100.00
--------------------------------------------------------------------------------
```

QC Flag Legend

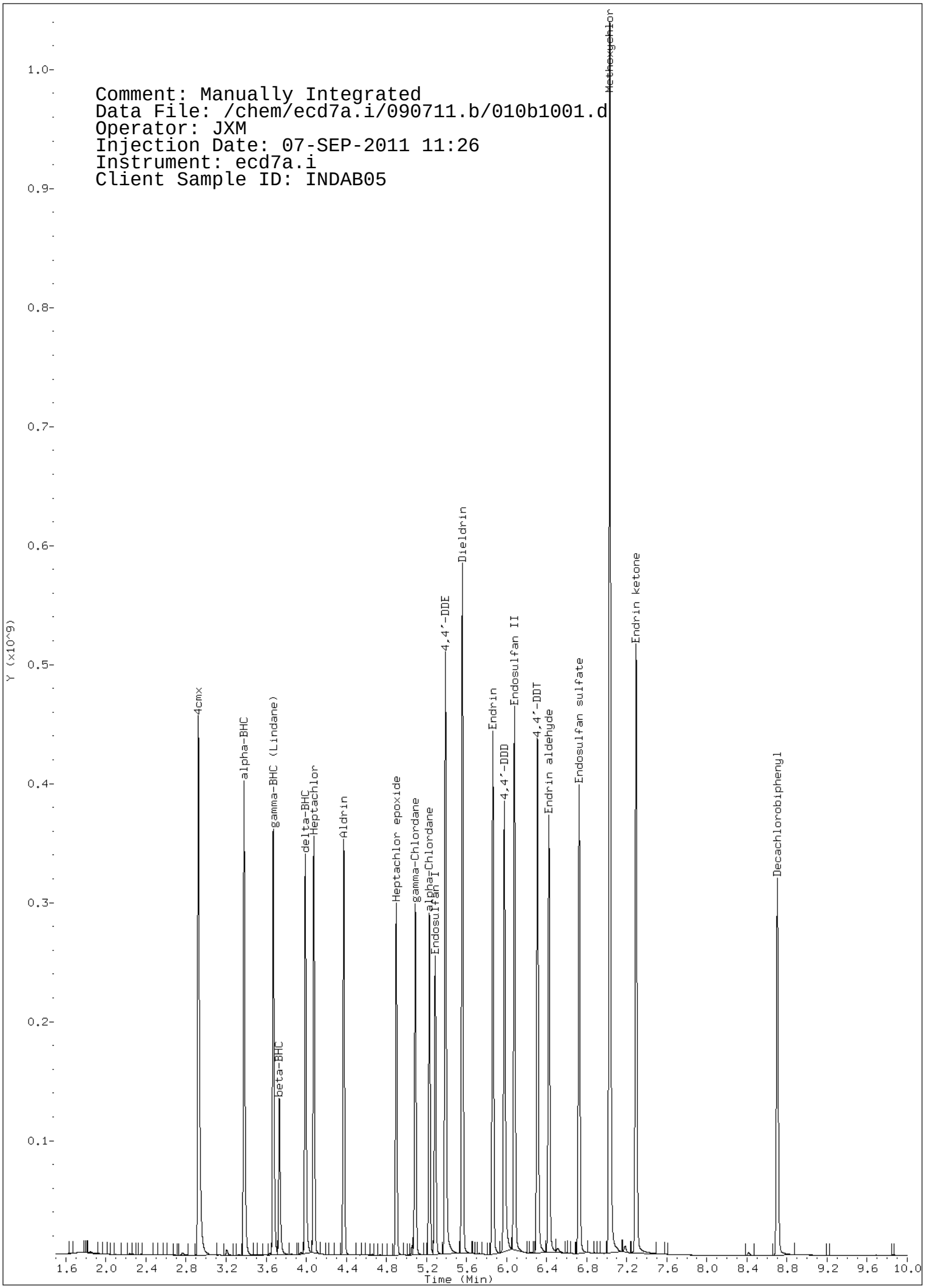
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

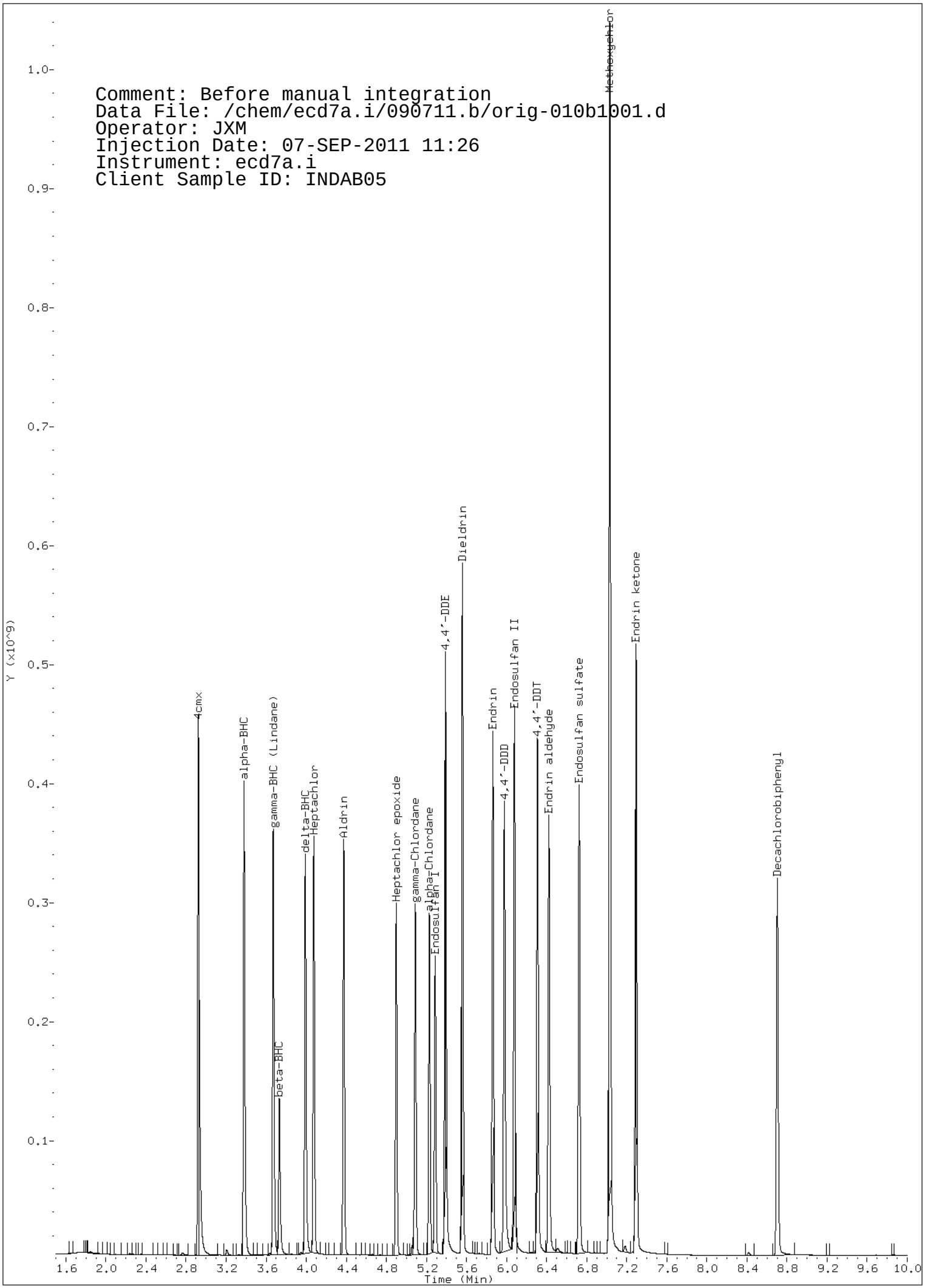
Data File: /chem/ecd7a.i/090711.b/010b1001.d
Date : 07-SEP-2011 11:26
Client ID: INDAB05
Sample Info: IIPE110801-02AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/010b1001.d
Operator: JXM
Injection Date: 07-SEP-2011 11:26
Instrument: ecd7a.i
Client Sample ID: INDAB05
Y (x10^9)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-010b1001.d
Operator: JXM
Injection Date: 07-SEP-2011 11:26
Instrument: ecd7a.i
Client Sample ID: INDAB05
Y (x10^9)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 06-SEP-11 08:24

Data File: /chem/ecd7a.i/090611.b/002f0201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090611.b/ECD7-F-8081-082211.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.18	4.24	0	100	-100
4,4'-DDE	5.07	5.03	5.09	0.589	0	
Endrin	5.58	5.55	5.61	111	100	11
4,4'-DDD	5.65	5.62	5.68	3.91	0	
4,4'-DDT	5.93	5.9	5.96	198	100	98
Endrin aldehyde	6.23	6.2	6.26	1.67	0	
Endrin ketone	6.99	6.96	7.02	1.7	0	

4,4'-DDT % Breakdown 2.24 Endin % Breakdown : 3.09 Combined % Breakdown 5.33

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 06-SEP-11 08:24

Data File: /chem/ecd7a.i/090611.b/002b0201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090611.b/ECD7-B-8081-082211.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.35	4.41	0	100	-100
4,4'-DDE	5.4	5.37	5.43	0.526	0	
Endrin	5.87	5.84	5.9	111	100	11
4,4'-DDD	5.99	5.96	6.02	2.86	0	
4,4'-DDT	6.31	6.29	6.35	202	100	102
Endrin aldehyde	6.43	6.4	6.46	2.2	0	
Endrin ketone	7.3	7.27	7.33	1.95	0	

4,4'-DDT % Breakdown 1.61 Endin % Breakdown : 3.78 Combined % Breakdown 5.39

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 06-SEP-11 14:05

Data File: /chem/ecd7a.i/090611.b/022f2201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Client Sample ID:PEM02

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.18	4.24	0	100	-100
4,4'-DDE	5.09	5.03	5.09	0.498	0	
Endrin	5.58	5.55	5.61	106	100	6
4,4'-DDD	5.68	5.62	5.68	4.3	0	
4,4'-DDT	5.94	5.9	5.96	211	100	111
Endrin aldehyde	6.24	6.2	6.26	7.5	0	
Endrin ketone	6.99	6.96	7.02	5.9	0	

4,4'-DDT % Breakdown 2.24 Endin % Breakdown : 11.53 Combined % Breakdown 13.77

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 06-SEP-11 14:05

Data File: /chem/ecd7a.i/090611.b/022b2201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Client Sample ID:PEM02

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	4.4	4.35	4.41	0.0606	100	-99.9394
4,4'-DDE	5.42	5.37	5.43	0.511	0	
Endrin	5.87	5.84	5.9	106	100	6
4,4'-DDD	6.01	5.96	6.02	5.83	0	
4,4'-DDT	6.32	6.29	6.35	206	100	106
Endrin aldehyde	6.44	6.4	6.46	10.6	0	
Endrin ketone	7.31	7.27	7.33	5.98	0	

4,4'-DDT % Breakdown 2.87 Endin % Breakdown : 13.72 Combined % Breakdown 16.59

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 07-SEP-11 09:10

Data File: /chem/ecd7a.i/090711.b/002f0201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090711.b/ECD7-F-8081-090611.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.17	4.23	0	100	-100
4,4'-DDE	5.08	5.03	5.09	10.4	0	
Endrin	5.58	5.55	5.61	106	100	6
4,4'-DDD	5.67	5.62	5.68	3.22	0	
4,4'-DDT	5.93	5.9	5.96	196	100	96
Endrin aldehyde	6.23	6.19	6.25	5.59	0	
Endrin ketone	6.99	6.95	7.01	4.02	0	

4,4'-DDT % Breakdown 1.97 Endin % Breakdown : 9.13 Combined % Breakdown 11.1

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Pesticide Breakdown Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 07-SEP-11 09:10

Data File: /chem/ecd7a.i/090711.b/002b0201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110829-99DG

Method: /chem/ecd7a.i/090711.b/ECD7-B-8081-090611.m

Client Sample ID:PEM01

Quant Type ESTD

Compound	RT	RT Window From	RT Window To	AMT CCV	Nominal	%D
Aldrin	0	4.34	4.4	0	100	-100
4,4'-DDE	5.4	5.36	5.42	0.761	0	
Endrin	5.86	5.83	5.89	104	100	4
4,4'-DDD	5.99	5.95	6.01	3.24	0	
4,4'-DDT	6.31	6.28	6.34	195	100	95
Endrin aldehyde	6.43	6.39	6.45	7.3	0	
Endrin ketone	7.3	7.26	7.32	4.36	0	

4,4'-DDT % Breakdown 1.93 Endin % Breakdown : 10.89 Combined % Breakdown 12.82

%D Calculation

%D =((AmtCCV - Nominal)/Nominal) X 100

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 06-SEP-11 11:14

Data File: /chem/ecd7a.i/090611.b/012f1201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1791432.52	1961299.96	100	9.48	15		Averaged
gamma-BHC (Lindane)	1582827.66	1740545.26	100	9.96	15		Averaged
beta-BHC	639431.11	620635.83	100	-2.94	15		Averaged
Methoxychlor	297373.23	302570.2	1000	1.75	15		Averaged
delta-BHC	1448504.25	1655820.17	100	14.31	15		Averaged
Heptachlor	1242167.65	1309182.8	100	5.4	15		Averaged
Aldrin	1469888.18	1507033.5	100	2.53	15		Averaged
Heptachlor epoxide	1289587.56	1316298.88	100	2.07	15		Averaged
gamma-Chlordane	1243725.66	1357153.81	100	9.12	15		Averaged
alpha-Chlordane	1224847.62	1280076.38	100	4.51	15		Averaged
Endosulfan I	1439937.7	1363412.62	100	-5.31	15		Averaged
4,4'-DDE	949899.83	1085416.63	200	14.27	15		Averaged
Dieldrin	1210965.85	1277104.37	200	5.46	15		Averaged
Endrin	917521.56	1014248.64	200	10.54	15		Averaged
4,4'-DDD	759886.98	859022.07	200	13.05	15		Averaged
Endosulfan II	1015072.62	1100294.04	200	8.4	15		Averaged
Endrin aldehyde	843468.41	873287.29	200	3.54	15		Averaged
4,4'-DDT	775937.49	887137.43	200	14.33	15		Averaged
Endosulfan sulfate	858750.56	919724.65	200	7.1	15		Averaged
Endrin ketone	1080328.7	1115591.64	200	3.26	15		Averaged
4cmx(Surr)	1262754.16	1302108.77	200	3.12	15		Averaged
Decachlorobiphenyl(Surr)	774071.23	783116.95	200	1.17	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 06-SEP-11 11:14

Data File: /chem/ecd7a.i/090611.b/012b1201.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1930134.67	2106136.53	100	9.12	15		Averaged
gamma-BHC (Lindane)	1739749.9	1911927.66	100	9.9	15		Averaged
beta-BHC	696864.92	716283.66	100	2.79	15		Averaged
Methoxychlor	446708.99	478559.19	1000	7.13	15		Averaged
delta-BHC	1634492.55	1777773.81	100	8.77	15		Averaged
Heptachlor	1615309.25	1672556.68	100	3.54	15		Averaged
Aldrin	1658006.09	1695752.43	100	2.28	15		Averaged
Heptachlor epoxide	1458009.09	1484776.22	100	1.84	15		Averaged
gamma-Chlordane	1401050	1522120.2	100	8.64	15		Averaged
alpha-Chlordane	1361044.87	1438406.2	100	5.68	15		Averaged
Endosulfan I	1270793.65	1347926.6	100	6.07	15		Averaged
4,4'-DDE	1251103.83	1355429.06	200	8.34	15		Averaged
Dieldrin	1402349.17	1502541.79	200	7.14	15		Averaged
Endrin	1080875.34	1215743.71	200	12.48	15		Averaged
4,4'-DDD	959271	1040286.19	200	8.45	15		Averaged
Endosulfan II	1191938.82	1270648.75	200	6.6	15		Averaged
Endrin aldehyde	960642.87	998689.44	200	3.96	15		Averaged
4,4'-DDT	1026503.61	1152302.91	200	12.26	15		Averaged
Endosulfan sulfate	995404.54	1078380.37	200	8.34	15		Averaged
Endrin ketone	1332222.2	1391743.44	200	4.47	15		Averaged
4cmx(Surr)	1358733.96	1374642.12	200	1.17	15		Averaged
Decachlorobiphenyl(Surr)	932639.14	935969.75	200	0.36	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 06-SEP-11 13:31

Data File: /chem/ecd7a.i/090611.b/020f2001.d

Init. Cal. Date(s): 06-SEP-11 11:31 - 06-SEP-11 12:40

Lab Sample ID WPE110906-52TX

Method: /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	45626.17	44127.55	2000	-3.28	15		Averaged
Toxaphene(2)	25608.52	26171.49	2000	2.2	15		Averaged
Toxaphene(3)	27105.04	27640.09	2000	1.97	15		Averaged
Toxaphene(4)	29152.57	30794.77	2000	5.63	15		Averaged
Toxaphene(5)	33661.01	31971.12	2000	-5.02	15		Averaged
4cmx(Surr)	1262754.16	1223546	200	-3.1	15		Averaged
Decachlorobiphenyl(Surr)	774071.23	729721.99	200	-5.73	15		Averaged

Continuing Calibration Summary

Instrument ID: ECD7A.I_2

Client SDG: 11-3386

Injection Date: 06-SEP-11 13:31

Data File: /chem/ecd7a.i/090611.b/020b2001.d

Init. Cal. Date(s): 06-SEP-11 11:31 - 06-SEP-11 12:40

Lab Sample ID WPE110906-52TX

Method: /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	17850.68	17909.81	2000	0.33	15		Averaged
Toxaphene(2)	36967.01	37052.5	2000	0.23	15		Averaged
Toxaphene(3)	63539.68	64675.68	2000	1.79	15		Averaged
Toxaphene(4)	36760.57	37590.95	2000	2.26	15		Averaged
Toxaphene(5)	33969.93	34773.05	2000	2.36	15		Averaged
4cmx(Surr)	1358733.96	1284983.88	200	-5.43	15		Averaged
Decachlorobiphenyl(Surr)	932639.14	884837.56	200	-5.13	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 06-SEP-11 17:12

Data File: /chem/ecd7a.i/090611.b/033f3301.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1791432.52	1961717.24	100	9.51	15		Averaged
gamma-BHC (Lindane)	1582827.66	1750534.25	100	10.6	15		Averaged
beta-BHC	639431.11	628511.1	100	-1.71	15		Averaged
Methoxychlor	297373.23	335624.36	1000	12.86	15		Averaged
delta-BHC	1448504.25	1652186.13	100	14.06	15		Averaged
Heptachlor	1242167.65	1388649.19	100	11.79	15		Averaged
Aldrin	1469888.18	1501627.15	100	2.16	15		Averaged
Heptachlor epoxide	1289587.56	1294377	100	0.37	15		Averaged
gamma-Chlordane	1243725.66	1345192.05	100	8.16	15		Averaged
alpha-Chlordane	1224847.62	1267714.62	100	3.5	15		Averaged
Endosulfan I	1439937.7	1333718.62	100	-7.38	15		Averaged
4,4'-DDE	949899.83	1094265.85	200	15.2	15	*	Averaged
Dieldrin	1210965.85	1283704.78	200	6.01	15		Averaged
Endrin	917521.56	953469.15	200	3.92	15		Averaged
4,4'-DDD	759886.98	922921.05	200	21.46	15	*	Averaged
Endosulfan II	1015072.62	1091290.26	200	7.51	15		Averaged
Endrin aldehyde	843468.41	914051.63	200	8.37	15		Averaged
4,4'-DDT	775937.49	938822.47	200	20.99	15	*	Averaged
Endosulfan sulfate	858750.56	923553.47	200	7.55	15		Averaged
Endrin ketone	1080328.7	1174512.34	200	8.72	15		Averaged
4cmx(Surr)	1262754.16	1298838.04	200	2.86	15		Averaged
Decachlorobiphenyl(Surr)	774071.23	804275.62	200	3.9	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 06-SEP-11 17:12

Data File: /chem/ecd7a.i/090611.b/033b3301.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1930134.67	2066895.93	100	7.09	15		Averaged
gamma-BHC (Lindane)	1739749.9	1881877.34	100	8.17	15		Averaged
beta-BHC	696864.92	708103.04	100	1.61	15		Averaged
Methoxychlor	446708.99	488595.25	1000	9.38	15		Averaged
delta-BHC	1634492.55	1759299.47	100	7.64	15		Averaged
Heptachlor	1615309.25	1701710.33	100	5.35	15		Averaged
Aldrin	1658006.09	1667083.4	100	0.55	15		Averaged
Heptachlor epoxide	1458009.09	1463324.8	100	0.36	15		Averaged
gamma-Chlordane	1401050	1497499.75	100	6.88	15		Averaged
alpha-Chlordane	1361044.87	1416867.11	100	4.1	15		Averaged
Endosulfan I	1270793.65	1327148.79	100	4.43	15		Averaged
4,4'-DDE	1251103.83	1342170	200	7.28	15		Averaged
Dieldrin	1402349.17	1488711.65	200	6.16	15		Averaged
Endrin	1080875.34	1128853.72	200	4.44	15		Averaged
4,4'-DDD	959271	1053843.27	200	9.86	15		Averaged
Endosulfan II	1191938.82	1261986.09	200	5.88	15		Averaged
Endrin aldehyde	960642.87	1037223.49	200	7.97	15		Averaged
4,4'-DDT	1026503.61	1153943.37	200	12.41	15		Averaged
Endosulfan sulfate	995404.54	1062265.28	200	6.72	15		Averaged
Endrin ketone	1332222.2	1436309.38	200	7.81	15		Averaged
4cmx(Surr)	1358733.96	1357954.28	200	-0.06	15		Averaged
Decachlorobiphenyl(Surr)	932639.14	953018.17	200	2.19	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 07-SEP-11 09:44

Data File: /chem/ecd7a.i/090711.b/004f0401.d

Init. Cal. Date(s): 06-SEP-11 11:31 - 06-SEP-11 12:40

Lab Sample ID WPE110906-52TX

Method: /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	45626.17	50024.83	2000	9.64	15		Averaged
Toxaphene(2)	25608.52	28718.54	2000	12.14	15		Averaged
Toxaphene(3)	27105.04	31616.94	2000	16.65	15	*	Averaged
Toxaphene(4)	29152.57	35896.55	2000	23.13	15	*	Averaged
Toxaphene(5)	33661.01	36307.08	2000	7.86	15		Averaged
4cmx(Surr)	1311133.18	1275168.59	200	-2.74	15		Averaged
Decachlorobiphenyl(Surr)	890718.04	831224.95	200	-6.68	15		Averaged

Continuing Calibration Summary

Instrument ID: ECD7A.I_2

Client SDG: 11-3386

Injection Date: 07-SEP-11 09:44

Data File: /chem/ecd7a.i/090711.b/004b0401.d

Init. Cal. Date(s): 06-SEP-11 11:31 - 06-SEP-11 12:40

Lab Sample ID WPE110906-52TX

Method: /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Toxaphene	17850.68	20031.69	2000	12.22	15		Averaged
Toxaphene(2)	36967.01	39890.6	2000	7.91	15		Averaged
Toxaphene(3)	63539.68	70651.79	2000	11.19	15		Averaged
Toxaphene(4)	36760.57	41686.93	2000	13.4	15		Averaged
Toxaphene(5)	33969.93	38414.33	2000	13.08	15		Averaged
4cmx(Surr)	1365423.43	1312589.7	200	-3.87	15		Averaged
Decachlorobiphenyl(Surr)	1039201.35	972469.64	200	-6.42	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 07-SEP-11 11:43

Data File: /chem/ecd7a.i/090711.b/011f1101.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1883049.52	1975341.31	100	4.9	15		Averaged
gamma-BHC (Lindane)	1667600.77	1760543.97	100	5.57	15		Averaged
beta-BHC	662177.81	622747.5	100	-5.95	15		Averaged
Methoxychlor	388908.69	363029.44	1000	-6.65	15		Averaged
delta-BHC	1574515.65	1671661.59	100	6.17	15		Averaged
Heptachlor	1385645.06	1386006.68	100	0.03	15		Averaged
Aldrin	1594047.66	1537165.73	100	-3.57	15		Averaged
Heptachlor epoxide	1396936.83	1353950.82	100	-3.08	15		Averaged
gamma-Chlordane	1331071.69	1392481.4	100	4.61	15		Averaged
alpha-Chlordane	1303030.28	1321764.1	100	1.44	15		Averaged
Endosulfan I	1551428.62	1445269.11	100	-6.84	15		Averaged
4,4'-DDE	200	191	200	-4.5	15		Linear
Dieldrin	1332822.45	1344861.04	200	0.9	15		Averaged
Endrin	990106.99	1038620.47	200	4.9	15		Averaged
4,4'-DDD	891528.43	922506.78	200	3.47	15		Averaged
Endosulfan II	1121564.78	1135160.31	200	1.21	15		Averaged
Endrin aldehyde	968484.08	961635.35	200	-0.71	15		Averaged
4,4'-DDT	904902.11	960477.44	200	6.14	15		Averaged
Endosulfan sulfate	966870.52	985134.26	200	1.89	15		Averaged
Endrin ketone	1279241.77	1268867.58	200	-0.81	15		Averaged
4cmx(Surr)	1311133.18	1295981.27	200	-1.16	15		Averaged
Decachlorobiphenyl(Surr)	890718.04	862811.84	200	-3.13	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 07-SEP-11 11:43

Data File: /chem/ecd7a.i/090711.b/011b1101.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1982078.85	2054285.25	100	3.64	15		Averaged
gamma-BHC (Lindane)	1767404.4	1871069.4	100	5.87	15		Averaged
beta-BHC	685941.34	698183.8	100	1.78	15		Averaged
Methoxychlor	570493.02	564443.35	1000	-1.06	15		Averaged
delta-BHC	1656538.92	1741046.85	100	5.1	15		Averaged
Heptachlor	1740063.94	1736429.35	100	-0.21	15		Averaged
Aldrin	1725290.33	1707243.58	100	-1.05	15		Averaged
Heptachlor epoxide	1518976.99	1497241.67	100	-1.43	15		Averaged
gamma-Chlordane	1521113.81	1539264.22	100	1.19	15		Averaged
alpha-Chlordane	1449056.18	1456954.54	100	0.55	15		Averaged
Endosulfan I	1355230.75	1362169.76	100	0.51	15		Averaged
4,4'-DDE	1337652.53	1365280.69	200	2.07	15		Averaged
Dieldrin	1502096.89	1524089.72	200	1.46	15		Averaged
Endrin	1124683.22	1204190.65	200	7.07	15		Averaged
4,4'-DDD	1034921.11	1075330.96	200	3.9	15		Averaged
Endosulfan II	1278027.23	1306459.19	200	2.22	15		Averaged
Endrin aldehyde	1052387.37	1051265.76	200	-0.11	15		Averaged
4,4'-DDT	1143271.05	1219085.18	200	6.63	15		Averaged
Endosulfan sulfate	1079142.06	1089967.88	200	1	15		Averaged
Endrin ketone	1505930.36	1476623.67	200	-1.95	15		Averaged
4cmx(Surr)	1365423.43	1347051.61	200	-1.35	15		Averaged
Decachlorobiphenyl(Surr)	1039201.35	986020.89	200	-5.12	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_1

Injection Date: 07-SEP-11 13:08

Data File: /chem/ecd7a.i/090711.b/016f1601.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m

Column ID: CLP-1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1883049.52	2114271.37	100	12.28	15		Averaged
gamma-BHC (Lindane)	1667600.77	1898424.15	100	13.84	15		Averaged
beta-BHC	662177.81	670916.22	100	1.32	15		Averaged
Methoxychlor	388908.69	401982.91	1000	3.36	15		Averaged
delta-BHC	1574515.65	1801920.78	100	14.44	15		Averaged
Heptachlor	1385645.06	1527420.75	100	10.23	15		Averaged
Aldrin	1594047.66	1670319.19	100	4.78	15		Averaged
Heptachlor epoxide	1396936.83	1468968.15	100	5.16	15		Averaged
gamma-Chlordane	1331071.69	1510714.52	100	13.5	15		Averaged
alpha-Chlordane	1303030.28	1430957.06	100	9.82	15		Averaged
Endosulfan I	1551428.62	1568219.5	100	1.08	15		Averaged
4,4'-DDE	200	209	200	4.5	15		Linear
Dieldrin	1332822.45	1461796.82	200	9.68	15		Averaged
Endrin	990106.99	1105839.04	200	11.69	15		Averaged
4,4'-DDD	891528.43	1025094.53	200	14.98	15		Averaged
Endosulfan II	1121564.78	1230595.74	200	9.72	15		Averaged
Endrin aldehyde	968484.08	1049856.56	200	8.4	15		Averaged
4,4'-DDT	904902.11	1067334.64	200	17.95	15	*	Averaged
Endosulfan sulfate	966870.52	1023531.55	200	5.86	15		Averaged
Endrin ketone	1279241.77	1318355.92	200	3.06	15		Averaged
4cmx(Surr)	1311133.18	1377426.52	200	5.06	15		Averaged
Decachlorobiphenyl(Surr)	890718.04	883146.52	200	-0.85	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD7A.I_2

Injection Date: 07-SEP-11 13:08

Data File: /chem/ecd7a.i/090711.b/016b1601.d

Init. Cal. Date(s): 06-SEP-11 09:49 - 07-SEP-11 11:26

Lab Sample ID WPE110812-10AB

Method: /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m

Column ID: CLP-2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
alpha-BHC	1982078.85	2150228.74	100	8.48	15		Averaged
gamma-BHC (Lindane)	1767404.4	1960031.83	100	10.9	15		Averaged
beta-BHC	685941.34	730028.05	100	6.43	15		Averaged
Methoxychlor	570493.02	591357.38	1000	3.66	15		Averaged
delta-BHC	1656538.92	1823545.67	100	10.08	15		Averaged
Heptachlor	1740063.94	1814147.03	100	4.26	15		Averaged
Aldrin	1725290.33	1788148.91	100	3.64	15		Averaged
Heptachlor epoxide	1518976.99	1572184.49	100	3.5	15		Averaged
gamma-Chlordane	1521113.81	1639436.58	100	7.78	15		Averaged
alpha-Chlordane	1449056.18	1531227.21	100	5.67	15		Averaged
Endosulfan I	1355230.75	1431469.58	100	5.63	15		Averaged
4,4'-DDE	1337652.53	1443686.53	200	7.93	15		Averaged
Dieldrin	1502096.89	1603163.58	200	6.73	15		Averaged
Endrin	1124683.22	1242455.05	200	10.47	15		Averaged
4,4'-DDD	1034921.11	1133918.01	200	9.57	15		Averaged
Endosulfan II	1278027.23	1371522.16	200	7.32	15		Averaged
Endrin aldehyde	1052387.37	1111769.51	200	5.64	15		Averaged
4,4'-DDT	1143271.05	1288389.85	200	12.69	15		Averaged
Endosulfan sulfate	1079142.06	1144311.07	200	6.04	15		Averaged
Endrin ketone	1505930.36	1552024.92	200	3.06	15		Averaged
4cmx(Surr)	1365423.43	1396912.91	200	2.31	15		Averaged
Decachlorobiphenyl(Surr)	1039201.35	1025588.22	200	-1.31	15		Averaged

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/002f0201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 06-SEP-2011 08:24
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.067	5.062	0.005	559790	0.58932	0.589	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.581	5.582	-0.001	101772061	110.921	111	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.651	0.002	2970162	3.90869	3.91	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.231	6.228	0.003	1407095	1.66822	1.67	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.926	5.928	-0.002	153775761	198.181	198	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.987	6.985	0.002	1833370	1.69705	1.70	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.887	-0.003	241085410	190.920	191	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.090	8.092	-0.002	148967556	192.447	192	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/002f0201.d

Page 1

Date : 06-SEP-2011 08:24

Client ID: PEM01

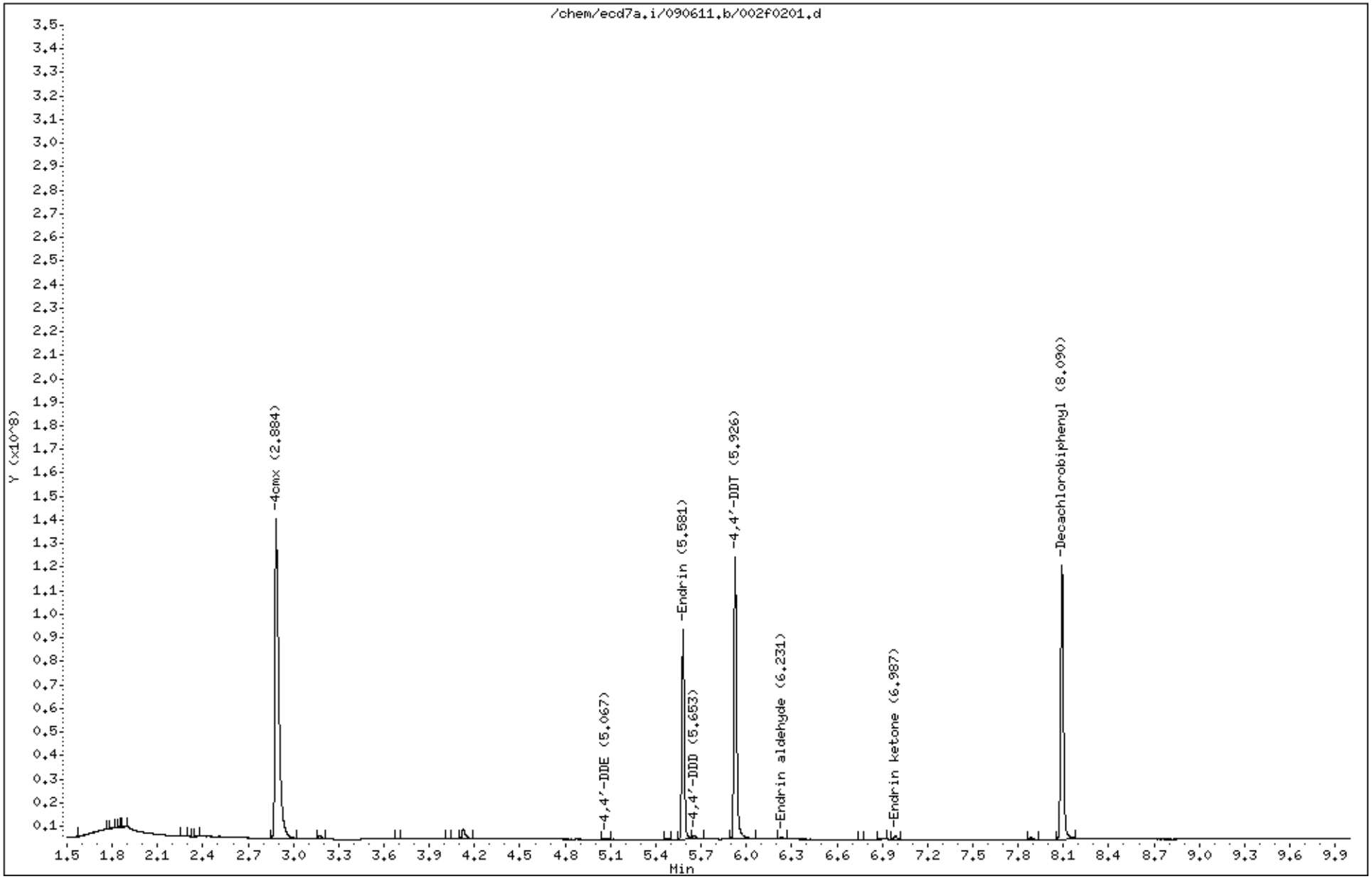
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/002b0201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 06-SEP-2011 08:24
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.400	5.397	0.003	657658	0.52566	0.526	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.867	5.869	-0.002	120202241	111.208	111	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.989	5.987	0.002	2739396	2.85571	2.86	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.431	6.428	0.003	2116829	2.20355	2.20	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.314	6.316	-0.002	207282046	201.930	202	80.00- 120.00	100.00(R)
31 Endrin ketone					CAS #: 53494-70-5		
7.300	7.299	0.001	2602652	1.95362	1.95	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.926	-0.002	262941616	193.520	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.708	8.708	0.000	178411756	191.298	191	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/002b0201.d

Page 1

Date : 06-SEP-2011 08:24

Client ID: PEM01

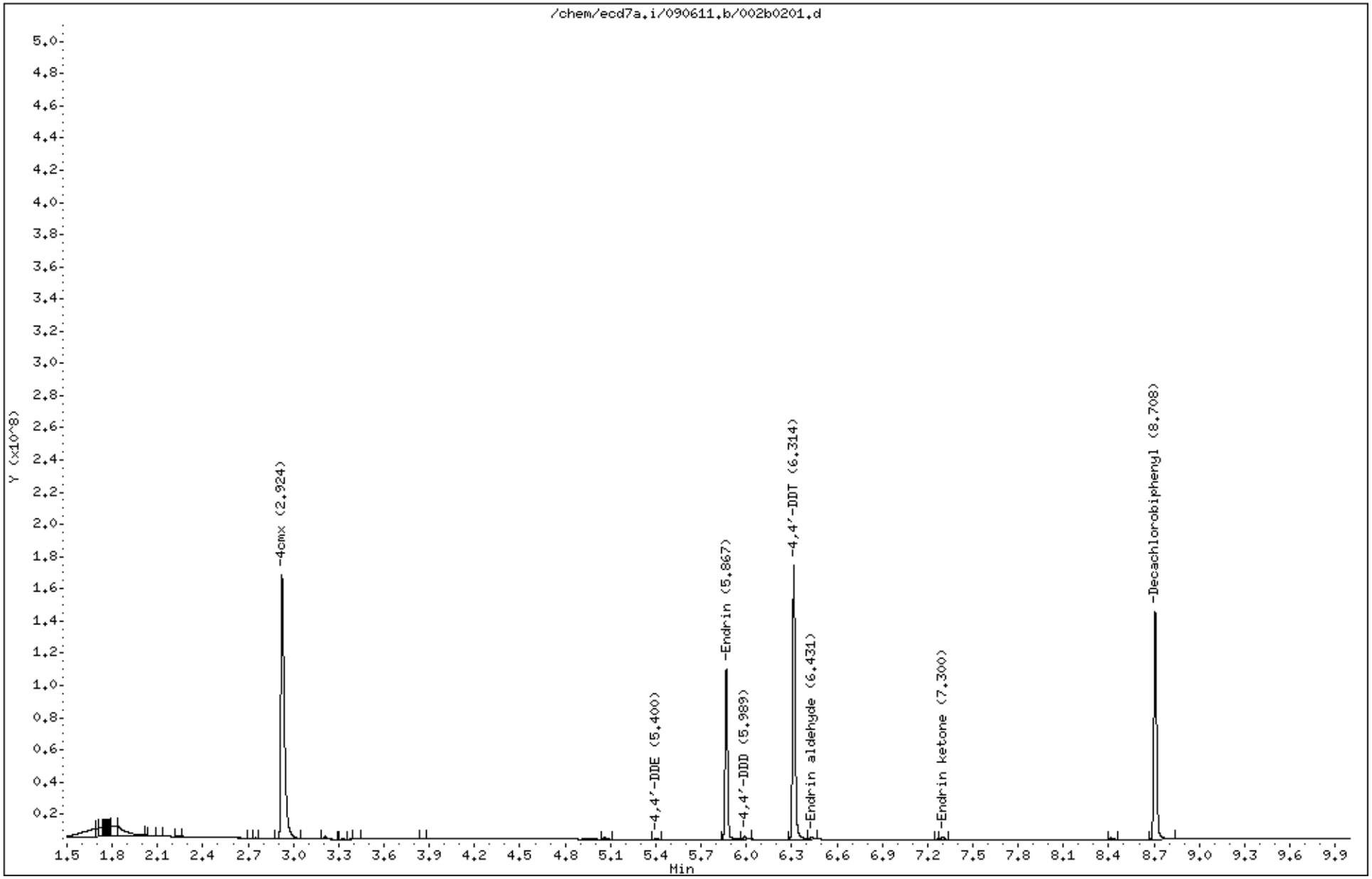
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/022f2201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM02
Inj Date : 06-SEP-2011 14:05
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 22 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.092	5.062	0.030	473306	0.49827	0.498	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.583	5.582	0.001	97427444	106.185	106	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.685	5.651	0.034	3269207	4.30223	4.30	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.238	6.228	0.010	6322061	7.49531	7.50	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.928	0.011	163444417	210.641	211	80.00- 120.00	100.00(R)
31 Endrin ketone					CAS #: 53494-70-5		
6.993	6.985	0.008	6373322	5.89943	5.90	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.885	2.887	-0.002	256543841	203.162	203	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.092	0.003	153327062	198.079	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/022f2201.d

Page 1

Date : 06-SEP-2011 14:05

Client ID: PEM02

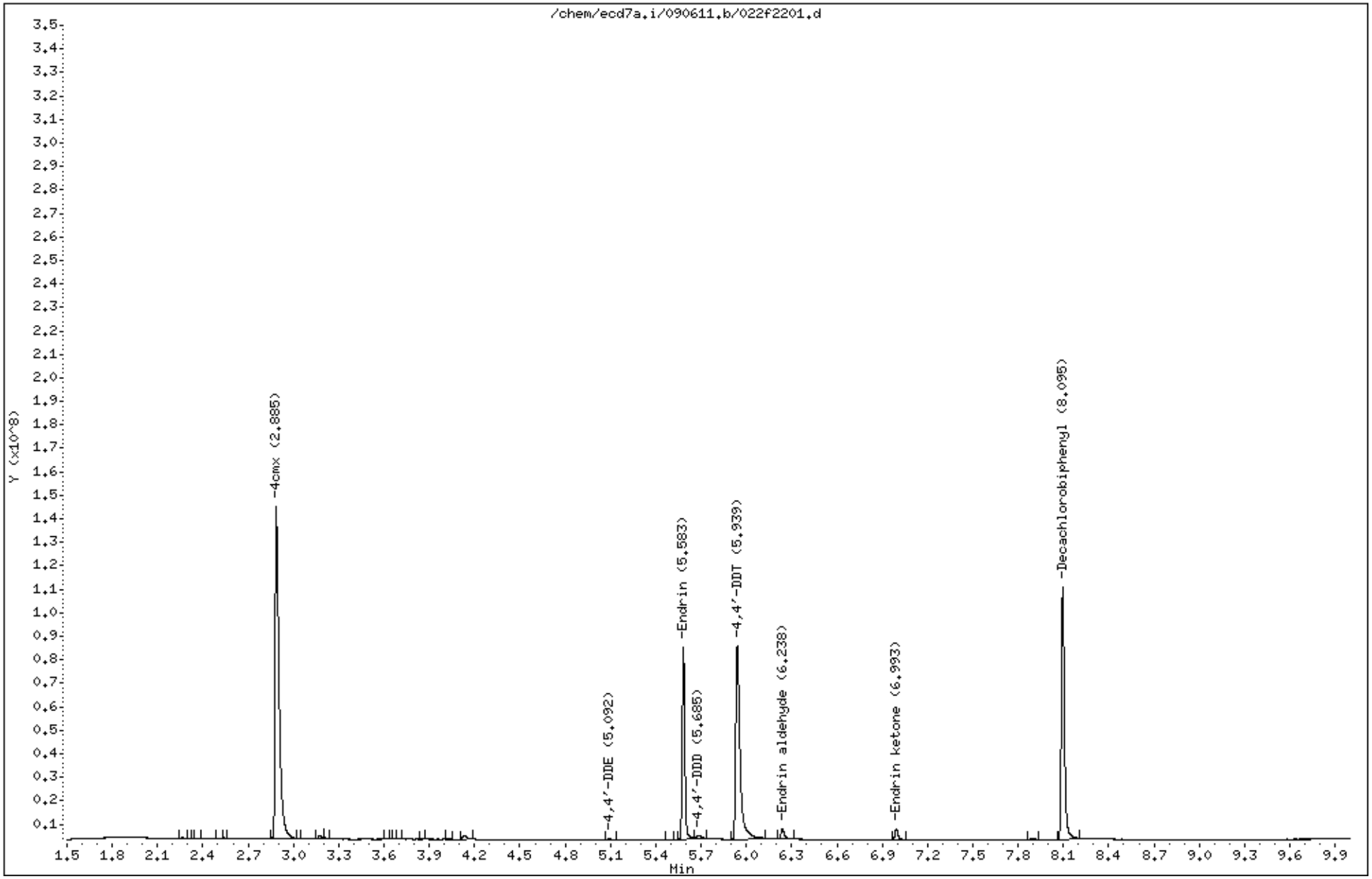
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/022b2201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM02
Inj Date : 06-SEP-2011 14:05
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 22 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.396	4.380	0.016	100529	0.06063	0.0606	80.00- 120.00	100.00(R)
19 4,4'-DDE					CAS #: 72-55-9		
5.419	5.397	0.022	639306	0.51099	0.511	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.869	5.869	0.000	114160868	105.619	106	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.011	5.987	0.024	5594811	5.83236	5.83	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.436	6.428	0.008	10184425	10.6017	10.6	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.324	6.316	0.008	211057979	205.609	206	80.00- 120.00	100.00(R)
31 Endrin ketone					CAS #: 53494-70-5		
7.306	7.299	0.007	7965264	5.97893	5.98	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	270324070	198.953	199	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.710	8.708	0.002	183005086	196.223	196	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/022b2201.d

Page 1

Date : 06-SEP-2011 14:05

Client ID: PEM02

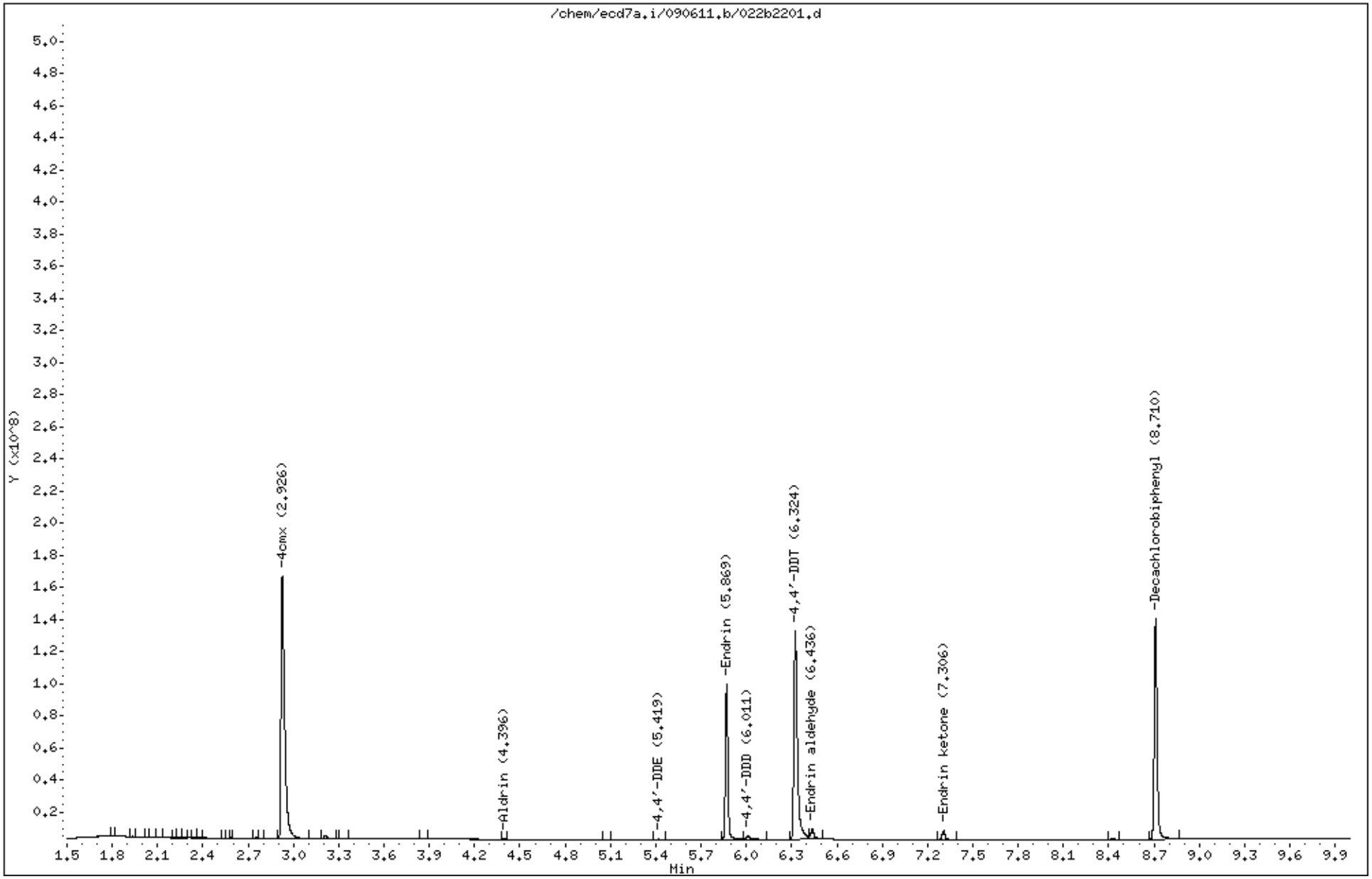
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/002f0201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 07-SEP-2011 09:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.079	5.058	0.021	698284	10.4207	10.4	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.579	5.578	0.001	105085829	106.136	106	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.667	5.650	0.017	2871887	3.22131	3.22	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.231	6.225	0.006	5409041	5.58506	5.58	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.929	5.926	0.003	177198305	195.820	196	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.987	6.981	0.006	5146052	4.02274	4.02	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.884	0.000	250448141	191.017	191	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.090	-0.001	165469980	185.771	186	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090711.b/002f0201.d

Page 1

Date : 07-SEP-2011 09:10

Client ID: PEM01

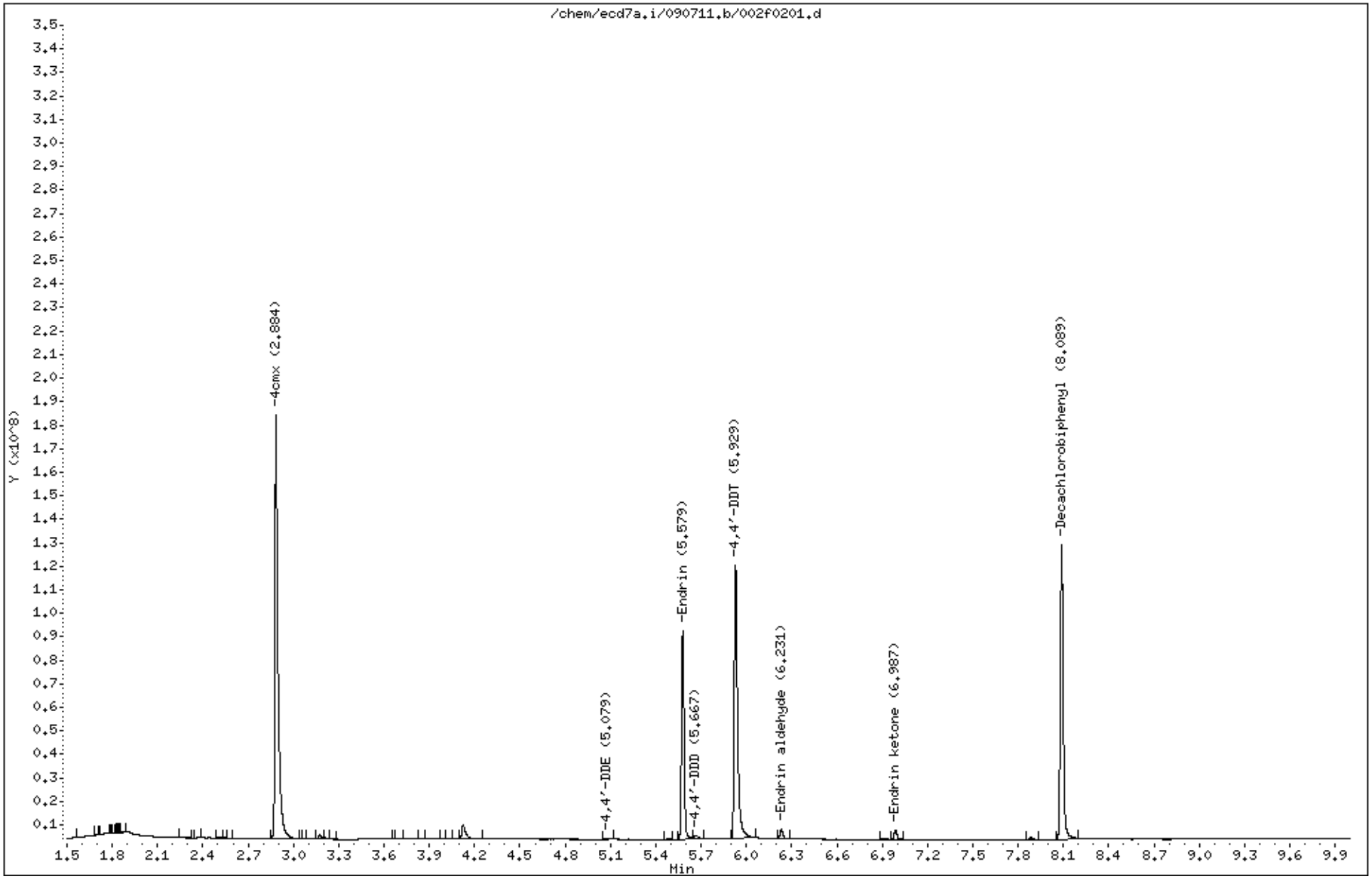
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/002b0201.d
Lab Smp Id: WPE110829-99DG Client Smp ID: PEM01
Inj Date : 07-SEP-2011 09:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110829-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
19 4,4'-DDE					CAS #: 72-55-9		
5.404	5.391	0.013	1018218	0.76120	0.761	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.862	5.863	-0.001	116597381	103.671	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.994	5.983	0.011	3350836	3.23777	3.24	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.426	6.423	0.003	7680453	7.29812	7.30	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.313	6.311	0.002	222561496	194.671	195	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.297	7.294	0.003	6566243	4.36026	4.36	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.923	-0.001	255947965	187.450	187	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.702	8.704	-0.002	192165274	184.916	185	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090711.b/002b0201.d

Page 1

Date : 07-SEP-2011 09:10

Client ID: PEM01

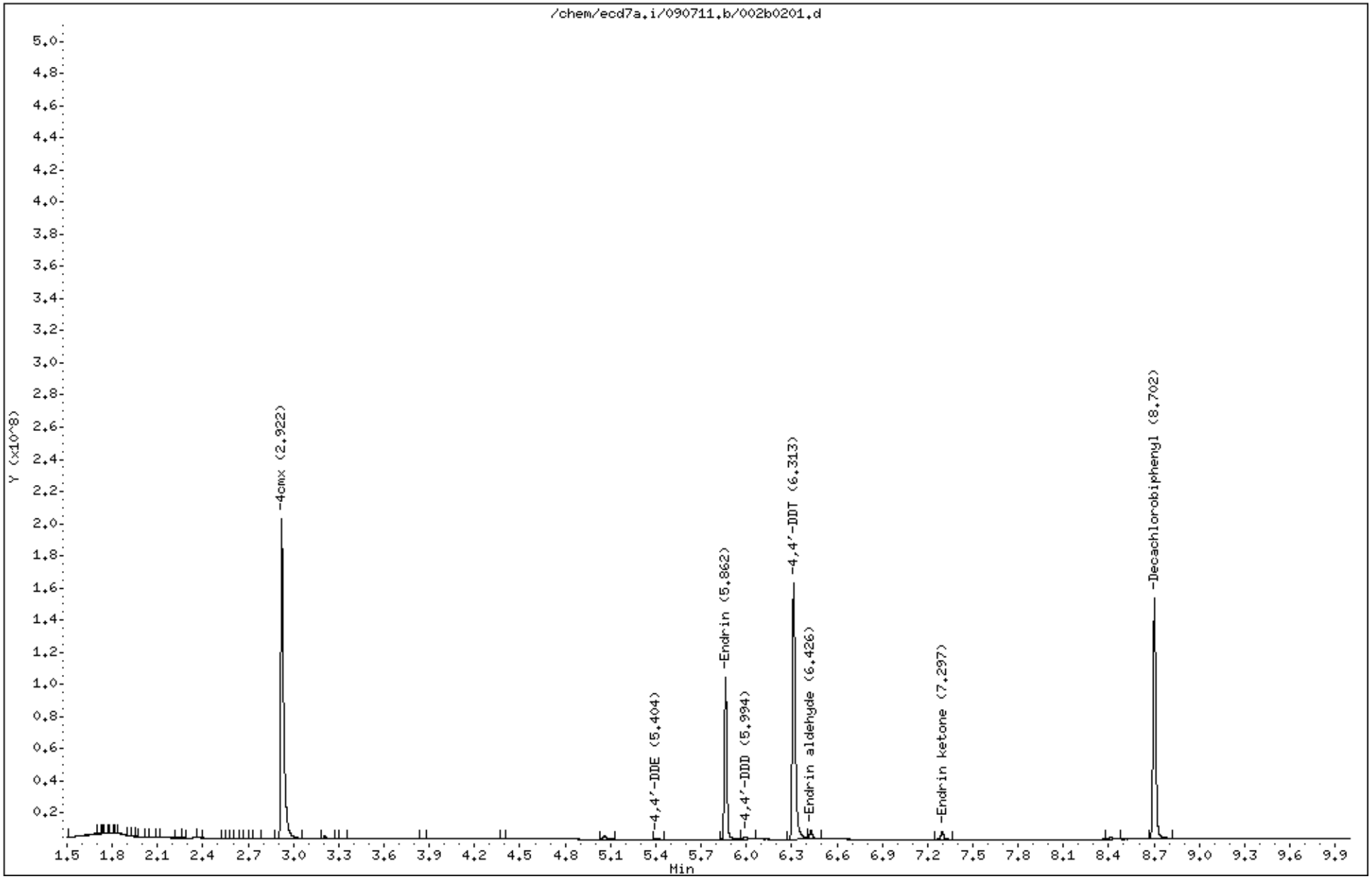
Instrument: ecd7a.i

Sample Info: IWPE110829-99DG

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

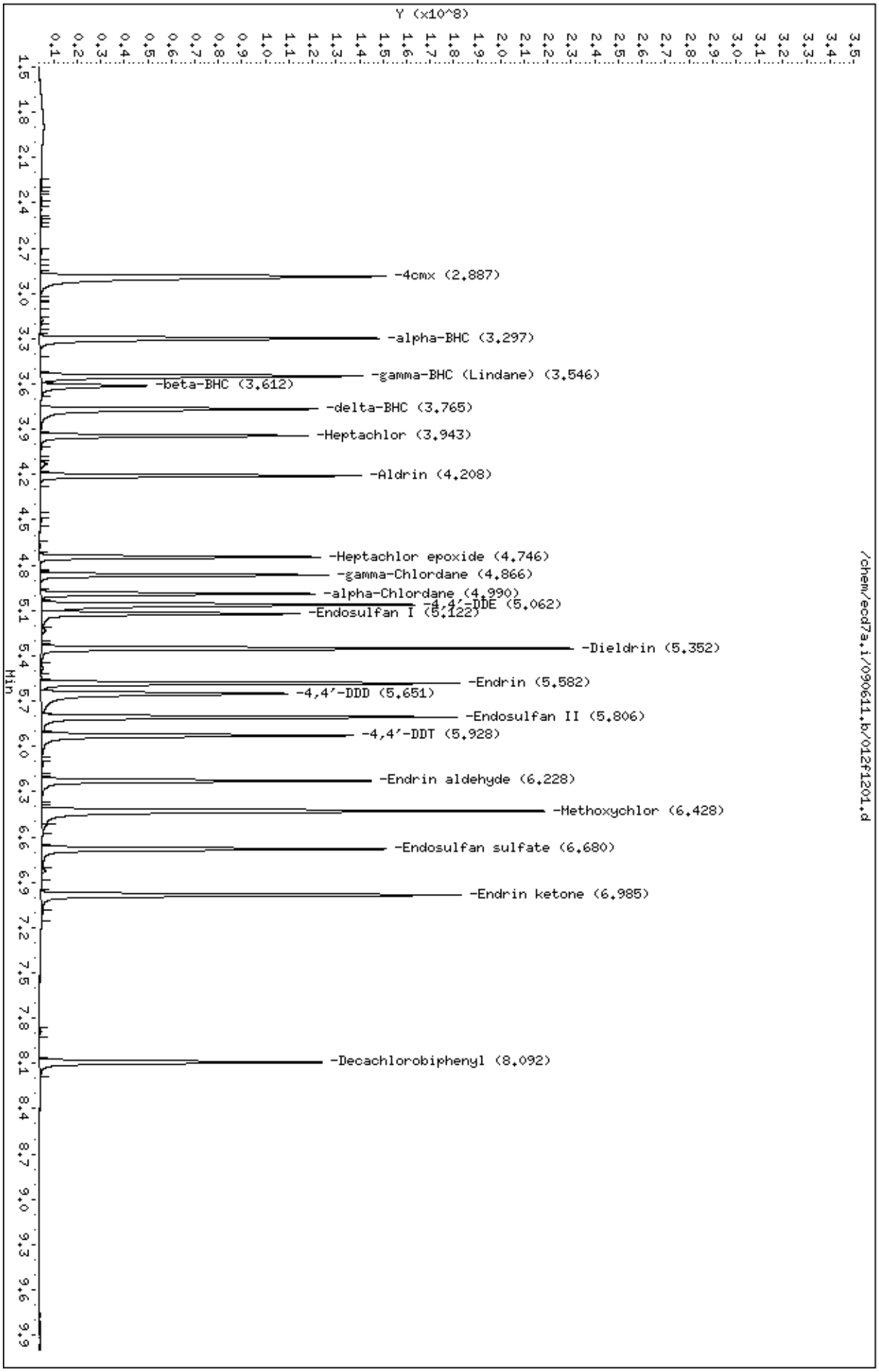
Data file : /chem/ecd7a.i/090611.b/012f1201.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 06-SEP-2011 11:14
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	196129996	100.000	109	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.546	0.000	174054526	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.612	3.612	0.000	62063583	100.000	97.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.943	0.000	130918280	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.765	3.765	0.000	165582017	100.000	114	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.208	0.000	150703350	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.746	4.746	0.000	131629888	100.000	102	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.866	4.866	0.000	135715381	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.990	4.990	0.000	128007638	100.000	104	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.122   5.122   0.000       136341262 100.000     94.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.062   5.062   0.000       217083326 200.000      228  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.352   5.352   0.000       255420873 200.000      211  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.582   5.582   0.000       202849728 200.000      221  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.651   5.651   0.000       171804414 200.000      226  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.806   5.806   0.000       220058808 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.228   6.228   0.000       174657458 200.000      207  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.928   5.928   0.000       177427485 200.000      229  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.680   6.680   0.000       183944929 200.000      214  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.428   6.428   0.000       302570204 1000.00     1020  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.985   6.985   0.000       223118328 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.887   2.887   0.000       260421753 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.092   8.092   0.000       156623390 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/012f1201.d
Date : 06-SEP-2011 11:14
Client ID: INDAB01
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

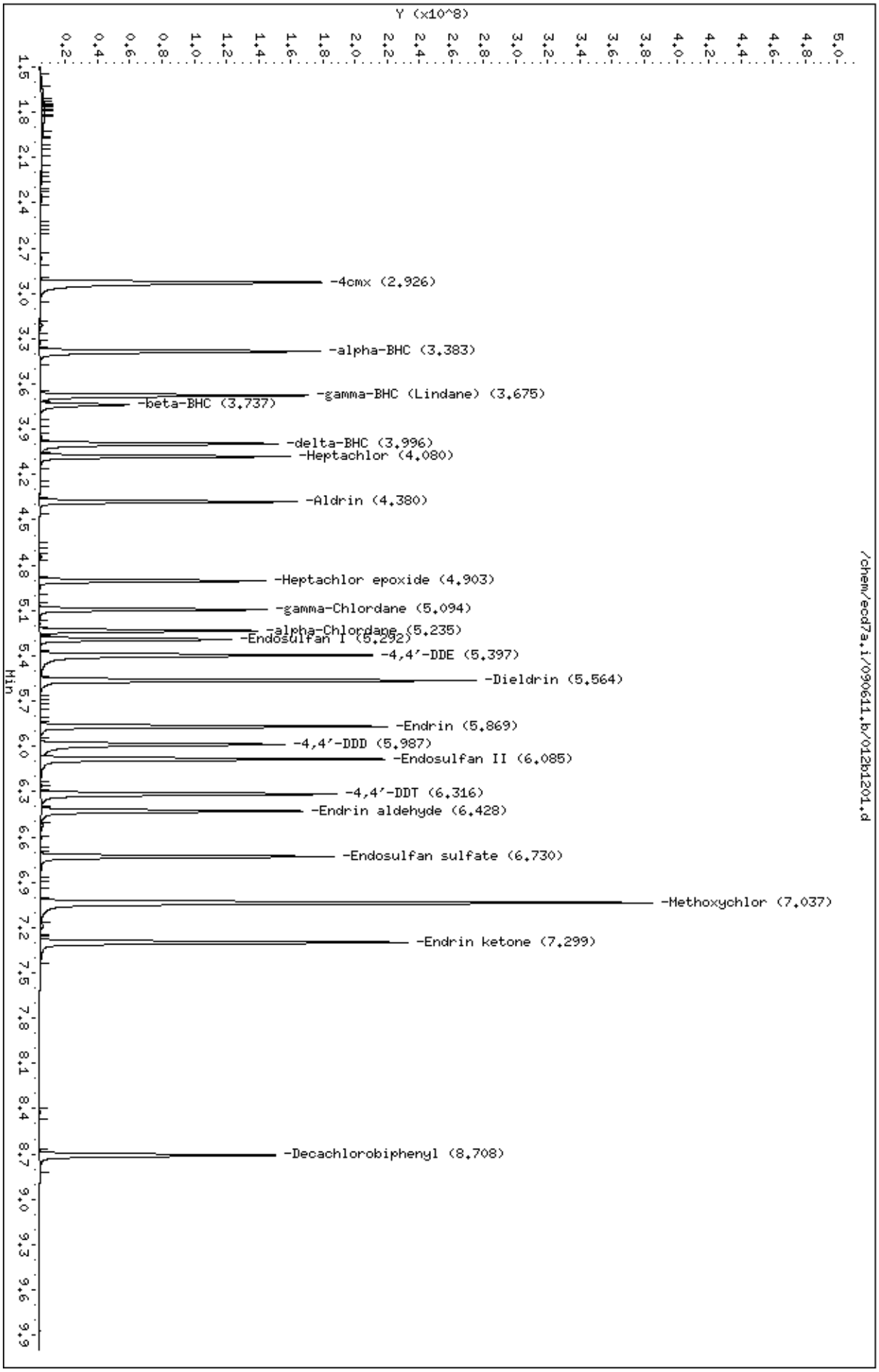
Data file : /chem/ecd7a.i/090611.b/012b1201.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 06-SEP-2011 11:14
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	210613653	100.000	109	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	191192766	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.737	3.737	0.000	71628366	100.000	103	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.080	4.080	0.000	167255668	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.996	3.996	0.000	177777381	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.380	4.380	0.000	169575243	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	148477622	100.000	102	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.094	5.094	0.000	152212020	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.235	5.235	0.000	143840620	100.000	106	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.292   5.292   0.000       134792660 100.000      106  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.397   5.397   0.000       271085812 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.564   5.564   0.000       300508357 200.000      214  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.869   5.869   0.000       243148741 200.000      225  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.987   5.987   0.000       208057238 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.085   6.085   0.000       254129749 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.428   6.428   0.000       199737888 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.316   6.316   0.000       230460581 200.000      224  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.730   6.730   0.000       215676074 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.037   7.037   0.000       478559185 1000.00     1070  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.299   7.299   0.000       278348687 200.000      209  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.926   2.926   0.000       274928424 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.708   8.708   0.000       187193950 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/012b1201.d
Date : 06-SEP-2011 11:14
Client ID: INDAB01
Sample Info: IWPE110812-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/020f2001.d
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 06-SEP-2011 13:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.797	5.797	0.000	88255096	2000.00	1930	80.00- 120.00	100.00(M)
5.918	5.918	0.000	52342980	2000.00	2040	39.31- 79.31	59.31
6.144	6.144	0.000	55280175	2000.00	2040	42.64- 82.64	62.64
6.486	6.486	0.000	61589531	2000.00	2110	49.79- 89.79	69.79
6.590	6.590	0.000	63942248	2000.00	1900	52.45- 92.45	72.45
Average of Peak Amounts =				2.01e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.886	2.887	-0.001	244709200	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.092	0.003	145944398	200.000	188	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/020f2001.d

Page 1

Date : 06-SEP-2011 13:31

Client ID: TOXAPH01

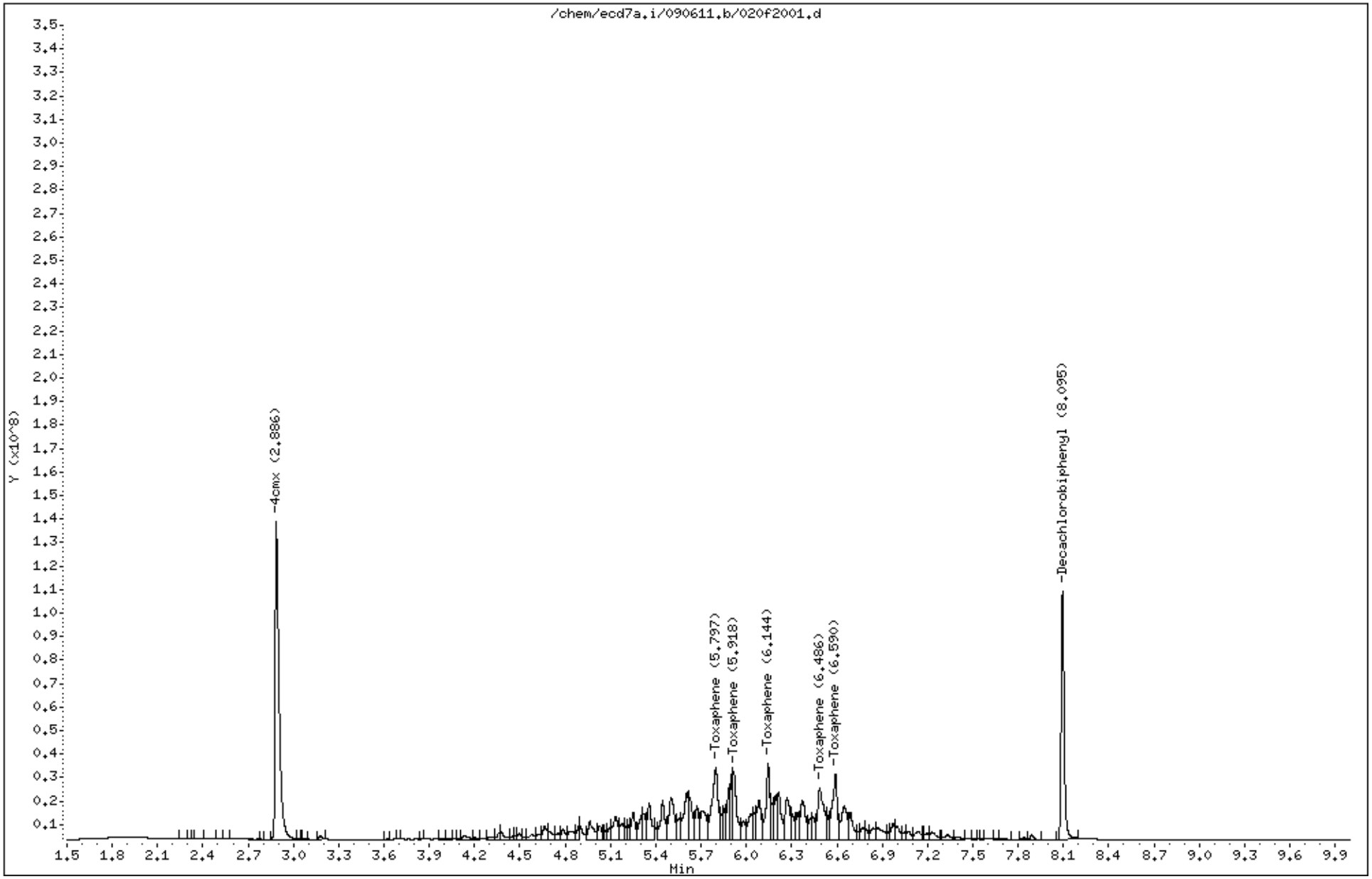
Instrument: ecd7a.i

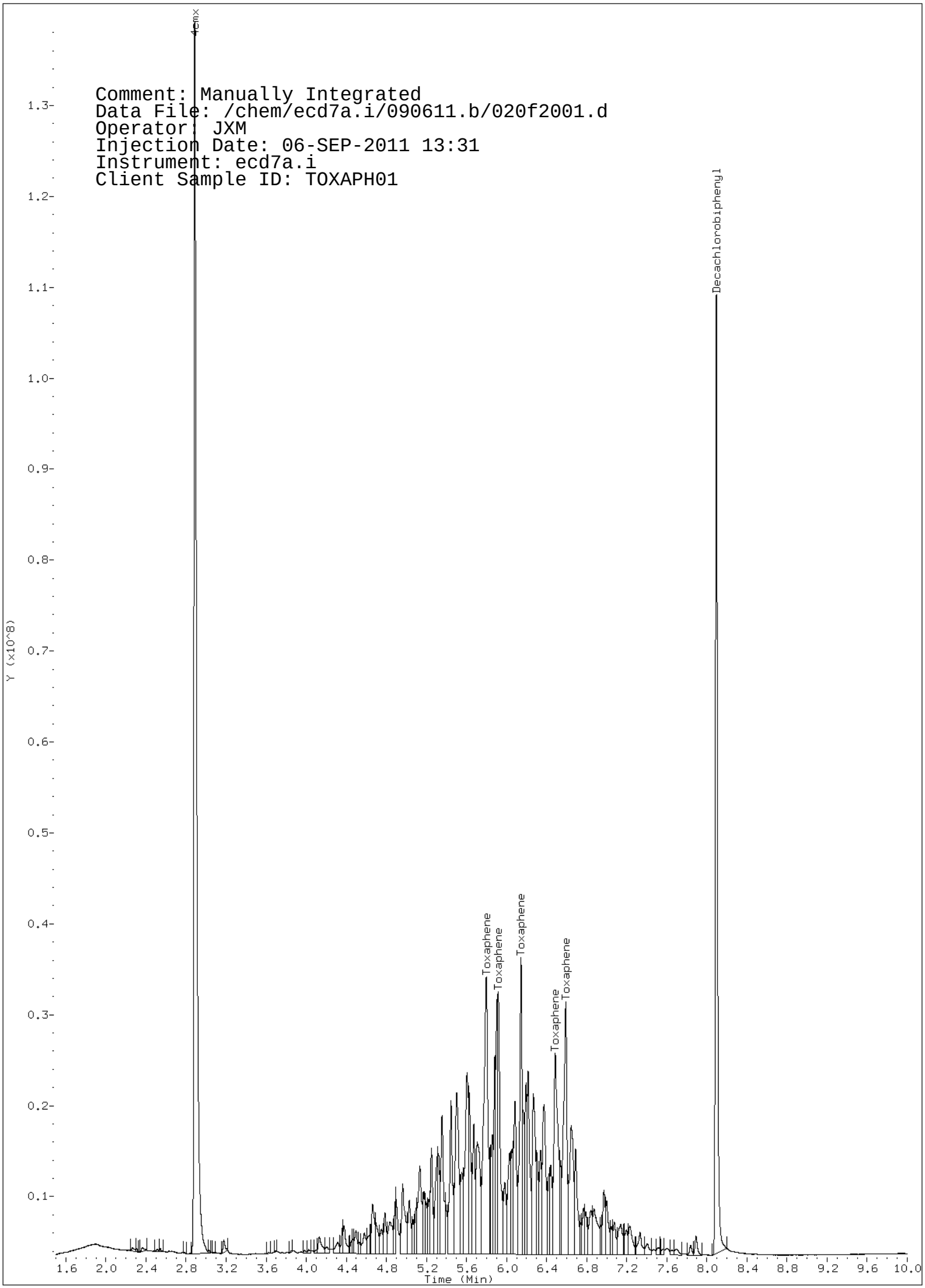
Sample Info: IWPE110906-52TX

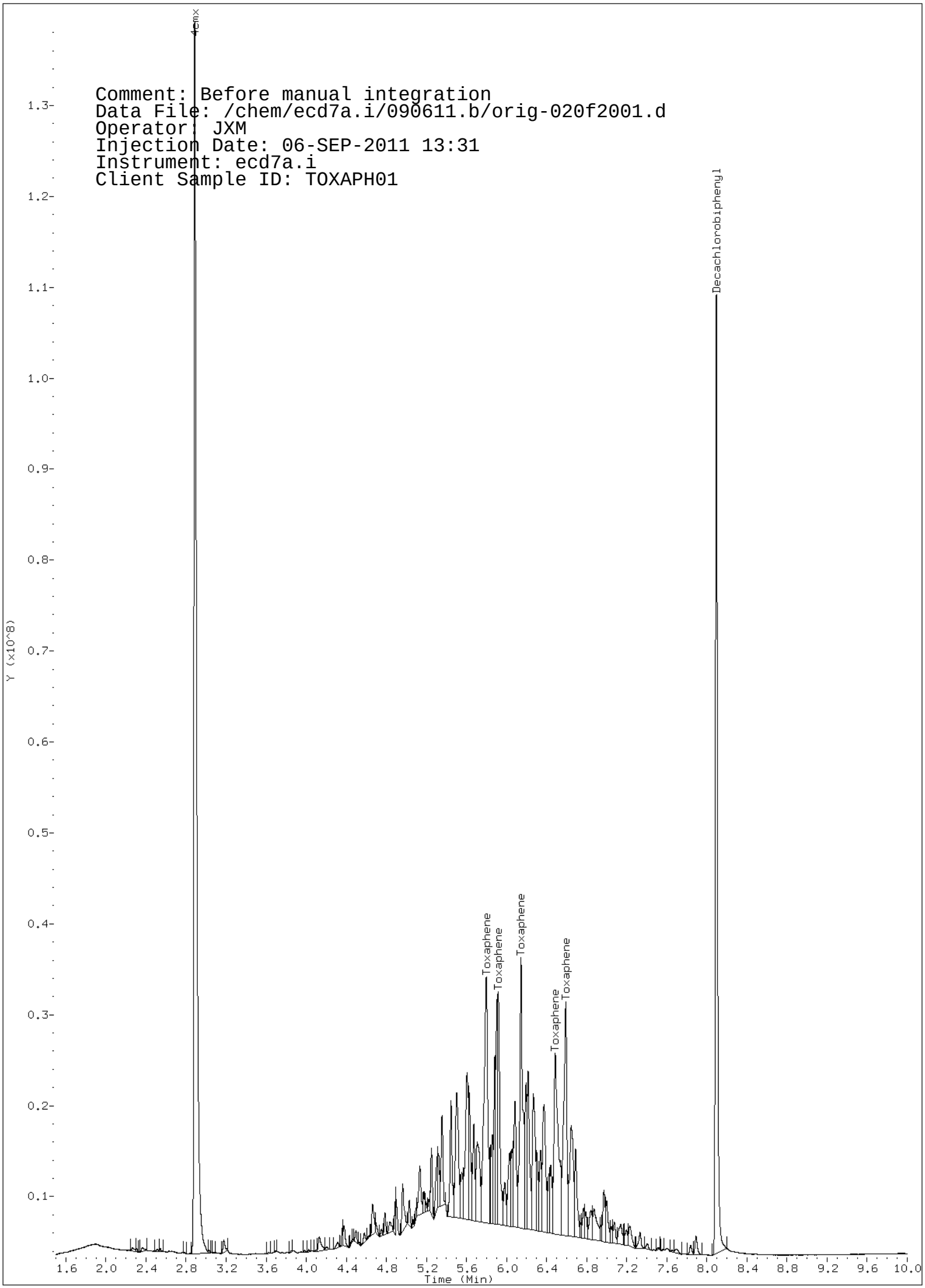
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/020f2001.d
Operator: JXM
Injection Date: 06-SEP-2011 13:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-020f2001.d
Operator: JXM
Injection Date: 06-SEP-2011 13:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/020b2001.d
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 06-SEP-2011 13:31
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.843	5.843	0.000	35819629	2000.00	2010	80.00- 120.00	100.00(M)
6.077	6.077	0.000	74104999	2000.00	2000	186.88- 226.88	206.88
6.178	6.178	0.000	129351365	2000.00	2040	341.12- 381.12	361.12
6.454	6.454	0.000	75181909	2000.00	2040	189.89- 229.89	209.89
6.999	6.999	0.000	69546109	2000.00	2050	174.16- 214.16	194.16
Average of Peak Amounts =				2.03e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	256996776	200.000	189	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.711	8.708	0.003	176967511	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/020b2001.d

Page 1

Date : 06-SEP-2011 13:31

Client ID: TOXAPH01

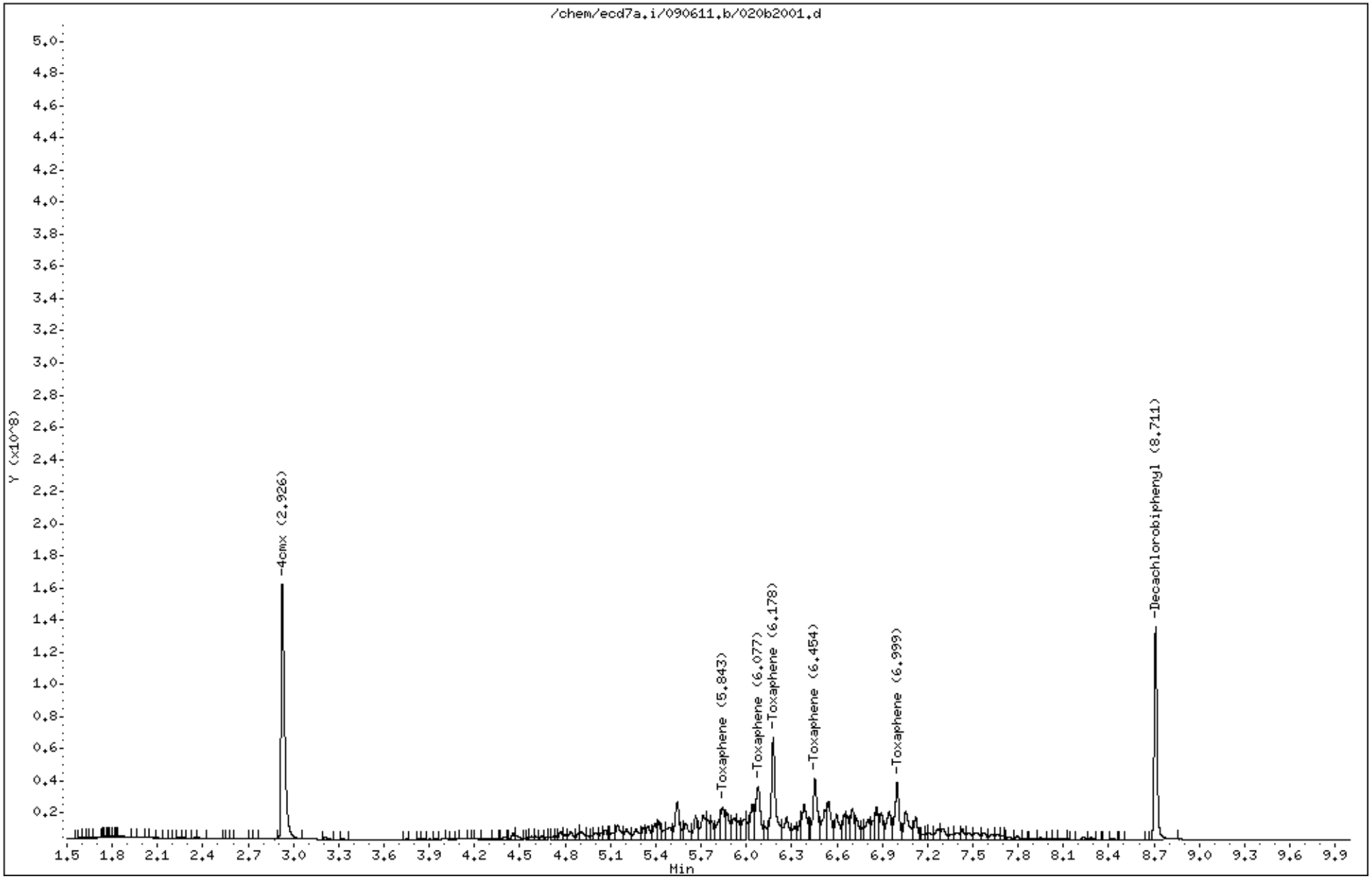
Instrument: ecd7a.i

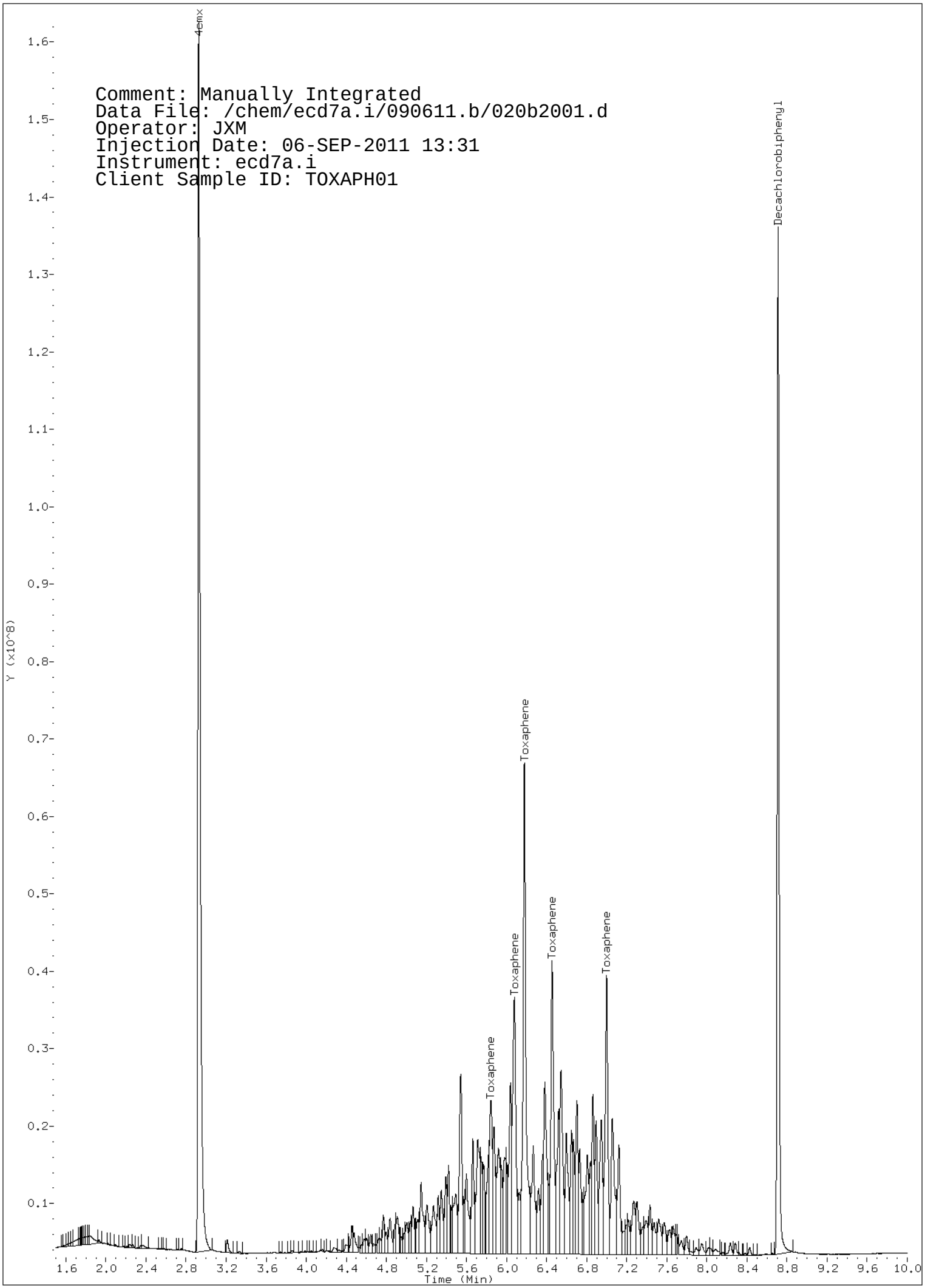
Sample Info: IWPE110906-52TX

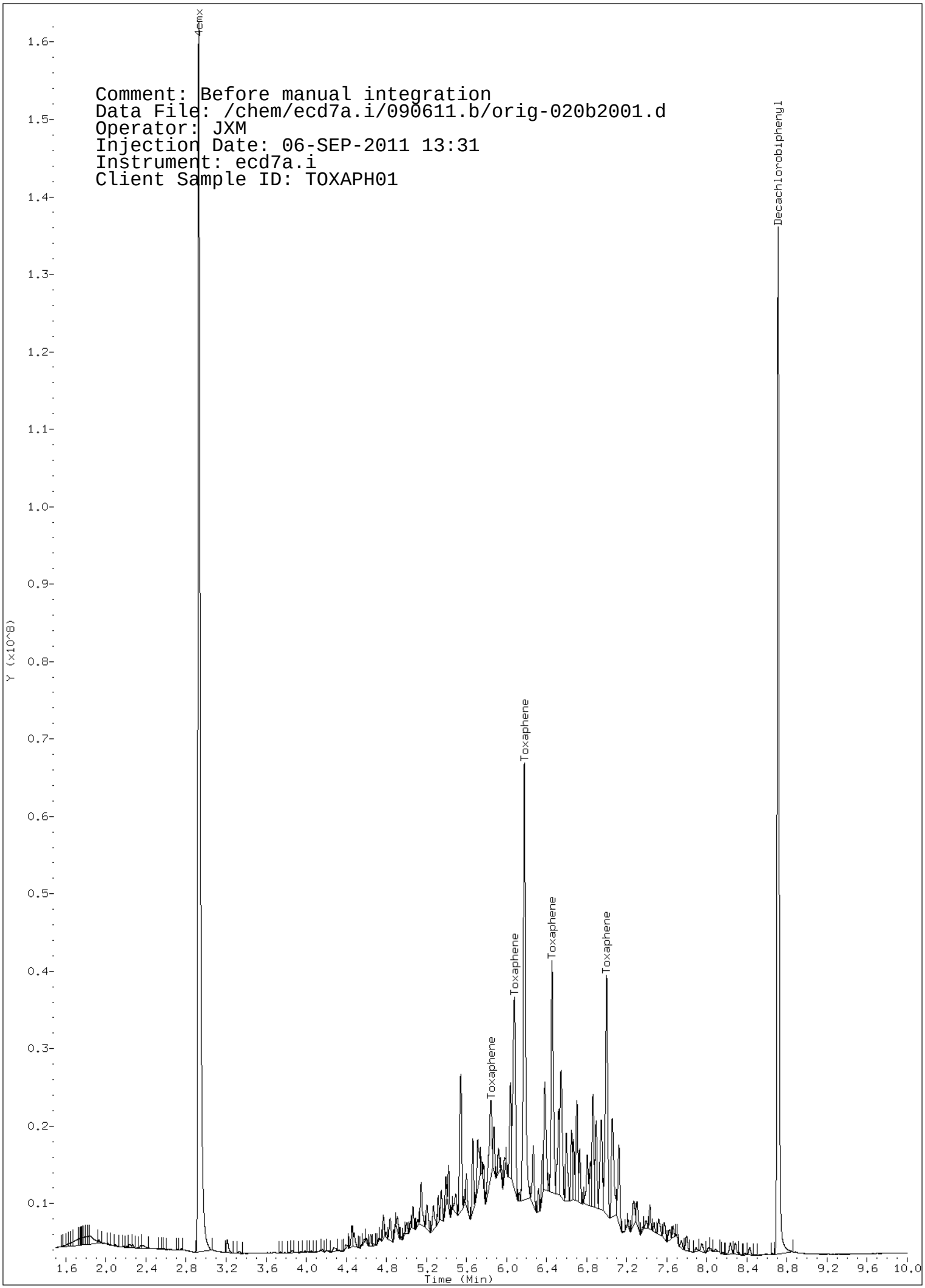
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/020b2001.d
Operator: JXM
Injection Date: 06-SEP-2011 13:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-020b2001.d
Operator: JXM
Injection Date: 06-SEP-2011 13:31
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

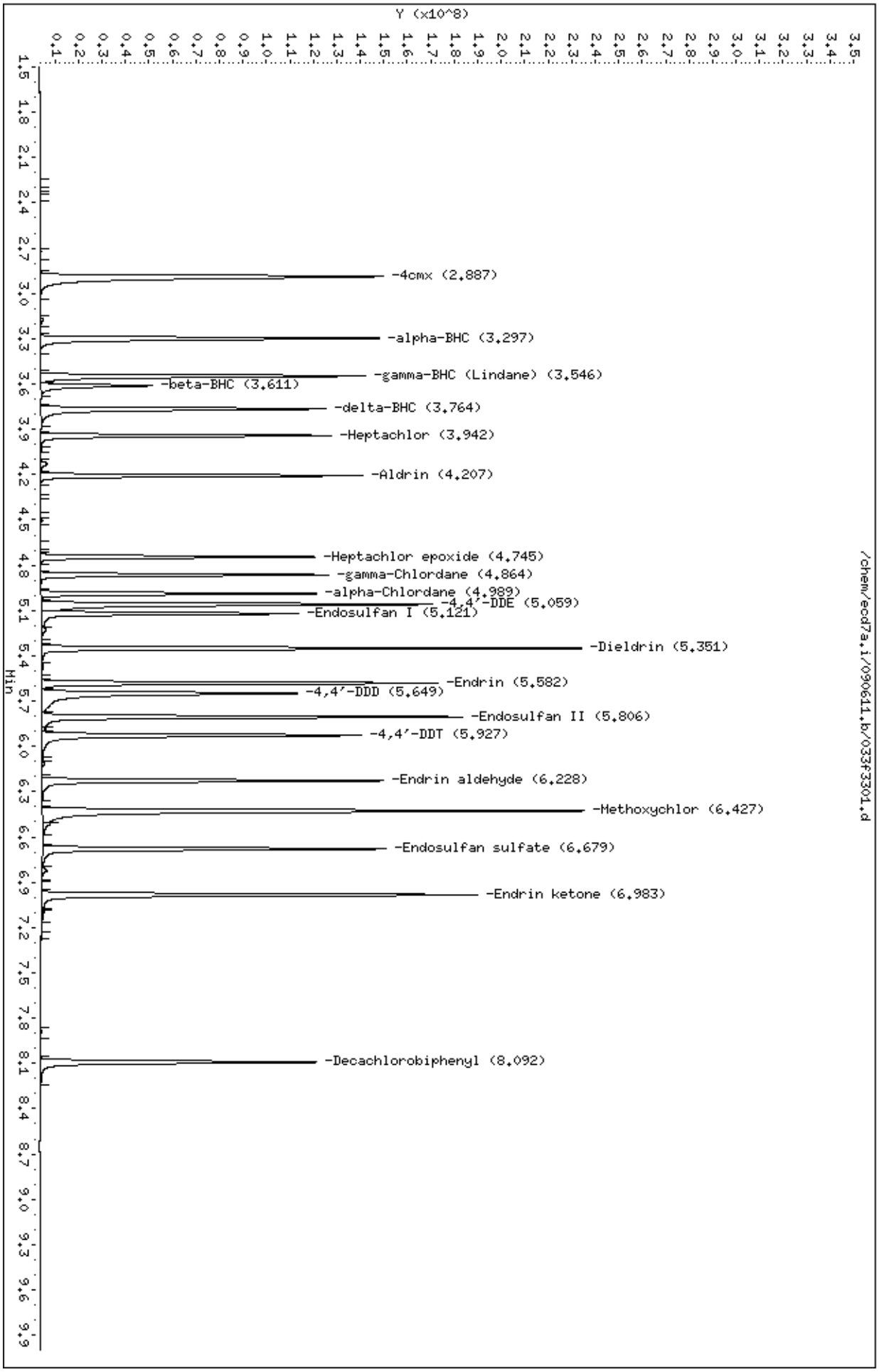
Data file : /chem/ecd7a.i/090611.b/033f3301.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 06-SEP-2011 17:12
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	196171724	100.000	110	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.546	0.000	175053425	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.611	3.612	-0.001	62851110	100.000	98.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	138864919	100.000	112	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.764	3.765	-0.001	165218613	100.000	114	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.207	4.208	-0.001	150162715	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.745	4.746	-0.001	129437700	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.864	4.866	-0.002	134519205	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	126771462	100.000	103	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.121   5.122  -0.001       133371862 100.000     92.6  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.059   5.062  -0.003       218853169 200.000      230  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.351   5.352  -0.001       256740956 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.582   5.582   0.000       190693830 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.649   5.651  -0.002       184584209 200.000      243  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.806   5.806   0.000       218258051 200.000      215  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.228   6.228   0.000       182810326 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.927   5.928  -0.001       187764493 200.000      242  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.679   6.680  -0.001       184710694 200.000      215  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.427   6.428  -0.001       335624360 1000.00     1130  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.983   6.985  -0.002       234902467 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.887   2.887   0.000       259767607 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.092   8.092   0.000       160855123 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/033f3301.d
Date : 06-SEP-2011 17:12
Client ID: INDAB02
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

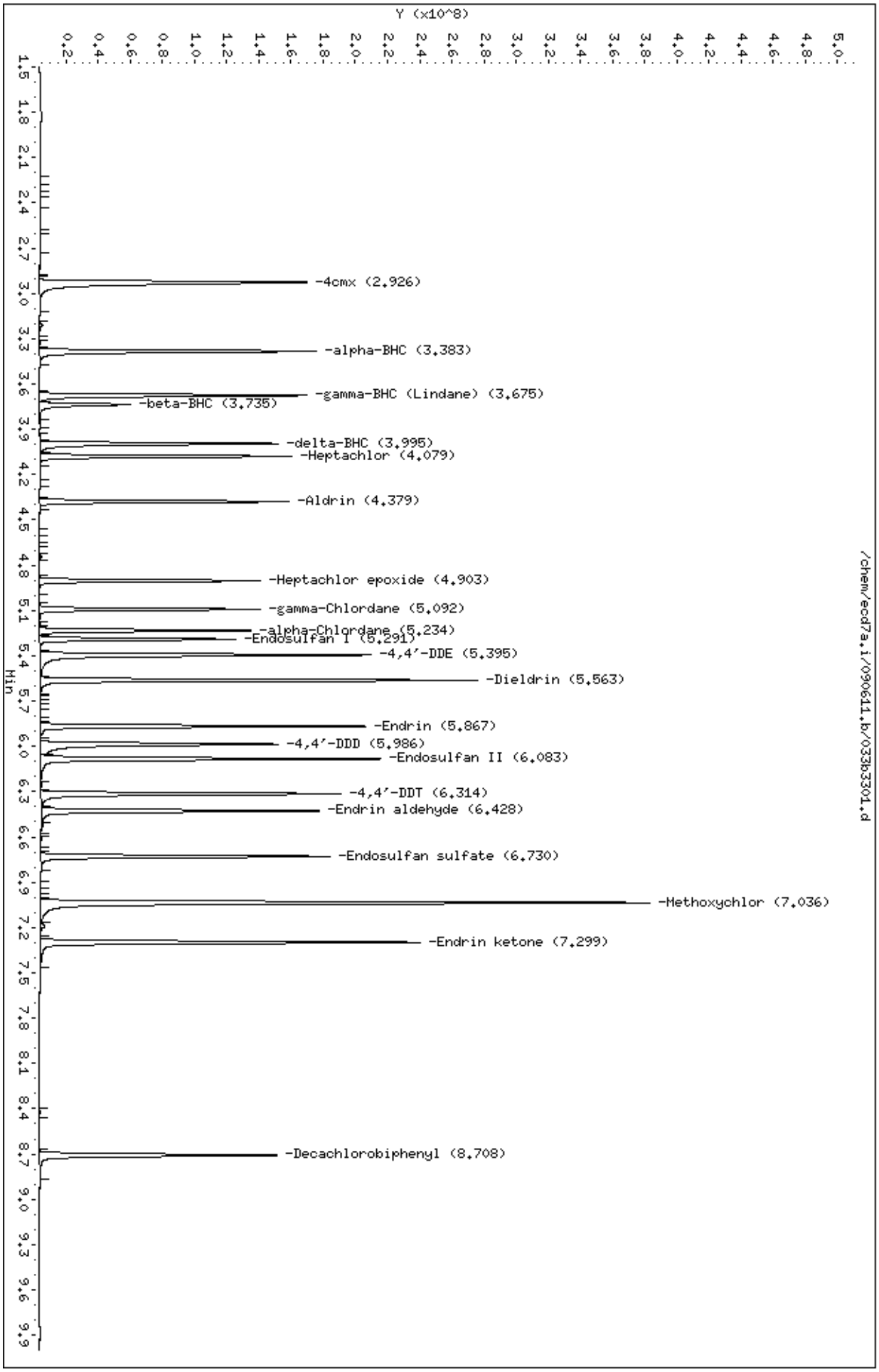
Data file : /chem/ecd7a.i/090611.b/033b3301.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 06-SEP-2011 17:12
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	206689593	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	188187734	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.735	3.737	-0.002	70810304	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	170171033	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.995	3.996	-0.001	175929947	100.000	108	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	166708340	100.000	100	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	146332480	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.092	5.094	-0.002	149749975	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	141686711	100.000	104	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                   CAS #: 959-98-8
  5.291   5.292  -0.001       132714879 100.000      104  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                       CAS #: 72-55-9
  5.395   5.397  -0.002       268434000 200.000      214  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                       CAS #: 60-57-1
  5.563   5.564  -0.001       297742329 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                         CAS #: 72-20-8
  5.867   5.869  -0.002       225770743 200.000      209  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                       CAS #: 72-54-8
  5.986   5.987  -0.001       210768653 200.000      220  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                  CAS #: 33213-65-9
  6.083   6.085  -0.002       252397217 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                                CAS #: 7421-93-4
  6.428   6.428   0.000       207444698 200.000      216  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                       CAS #: 50-29-3
  6.314   6.316  -0.002       230788674 200.000      225  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                             CAS #: 1031-07-8
  6.730   6.730   0.000       212453055 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                   CAS #: 72-43-5
  7.036   7.037  -0.001       488595250 1000.00     1090  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                  CAS #: 53494-70-5
  7.299   7.299   0.000       287261876 200.000      216  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                           CAS #: 877-09-8
  2.926   2.926   0.000       271590855 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                            CAS #: 2051-24-3
  8.708   8.708   0.000       190603634 200.000      204  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090611.b/033b3301.d
Date : 06-SEP-2011 17:12
Client ID: INDAB02
Sample Info: IWPE110812-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/004f0401.d
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 07-SEP-2011 09:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.794	5.794	0.000	100049657	2000.00	2190	80.00- 120.00	100.00(M)
5.914	5.914	0.000	57437084	2000.00	2240	37.41- 77.41	57.41
6.139	6.139	0.000	63233883	2000.00	2330	43.20- 83.20	63.20
6.481	6.481	0.000	71793090	2000.00	2460	51.76- 91.76	71.76
6.587	6.587	0.000	72614166	2000.00	2160	52.58- 92.58	72.58
Average of Peak Amounts =				2.28e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.884	0.000	255033717	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.090	-0.001	166244989	200.000	187	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090711.b/004f0401.d

Page 1

Date : 07-SEP-2011 09:44

Client ID: TOXAPH01

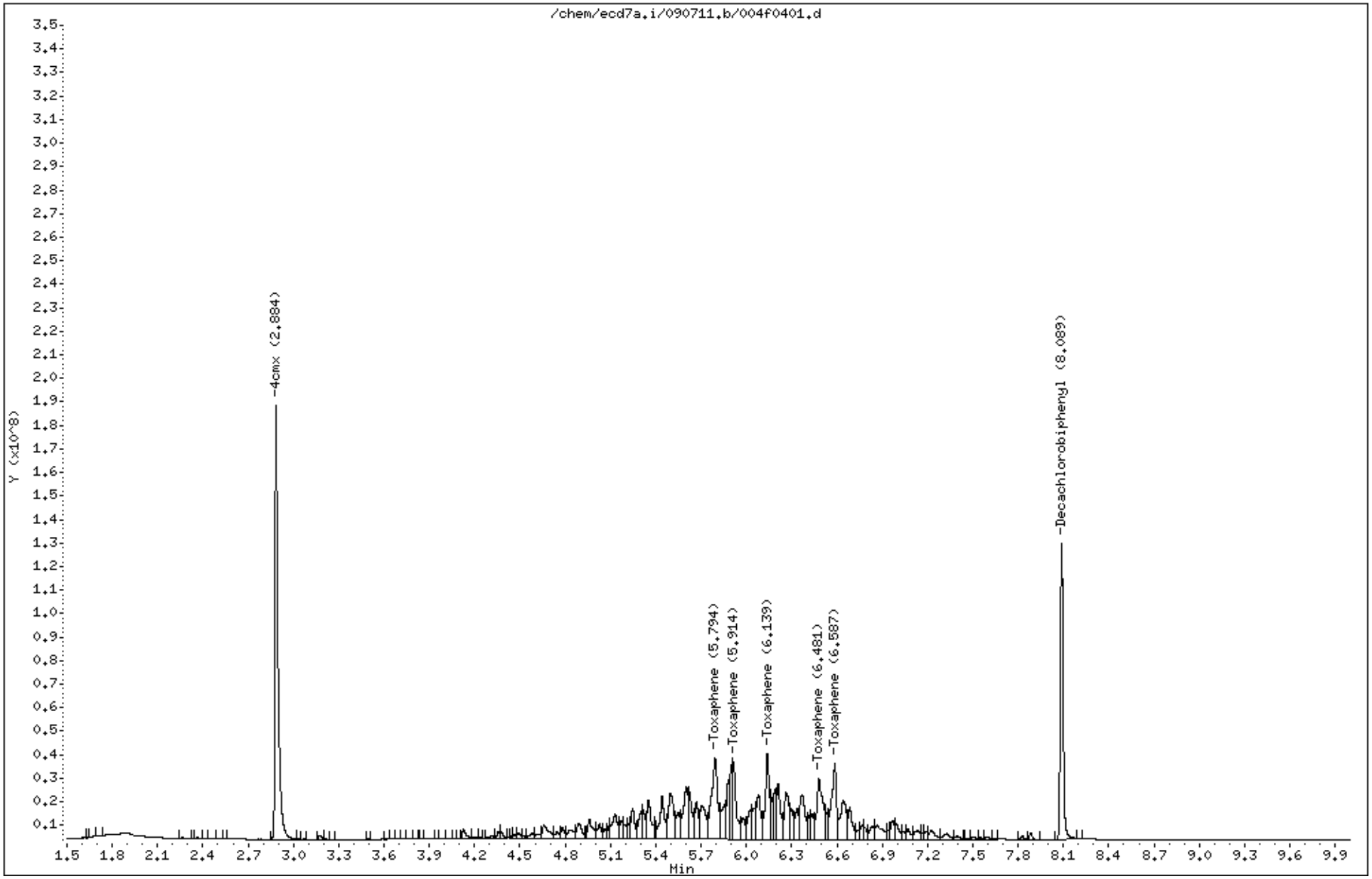
Instrument: ecd7a.i

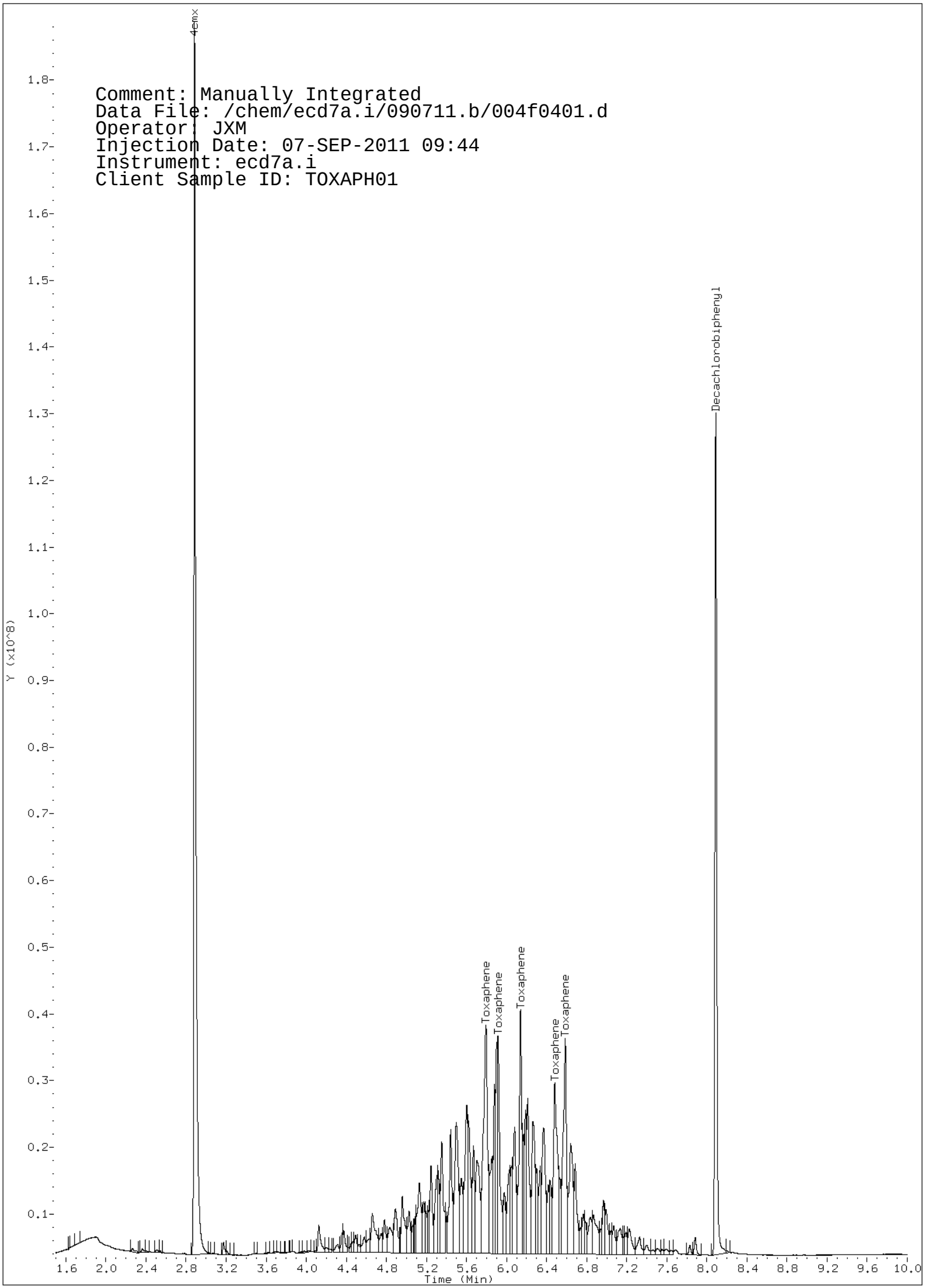
Sample Info: IWPE110906-52TX

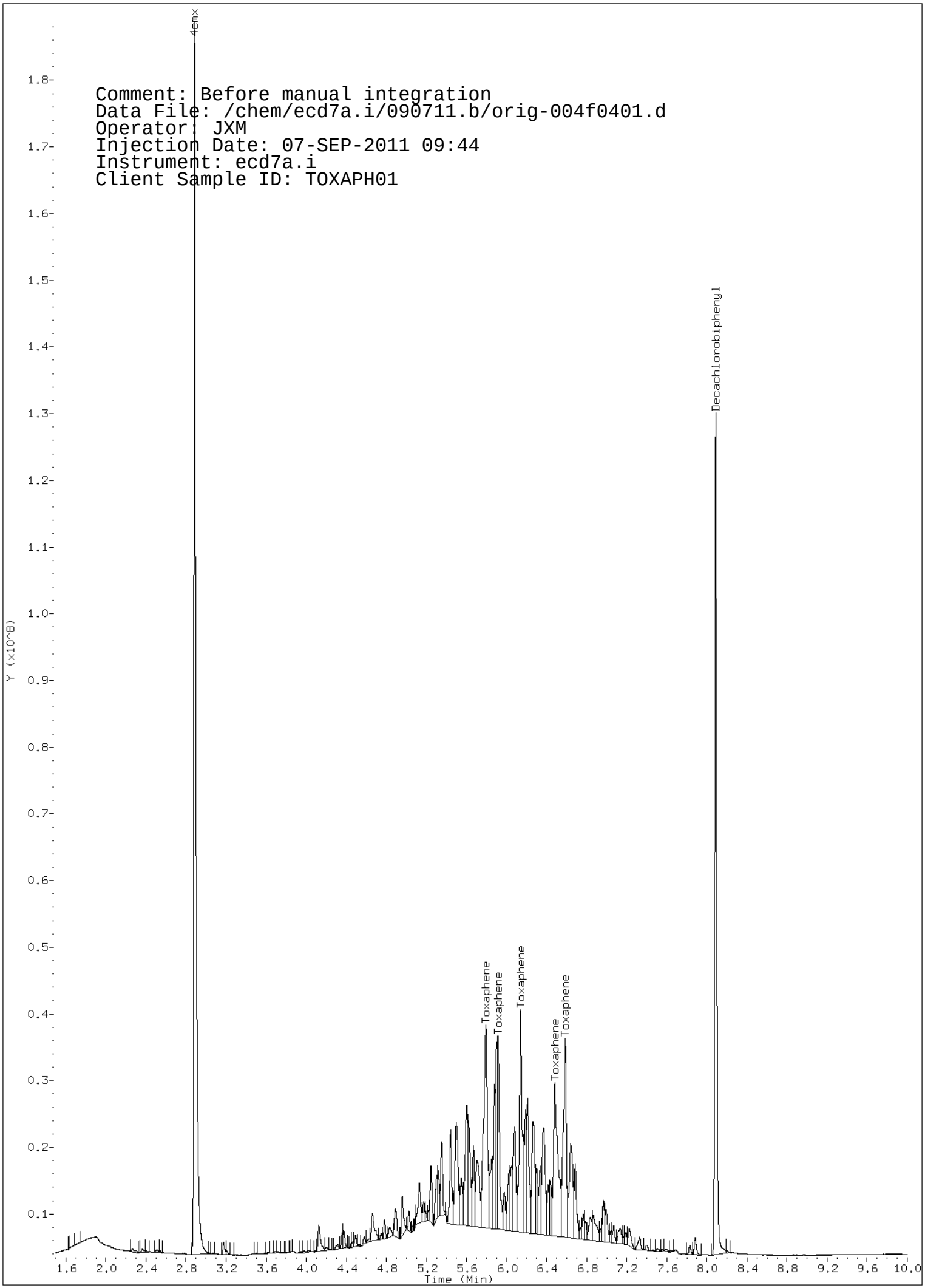
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/004f0401.d
Operator: JXM
Injection Date: 07-SEP-2011 09:44
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emX
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-004f0401.d
Operator: JXM
Injection Date: 07-SEP-2011 09:44
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emX
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/004b0401.d
Lab Smp Id: WPE110906-52TX Client Smp ID: TOXAPH01
Inj Date : 07-SEP-2011 09:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110906-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.837	5.837	0.000	40063371	2000.00	2240	80.00- 120.00	100.00(M)
6.073	6.073	0.000	79781199	2000.00	2160	179.14- 219.14	199.14
6.172	6.172	0.000	141303583	2000.00	2220	332.70- 372.70	352.70
6.449	6.449	0.000	83373867	2000.00	2270	188.10- 228.10	208.10
6.992	6.992	0.000	76828656	2000.00	2260	171.77- 211.77	191.77
Average of Peak Amounts =				2.23e+03			
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.923	0.000	262517940	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.702	8.704	-0.002	194493928	200.000	187	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090711.b/004b0401.d

Page 1

Date : 07-SEP-2011 09:44

Client ID: TOXAPH01

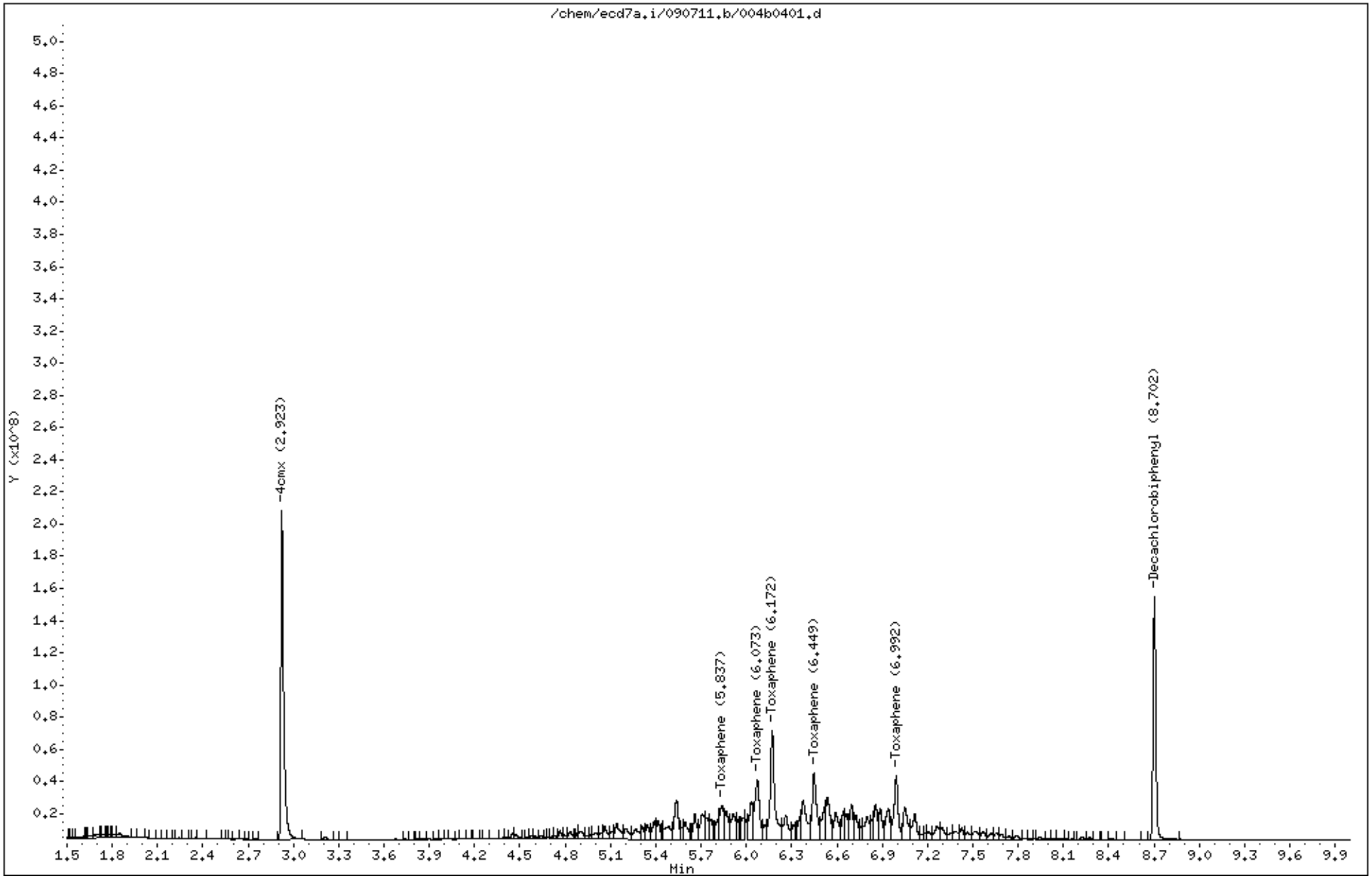
Instrument: ecd7a.i

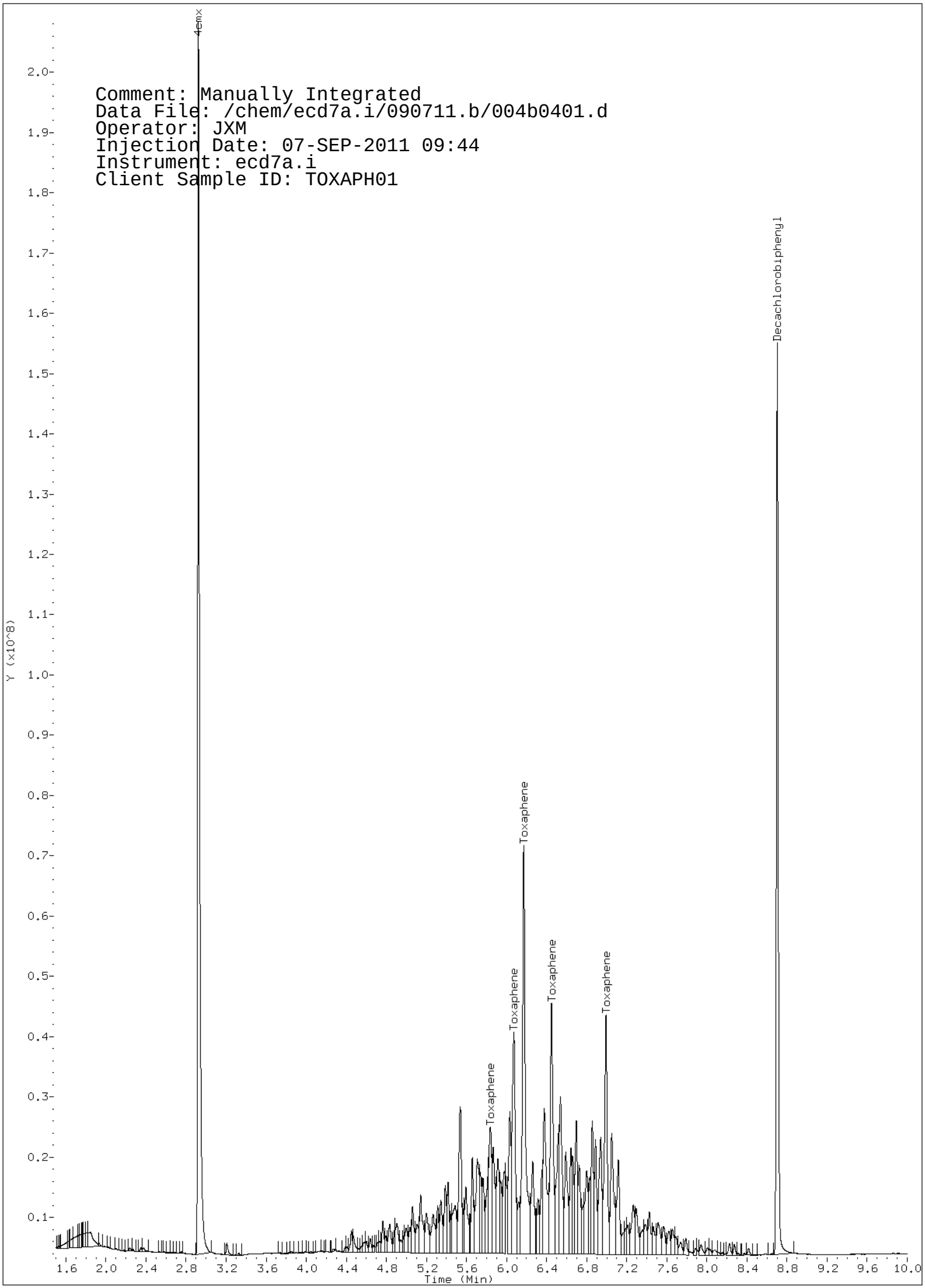
Sample Info: IWPE110906-52TX

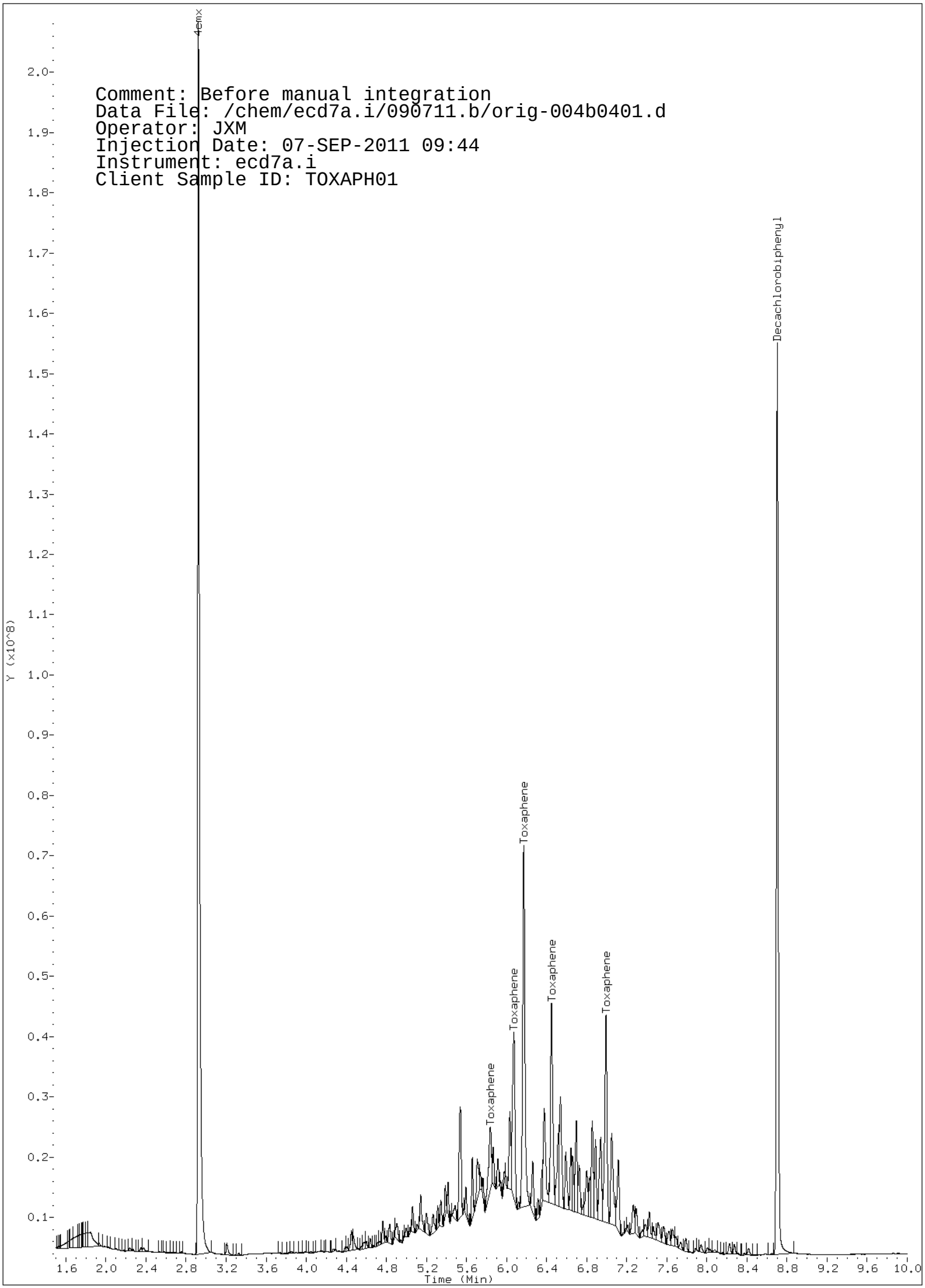
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/004b0401.d
Operator: JXM
Injection Date: 07-SEP-2011 09:44
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-004b0401.d
Operator: JXM
Injection Date: 07-SEP-2011 09:44
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
4emx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-1

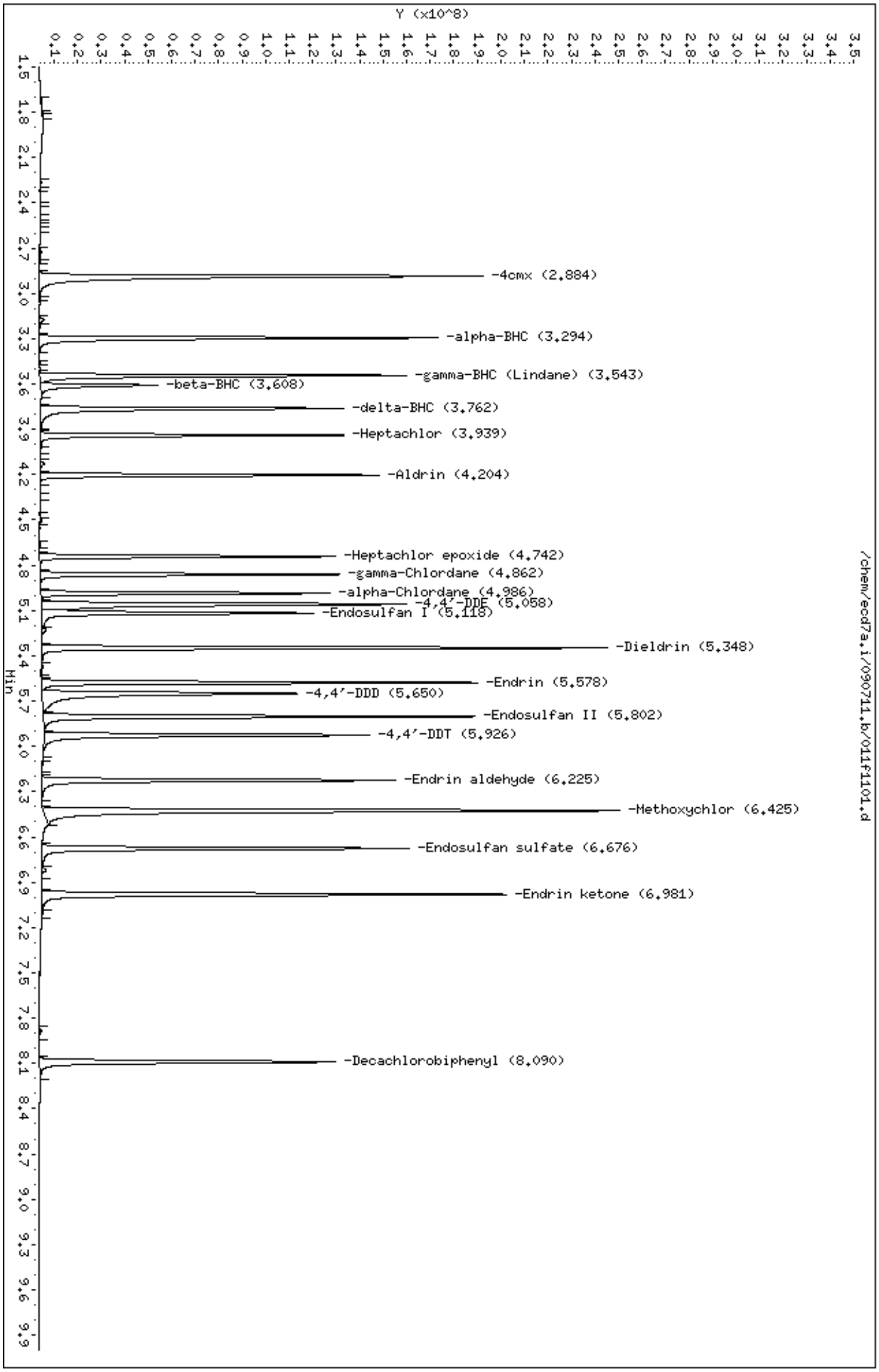
Data file : /chem/ecd7a.i/090711.b/011f1101.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 07-SEP-2011 11:43
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.294	3.294	0.000	197534131	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.543	3.543	0.000	176054397	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.608	3.608	0.000	62274750	100.000	94.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.939	3.939	0.000	138600668	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.762	3.762	0.000	167166159	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.204	4.204	0.000	153716573	100.000	96.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.742	4.742	0.000	135395082	100.000	96.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.862	4.862	0.000	139248140	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.986	4.986	0.000	132176410	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.118	5.118	0.000	144526911	100.000	93.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.058	5.058	0.000	222321546	200.000	191	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.348	5.348	0.000	268972208	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.578	5.578	0.000	207724094	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.650	5.650	0.000	184501356	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.802	5.802	0.000	227032062	200.000	202	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.225	6.225	0.000	192327070	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.926	5.926	0.000	192095488	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.676	6.676	0.000	197026852	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.425	6.425	0.000	363029442	1000.00	933	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.981	6.981	0.000	253773516	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.884	0.000	259196253	200.000	198	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.090	8.090	0.000	172562367	200.000	194	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090711.b/011f1101.d
Date : 07-SEP-2011 11:43
Client ID: INDAB01
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

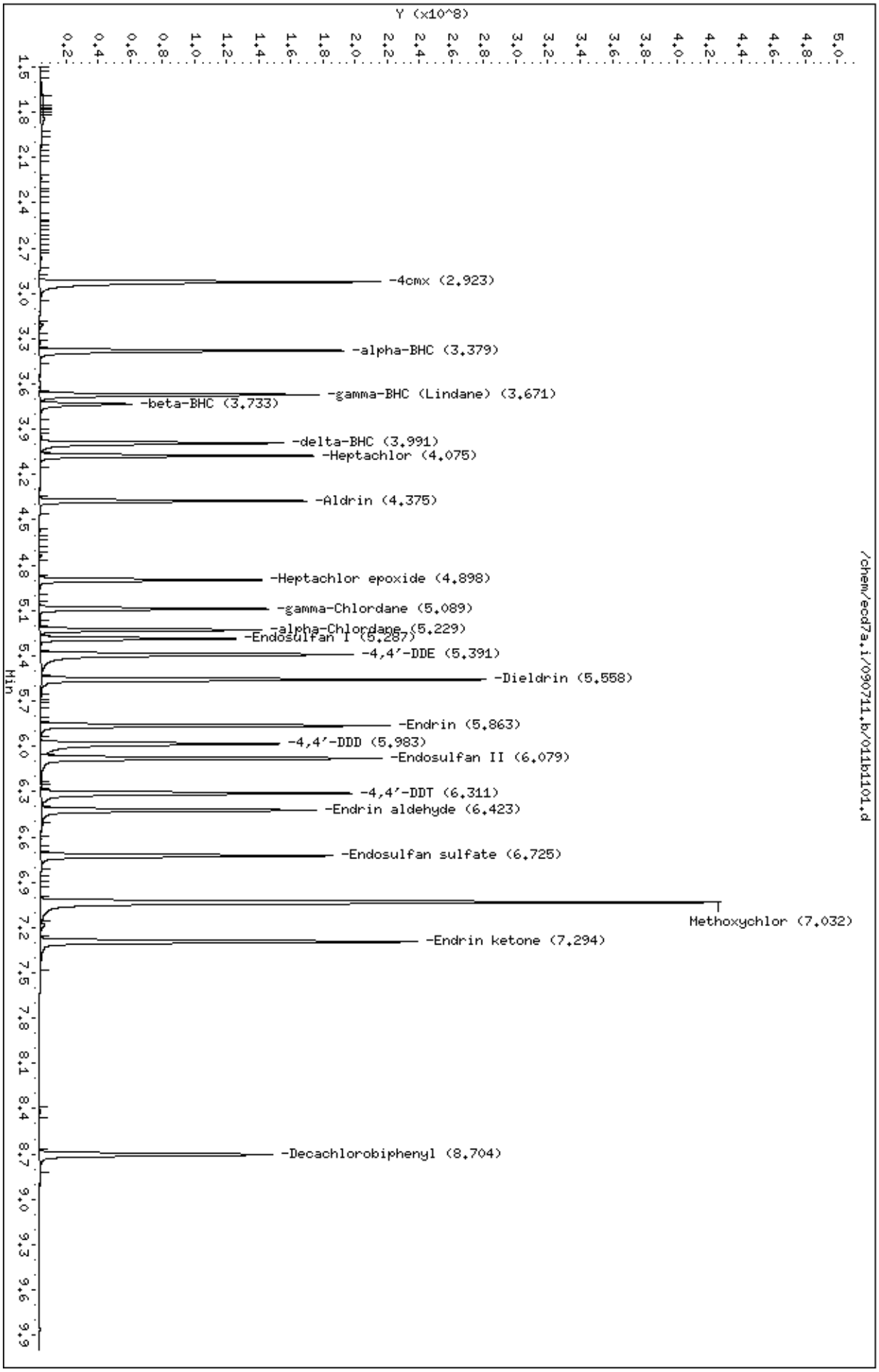
Data file : /chem/ecd7a.i/090711.b/011b1101.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB01
Inj Date : 07-SEP-2011 11:43
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.379	3.379	0.000	205428525	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.671	3.671	0.000	187106940	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.733	3.733	0.000	69818380	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.075	4.075	0.000	173642935	100.000	99.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.991	3.991	0.000	174104685	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.375	4.375	0.000	170724358	100.000	99.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.898	4.898	0.000	149724167	100.000	98.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.089	5.089	0.000	153926422	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.229	5.229	0.000	145695454	100.000	100	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.287   5.287   0.000       136216976 100.000      100  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.391   5.391   0.000       273056138 200.000      204  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.558   5.558   0.000       304817943 200.000      203  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.863   5.863   0.000       240838129 200.000      214  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.983   5.983   0.000       215066191 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.079   6.079   0.000       261291837 200.000      204  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.423   6.423   0.000       210253151 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.311   6.311   0.000       243817035 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.725   6.725   0.000       217993575 200.000      202  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.032   7.032   0.000       564443346 1000.00      989  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.294   7.294   0.000       295324733 200.000      196  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.923   2.923   0.000       269410322 200.000      197  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.704   8.704   0.000       197204178 200.000      190  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090711.b/011b1101.d
Date : 07-SEP-2011 11:43
Client ID: INDAB01
Sample Info: IWPE110812-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

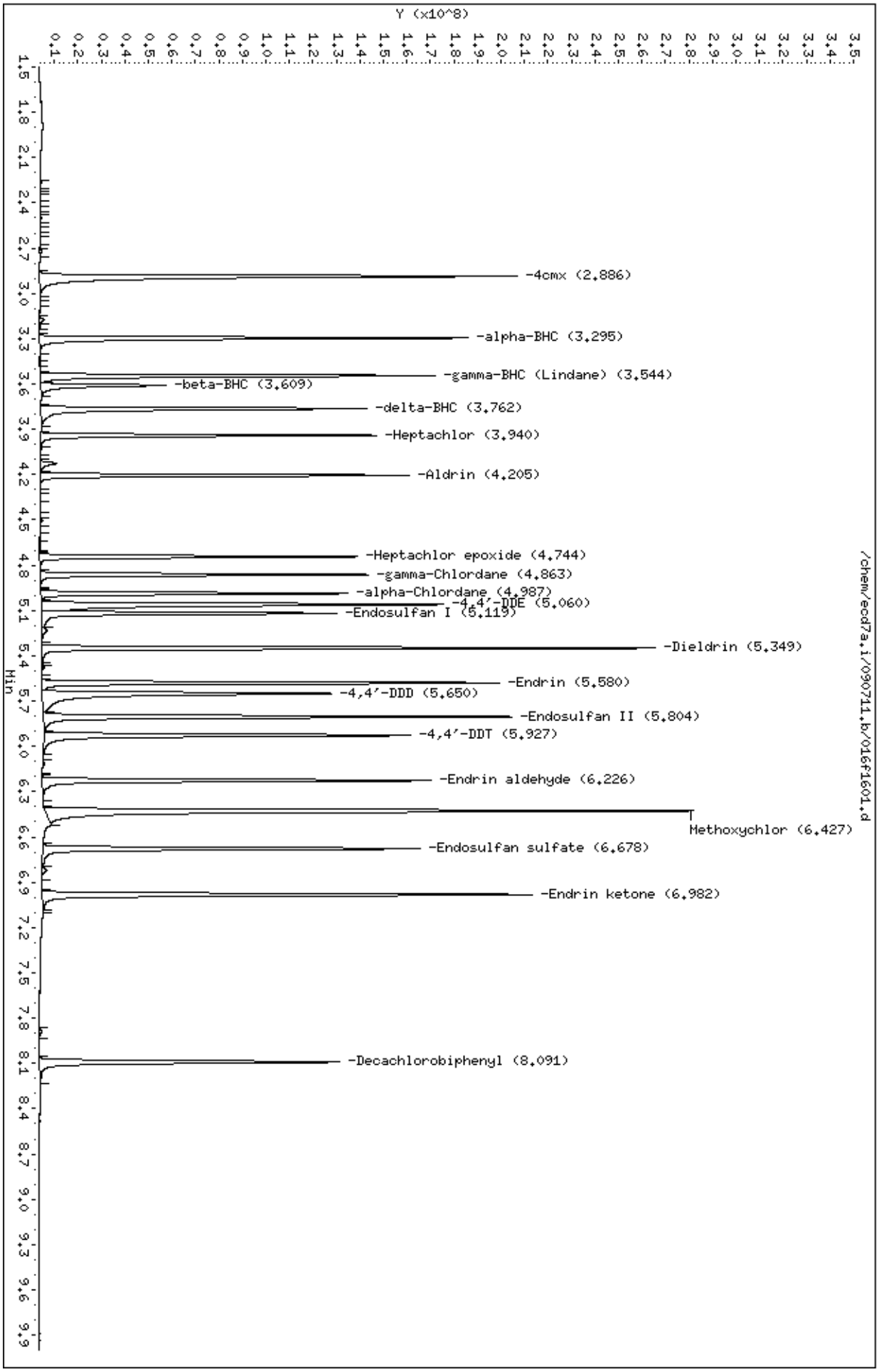
Data file : /chem/ecd7a.i/090711.b/016f1601.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 07-SEP-2011 13:08
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 13:24 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.294	0.001	211427137	100.000	112	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.544	3.543	0.001	189842415	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.609	3.608	0.001	67091622	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.940	3.939	0.001	152742075	100.000	110	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.762	3.762	0.000	180192078	100.000	114	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.205	4.204	0.001	167031919	100.000	105	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.744	4.742	0.002	146896815	100.000	105	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.863	4.862	0.001	151071452	100.000	113	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.987	4.986	0.001	143095706	100.000	110	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.119   5.118   0.001       156821950 100.000      101  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.060   5.058   0.002       244222243 200.000      209  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.349   5.348   0.001       292359363 200.000      219  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.580   5.578   0.002       221167808 200.000      223  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.650   5.650   0.000       205018906 200.000      230  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.804   5.802   0.002       246119148 200.000      219  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.226   6.225   0.001       209971311 200.000      217  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.927   5.926   0.001       213466928 200.000      236  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.678   6.676   0.002       204706309 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.427   6.425   0.002       401982905 1000.00     1030  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  6.982   6.981   0.001       263671184 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.886   2.884   0.002       275485304 200.000      210  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.091   8.090   0.001       176629304 200.000      198  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/090711.b/016f1601.d
Date : 07-SEP-2011 13:08
Client ID: INDAB02
Sample Info: IWPE110812-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/016b1601.d
Lab Smp Id: WPE110812-10AB Client Smp ID: INDAB02
Inj Date : 07-SEP-2011 13:08
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE110812-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 13:25 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.380	3.379	0.001	215022874	100.000	108	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.672	3.671	0.001	196003183	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.733	3.733	0.000	73002805	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.076	4.075	0.001	181414703	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.992	3.991	0.001	182354567	100.000	110	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.376	4.375	0.001	178814891	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.900	4.898	0.002	157218449	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.090	5.089	0.001	163943658	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.231	5.229	0.002	153122721	100.000	106	80.00- 120.00	100.00

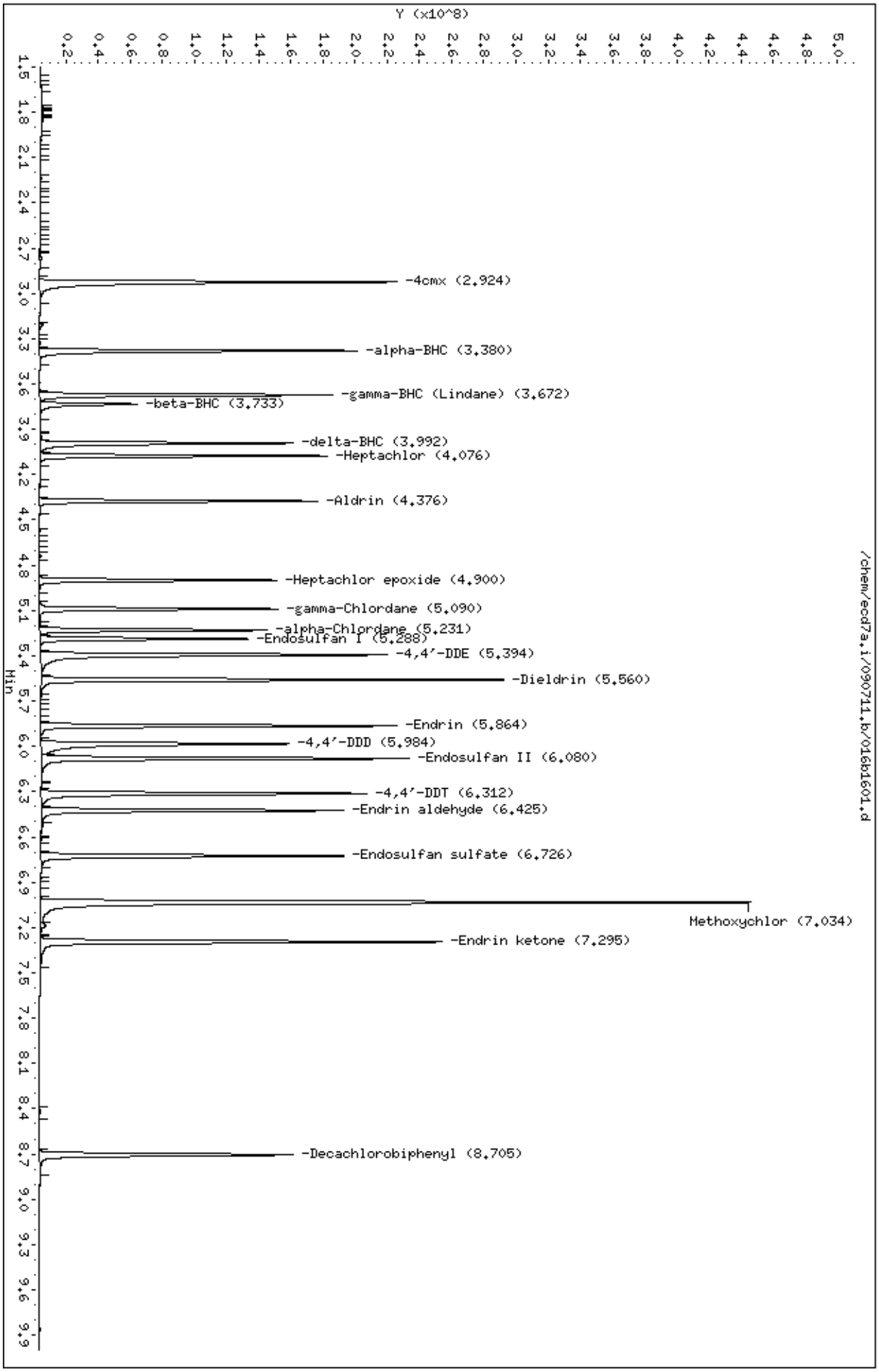
```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.288   5.287   0.001       143146958 100.000      106  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.394   5.391   0.003       288737306 200.000      216  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.560   5.558   0.002       320632715 200.000      213  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.864   5.863   0.001       248491009 200.000      221  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.984   5.983   0.001       226783601 200.000      219  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  6.080   6.079   0.001       274304431 200.000      215  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.425   6.423   0.002       222353902 200.000      211  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  6.312   6.311   0.001       257677970 200.000      225  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.726   6.725   0.001       228862213 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  7.034   7.032   0.002       591357378 1000.00     1040  80.00- 120.00   100.00(M)
-------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.295   7.294   0.001       310404983 200.000      206  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.924   2.923   0.001       279382581 200.000      205  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.705   8.704   0.001       205117644 200.000      197  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

QC Flag Legend

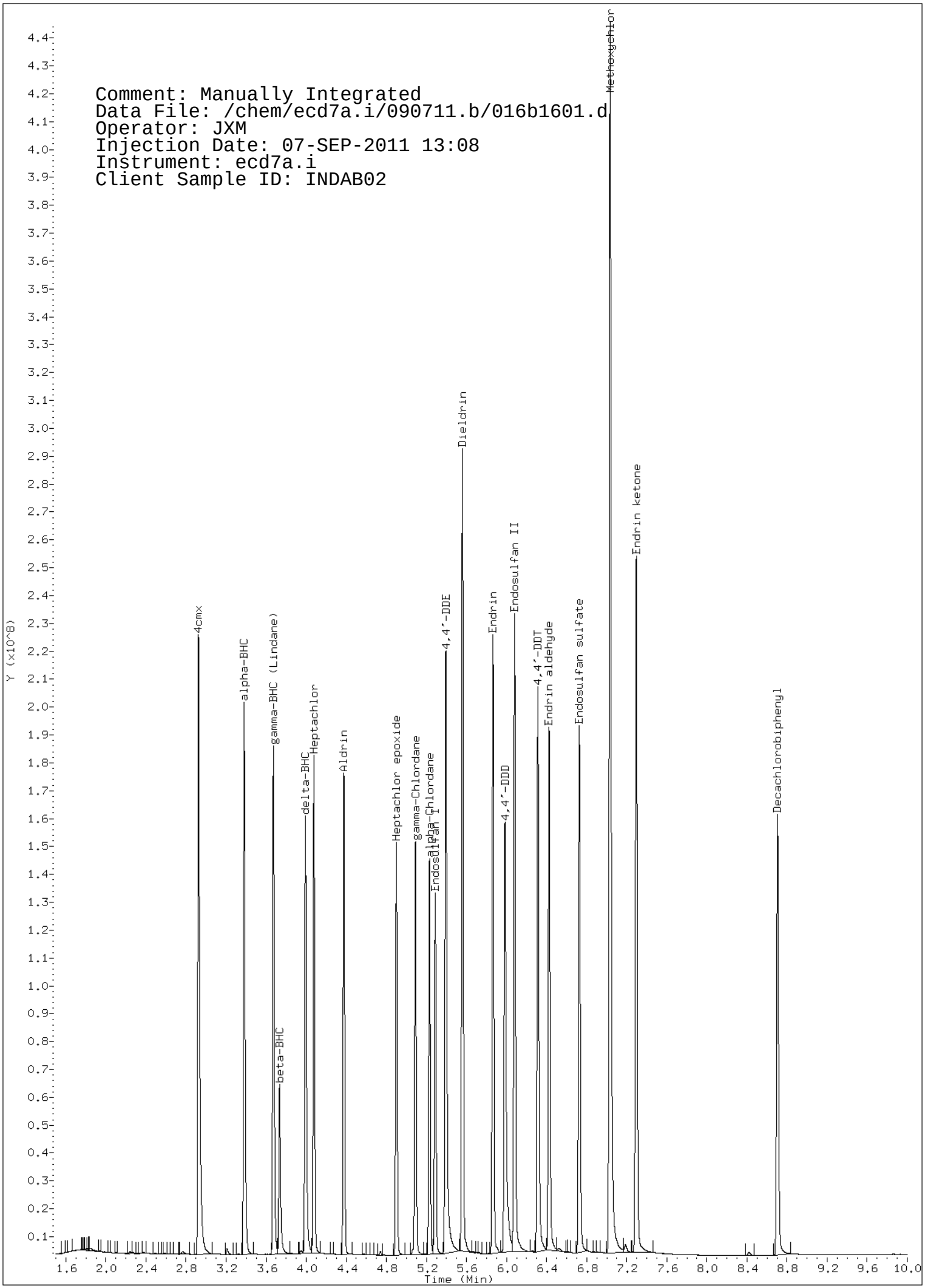
M - Compound response manually integrated.

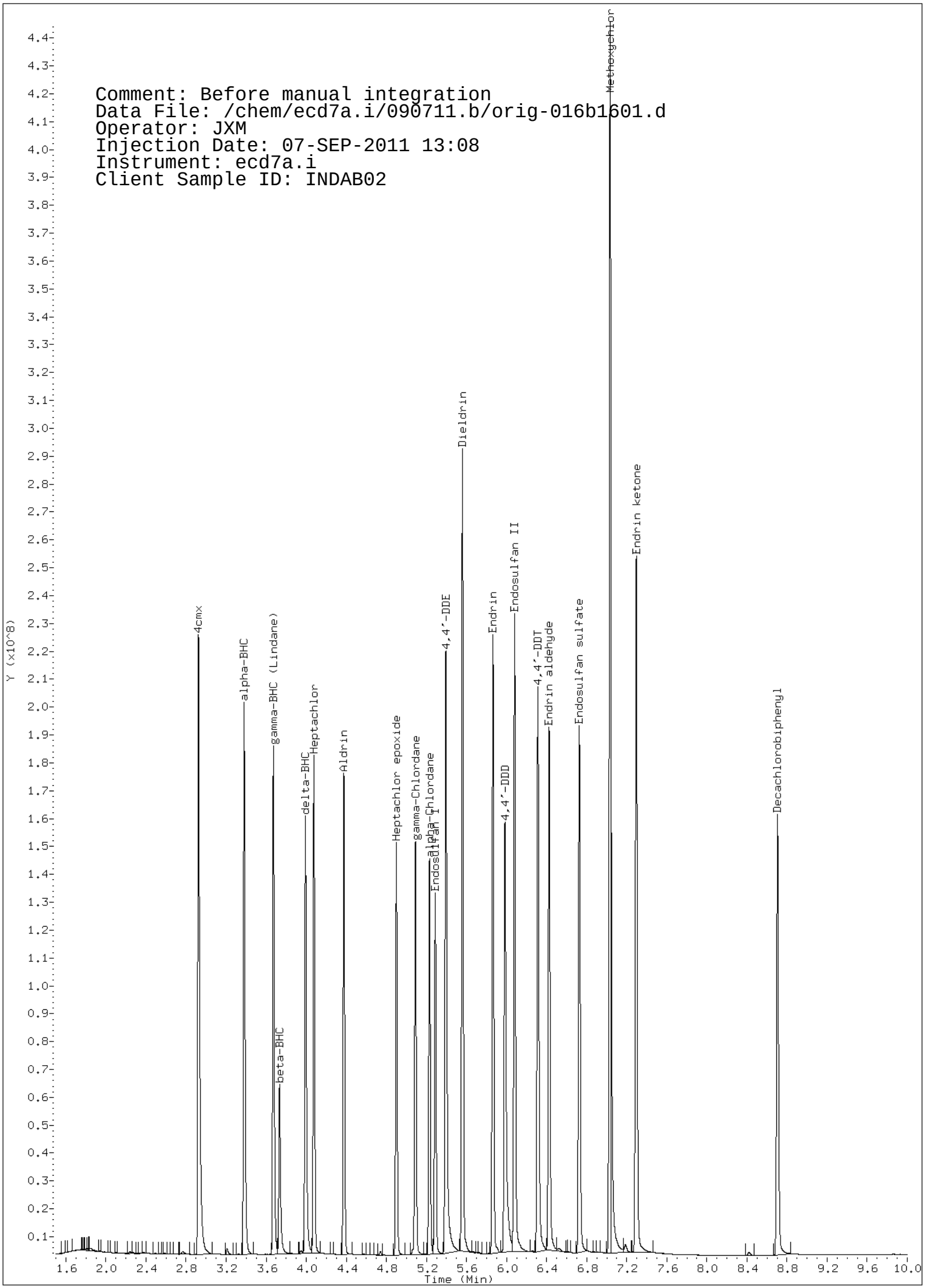
Data File: /chem/ecd7a.i/090711.b/016b1601.d
Date : 07-SEP-2011 13:08
Client ID: INDAB02
Sample Info: IWPE110812-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090711.b/016b1601.d
Operator: JXM
Injection Date: 07-SEP-2011 13:08
Instrument: ecd7a.i
Client Sample ID: INDAB02
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090711.b/orig-016b1601.d
Operator: JXM
Injection Date: 07-SEP-2011 13:08
Instrument: ecd7a.i
Client Sample ID: INDAB02
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-1

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.89 2.86 2.92 #	8.09 8.06 8.12 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001f0101.d	PIBLK01	WAR110902-99IB	06-SEP-11 08:07	2.89	8.09
002f0201.d	PEM01	WPE110829-99DG	06-SEP-11 08:24	2.88	8.09
003f0301.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 08:41	2.89	8.09
004f0401.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 08:58	2.89	8.09
005f0501.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 09:15	2.89	8.09
006f0601.d	CHLOR01	WPE110724-00CL	06-SEP-11 09:32	2.89	8.09
007f0701.d	INDAB01	WPE110906-01AB	06-SEP-11 09:49	2.89	8.1
008f0801.d	INDAB02	WPE110906-02AB	06-SEP-11 10:06	2.89	8.09
009f0901.d	INDAB03	WPE110906-03AB	06-SEP-11 10:23	2.89	8.09
010f1001.d	INDAB04	WPE110906-04AB	06-SEP-11 10:40	2.89	8.09
011f1101.d	INDAB05	IPE110801-02AB	06-SEP-11 10:57	2.89	8.09
012f1201.d	INDAB01	WPE110812-10AB	06-SEP-11 11:14	2.89	8.09
013f1301.d	TOXAPH01	WPE110906-11TX	06-SEP-11 11:31	2.89	8.1
014f1401.d	TOXAPH02	WPE110906-12TX	06-SEP-11 11:48	2.89	8.1
015f1501.d	TOXAPH03	WPE110906-13TX	06-SEP-11 12:05	2.89	8.09
016f1601.d	TOXAPH04	WPE110906-14TX	06-SEP-11 12:22	2.89	8.09
017f1701.d	TOXAPH05	IPE110818-40TX	06-SEP-11 12:40	2.89	8.09
018f1801.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 12:57	2.89	8.09
019f1901.d	GAPA01	WPE110809-05GA	06-SEP-11 13:14	2.89	8.09
020f2001.d	TOXAPH01	WPE110906-52TX	06-SEP-11 13:31	2.89	8.09
021f2101.d	PIBLK02	WAR110902-99IB	06-SEP-11 13:48	2.89	8.09
022f2201.d	PEM02	WPE110829-99DG	06-SEP-11 14:05	2.89	8.1
023f2301A.d	PBLK01	1202479920	06-SEP-11 14:22	2.89	8.09
024f2401A.d	BLK01LCS	1202479921	06-SEP-11 14:39	2.89	8.09
025f2501A.d	BLK01TLCS	1202479924	06-SEP-11 14:56	2.89	8.09
026f2601.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 15:13	2.89	8.09
027f2701.d	CAPU-11-26374MS	1202479922	06-SEP-11 15:30	2.89	8.09
028f2801.d	CAPU-11-26374MSD	1202479923	06-SEP-11 15:47	2.89	8.09
029f2901.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:04	2.89	8.09

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-1

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.89 2.86 2.92 #	8.09 8.06 8.12 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
030f3001.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:21	2.89	8.09
031f3101.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:38	2.89	8.09
032f3201.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:55	ZZZZ	ZZZZ
033f3301.d	INDAB02	WPE110812-10AB	06-SEP-11 17:12	2.89	8.09
034f3401.d	PIBLK03	WAR110902-99IB	06-SEP-11 17:29	2.89	8.09

Column used to flag retention time values with an asterisk.

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-2

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.93 2.9 2.96 #	8.71 8.68 8.74 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001b0101.d	PIBLK01	WAR110902-99IB	06-SEP-11 08:07	2.93	8.71
002b0201.d	PEM01	WPE110829-99DG	06-SEP-11 08:24	2.92	8.71
003b0301.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 08:41	2.92	8.71
004b0401.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 08:58	2.92	8.71
005b0501.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 09:15	2.92	8.71
006b0601.d	CHLOR01	WPE110724-00CL	06-SEP-11 09:32	2.93	8.71
007b0701.d	INDAB01	WPE110906-01AB	06-SEP-11 09:49	2.93	8.71
008b0801.d	INDAB02	WPE110906-02AB	06-SEP-11 10:06	2.93	8.71
009b0901.d	INDAB03	WPE110906-03AB	06-SEP-11 10:23	2.93	8.71
010b1001.d	INDAB04	WPE110906-04AB	06-SEP-11 10:40	2.93	8.71
011b1101.d	INDAB05	IPE110801-02AB	06-SEP-11 10:57	2.92	8.71
012b1201.d	INDAB01	WPE110812-10AB	06-SEP-11 11:14	2.93	8.71
013b1301.d	TOXAPH01	WPE110906-11TX	06-SEP-11 11:31	2.93	8.71
014b1401.d	TOXAPH02	WPE110906-12TX	06-SEP-11 11:48	2.93	8.71
015b1501.d	TOXAPH03	WPE110906-13TX	06-SEP-11 12:05	2.93	8.71
016b1601.d	TOXAPH04	WPE110906-14TX	06-SEP-11 12:22	2.93	8.71
017b1701.d	TOXAPH05	IPE110818-40TX	06-SEP-11 12:40	2.93	8.71
018b1801.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 12:57	2.93	8.71
019b1901.d	GAPA01	WPE110809-05GA	06-SEP-11 13:14	2.93	8.71
020b2001.d	TOXAPH01	WPE110906-52TX	06-SEP-11 13:31	2.93	8.71
021b2101.d	PIBLK02	WAR110902-99IB	06-SEP-11 13:48	2.93	8.71
022b2201.d	PEM02	WPE110829-99DG	06-SEP-11 14:05	2.93	8.71
023b2301A.d	PBLK01	1202479920	06-SEP-11 14:22	2.93	8.71
024b2401A.d	BLK01LCS	1202479921	06-SEP-11 14:39	2.93	8.71
025b2501A.d	BLK01TLCS	1202479924	06-SEP-11 14:56	2.93	8.71
026b2601.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 15:13	2.92	8.71
027b2701.d	CAPU-11-26374MS	1202479922	06-SEP-11 15:30	2.93	8.71
028b2801.d	CAPU-11-26374MSD	1202479923	06-SEP-11 15:47	2.93	8.71
029b2901.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:04	2.93	8.71

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-2

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.93 2.9 2.96 #	8.71 8.68 8.74 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
030b3001.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:21	2.93	8.71
031b3101.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:38	2.93	8.71
032b3201.d	ZZZZZZZ	ZZZZZZZ	06-SEP-11 16:55	ZZZZ	ZZZZ
033b3301.d	INDAB02	WPE110812-10AB	06-SEP-11 17:12	2.93	8.71
034b3401.d	PIBLK03	WAR110902-99IB	06-SEP-11 17:29	2.93	8.71

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-1

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: **RT Range Based on Calibration Verification:**				2.88 2.85 2.91 #	8.09 8.06 8.12 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001f0101.d	PIBLK01	WAR110902-99IB	07-SEP-11 08:53	2.89	8.09
002f0201.d	PEM01	WPE110829-99DG	07-SEP-11 09:10	2.88	8.09
003f0301.d	ZZZZZZZ	ZZZZZZZ	07-SEP-11 09:27	2.88	8.09
004f0401.d	TOXAPH01	WPE110906-52TX	07-SEP-11 09:44	2.88	8.09
005f0501.d	CHLOR01	WPE110724-00CL	07-SEP-11 10:01	2.89	8.09
006f0601.d	INDAB01	WPE110906-01AB	07-SEP-11 10:18	2.89	8.09
007f0701.d	INDAB02	WPE110906-02AB	07-SEP-11 10:35	2.89	8.09
008f0801.d	INDAB03	WPE110906-03AB	07-SEP-11 10:52	2.88	8.09
009f0901.d	INDAB04	WPE110906-04AB	07-SEP-11 11:09	2.89	8.09
010f1001.d	INDAB05	IPE110801-02AB	07-SEP-11 11:26	2.88	8.09
011f1101.d	INDAB01	WPE110812-10AB	07-SEP-11 11:43	2.88	8.09
012f1201.d	PIBLK02	WAR110902-99IB	07-SEP-11 12:00	2.88	8.09
013f1301.d	NPDES03A199-11-13860	285124003	07-SEP-11 12:17	2.88	8.09
014f1401.d	NPDES03A113-11-13857	285124006	07-SEP-11 12:34	2.88	8.09
015f1501.d	PIBLK03	WAR110902-99IB	07-SEP-11 12:51	2.88	8.09
016f1601.d	INDAB02	WPE110812-10AB	07-SEP-11 13:08	2.89	8.09
017f1701.d	PIBLK04	WAR110902-99IB	07-SEP-11 13:25	2.88	8.09

Column used to flag retention time values with an asterisk.

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP-2

Instrument ID: ECD7A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: **RT Range Based on Calibration Verification:**				2.92 2.89 2.95 #	8.7 8.67 8.73 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001b0101.d	PIBLK01	WAR110902-99IB	07-SEP-11 08:53	2.93	8.7
002b0201.d	PEM01	WPE110829-99DG	07-SEP-11 09:10	2.92	8.7
003b0301.d	ZZZZZZZ	ZZZZZZZ	07-SEP-11 09:27	2.92	8.7
004b0401.d	TOXAPH01	WPE110906-52TX	07-SEP-11 09:44	2.92	8.7
005b0501.d	CHLOR01	WPE110724-00CL	07-SEP-11 10:01	2.92	8.7
006b0601.d	INDAB01	WPE110906-01AB	07-SEP-11 10:18	2.93	8.71
007b0701.d	INDAB02	WPE110906-02AB	07-SEP-11 10:35	2.92	8.71
008b0801.d	INDAB03	WPE110906-03AB	07-SEP-11 10:52	2.92	8.71
009b0901.d	INDAB04	WPE110906-04AB	07-SEP-11 11:09	2.92	8.71
010b1001.d	INDAB05	IPE110801-02AB	07-SEP-11 11:26	2.92	8.7
011b1101.d	INDAB01	WPE110812-10AB	07-SEP-11 11:43	2.92	8.7
012b1201.d	PIBLK02	WAR110902-99IB	07-SEP-11 12:00	2.92	8.71
013b1301.d	NPDES03A199-11-13860	285124003	07-SEP-11 12:17	2.92	8.7
014b1401.d	NPDES03A113-11-13857	285124006	07-SEP-11 12:34	2.92	8.7
015b1501.d	PIBLK03	WAR110902-99IB	07-SEP-11 12:51	2.92	8.71
016b1601.d	INDAB02	WPE110812-10AB	07-SEP-11 13:08	2.92	8.71
017b1701.d	PIBLK04	WAR110902-99IB	07-SEP-11 13:25	2.92	8.71

Column used to flag retention time values with an asterisk.

Identification Summary

SDG Number: 11-3386 **Client ID:** LCS for batch 1138553

Lab Sample ID: 1202479921

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	06-SEP-11 14:39	**Analyzed:**	06-SEP-11 14:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							.735
Column 1	1	3.3	3.27 - 3.33	.432		ug/L	
Column 2	1	3.38	3.35 - 3.41	.429		ug/L	
gamma-BHC (Lindane)							1.99
Column 1	1	3.55	3.52 - 3.58	.444		ug/L	
Column 2	1	3.68	3.65 - 3.71	.435		ug/L	
beta-BHC							.0275
Column 1	1	3.61	3.58 - 3.64	.42		ug/L	
Column 2	1	3.74	3.71 - 3.77	.42		ug/L	
delta-BHC							.149
Column 1	1	3.76	3.73 - 3.79	.461		ug/L	
Column 2	1	4	3.97 - 4.03	.462		ug/L	
Methoxychlor							1.28
Column 1	1	6.42	6.4 - 6.46	4.97		ug/L	
Column 2	1	7.03	7.01 - 7.07	5.04		ug/L	

Identification Summary

SDG Number: 11-3386 **Client ID:** LCS for batch 1138553

Lab Sample ID: 1202479921

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	06-SEP-11 14:39	**Analyzed:**	06-SEP-11 14:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Heptachlor							3.43
Column 1	1	3.94	3.91 - 3.97	.424		ug/L	
Column 2	1	4.08	4.05 - 4.11	.409		ug/L	
Aldrin							.576
Column 1	1	4.21	4.18 - 4.24	.401		ug/L	
Column 2	1	4.38	4.35 - 4.41	.403		ug/L	
Heptachlor epoxide							.959
Column 1	1	4.75	4.72 - 4.78	.446		ug/L	
Column 2	1	4.9	4.87 - 4.93	.442		ug/L	
gamma-Chlordane							2.13
Column 1	1	4.86	4.84 - 4.9	.457		ug/L	
Column 2	1	5.09	5.06 - 5.12	.467		ug/L	
alpha-Chlordane							11.3
Column 1	1	4.99	4.96 - 5.02	.445		ug/L	
Column 2	1	5.23	5.21 - 5.27	.498		ug/L	

Identification Summary

SDG Number: 11-3386 **Client ID:** LCS for batch 1138553

Lab Sample ID: 1202479921

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	06-SEP-11 14:39	**Analyzed:**	06-SEP-11 14:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan I							17.1
Column 1	1	5.12	5.09 - 5.15	.322		ug/L	
Column 2	1	5.29	5.26 - 5.32	.383		ug/L	
4,4'-DDE							12.3
Column 1	1	5.05	5.03 - 5.09	1.18		ug/L	
Column 2	1	5.39	5.37 - 5.43	1.05		ug/L	
Dieldrin							1.58
Column 1	1	5.35	5.32 - 5.38	1.14		ug/L	
Column 2	1	5.56	5.53 - 5.59	1.15		ug/L	
Endrin							6.99
Column 1	1	5.58	5.55 - 5.61	1.16		ug/L	
Column 2	1	5.87	5.84 - 5.9	1.08		ug/L	
4,4'-DDD							9.24
Column 1	1	5.64	5.62 - 5.68	1.18		ug/L	
Column 2	1	5.98	5.96 - 6.02	1.08		ug/L	

Identification Summary

SDG Number: 11-3386 **Client ID:** LCS for batch 1138553

Lab Sample ID: 1202479921

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	06-SEP-11 14:39	**Analyzed:**	06-SEP-11 14:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endosulfan II							4.39
Column 1	1	5.8	5.78 - 5.84	1.02		ug/L	
Column 2	1	6.08	6.06 - 6.12	.98		ug/L	
Endrin aldehyde							4.26
Column 1	1	6.23	6.2 - 6.26	1.04		ug/L	
Column 2	1	6.43	6.4 - 6.46	1.09		ug/L	
4,4'-DDT							3.07
Column 1	1	5.92	5.9 - 5.96	1.21		ug/L	
Column 2	1	6.31	6.29 - 6.35	1.18		ug/L	
Endosulfan sulfate							1.34
Column 1	1	6.68	6.65 - 6.71	1.22		ug/L	
Column 2	1	6.73	6.7 - 6.76	1.24		ug/L	
Endrin ketone							.66
Column 1	1	6.98	6.96 - 7.02	1.25		ug/L	
Column 2	1	7.3	7.27 - 7.33	1.26		ug/L	

Identification Summary

SDG Number: **11-3386**

Client ID: **LCS for batch 1138553**

Lab Sample ID: **1202479924**

Data File:	**025f2501.d**	**Data File:**	**025b2501.d**
Inst:	**ECD7A.I_1**	**Inst:**	**ECD7A.I_2**
Column:	**CLP-1**	**Column:**	**CLP-2**
Analyzed:	**06-SEP-11 14:56**	**Analyzed:**	**06-SEP-11 14:56**

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							20
Column 1	1	5.8	5.77 - 5.83	4.2		ug/L	
	2	5.92	5.89 - 5.95	3.76		ug/L	
	3	6.12	6.11 - 6.17	11.8		ug/L	
	4	6.48	6.46 - 6.52	4.94		ug/L	
	5	6.59	6.56 - 6.62	4.06		ug/L	
					5.76		
Column 2	1	5.84	5.81 - 5.87	4.56		ug/L	
	2	6.07	6.05 - 6.11	5.24		ug/L	
	3	6.18	6.15 - 6.21	4.65		ug/L	
	4	6.45	6.42 - 6.48	5.03		ug/L	
	5	7	6.97 - 7.03	4.1		ug/L	
					4.72		

QC Data

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WATER**
Lab Sample ID:	**1202479920**				
Client Sample:	**QC for batch 1138553**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1138553**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 14:22**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	023b2301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.00665	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.00665	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.00665	0.020	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
319-86-8	delta-BHC	U	0.020	ug/L	0.00665	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.00665	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.00665	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.00665	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.00665	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.00665	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.00665	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.010	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.00665	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.00	1.00	ug/L	100	(23%-119%)
4cmx	0.733	1.00	ug/L	73.3	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/023f2301A.d
Lab Smp Id: 1202479920 Client Smp ID: PBLK01
Inj Date : 06-SEP-2011 14:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479920|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MB|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 23 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	192033099	152.075	0.760	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.092	-0.003	155105410	200.376	1.00	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/023f2301A.d

Page 1

Date : 06-SEP-2011 14:22

Client ID: PBLK01

Instrument: ecd7a.i

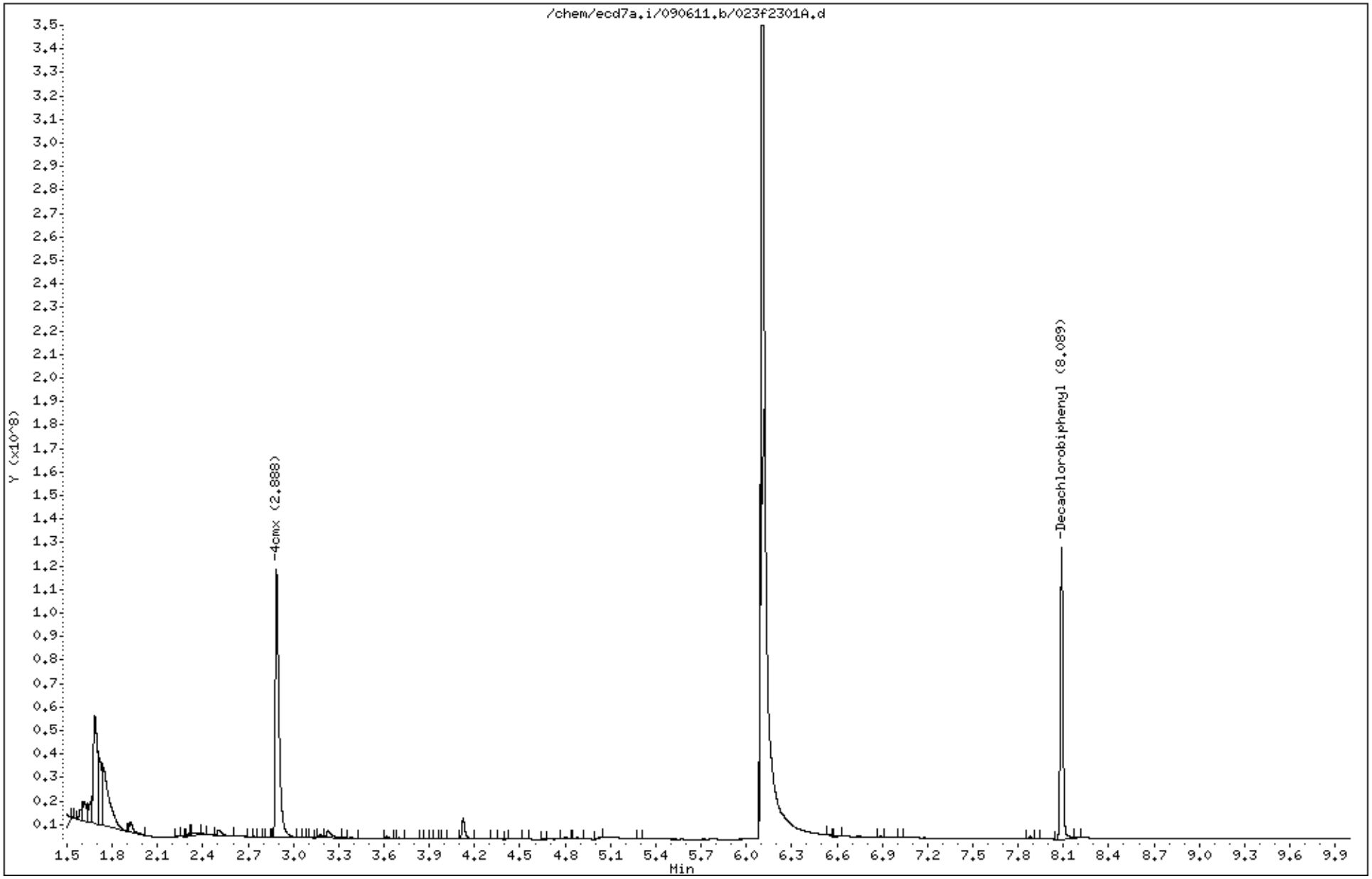
Sample Info: |1202479920|1|

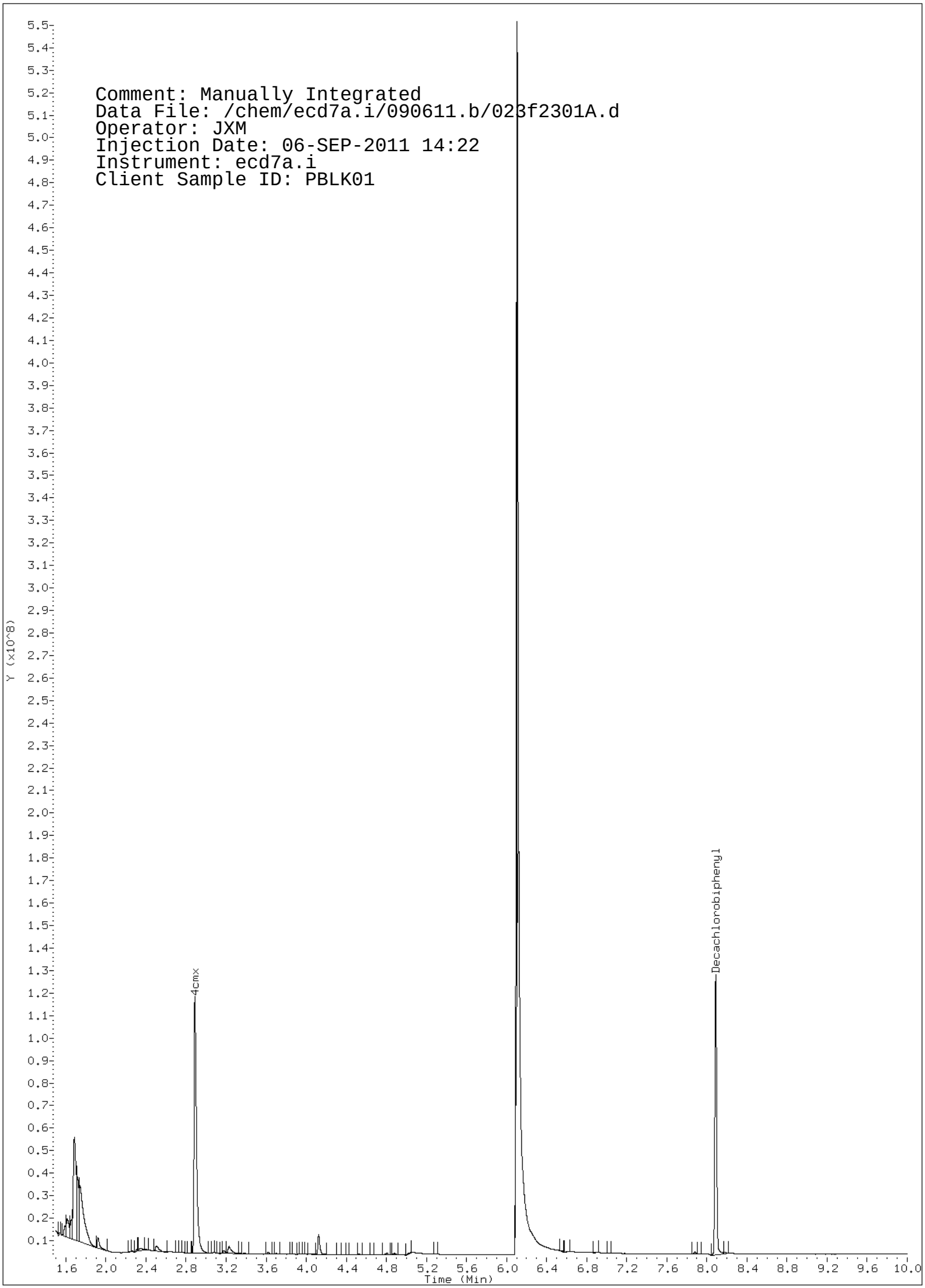
Volume Injected (uL): 1.0

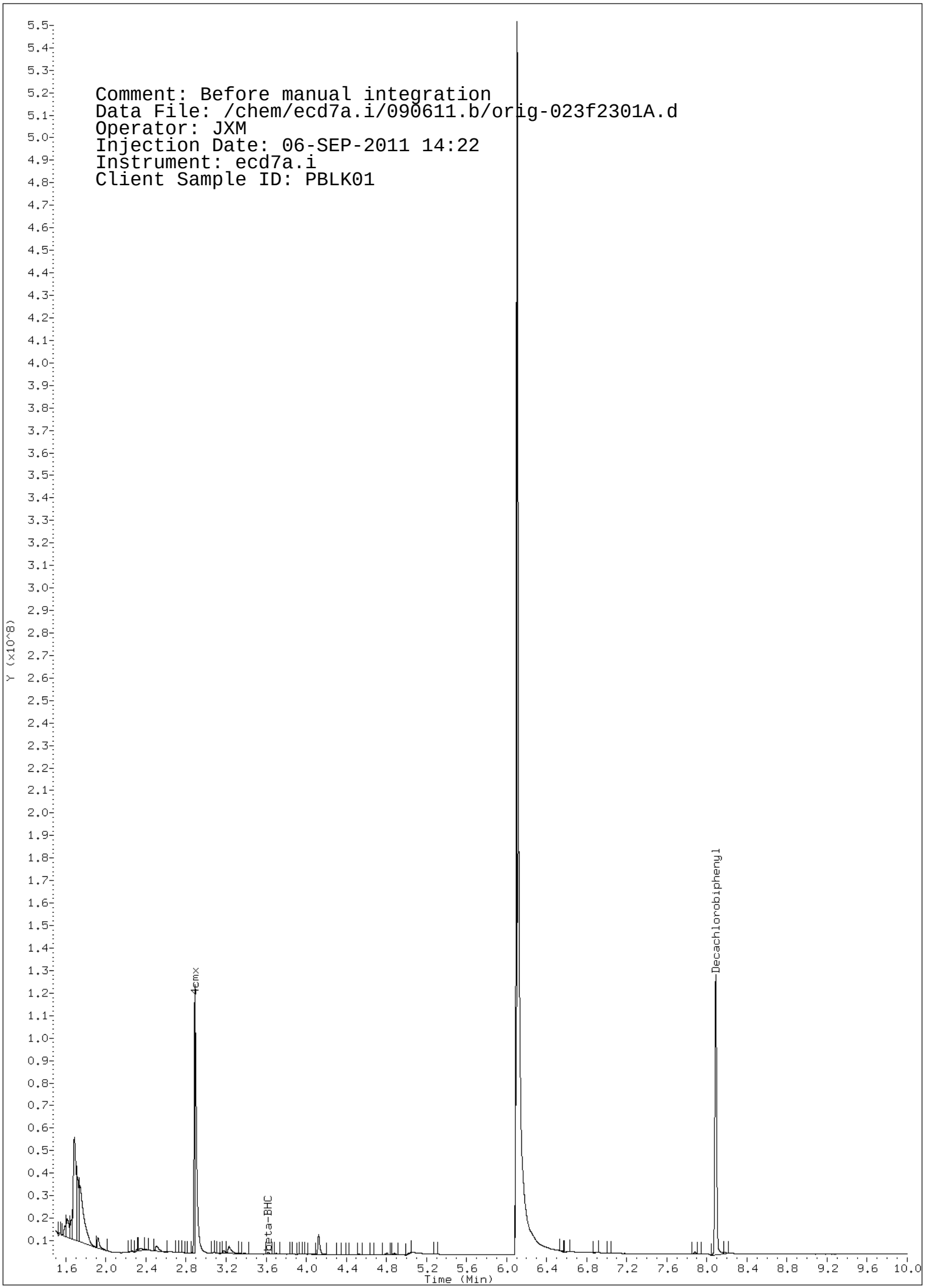
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/023f2301A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:22
Instrument: ecd7a.i
Client Sample ID: PBLK01
4cmx
Decachlorobiphenyl
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-023f2301A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:22
Instrument: ecd7a.i
Client Sample ID: PBLK01
4emx
beta-BHC
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/023b2301A.d
Lab Smp Id: 1202479920 Client Smp ID: PBLK01
Inj Date : 06-SEP-2011 14:22
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479920|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MB|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 23 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	199062366	146.506	0.732	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.706	8.708	-0.002	189195841	202.861	1.01	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/023b2301A.d

Page 1

Date : 06-SEP-2011 14:22

Client ID: PBLK01

Instrument: ecd7a.i

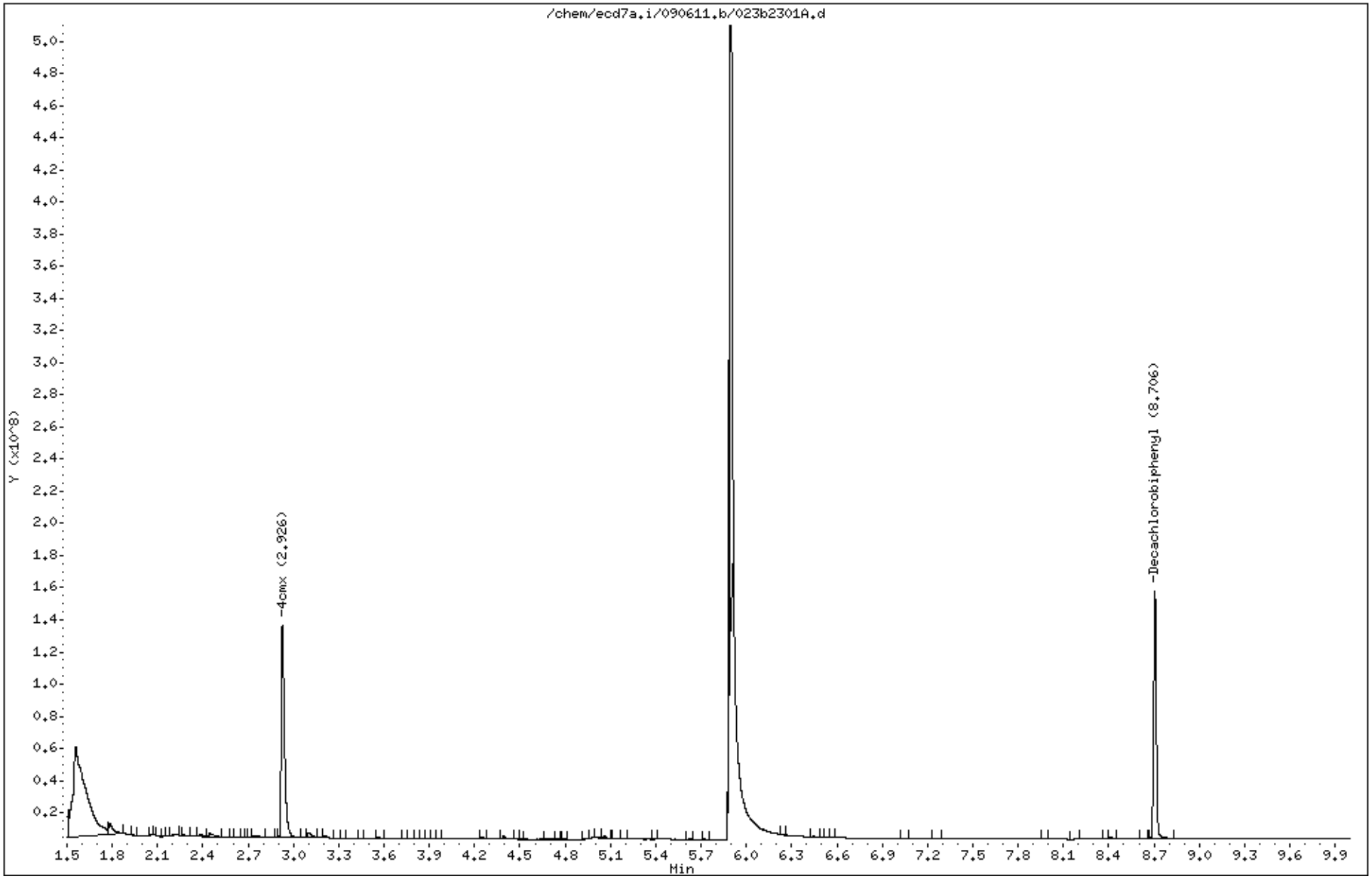
Sample Info: |120247992011|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WATER**
Lab Sample ID:	**1202479921**				
Client Sample:	**QC for batch 1138553**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138553**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 14:39**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	024b2401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.429	ug/L	0.00665	0.020	2
58-89-9	gamma-BHC (Lindane)		0.435	ug/L	0.00665	0.020	2
319-85-7	beta-BHC		0.420	ug/L	0.00665	0.020	2
72-43-5	Methoxychlor		4.97	ug/L	0.050	0.200	1
319-86-8	delta-BHC		0.461	ug/L	0.00665	0.020	1
76-44-8	Heptachlor		0.409	ug/L	0.00665	0.020	2
309-00-2	Aldrin		0.401	ug/L	0.00665	0.020	1
1024-57-3	Heptachlor epoxide		0.442	ug/L	0.00665	0.020	2
5103-74-2	gamma-Chlordane		0.457	ug/L	0.00665	0.020	1
5103-71-9	alpha-Chlordane		0.445	ug/L	0.00665	0.020	1
959-98-8	Endosulfan I		0.322	ug/L	0.00665	0.020	1
72-55-9	4,4'-DDE		1.05	ug/L	0.010	0.040	2
60-57-1	Dieldrin		1.14	ug/L	0.010	0.040	1
72-20-8	Endrin		1.08	ug/L	0.010	0.040	2
72-54-8	4,4'-DDD		1.08	ug/L	0.010	0.040	2
33213-65-9	Endosulfan II		0.980	ug/L	0.010	0.040	2
7421-93-4	Endrin aldehyde		1.04	ug/L	0.00665	0.040	1
50-29-3	4,4'-DDT		1.18	ug/L	0.010	0.040	2
1031-07-8	Endosulfan sulfate		1.22	ug/L	0.010	0.040	1
53494-70-5	Endrin ketone		1.25	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.880	1.00	ug/L	88.0	(23%-119%)
4cmx	0.686	1.00	ug/L	68.6	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/024f2401A.d
Lab Smp Id: 1202479921 Client Smp ID: PBLK01LCS
Inj Date : 06-SEP-2011 14:39
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479921|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 24 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	179178037	141.895	0.709	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.092	-0.003	136226752	175.987	0.880	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	154825869	86.4257	0.432	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.546	0.001	140518210	88.7767	0.444	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.611	3.612	-0.001	53702761	83.9852	0.420	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.422	6.428	-0.006	295755432	994.560	4.97	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.765	3.765	0.000	133667579	92.2797	0.461	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	105277477	84.7530	0.424	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.207	4.208	-0.001	117806018	80.1462	0.401	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.746	4.746	0.000	114979903	89.1602	0.446	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.865	4.866	-0.001	113688569	91.4097	0.457	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	108976561	88.9715	0.445	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.121	5.122	-0.001	92852947	64.4840	0.322	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.055	5.062	-0.007	224687677	236.538	1.18	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.351	5.352	-0.001	275061180	227.142	1.14	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.581	5.582	-0.001	213199942	232.365	1.16	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.640	5.651	-0.011	179812879	236.631	1.18	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.804	5.806	-0.002	207807941	204.722	1.02	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	176122083	208.807	1.04	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.922	5.928	-0.006	188114458	242.435	1.21	80.00- 120.00	100.00

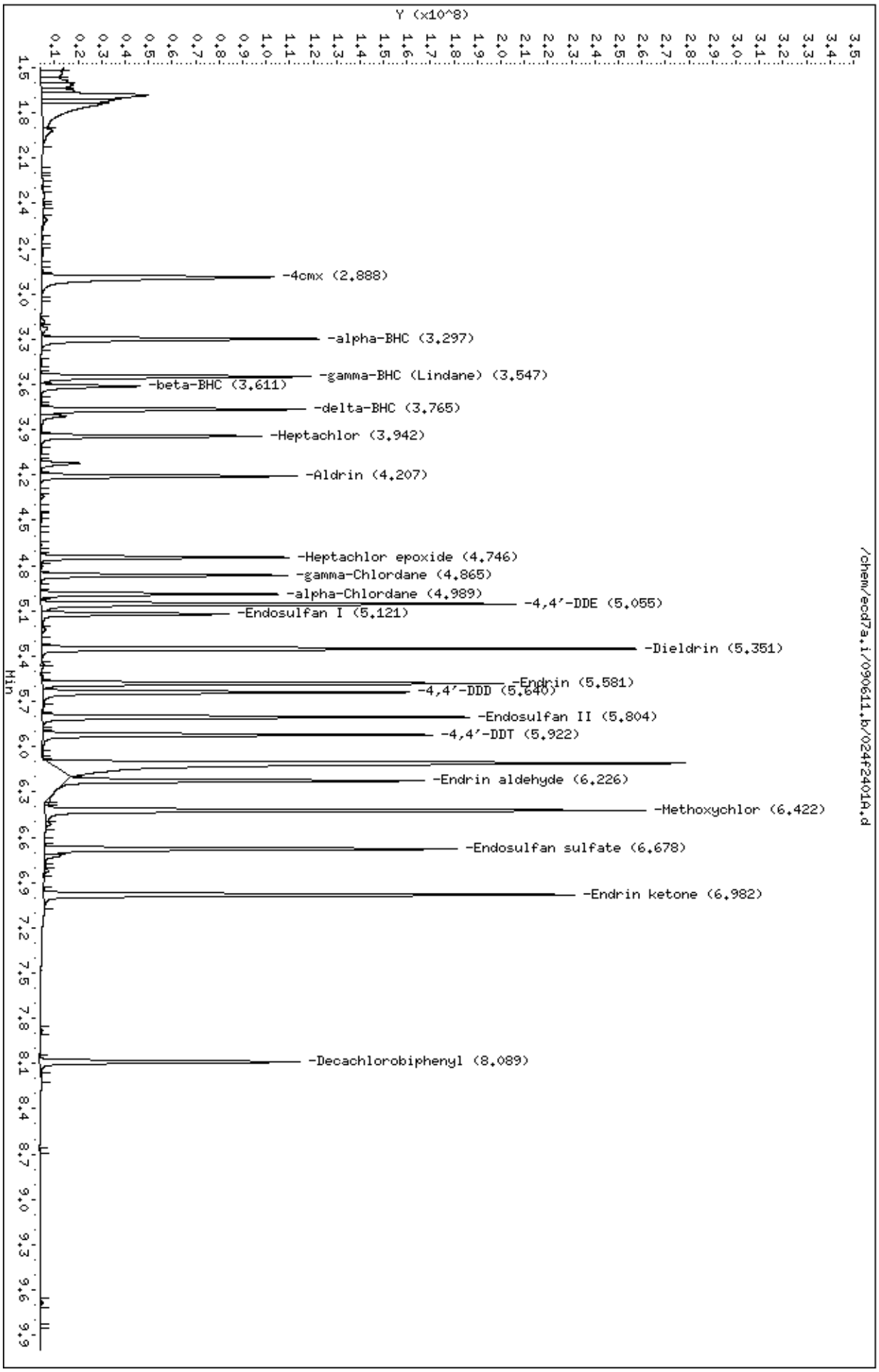
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.678	6.680	-0.002	210279693	244.867	1.22	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.982	6.985	-0.003	270990636	250.841	1.25	80.00- 120.00	100.00

QC Flag Legend

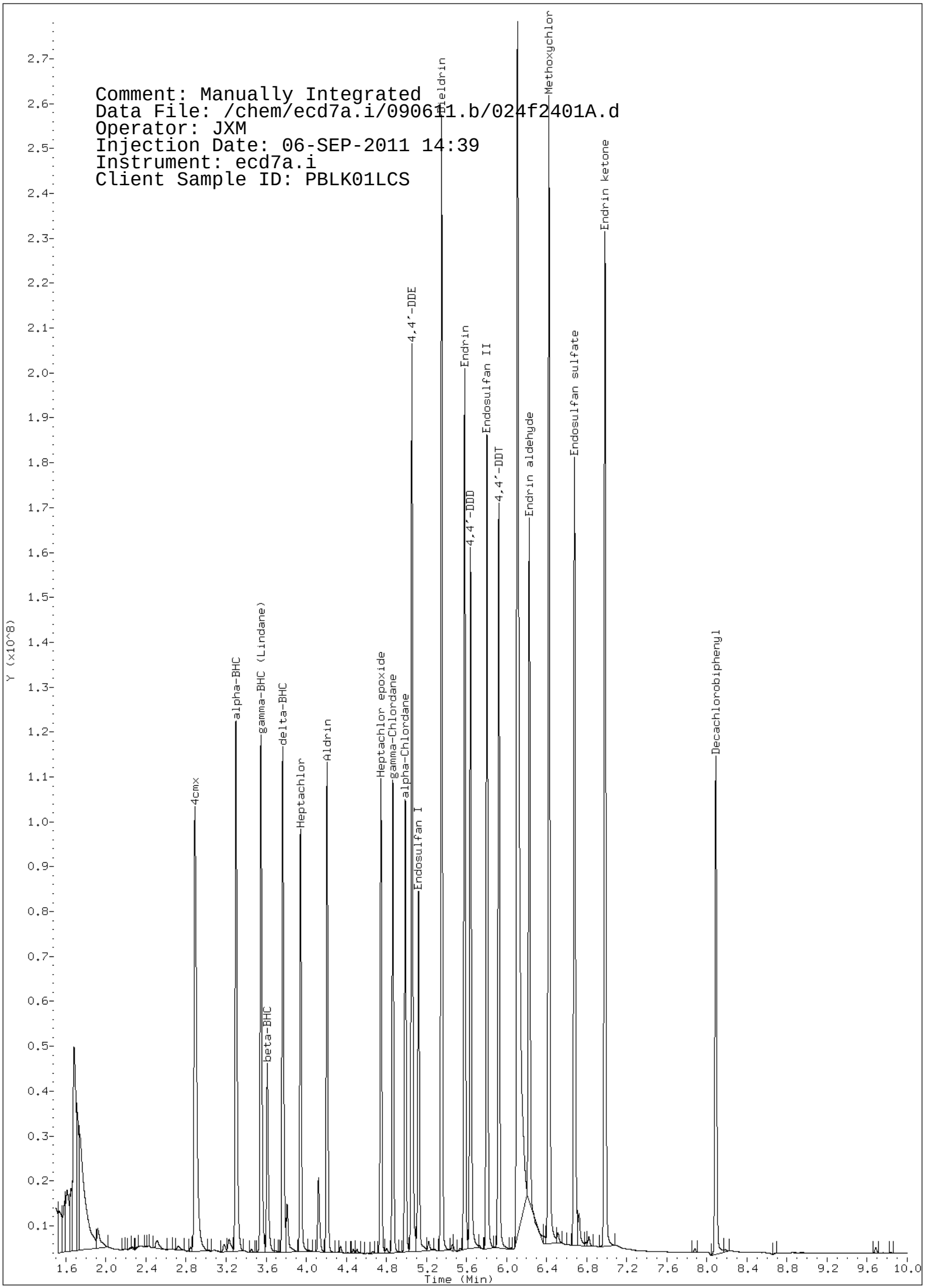
M - Compound response manually integrated.

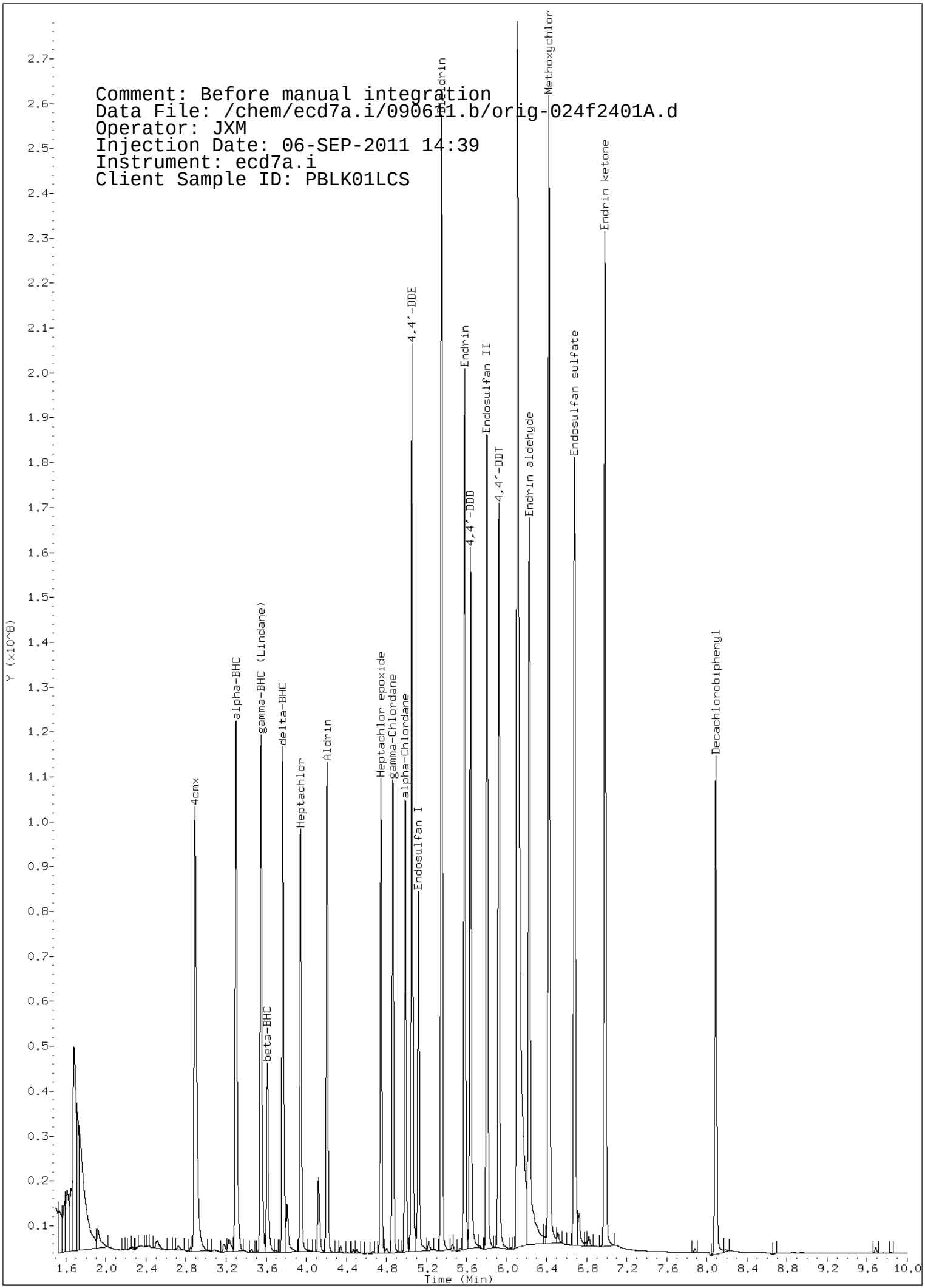
Data File: /chem/ecd7a.i/090611.b/024f2401A.d
Date : 06-SEP-2011 14:39
Client ID: PBLK01LCS
Sample Info: 1120247992111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/024f2401A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:39
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-024f2401A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:39
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Methoxychlor
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/024b2401A.d
Lab Smp Id: 1202479921 Client Smp ID: PBLK01LCS
Inj Date : 06-SEP-2011 14:39
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479921|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 24 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	186533173	137.285	0.686	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.707	8.708	-0.001	166088948	178.085	0.890	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.382	3.383	-0.001	165591781	85.7929	0.429	80.00- 120.00	100.00(M)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	151411306	87.0305	0.435	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.736	3.737	-0.001	58510261	83.9621	0.420	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.033	7.037	-0.004	450012437	1007.40	5.04	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.995	3.996	-0.001	151056147	92.4178	0.462	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.080	4.080	0.000	132291761	81.8987	0.409	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	133650015	80.6089	0.403	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	128755695	88.3093	0.442	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.093	5.094	-0.001	130821661	93.3740	0.467	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.233	5.235	-0.002	135603616	99.6320	0.498	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.292	5.292	0.000	97271507	76.5439	0.383	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.392	5.397	-0.005	261610954	209.104	1.04	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.562	5.564	-0.002	323606928	230.761	1.15	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.867	5.869	-0.002	234196033	216.673	1.08	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.978	5.987	-0.009	206944827	215.731	1.08	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
6.082	6.085	-0.003	233533327	195.927	0.980	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.426	6.428	-0.002	209322460	217.898	1.09	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.311	6.316	-0.005	241337627	235.106	1.18	80.00- 120.00	100.00

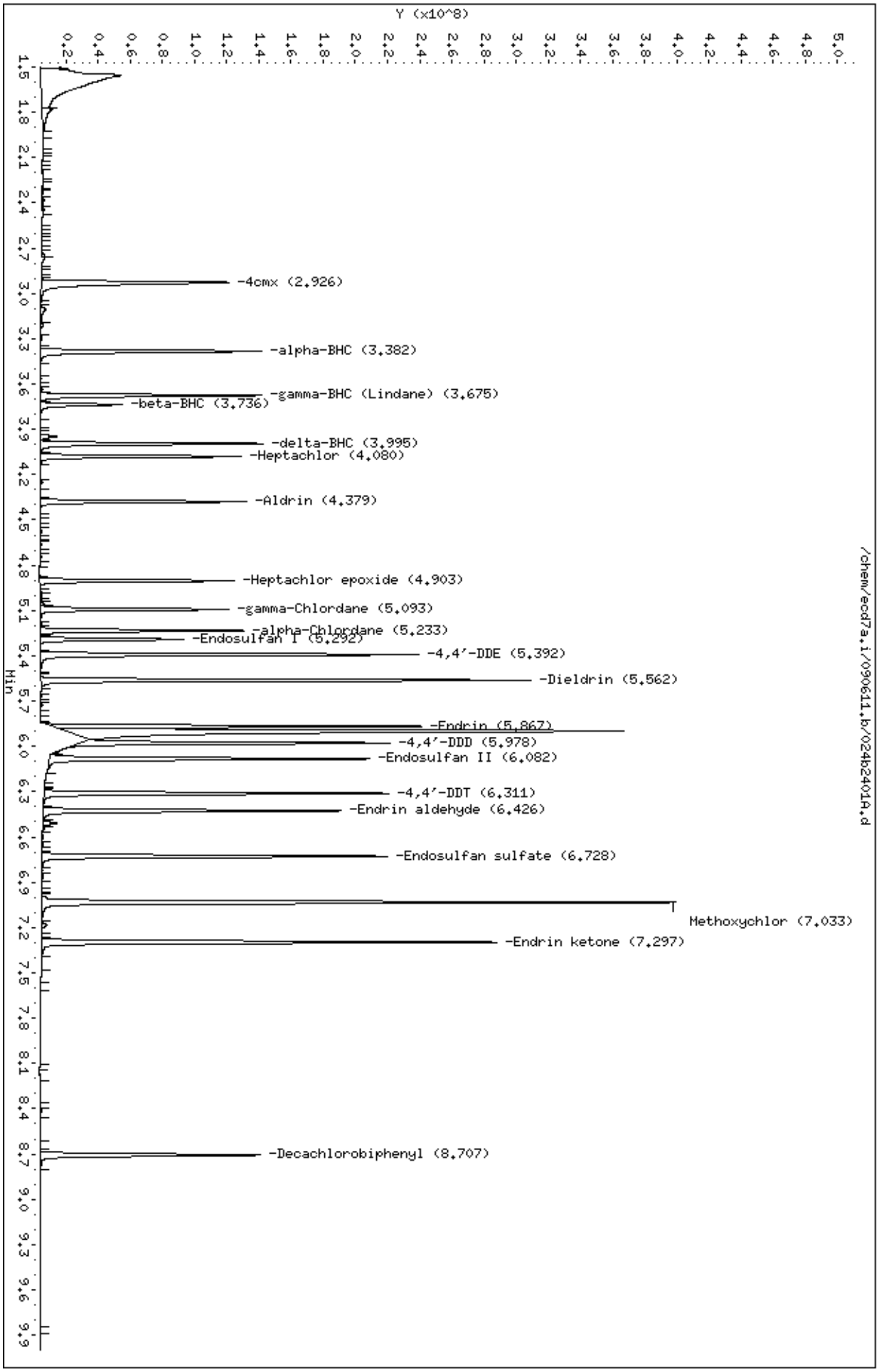
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.728	6.730	-0.002	247023527	248.164	1.24	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.297	7.299	-0.002	336388753	252.502	1.26	80.00- 120.00	100.00

QC Flag Legend

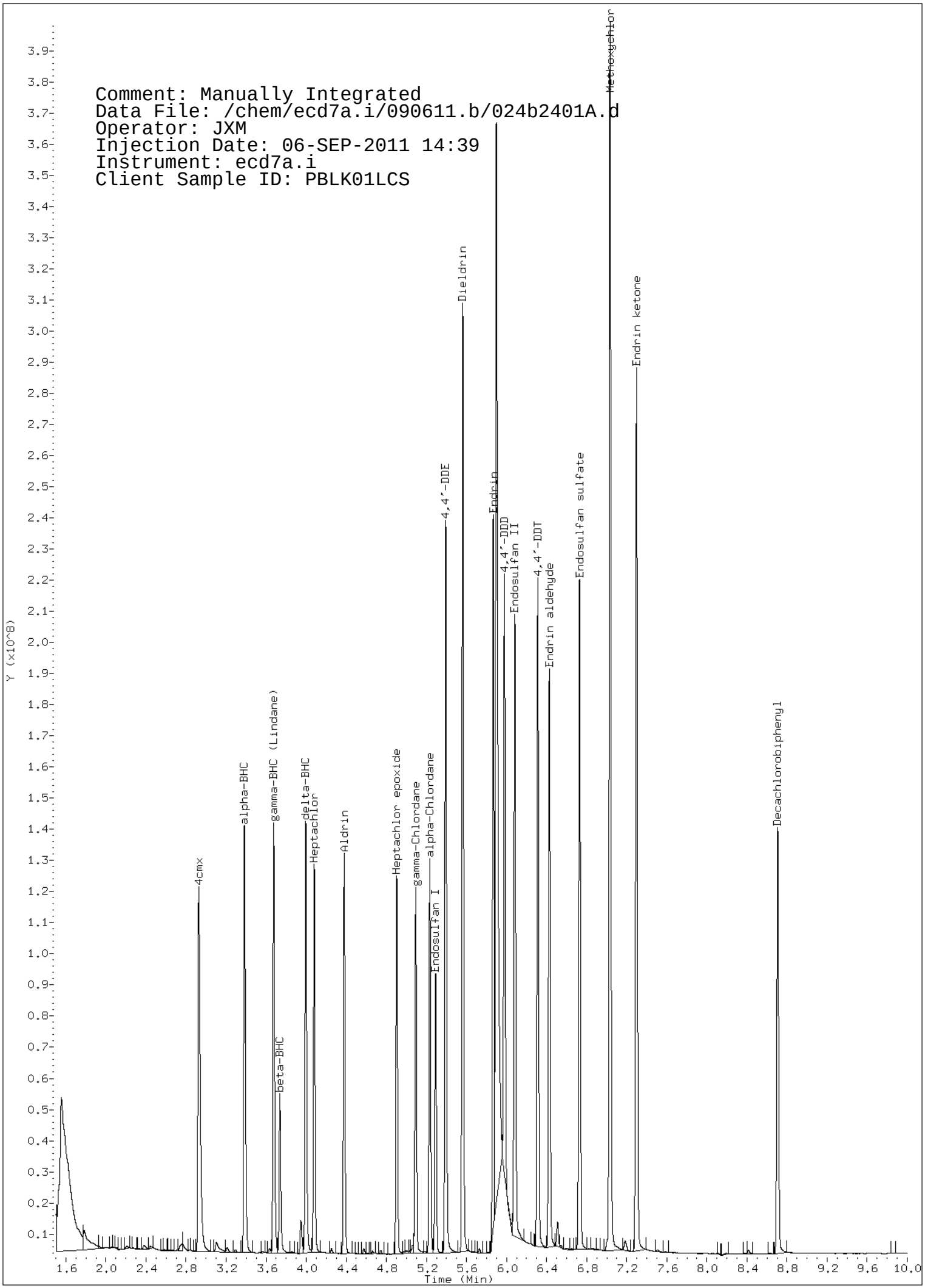
M - Compound response manually integrated.

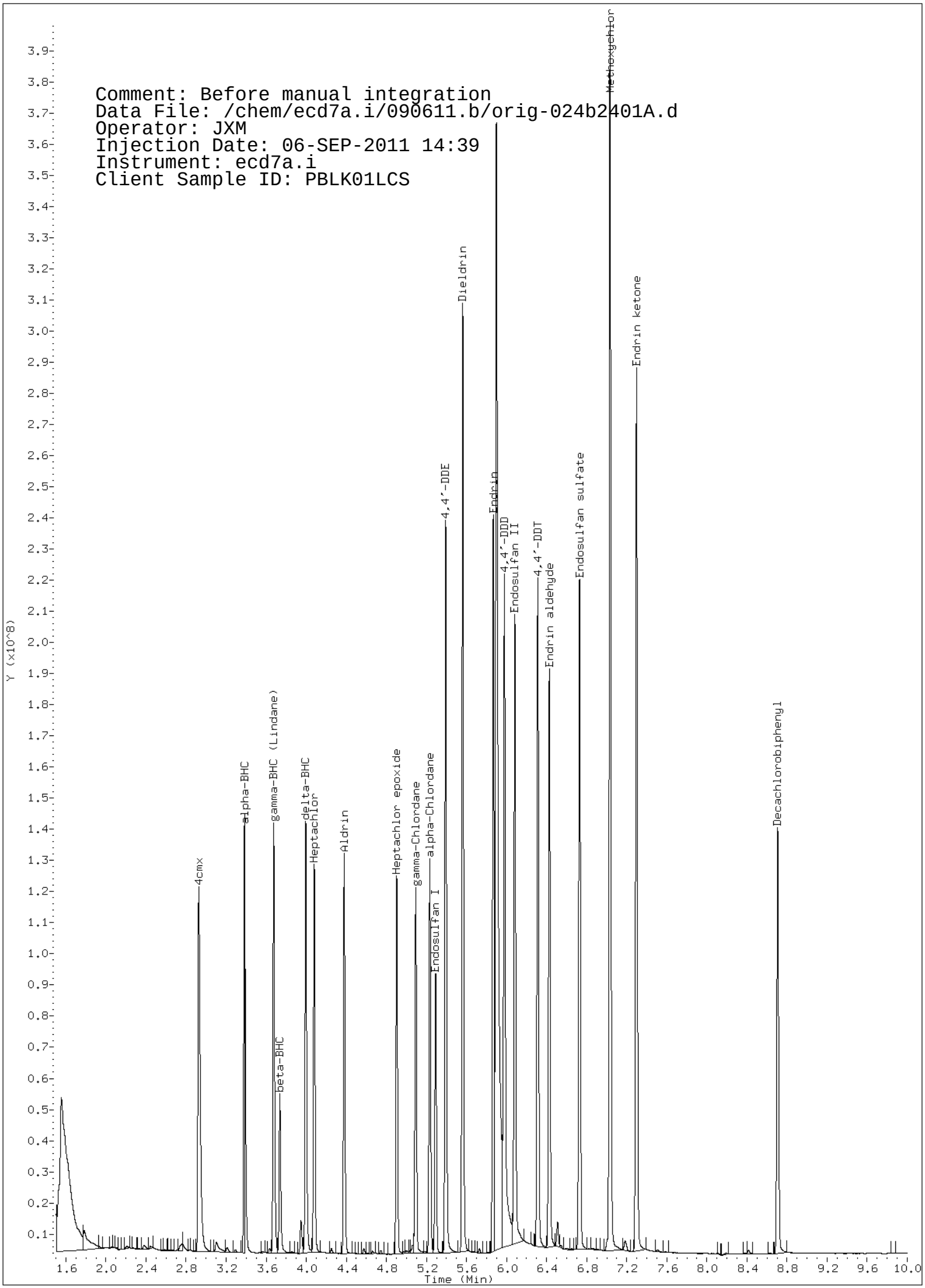
Data File: /chem/ecd7a.i/090611.b/024b2401A.d
Date : 06-SEP-2011 14:39
Client ID: PBLK01LCS
Sample Info: 1120247992111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1


Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/024b2401A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:39
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-024b2401A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:39
Instrument: ecd7a.i
Client Sample ID: PBLK01LCS
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WATER**
Lab Sample ID:	**1202479924**				
Client Sample:	**QC for batch 1138553**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138553**	**Method:**	**SW846 3535A/8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**1138554**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 14:56**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:55**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	025b2501.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.00665	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.00665	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.00665	0.020	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
319-86-8	delta-BHC	U	0.020	ug/L	0.00665	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.00665	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.00665	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.00665	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.00665	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.00665	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.00665	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.010	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.00665	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		4.71	ug/L	0.150	0.500	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.13	1.00	ug/L	113	(23%-119%)
4cmx	0.773	1.00	ug/L	77.3	(21%-109%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/025f2501A.d
Lab Smp Id: 1202479924 Client Smp ID: PBLK01TLCS
Inj Date : 06-SEP-2011 14:56
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479924|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	201420669	159.509	0.798	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.088	8.092	-0.004	175276197	226.434	1.13	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.796	5.797	-0.001	38305172	839.544	4.20	80.00- 120.00	100.00(RM)
5.918	5.918	0.000	19268893	752.441	3.76	39.31- 79.31	50.30
6.124	6.144	-0.020	64196833	2368.45	11.8	42.64- 82.64	167.59
6.483	6.486	-0.003	28797407	987.817	4.94	49.79- 89.79	75.18
6.587	6.590	-0.003	27353769	812.625	4.06	52.45- 92.45	71.41

Average of Peak Concentrations = 5.75

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/025f2501A.d

Page 1

Date : 06-SEP-2011 14:56

Client ID: PBLK01TLCS

Instrument: ecd7a.i

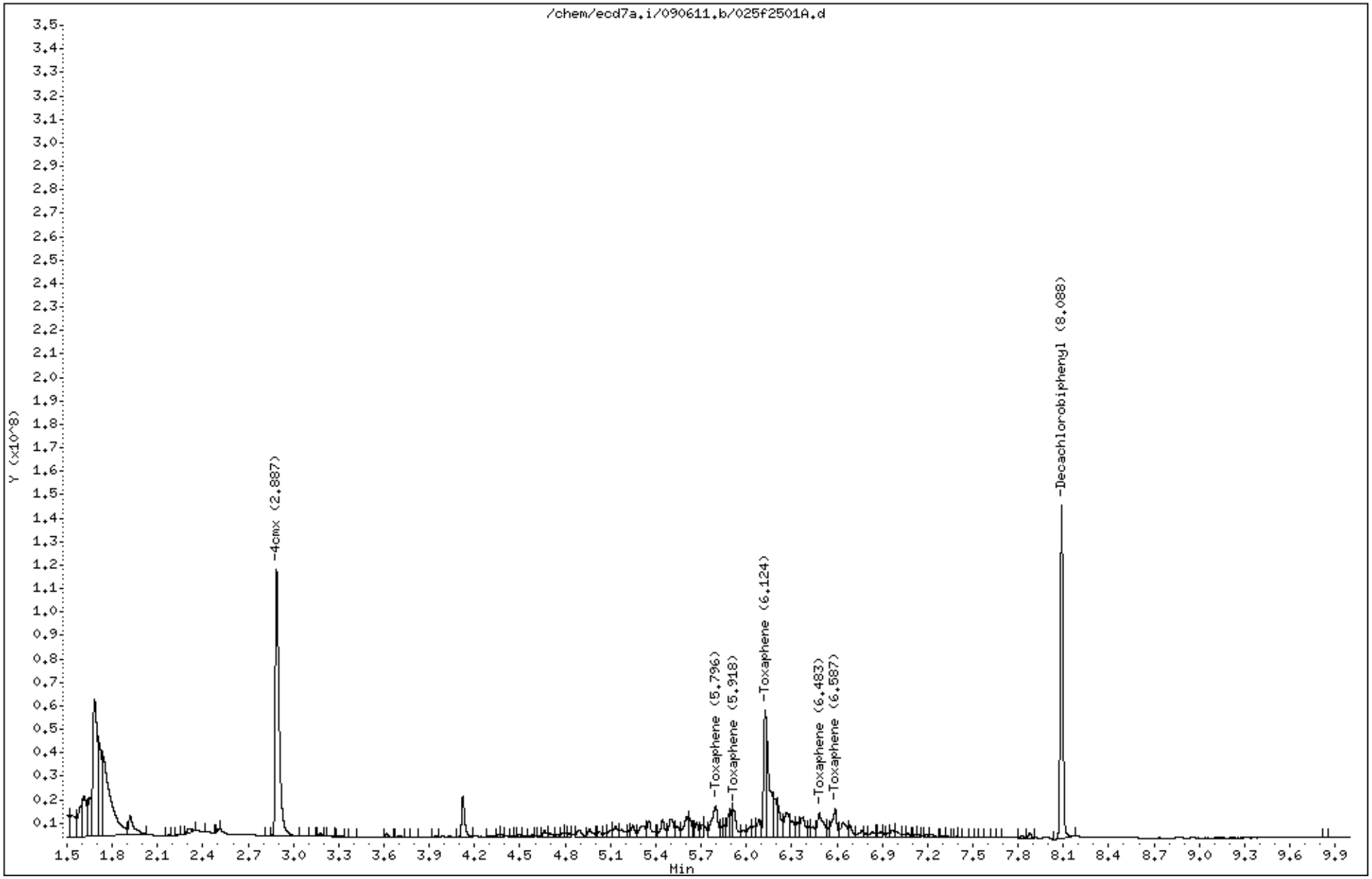
Sample Info: |1202479924|1|

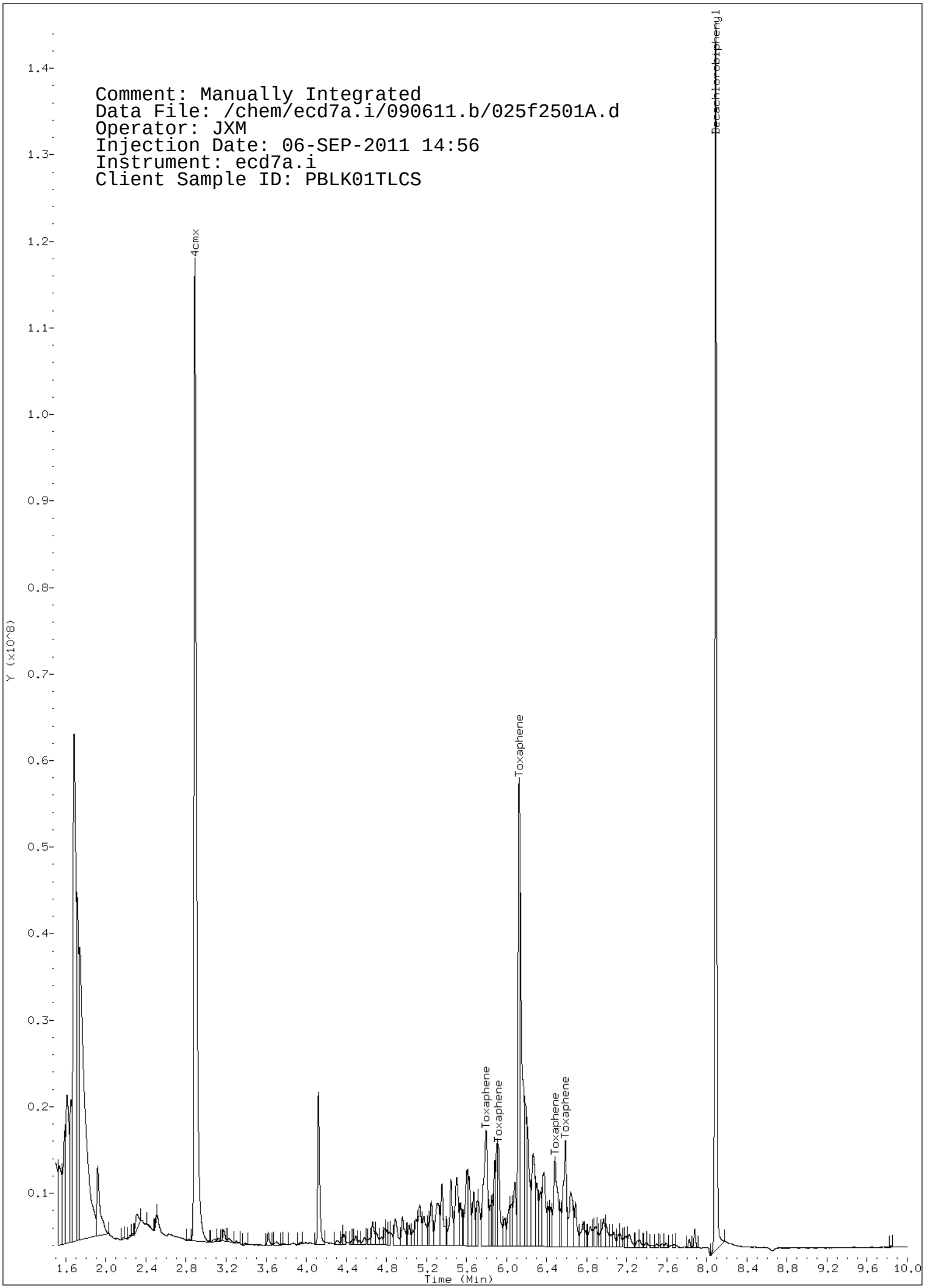
Volume Injected (uL): 1.0

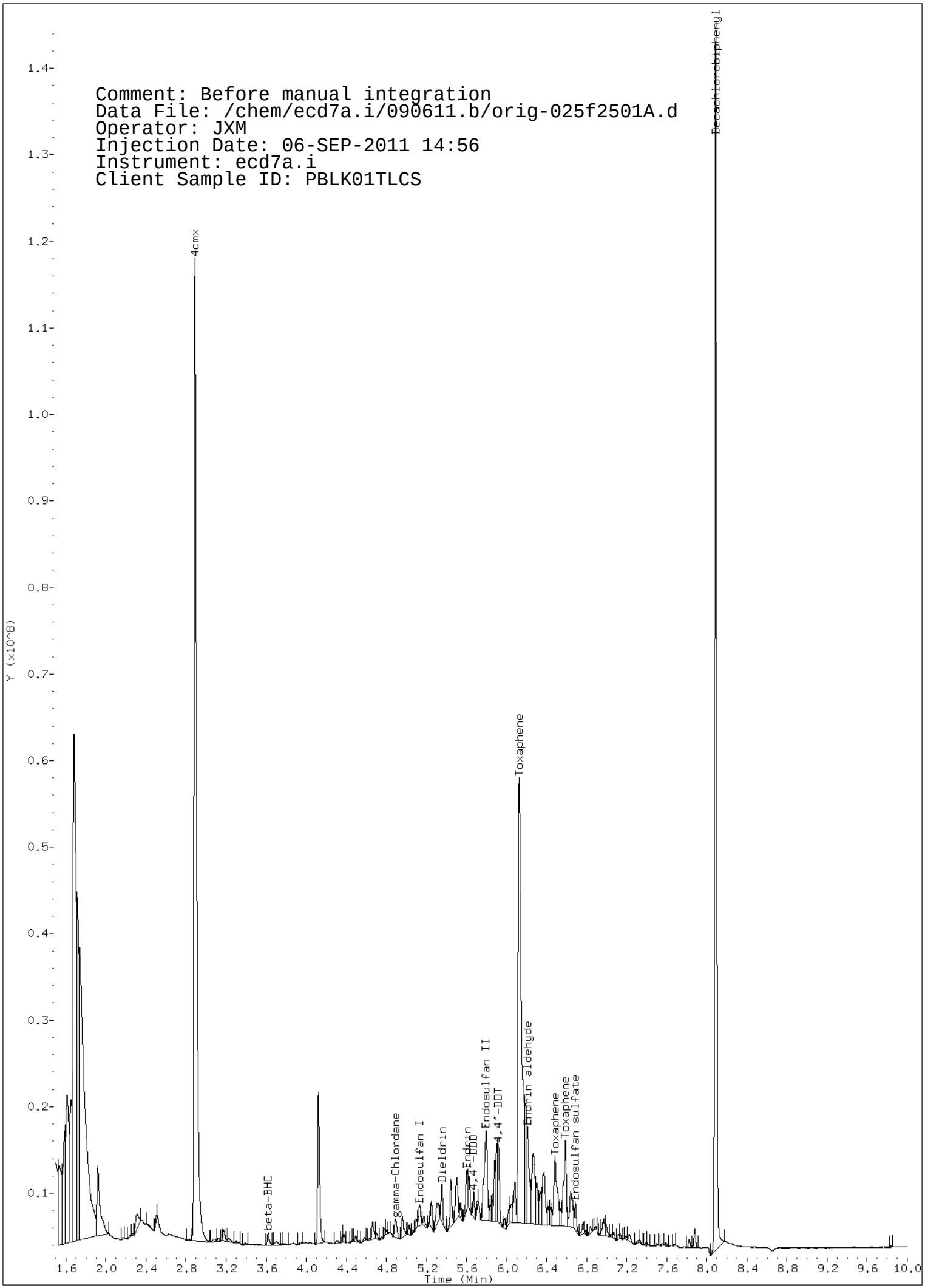
Operator: JXM

Column phase: CLP-1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/025f2501A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:56
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-025f2501A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:56
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cmx
beta-BHC
gamma-Chlordane
Endosulfan I
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Toxaphene
Endrin aldehyde
Toxaphene
Toxaphene
Endosulfan sulfate
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/025b2501A.d
Lab Smp Id: 1202479924 Client Smp ID: PBLK01TLCS
Inj Date : 06-SEP-2011 14:56
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479924|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	210035208	154.582	0.773	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.706	8.708	-0.002	218281274	234.047	1.17	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.841	5.843	-0.002	16287240	912.416	4.56	80.00- 120.00	100.00(M)
6.067	6.077	-0.010	38706549	1047.06	5.24	186.88- 226.88	237.65
6.175	6.178	-0.003	59067629	929.618	4.65	341.12- 381.12	362.66
6.451	6.454	-0.003	36945702	1005.04	5.02	189.89- 229.89	226.84
6.996	6.999	-0.003	27887169	820.937	4.10	174.16- 214.16	171.22

Average of Peak Concentrations = 4.71

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/025b2501A.d

Page 1

Date : 06-SEP-2011 14:56

Client ID: PBLK01TLCS

Instrument: ecd7a.i

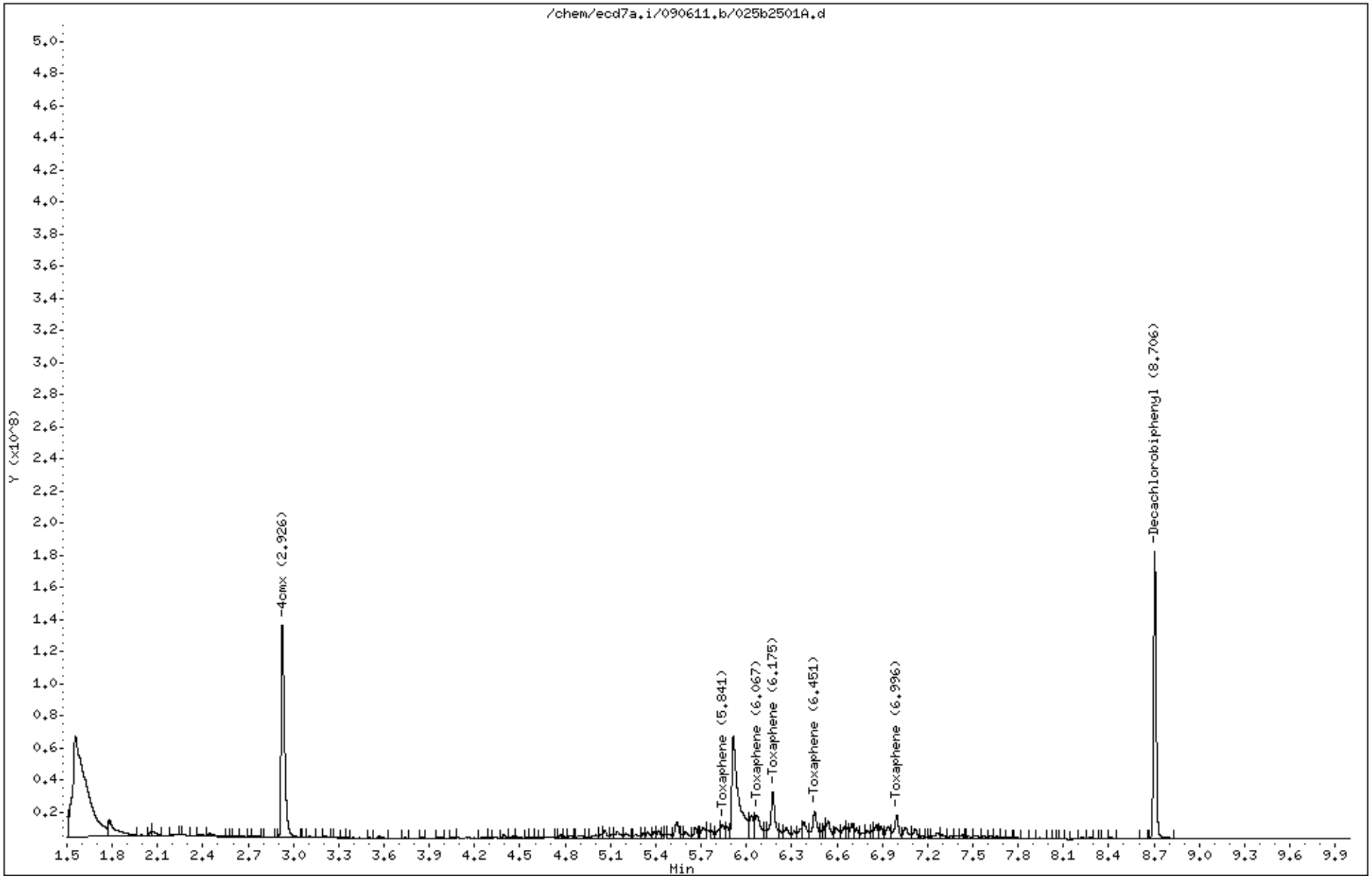
Sample Info: |1202479924|1|

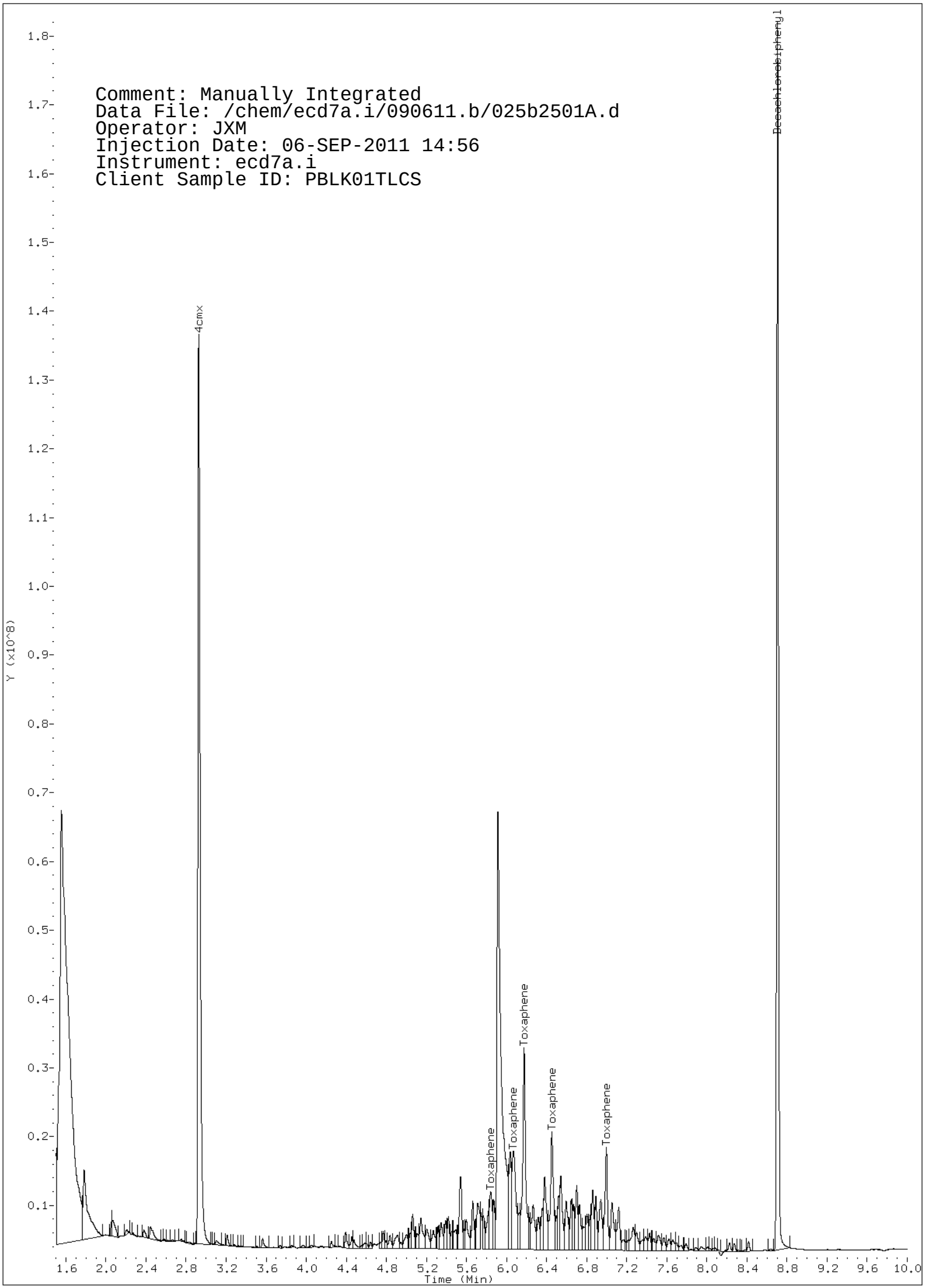
Volume Injected (uL): 1.0

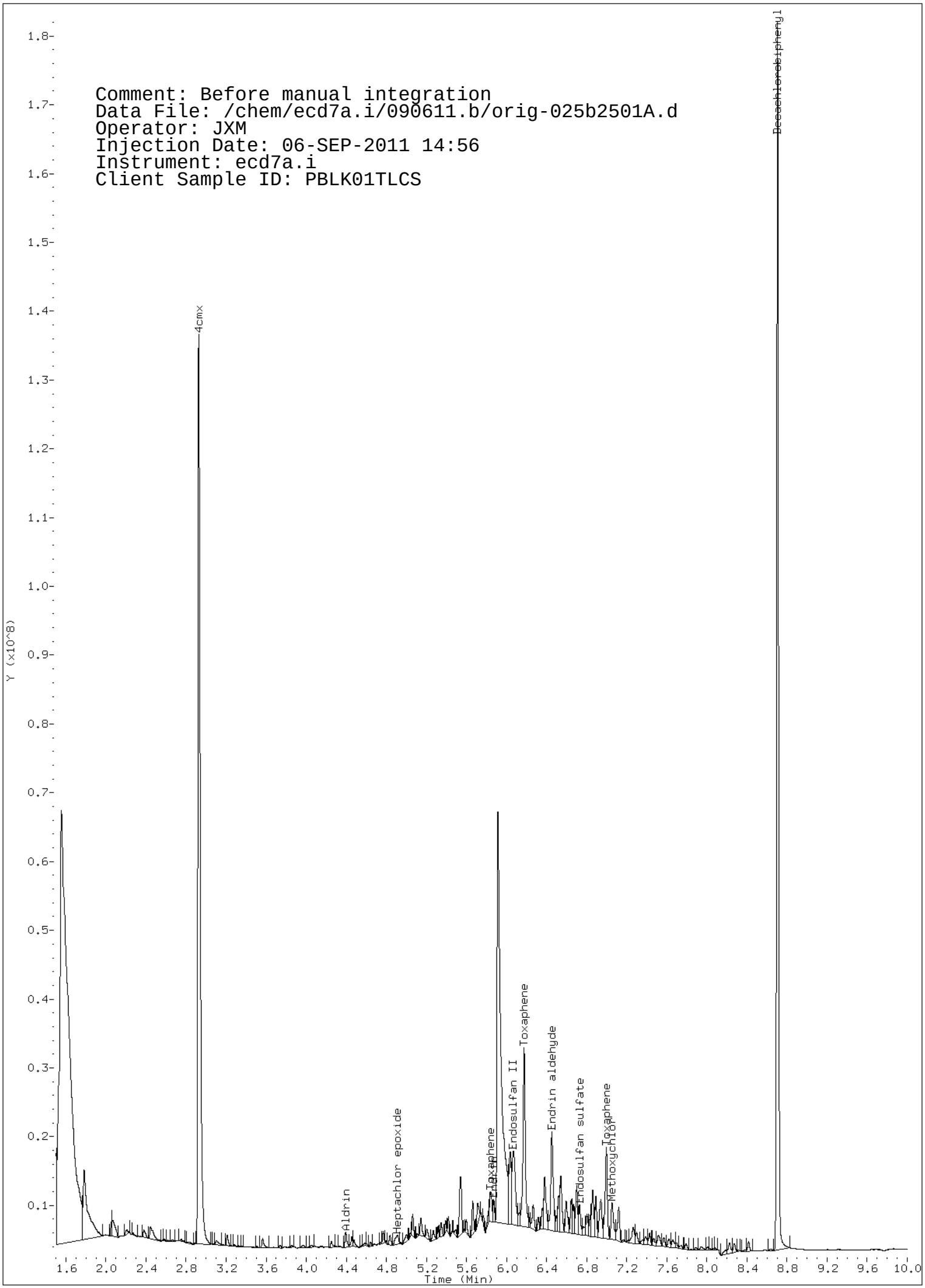
Operator: JXM

Column phase: CLP-2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd7a.i/090611.b/025b2501A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:56
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd7a.i/090611.b/orig-025b2501A.d
Operator: JXM
Injection Date: 06-SEP-2011 14:56
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
4cmx
Toxaphene
Endosulfan II
Endrin aldehyde
Endosulfan sulfate
Toxaphene
Methoxychlor
Toxaphene
Heptachlor epoxide
Aldrin
Y (x10^8)
Time (Min)

Miscellaneous Data

Prep Logbook

Solid-Phase Extraction

Batch ID: **1138553** **Verified by:** _____

Analyst: **Alton Willis**

Method: **SW846 3535A**

Lab SOP: **GL-OA-E-070 REV# 4**

Instrument: **Semi-Volatiles Manual**

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Ph 2	Clean Up	Amount 1 (mL)	Amount 2 (mL)	Amount 3 (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202479920 MB	02-SEP-2011 16:55:00	1000	5	1	FLORISIL	5	1	10	5	0.005
1202479921 LCS	02-SEP-2011 16:55:00	1000	5	1	FLORISIL	5	1	10	5	0.005
1202479924 LCS	02-SEP-2011 16:55:00	1000	5	1	FLORISIL	5	1	10	5	0.005
285063001	02-SEP-2011 16:55:00	950	6	1	FLORISIL	5	1	10	5	0.00526
1202479922 MS (285063001)	02-SEP-2011 16:55:00	950	6	1	FLORISIL	5	1	10	5	0.00526
1202479923 MSD (285063001)	02-SEP-2011 16:55:00	950	6	1	FLORISIL	5	1	10	5	0.00526
285063006	02-SEP-2011 16:55:00	970	6	1	FLORISIL	5	1	10	5	0.00515
285063011	02-SEP-2011 16:55:00	930	6	1	FLORISIL	5	1	10	5	0.00538
285063014	02-SEP-2011 16:55:00	970	6	1	FLORISIL	5	1	10	5	0.00515
285124003	02-SEP-2011 16:55:00	950	6	1	FLORISIL	5	1	10	5	0.00526
285124006	02-SEP-2011 16:55:00	950	6	1	FLORISIL	5	1	10	5	0.00526

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202479921	PESTSPIKE	UE110817-04	1	mL
LCS	1202479924	Toxaphene TCLP LCS	WE110816-12	2	mL
MS	1202479922	PESTSPIKE	UE110817-04	1	mL
MSD	1202479923	PESTSPIKE	UE110817-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE110719-08	1	mL
REGNT	All	Acetone	1601189-B1	5	mL
REGNT	All	Methylene Chloride	1605750-D	50	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1606642-29	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1607921	15	mL
REGNT	All	Hexane	1608677-B4	5	mL
SOURC	All	SODIUM SULFATE	1594298	30	g

Comments:

VERIFIED BY:TRA
FINAL SOLVENT:HEXANE
Int Ext pH:1
LOT #91826TT
PRIOR TO CLEANUP:5mL
AMOUNT CLEANED:1mL
AFTER CLEANUP:10mL

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 09/07/2011 METHOD: ECD7-B-8081-090611.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/090611.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR110902-99IB	JXM	06-SEP-2011 08:07		090611	1.0		CLEAN
002b0201.d	WPE110829-99DG	JXM	06-SEP-2011 08:24		090611	1.0		(B)DDT 1.6, ENDRIN 3.8 (F)DDT 2.2, ENDRIN 3.1
003b0301.d	WPE110812-10AB	JXM	06-SEP-2011 08:41		090611	1.0		DUSE
004b0401.d	WPE110630-52TX	JXM	06-SEP-2011 08:58		090611	1.0		DUSE
005b0501.d	WPE110812-10AB	JXM	06-SEP-2011 09:15		090611	1.0		DUSE
006b0601.d	WPE110724-00CL	JXM	06-SEP-2011 09:32		090611	1.0		PASSES BOTH COLUMNS
007b0701.d	WPE110906-01AB	JXM	06-SEP-2011 09:49		090611	1.0		INDAB LEVEL 1
008b0801.d	WPE110906-02AB	JXM	06-SEP-2011 10:06		090611	1.0		INDAB LEVEL 2
009b0901.d	WPE110906-03AB	JXM	06-SEP-2011 10:23		090611	1.0		INDAB LEVEL 3
010b1001.d	WPE110906-04AB	JXM	06-SEP-2011 10:40		090611	1.0		INDAB LEVEL 4
011b1101.d	IPE110801-02AB	JXM	06-SEP-2011 10:57		090611	1.0		INDAB LEVEL 5
012b1201.d	WPE110812-10AB	JXM	06-SEP-2011 11:14		090611	1.0		PASSES BOTH COLUMNS
013b1301.d	WPE110906-11TX	JXM	06-SEP-2011 11:31		090611	1.0		TOXAPH LEVEL 1
014b1401.d	WPE110906-12TX	JXM	06-SEP-2011 11:48		090611	1.0		TOXAPH LEVEL 2
015b1501.d	WPE110906-13TX	JXM	06-SEP-2011 12:05		090611	1.0		TOXAPH LEVEL 3

Instrument Batch: /chem/ecd7a.i/090611.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE110906-14TX	JXM	06-SEP-2011 12:22		090611	1.0	TOXAPH LEVEL 4
017b1701.d	IPE110818-40TX	JXM	06-SEP-2011 12:40		090611	1.0	TOXAPH LEVEL 5
018b1801.d	WPE110630-52TX	JXM	06-SEP-2011 12:57		090611	1.0	DUSE: OLD STANDARD, SEE FILE 20
019b1901.d	WPE110809-05GA	JXM	06-SEP-2011 13:14		090611	1.0	RT MARKER ONLY
020b2001.d	WPE110906-52TX	JXM	06-SEP-2011 13:31		090611	1.0	PASSES BOTH COLUMNS
021b2101.d	WAR110902-99IB	JXM	06-SEP-2011 13:48		090611	1.0	CLEAN
022b2201.d	WPE110829-99DG	JXM	06-SEP-2011 14:05		090611	1.0	(B)DDT 2.9, ENDRIN 13.7 (F)DDT 2.2, ENDRIN 11.5
023b2301.d	1202479920	JXM	06-SEP-2011 14:22		11-3366	1.0	USE: LOWER
024b2401.d	1202479921	JXM	06-SEP-2011 14:39		11-3366	1.0	USE: LOWER
025b2501.d	1202479924	JXM	06-SEP-2011 14:56		11-3366	1.0	USE: LOWER
026b2601.d	285063001	JXM	06-SEP-2011 15:13		11-3366	1.0	USE: LOWER
027b2701.d	1202479922	JXM	06-SEP-2011 15:30		11-3366	1.0	USE: LOWER
028b2801.d	1202479923	JXM	06-SEP-2011 15:47		11-3366	1.0	USE: LOWER
029b2901.d	285063006	JXM	06-SEP-2011 16:04		11-3366	1.0	USE: LOWER
030b3001.d	285063011	JXM	06-SEP-2011 16:21		11-3366	1.0	USE: LOWER
031b3101.d	285063014	JXM	06-SEP-2011 16:38		11-3366	1.0	USE: LOWER
032b3201.d	285124003	JXM	06-SEP-2011 16:55		11-3386	1.0	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711
033b3301.d	WPE110812-10AB	JXM	06-SEP-2011 17:12		090611	1.0	(B)PASSES (F)DDE, DDD AND DDT HIGH
034b3401.d	WAR110902-99IB	JXM	06-SEP-2011 17:29		090611	1.0	CLEAN
035b3501.d	285124006	JXM	06-SEP-2011 17:46		11-3386	1.0	DUSE: DILUTION NEEDED, SEE SEQUENCE 090711

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WPE110812-10AB	JXM	06-SEP-2011 18:03		090611	1.0		(B)PASSES (F)D-BHC, DDE AND DDT HIGH (PASSES 8081B), DDD HIGH
037b3701.d	WAR110902-99IB	JXM	06-SEP-2011 18:20		090611	1.0		CLEAN
038b3801.d	1202479398	JXM	06-SEP-2011 18:37		10219	1.0		USE: HIGHER
039b3901.d	1202479399	JXM	06-SEP-2011 18:54		10219	1.0		USE: HIGHER
040b4001.d	284950001	JXM	06-SEP-2011 19:11		10219	1.0		USE: HIGHER

041b4101.d	284951001	JXM	06-SEP-2011 19:28		11048	1.0	USE: HIGHER, SURR. FAIL LOW, RE-EXTRACTED
042b4201.d	284955001	JXM	06-SEP-2011 19:46		11045	1.0	USE: HIGHER
043b4301.d	1202479400	JXM	06-SEP-2011 20:03		11045	1.0	USE: HIGHER
044b4401.d	1202479401	JXM	06-SEP-2011 20:20		11045	1.0	USE: HIGHER
045b4501.d	WPE110812-10AB	JXM	06-SEP-2011 20:37		090611	1.0	PASSES 8081B
046b4601.d	WAR110902-99IB	JXM	06-SEP-2011 20:54		090611	1.0	CLEAN
047b4701.d	1202479365	JXM	06-SEP-2011 21:11		EUI-8486O	1.0	USE: HIGHER
048b4801.d	1202479366	JXM	06-SEP-2011 21:28		EUI-8486O	1.0	USE: HIGHER
049b4901.d	1202479367	JXM	06-SEP-2011 21:45		EUI-8486O	1.0	USE: HIGHER
050b5001.d	285026001	JXM	06-SEP-2011 22:02		EUI-8486O	1.0	USE: HIGHER
051b5101.d	285026002	JXM	06-SEP-2011 22:19		EUI-8486O	20.0	USE: HIGHER
052b5201.d	WAR110902-99IB	JXM	06-SEP-2011 22:36		090611	1.0	CLEAN
053b5301.d	WPE110812-10AB	JXM	06-SEP-2011 22:53		090611	1.0	PASSES 8081B
054b5401.d	WAR110902-99IB	JXM	06-SEP-2011 23:10		090611	1.0	CLEAN
055b5501.d	1202479362	JXM	06-SEP-2011 23:27		EUI-8485	1.0	USE: HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202479363	JXM	06-SEP-2011 23:44		EUI-8485	1.0		USE: HIGHER
057b5701.d	1202479364	JXM	07-SEP-2011 00:01		EUI-8485	1.0		USE: HIGHER
058b5801.d	285006001	JXM	07-SEP-2011 00:18		EUI-8485	1.0		USE: HIGHER
059b5901.d	285029001	JXM	07-SEP-2011 00:35		EUI-8486F	2.0		USE: HIGHER
060b6001.d	WAR110902-99IB	JXM	07-SEP-2011 00:52		090611	1.0		CLEAN
061b6101.d	WPE110812-10AB	JXM	07-SEP-2011 01:09		090611	1.0		PASSES 8081B
062b6201.d	WAR110902-99IB	JXM	07-SEP-2011 01:26		090611	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 09/07/2011 METHOD: ECD7-B-8081-090711.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/090711.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR110902-99IB	JXM	07-SEP-2011 08:53		090711	1.0		CLEAN
002b0201.d	WPE110829-99DG	JXM	07-SEP-2011 09:10		090711	1.0		(B)DDT 1.9, ENDRIN 10.9 (F)DDT 2.0, ENDRIN 9.1
003b0301.d	WPE110812-10AB	JXM	07-SEP-2011 09:27		090711	1.0		DUSE
004b0401.d	WPE110906-52TX	JXM	07-SEP-2011 09:44		090711	1.0		(B)PASSES (F)PASSES AVERAGE FOR 8081A AND B
005b0501.d	WPE110724-00CL	JXM	07-SEP-2011 10:01		090711	1.0		(B)PASSES (F)PASSES 8081B, AVERAGE FOR A
006b0601.d	WPE110906-01AB	JXM	07-SEP-2011 10:18		090711	1.0		INDAB LEVEL 1
007b0701.d	WPE110906-02AB	JXM	07-SEP-2011 10:35		090711	1.0		INDAB LEVEL 2
008b0801.d	WPE110906-03AB	JXM	07-SEP-2011 10:52		090711	1.0		INDAB LEVEL 3
009b0901.d	WPE110906-04AB	JXM	07-SEP-2011 11:09		090711	1.0		INDAB LEVEL 4
010b1001.d	IPE110801-02AB	JXM	07-SEP-2011 11:26		090711	1.0		INDAB LEVEL 5
011b1101.d	WPE110812-10AB	JXM	07-SEP-2011 11:43		090711	1.0		PASSES BOTH COLUMNS
012b1201.d	WAR110902-99IB	JXM	07-SEP-2011 12:00		090711	1.0		CLEAN
013b1301.d	285124003	JXM	07-SEP-2011 12:17	1138554	11-3386	10.0	ARSL	USE: LOWER
014b1401.d	285124006	JXM	07-SEP-2011 12:34	1138554	11-3386	5.0	ARSL	USE: LOWER
015b1501.d	WAR110902-99IB	JXM	07-SEP-2011 12:51		090711	1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/090711.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE110812-10AB	JXM	07-SEP-2011 13:08		090711		1.0		(B)PASSES (F)DDT HIGH (PASSES 8081B)
017b1701.d	WAR110902-99IB	JXM	07-SEP-2011 13:25		090711		1.0		CLEAN
018b1801.d	1202479136	JXM	07-SEP-2011 13:42	1138980	EUI-8484		1.0	TB	USE: HIGHER
019b1901.d	1202480965	JXM	07-SEP-2011 13:59	1138980	EUI-8484		1.0	MB	USE: HIGHER
020b2001.d	1202480972	JXM	07-SEP-2011 14:16	1138980	EUI-8484		1.0	LCS	USE: HIGHER
021b2101.d	1202480973	JXM	07-SEP-2011 14:33	1138980	EUI-8484		1.0	TLCS	USE: HIGHER
022b2201.d	1202480974	JXM	07-SEP-2011 14:50	1138980	EUI-8484		1.0	CLCS	USE: HIGHER
023b2301.d	WPE110812-10AB	JXM	07-SEP-2011 15:07		090711		1.0		PASSES FOR 8081B
024b2401.d	WAR110902-99IB	JXM	07-SEP-2011 15:24		090711		1.0		CLEAN
025b2501.d	284992001	JXM	07-SEP-2011 15:41	1138980	EUI-8484		1.0	CARE	USE: HIGHER
026b2601.d	1202480966	JXM	07-SEP-2011 15:58	1138980	EUI-8484		1.0	MS	USE: HIGHER
027b2701.d	1202480969	JXM	07-SEP-2011 16:15	1138980	EUI-8484		1.0	MSD	USE: HIGHER
028b2801.d	1202480967	JXM	07-SEP-2011 16:32	1138980	EUI-8484		1.0	TMS	USE: HIGHER
029b2901.d	1202480970	JXM	07-SEP-2011 16:49	1138980	EUI-8484		1.0	TMSD	USE: HIGHER
030b3001.d	1202480968	JXM	07-SEP-2011 17:05	1138980	EUI-8484		1.0	CMS	USE: HIGHER
031b3101.d	1202480971	JXM	07-SEP-2011 17:23	1138980	EUI-8484		1.0	CMSD	USE: HIGHER
032b3201.d	WPE110812-10AB	JXM	07-SEP-2011 17:39		090711		1.0		LINDANE,DELTA-BHC,DDD AND DDT HIGH ON BOTH COLUMNS
033b3301.d	WAR110902-99IB	JXM	07-SEP-2011 17:57		090711		1.0		CLEAN
034b3401.d	1202480813	JXM	07-SEP-2011 18:13	1138926	11-3417		1.0	MB	USE: LOWER
035b3501.d	1202480814	JXM	07-SEP-2011 18:31	1138926	11-3417		1.0	LCS	USE: LOWER

10H

Instrument Batch: /chem/ecd7a.i/090711.b Page: 2

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202480820	JXM	07-SEP-2011 18:48	1138926	11-3417	1.0	TLCS	USE: LOWER
037b3701.d	285209002	JXM	07-SEP-2011 19:05	1138926	11-3417	1.0	LANL	DUSE: CONTAINS HITS OF DDT, SEE SEQUENCE 090811
038b3801.d	1202480815	JXM	07-SEP-2011 19:22	1138926	11-3417	1.0	MS	DUSE: CONTAINS HITS OF DDT, SEE SEQUENCE 090811
039b3901.d	1202480816	JXM	07-SEP-2011 19:39	1138926	11-3417	1.0	MSD	DUSE: CONTAINS HITS OF DDT, SEE SEQUENCE 090811
040b4001.d	285209003	JXM	07-SEP-2011 19:55	1138926	11-3417	5.0	LANL	USE: LOWER

041b4101.d	285209004	JXM	07-SEP-2011 20:12	1138926	11-3417	10.0	LANL	USE: LOWER
042b4201.d	WAR110902-99IB	JXM	07-SEP-2011 20:29		090711	1.0		CLEAN
043b4301.d	WPE110812-10AB	JXM	07-SEP-2011 20:46		090711	1.0		LINDANE,DELTA-BHC AND DDD HIGH ON BOTH COLUMNS
044b4401.d	WAR110902-99IB	JXM	07-SEP-2011 21:04		090711	1.0		CLEAN

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 3535A/8081A	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1138554	See Below		

Potentially affected work order(s)(SDG): 285063(11-3366),285124(11-3386)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The RPD values between QC samples 1202479922(MS) and 1202479923(MSD) did not meet the requirements.	1. The RPD values between the MS and MSD were not within the acceptance limits due to relatively higher spike recoveries in the MS in comparison with the MSD; however, both the MS and the MSD individually met the spike recovery acceptance criteria. In addition, there were no target analytes detected above the PQL in the client samples. The data were reported.

Originator's Name:

James Maestas 07-SEP-11

Data Validator/Group Leader:

Heather Joy 09-SEP-11

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/001b0101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 06-SEP-2011 08:07
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	301347959	221.786	222	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.707	8.708	-0.001	209351173	224.472	224	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/001b0101.d

Page 1

Date : 06-SEP-2011 08:07

Client ID: PIBLK01

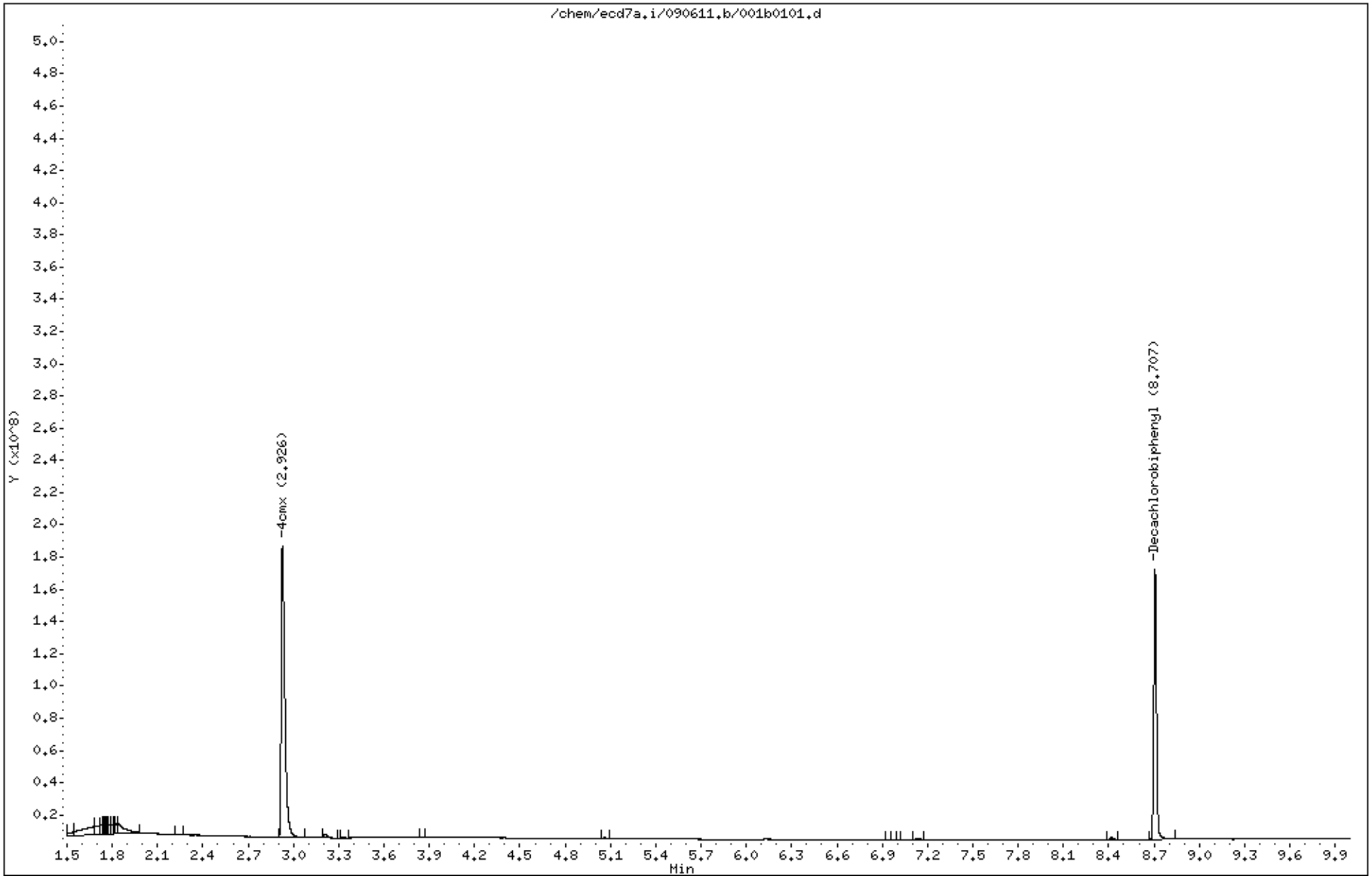
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/001f0101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 06-SEP-2011 08:07
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 11:39 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	268124075	212.333	212	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.092	8.092	0.000	167779257	216.749	217	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/001f0101.d

Page 1

Date : 06-SEP-2011 08:07

Client ID: PIBLK01

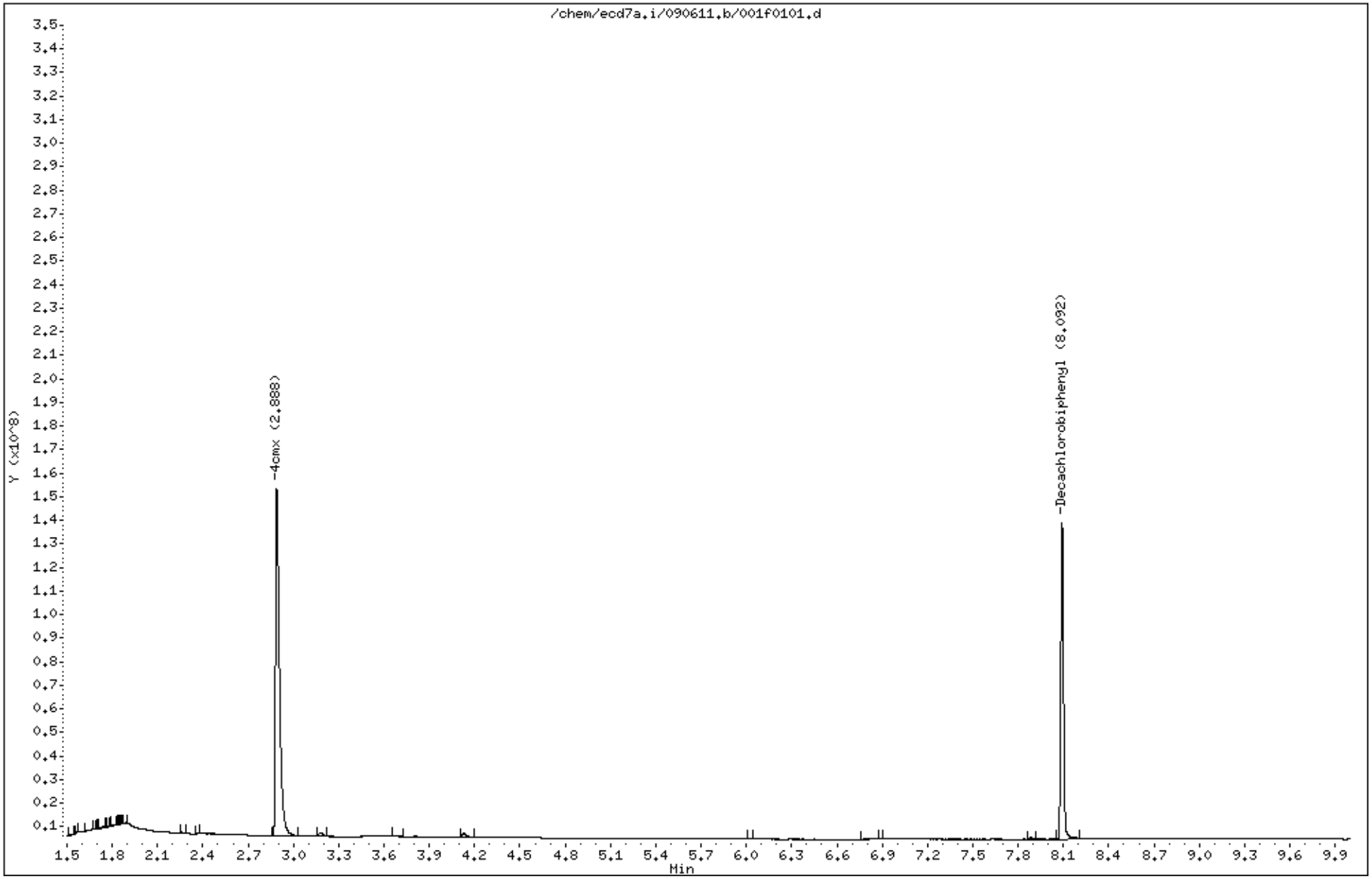
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/021b2101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 06-SEP-2011 13:48
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 06-Sep-2011 13:48 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 21 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.925	2.926	-0.001	309286649	227.629	228	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.710	8.708	0.002	209187857	224.297	224	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/021b2101.d

Page 1

Date : 06-SEP-2011 13:48

Client ID: PIBLK02

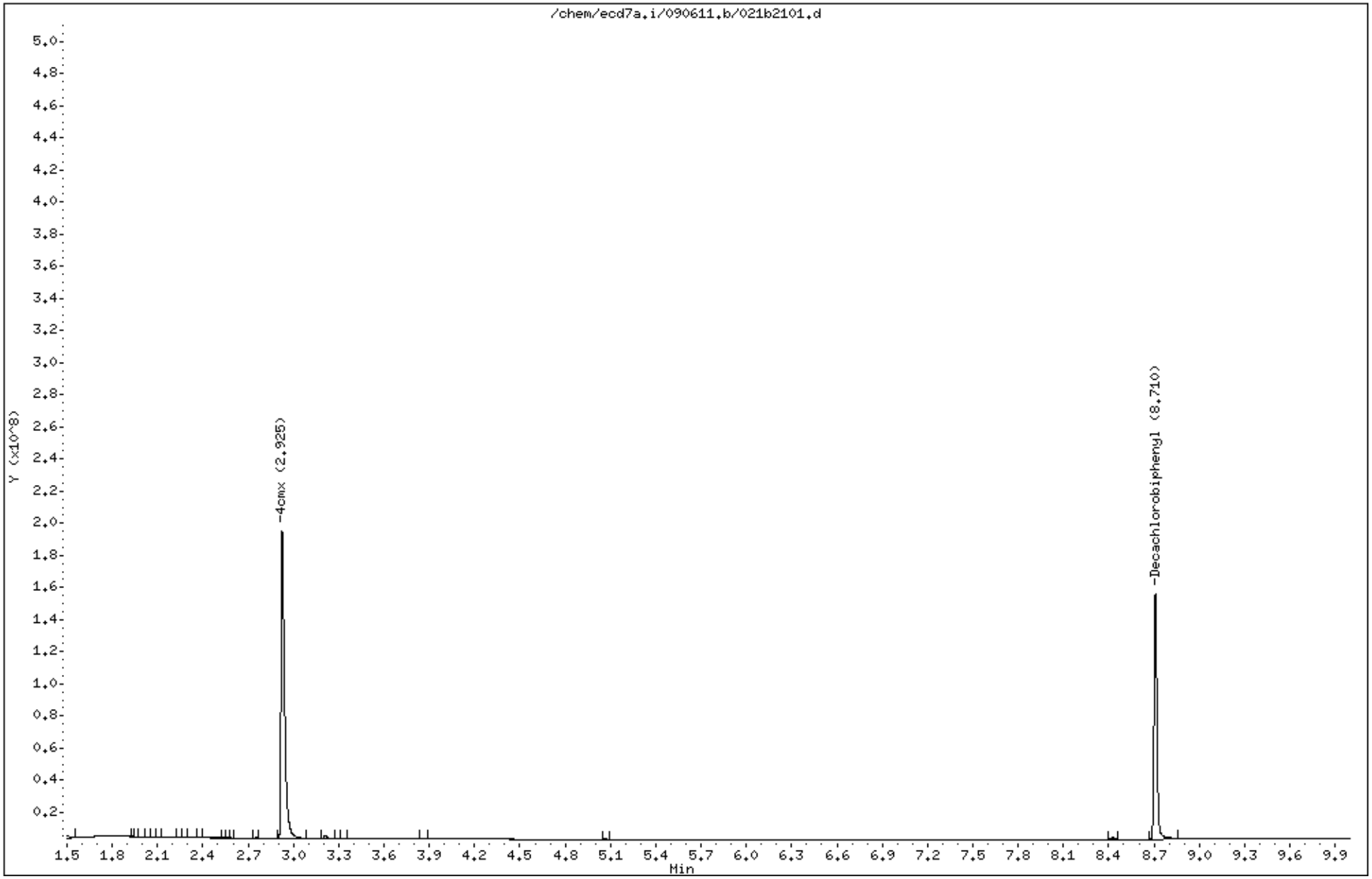
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/021f2101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 06-SEP-2011 13:48
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 06-Sep-2011 13:49 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 21 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.886	2.887	-0.001	293783368	232.653	233	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.092	0.003	175974345	227.336	227	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/021f2101.d

Page 1

Date : 06-SEP-2011 13:48

Client ID: PIBLK02

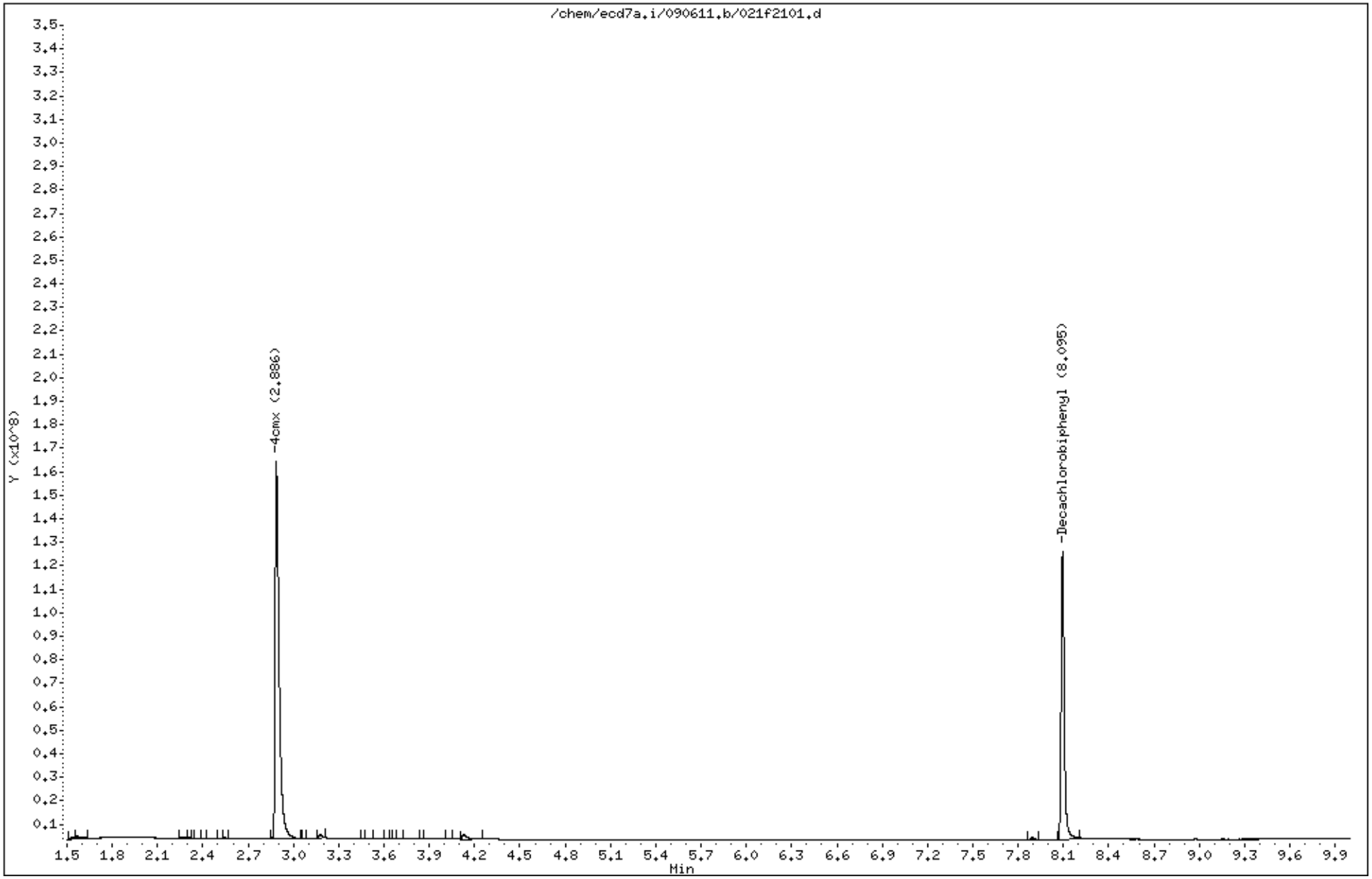
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/026b2601.d
Lab Smp Id: 285063001 Client Smp ID: CAPU-11-26374
Inj Date : 06-SEP-2011 15:13
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285063001|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.925	2.926	-0.001	182269471	134.147	0.706	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.707	8.708	-0.001	173103782	185.606	0.977	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/026b2601.d

Page 1

Date : 06-SEP-2011 15:13

Client ID: CAPU-11-26374

Instrument: ecd7a.i

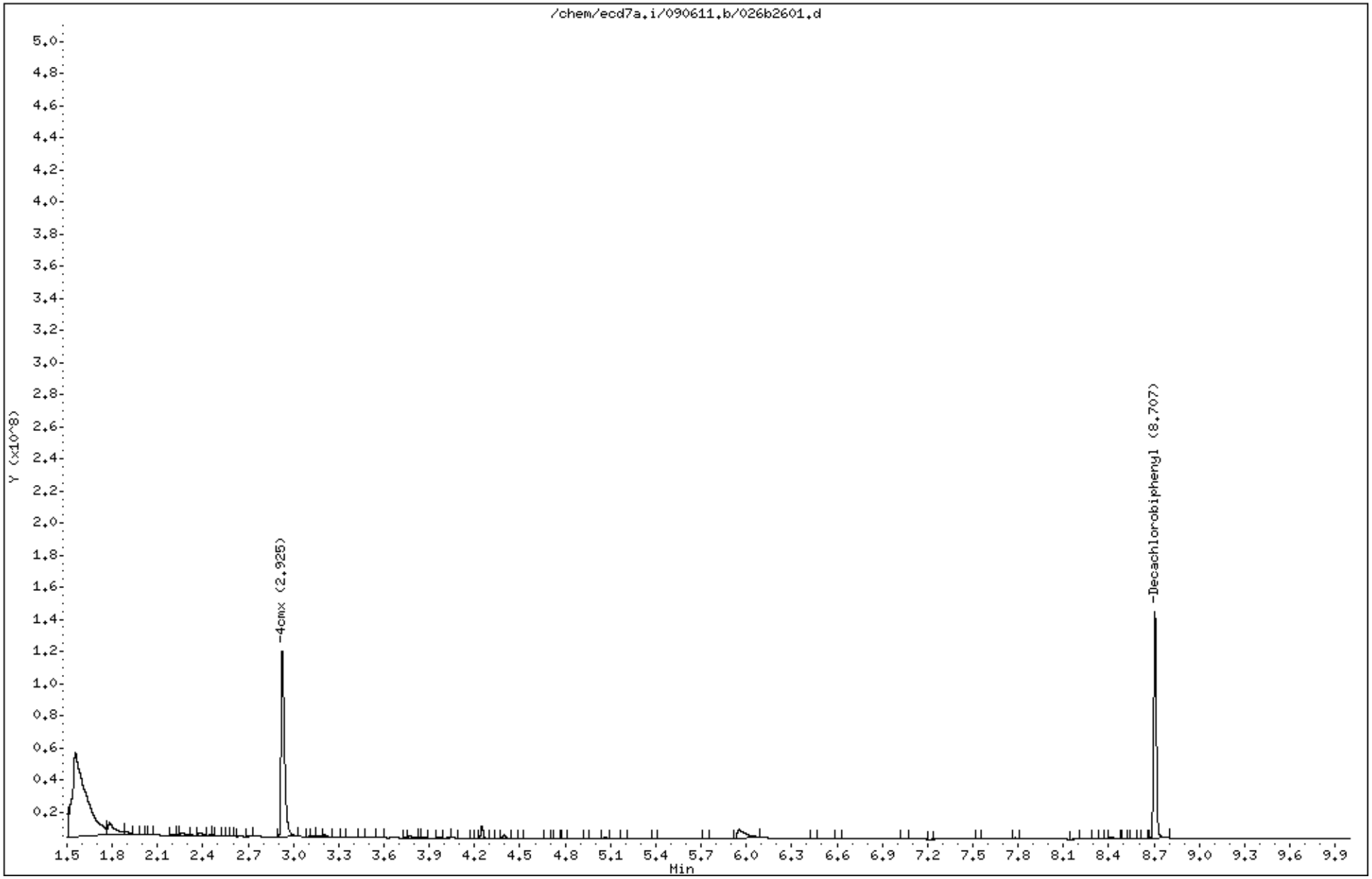
Sample Info: |285063001|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/026f2601.d
Lab Smp Id: 285063001 Client Smp ID: CAPU-11-26374
Inj Date : 06-SEP-2011 15:13
Operator : JXM Inst ID: ecd7a.i
Smp Info : |285063001|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|ARSL|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	167268281	132.463	0.697	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.092	-0.003	145170888	187.542	0.987	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/026f2601.d

Page 1

Date : 06-SEP-2011 15:13

Client ID: CAPU-11-26374

Instrument: ecd7a.i

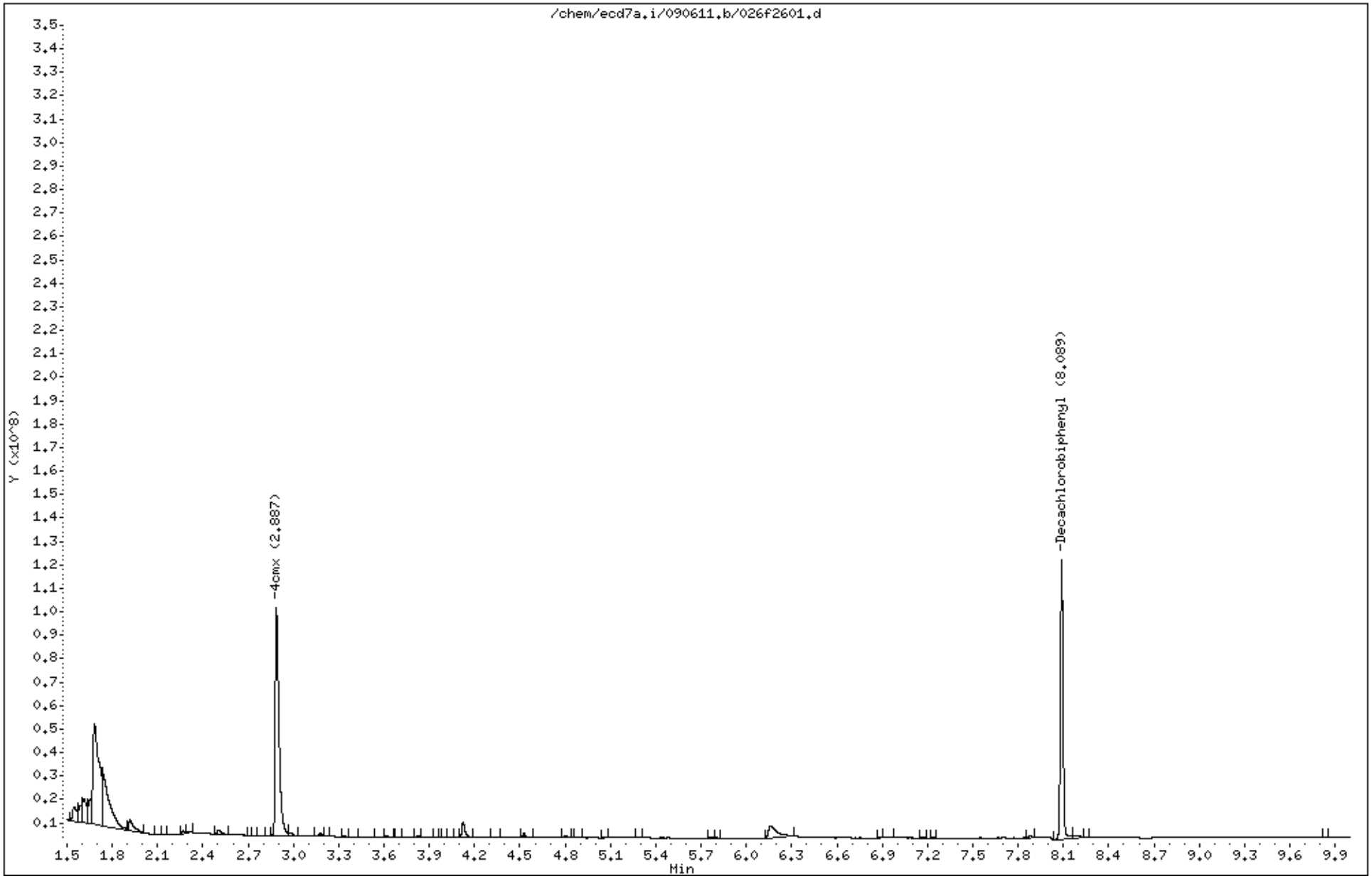
Sample Info: |285063001|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/027b2701.d
Lab Smp Id: 1202479922 Client Smp ID: CAPU-11-26374MS
Inj Date : 06-SEP-2011 15:30
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479922|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 27 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.926	2.926	0.000	208942789	153.778	0.809	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.707	8.708	-0.001	203681309	218.392	1.15	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	200925129	104.099	0.548	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.674	3.675	-0.001	183918831	105.716	0.556	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.736	3.737	-0.001	72134173	103.512	0.545	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.034	7.037	-0.003	531835378	1190.56	6.27	80.00- 120.00	100.00(M)
13 delta-BHC					CAS #: 319-86-8		
3.994	3.996	-0.002	180726097	110.570	0.582	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.079	4.080	-0.001	159978852	99.0391	0.521	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	156779644	94.5591	0.498	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	151108052	103.640	0.545	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.092	5.094	-0.002	149972155	107.043	0.563	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.233	5.235	-0.002	157691546	115.861	0.610	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.291	5.292	-0.001	115008699	90.5015	0.476	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.391	5.397	-0.006	319374196	255.274	1.34	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.562	5.564	-0.002	382887959	273.033	1.44	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.868	5.869	-0.001	318287766	294.472	1.55	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.979	5.987	-0.008	314569830	327.926	1.72	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.082	6.085	-0.003	275326742	230.991	1.22	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.427	6.428	-0.001	247009800	257.130	1.35	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.312	6.316	-0.004	295312890	287.688	1.51	80.00- 120.00	100.00

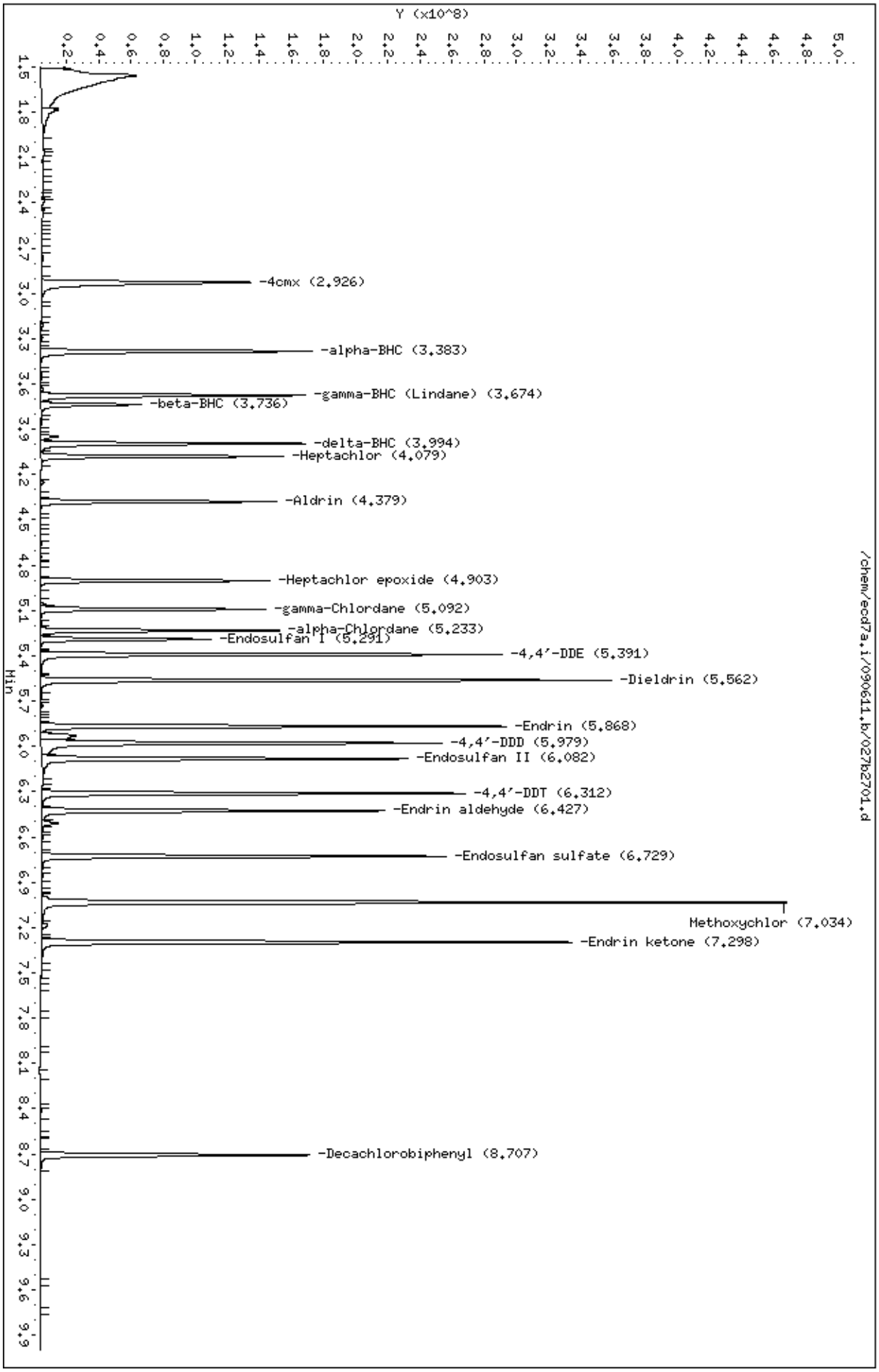
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate						CAS #: 1031-07-8	
6.729	6.730	-0.001	289960853	291.300	1.53	80.00- 120.00	100.00
31 Endrin ketone						CAS #: 53494-70-5	
7.298	7.299	-0.001	385783527	289.579	1.52	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/027b2701.d
Date : 06-SEP-2011 15:30
Client ID: CAPU-11-26374MS
Sample Info: 1120247992211
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/027f2701.d
Lab Smp Id: 1202479922 Client Smp ID: CAPU-11-26374MS
Inj Date : 06-SEP-2011 15:30
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479922|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MS|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 27 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

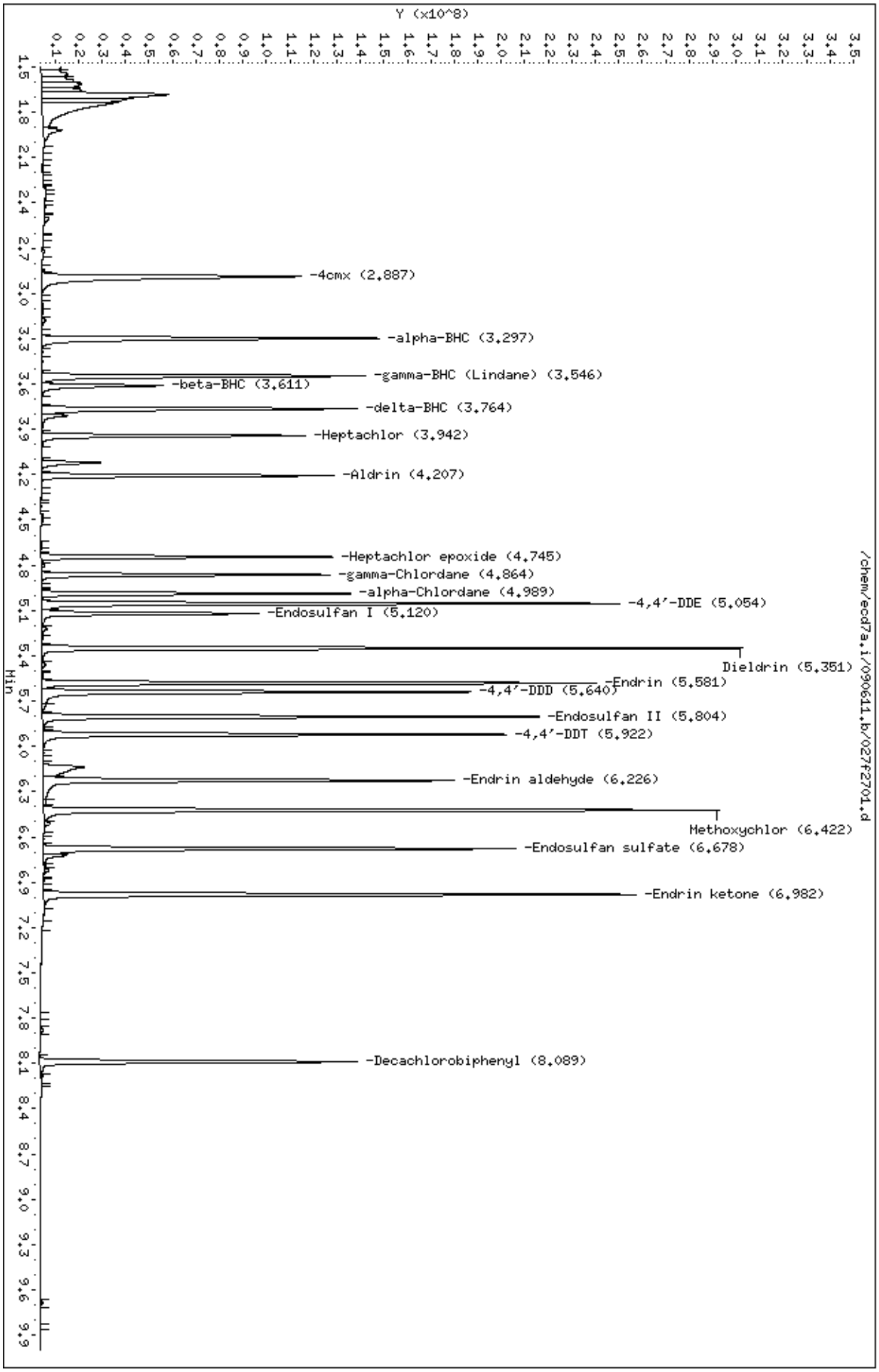
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.887	2.887	0.000	193712164	153.404	0.807	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.092	-0.003	166050071	214.515	1.13	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	187048744	104.413	0.550	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.546	3.546	0.000	169947603	107.370	0.565	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.611	3.612	-0.001	65371551	102.234	0.538	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.422	6.428	-0.006	341911883	1149.77	6.05	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.764	3.765	-0.001	160897774	111.079	0.585	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.942	3.943	-0.001	126137846	101.547	0.534	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.207	4.208	-0.001	136183139	92.6486	0.488	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.745	4.746	-0.001	134154174	104.029	0.548	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.864	4.866	-0.002	131419982	105.666	0.556	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	139138223	113.596	0.598	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.120	5.122	-0.002	108089719	75.0656	0.395	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.054	5.062	-0.008	268637234	282.806	1.49	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.351	5.352	-0.001	320705409	264.834	1.39	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.581	5.582	-0.001	262812627	286.438	1.51	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.640	5.651	-0.011	222771890	293.165	1.54	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.804	5.806	-0.002	242939880	239.333	1.26	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	221818784	262.984	1.38	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.922	5.928	-0.006	230468409	297.019	1.56	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.678	6.680	-0.002	243532748	283.590	1.49	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.982	6.985	-0.003	303394521	280.835	1.48	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/027f2701.d
Date : 06-SEP-2011 15:30
Client ID: CAPU-11-26374MS
Sample Info: 1120247992111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25



Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/028b2801.d
Lab Smp Id: 1202479923 Client Smp ID: CAPU-11-26374MSD
Inj Date : 06-SEP-2011 15:47
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479923|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.927	2.926	0.001	143180278	105.378	0.555	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.707	8.708	-0.001	147930920	158.615	0.835	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.383	3.383	0.000	142849960	74.0104	0.390	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.675	3.675	0.000	130165021	74.8182	0.394	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.736	3.737	-0.001	51816421	74.3565	0.391	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.034	7.037	-0.003	386737058	865.747	4.56	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.995	3.996	-0.001	128760133	78.7768	0.415	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.080	4.080	0.000	111479538	69.0144	0.363	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.379	4.380	-0.001	110280678	66.5140	0.350	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.903	4.903	0.000	108843025	74.6518	0.393	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.093	5.094	-0.001	109504477	78.1589	0.411	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.234	5.235	-0.001	113709500	83.5457	0.440	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.291	5.292	-0.001	82438369	64.8716	0.341	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.393	5.397	-0.004	229710365	183.606	0.966	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.563	5.564	-0.001	273839911	195.272	1.03	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.868	5.869	-0.001	228293612	211.212	1.11	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.980	5.987	-0.007	218466917	227.743	1.20	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.083	6.085	-0.002	179126182	150.281	0.791	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.427	6.428	-0.001	178899939	186.229	0.980	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.313	6.316	-0.003	211158525	205.707	1.08	80.00- 120.00	100.00(M)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate						CAS #: 1031-07-8	
6.729	6.730	-0.001	209401774	210.369	1.11	80.00- 120.00	100.00
31 Endrin ketone						CAS #: 53494-70-5	
7.298	7.299	-0.001	280993493	210.921	1.11	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/090611.b/028b2801.d

Date : 06-SEP-2011 15:47

Client ID: CAPU-11-26374MSD

Sample Info: |120247992311|

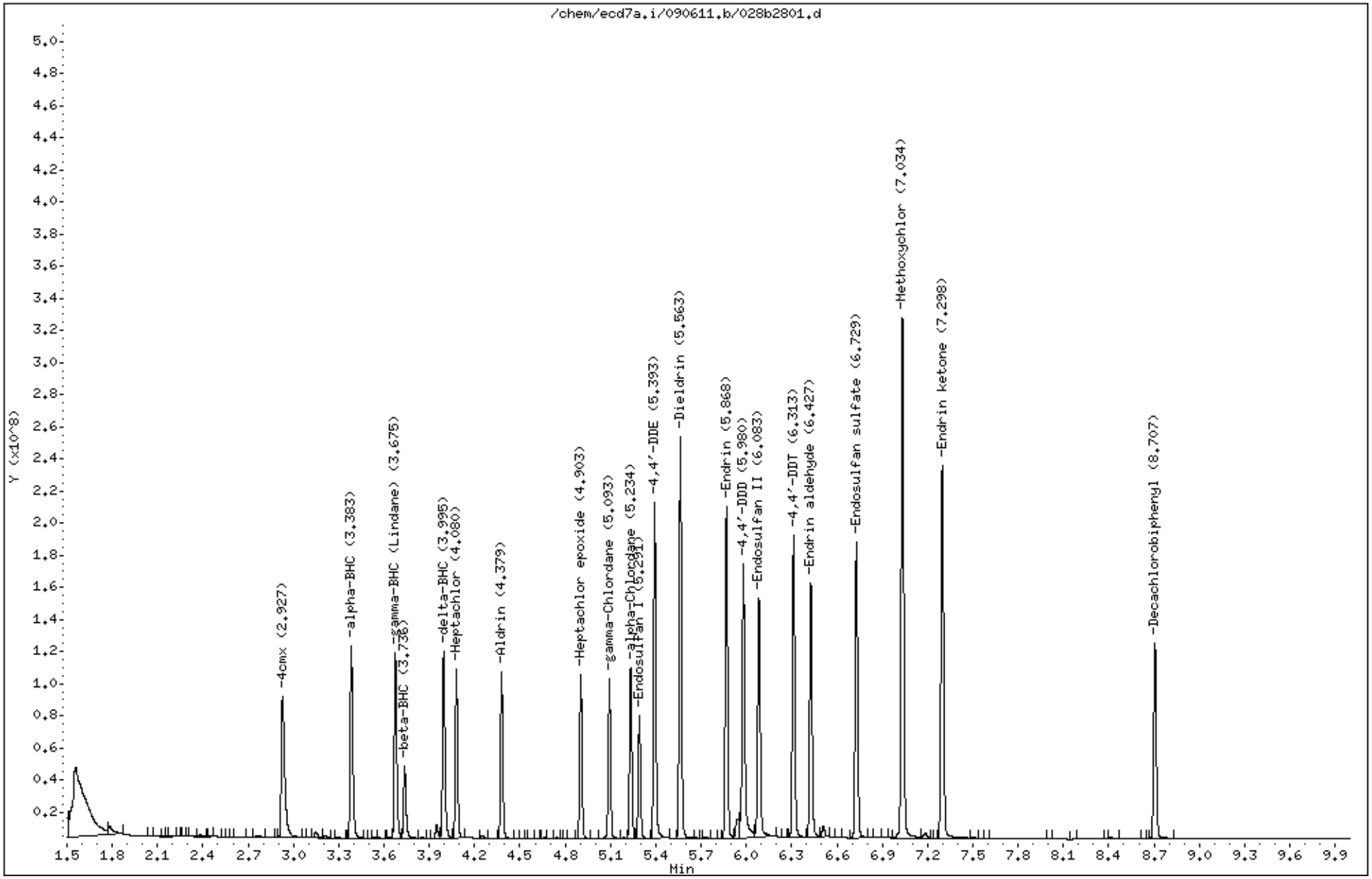
Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/028f2801.d
Lab Smp Id: 1202479923 Client Smp ID: CAPU-11-26374MSD
Inj Date : 06-SEP-2011 15:47
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202479923|1|
Misc Info : |ECD5A1A_1L|1138554|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3366.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.888	2.887	0.001	131753164	104.338	0.549	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.092	-0.003	120030209	155.064	0.816	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.297	0.001	132021278	73.6959	0.388	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.547	3.546	0.001	120918580	76.3940	0.402	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.611	3.612	-0.001	46384523	72.5403	0.382	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.424	6.428	-0.004	249318632	838.403	4.41	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.765	3.765	0.000	114630301	79.1370	0.416	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.943	0.000	88091160	70.9173	0.373	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.208	0.000	96991967	65.9859	0.347	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.746	4.746	0.000	97001834	75.2193	0.396	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.864	4.866	-0.002	95673435	76.9249	0.405	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.989	4.990	-0.001	101163553	82.5928	0.435	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.121	5.122	-0.001	78294256	54.3734	0.286	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.055	5.062	-0.007	198318428	208.778	1.10	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.351	5.352	-0.001	233911771	193.161	1.02	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.582	5.582	0.000	188660211	205.619	1.08	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.641	5.651	-0.010	153250286	201.675	1.06	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.804	5.806	-0.002	175434206	172.829	0.910	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	143754407	170.432	0.897	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.923	5.928	-0.005	166163210	214.145	1.13	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.678	6.680	-0.002	177956076	207.227	1.09	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.983	6.985	-0.002	222772141	206.208	1.08	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/090611.b/028f2801.d

Page 1

Date : 06-SEP-2011 15:47

Client ID: CAPU-11-26374MSD

Instrument: ecd7a.i

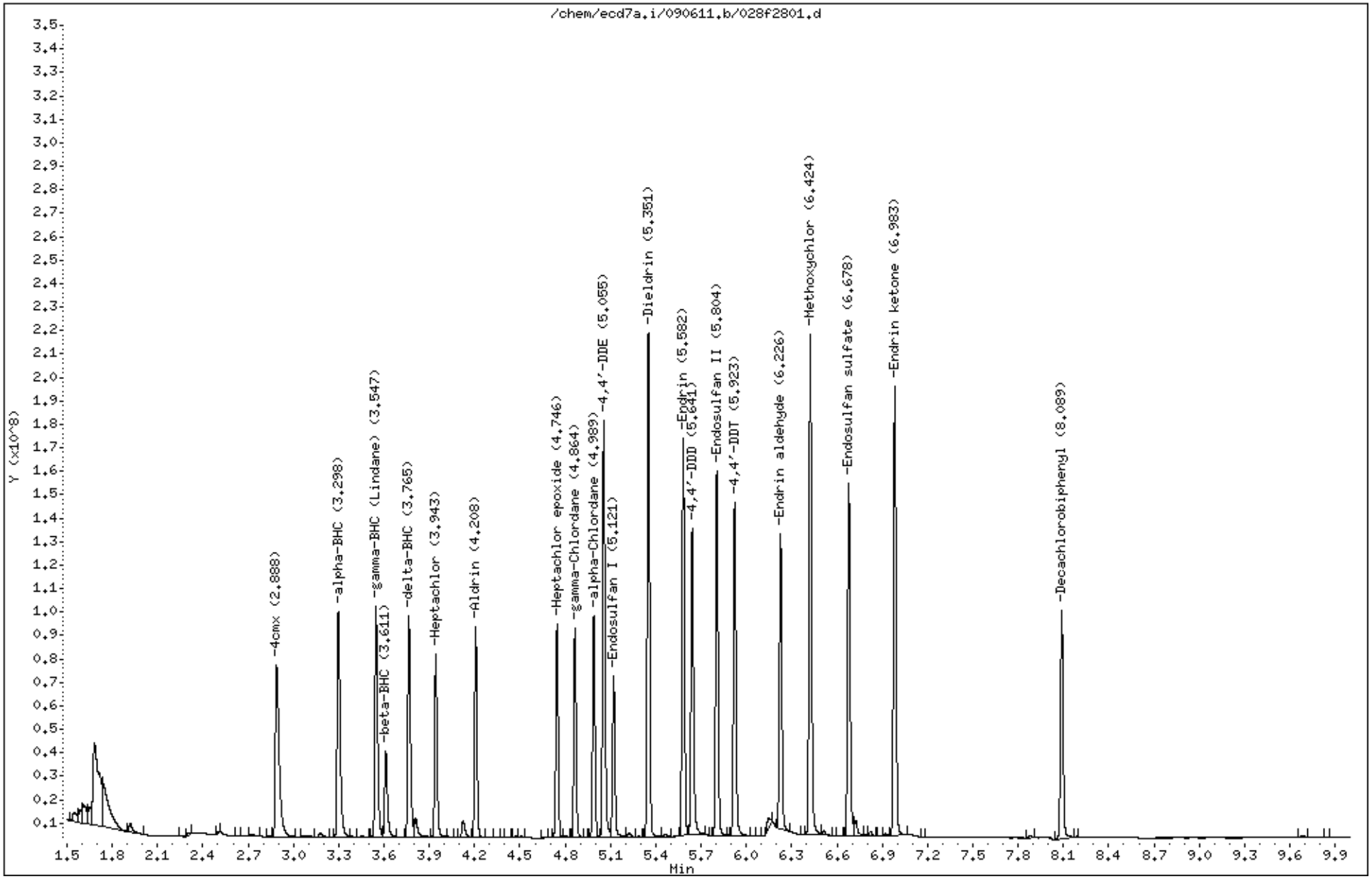
Sample Info: |120247992311|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090611.b/034b3401.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK03
Inj Date : 06-SEP-2011 17:29
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-B-8081-090611.m
Meth Date : 07-Sep-2011 06:51 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 34 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx						CAS #: 877-09-8		
	2.926	2.926	0.000	304715970	224.265	224	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl						CAS #: 2051-24-3		
	8.709	8.708	0.001	211467946	226.741	227	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/034b3401.d

Page 1

Date : 06-SEP-2011 17:29

Client ID: PIBLK03

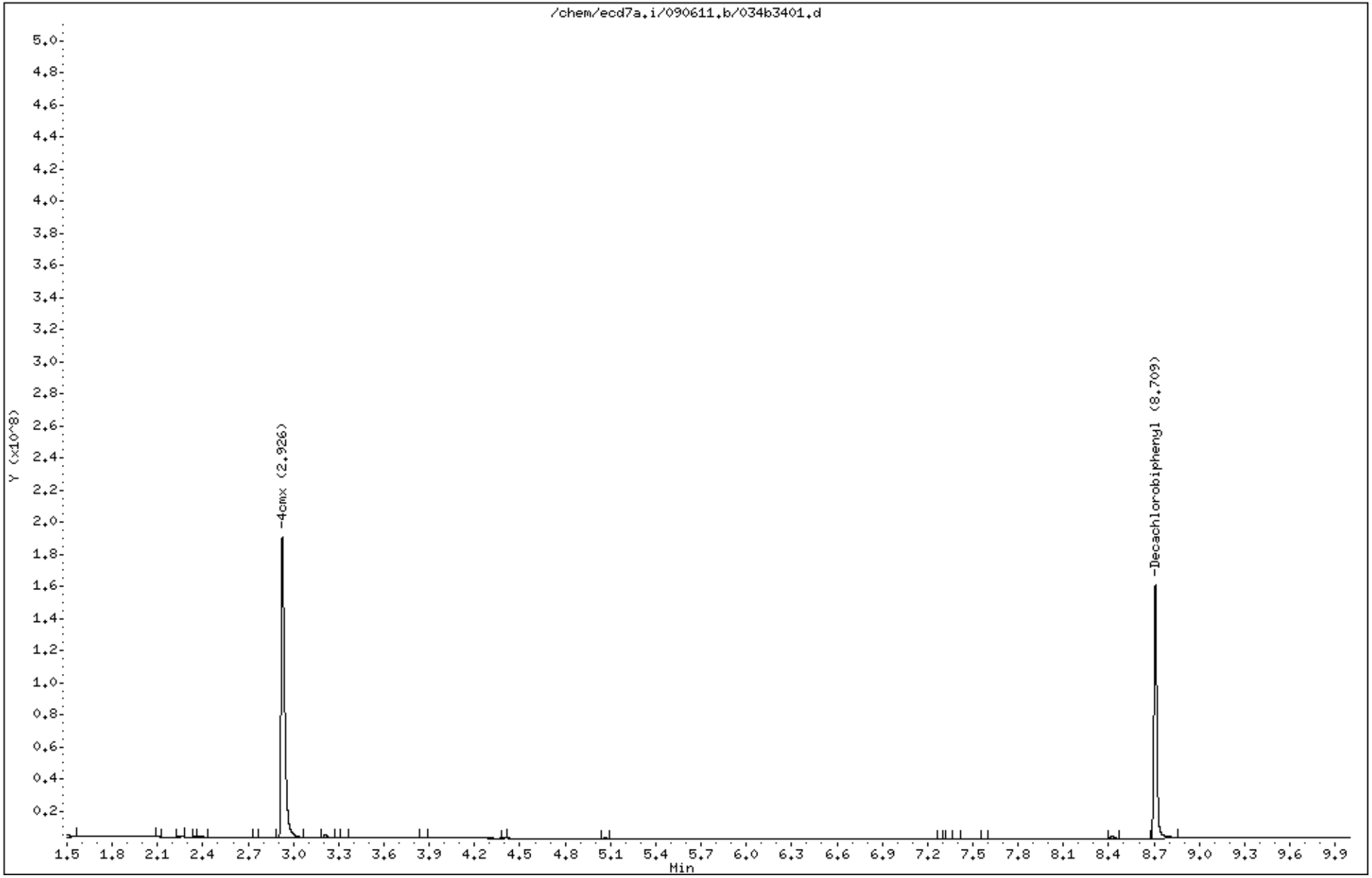
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090611.b/034f3401.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK03
Inj Date : 06-SEP-2011 17:29
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090611.b/ECD7-F-8081-090611.m
Meth Date : 07-Sep-2011 06:57 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 34 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx						CAS #: 877-09-8		
	2.887	2.887	0.000	291910546	231.170	231	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl						CAS #: 2051-24-3		
	8.093	8.092	0.001	178212741	230.228	230	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090611.b/034f3401.d

Page 1

Date : 06-SEP-2011 17:29

Client ID: PIBLK03

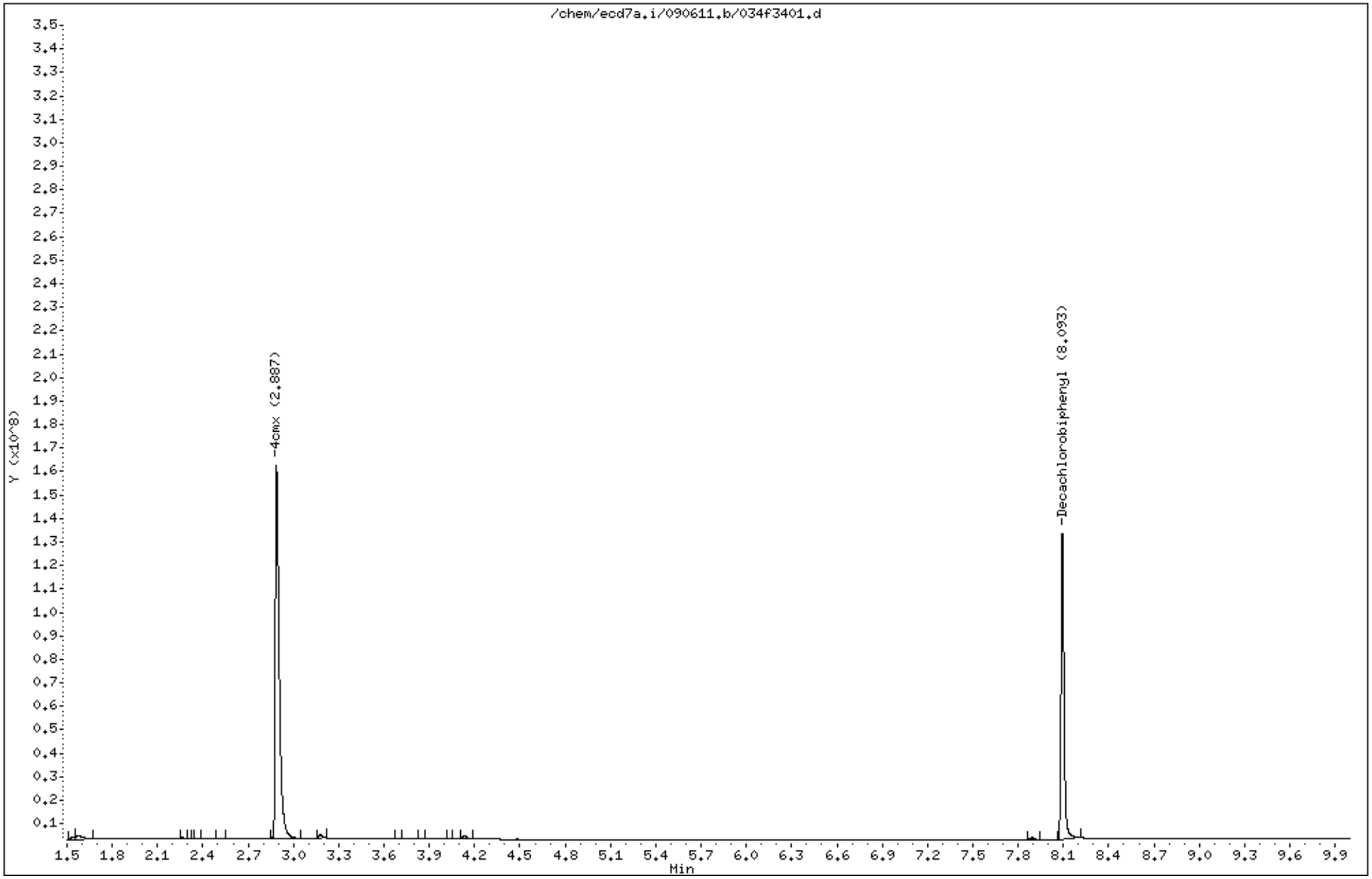
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/001b0101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 07-SEP-2011 08:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.927	2.923	0.004	300578527	220.136	220	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.702	8.704	-0.002	221510690	213.155	213	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/001b0101.d

Page 1

Date : 07-SEP-2011 08:53

Client ID: PIBLK01

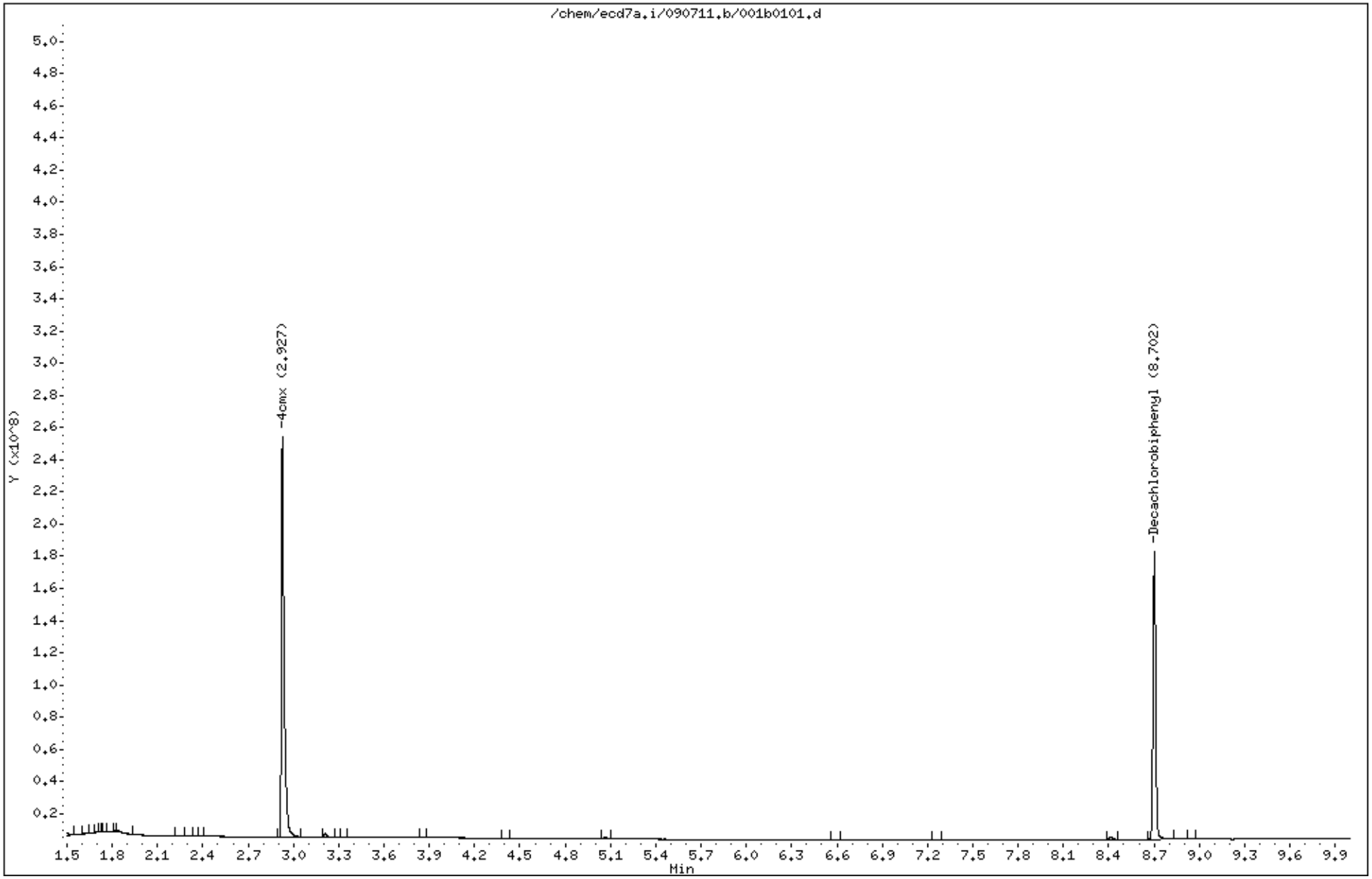
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/001f0101.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK01
Inj Date : 07-SEP-2011 08:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.890	2.884	0.006	290764310	221.766	222	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.089	8.090	-0.001	191157597	214.611	215	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/001f0101.d

Page 1

Date : 07-SEP-2011 08:53

Client ID: PIBLK01

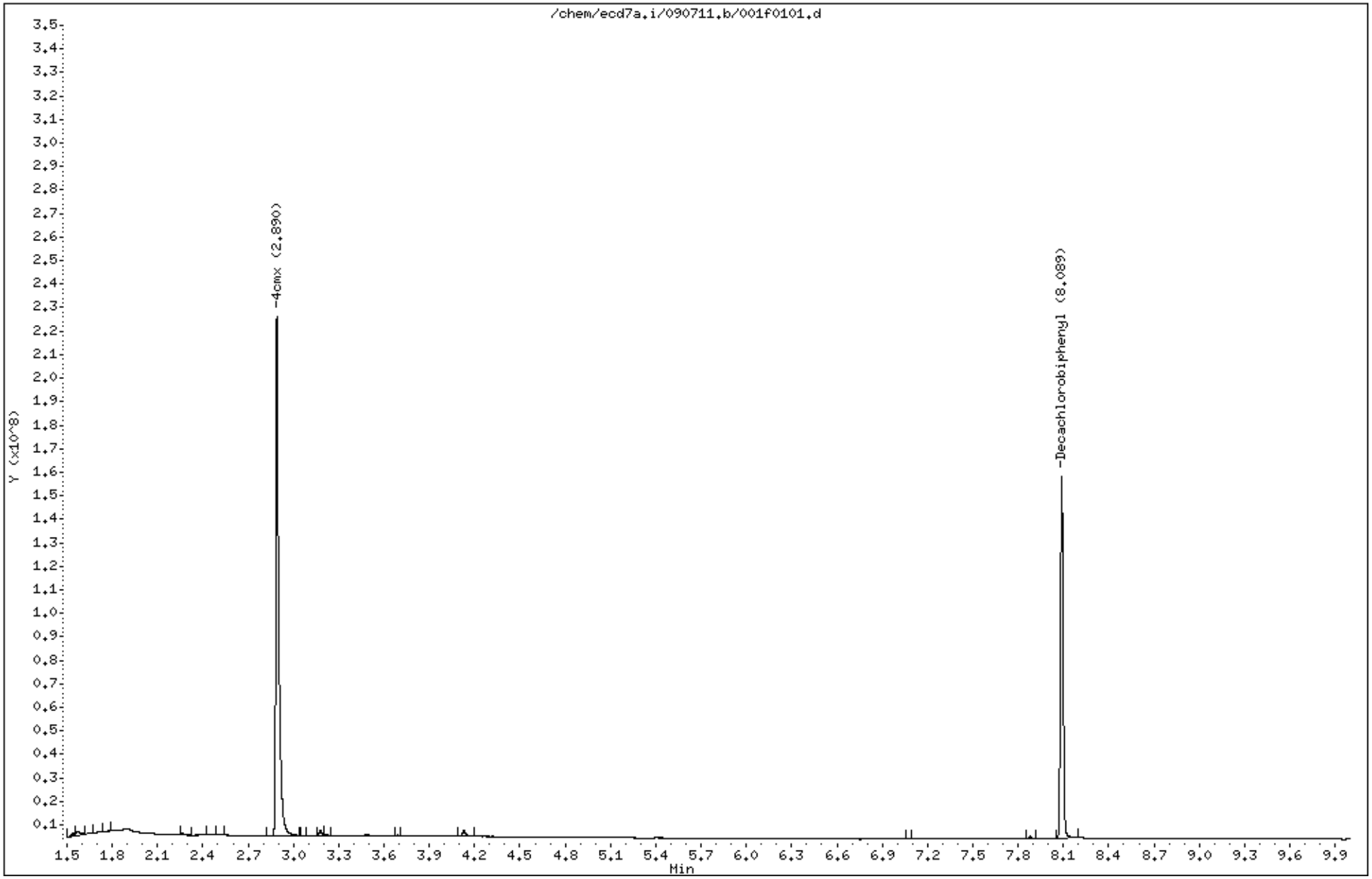
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/012b1201.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 07-SEP-2011 12:00
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 12 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx						CAS #: 877-09-8		
	2.923	2.923	0.000	313358801	229.496	229	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl						CAS #: 2051-24-3		
	8.705	8.704	0.001	225281855	216.784	217	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/012b1201.d

Page 1

Date : 07-SEP-2011 12:00

Client ID: PIBLK02

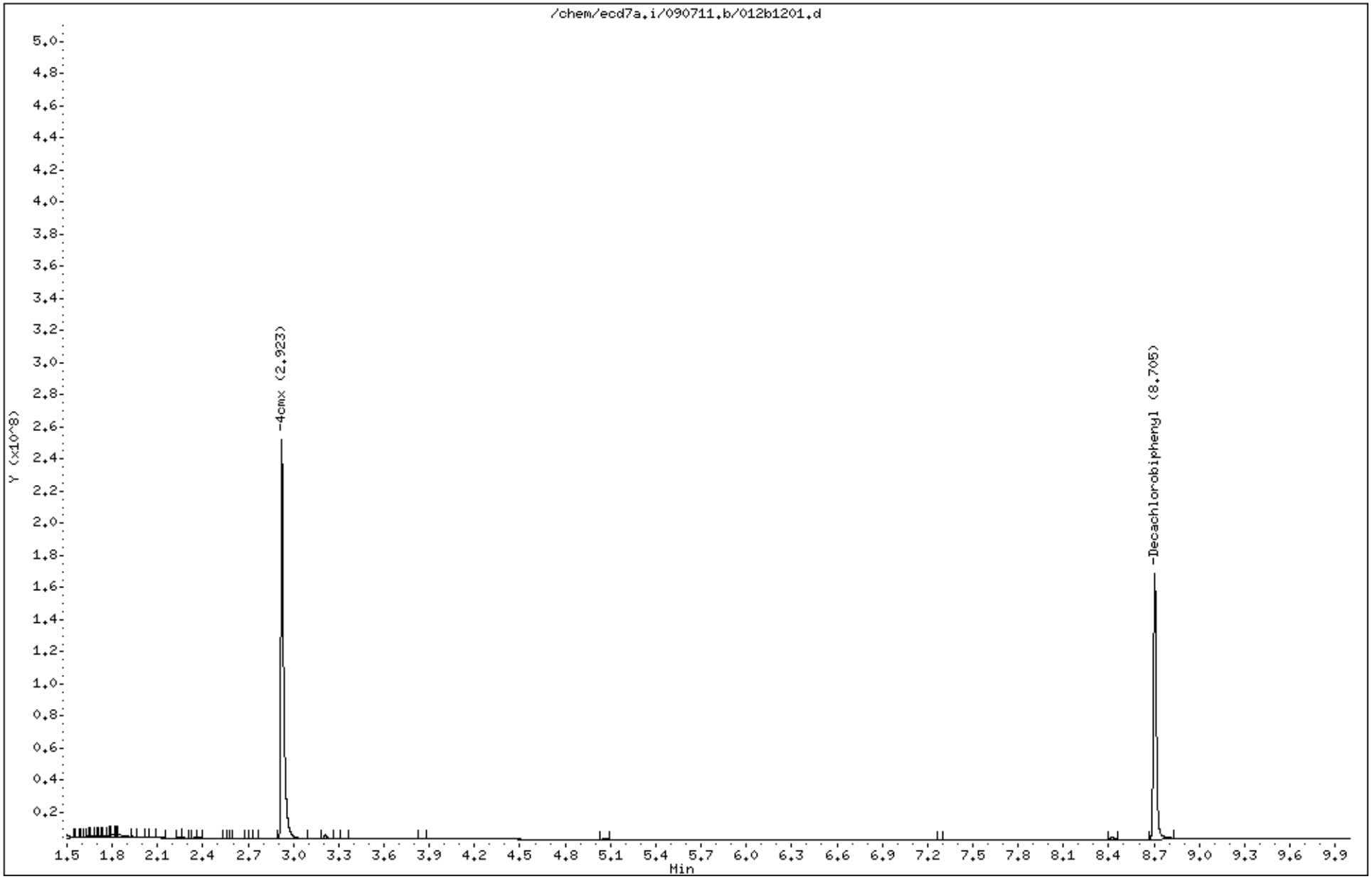
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/012f1201.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK02
Inj Date : 07-SEP-2011 12:00
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 12:16 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 12 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx						CAS #: 877-09-8		
	2.885	2.884	0.001	303820305	231.723	232	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl						CAS #: 2051-24-3		
	8.092	8.090	0.002	197674616	221.927	222	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/012f1201.d

Page 1

Date : 07-SEP-2011 12:00

Client ID: PIBLK02

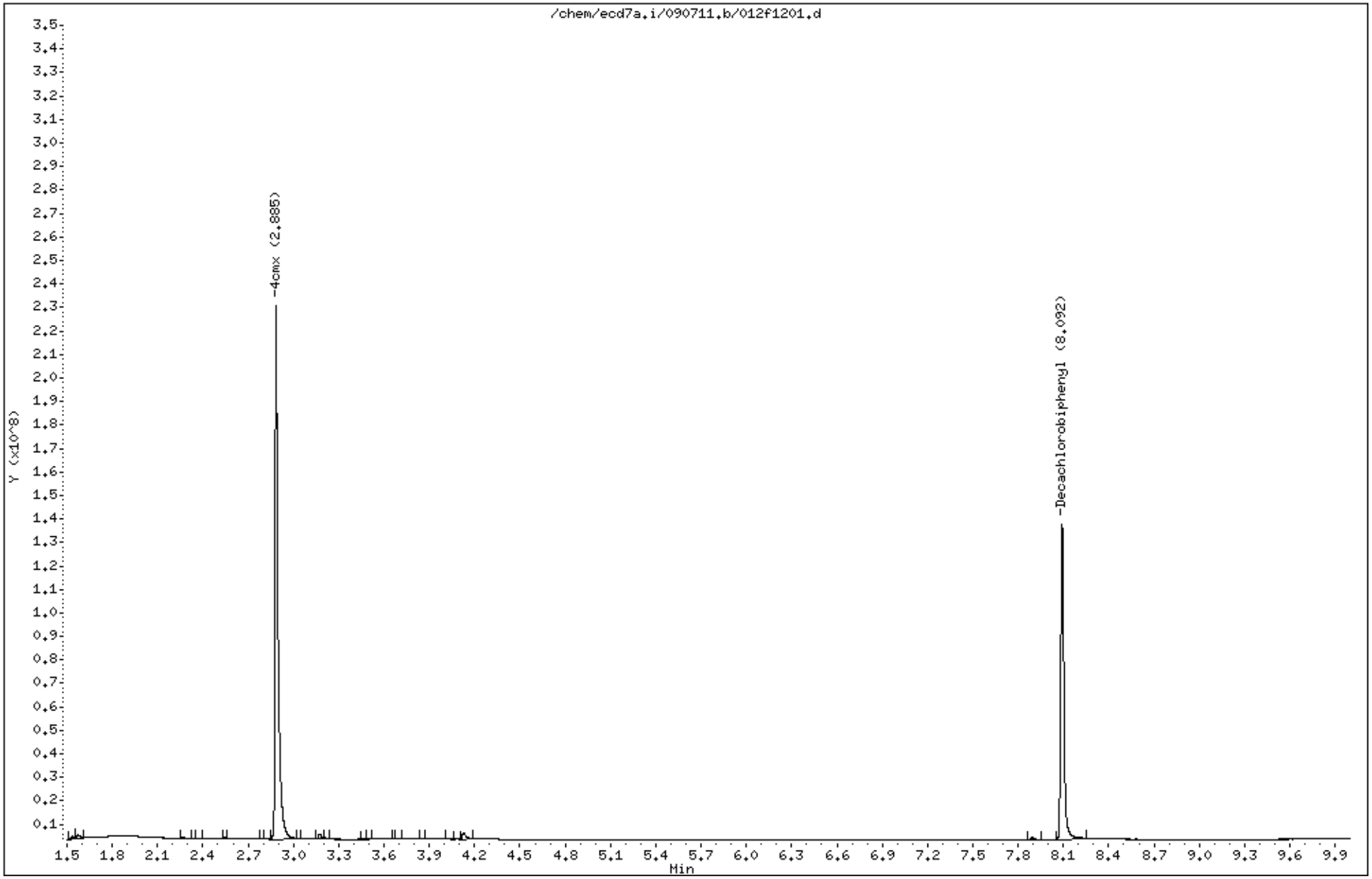
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/015b1501.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK03
Inj Date : 07-SEP-2011 12:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 13:25 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 15 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.923	-0.001	304016751	222.654	223	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.705	8.704	0.001	220683060	212.358	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/015b1501.d

Page 1

Date : 07-SEP-2011 12:51

Client ID: PIBLK03

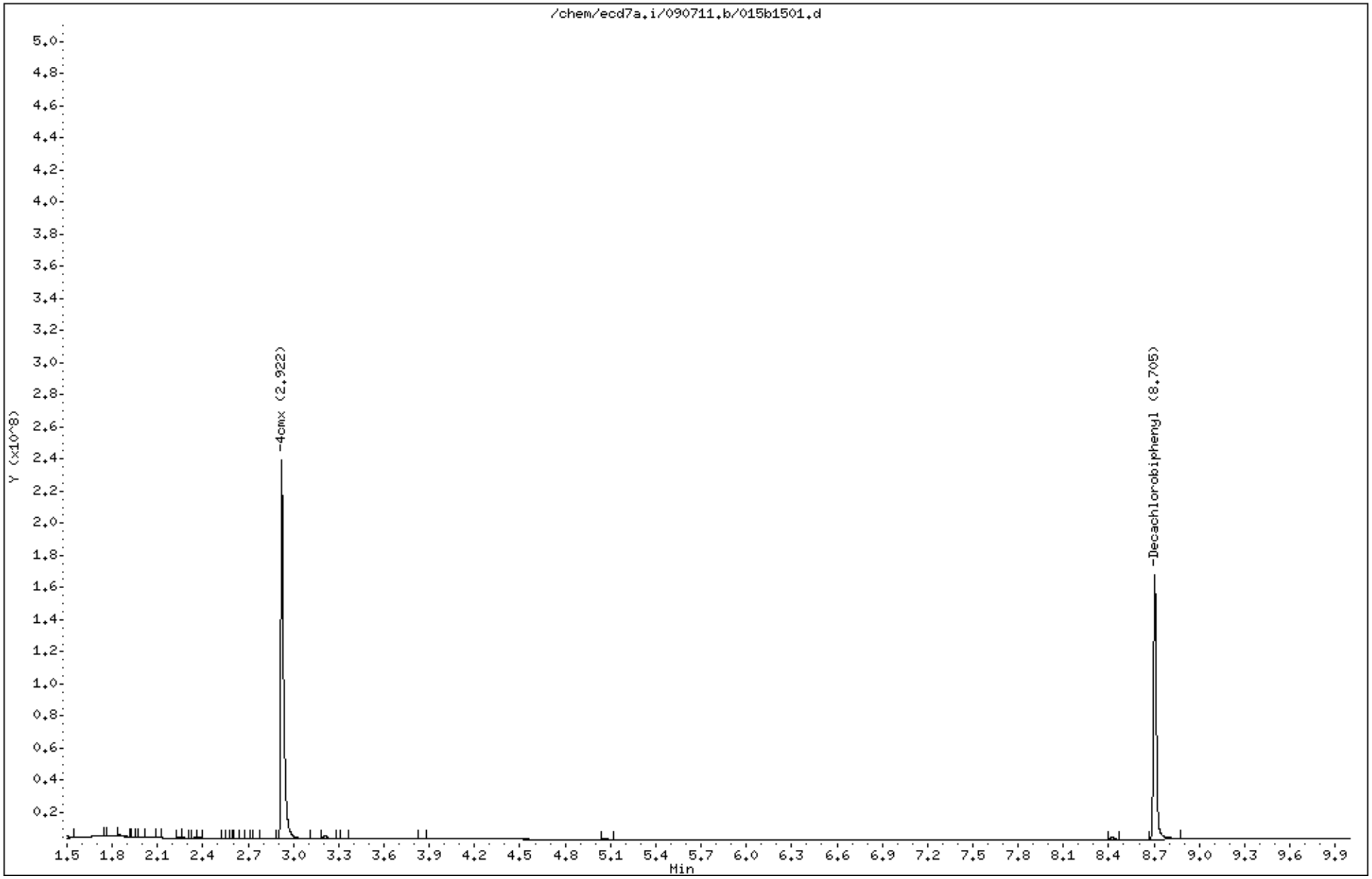
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/015f1501.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK03
Inj Date : 07-SEP-2011 12:51
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 13:24 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 15 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.885	2.884	0.001	294364108	224.511	224	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.092	8.090	0.002	192874316	216.538	216	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/015f1501.d

Page 1

Date : 07-SEP-2011 12:51

Client ID: PIBLK03

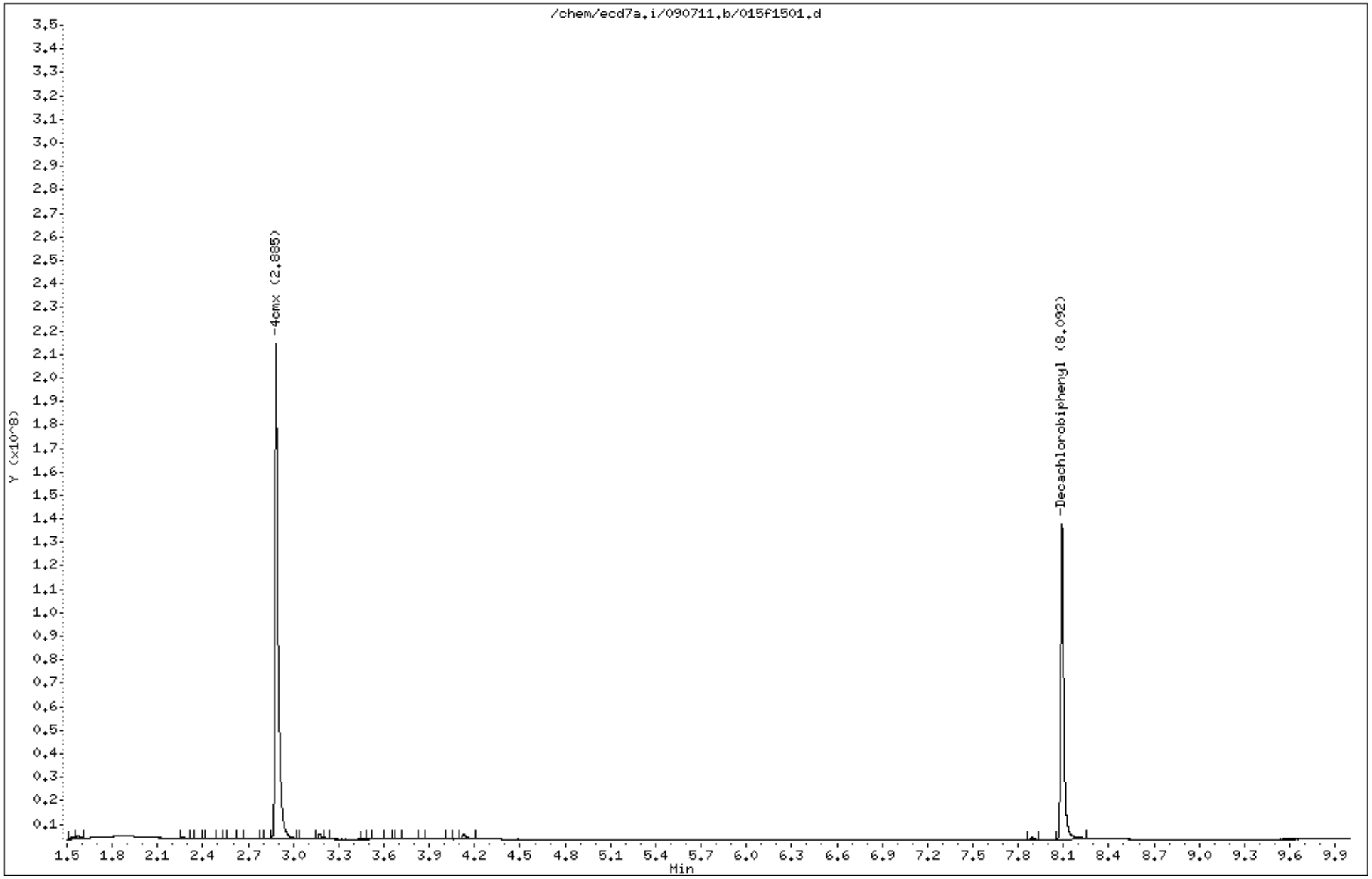
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/090711.b/017b1701.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK04
Inj Date : 07-SEP-2011 13:25
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-B-8081-090711.m
Meth Date : 07-Sep-2011 13:25 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013b1301.d
Als bottle: 17 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.923	-0.001	312464263	228.841	229	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.706	8.704	0.002	227366764	218.790	219	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/017b1701.d

Page 1

Date : 07-SEP-2011 13:25

Client ID: PIBLK04

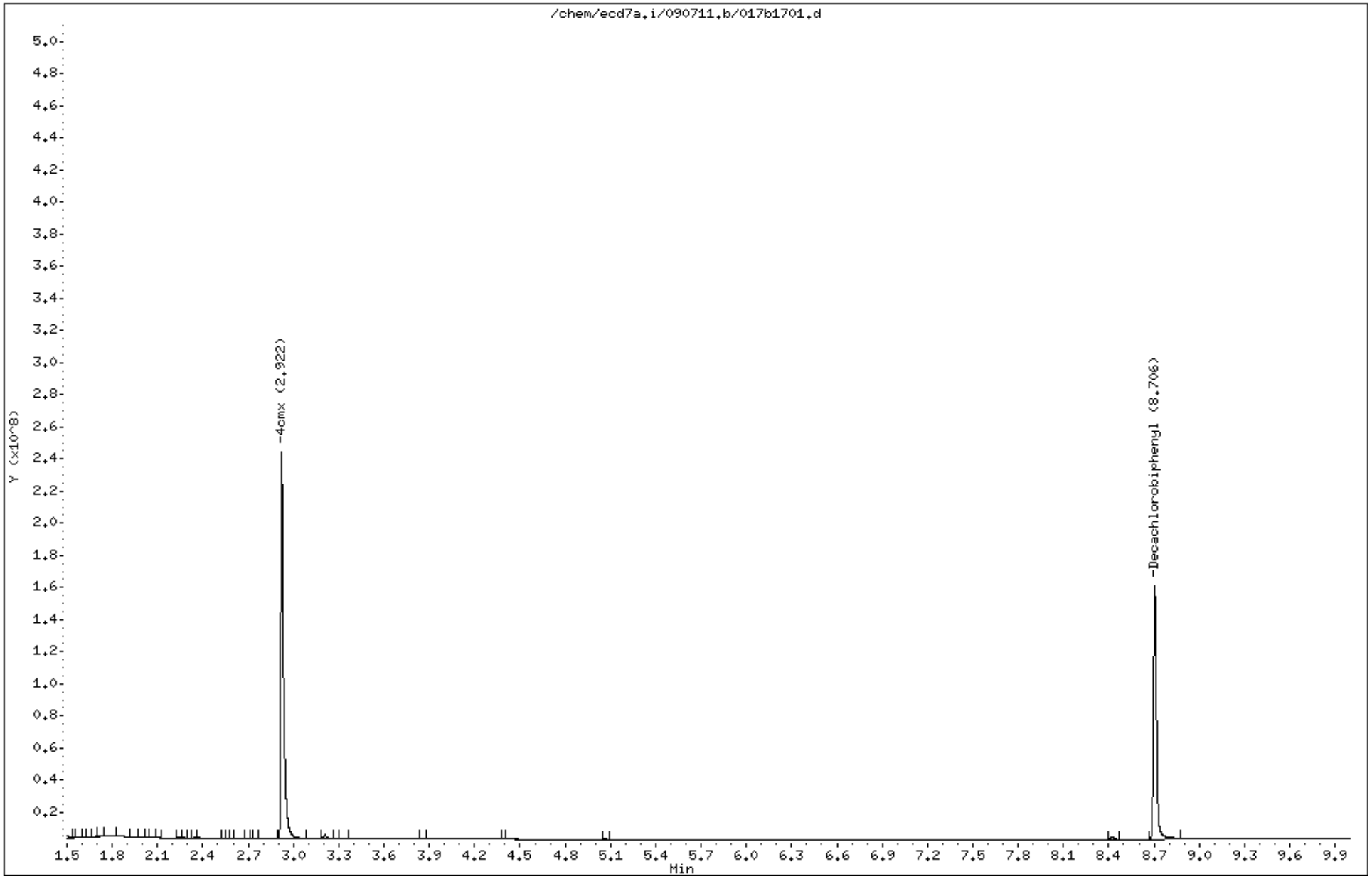
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25



GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/090711.b/017f1701.d
Lab Smp Id: WAR110902-99IB Client Smp ID: PIBLK04
Inj Date : 07-SEP-2011 13:25
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR110902-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/090711.b/ECD7-F-8081-090711.m
Meth Date : 07-Sep-2011 13:24 jam00798 Quant Type: ESTD
Cal Date : 29-AUG-2011 18:13 Cal File: 013f1301.d
Als bottle: 17 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx						CAS #: 877-09-8		
	2.884	2.884	0.000	302447822	230.677	231	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl						CAS #: 2051-24-3		
	8.093	8.090	0.003	197139661	221.327	221	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/090711.b/017f1701.d

Page 1

Date : 07-SEP-2011 13:25

Client ID: PIBLK04

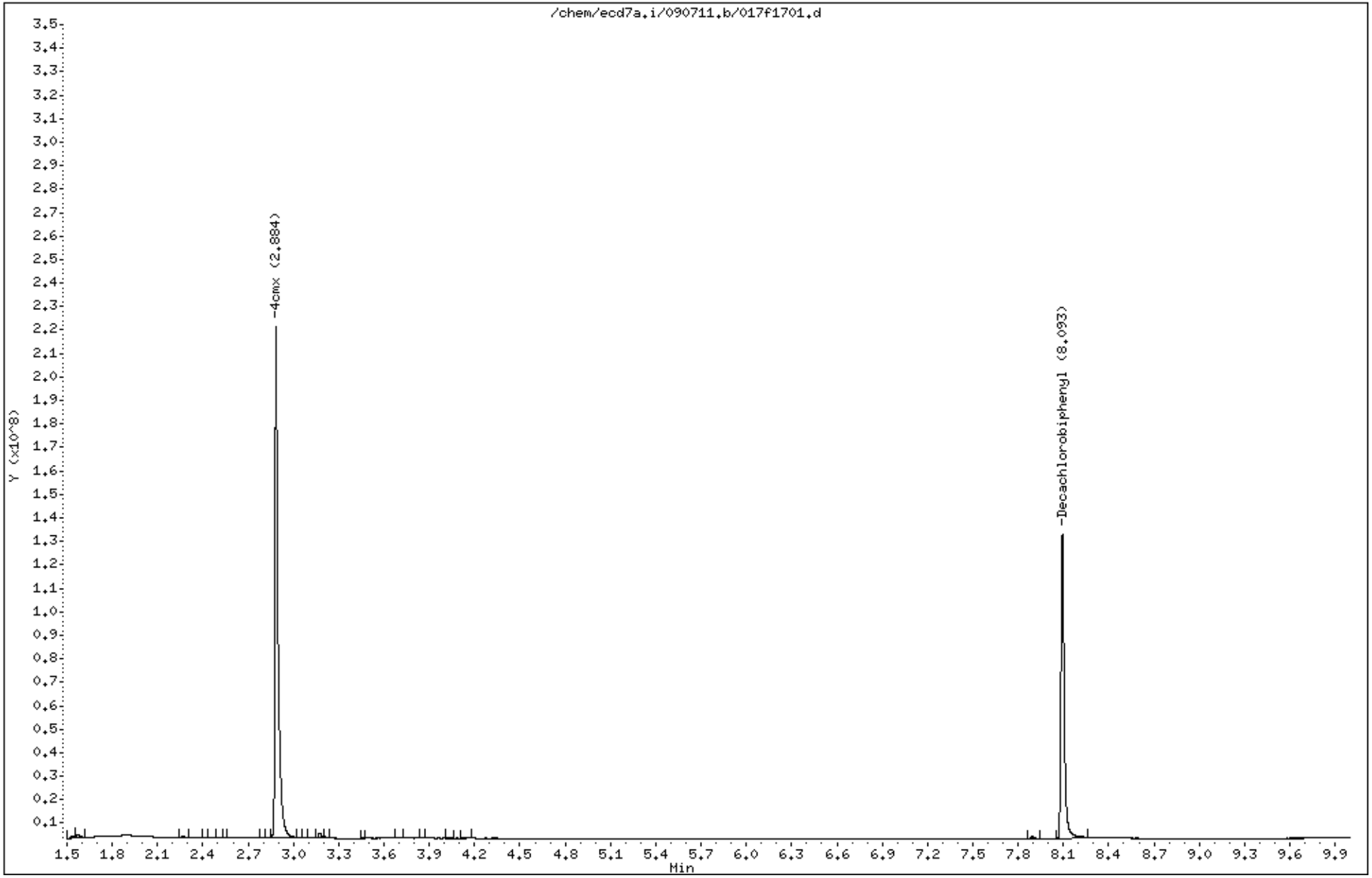
Instrument: ecd7a.i

Sample Info: IWAR110902-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25



GC Semivolatile PCB Analysis

PCB Case Narrative
ARS International (ARSL)
SDG 11-3386

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	EPA 608
Prep Method:	EPA 608 SPE Prep
Analytical Batch Number:	1138565
Prep Batch Number:	1138564

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 608:

Sample ID	Client ID
285124002	NPDES03A199-11-13860
285124005	NPDES03A113-11-13857
285124008	NPDES13S-11-26995
1202479946	Method Blank (MB)
1202479947	Laboratory Control Sample (LCS)
1202479954	Laboratory Control Sample Duplicate (LCSD)
1202479948	285124002(NPDES03A199-11-13860) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 16.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria. All analytes were within the established retention time windows for this method.

On of the five quantified peaks did not meet the acceptance criteria in Aroclor-1254 standard analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
QC sample 1202479946 (MB) recovered slightly above the acceptance limits for the surrogate; however, this non-compliance had no adverse effects on the data as there were no Aroclors detected above the PQL in the MB and the associated environmental samples. See DER #993722 in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD between the LCS and LCSD met the acceptance limits.

QC Sample Designation
Sample 285124002 (NPDES03A199-11-13860) was selected for the matrix spike analysis. The matrix spike duplicate analysis was not performed due to limited sample volume. The LCS and LCSD analysis was performed to measure the precision and accuracy for the batch.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. All reported analyte detections in client and quality control samples were within the established retention time

windows. Reported analyte concentrations were confirmed on dissimilar columns.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER #993722 was generated for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	Agilent 6890 Gas Chromatograph/Dual ECD w/ 7683 Autosampler	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 9/8/11

Roadmap for ARSL 11-3386 PCB

This roadmap was analyzed by jen01212 on 09-07-2011, 09:58.
This roadmap was analyzed by jim01140 on 09-08-2011, 13:46.
This roadmap was reviewed by jim01140 on 09-08-2011, 13:47.
This roadmap was packaged by jim01140 on 09-08-2011, 15:57.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/090611a.b/025f2501.d	285124002	sample	06-SEP-2011	16:49	11-3386.sub	NPDES03A199-11-13	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/027f2701.d	285124005	sample	06-SEP-2011	17:11	11-3386.sub	NPDES03A113-11-1385	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/028f2801.d	285124008	sample	06-SEP-2011	17:23	11-3386.sub	NPDES13S-11-26995	1.00000	1138565	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/090611a.b/025b2501.d	285124002	sample	06-SEP-2011	16:49	11-3386.sub	NPDES03A199-11-13	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/027b2701.d	285124005	sample	06-SEP-2011	17:11	11-3386.sub	NPDES03A113-11-1385	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/028b2801.d	285124008	sample	06-SEP-2011	17:23	11-3386.sub	NPDES13S-11-26995	1.00000	1138565	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/090611a.b/022f2201.d	1202479946	mb	06-SEP-2011	16:15	11-3386.sub	PBLK01	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/023f2301.d	1202479947	lcs	06-SEP-2011	16:27	11-3386.sub	PBLK01LCS	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/024f2401.d	1202479954	lcsd	06-SEP-2011	16:38	11-3386.sub	PBLK01LCSD	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/026f2601.d	1202479948	ms	06-SEP-2011	17:00	11-3386.sub	NPDES03A199-11-13MS	1.00000	1138565	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/090611a.b/022b2201.d	1202479946	mb	06-SEP-2011	16:15	11-3386.sub	PBKL01	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/023b2301.d	1202479947	lcs	06-SEP-2011	16:27	11-3386.sub	PBLK01LCS	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/024b2401.d	1202479954	lcsd	06-SEP-2011	16:38	11-3386.sub	PBLK01LCSD	1.00000	1138565	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd2a.i/090611a.b/026b2601.d	1202479948	ms	06-SEP-2011	17:00	11-3386.sub	NPDES03A199-11-13MS	1.00000	1138565	UPLOAD BOTH, USE HIGHER

Sample Data Summary

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124005**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:11**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.104	ug/L	0.0347	0.104	1
11104-28-2	Aroclor-1221	U	0.104	ug/L	0.0347	0.104	1
11141-16-5	Aroclor-1232	U	0.104	ug/L	0.0347	0.104	1
53469-21-9	Aroclor-1242	U	0.104	ug/L	0.0347	0.104	1
12672-29-6	Aroclor-1248	U	0.104	ug/L	0.0347	0.104	1
11097-69-1	Aroclor-1254	J	0.092	ug/L	0.0347	0.104	1
11096-82-5	Aroclor-1260	JP	0.069	ug/L	0.0347	0.104	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.150	0.208	ug/L	72.1	(21%-109%)
Decachlorobiphenyl	0.170	0.208	ug/L	81.6	(23%-119%)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124002**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:49**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.147	0.211	ug/L	69.7	(21%-109%)
Decachlorobiphenyl	0.174	0.211	ug/L	82.5	(23%-119%)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124008**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26995**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:23**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.109	ug/L	0.0362	0.109	1
11104-28-2	Aroclor-1221	U	0.109	ug/L	0.0362	0.109	1
11141-16-5	Aroclor-1232	U	0.109	ug/L	0.0362	0.109	1
53469-21-9	Aroclor-1242	U	0.109	ug/L	0.0362	0.109	1
12672-29-6	Aroclor-1248	U	0.109	ug/L	0.0362	0.109	1
11097-69-1	Aroclor-1254	U	0.109	ug/L	0.0362	0.109	1
11096-82-5	Aroclor-1260	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.168	0.217	ug/L	77.2	(21%-109%)
Decachlorobiphenyl	0.197	0.217	ug/L	90.5	(23%-119%)

QC Summary

PCB

Surrogate Recovery Report

SDG Number: 11-3386

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202479946	MB for batch 1138564	106	106	110	134 *
1202479947	LCS for batch 1138564	66	65	78	76
1202479954	LCSD for batch 1138564	74	73	83	80
285124002	NPDES03A199-11-13860	70	68	83	80
1202479948	NPDES03A199-11-13860MS	74	73	87	82
285124005	NPDES03A113-11-13857	72	71	82	79
285124008	NPDES13S-11-26995	77	77	87	91

Surrogate		Acceptance Limits
4CMX	= 4cmx	(21%-109%)
DCB	= Decachlorobiphenyl	(23%-119%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCS for batch 1138564**
Lab Sample ID: **1202479947**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WASTE WATER**
Analysis Date: **09/06/2011 16:27**
Prep Batch ID: **1138564**
Batch ID: **1138565**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	1.00	0.0	0.710	71	45-95
11096-82-5	LCS	Aroclor-1260	1.00	0.0	0.750	75	51-109

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **LCSD for batch 1138564**
Lab Sample ID: **1202479954**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample Duplicate**
Matrix: **WASTE WATER**
Analysis Date: **09/06/2011 16:38**
Prep Batch ID: **1138564**
Batch ID: **1138565**
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	LCSD Aroclor-1016	1.00	0.0	0.740	74	45-95	4	0-20
11096-82-5	LCSD Aroclor-1260	1.00	0.0	0.790	79	51-109	5	0-20

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **11-3386**
Client ID: **NPDES03A199-11-13860MS**
Lab Sample ID: **1202479948**
Instrument: **ECD2A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **WASTE WATER**
Analysis Date: **09/06/2011 17:00**
Prep Batch ID: **1138564**
Batch ID: **1138565**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.06	0.00	U	0.840	79	29-110
11096-82-5	MS	Aroclor-1260	1.06	0.00	U	0.930	87	30-119

Method Blank Summary

SDG Number:	**11-3386**	**Client:**	**ARSL001**	**Matrix:**	**WASTE WATER**
Client ID:	**MB for batch 1138564**	**Instrument ID:**	**ECD2A.I_2** **ECD2A.I_1**	**Data File:**	**022b2201.d** **022f2201.d**
Lab Sample ID:	**1202479946**				
Column:	**CLP2** **CLP1**	**Prep Date:**	**09/02/2011 16:45**	**Analyzed:**	**09/06/11 16:15**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1138564	1202479947	023f2301.d 023b2301.d	09/06/11	1627
02 LCSD for batch 1138564	1202479954	024f2401.d 024b2401.d	09/06/11	1638
03 NPDES03A199-11-13860	285124002	025f2501.d 025b2501.d	09/06/11	1649
04 NPDES03A199-11-13860MS	1202479948	026f2601.d 026b2601.d	09/06/11	1700
05 NPDES03A113-11-13857	285124005	027f2701.d 027b2701.d	09/06/11	1711
06 NPDES13S-11-26995	285124008	028f2801.d 028b2801.d	09/06/11	1723

Sample Data

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124005**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A113-11-13857**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:11**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.104	ug/L	0.0347	0.104	1
11104-28-2	Aroclor-1221	U	0.104	ug/L	0.0347	0.104	1
11141-16-5	Aroclor-1232	U	0.104	ug/L	0.0347	0.104	1
53469-21-9	Aroclor-1242	U	0.104	ug/L	0.0347	0.104	1
12672-29-6	Aroclor-1248	U	0.104	ug/L	0.0347	0.104	1
11097-69-1	Aroclor-1254	J	0.092	ug/L	0.0347	0.104	1
11096-82-5	Aroclor-1260	JP	0.069	ug/L	0.0347	0.104	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.150	0.208	ug/L	72.1	(21%-109%)
Decachlorobiphenyl	0.170	0.208	ug/L	81.6	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/027f2701.d
Lab Smp Id: 285124005 Client Smp ID: NPDES03A113-11-1385
Inj Date : 06-SEP-2011 17:11
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |285124005|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES03A113-11
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	960.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	8368324	144.164	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	8059886	163.250	0.17	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.320	3.320	0.000	122656	70.0647	0.073	80.00- 120.00	100.00(aM)
3.504	3.503	0.001	206914	90.5459	0.094	111.95- 151.95	168.69
3.691	3.691	0.000	137775	78.3135	0.082	82.35- 122.35	112.33
3.904	3.903	0.001	184869	156.047	0.16	47.94- 87.94	183.86
4.154	4.153	0.001	58263	51.2713	0.053	49.35- 89.35	47.50
Average of Peak Concentrations =					0.092		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.904	3.904	0.000	184869	75.4992	0.079	80.00- 120.00	100.00(aM)
4.096	4.097	-0.001	290937	80.0944	0.083	130.78- 170.78	129.01
4.181	4.182	-0.001	132766	84.5290	0.088	45.67- 85.67	58.87
4.368	4.368	0.000	97259	42.7968	0.044	74.00- 114.00	47.09
4.534	4.534	0.000	114110	48.9734	0.051	76.98- 116.98	50.60
Average of Peak Concentrations =					0.069		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/090611a.b/027f2701.d

Page 1

Date : 06-SEP-2011 17:11

Client ID: NPDES03A113-11-1385

Instrument: ecd2a.i

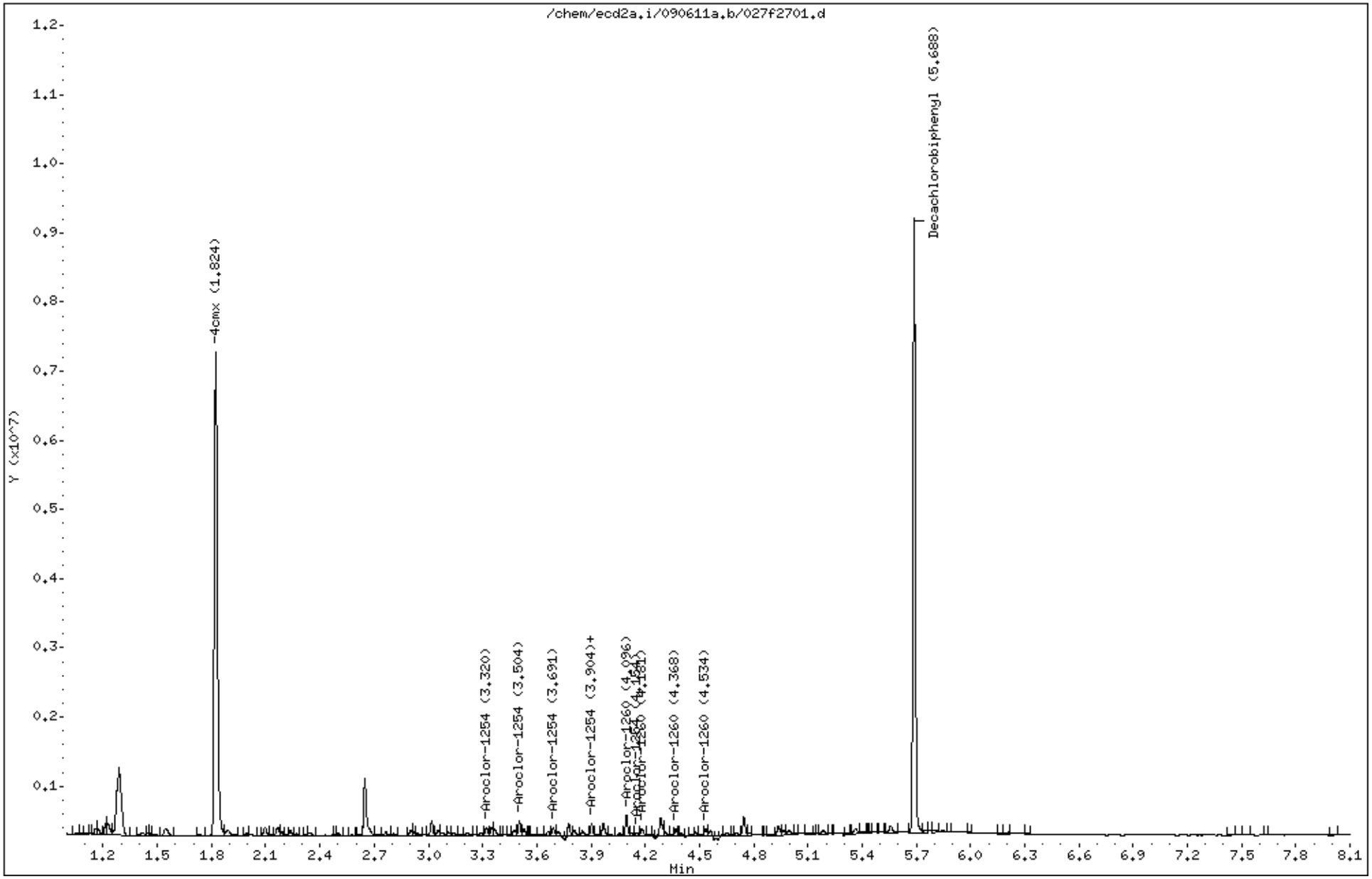
Sample Info: |285124005|1|

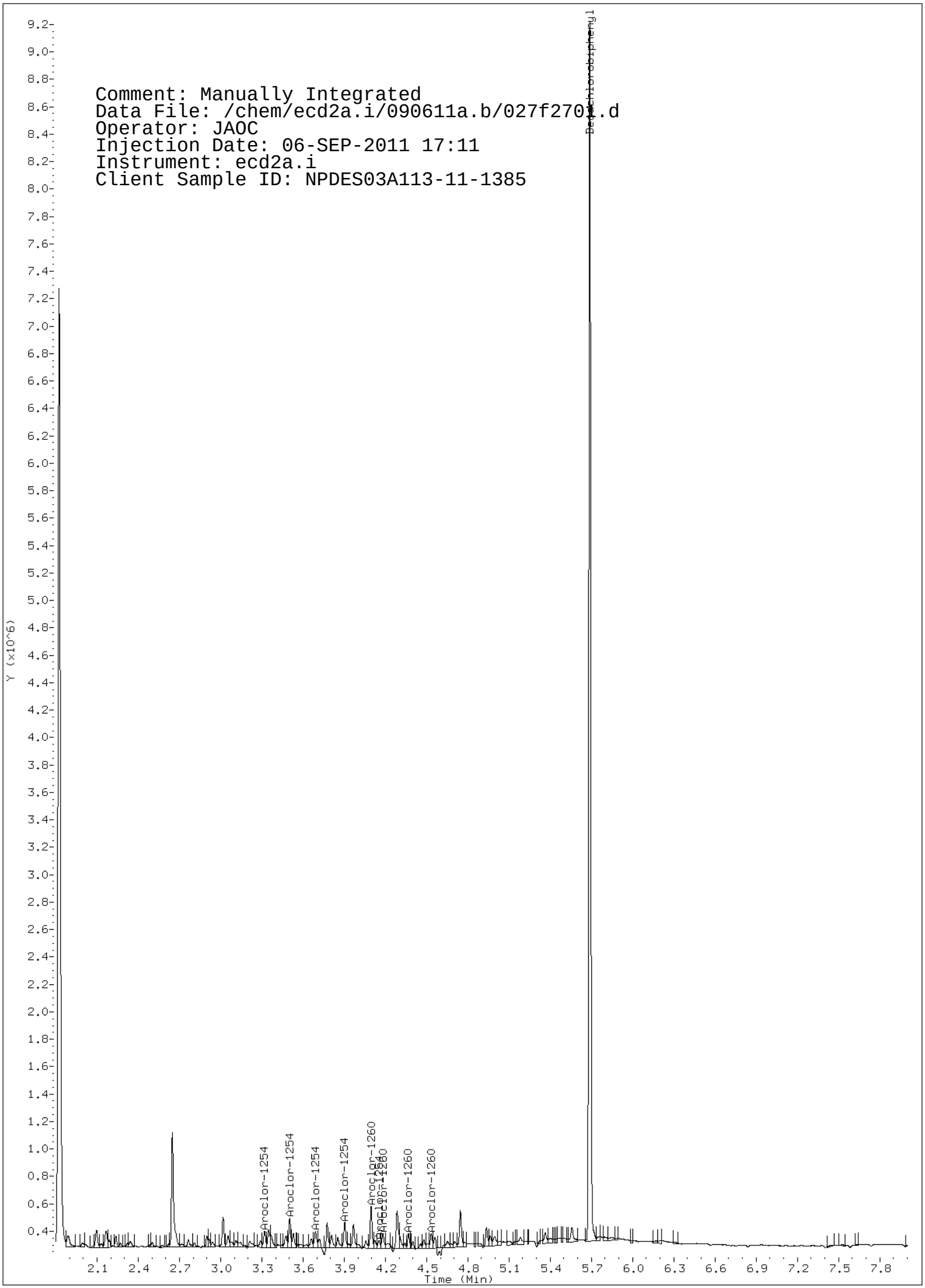
Volume Injected (uL): 1.0

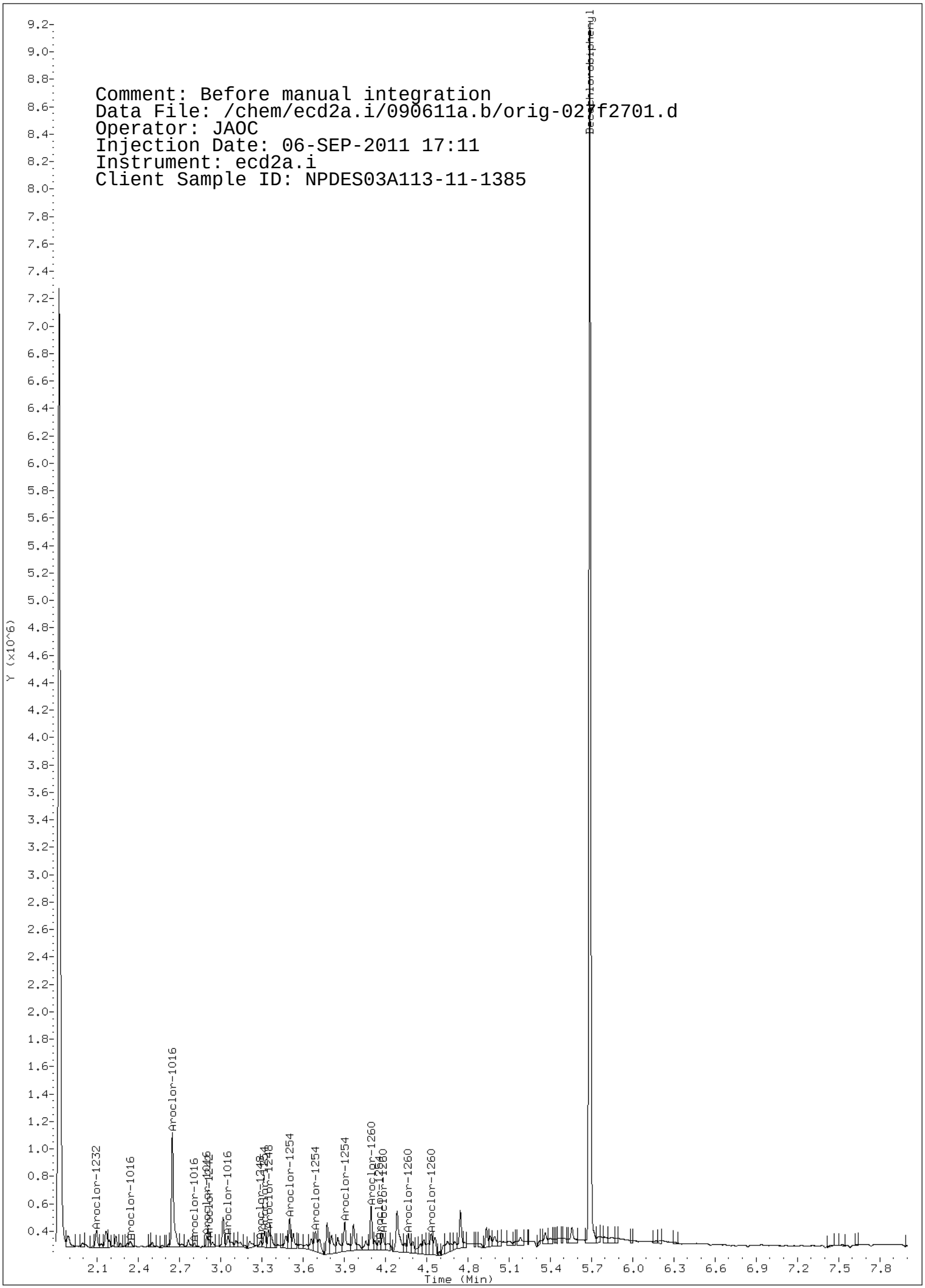
Operator: JAOC

Column phase: CLP1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/090611a.b/027f2701.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:11
Instrument: ecd2a.i
Client Sample ID: NPDES03A113-11-1385
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/090611a.b/orig-027f2701.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:11
Instrument: ecd2a.i
Client Sample ID: NPDES03A113-11-1385
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/090611a.b/027b2701.d
Lab Smp Id: 285124005                    Client Smp ID: NPDES03A113-11-1385
Inj Date  : 06-SEP-2011 17:11
Operator  : JAOC                         Inst ID: ecd2a.i
Smp Info  : |285124005|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES03A113-11
Comment   :
Method    : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212   Quant Type: ESTD
Cal Date  : 02-SEP-2011 08:55            Cal File: 007b0701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon                       Compound Sublist: 11-3386.sub
Target Version:  3.50                    Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	960.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	23470237	142.643	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.259	6.261	-0.002	25522028	157.563	0.16	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.299	3.298	0.001	202691	66.7722	0.070	80.00- 120.00	100.00(aM)
3.785	3.783	0.002	441122	75.9514	0.079	172.01- 212.01	225.02
3.969	3.967	0.002	189955	38.8044	0.040	138.64- 178.64	108.49
4.159	4.160	-0.001	284048	59.6228	0.062	140.23- 180.23	140.14
4.378	4.377	0.001	363526	96.4647	0.10	104.55- 144.55	179.35
Average of Peak Concentrations =					0.070		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	363526	51.2434	0.053	80.00- 120.00	100.00(aM)
4.529	4.529	0.000	590901	66.6832	0.069	105.45- 145.45	162.55
4.644	4.641	0.003	150867	25.3682	0.026	64.98- 104.98	41.50
4.837	4.837	0.000	308584	44.8165	0.047	77.47- 117.47	84.89
5.038	5.037	0.001	212004	30.1419	0.031	79.77- 119.77	58.32
			Average of Peak Concentrations =		0.045		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/090611a.b/027b2701.d

Page 1

Date : 06-SEP-2011 17:11

Client ID: NPDES03A113-11-1385

Instrument: ecd2a.i

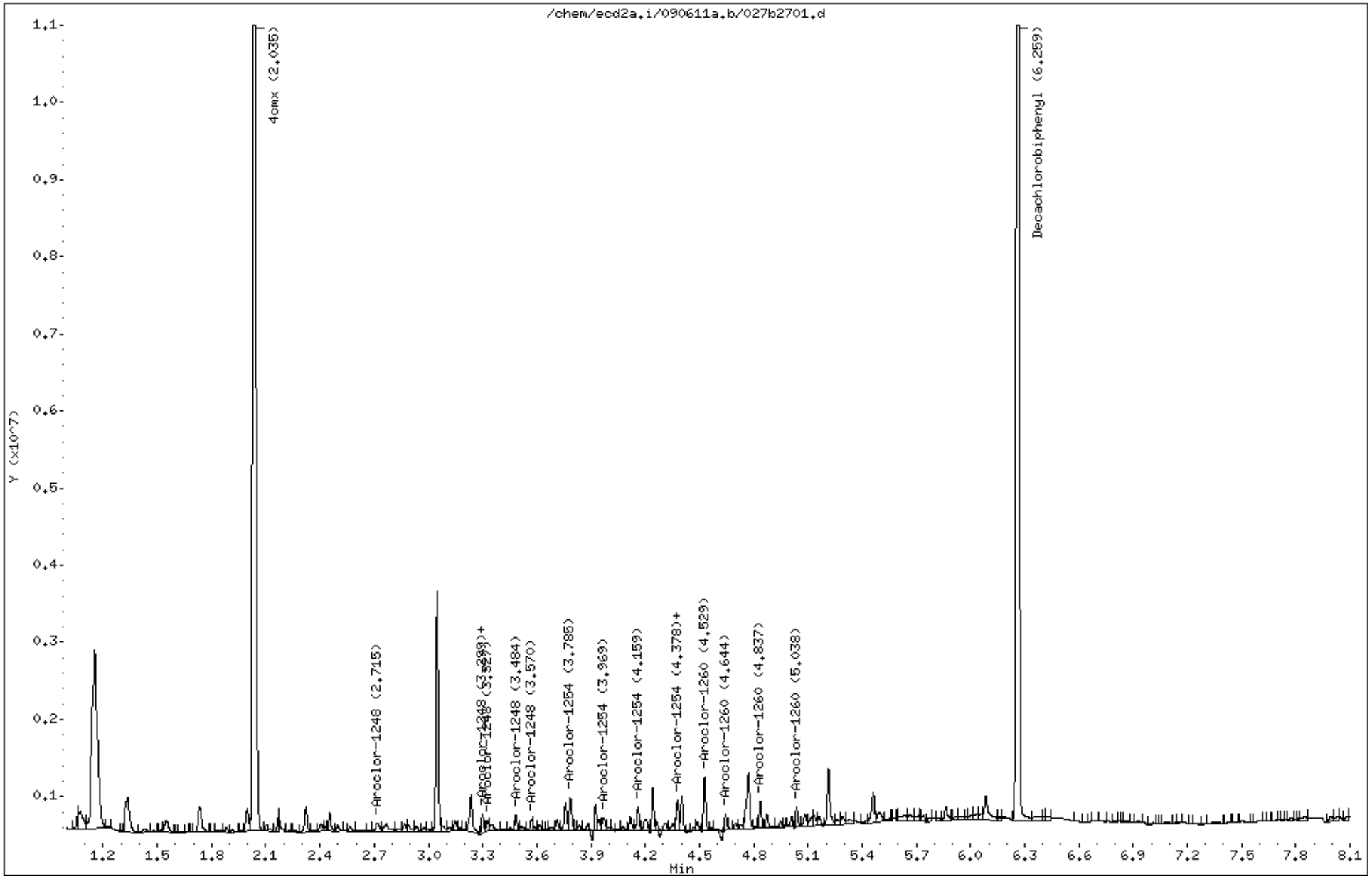
Sample Info: |285124005|1|

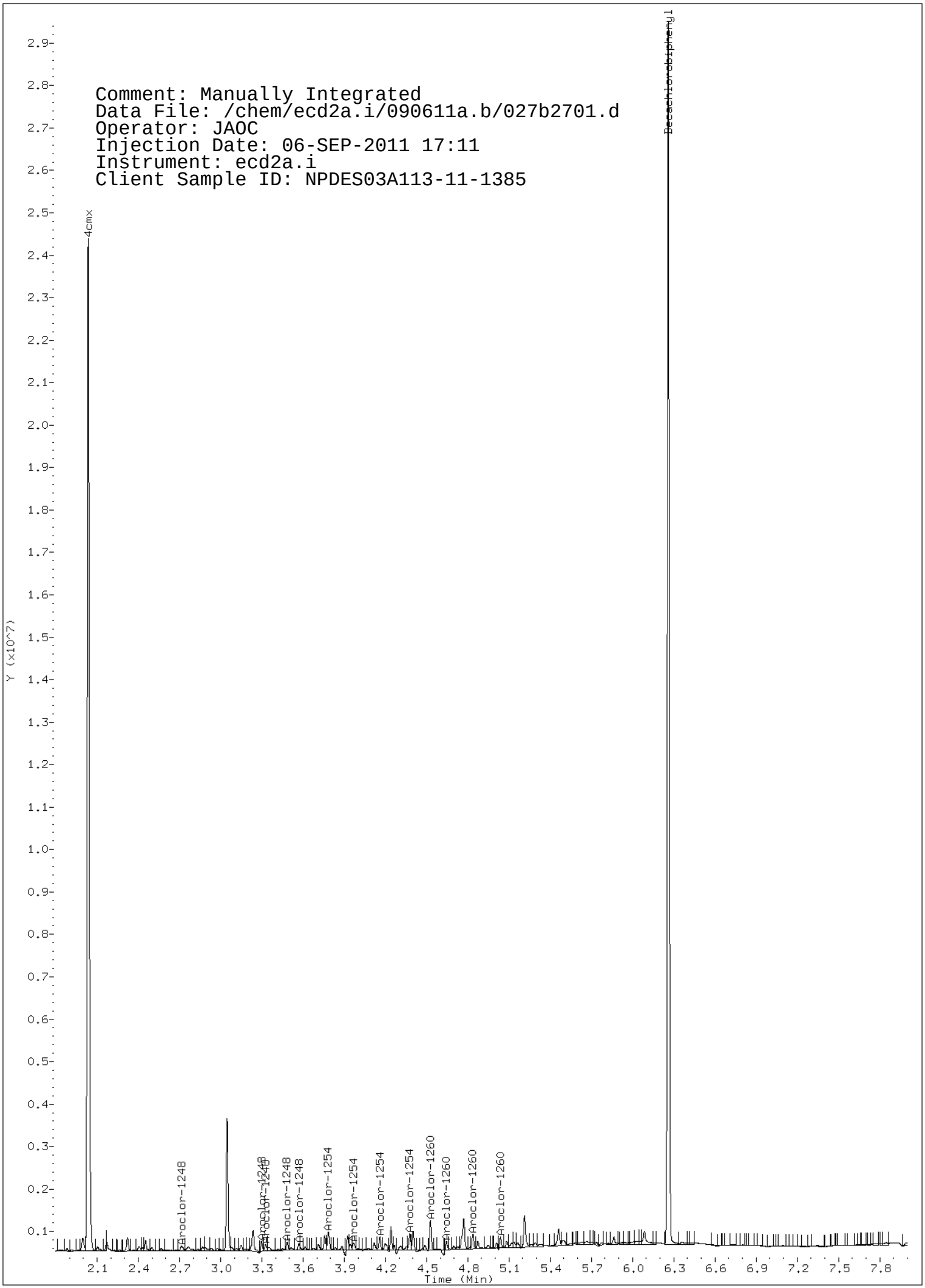
Volume Injected (uL): 1.0

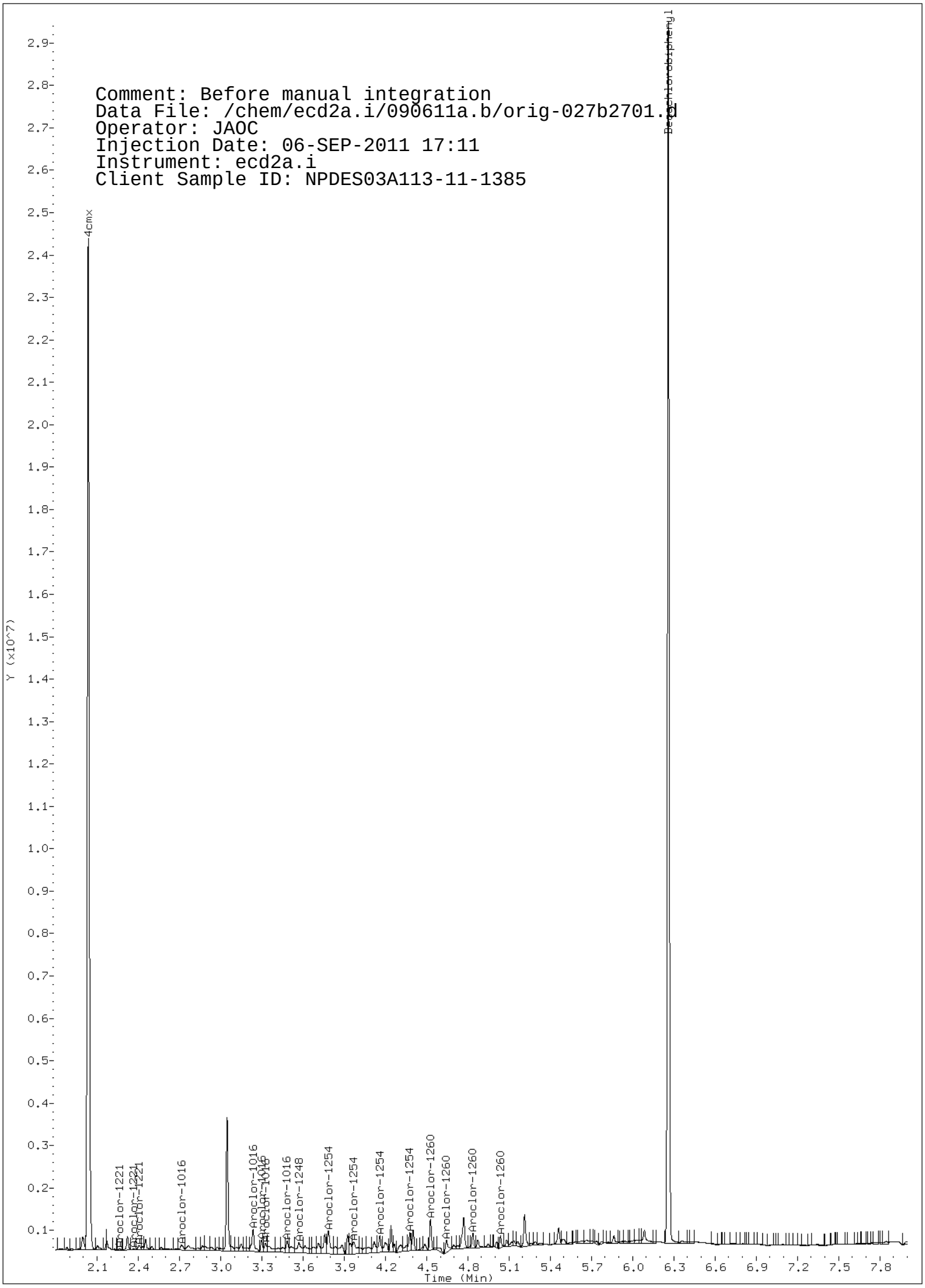
Operator: JAOC

Column phase: CLP2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/090611a.b/027b2701.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:11
Instrument: ecd2a.i
Client Sample ID: NPDES03A113-11-1385
4cmx
Decachlorobiphenyl
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/090611a.b/orig-027b2701.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:11
Instrument: ecd2a.i
Client Sample ID: NPDES03A113-11-1385
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124002**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES03A199-11-13860**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:49**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.147	0.211	ug/L	69.7	(21%-109%)
Decachlorobiphenyl	0.174	0.211	ug/L	82.5	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/025f2501.d
Lab Smp Id: 285124002 Client Smp ID: NPDES03A199-11-13
Inj Date : 06-SEP-2011 16:49
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |285124002|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES03A199-11
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.822	1.822	0.000	8087660	139.329	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	8149560	165.067	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/090611a.b/025f2501.d

Page 1

Date : 06-SEP-2011 16:49

Client ID: NPDES03A199-11-13

Instrument: ecd2a.i

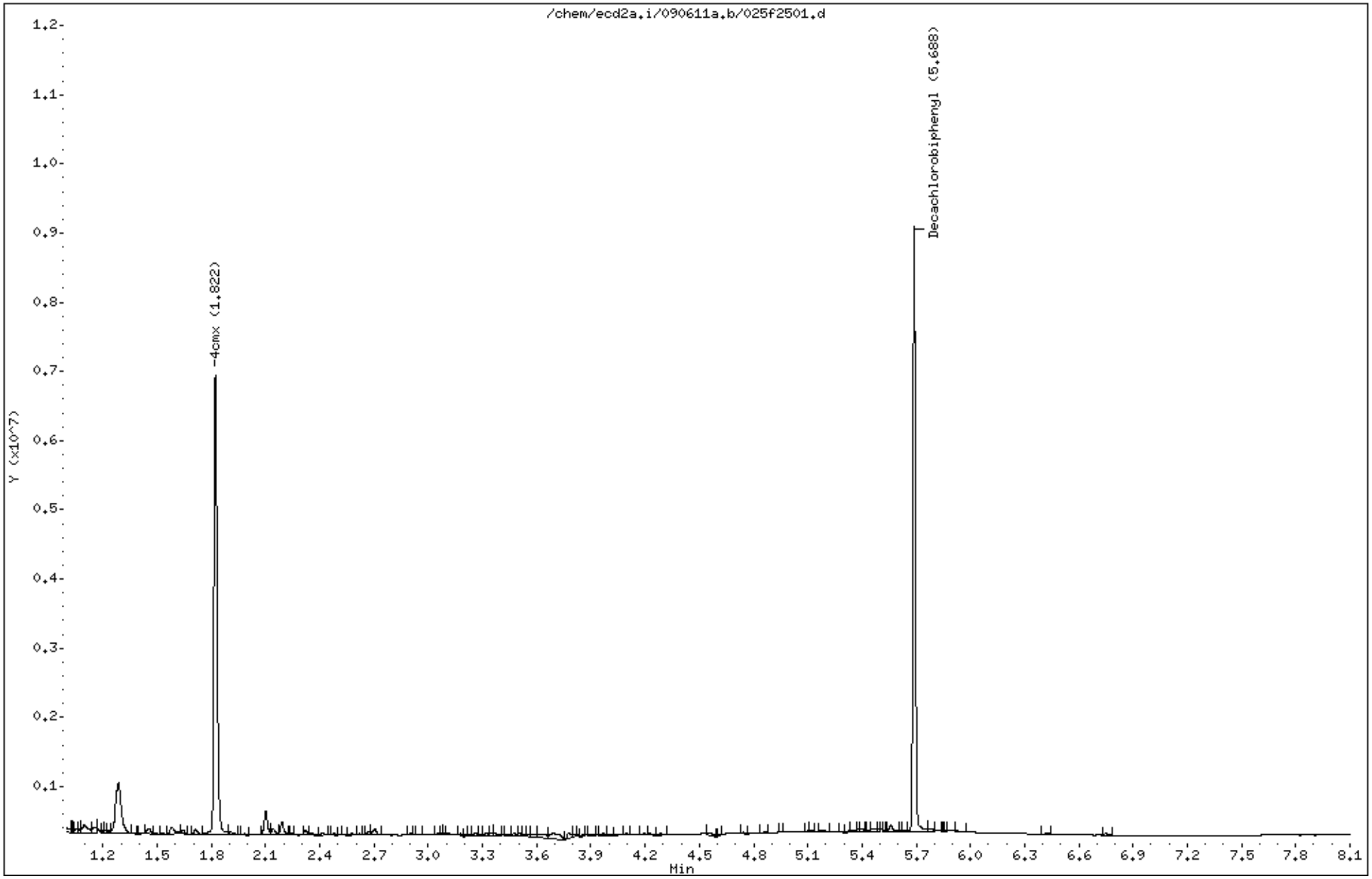
Sample Info: |285124002|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/025b2501.d
Lab Smp Id: 285124002 Client Smp ID: NPDES03A199-11-13
Inj Date : 06-SEP-2011 16:49
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |285124002|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES03A199-11
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.034	2.035	-0.001	22477864	136.611	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.262	6.261	0.001	25927310	160.065	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/090611a.b/025b2501.d

Page 1

Date : 06-SEP-2011 16:49

Client ID: NPDES03A199-11-13

Instrument: ecd2a.i

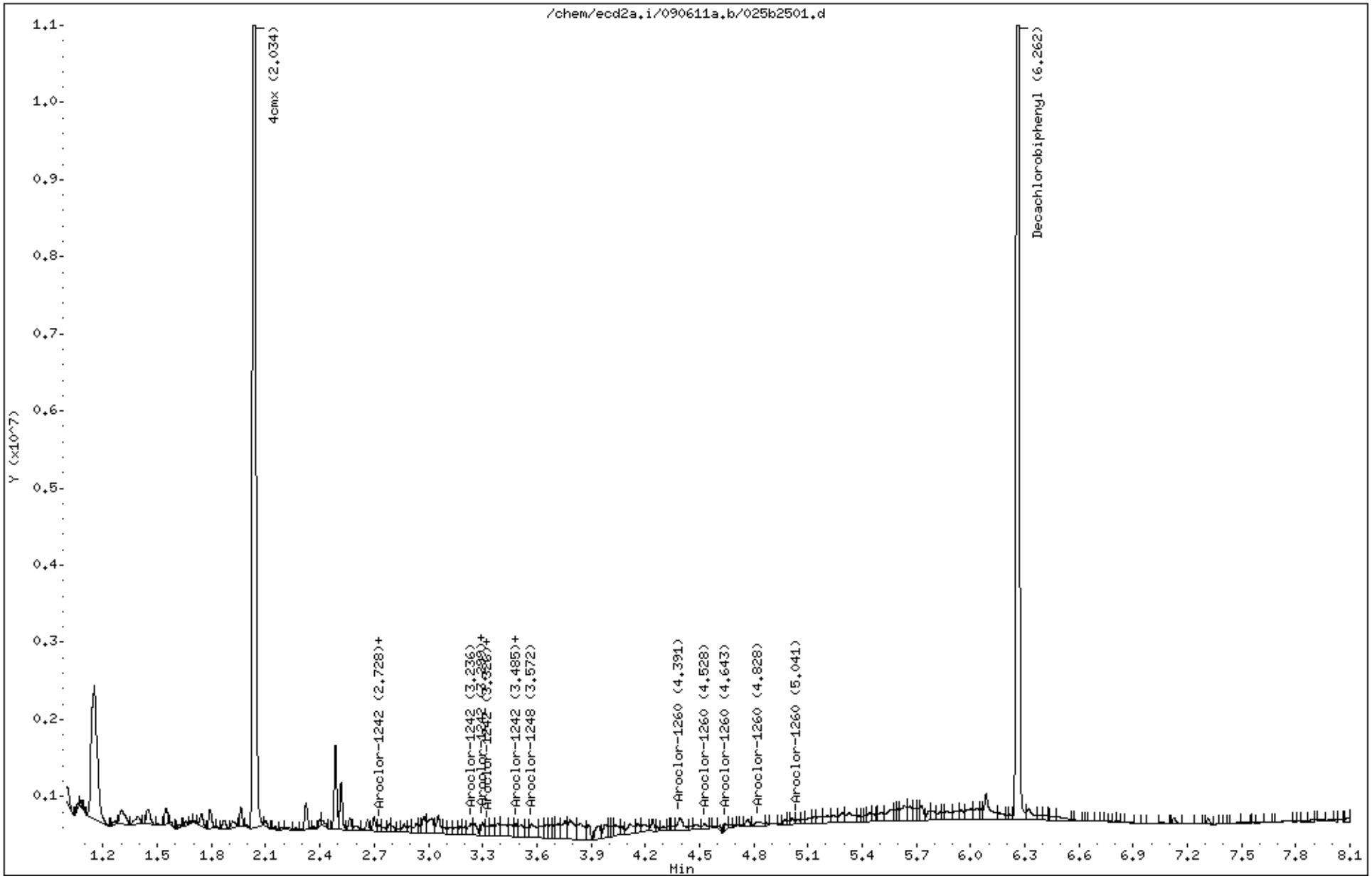
Sample Info: |285124002|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**285124008**	**Date Received:**	**09/02/2011 08:45**		
		Client:	**ARSL001**	**Project:**	**ESHL01310**
Client ID:	**NPDES13S-11-26995**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:23**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.109	ug/L	0.0362	0.109	1
11104-28-2	Aroclor-1221	U	0.109	ug/L	0.0362	0.109	1
11141-16-5	Aroclor-1232	U	0.109	ug/L	0.0362	0.109	1
53469-21-9	Aroclor-1242	U	0.109	ug/L	0.0362	0.109	1
12672-29-6	Aroclor-1248	U	0.109	ug/L	0.0362	0.109	1
11097-69-1	Aroclor-1254	U	0.109	ug/L	0.0362	0.109	1
11096-82-5	Aroclor-1260	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.168	0.217	ug/L	77.2	(21%-109%)
Decachlorobiphenyl	0.197	0.217	ug/L	90.5	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/028f2801.d
Lab Smp Id: 285124008 Client Smp ID: NPDES13S-11-26995
Inj Date : 06-SEP-2011 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |285124008|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES13S-11-26
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	8883998	153.048	0.17	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	8551242	173.203	0.19	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/090611a.b/028f2801.d

Page 1

Date : 06-SEP-2011 17:23

Client ID: NPDES13S-11-26995

Instrument: ecd2a.i

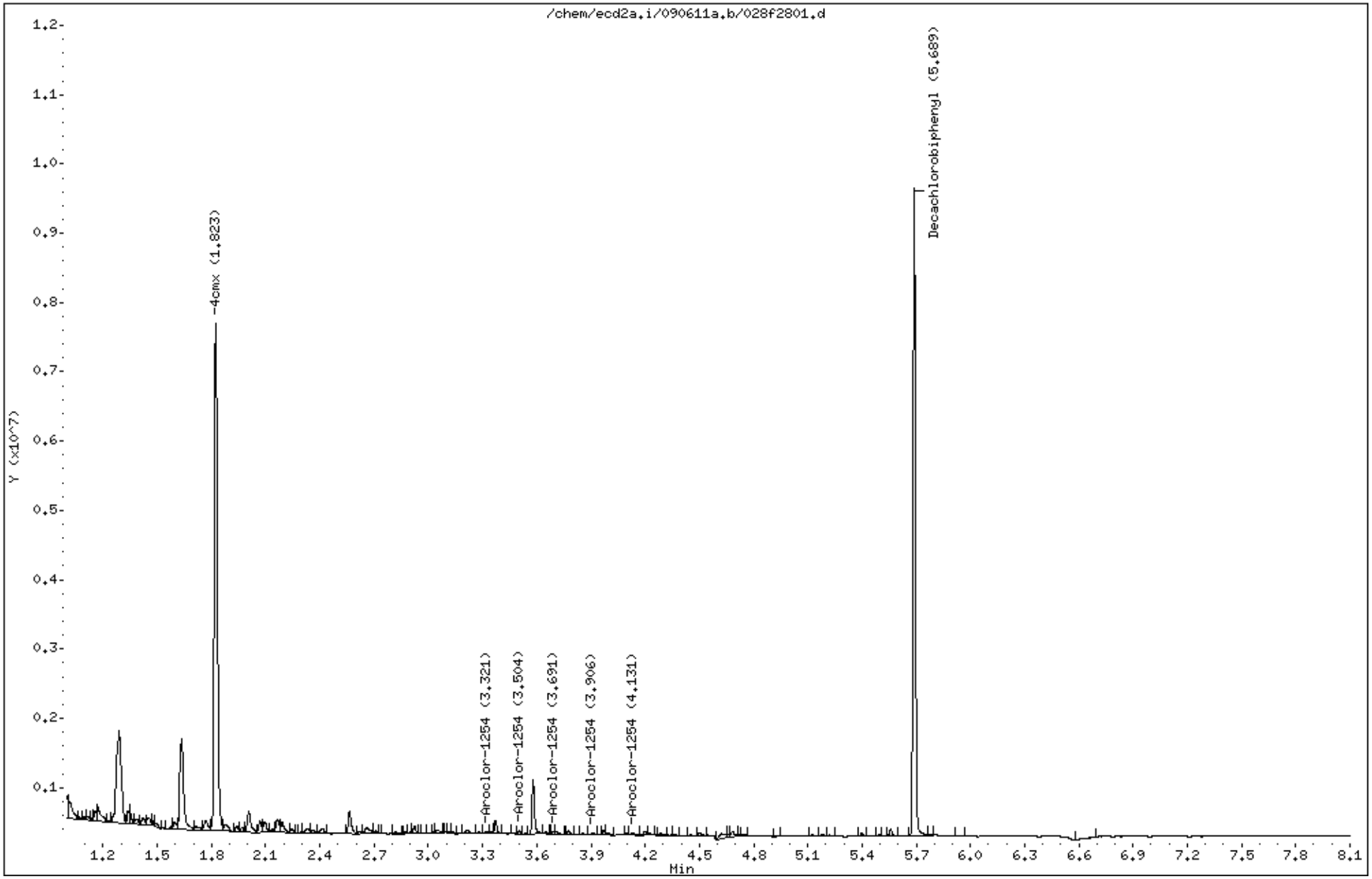
Sample Info: |285124008|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/028b2801.d
Lab Smp Id: 285124008 Client Smp ID: NPDES13S-11-26995
Inj Date : 06-SEP-2011 17:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |285124008|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|ARSL|WASTE WATER|NPDES13S-11-26
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	25417483	154.477	0.17	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	29323029	181.029	0.20	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/090611a.b/028b2801.d

Page 1

Date : 06-SEP-2011 17:23

Client ID: NPDES13S-11-26995

Instrument: ecd2a.i

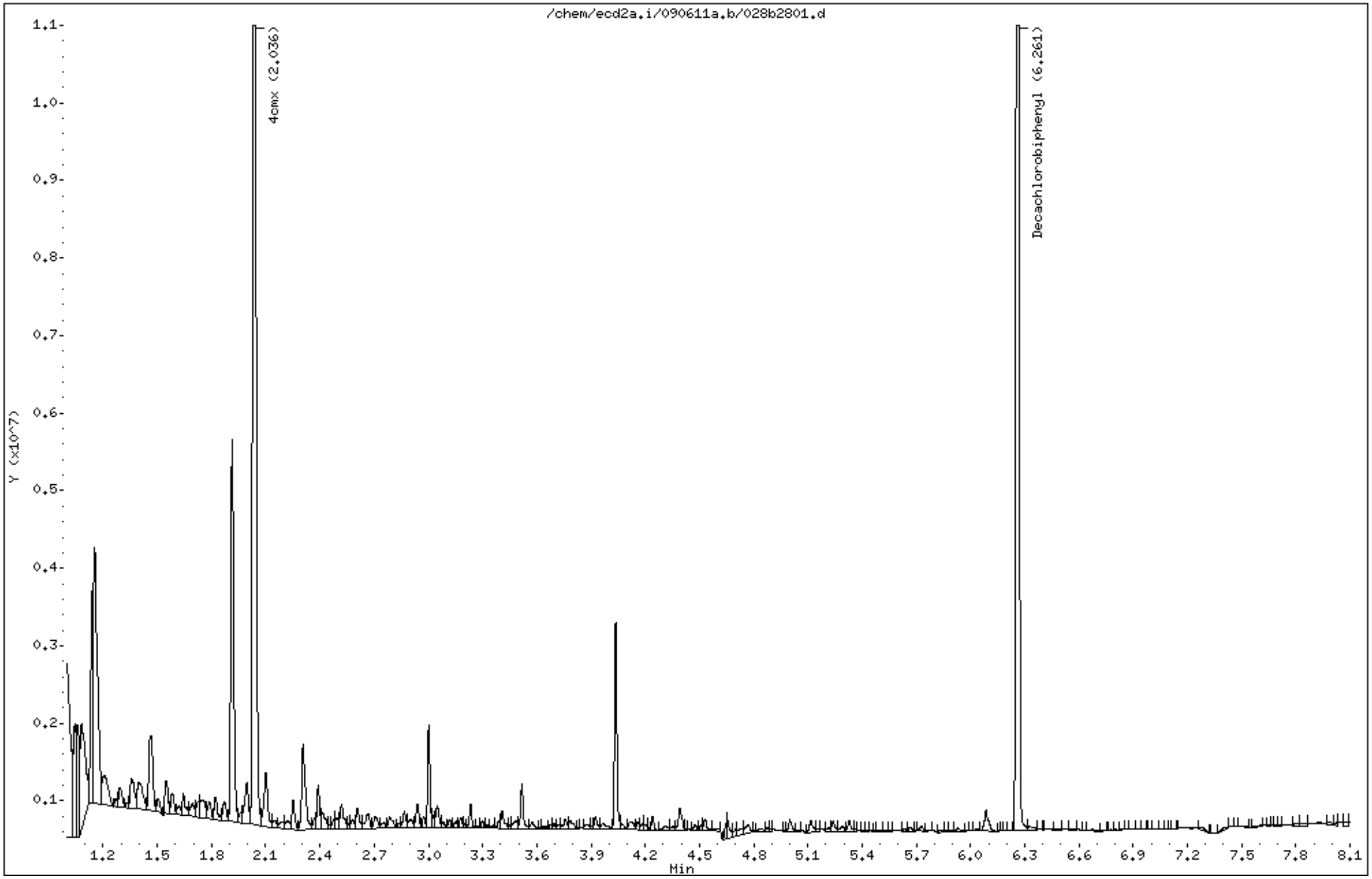
Sample Info: |285124008|1|

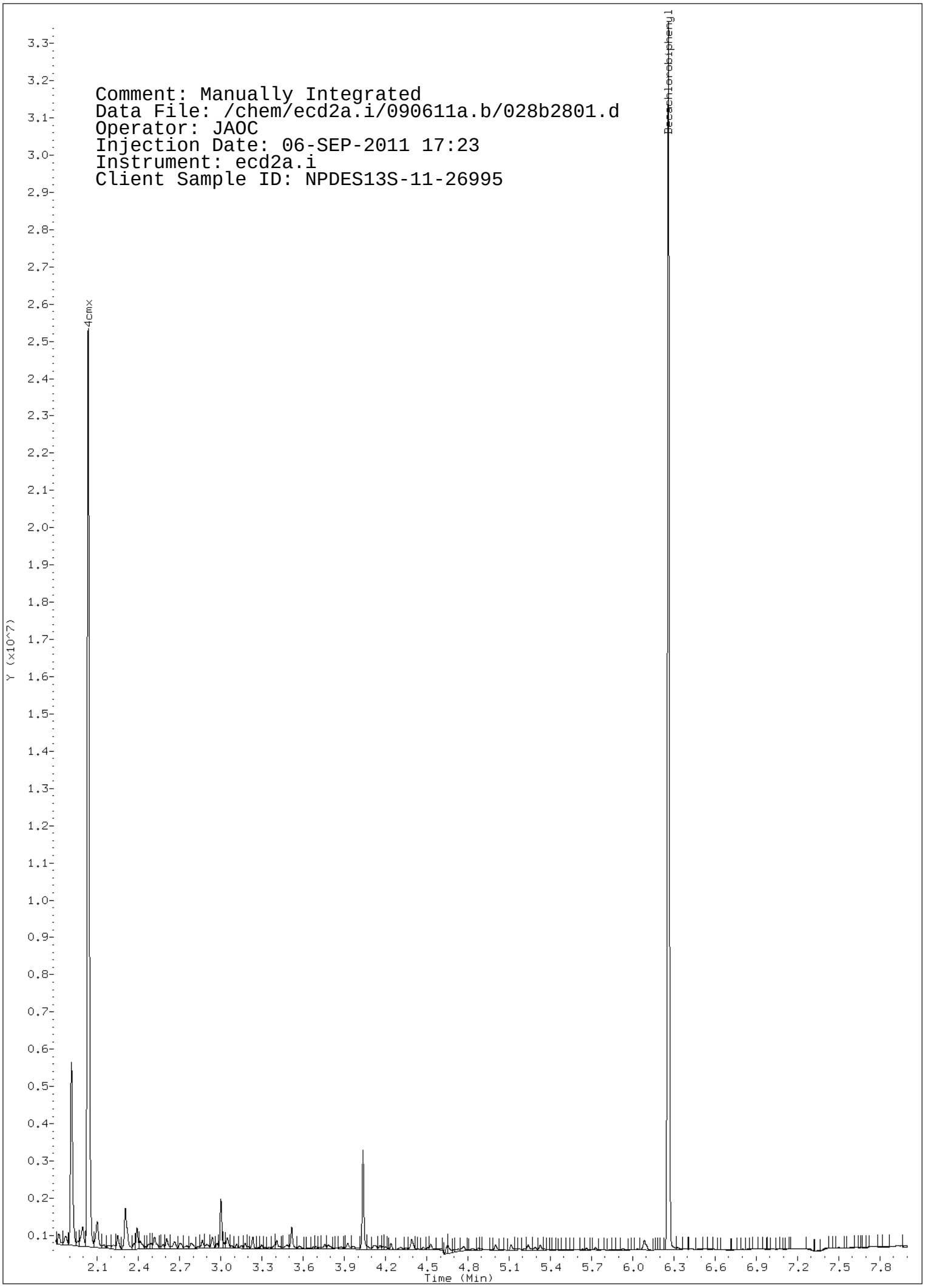
Volume Injected (uL): 1.0

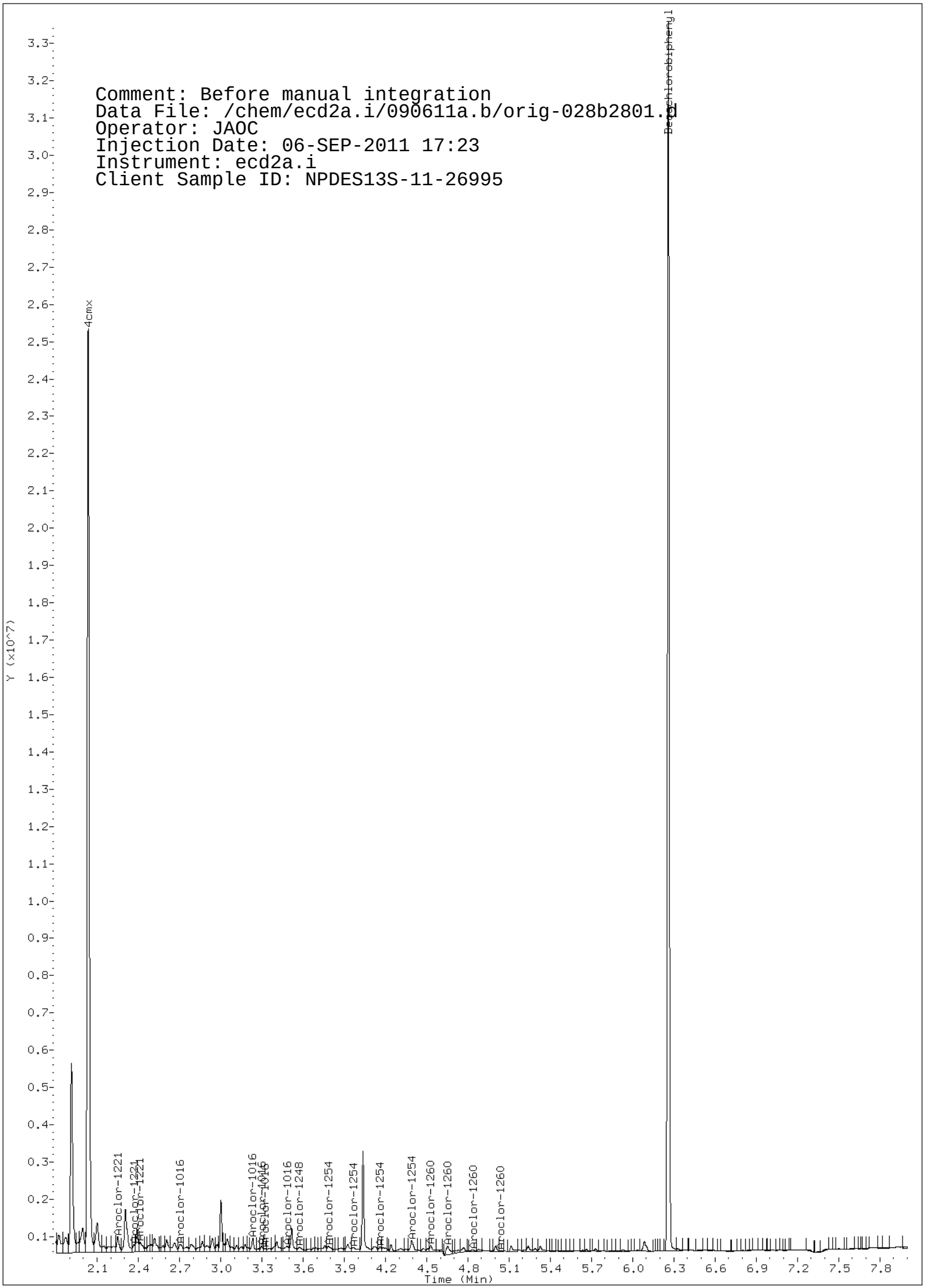
Operator: JAOC

Column phase: CLP2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/090611a.b/028b2801.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:23
Instrument: ecd2a.i
Client Sample ID: NPDES13S-11-26995
4cmx
Decachlorobiphenyl
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/090611a.b/orig-028b2801.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:23
Instrument: ecd2a.i
Client Sample ID: NPDES13S-11-26995
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

Standard Data

Report Date: 08-Sep-2011 10:27

Calibration History

Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Start Cal Date: 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-SEP-2011 08:10	AR1221	/chem/ecd2a.i/090211.b/003f0301.d
29-AUG-2011 12:24	AR1248	/chem/ecd2a.i/082911.b/024f2401.d
29-AUG-2011 11:17	AR1242	/chem/ecd2a.i/082911.b/018f1801.d
06-SEP-2011 13:38	AR1254	/chem/ecd2a.i/090611a.b/008f0801.d
06-SEP-2011 12:31	AR1660	/chem/ecd2a.i/090611a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
02-SEP-2011 08:21	AR1221	/chem/ecd2a.i/090211.b/004f0401.d
29-AUG-2011 12:35	AR1248	/chem/ecd2a.i/082911.b/025f2501.d
29-AUG-2011 11:28	AR1242	/chem/ecd2a.i/082911.b/019f1901.d
06-SEP-2011 13:49	AR1254	/chem/ecd2a.i/090611a.b/009f0901.d
06-SEP-2011 12:42	AR1660	/chem/ecd2a.i/090611a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
02-SEP-2011 08:32	AR1221	/chem/ecd2a.i/090211.b/005f0501.d
29-AUG-2011 12:47	AR1248	/chem/ecd2a.i/082911.b/026f2601.d
29-AUG-2011 11:39	AR1242	/chem/ecd2a.i/082911.b/020f2001.d
06-SEP-2011 14:01	AR1254	/chem/ecd2a.i/090611a.b/010f1001.d
06-SEP-2011 12:53	AR1660	/chem/ecd2a.i/090611a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
27-JUN-2011 18:56	DDTANALOGSTD	/chem/ecd2a.i/062711.b/030f3001.d
29-AUG-2011 14:05	AR1268	/chem/ecd2a.i/082911.b/033f3301.d
29-AUG-2011 13:54	AR1262	/chem/ecd2a.i/082911.b/032f3201.d
02-SEP-2011 08:43	AR1221	/chem/ecd2a.i/090211.b/006f0601.d
29-AUG-2011 13:31	AR1232	/chem/ecd2a.i/082911.b/030f3001.d
29-AUG-2011 12:58	AR1248	/chem/ecd2a.i/082911.b/027f2701.d
29-AUG-2011 11:51	AR1242	/chem/ecd2a.i/082911.b/021f2101.d
06-SEP-2011 14:12	AR1254	/chem/ecd2a.i/090611a.b/011f1101.d
06-SEP-2011 13:04	AR1660	/chem/ecd2a.i/090611a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-SEP-2011 08:55	AR1221	/chem/ecd2a.i/090211.b/007f0701.d
29-AUG-2011 13:09	AR1248	/chem/ecd2a.i/082911.b/028f2801.d
29-AUG-2011 12:02	AR1242	/chem/ecd2a.i/082911.b/022f2201.d
06-SEP-2011 14:23	AR1254	/chem/ecd2a.i/090611a.b/012f1201.d
06-SEP-2011 13:16	AR1660	/chem/ecd2a.i/090611a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000

06-SEP-2011 13:04	AR1660	/chem/ecd2a.i/090611a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 17:38	AR1660	/chem/ecd2a.i/090611a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:30	AR1262	/chem/ecd2a.i/090611a.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:42	AR1268	/chem/ecd2a.i/090611a.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:19	AR1221	/chem/ecd2a.i/090611a.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:08	AR1232	/chem/ecd2a.i/090611a.b/016f1601.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:57	AR1248	/chem/ecd2a.i/090611a.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:46	AR1242	/chem/ecd2a.i/090611a.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:34	AR1254	/chem/ecd2a.i/090611a.b/013f1301.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:12	AR1254	/chem/ecd2a.i/090611a.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 13:27	AR1660	/chem/ecd2a.i/090611a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 13:16	AR1660	/chem/ecd2a.i/090611a.b/006f0601.d

Report Date: 07-Sep-2011 09:15

Calibration History

Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Start Cal Date: 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-SEP-2011 08:10	AR1221	/chem/ecd2a.i/090211.b/003b0301.d
29-AUG-2011 12:24	AR1248	/chem/ecd2a.i/082911.b/024b2401.d
29-AUG-2011 11:17	AR1242	/chem/ecd2a.i/082911.b/018b1801.d
06-SEP-2011 13:38	AR1254	/chem/ecd2a.i/090611a.b/008b0801.d
06-SEP-2011 12:31	AR1660	/chem/ecd2a.i/090611a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
02-SEP-2011 08:21	AR1221	/chem/ecd2a.i/090211.b/004b0401.d
29-AUG-2011 12:35	AR1248	/chem/ecd2a.i/082911.b/025b2501.d
29-AUG-2011 11:28	AR1242	/chem/ecd2a.i/082911.b/019b1901.d
06-SEP-2011 13:49	AR1254	/chem/ecd2a.i/090611a.b/009b0901.d
06-SEP-2011 12:42	AR1660	/chem/ecd2a.i/090611a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
02-SEP-2011 08:32	AR1221	/chem/ecd2a.i/090211.b/005b0501.d
29-AUG-2011 12:47	AR1248	/chem/ecd2a.i/082911.b/026b2601.d
29-AUG-2011 11:39	AR1242	/chem/ecd2a.i/082911.b/020b2001.d
06-SEP-2011 14:01	AR1254	/chem/ecd2a.i/090611a.b/010b1001.d
06-SEP-2011 12:53	AR1660	/chem/ecd2a.i/090611a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
27-JUN-2011 18:56	DDTANALOGSTD	/chem/ecd2a.i/062711.b/030b3001.d
29-AUG-2011 14:05	AR1268	/chem/ecd2a.i/082911.b/033b3301.d
29-AUG-2011 13:54	AR1262	/chem/ecd2a.i/082911.b/032b3201.d
02-SEP-2011 08:43	AR1221	/chem/ecd2a.i/090211.b/006b0601.d
29-AUG-2011 13:31	AR1232	/chem/ecd2a.i/082911.b/030b3001.d
29-AUG-2011 12:58	AR1248	/chem/ecd2a.i/082911.b/027b2701.d
29-AUG-2011 11:51	AR1242	/chem/ecd2a.i/082911.b/021b2101.d
06-SEP-2011 14:12	AR1254	/chem/ecd2a.i/090611a.b/011b1101.d
06-SEP-2011 13:04	AR1660	/chem/ecd2a.i/090611a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-SEP-2011 08:55	AR1221	/chem/ecd2a.i/090211.b/007b0701.d
29-AUG-2011 13:09	AR1248	/chem/ecd2a.i/082911.b/028b2801.d
29-AUG-2011 12:02	AR1242	/chem/ecd2a.i/082911.b/022b2201.d
06-SEP-2011 14:23	AR1254	/chem/ecd2a.i/090611a.b/012b1201.d
06-SEP-2011 13:16	AR1660	/chem/ecd2a.i/090611a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000

06-SEP-2011 17:38	AR1660	/chem/ecd2a.i/090611a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:42	AR1268	/chem/ecd2a.i/090611a.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:30	AR1262	/chem/ecd2a.i/090611a.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:19	AR1221	/chem/ecd2a.i/090611a.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 15:08	AR1232	/chem/ecd2a.i/090611a.b/016b1601.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:57	AR1248	/chem/ecd2a.i/090611a.b/015b1501.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:46	AR1242	/chem/ecd2a.i/090611a.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:34	AR1254	/chem/ecd2a.i/090611a.b/013b1301.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 14:12	AR1254	/chem/ecd2a.i/090611a.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 13:27	AR1660	/chem/ecd2a.i/090611a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
06-SEP-2011 13:04	AR1660	/chem/ecd2a.i/090611a.b/005b0501.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 07-Sep-2011 08:38 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.341	2.311-2.371	1.941e+03
	2.672	2.642-2.702	2.628e+03
	2.808	2.778-2.838	1.018e+03
	2.900	2.870-2.930	8.469e+02
	3.053	3.023-3.083	1.222e+03
2 Aroclor-1221	1.957	1.927-1.987	5.726e+02
	2.061	2.031-2.091	2.961e+02
	2.090	2.060-2.120	1.356e+03
3 Aroclor-1232	2.088	2.058-2.118	1.341e+03
	2.342	2.312-2.372	1.121e+03
	2.672	2.642-2.702	1.556e+03
	2.807	2.777-2.837	6.397e+02
	2.899	2.869-2.929	4.332e+02
4 Aroclor-1242	2.342	2.312-2.372	1.542e+03
	2.808	2.778-2.838	8.785e+02
	2.900	2.870-2.930	6.524e+02
	2.916	2.886-2.946	7.767e+02
	3.053	3.023-3.083	1.061e+03
5 Aroclor-1248	2.672	2.642-2.702	1.268e+03
	2.899	2.869-2.929	1.327e+03
	3.053	3.023-3.083	1.798e+03
	3.289	3.259-3.319	1.060e+03
	3.349	3.319-3.379	2.084e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.320	3.290-3.350	1.751e+03
	3.503	3.473-3.533	2.285e+03
	3.691	3.661-3.721	1.759e+03
	3.903	3.873-3.933	1.185e+03
	4.153	4.123-4.183	1.136e+03
7 Aroclor-1260	3.904	3.874-3.934	2.449e+03
	4.097	4.067-4.127	3.632e+03
	4.182	4.152-4.212	1.571e+03
	4.368	4.338-4.398	2.273e+03
	4.534	4.504-4.564	2.330e+03
8 Aroclor-1262	3.905	3.875-3.935	2.186e+03
	4.097	4.067-4.127	2.824e+03
	4.285	4.255-4.315	1.678e+03
	4.368	4.338-4.398	3.790e+03
	4.534	4.504-4.564	3.343e+03
9 Aroclor-1268	4.965	4.935-4.995	8.005e+03
	4.992	4.962-5.022	8.360e+03
	5.124	5.094-5.154	6.492e+03
	5.364	5.334-5.394	2.940e+03
	5.560	5.530-5.590	2.019e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.822	1.792-1.852	5.805e+04
$ 12 Decachlorobiphenyl	5.689	5.659-5.719	4.937e+04
13 4,4'-DDT	4.310	4.290-4.330	1.753e+04
14 4,4'-DDD	4.117	4.097-4.137	3.707e+04
15 4,4'-DDE	3.708	3.688-3.728	5.722e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Quant Method : ESTD Target Version : 3.50
Last Update : 07-Sep-2011 08:37 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.714	2.684-2.744	5.279e+03
	3.220	3.190-3.250	2.843e+03
	3.298	3.268-3.328	2.539e+03
	3.327	3.297-3.357	2.632e+03
	3.485	3.455-3.515	3.651e+03
2 Aroclor-1221	2.262	2.232-2.292	1.609e+03
	2.367	2.337-2.397	9.666e+02
	2.411	2.381-2.441	3.706e+03
3 Aroclor-1232	2.411	2.381-2.441	3.989e+03
	2.714	2.684-2.744	3.856e+03
	3.220	3.190-3.250	1.867e+03
	3.298	3.268-3.328	1.580e+03
	3.327	3.297-3.357	1.647e+03
4 Aroclor-1242	2.714	2.684-2.744	4.951e+03
	3.220	3.190-3.250	2.641e+03
	3.298	3.268-3.328	2.331e+03
	3.326	3.296-3.356	2.565e+03
	3.484	3.454-3.514	3.455e+03
5 Aroclor-1248	2.714	2.684-2.744	2.523e+03
	3.299	3.269-3.329	4.585e+03
	3.327	3.297-3.357	4.037e+03
	3.485	3.455-3.515	6.003e+03
	3.571	3.541-3.601	6.535e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.298	3.268-3.328	3.036e+03
		3.783	3.753-3.813	5.808e+03
		3.967	3.937-3.997	4.895e+03
		4.160	4.130-4.190	4.764e+03
		4.377	4.347-4.407	3.768e+03
	7 Aroclor-1260	4.378	4.348-4.408	7.094e+03
		4.529	4.499-4.559	8.861e+03
		4.641	4.611-4.671	5.947e+03
		4.837	4.807-4.867	6.885e+03
		5.037	5.007-5.067	7.034e+03
	8 Aroclor-1262	4.269	4.239-4.299	4.552e+03
		4.378	4.348-4.408	7.076e+03
		4.529	4.499-4.559	8.872e+03
		4.837	4.807-4.867	1.301e+04
		5.038	5.008-5.068	1.161e+04
	9 Aroclor-1268	5.460	5.430-5.490	2.953e+04
		5.491	5.461-5.521	2.843e+04
		5.663	5.633-5.693	2.315e+04
		5.863	5.833-5.893	1.023e+04
		6.086	6.056-6.116	7.724e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.035	2.005-2.065	1.645e+05
$	12 Decachlorobiphenyl	6.261	6.231-6.291	1.620e+05
	13 4,4'-DDT	4.783	4.763-4.803	5.716e+04
	14 4,4'-DDD	4.567	4.547-4.587	1.201e+05
	15 4,4'-DDE	4.164	4.144-4.184	1.790e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Cal Date : 07-Sep-2011 08:38 jen01212

Calibration File Names:
Level 1: /chem/ecd2a.i/090211.b/003f0301.d
Level 2: /chem/ecd2a.i/090211.b/004f0401.d
Level 3: /chem/ecd2a.i/090211.b/005f0501.d
Level 4: /chem/ecd2a.i/062711.b/030f3001.d
Level 5: /chem/ecd2a.i/090211.b/007f0701.d

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Aroclor-1016(1)	2061	1999	1925	1855	1864	AVRG		1941		4.57467
(2)	2847	2566	2537	2491	2699	AVRG		2628		5.51377
(3)	975	1063	1032	991	1029	AVRG		1018		3.43666
(4)	877	878	831	805	843	AVRG		847		3.68117
(5)	1243	1239	1199	1170	1258	AVRG		1222		2.96094
2 Aroclor-1221(1)	83607	182281	349428	655458	2331939	LINR	-88.27050	573		0.99942
(2)	45056	99746	185861	347207	1209635	LINR	-105	296		0.99918
(3)	192470	433427	811746	1543499	5515053	LINR	-83.49564	1356		0.99948
3 Aroclor-1232(1)	+++++	+++++	+++++	1341	+++++	AVRG		1341		0.000e+00
(2)	+++++	+++++	+++++	1121	+++++	AVRG		1121		0.000e+00
(3)	+++++	+++++	+++++	1556	+++++	AVRG		1556		0.000e+00
(4)	+++++	+++++	+++++	640	+++++	AVRG		640		0.000e+00
(5)	+++++	+++++	+++++	433	+++++	AVRG		433		0.000e+00
4 Aroclor-1242(1)	217200	473228	915306	1678902	6260200	LINR	-68.29160	1542		0.99981
(2)	112974	252892	491127	927527	3549433	LINR	-44.29642	879		0.99994
(3)	89177	189449	375341	706036	2641743	LINR	-56.74269	652		0.99984
(4)	100565	224768	413593	774165	3130766	LINR	-25.85584	777		0.99989
(5)	131658	291393	554531	1064306	4267711	LINR	-19.43307	1061		0.99997

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Cal Date : 07-Sep-2011 08:38 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aroclor-1248(1)	170745	379510	705937	1310058	5127475	LINR	-43.73918	1268		0.99996
(2)	170494	362294	713878	1316429	5344607	LINR	-21.41125	1327		0.99988
(3)	222149	495160	978899	1800353	7241847	LINR	-24.38744	1798		0.99991
(4)	122210	275132	537400	1005984	4246899	LINR	2.54912	1060		0.99972
(5)	218894	486578	1031939	1924801	8314620	LINR	20.71678	2084		0.99960
6 Aroclor-1254(1)	1837	1810	1726	1751	1628	AVRG		1751		4.65514
(2)	2348	2330	2254	2292	2203	AVRG		2285		2.56920
(3)	1717	1814	1748	1799	1718	AVRG		1759		2.56006
(4)	1165	1244	1207	1202	1105	AVRG		1185		4.42718
(5)	1043	1118	1131	1185	1205	AVRG		1136		5.59225
7 Aroclor-1260(1)	2476	2426	2402	2407	2531	AVRG		2449		2.23801
(2)	3526	3519	3561	3602	3954	AVRG		3632		5.03623
(3)	1537	1501	1559	1605	1651	AVRG		1571		3.74214
(4)	2241	2219	2245	2257	2401	AVRG		2273		3.20641
(5)	2256	2251	2297	2347	2499	AVRG		2330		4.37847
8 Aroclor-1262(1)	+++++	+++++	+++++	2186	+++++	AVRG		2186		0.000e+00
(2)	+++++	+++++	+++++	2824	+++++	AVRG		2824		0.000e+00
(3)	+++++	+++++	+++++	1678	+++++	AVRG		1678		0.000e+00
(4)	+++++	+++++	+++++	3790	+++++	AVRG		3790		0.000e+00
(5)	+++++	+++++	+++++	3343	+++++	AVRG		3343		0.000e+00
9 Aroclor-1268(1)	+++++	+++++	+++++	8005	+++++	AVRG		8005		0.000e+00
(2)	+++++	+++++	+++++	8360	+++++	AVRG		8360		0.000e+00
(3)	+++++	+++++	+++++	6492	+++++	AVRG		6492		0.000e+00
(4)	+++++	+++++	+++++	2940	+++++	AVRG		2940		0.000e+00
(5)	+++++	+++++	+++++	20193	+++++	AVRG		20193		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Cal Date : 07-Sep-2011 08:38 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
13 4,4'-DDT	+++++	+++++	+++++	17525	+++++	AVRG		17525		0.000e+00
14 4,4'-DDD	+++++	+++++	+++++	37074	+++++	AVRG		37074		0.000e+00
15 4,4'-DDE	+++++	+++++	+++++	57219	+++++	AVRG		57219		0.000e+00
$ 11 4cmx	56038	57246	57481	57885	61585	AVRG		58047		3.60730
$ 12 Decachlorobiphenyl	48052	48780	47768	48701	53557	AVRG		49371		4.81757

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Cal Date : 07-Sep-2011 08:37 jen01212

Calibration File Names:
Level 1: /chem/ecd2a.i/090211.b/003b0301.d
Level 2: /chem/ecd2a.i/090211.b/004b0401.d
Level 3: /chem/ecd2a.i/090211.b/005b0501.d
Level 4: /chem/ecd2a.i/062711.b/030b3001.d
Level 5: /chem/ecd2a.i/090211.b/007b0701.d

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Aroclor-1016(1)	599773	1455000	2788210	5323826	21224807	LINR	-19.28535	5279		0.99997
(2)	339359	693927	1368543	2692932	11362376	LINR	12.20305	2843		0.99973
(3)	328937	671765	1297534	2485011	10199978	LINR	-10.06193	2539		0.99986
(4)	317864	701312	1354349	2600272	10570974	LINR	-11.00743	2632		0.99993
(5)	424875	928029	1804471	3509163	14617097	LINR	4.20456	3651		0.99983
2 Aroclor-1221(1)	243509	515316	973522	1864524	6553830	LINR	-92.05473	1609		0.99932
(2)	155535	324538	603564	1141712	3951547	LINR	-108	967		0.99917
(3)	554372	1211468	2273529	4294868	15111356	LINR	-95.31243	3706		0.99932
3 Aroclor-1232(1)	+++++	+++++	+++++	3989	+++++	AVRG		3989		0.000e+00
(2)	+++++	+++++	+++++	3856	+++++	AVRG		3856		0.000e+00
(3)	+++++	+++++	+++++	1867	+++++	AVRG		1867		0.000e+00
(4)	+++++	+++++	+++++	1580	+++++	AVRG		1580		0.000e+00
(5)	+++++	+++++	+++++	1647	+++++	AVRG		1647		0.000e+00
4 Aroclor-1242(1)	705523	1573606	2997796	5580568	20146151	LINR	-82.43038	4951		0.99957
(2)	318391	710901	1412865	2737034	10628336	LINR	-27.09257	2641		0.99998
(3)	312266	700523	1330275	2562612	9443663	LINR	-61.09181	2331		0.99976
(4)	339804	750626	1447663	2802487	10379287	LINR	-55.60613	2565		0.99979
(5)	443035	992321	1916498	3700787	13956131	LINR	-46.19968	3455		0.99989

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Cal Date : 07-Sep-2011 08:37 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Aroclor-1248(1)	347748	784217	1473586	2777069	10241965	LINR	-68.49002	2523		0.99977
(2)	578451	1299730	2509381	4700725	18494867	LINR	-33.06150	4585		0.99997
(3)	515423	1153914	2227954	4152747	16291440	LINR	-36.06728	4037		0.99996
(4)	722152	1641636	3201302	6060970	24154695	LINR	-22.06100	6003		0.99997
(5)	802437	1818784	3539957	6583497	26321141	LINR	-25.65325	6535		0.99994
6 Aroclor-1254(1)	3240	3167	3017	3009	2744	AVRG		3036		6.27845
(2)	6104	6003	5752	5815	5366	AVRG		5808		4.89893
(3)	5112	5322	4807	4830	4406	AVRG		4895		7.07962
(4)	4791	4886	4734	4827	4582	AVRG		4764		2.43355
(5)	3869	3933	3745	3788	3507	AVRG		3768		4.32935
7 Aroclor-1260(1)	7007	7129	6986	6903	7445	AVRG		7094		2.99104
(2)	8676	8846	8761	8614	9410	AVRG		8861		3.59740
(3)	5757	5942	5942	5803	6292	AVRG		5947		3.52919
(4)	6838	6937	6789	6653	7210	AVRG		6885		3.02402
(5)	6893	7084	6940	6838	7412	AVRG		7034		3.27635
8 Aroclor-1262(1)	+++++	+++++	+++++	4552	+++++	AVRG		4552		0.000e+00
(2)	+++++	+++++	+++++	7076	+++++	AVRG		7076		0.000e+00
(3)	+++++	+++++	+++++	8872	+++++	AVRG		8872		0.000e+00
(4)	+++++	+++++	+++++	13009	+++++	AVRG		13009		0.000e+00
(5)	+++++	+++++	+++++	11614	+++++	AVRG		11614		0.000e+00
9 Aroclor-1268(1)	+++++	+++++	+++++	29533	+++++	AVRG		29533		0.000e+00
(2)	+++++	+++++	+++++	28429	+++++	AVRG		28429		0.000e+00
(3)	+++++	+++++	+++++	23147	+++++	AVRG		23147		0.000e+00
(4)	+++++	+++++	+++++	10228	+++++	AVRG		10228		0.000e+00
(5)	+++++	+++++	+++++	77241	+++++	AVRG		77241		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 27-JUN-2011 13:43
End Cal Date : 06-SEP-2011 14:23
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Cal Date : 07-Sep-2011 08:37 jen01212

Compound	100 Level 1	250 Level 2	500 Level 3	1000 Level 4	4000 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
13 4,4'-DDT	+++++	+++++	+++++	57162	+++++	AVRG		57162		0.000e+00
14 4,4'-DDD	+++++	+++++	+++++	120139	+++++	AVRG		120139		0.000e+00
15 4,4'-DDE	+++++	+++++	+++++	178965	+++++	AVRG		178965		0.000e+00
$ 11 4cmx	154982	159525	161946	161510	184729	AVRG		164539		7.06167
$ 12 Decachlorobiphenyl	156156	157225	156438	158152	181926	AVRG		161980		6.90053

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/002f0201.d
Lab Smp Id: WAR110906-01 60 Client Smp ID: AR166001
Inj Date : 06-SEP-2011 12:31
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:10 Cal File: 003f0301.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	560380	10.0000	9.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	480515	10.0000	9.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.342	2.341	0.001	206145	100.000	106	80.00- 120.00	100.00(M)
2.674	2.672	0.002	284733	100.000	108	118.27- 158.27	138.12
2.808	2.808	0.000	97529	100.000	95.8	34.53- 74.53	47.31
2.900	2.900	0.000	87739	100.000	104	24.79- 64.79	42.56
3.054	3.053	0.001	124281	100.000	102	44.63- 84.63	60.29
Average of Peak Amounts =					103		
7 Aroclor-1260					CAS #: 11096-82-5		
3.904	3.904	0.000	247638	100.000	101	80.00- 120.00	100.00
4.097	4.097	0.000	352553	100.000	97.0	130.33- 170.33	142.37
4.182	4.182	0.000	153720	100.000	97.9	45.91- 85.91	62.07
4.368	4.368	0.000	224100	100.000	98.6	73.68- 113.68	90.49
4.534	4.534	0.000	225646	100.000	96.8	77.28- 117.28	91.12
Average of Peak Amounts =					98.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/090611a.b/002f0201.d

Page 1

Date : 06-SEP-2011 12:31

Client ID: AR166001

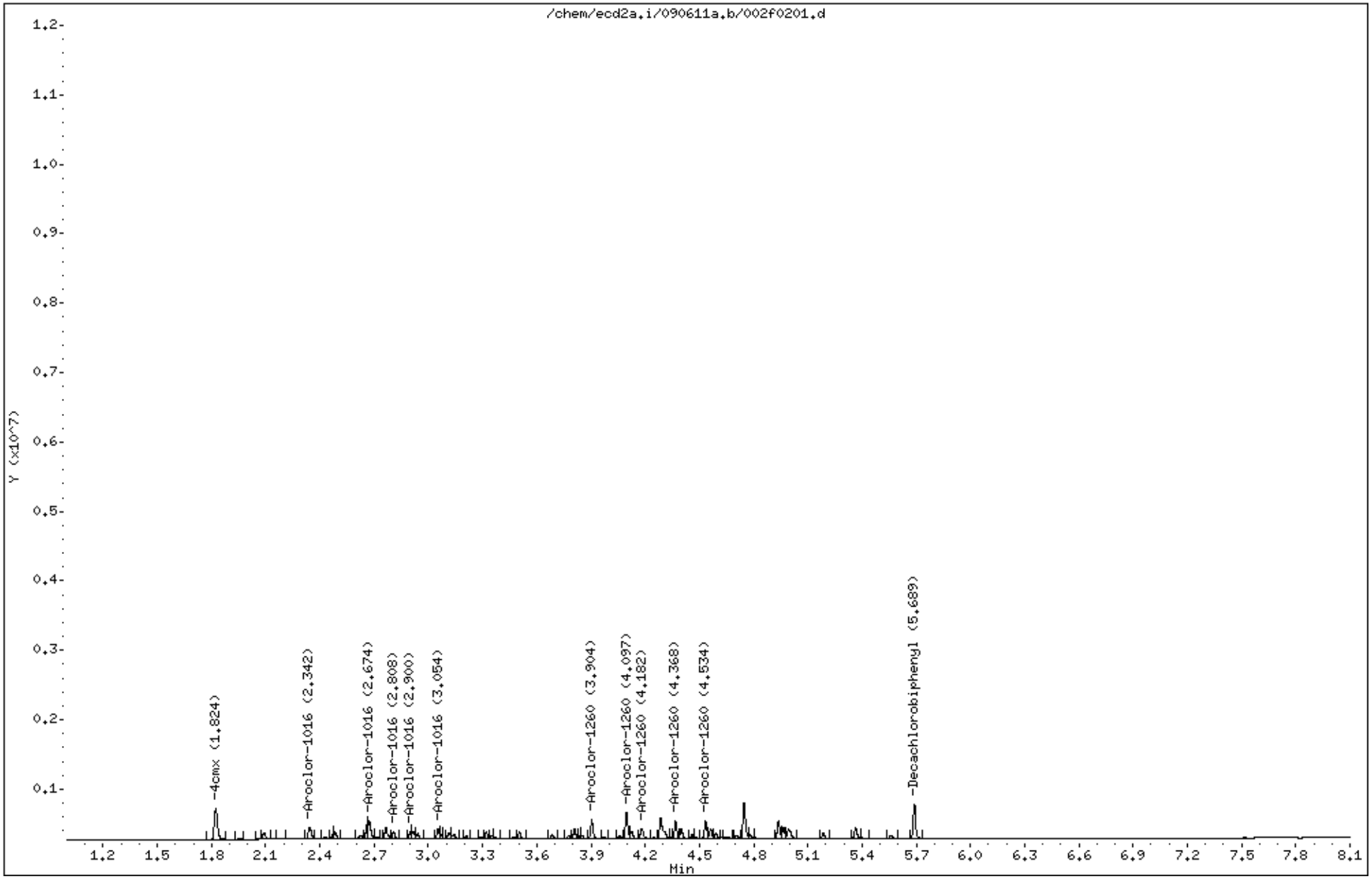
Instrument: ecd2a.i

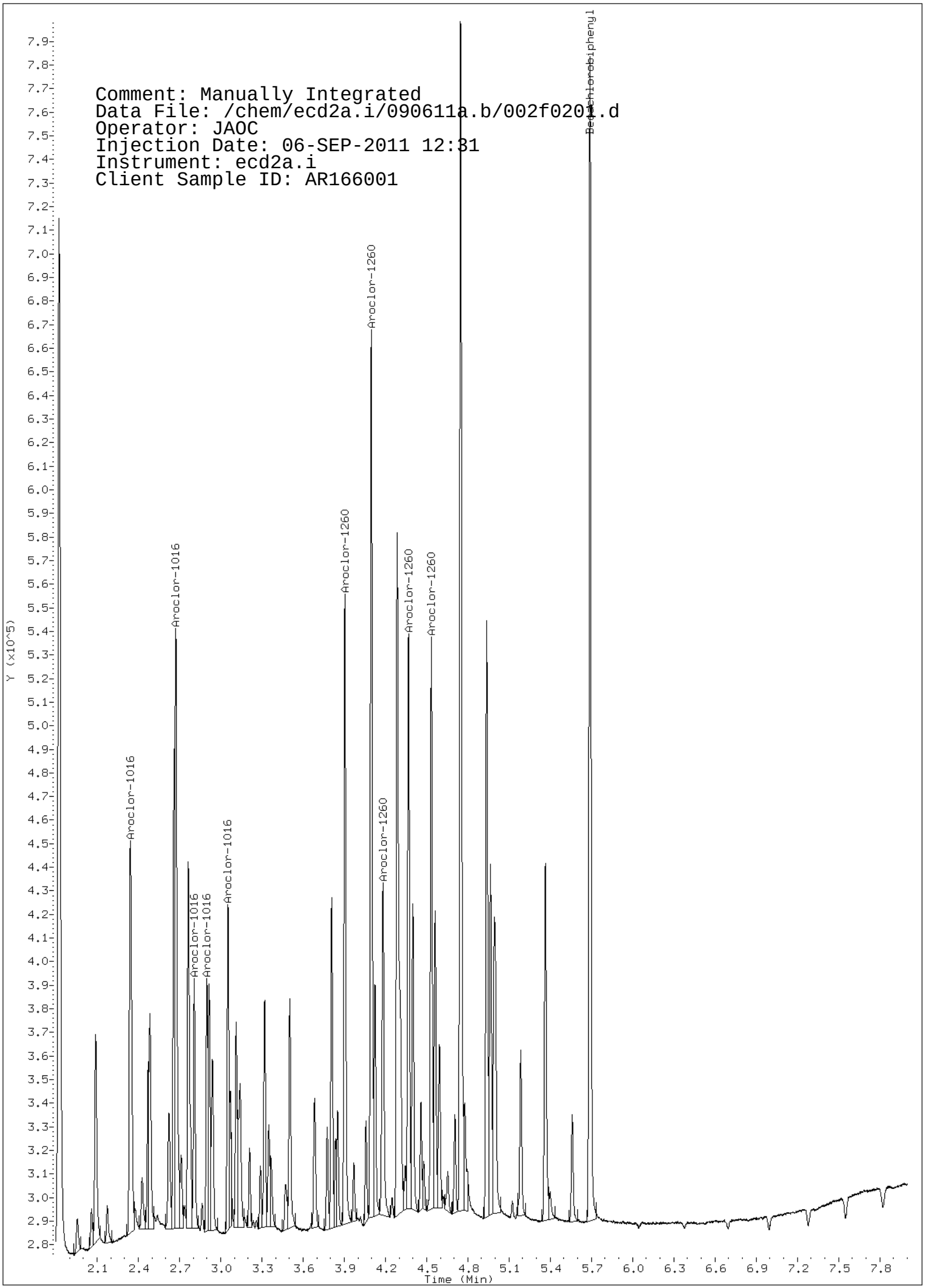
Sample Info: IWAR110906-01 60

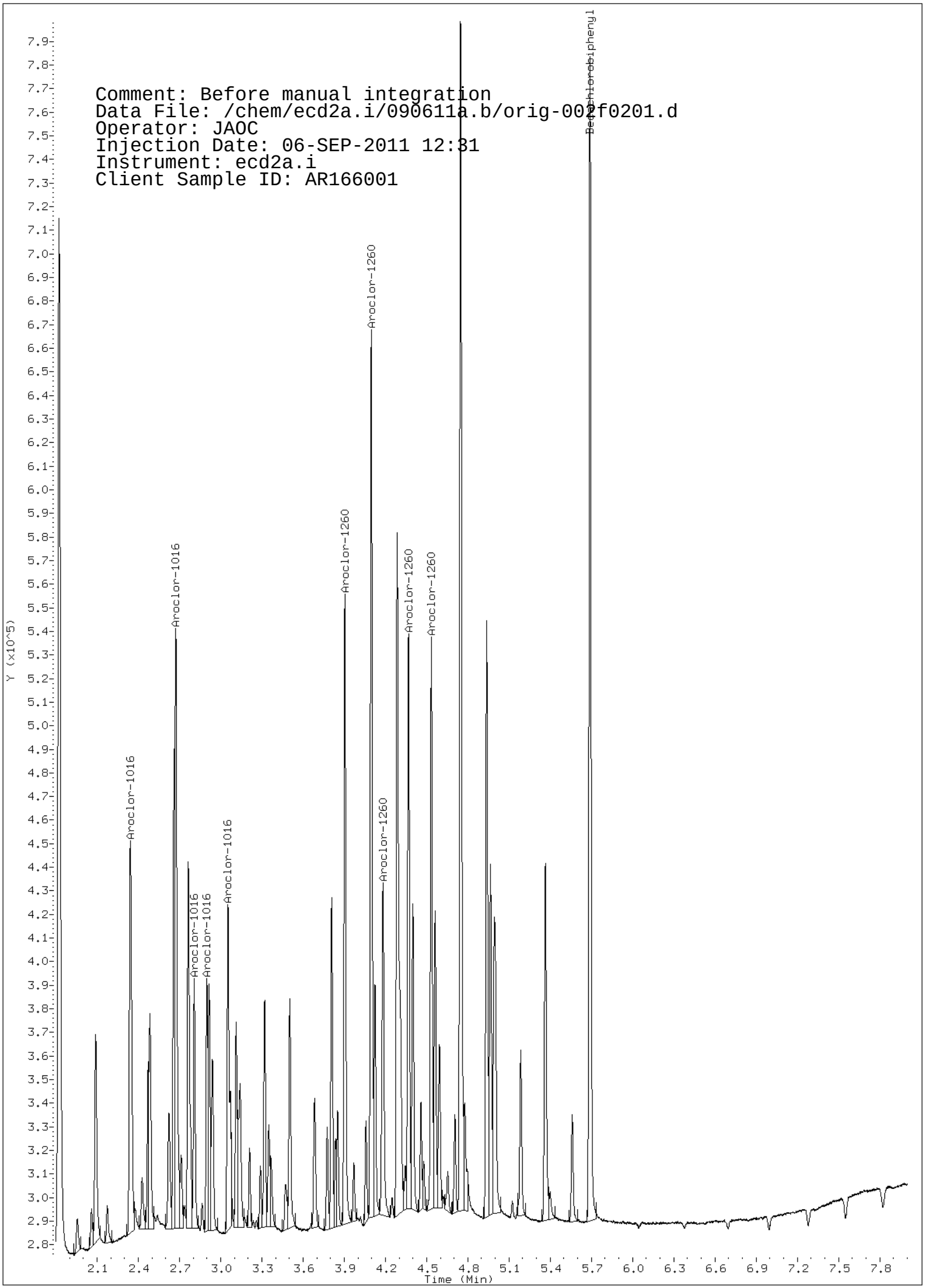
Operator: JAOC

Column phase: CLP1

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/090611a.b/002f0201.d
Operator: JAOC
Injection Date: 06-SEP-2011 12:31
Instrument: ecd2a.i
Client Sample ID: AR166001
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^5)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/090611a.b/orig-002f0201.d
Operator: JAOC
Injection Date: 06-SEP-2011 12:31
Instrument: ecd2a.i
Client Sample ID: AR166001
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Y (x10^5)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/002b0201.d
Lab Smp Id: WAR110906-01 60 Client Smp ID: AR166001
Inj Date : 06-SEP-2011 12:31
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:10 Cal File: 003b0301.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	1549819	10.0000	8.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.262	6.261	0.001	1561562	10.0000	9.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.714	2.714	0.000	599773	100.000	91.1	80.00- 120.00	100.00
3.220	3.220	0.000	339359	100.000	102	31.18- 71.18	56.58
3.299	3.298	0.001	328937	100.000	104	27.02- 67.02	54.84
3.327	3.327	0.000	317864	100.000	97.6	29.24- 69.24	53.00
3.484	3.485	-0.001	424875	100.000	97.3	46.54- 86.54	70.84
Average of Peak Amounts =					98.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	700735	100.000	82.2	80.00- 120.00	100.00
4.529	4.529	0.000	867589	100.000	80.9	105.31- 145.31	123.81
4.641	4.641	0.000	575656	100.000	79.5	64.62- 104.62	82.15
4.838	4.837	0.001	683812	100.000	81.7	76.77- 116.77	97.58
5.037	5.037	0.000	689327	100.000	81.3	79.34- 119.34	98.37
Average of Peak Amounts =					81.1		

Data File: /chem/ecd2a.i/090611a.b/002b0201.d

Page 1

Date : 06-SEP-2011 12:31

Client ID: AR166001

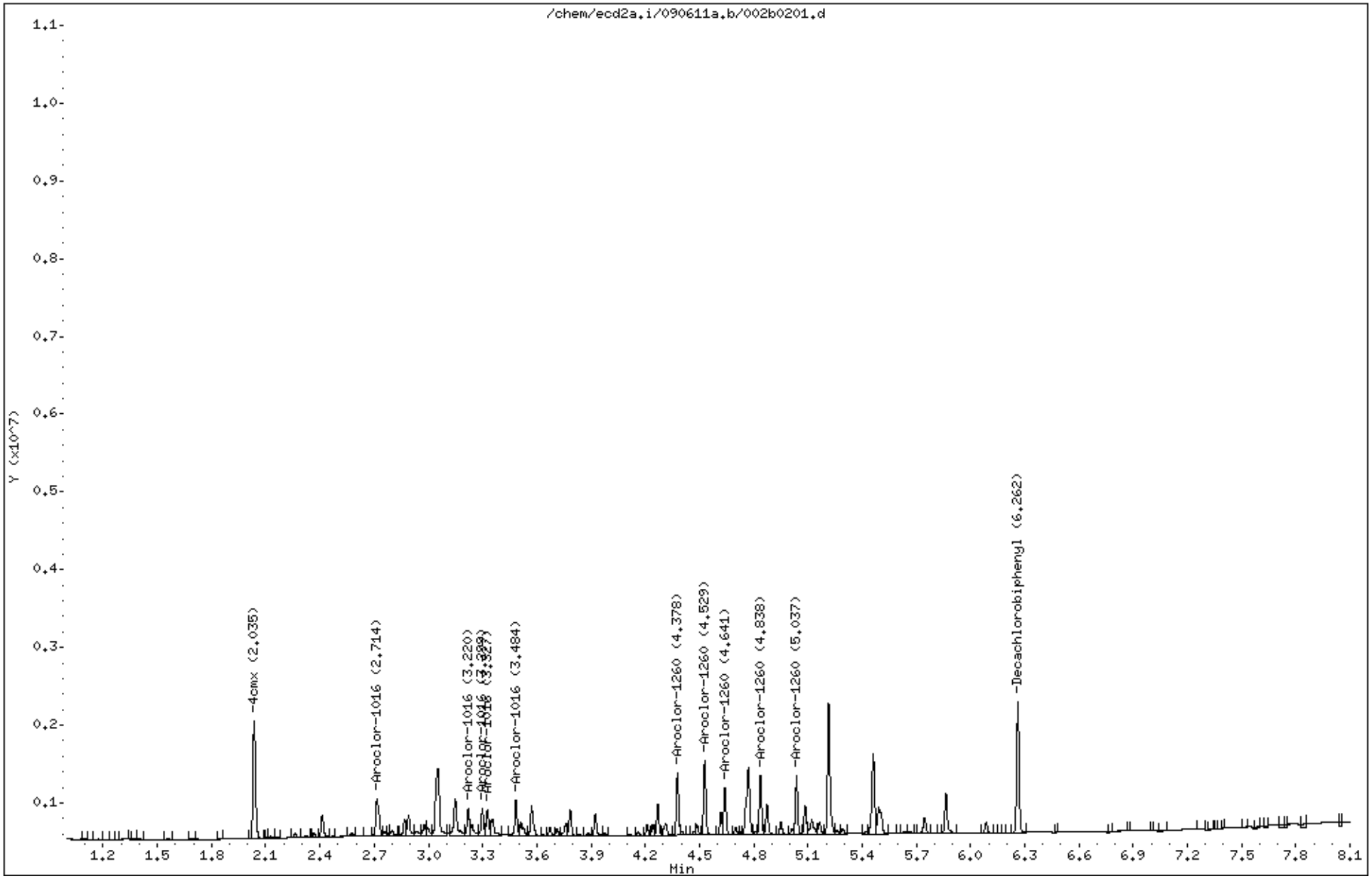
Instrument: ecd2a.i

Sample Info: IWAR110906-01 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/003f0301.d
Lab Smp Id: WAR110906-02 60 Client Smp ID: AR166002
Inj Date : 06-SEP-2011 12:42
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-02 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:21 Cal File: 004f0401.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.822	1.822	0.000	1431158	25.0000	24.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	1219494	25.0000	24.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.342	2.341	0.001	499764	250.000	258	80.00- 120.00	100.00
2.673	2.672	0.001	641432	250.000	244	118.27- 158.27	128.35
2.808	2.808	0.000	265806	250.000	261	34.53- 74.53	53.19
2.900	2.900	0.000	219477	250.000	259	24.79- 64.79	43.92
3.054	3.053	0.001	309864	250.000	254	44.63- 84.63	62.00
Average of Peak Amounts =					255		
7 Aroclor-1260					CAS #: 11096-82-5		
3.905	3.904	0.001	606588	250.000	248	80.00- 120.00	100.00
4.096	4.097	-0.001	879838	250.000	242	130.33- 170.33	145.05
4.182	4.182	0.000	375207	250.000	239	45.91- 85.91	61.86
4.368	4.368	0.000	554835	250.000	244	73.68- 113.68	91.47
4.534	4.534	0.000	562774	250.000	242	77.28- 117.28	92.78
Average of Peak Amounts =					243		

Data File: /chem/ecd2a.i/090611a.b/003f0301.d

Page 1

Date : 06-SEP-2011 12:42

Client ID: AR166002

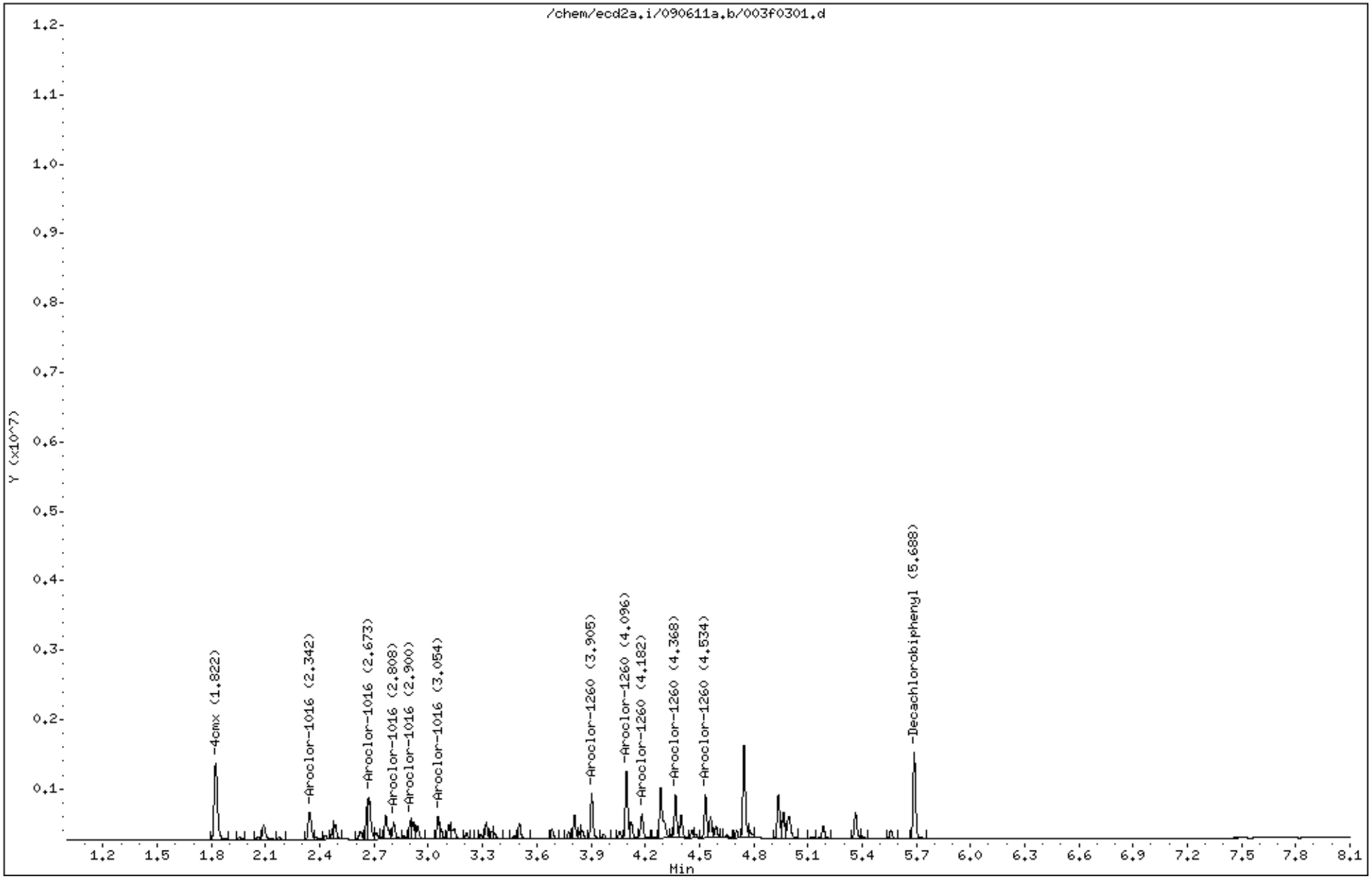
Instrument: ecd2a.i

Sample Info: IWAR110906-02 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/003b0301.d
Lab Smp Id: WAR110906-02 60 Client Smp ID: AR166002
Inj Date : 06-SEP-2011 12:42
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-02 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:21 Cal File: 004b0401.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	3988137	25.0000	21.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	3930629	25.0000	23.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.715	2.714	0.001	1455000	250.000	232	80.00- 120.00	100.00
3.221	3.220	0.001	693927	250.000	218	31.18- 71.18	47.69
3.298	3.298	0.000	671765	250.000	222	27.02- 67.02	46.17
3.327	3.327	0.000	701312	250.000	225	29.24- 69.24	48.20
3.485	3.485	0.000	928029	250.000	222	46.54- 86.54	63.78
Average of Peak Amounts =					224		
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	1782191	250.000	220	80.00- 120.00	100.00
4.529	4.529	0.000	2211464	250.000	217	105.31- 145.31	124.09
4.640	4.641	-0.001	1485438	250.000	216	64.62- 104.62	83.35
4.837	4.837	0.000	1734153	250.000	218	76.77- 116.77	97.30
5.036	5.037	-0.001	1770960	250.000	219	79.34- 119.34	99.37
Average of Peak Amounts =					218		

Data File: /chem/ecd2a.i/090611a.b/003b0301.d

Page 1

Date : 06-SEP-2011 12:42

Client ID: AR166002

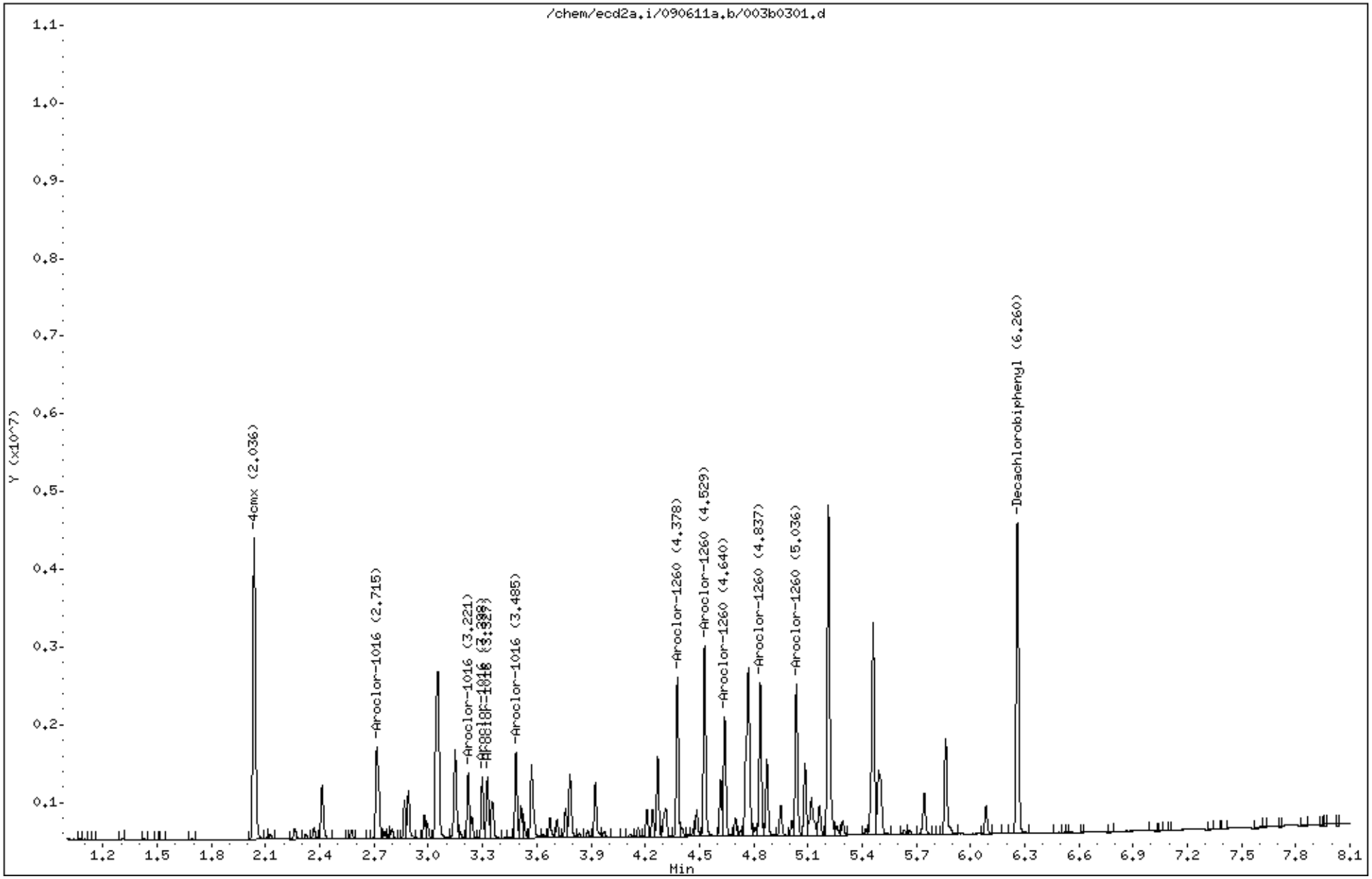
Instrument: ecd2a.i

Sample Info: IWAR110906-02 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/004f0401.d
Lab Smp Id: WAR110906-03 60 Client Smp ID: AR166003
Inj Date : 06-SEP-2011 12:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-03 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:32 Cal File: 005f0501.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	2874062	50.0000	49.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.690	5.689	0.001	2388392	50.0000	48.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.343	2.341	0.002	962284	500.000	496	80.00- 120.00	100.00
2.674	2.672	0.002	1268741	500.000	483	118.27- 158.27	131.85
2.809	2.808	0.001	515756	500.000	507	34.53- 74.53	53.60
2.901	2.900	0.001	415598	500.000	491	24.79- 64.79	43.19
3.054	3.053	0.001	599584	500.000	491	44.63- 84.63	62.31
Average of Peak Amounts =					493		
7 Aroclor-1260					CAS #: 11096-82-5		
3.905	3.904	0.001	1201184	500.000	490	80.00- 120.00	100.00
4.097	4.097	0.000	1780340	500.000	490	130.33- 170.33	148.22
4.182	4.182	0.000	779553	500.000	496	45.91- 85.91	64.90
4.368	4.368	0.000	1122395	500.000	494	73.68- 113.68	93.44
4.535	4.534	0.001	1148282	500.000	493	77.28- 117.28	95.60
Average of Peak Amounts =					493		

Data File: /chem/ecd2a.i/090611a.b/004f0401.d

Page 1

Date : 06-SEP-2011 12:53

Client ID: AR166003

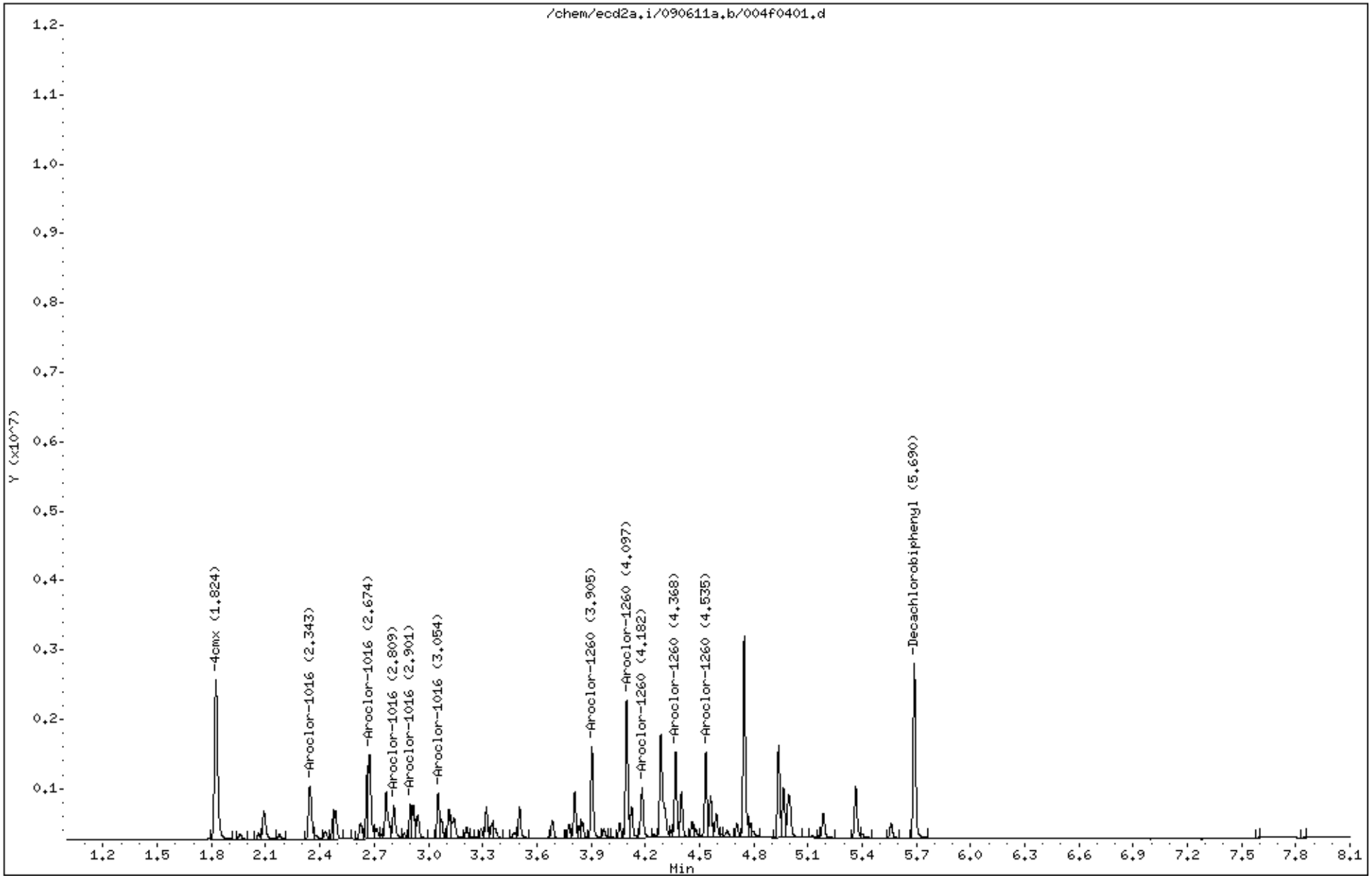
Instrument: ecd2a.i

Sample Info: IWAR110906-03 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/004b0401.d
Lab Smp Id: WAR110906-03 60 Client Smp ID: AR166003
Inj Date : 06-SEP-2011 12:53
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-03 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:32 Cal File: 005b0501.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	8097313	50.0000	45.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	7821913	50.0000	47.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.716	2.714	0.002	2788210	500.000	466	80.00- 120.00	100.00
3.221	3.220	0.001	1368543	500.000	446	31.18- 71.18	49.08
3.300	3.298	0.002	1297534	500.000	446	27.02- 67.02	46.54
3.328	3.327	0.001	1354349	500.000	454	29.24- 69.24	48.57
3.486	3.485	0.001	1804471	500.000	450	46.54- 86.54	64.72
Average of Peak Amounts =					453		
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	3493072	500.000	452	80.00- 120.00	100.00
4.529	4.529	0.000	4380597	500.000	452	105.31- 145.31	125.41
4.641	4.641	0.000	2971153	500.000	455	64.62- 104.62	85.06
4.837	4.837	0.000	3394596	500.000	449	76.77- 116.77	97.18
5.037	5.037	0.000	3470081	500.000	451	79.34- 119.34	99.34
Average of Peak Amounts =					452		

Data File: /chem/ecd2a.i/090611a.b/004b0401.d

Date : 06-SEP-2011 12:53

Client ID: AR166003

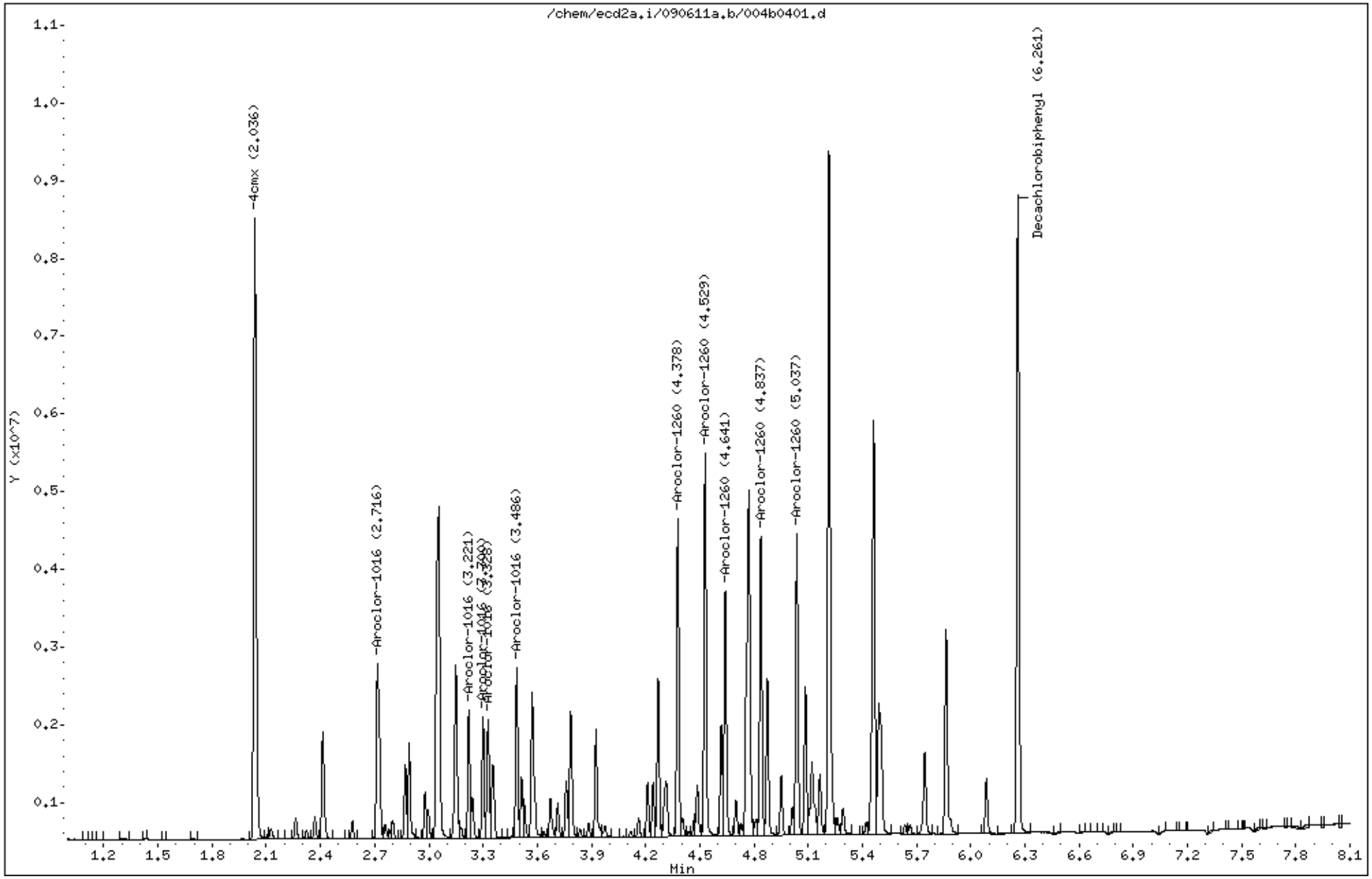
Sample Info: IWAR110906-03 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/005f0501.d
Lab Smp Id: WAR110906-04 60 Client Smp ID: AR166004
Inj Date : 06-SEP-2011 13:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-04 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 12:49 jen01212 Quant Type: ESTD
Cal Date : 27-JUN-2011 18:56 Cal File: 030f3001.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	5788512	100.000	99.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.690	5.689	0.001	4870074	100.000	98.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.343	2.341	0.002	1854756	1000.00	956	80.00- 120.00	100.00
2.674	2.672	0.002	2491156	1000.00	948	114.31- 154.31	134.31
2.809	2.808	0.001	990957	1000.00	974	33.43- 73.43	53.43
2.901	2.900	0.001	805291	1000.00	951	23.42- 63.42	43.42
3.054	3.053	0.001	1170116	1000.00	958	43.09- 83.09	63.09
Average of Peak Amounts =					957		
7 Aroclor-1260					CAS #: 11096-82-5		
3.905	3.904	0.001	2406648	1000.00	983	80.00- 120.00	100.00
4.097	4.097	0.000	3602277	1000.00	992	129.68- 169.68	149.68
4.182	4.182	0.000	1604658	1000.00	1020	46.68- 86.68	66.68
4.369	4.368	0.001	2257120	1000.00	993	73.79- 113.79	93.79
4.535	4.534	0.001	2346984	1000.00	1010	77.52- 117.52	97.52
Average of Peak Amounts =					999		

Data File: /chem/ecd2a.i/090611a.b/005f0501.d

Page 1

Date : 06-SEP-2011 13:04

Client ID: AR166004

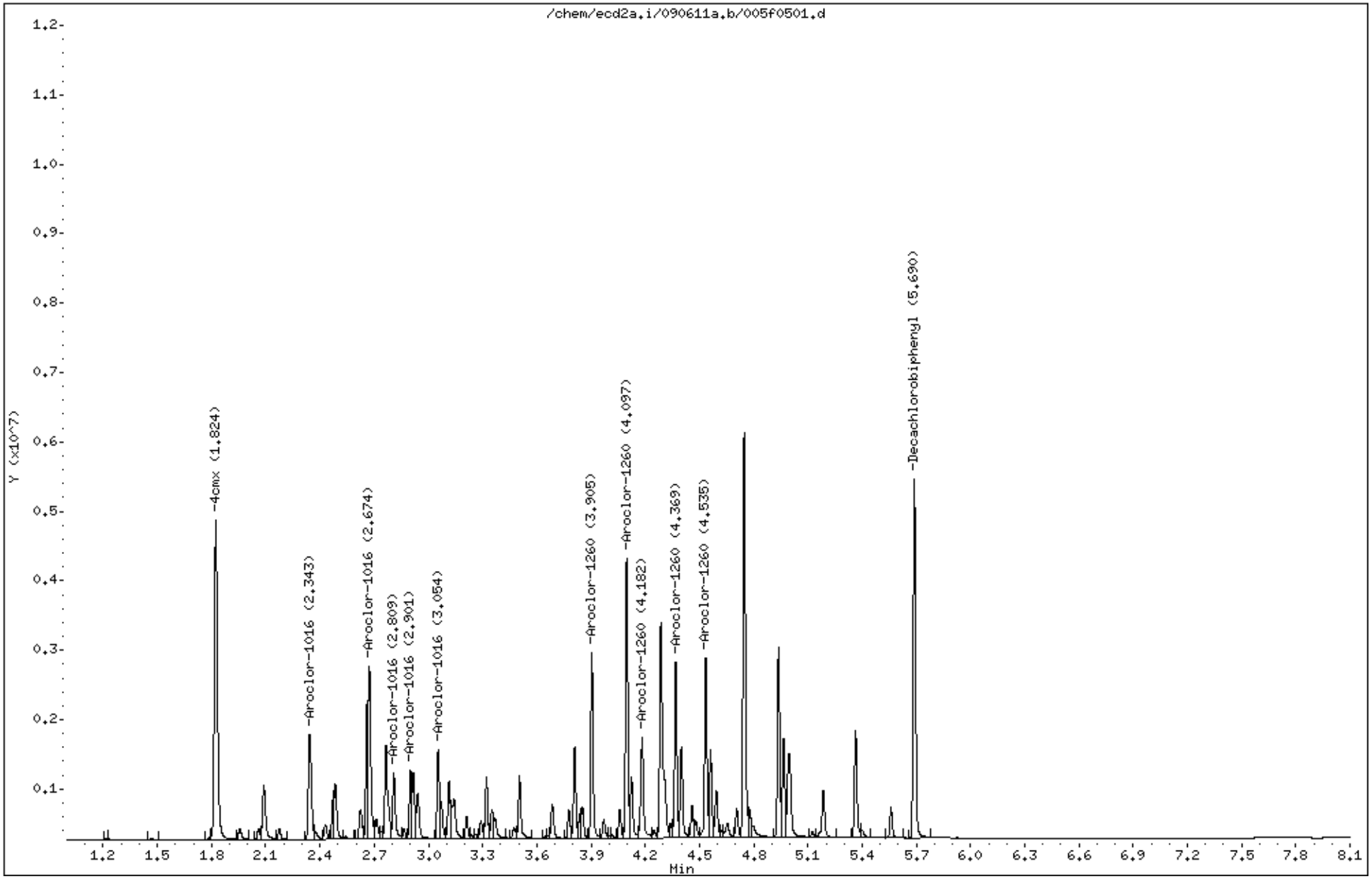
Instrument: ecd2a.i

Sample Info: IWAR110906-04 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/005b0501.d
Lab Smp Id: WAR110906-04 60 Client Smp ID: AR166004
Inj Date : 06-SEP-2011 13:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-04 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 12:50 jen01212 Quant Type: ESTD
Cal Date : 27-JUN-2011 18:56 Cal File: 030b3001.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	16151039	100.000	98.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	15815232	100.000	97.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.715	2.714	0.001	5323826	1000.00	989	80.00- 120.00	100.00
3.220	3.220	0.000	2692932	1000.00	959	30.58- 70.58	50.58
3.299	3.298	0.001	2485011	1000.00	968	26.68- 66.68	46.68
3.328	3.327	0.001	2600272	1000.00	977	28.84- 68.84	48.84
3.485	3.485	0.000	3509163	1000.00	965	45.91- 85.91	65.91
Average of Peak Amounts =					972		
7 Aroclor-1260					CAS #: 11096-82-5		
4.379	4.378	0.001	6903103	1000.00	973	80.00- 120.00	100.00
4.530	4.529	0.001	8614018	1000.00	972	104.78- 144.78	124.78
4.640	4.641	-0.001	5802741	1000.00	976	64.06- 104.06	84.06
4.837	4.837	0.000	6653387	1000.00	966	76.38- 116.38	96.38
5.037	5.037	0.000	6838233	1000.00	972	79.06- 119.06	99.06
Average of Peak Amounts =					972		

Data File: /chem/ecd2a.i/090611a.b/005b0501.d

Date : 06-SEP-2011 13:04

Client ID: AR166004

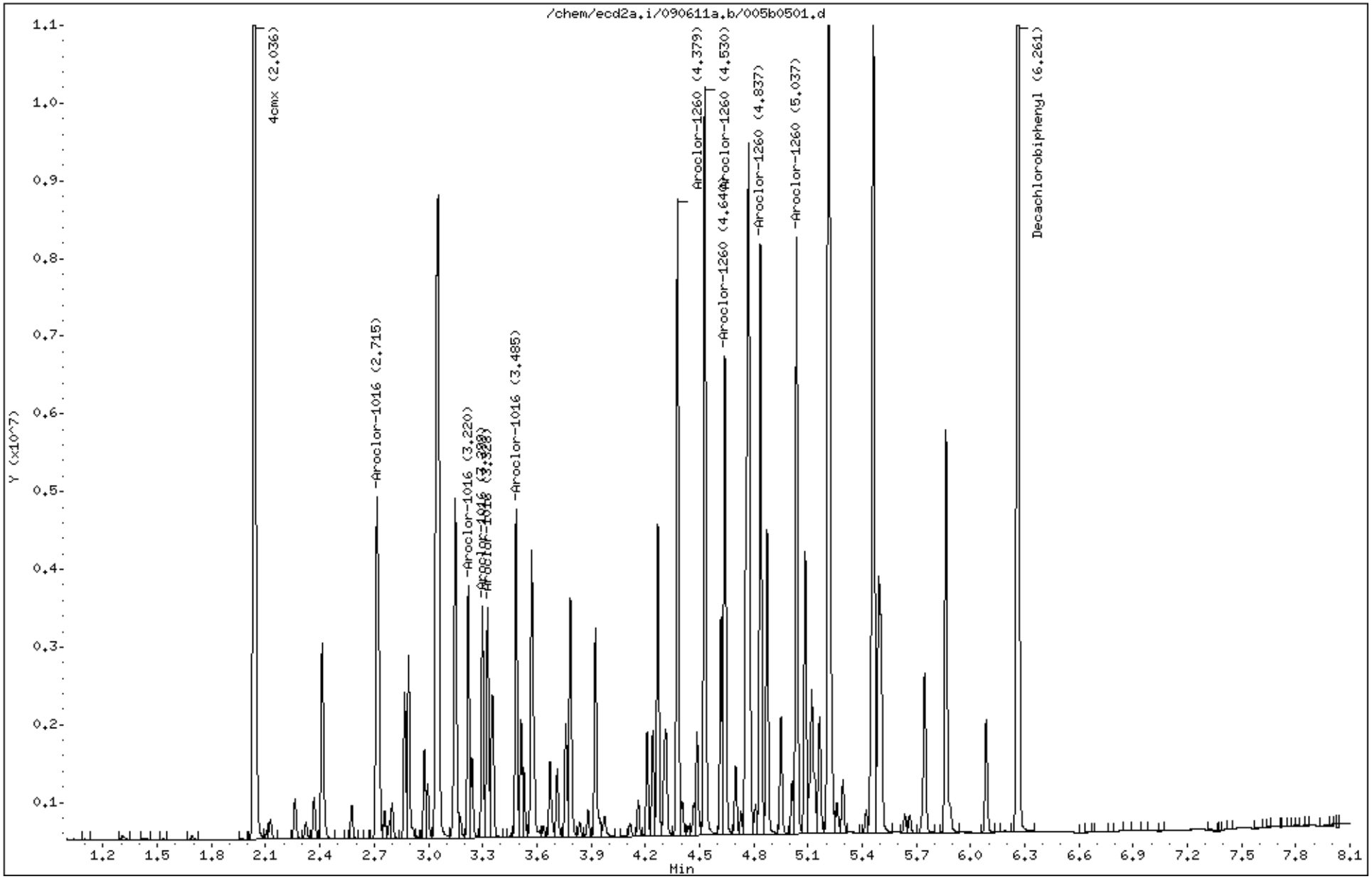
Sample Info: IWAR110906-04 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/006f0601.d
Lab Smp Id: IAR110623-01 60 Client Smp ID: AR166005
Inj Date : 06-SEP-2011 13:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110623-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 08-Sep-2011 14:49 jc Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.825	1.822	0.003	24633847	400.000	424	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	21422627	400.000	434	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 2051-24-3		
2.344	2.341	0.003	7455632	4000.00	3840	80.00- 120.00	100.00(A)
2.674	2.672	0.002	10797575	4000.00	4110	124.82- 164.82	144.82
2.809	2.808	0.001	4114292	4000.00	4040	35.18- 75.18	55.18
2.901	2.900	0.001	3370413	4000.00	3980	25.21- 65.21	45.21
3.054	3.053	0.001	5031375	4000.00	4120	47.48- 87.48	67.48
Average of Peak Amounts =				4.02e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
3.904	3.904	0.000	10125417	4000.00	4140	80.00- 120.00	100.00(A)
4.096	4.097	-0.001	15817154	4000.00	4350	136.21- 176.21	156.21
4.181	4.182	-0.001	6605951	4000.00	4200	45.24- 85.24	65.24
4.368	4.368	0.000	9602506	4000.00	4220	74.84- 114.84	94.84
4.534	4.534	0.000	9996367	4000.00	4290	78.73- 118.73	98.73
Average of Peak Amounts =				4.24e+03			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd2a.i/090611a.b/006f0601.d

Page 1

Date : 06-SEP-2011 13:16

Client ID: AR166005

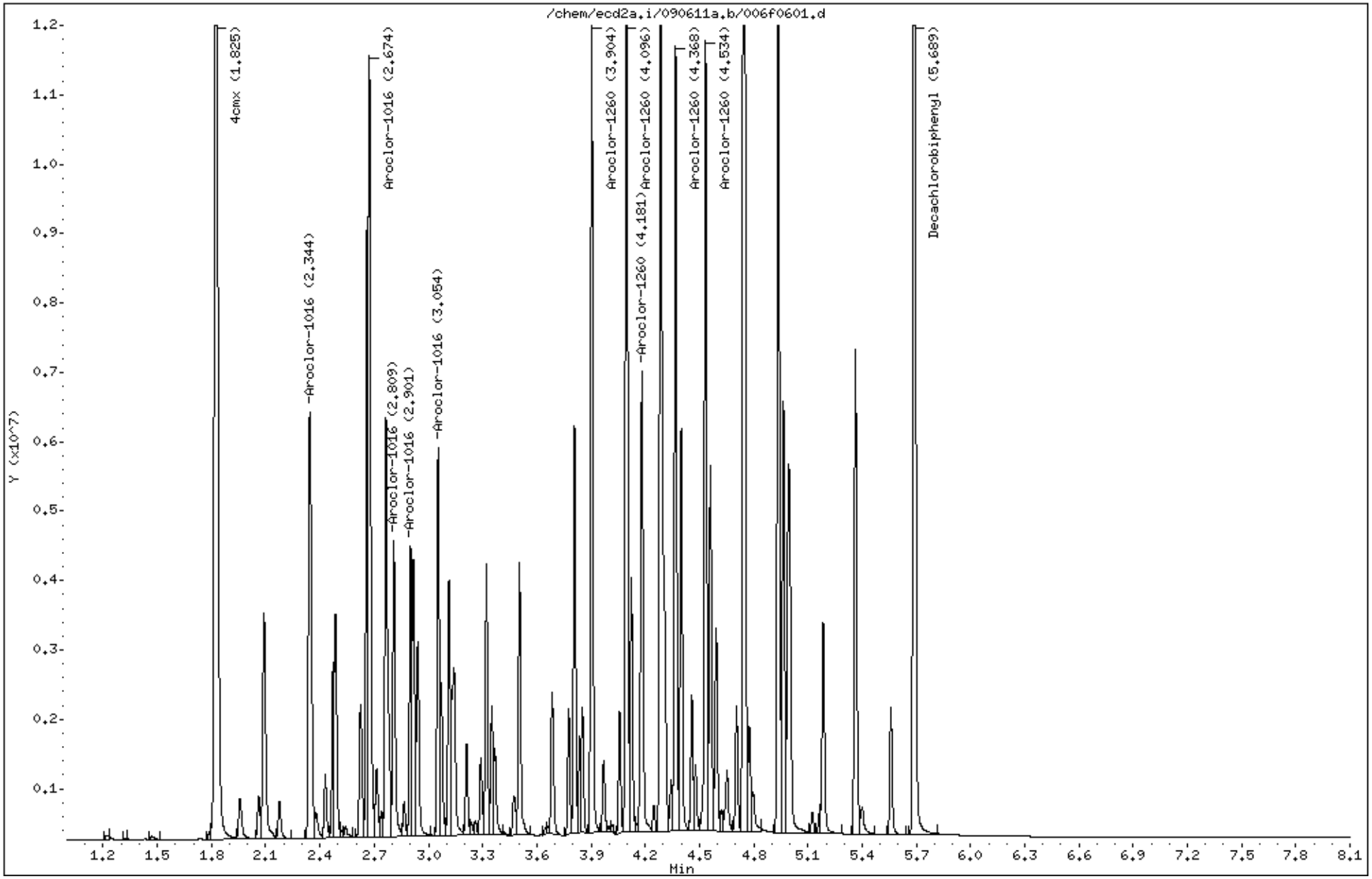
Instrument: ecd2a.i

Sample Info: |IAR110623-01 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/006b0601.d
Lab Smp Id: IAR110623-01 60 Client Smp ID: AR166005
Inj Date : 06-SEP-2011 13:16
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110623-01 60
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.037	2.035	0.002	73891769	400.000	449	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	72770511	400.000	449	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.716	2.714	0.002	21224807	4000.00	3790	80.00- 120.00	100.00
3.221	3.220	0.001	11362376	4000.00	3930	31.18- 71.18	53.53
3.299	3.298	0.001	10199978	4000.00	3750	27.02- 67.02	48.06
3.327	3.327	0.000	10570974	4000.00	3790	29.24- 69.24	49.80
3.485	3.485	0.000	14617097	4000.00	3900	46.54- 86.54	68.87
Average of Peak Amounts =				3.83e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	29780579	4000.00	4200	80.00- 120.00	100.00(A)
4.529	4.529	0.000	37638610	4000.00	4250	105.31- 145.31	126.39
4.639	4.641	-0.002	25168305	4000.00	4230	64.62- 104.62	84.51
4.837	4.837	0.000	28840685	4000.00	4190	76.77- 116.77	96.84
5.036	5.037	-0.001	29648605	4000.00	4220	79.34- 119.34	99.56
Average of Peak Amounts =				4.22e+03			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd2a.i/090611a.b/006b0601.d

Page 1

Date : 06-SEP-2011 13:16

Client ID: AR166005

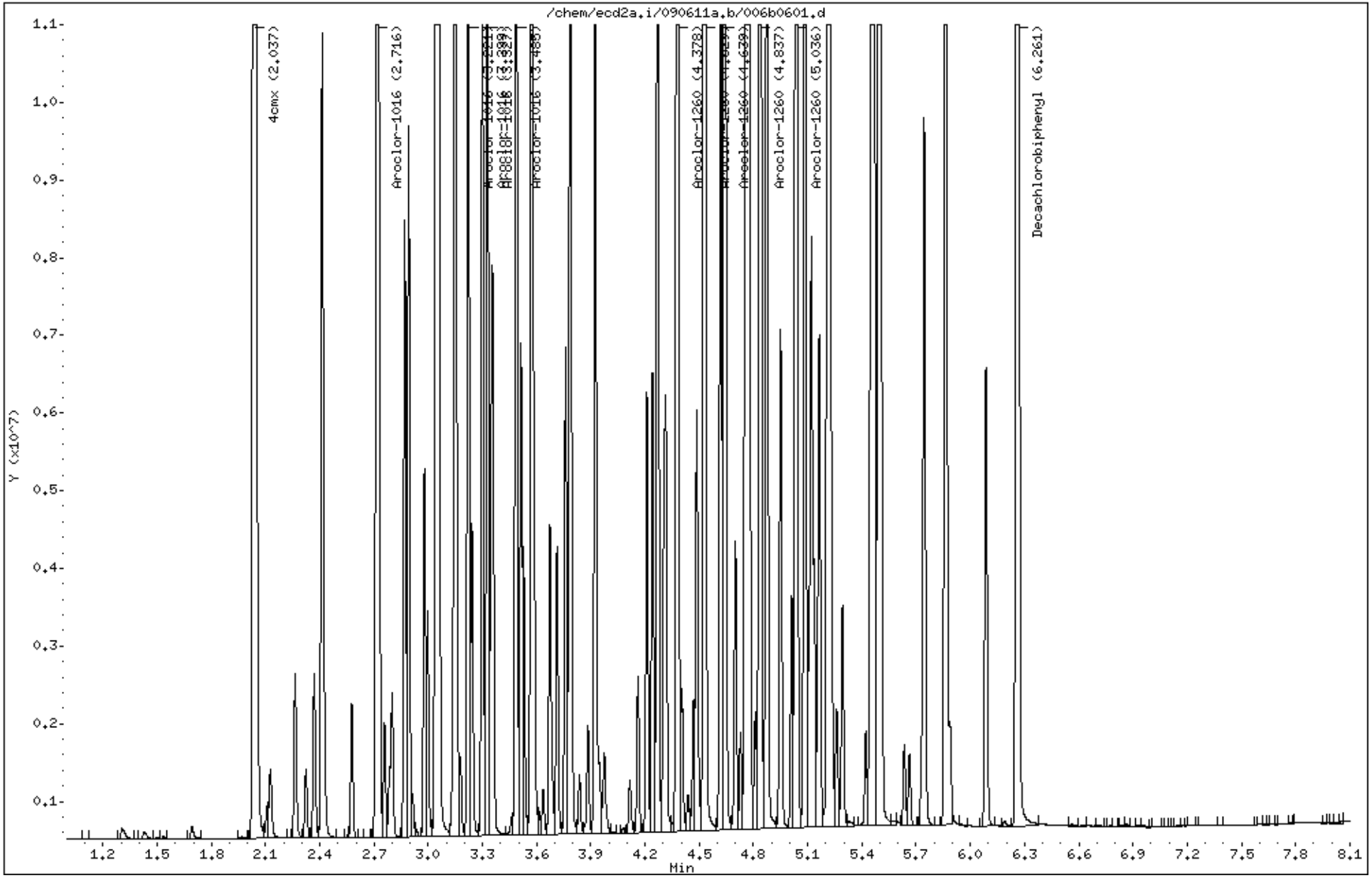
Instrument: ecd2a.i

Sample Info: |IAR110623-01 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/008f0801.d
Lab Smp Id: WAR110906-05 54 Client Smp ID: AR125401
Inj Date : 06-SEP-2011 13:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-05 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:10 Cal File: 003f0301.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	591896	10.0000	10.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	501522	10.0000	10.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.321	3.321	0.000	183735	100.000	88.5	80.00- 120.00	100.00
3.503	3.504	-0.001	234787	100.000	85.7	115.26- 155.26	127.79
3.692	3.691	0.001	171693	100.000	80.6	85.53- 125.53	93.45
3.904	3.904	0.000	116485	100.000	79.4	47.88- 87.88	63.40
4.155	4.153	0.002	104281	100.000	79.7	53.99- 93.99	56.76
Average of Peak Amounts =					82.8		

Data File: /chem/ecd2a.i/090611a.b/008f0801.d

Page 1

Date : 06-SEP-2011 13:38

Client ID: AR125401

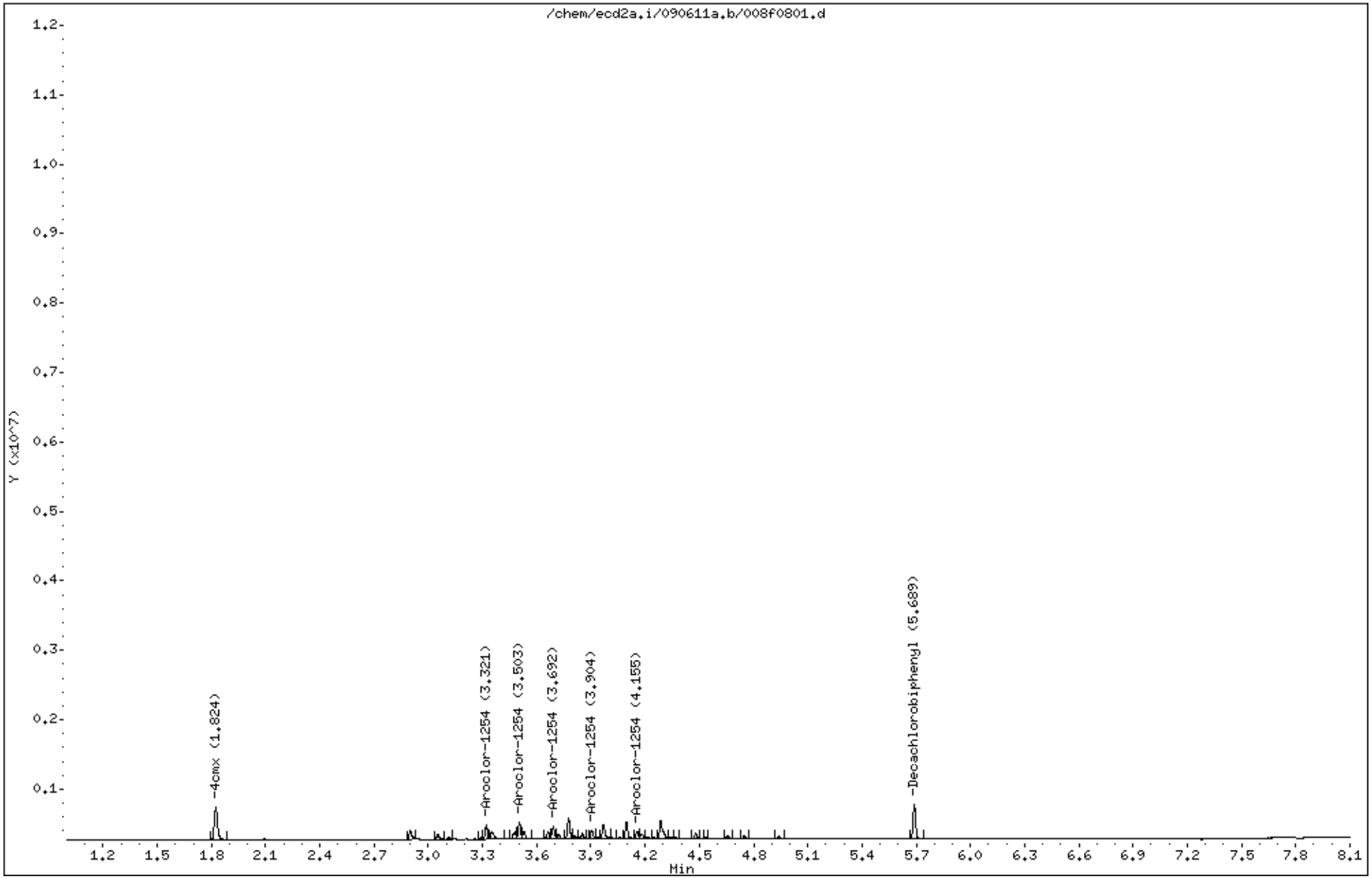
Instrument: ecd2a.i

Sample Info: IWAR110906-05 54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/008b0801.d
Lab Smp Id: WAR110906-05 54 Client Smp ID: AR125401
Inj Date : 06-SEP-2011 13:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-05 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:10 Cal File: 003b0301.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	1617682	10.0000	9.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	1634781	10.0000	10.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.298	3.299	-0.001	324032	100.000	82.6	80.00- 120.00	100.00
3.783	3.784	-0.001	610358	100.000	79.4	175.55- 215.55	188.36
3.967	3.966	0.001	511155	100.000	79.0	140.54- 180.54	157.75
4.160	4.160	0.000	479140	100.000	75.8	146.96- 186.96	147.87
4.378	4.377	0.001	386897	100.000	77.6	107.81- 147.81	119.40
Average of Peak Amounts =					78.9		

Data File: /chem/ecd2a.i/090611a.b/008b0801.d

Page 1

Date : 06-SEP-2011 13:38

Client ID: AR125401

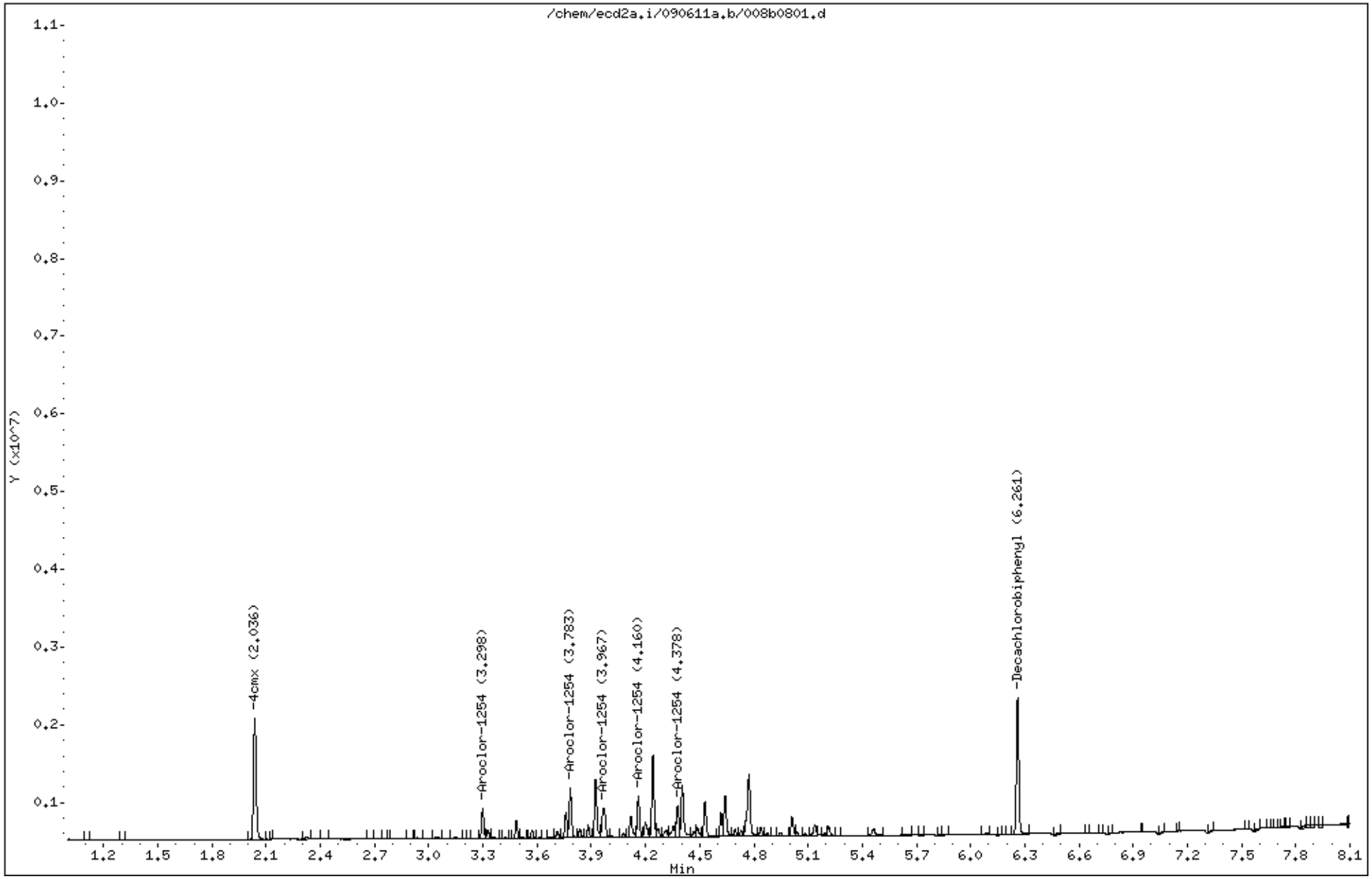
Instrument: ecd2a.i

Sample Info: IWAR110906-05 54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/009f0901.d
Lab Smp Id: WAR110906-06 54 Client Smp ID: AR125402
Inj Date : 06-SEP-2011 13:49
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-06 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:21 Cal File: 004f0401.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	1479497	25.0000	25.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.690	5.689	0.001	1274212	25.0000	25.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.321	3.321	0.000	452470	250.000	228	80.00- 120.00	100.00
3.504	3.504	0.000	582510	250.000	223	115.26- 155.26	128.74
3.691	3.691	0.000	453379	250.000	224	85.53- 125.53	100.20
3.905	3.904	0.001	310992	250.000	226	47.88- 87.88	68.73
4.156	4.153	0.003	279591	250.000	221	53.99- 93.99	61.79
Average of Peak Amounts =					224		

Data File: /chem/ecd2a.i/090611a.b/009f0901.d

Page 1

Date : 06-SEP-2011 13:49

Client ID: AR125402

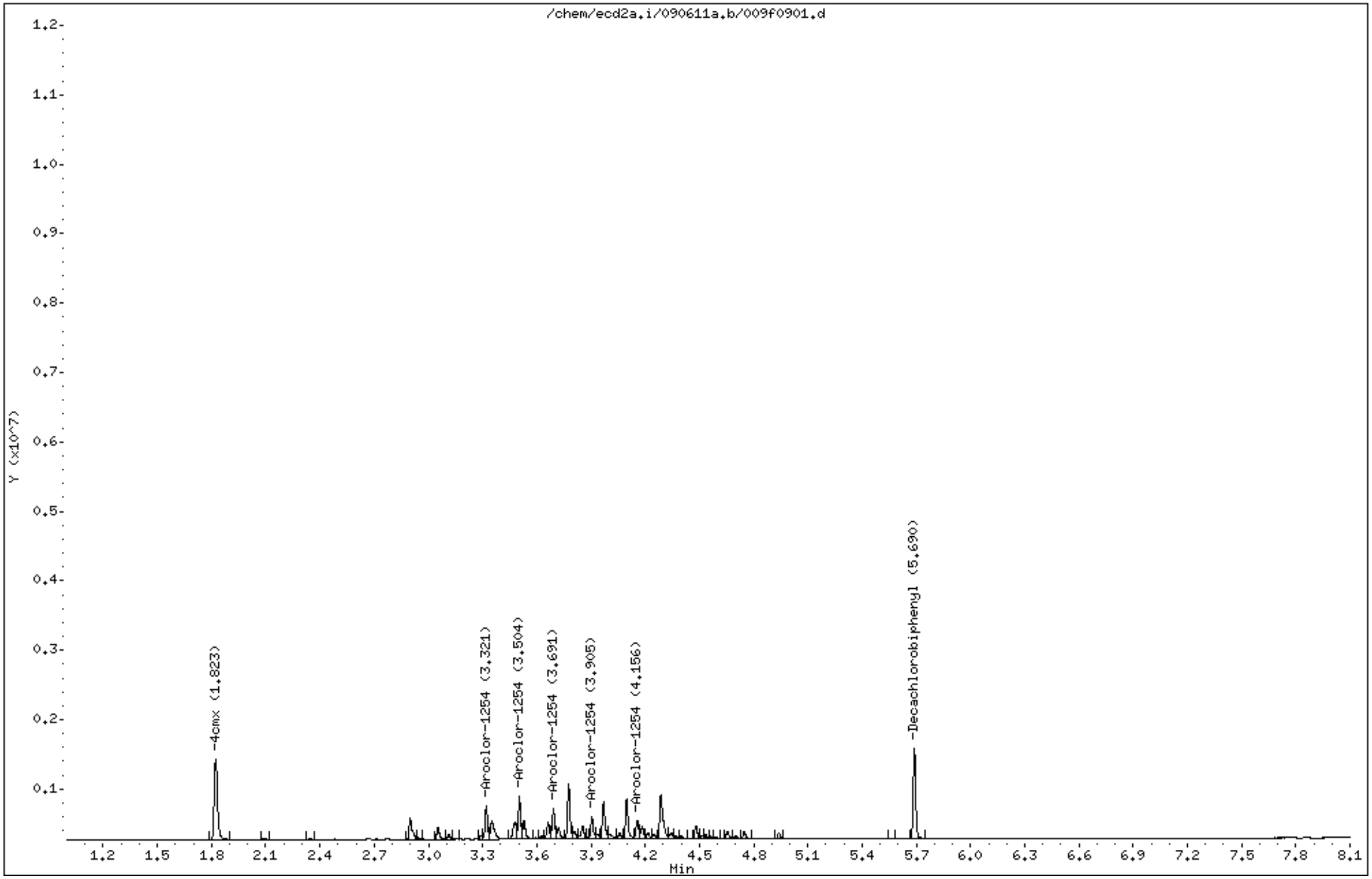
Instrument: ecd2a.i

Sample Info: IWAR110906-06 54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/009b0901.d
Lab Smp Id: WAR110906-06 54 Client Smp ID: AR125402
Inj Date : 06-SEP-2011 13:49
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-06 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:21 Cal File: 004b0401.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	4140518	25.0000	25.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	4120273	25.0000	25.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.299	3.299	0.000	791829	250.000	216	80.00- 120.00	100.00
3.784	3.784	0.000	1500746	250.000	209	175.55- 215.55	189.53
3.966	3.966	0.000	1330400	250.000	219	140.54- 180.54	168.02
4.161	4.160	0.001	1221426	250.000	207	146.96- 186.96	154.25
4.378	4.377	0.001	983341	250.000	211	107.81- 147.81	124.19
Average of Peak Amounts =					212		

Data File: /chem/ecd2a.i/090611a.b/009b0901.d

Page 1

Date : 06-SEP-2011 13:49

Client ID: AR125402

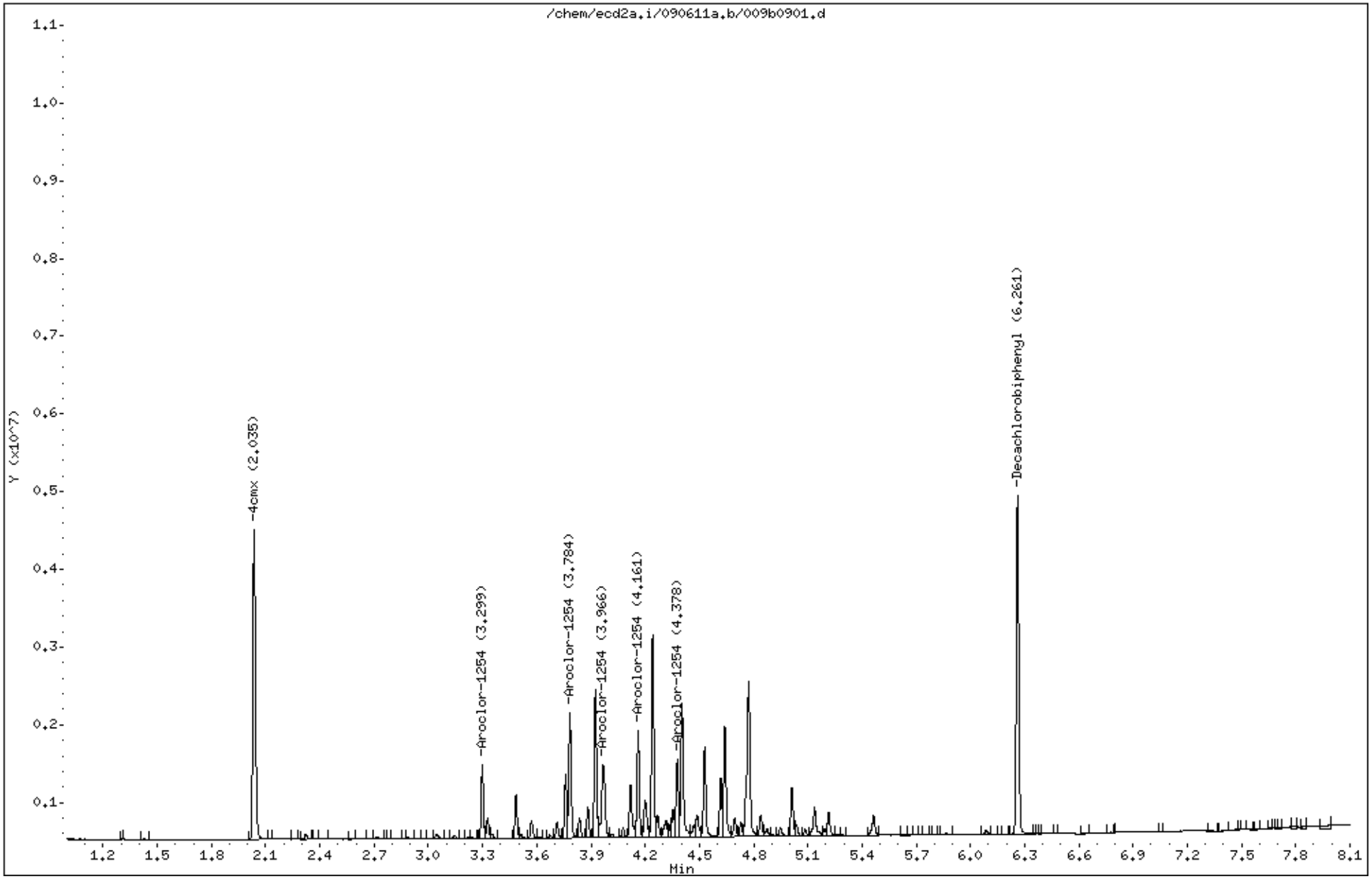
Instrument: ecd2a.i

Sample Info: IWAR110906-06 54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/010f1001.d
Lab Smp Id: WAR110906-07 54 Client Smp ID: AR125403
Inj Date : 06-SEP-2011 14:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-07 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:32 Cal File: 005f0501.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	2935720	50.0000	50.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	2493536	50.0000	50.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.320	3.321	-0.001	863003	500.000	454	80.00- 120.00	100.00
3.504	3.504	0.000	1126847	500.000	450	115.26- 155.26	130.57
3.691	3.691	0.000	874140	500.000	454	85.53- 125.53	101.29
3.905	3.904	0.001	603707	500.000	462	47.88- 87.88	69.95
4.155	4.153	0.002	565460	500.000	463	53.99- 93.99	65.52
Average of Peak Amounts =					457		

Data File: /chem/ecd2a.i/090611a.b/010f1001.d

Page 1

Date : 06-SEP-2011 14:01

Client ID: AR125403

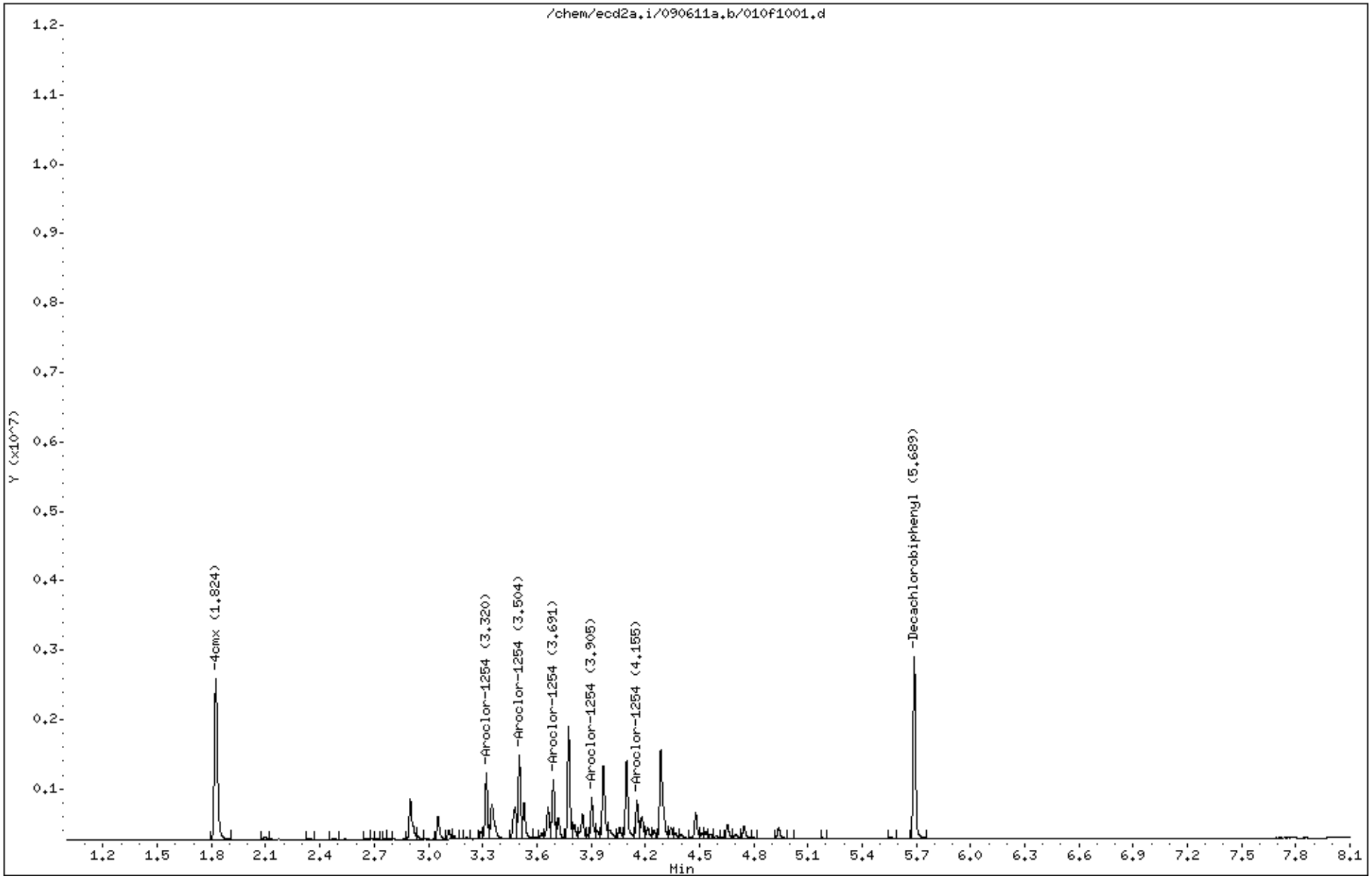
Instrument: ecd2a.i

Sample Info: IWAR110906-07 54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/010b1001.d
Lab Smp Id: WAR110906-07 54 Client Smp ID: AR125403
Inj Date : 06-SEP-2011 14:01
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-07 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:32 Cal File: 005b0501.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	8242762	50.0000	50.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	8006799	50.0000	49.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.299	3.299	0.000	1508747	500.000	437	80.00- 120.00	100.00
3.784	3.784	0.000	2875910	500.000	430	175.55- 215.55	190.62
3.966	3.966	0.000	2403507	500.000	427	140.54- 180.54	159.30
4.160	4.160	0.000	2367193	500.000	429	146.96- 186.96	156.90
4.377	4.377	0.000	1872584	500.000	431	107.81- 147.81	124.12
Average of Peak Amounts =					431		

Data File: /chem/ecd2a.i/090611a.b/010b1001.d

Page 1

Date : 06-SEP-2011 14:01

Client ID: AR125403

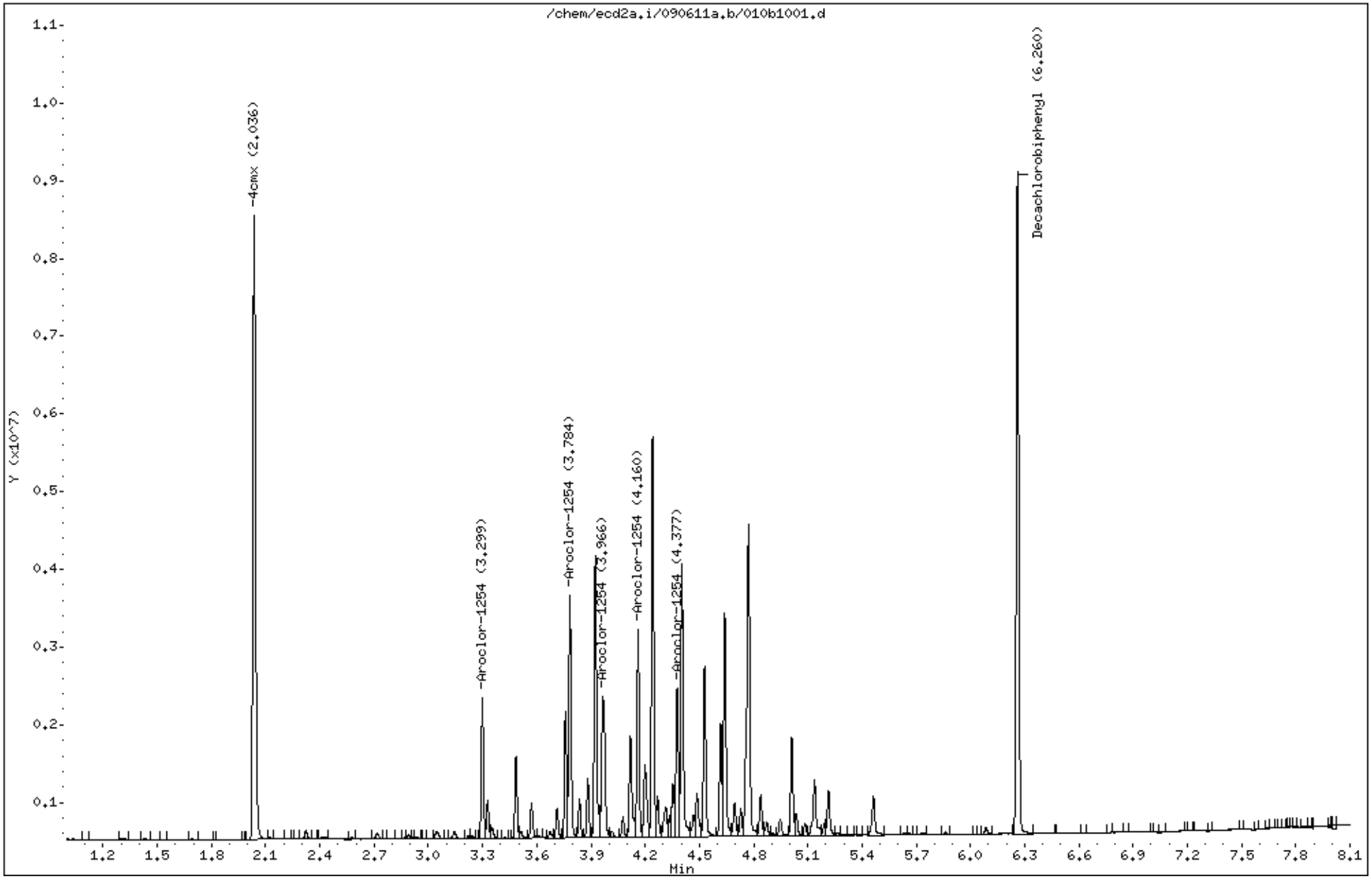
Instrument: ecd2a.i

Sample Info: IWAR110906-07 54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/011f1101.d
Lab Smp Id: WAR110906-08 54 Client Smp ID: AR125404
Inj Date : 06-SEP-2011 14:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-08 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 27-JUN-2011 18:56 Cal File: 030f3001.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	6076415	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	5217923	100.000	106	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.321	3.321	0.000	1751366	1000.00	959	80.00- 120.00	100.00
3.503	3.504	-0.001	2291671	1000.00	958	115.26- 155.26	130.85
3.692	3.691	0.001	1799184	1000.00	976	85.53- 125.53	102.73
3.904	3.904	0.000	1201867	1000.00	967	47.88- 87.88	68.62
4.154	4.153	0.001	1184821	1000.00	1000	53.99- 93.99	67.65
Average of Peak Amounts =					973		

Data File: /chem/ecd2a.i/090611a.b/011f1101.d

Page 1

Date : 06-SEP-2011 14:12

Client ID: AR125404

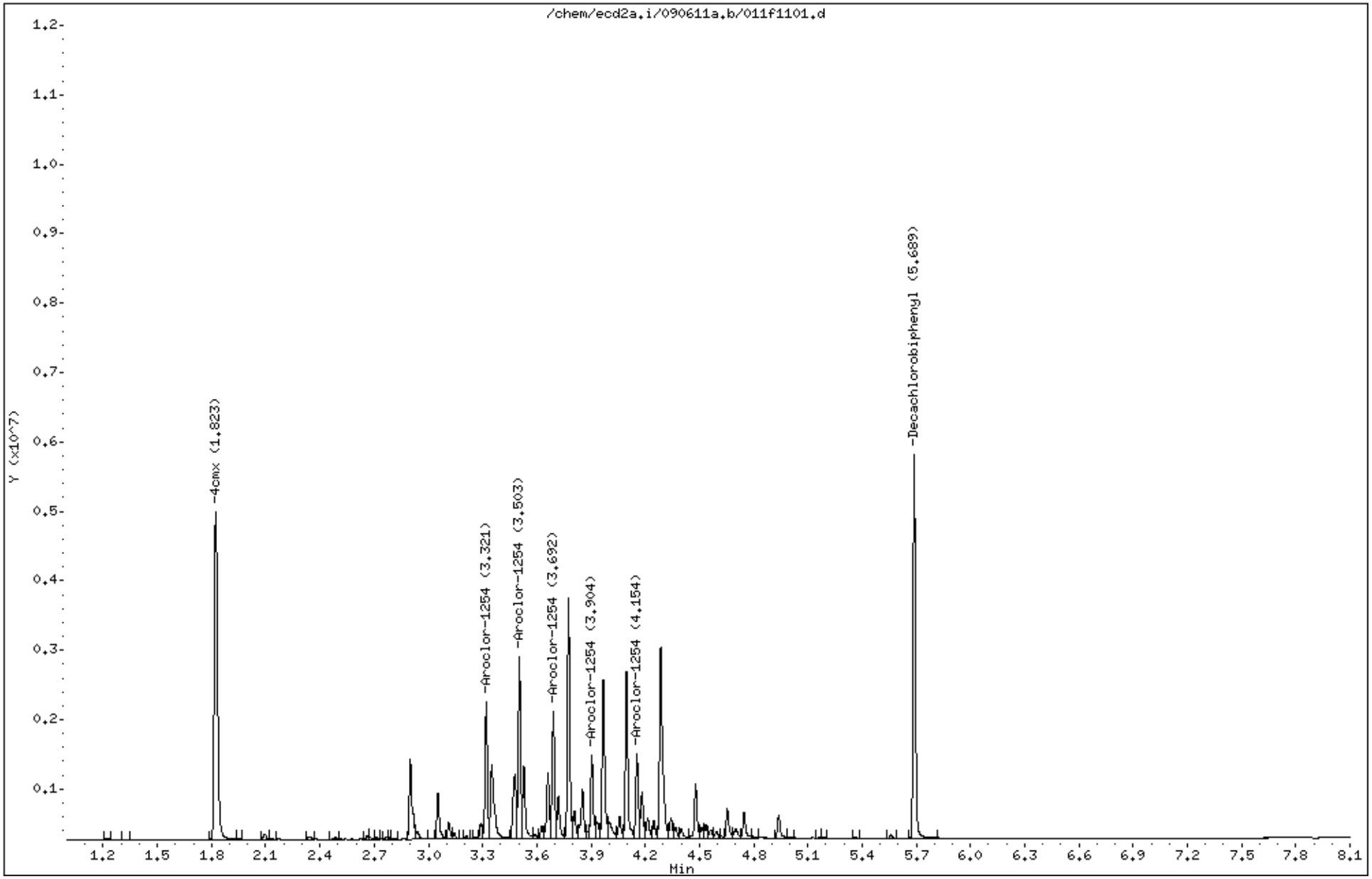
Instrument: ecd2a.i

Sample Info: IWAR110906-08 54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/011b1101.d
Lab Smp Id: WAR110906-08 54 Client Smp ID: AR125404
Inj Date : 06-SEP-2011 14:12
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110906-08 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 27-JUN-2011 18:56 Cal File: 030b3001.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	17125855	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	16661691	100.000	103	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.298	3.299	-0.001	3008567	1000.00	924	80.00- 120.00	100.00
3.784	3.784	0.000	5815228	1000.00	931	175.55- 215.55	193.29
3.966	3.966	0.000	4830298	1000.00	920	140.54- 180.54	160.55
4.160	4.160	0.000	4827421	1000.00	937	146.96- 186.96	160.46
4.377	4.377	0.000	3787739	1000.00	932	107.81- 147.81	125.90
Average of Peak Amounts =					929		

Data File: /chem/ecd2a.i/090611a.b/011b1101.d

Page 1

Date : 06-SEP-2011 14:12

Client ID: AR125404

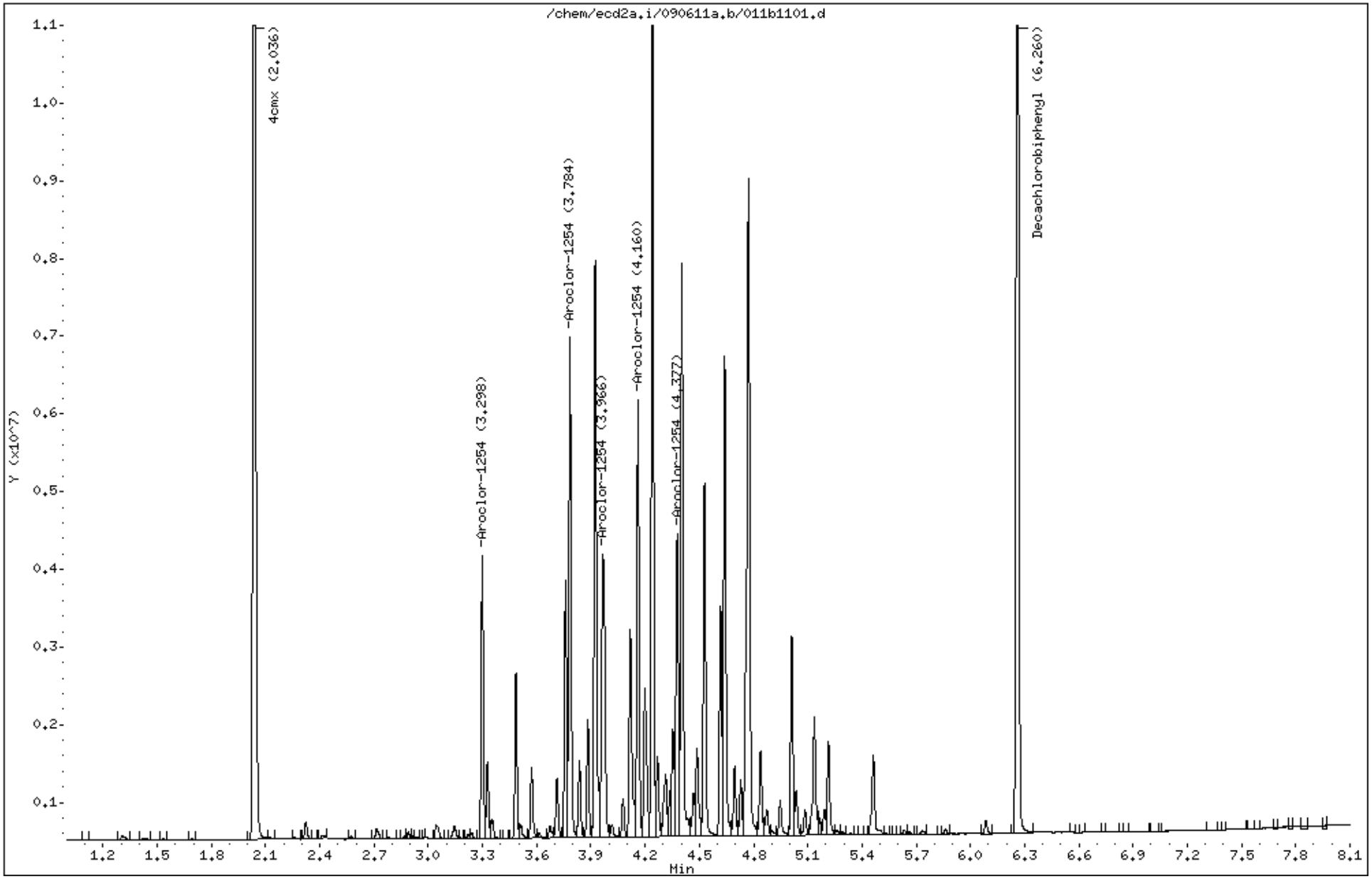
Instrument: ecd2a.i

Sample Info: IWAR110906-08 54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/012f1201.d
Lab Smp Id: IAR110811-01 54 Client Smp ID: AR125405
Inj Date : 06-SEP-2011 14:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110811-01 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	23405127	400.000	403	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	20004333	400.000	405	80.00- 120.00	100.00(A)
6 Aroclor-1254					CAS #: 11097-69-1		
3.321	3.321	0.000	6513817	4000.00	3720	80.00- 120.00	100.00
3.504	3.504	0.000	8810583	4000.00	3860	115.26- 155.26	135.26
3.691	3.691	0.000	6873878	4000.00	3910	85.53- 125.53	105.53
3.904	3.904	0.000	4421657	4000.00	3730	47.88- 87.88	67.88
4.153	4.153	0.000	4819668	4000.00	4240	53.99- 93.99	73.99

Average of Peak Amounts = 3.89e+03

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd2a.i/090611a.b/012f1201.d

Page 1

Date : 06-SEP-2011 14:23

Client ID: AR125405

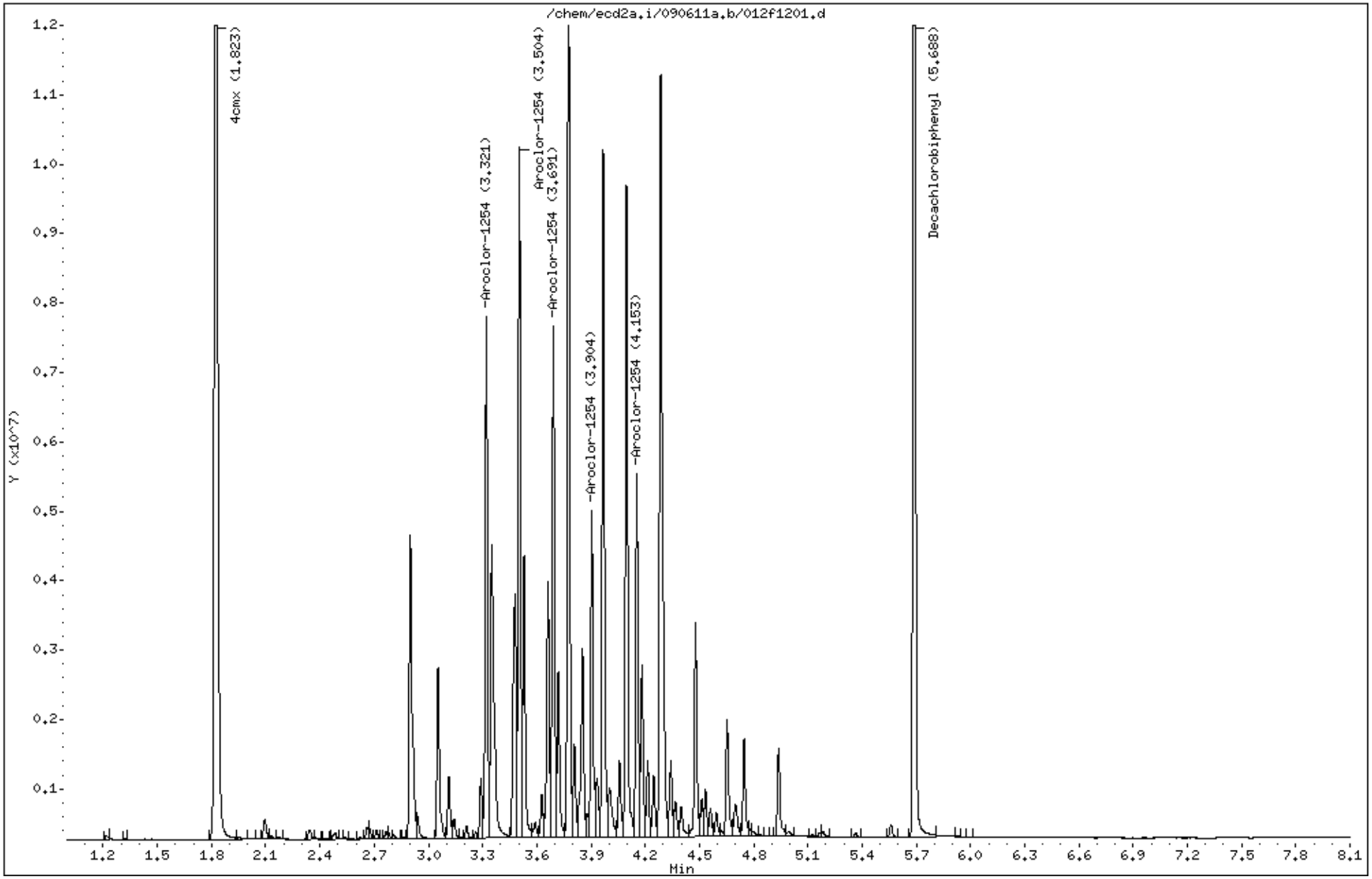
Instrument: ecd2a.i

Sample Info: IIAR110811-01 54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/012b1201.d
Lab Smp Id: IAR110811-01 54 Client Smp ID: AR125405
Inj Date : 06-SEP-2011 14:23
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |IAR110811-01 54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	68141212	400.000	414	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	66758755	400.000	412	80.00- 120.00	100.00(A)
6 Aroclor-1254					CAS #: 11097-69-1		
3.299	3.299	0.000	10976387	4000.00	3620	80.00- 120.00	100.00
3.784	3.784	0.000	21464611	4000.00	3700	175.55- 215.55	195.55
3.966	3.966	0.000	17622003	4000.00	3600	140.54- 180.54	160.54
4.160	4.160	0.000	18326033	4000.00	3850	146.96- 186.96	166.96
4.377	4.377	0.000	14028753	4000.00	3720	107.81- 147.81	127.81

Average of Peak Amounts = 3.7e+03

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd2a.i/090611a.b/012b1201.d

Page 1

Date : 06-SEP-2011 14:23

Client ID: AR125405

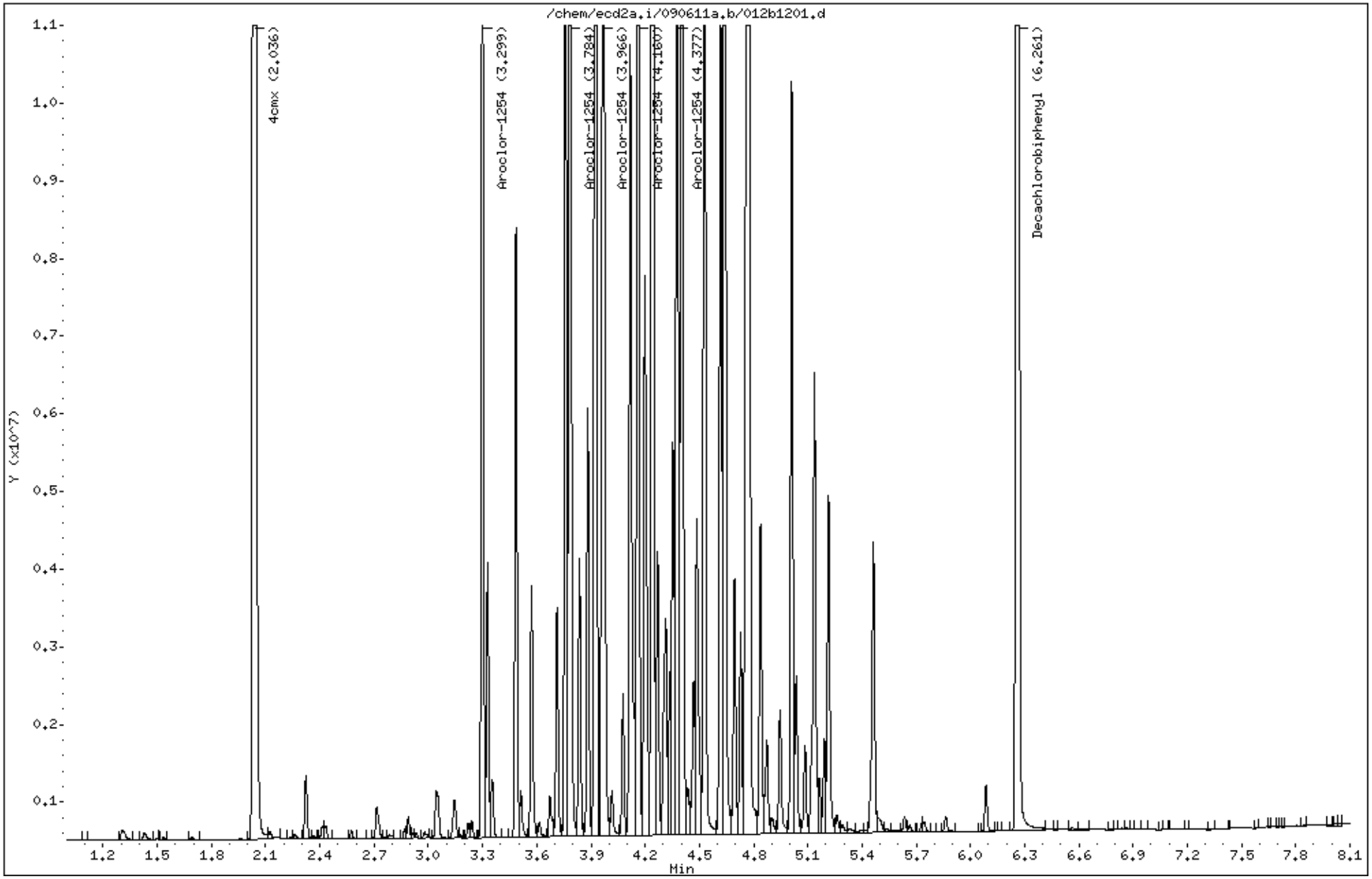
Instrument: ecd2a.i

Sample Info: IIAR110811-01 54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



Continuing Calibration Summary

Instrument ID: ECD2A.I_1

Client SDG: 11-3386

Injection Date: 06-SEP-11 13:27

Data File: /chem/ecd2a.i/090611a.b/007f0701.d

Init. Cal. Date(s): 06-SEP-11 12:31 - 06-SEP-11 13:16

Lab Sample ID WAR110815-60 01

Method: /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m

Column ID: CLP1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1016	1940.75	1925	1000	-0.81	15		Averaged
Aroclor-1016(2)	2628.22	2661.77	1000	1.28	15		Averaged
Aroclor-1016(3)	1017.91	1049.63	1000	3.12	15		Averaged
Aroclor-1016(4)	846.88	862.12	1000	1.8	15		Averaged
Aroclor-1016(5)	1221.88	1244.1	1000	1.82	15		Averaged
Aroclor-1260	2448.62	2546.84	1000	4.01	15		Averaged
Aroclor-1260(2)	3632.43	3828.57	1000	5.4	15		Averaged
Aroclor-1260(3)	1570.66	1678.63	1000	6.87	15		Averaged
Aroclor-1260(4)	2272.58	2385.93	1000	4.99	15		Averaged
Aroclor-1260(5)	2330.04	2477.6	1000	6.33	15		Averaged
4cmx(Surr)	58047.06	60429.95	100	4.11	15		Averaged
Decachlorobiphenyl(Surr)	49371.28	50951.24	100	3.2	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD2A.I_2

Injection Date: 06-SEP-11 13:27

Data File: /chem/ecd2a.i/090611a.b/007b0701.d

Init. Cal. Date(s): 06-SEP-11 12:31 - 06-SEP-11 13:16

Lab Sample ID WAR110815-60 01

Method: /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m

Column ID: CLP2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1016	1000	1033.43	1000	3.34	15		Linear
Aroclor-1016(2)	1000	1012.77	1000	1.28	15		Linear
Aroclor-1016(3)	1000	1018.86	1000	1.89	15		Linear
Aroclor-1016(4)	1000	1028.43	1000	2.84	15		Linear
Aroclor-1016(5)	1000	1016.92	1000	1.69	15		Linear
Aroclor-1260	7094.1	7294.32	1000	2.82	15		Averaged
Aroclor-1260(2)	8861.32	9140.5	1000	3.15	15		Averaged
Aroclor-1260(3)	5947.09	6172.43	1000	3.79	15		Averaged
Aroclor-1260(4)	6885.5	7058.42	1000	2.51	15		Averaged
Aroclor-1260(5)	7033.53	7246.39	1000	3.03	15		Averaged
4cmx(Surr)	164538.69	169784.99	100	3.19	15		Averaged
Decachlorobiphenyl(Surr)	161979.64	165265.22	100	2.03	15		Averaged

Continuing Calibration Summary

Instrument ID: ECD2A.I_1

Client SDG: 11-3386

Injection Date: 06-SEP-11 14:34

Data File: /chem/ecd2a.i/090611a.b/013f1301.d

Init. Cal. Date(s): 06-SEP-11 13:38 - 06-SEP-11 14:23

Lab Sample ID WAR110614-54

Method: /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m

Column ID: CLP1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1254	1750.61	1925.87	1000	10.01	15		Averaged
Aroclor-1254(2)	2285.18	2541.26	1000	11.21	15		Averaged
Aroclor-1254(3)	1759.28	1971.2	1000	12.05	15		Averaged
Aroclor-1254(4)	1184.7	1308.42	1000	10.44	15		Averaged
Aroclor-1254(5)	1136.37	1335.65	1000	17.54	15	*	Averaged
4cmx(Surr)	58047.06	60729.33	100	4.62	15		Averaged
Decachlorobiphenyl(Surr)	49371.28	50943.26	100	3.18	15		Averaged

Continuing Calibration Summary

Instrument ID: ECD2A.I_2

Client SDG: 11-3386

Injection Date: 06-SEP-11 14:34

Data File: /chem/ecd2a.i/090611a.b/013b1301.d

Init. Cal. Date(s): 06-SEP-11 13:38 - 06-SEP-11 14:23

Lab Sample ID WAR110614-54

Method: /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m

Column ID: CLP2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1254	3035.56	3309.57	1000	9.03	15		Averaged
Aroclor-1254(2)	5807.95	6354.71	1000	9.41	15		Averaged
Aroclor-1254(3)	4895.19	5250.18	1000	7.25	15		Averaged
Aroclor-1254(4)	4764.08	5302.99	1000	11.31	15		Averaged
Aroclor-1254(5)	3768.49	4122	1000	9.38	15		Averaged
4cmx(Surr)	164538.69	171583.94	100	4.28	15		Averaged
Decachlorobiphenyl(Surr)	161979.64	164195.36	100	1.37	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD2A.I_1

Injection Date: 06-SEP-11 17:38

Data File: /chem/ecd2a.i/090611a.b/029f2901.d

Init. Cal. Date(s): 06-SEP-11 12:31 - 06-SEP-11 13:16

Lab Sample ID WAR110815-60 02

Method: /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m

Column ID: CLP1

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1016	1940.75	2002.08	1000	3.16	15		Averaged
Aroclor-1016(2)	2628.22	2766.27	1000	5.25	15		Averaged
Aroclor-1016(3)	1017.91	1083.73	1000	6.47	15		Averaged
Aroclor-1016(4)	846.88	869.84	1000	2.71	15		Averaged
Aroclor-1016(5)	1221.88	1277.22	1000	4.53	15		Averaged
Aroclor-1260	2448.62	2642.75	1000	7.93	15		Averaged
Aroclor-1260(2)	3632.43	3984.84	1000	9.7	15		Averaged
Aroclor-1260(3)	1570.66	1735.56	1000	10.5	15		Averaged
Aroclor-1260(4)	2272.58	2484.22	1000	9.31	15		Averaged
Aroclor-1260(5)	2330.04	2562.99	1000	10	15		Averaged
4cmx(Surr)	58047.06	61969.57	100	6.76	15		Averaged
Decachlorobiphenyl(Surr)	49371.28	53288.01	100	7.93	15		Averaged

Continuing Calibration Summary

Client SDG: 11-3386

Instrument ID: ECD2A.I_2

Injection Date: 06-SEP-11 17:38

Data File: /chem/ecd2a.i/090611a.b/029b2901.d

Init. Cal. Date(s): 06-SEP-11 12:31 - 06-SEP-11 13:16

Lab Sample ID WAR110815-60 02

Method: /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m

Column ID: CLP2

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Aroclor-1016	1000	1040	1000	4	15		Linear
Aroclor-1016(2)	1000	1008.11	1000	0.81	15		Linear
Aroclor-1016(3)	1000	1020.48	1000	2.05	15		Linear
Aroclor-1016(4)	1000	1028.57	1000	2.86	15		Linear
Aroclor-1016(5)	1000	1021.23	1000	2.12	15		Linear
Aroclor-1260	7094.1	7358.54	1000	3.73	15		Averaged
Aroclor-1260(2)	8861.32	9231.43	1000	4.18	15		Averaged
Aroclor-1260(3)	5947.09	6253.25	1000	5.15	15		Averaged
Aroclor-1260(4)	6885.5	7172.68	1000	4.17	15		Averaged
Aroclor-1260(5)	7033.53	7341.83	1000	4.38	15		Averaged
4cmx(Surr)	164538.69	170098.69	100	3.38	15		Averaged
Decachlorobiphenyl(Surr)	161979.64	165263.44	100	2.03	15		Averaged

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/007f0701.d
Lab Smp Id: WAR110815-60 01 Client Smp ID: AR166001
Inj Date : 06-SEP-2011 13:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110815-60 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 08-Sep-2011 10:31 jc Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.822	1.822	0.000	6042995	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	5095124	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.341	2.341	0.000	1925000	1000.00	992	80.00- 120.00	100.00
2.672	2.672	0.000	2661774	1000.00	1010	118.27- 158.27	138.27
2.808	2.808	0.000	1049634	1000.00	1030	34.53- 74.53	54.53
2.900	2.900	0.000	862118	1000.00	1020	24.79- 64.79	44.79
3.053	3.053	0.000	1244095	1000.00	1020	44.63- 84.63	64.63
Average of Peak Amounts =				1.01e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
3.904	3.904	0.000	2546844	1000.00	1040	80.00- 120.00	100.00
4.097	4.097	0.000	3828567	1000.00	1050	130.33- 170.33	150.33
4.182	4.182	0.000	1678628	1000.00	1070	45.91- 85.91	65.91
4.368	4.368	0.000	2385928	1000.00	1050	73.68- 113.68	93.68
4.534	4.534	0.000	2477595	1000.00	1060	77.28- 117.28	97.28
Average of Peak Amounts =				1.06e+03			

Data File: /chem/ecd2a.i/090611a.b/007f0701.d

Date : 06-SEP-2011 13:27

Client ID: AR166001

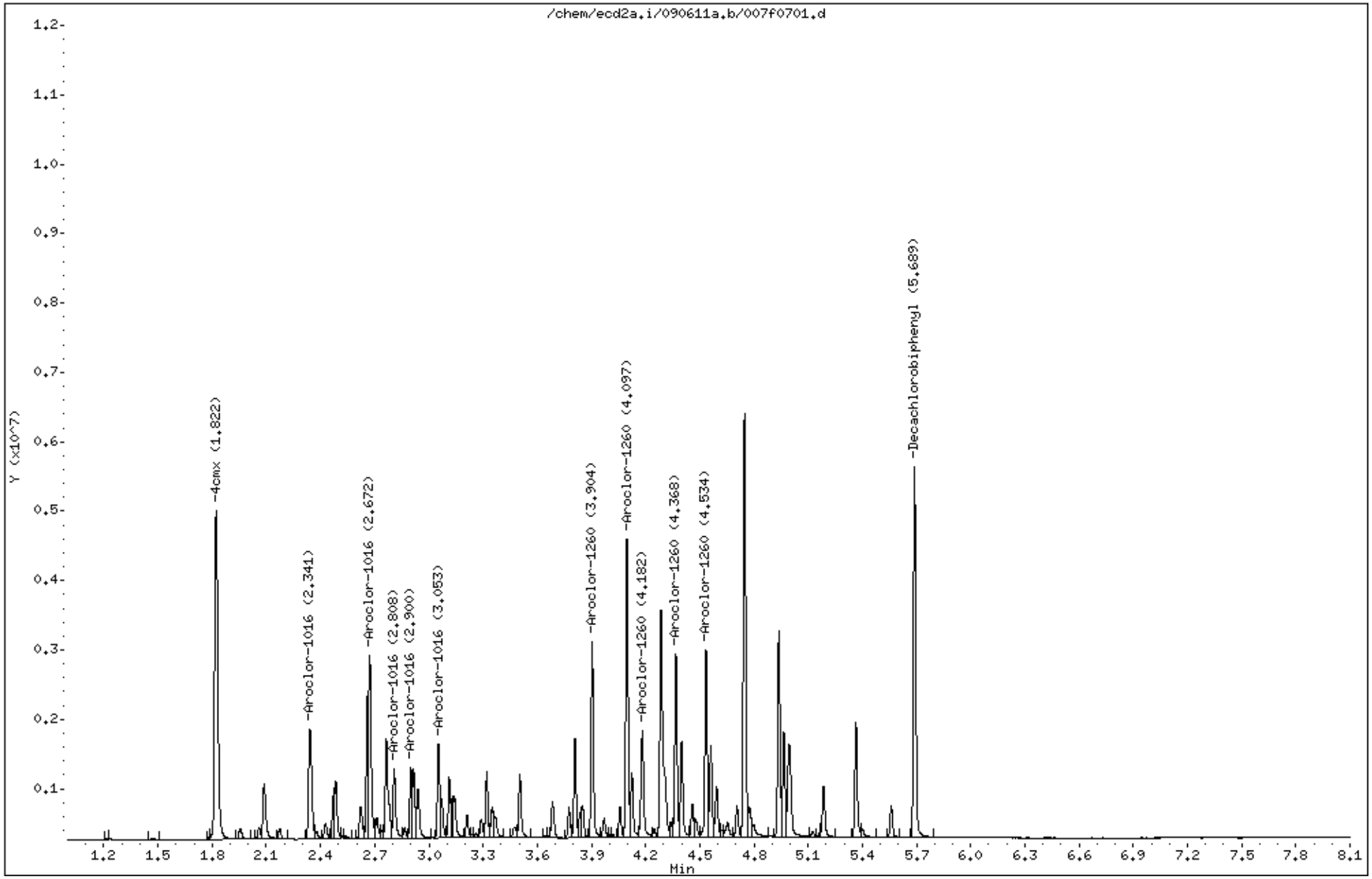
Sample Info: IWAR110815-60 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/007b0701.d
Lab Smp Id: WAR110815-60 01 Client Smp ID: AR166001
Inj Date : 06-SEP-2011 13:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110815-60 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 08-Sep-2011 11:13 jc Quant Type: ESTD
Cal Date : 27-JUN-2011 18:56 Cal File: 030b3001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	16978499	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	16526522	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.714	2.714	0.000	5557347	1000.00	1030	80.00- 120.00	100.00
3.220	3.220	0.000	2844460	1000.00	1010	31.18- 71.18	51.18
3.298	3.298	0.000	2612851	1000.00	1020	27.02- 67.02	47.02
3.327	3.327	0.000	2736278	1000.00	1030	29.24- 69.24	49.24
3.485	3.485	0.000	3697779	1000.00	1020	46.54- 86.54	66.54
Average of Peak Amounts =				1.02e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	7294321	1000.00	1030	80.00- 120.00	100.00
4.529	4.529	0.000	9140497	1000.00	1030	105.31- 145.31	125.31
4.641	4.641	0.000	6172434	1000.00	1040	64.62- 104.62	84.62
4.837	4.837	0.000	7058421	1000.00	1020	76.77- 116.77	96.77
5.037	5.037	0.000	7246389	1000.00	1030	79.34- 119.34	99.34
Average of Peak Amounts =				1.03e+03			

Data File: /chem/ecd2a.i/090611a.b/007b0701.d

Date : 06-SEP-2011 13:27

Client ID: AR166001

Sample Info: IWAR110815-60 01

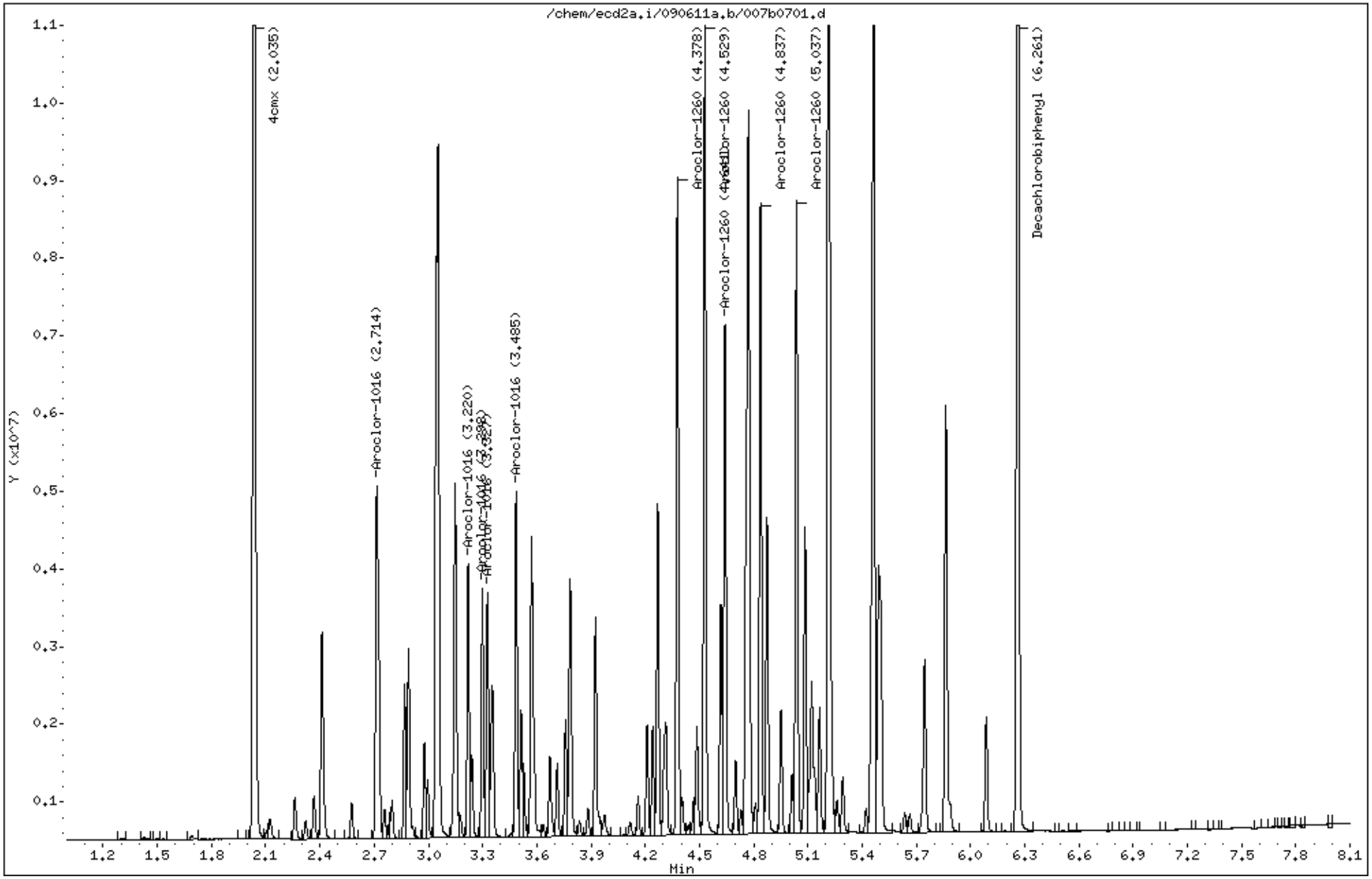
Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/013f1301.d
Lab Smp Id: WAR110614-54 Client Smp ID: AR125401
Inj Date : 06-SEP-2011 14:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110614-54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:56 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.821	1.822	-0.001	6072933	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	5094326	100.000	103	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.320	3.320	0.000	1925868	1000.00	1100	80.00- 120.00	100.00
3.503	3.503	0.000	2541256	1000.00	1110	111.95- 151.95	131.95
3.691	3.691	0.000	1971196	1000.00	1120	82.35- 122.35	102.35
3.903	3.903	0.000	1308422	1000.00	1100	47.94- 87.94	67.94
4.153	4.153	0.000	1335645	1000.00	1180	49.35- 89.35	69.35

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd2a.i/090611a.b/013f1301.d

Page 1

Date : 06-SEP-2011 14:34

Client ID: AR125401

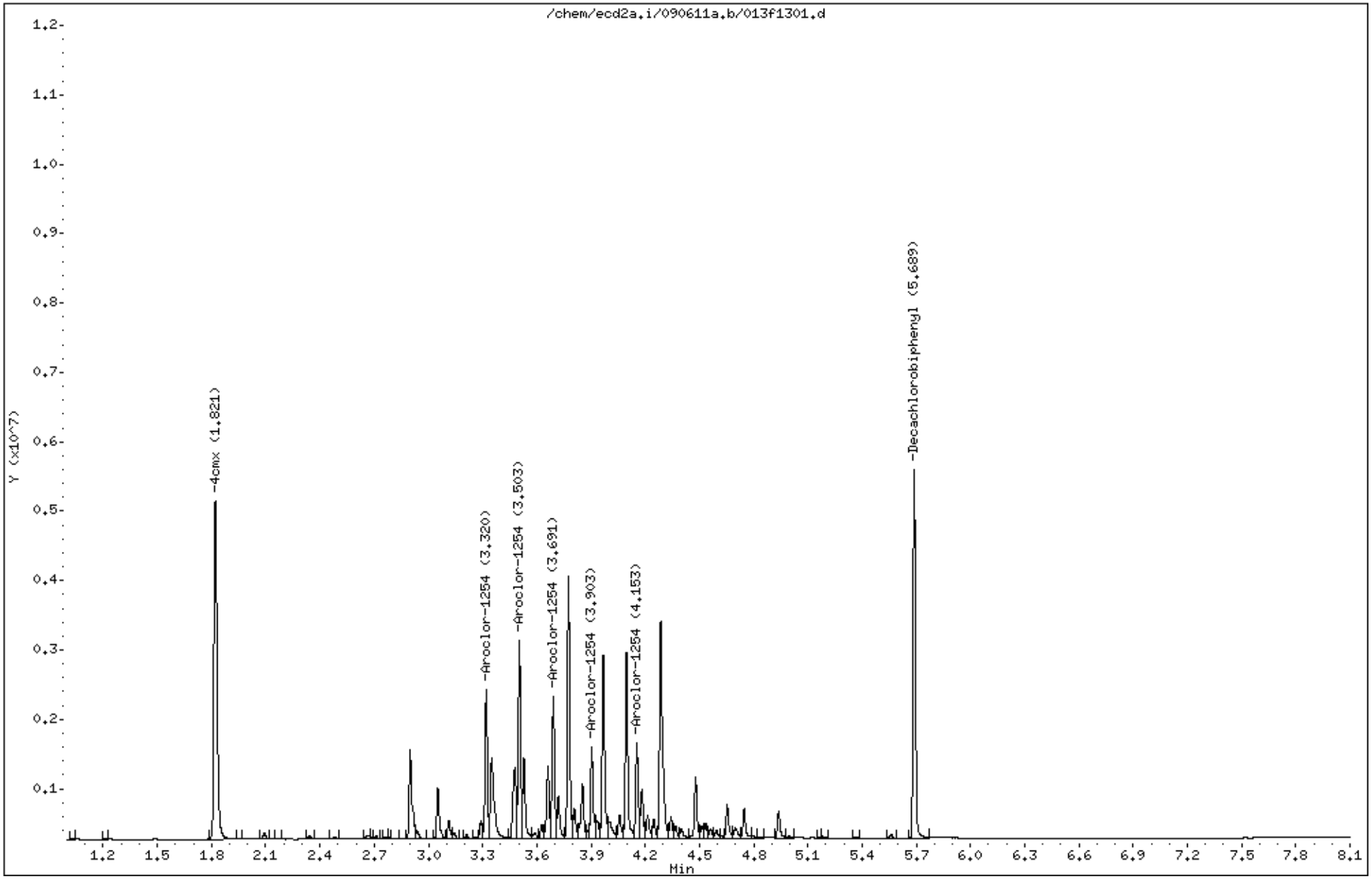
Instrument: ecd2a.i

Sample Info: IWAR110614-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/013b1301.d
Lab Smp Id: WAR110614-54 Client Smp ID: AR125401
Inj Date : 06-SEP-2011 14:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110614-54
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:56 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.034	2.035	-0.001	17158394	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	16419536	100.000	101	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.298	3.298	0.000	3309565	1000.00	1090	80.00- 120.00	100.00
3.783	3.783	0.000	6354706	1000.00	1090	172.01- 212.01	192.01
3.967	3.967	0.000	5250184	1000.00	1070	138.64- 178.64	158.64
4.160	4.160	0.000	5302989	1000.00	1110	140.23- 180.23	160.23
4.377	4.377	0.000	4122000	1000.00	1090	104.55- 144.55	124.55

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd2a.i/090611a.b/013b1301.d

Page 1

Date : 06-SEP-2011 14:34

Client ID: AR125401

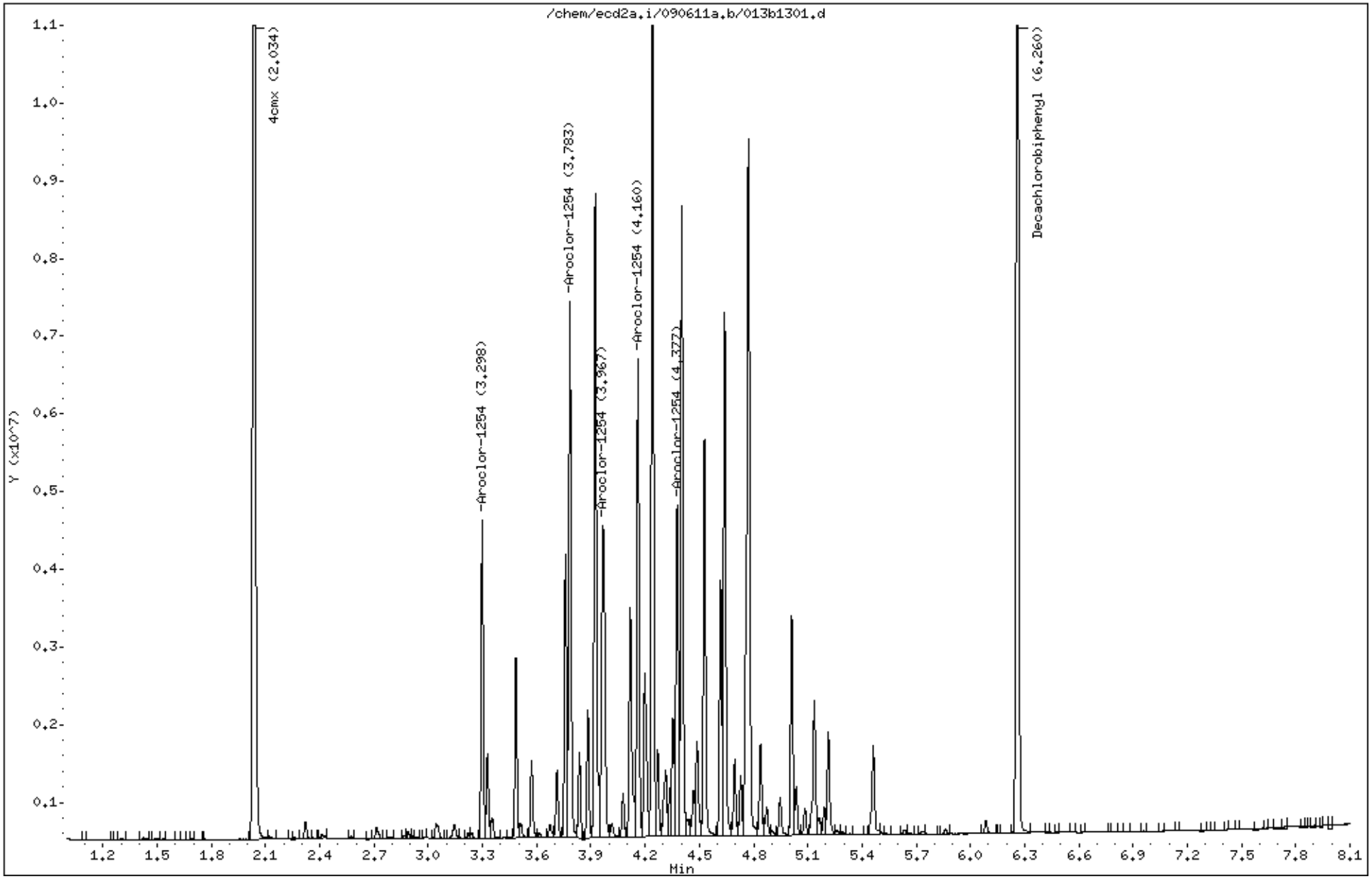
Instrument: ecd2a.i

Sample Info: IWAR110614-54

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/014f1401.d
Lab Smp Id: WAR110726-42 Client Smp ID: AR124201
Inj Date : 06-SEP-2011 14:46
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-42
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 15:19 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	7603855	100.000	131	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	6429171	100.000	130	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.342	2.342	0.000	1907629	1000.00	1170	80.00- 120.00	100.00
2.808	2.808	0.000	1008183	1000.00	1100	32.85- 72.85	52.85
2.900	2.900	0.000	794070	1000.00	1160	21.63- 61.63	41.63
2.916	2.916	0.000	867319	1000.00	1090	25.47- 65.47	45.47
3.053	3.053	0.000	1213561	1000.00	1120	43.62- 83.62	63.62

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd2a.i/090611a.b/014f1401.d

Page 1

Date : 06-SEP-2011 14:46

Client ID: AR124201

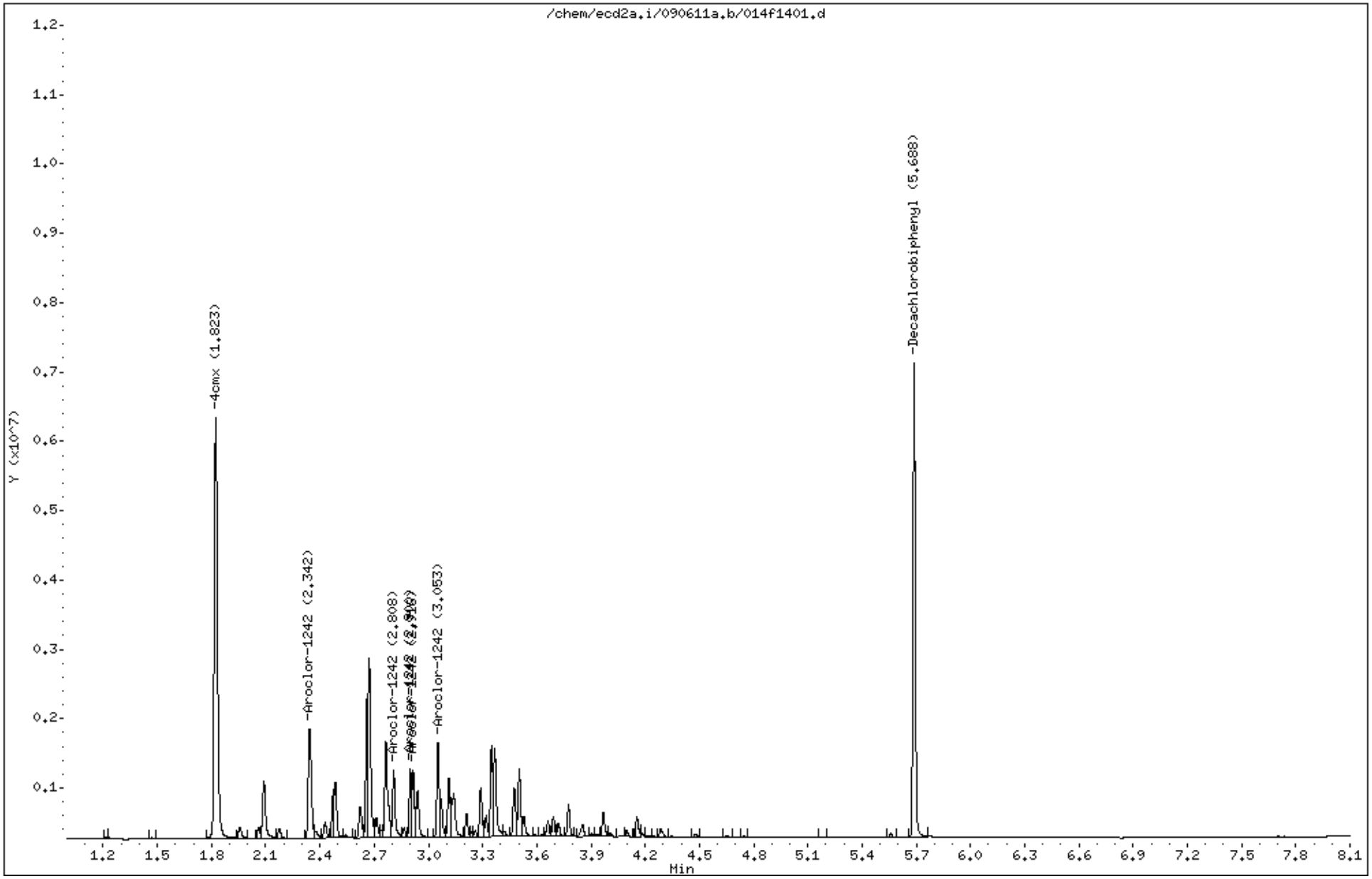
Instrument: ecd2a.i

Sample Info: IWAR110726-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/014b1401.d
Lab Smp Id: WAR110726-42 Client Smp ID: AR124201
Inj Date : 06-SEP-2011 14:46
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-42
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 15:19 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	21801614	100.000	132	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.259	6.261	-0.002	20920184	100.000	129	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.714	2.714	0.000	5524478	1000.00	1030	80.00- 120.00	100.00
3.220	3.220	0.000	2731509	1000.00	1010	29.44- 69.44	49.44
3.298	3.298	0.000	2501015	1000.00	1010	25.27- 65.27	45.27
3.326	3.326	0.000	2688752	1000.00	992	28.67- 68.67	48.67
3.484	3.484	0.000	3638428	1000.00	1010	45.86- 85.86	65.86

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/090611a.b/014b1401.d

Page 1

Date : 06-SEP-2011 14:46

Client ID: AR124201

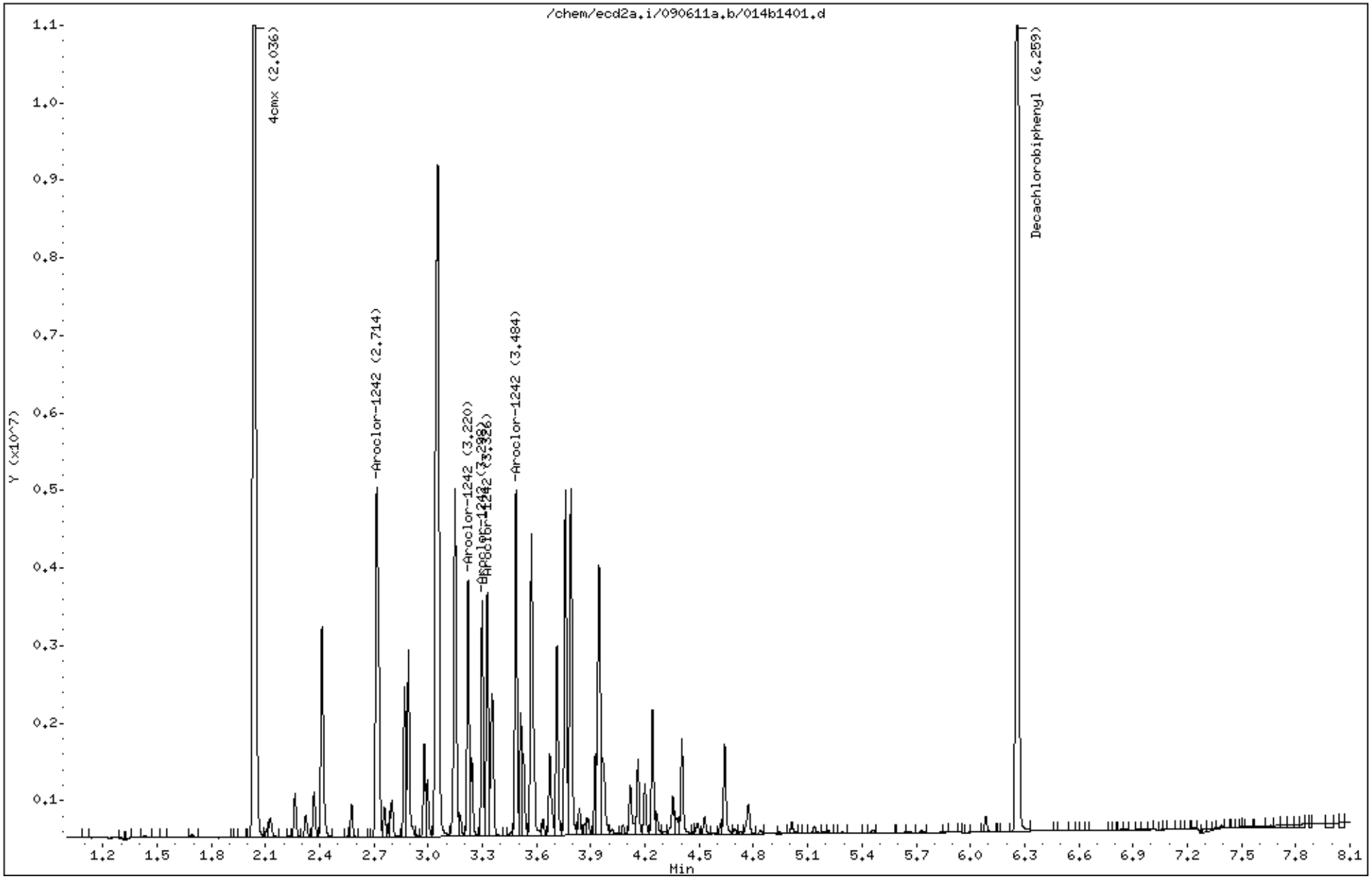
Instrument: ecd2a.i

Sample Info: IWAR110726-42

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/015f1501.d
Lab Smp Id: WAR110726-48 Client Smp ID: AR124801
Inj Date : 06-SEP-2011 14:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-48
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 15:19 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.822	1.822	0.000	7111618	100.000	122	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	5829607	100.000	118	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.672	2.672	0.000	1305439	1000.00	986	80.00- 120.00	100.00
2.899	2.899	0.000	1512332	1000.00	1120	95.85- 135.85	115.85
3.053	3.053	0.000	1968122	1000.00	1070	130.76- 170.76	150.76
3.289	3.289	0.000	1099102	1000.00	1040	64.19- 104.19	84.19
3.349	3.349	0.000	2226110	1000.00	1090	150.53- 190.53	170.53

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd2a.i/090611a.b/015f1501.d

Page 1

Date : 06-SEP-2011 14:57

Client ID: AR124801

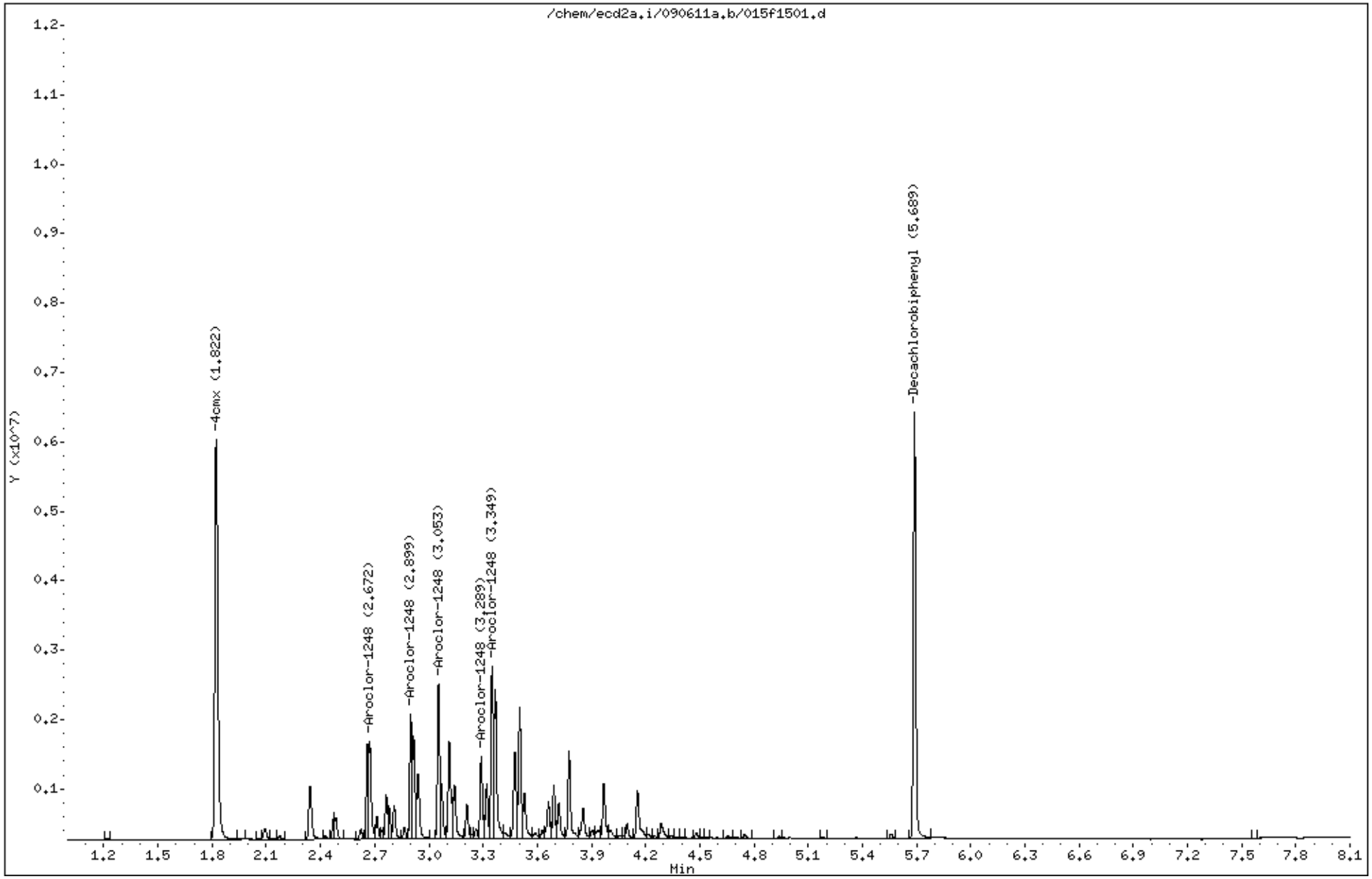
Instrument: ecd2a.i

Sample Info: IWAR110726-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/015b1501.d
Lab Smp Id: WAR110726-48 Client Smp ID: AR124801
Inj Date : 06-SEP-2011 14:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110726-48
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 15:19 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	20330282	100.000	124	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.259	6.261	-0.002	19211285	100.000	119	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.714	2.714	0.000	2574605	1000.00	952	80.00- 120.00	100.00
3.299	3.299	0.000	4478983	1000.00	944	153.97- 193.97	173.97
3.327	3.327	0.000	3941008	1000.00	940	133.07- 173.07	153.07
3.485	3.485	0.000	5767164	1000.00	939	204.00- 244.00	224.00
3.571	3.571	0.000	6192018	1000.00	922	220.50- 260.50	240.50
Average of Peak Amounts =					939		

Data File: /chem/ecd2a.i/090611a.b/015b1501.d

Page 1

Date : 06-SEP-2011 14:57

Client ID: AR124801

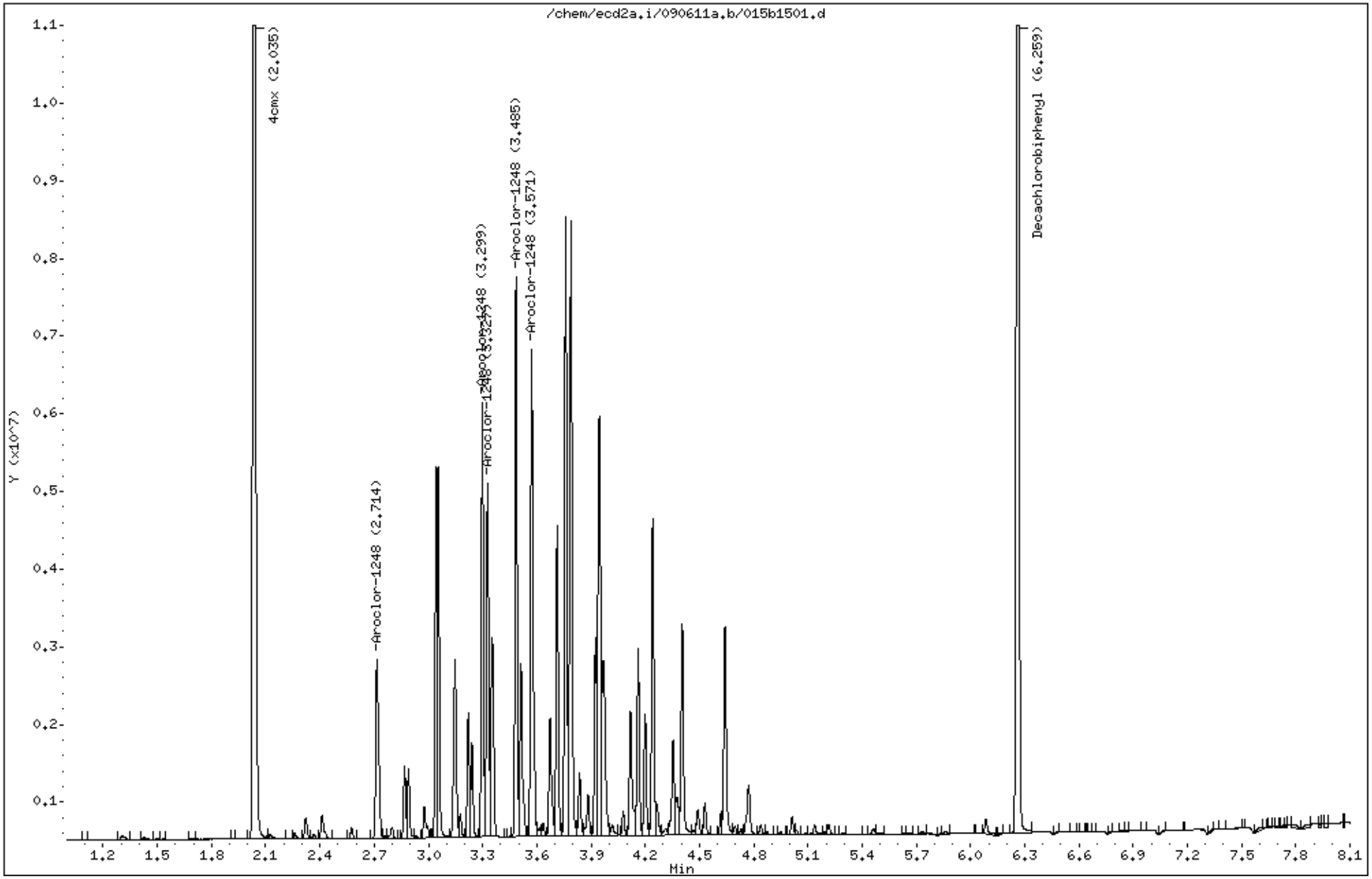
Instrument: ecd2a.i

Sample Info: IWAR110726-48

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/016f1601.d
Lab Smp Id: WAR110701-32 Client Smp ID: AR123201
Inj Date : 06-SEP-2011 15:08
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110701-32
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.822	1.822	0.000	6618979	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	5634415	100.000	114	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.088	2.088	0.000	1355821	1000.00	1010	80.00- 120.00	100.00
2.342	2.342	0.000	1134426	1000.00	1010	63.67- 103.67	83.67
2.672	2.672	0.000	1548155	1000.00	995	94.19- 134.19	114.19
2.807	2.807	0.000	626176	1000.00	979	26.18- 66.18	46.18
2.899	2.899	0.000	445102	1000.00	1030	12.83- 52.83	32.83
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd2a.i/090611a.b/016f1601.d

Page 1

Date : 06-SEP-2011 15:08

Client ID: AR123201

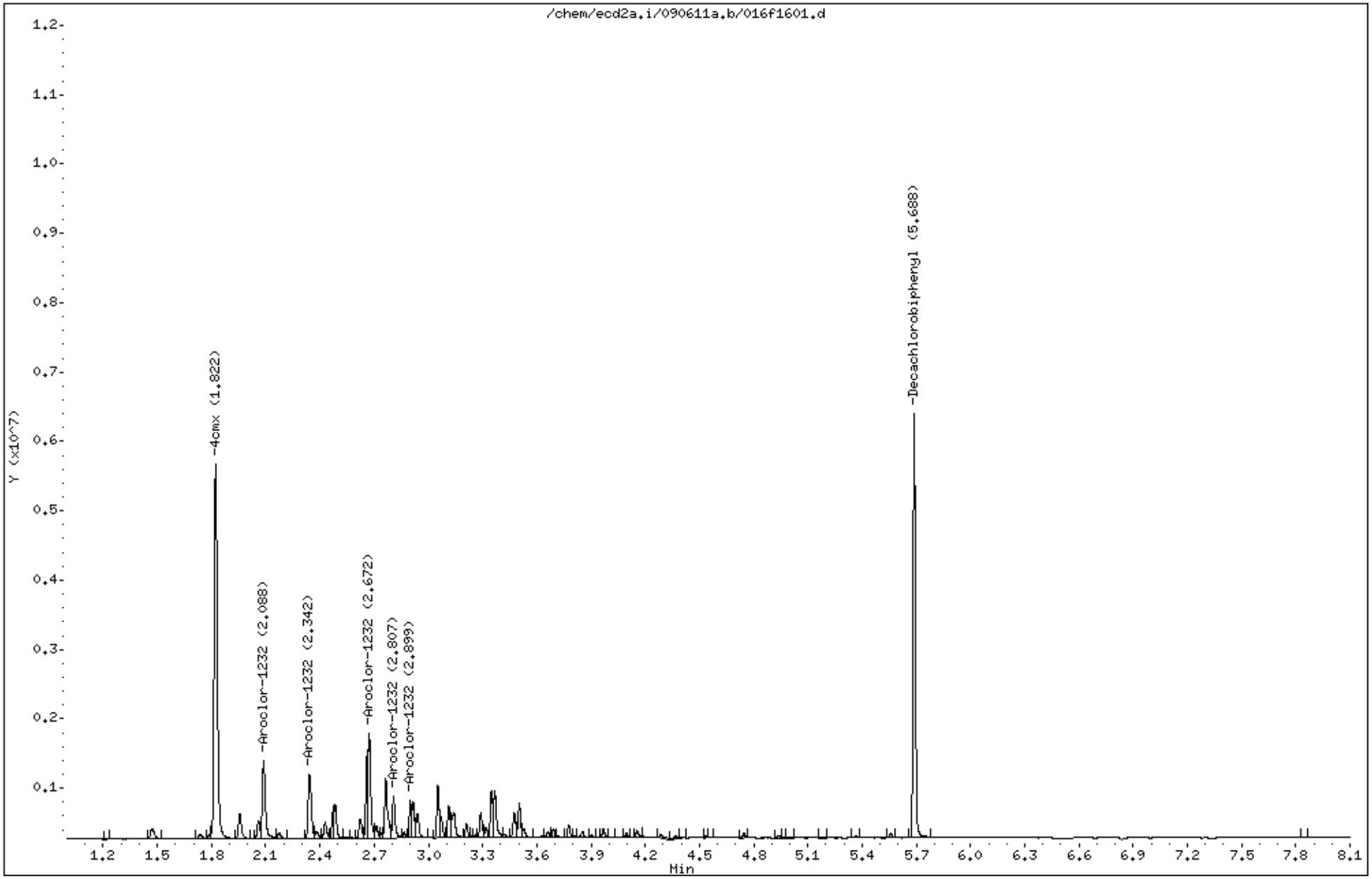
Instrument: ecd2a.i

Sample Info: IWAR110701-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/016b1601.d
Lab Smp Id: WAR110701-32 Client Smp ID: AR123201
Inj Date : 06-SEP-2011 15:08
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110701-32
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	18791300	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	18144575	100.000	112	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.411	2.411	0.000	3602375	1000.00	903	80.00- 120.00	100.00
2.714	2.714	0.000	3445501	1000.00	894	75.65- 115.65	95.65
3.220	3.220	0.000	1786481	1000.00	957	29.59- 69.59	49.59
3.298	3.298	0.000	1495045	1000.00	946	21.50- 61.50	41.50
3.327	3.327	0.000	1544439	1000.00	938	22.87- 62.87	42.87
Average of Peak Amounts =					928		

Data File: /chem/ecd2a.i/090611a.b/016b1601.d

Page 1

Date : 06-SEP-2011 15:08

Client ID: AR123201

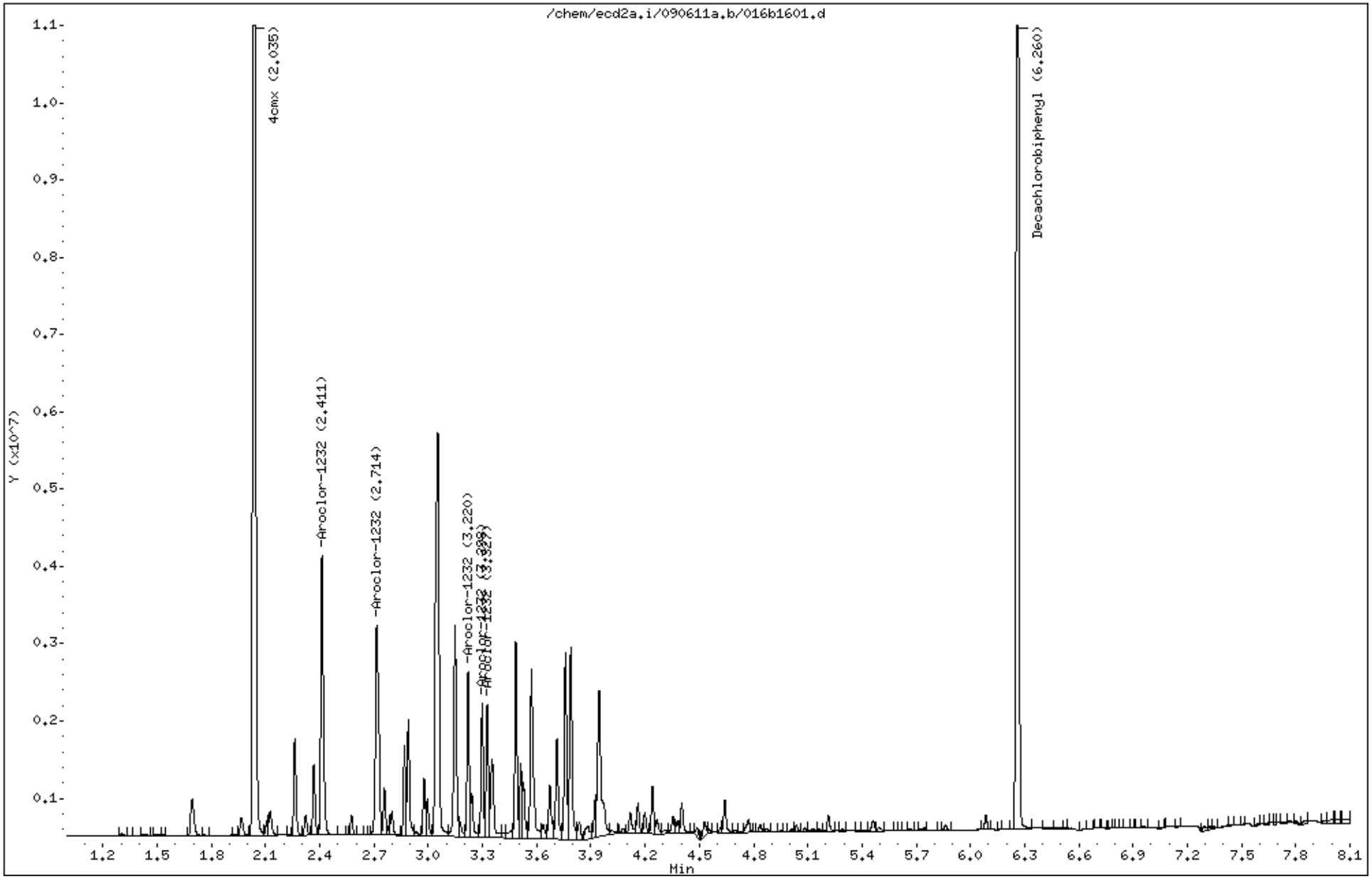
Instrument: ecd2a.i

Sample Info: IWAR110701-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/017f1701.d
Lab Smp Id: WAR110829-21 Client Smp ID: AR122101
Inj Date : 06-SEP-2011 15:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110829-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	6088250	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	5076594	100.000	103	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.957	1.957	0.000	593994	1000.00	949	80.00- 120.00	100.00
2.061	2.061	0.000	323911	1000.00	989	34.53- 74.53	54.53
2.090	2.090	0.000	1617816	1000.00	1110	252.36- 292.36	272.36

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd2a.i/090611a.b/017f1701.d

Page 1

Date : 06-SEP-2011 15:19

Client ID: AR122101

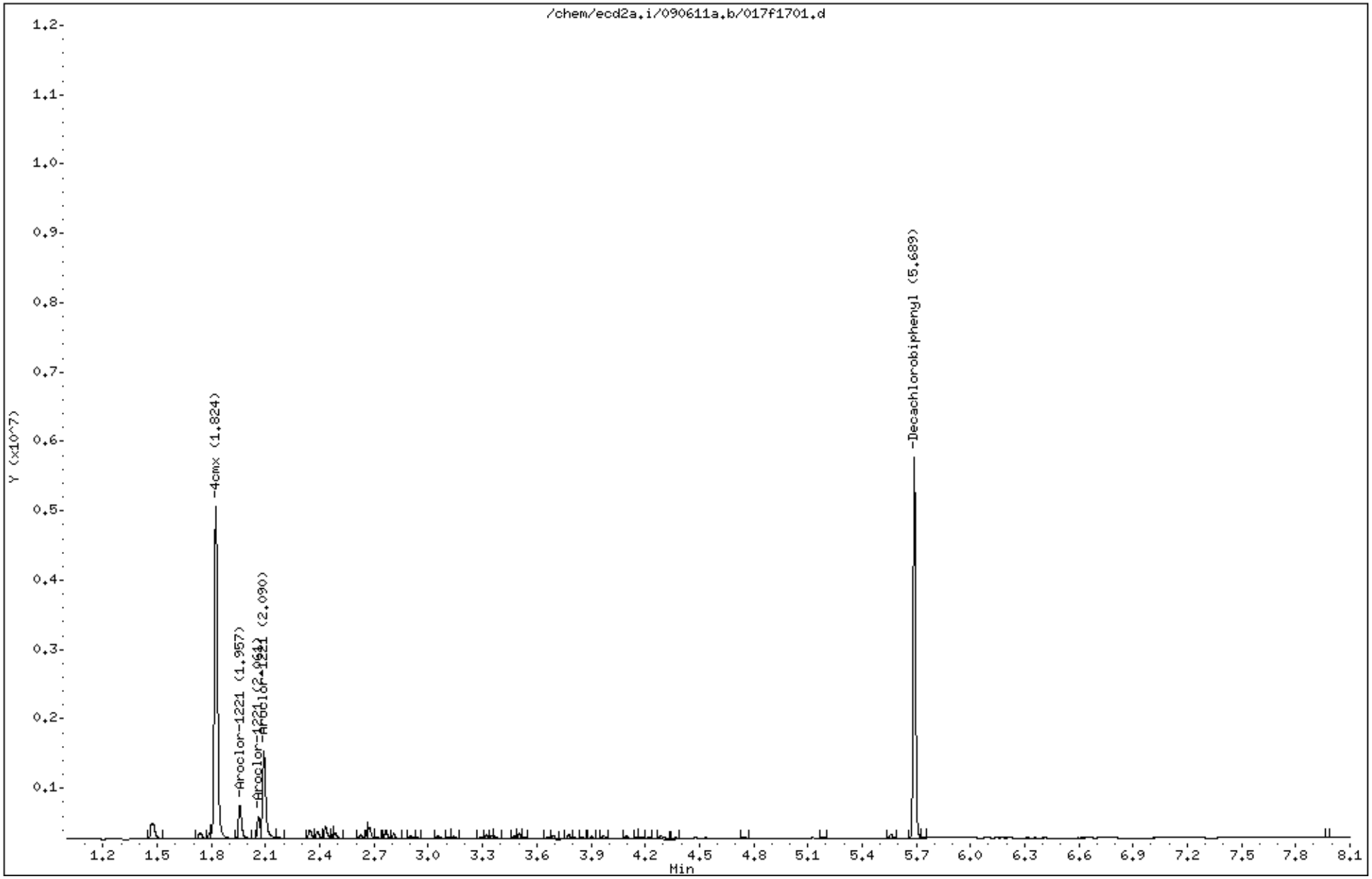
Instrument: ecd2a.i

Sample Info: IWAR110829-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/017b1701.d
Lab Smp Id: WAR110829-21 Client Smp ID: AR122101
Inj Date : 06-SEP-2011 15:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110829-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	17265147	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	16459213	100.000	102	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.262	2.262	0.000	1635728	1000.00	925	80.00- 120.00	100.00
2.367	2.367	0.000	1021031	1000.00	948	42.42- 82.42	62.42
2.411	2.411	0.000	4319063	1000.00	1070	244.05- 284.05	264.05
Average of Peak Amounts =					981		

Data File: /chem/ecd2a.i/090611a.b/017b1701.d

Page 1

Date : 06-SEP-2011 15:19

Client ID: AR122101

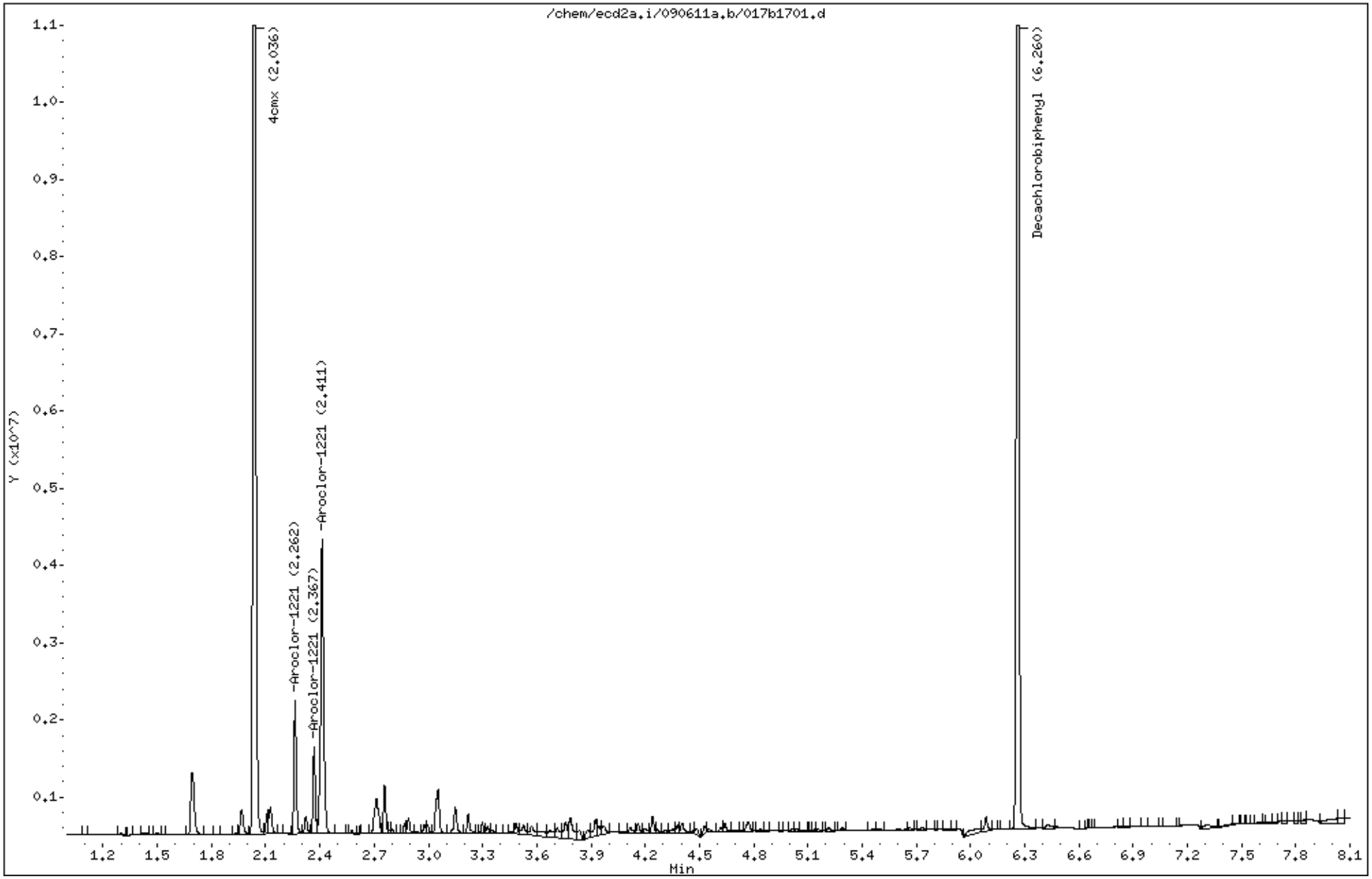
Instrument: ecd2a.i

Sample Info: IWAR110829-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/029f2901.d
Lab Smp Id: WAR110815-60 02 Client Smp ID: AR166002
Inj Date : 06-SEP-2011 17:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110815-60 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	6196957	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.686	5.689	-0.003	5328801	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.342	2.341	0.001	2002080	1000.00	1030	80.00- 120.00	100.00
2.672	2.672	0.000	2766273	1000.00	1050	118.17- 158.17	138.17
2.807	2.808	-0.001	1083727	1000.00	1060	34.13- 74.13	54.13
2.899	2.900	-0.001	869844	1000.00	1030	23.45- 63.45	43.45
3.052	3.053	-0.001	1277215	1000.00	1040	43.79- 83.79	63.79
Average of Peak Amounts =				1.04e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
3.902	3.904	-0.002	2642749	1000.00	1080	80.00- 120.00	100.00
4.094	4.097	-0.003	3984837	1000.00	1100	130.78- 170.78	150.78
4.179	4.182	-0.003	1735558	1000.00	1100	45.67- 85.67	65.67
4.366	4.368	-0.002	2484224	1000.00	1090	74.00- 114.00	94.00
4.533	4.534	-0.001	2562987	1000.00	1100	76.98- 116.98	96.98
Average of Peak Amounts =				1.09e+03			

Data File: /chem/ecd2a.i/090611a.b/029f2901.d

Page 1

Date : 06-SEP-2011 17:38

Client ID: AR166002

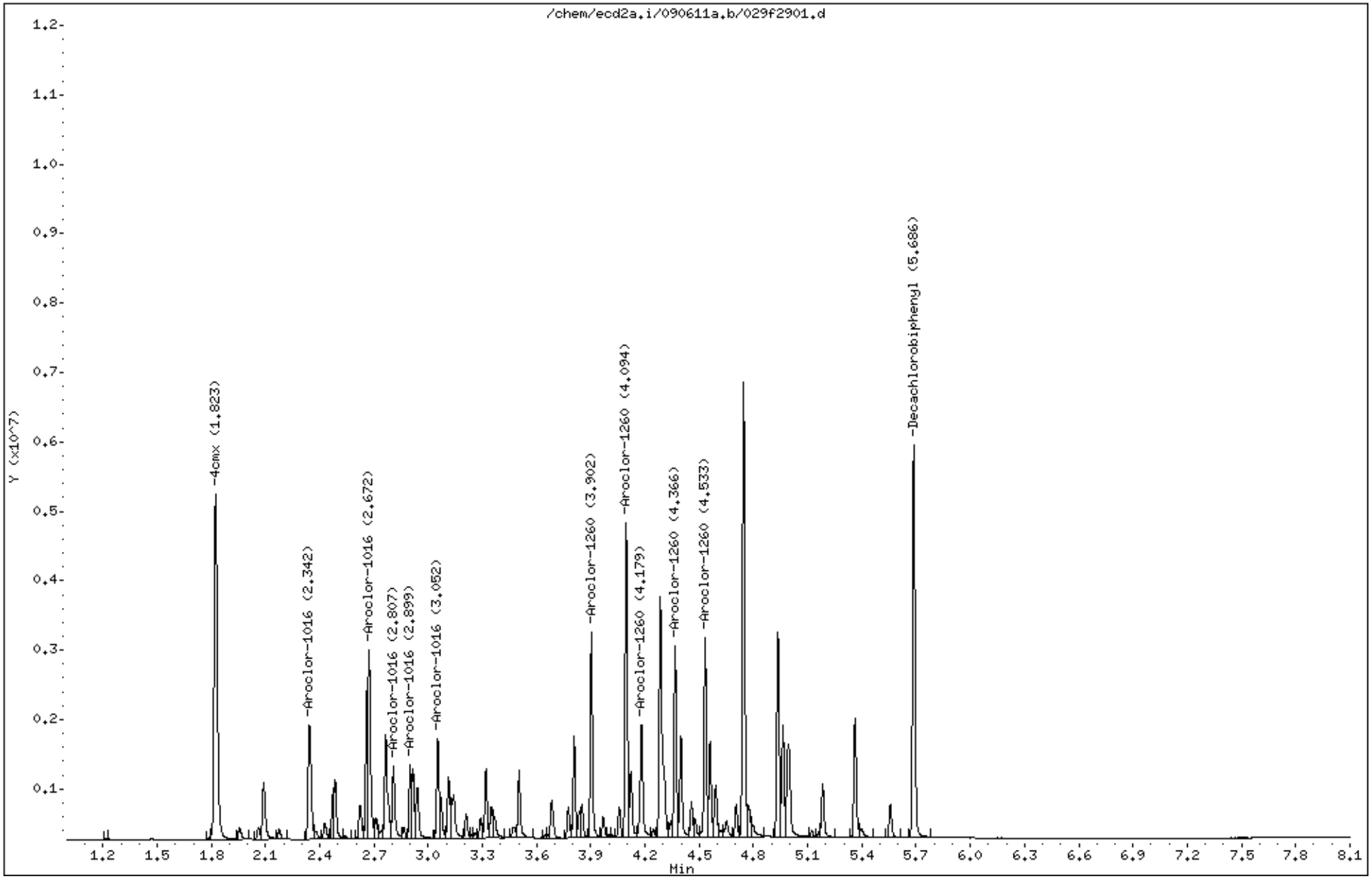
Instrument: ecd2a.i

Sample Info: IWAR110815-60 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/029b2901.d
Lab Smp Id: WAR110815-60 02 Client Smp ID: AR166002
Inj Date : 06-SEP-2011 17:38
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110815-60 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	17009869	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.259	6.261	-0.002	16526344	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.714	2.714	0.000	5592042	1000.00	1040	80.00- 120.00	100.00
3.219	3.220	-0.001	2831209	1000.00	1010	30.63- 70.63	50.63
3.298	3.298	0.000	2616964	1000.00	1020	26.80- 66.80	46.80
3.327	3.327	0.000	2736633	1000.00	1030	28.94- 68.94	48.94
3.484	3.485	-0.001	3713507	1000.00	1020	46.41- 86.41	66.41
Average of Peak Amounts =				1.02e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	7358538	1000.00	1040	80.00- 120.00	100.00
4.529	4.529	0.000	9231426	1000.00	1040	105.45- 145.45	125.45
4.639	4.641	-0.002	6253248	1000.00	1050	64.98- 104.98	84.98
4.836	4.837	-0.001	7172681	1000.00	1040	77.47- 117.47	97.47
5.036	5.037	-0.001	7341830	1000.00	1040	79.77- 119.77	99.77
Average of Peak Amounts =				1.04e+03			

Data File: /chem/ecd2a.i/090611a.b/029b2901.d

Date : 06-SEP-2011 17:38

Client ID: AR166002

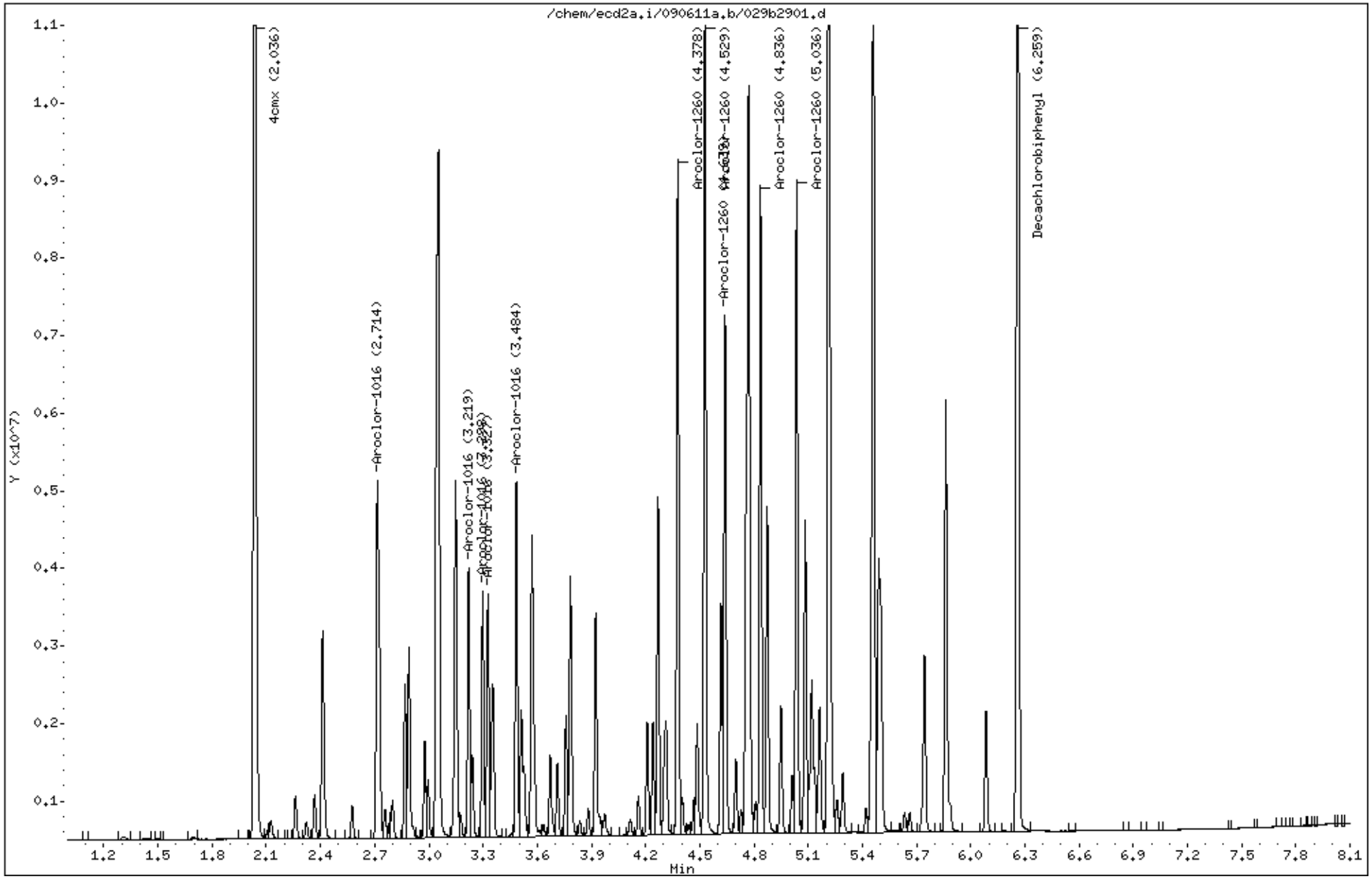
Sample Info: IWAR110815-60 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP1

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				1.82 1.79 1.85 #	5.69 5.66 5.72 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001f0101.d	PIBLK01	WAR110902-99 01	06-SEP-11 12:19	1.82	5.69
002f0201.d	AR166001	WAR110906-01 60	06-SEP-11 12:31	1.82	5.69
003f0301.d	AR166002	WAR110906-02 60	06-SEP-11 12:42	1.82	5.69
004f0401.d	AR166003	WAR110906-03 60	06-SEP-11 12:53	1.82	5.69
005f0501.d	AR166004	WAR110906-04 60	06-SEP-11 13:04	1.82	5.69
006f0601.d	AR166005	IAR110623-01 60	06-SEP-11 13:16	1.83	5.69
007f0701.d	AR166001	WAR110815-60 01	06-SEP-11 13:27	1.82	5.69
008f0801.d	AR125401	WAR110906-05 54	06-SEP-11 13:38	1.82	5.69
009f0901.d	AR125402	WAR110906-06 54	06-SEP-11 13:49	1.82	5.69
010f1001.d	AR125403	WAR110906-07 54	06-SEP-11 14:01	1.82	5.69
011f1101.d	AR125404	WAR110906-08 54	06-SEP-11 14:12	1.82	5.69
012f1201.d	AR125405	IAR110811-01 54	06-SEP-11 14:23	1.82	5.69
013f1301.d	AR125401	WAR110614-54	06-SEP-11 14:34	1.82	5.69
014f1401.d	AR124201	WAR110726-42	06-SEP-11 14:46	1.82	5.69
015f1501.d	AR124801	WAR110726-48	06-SEP-11 14:57	1.82	5.69
016f1601.d	AR123201	WAR110701-32	06-SEP-11 15:08	1.82	5.69
017f1701.d	AR122101	WAR110829-21	06-SEP-11 15:19	1.82	5.69
018f1801.d	AR126201	WAR110829-62	06-SEP-11 15:30	1.82	5.69
019f1901.d	AR126801	WAR110809-68	06-SEP-11 15:42	1.82	5.69
020f2001.d	DDTANALOGSTD	WAR110609-DDT	06-SEP-11 15:53	NA	NA
021f2101.d	PIBLK02	WAR110902-99 02	06-SEP-11 16:04	1.82	5.69
022f2201.d	PBLK01	1202479946	06-SEP-11 16:15	1.82	5.69
023f2301.d	BLK01LCS	1202479947	06-SEP-11 16:27	1.82	5.69
024f2401.d	BLK01LCSD	1202479954	06-SEP-11 16:38	1.82	5.69
025f2501.d	NPDES03A199-11-13860	285124002	06-SEP-11 16:49	1.82	5.69
026f2601.d	NPDES03A199-11-13860	1202479948	06-SEP-11 17:00	1.82	5.69
027f2701.d	NPDES03A113-11-13857	285124005	06-SEP-11 17:11	1.82	5.69
028f2801.d	NPDES13S-11-26995	285124008	06-SEP-11 17:23	1.82	5.69
029f2901.d	AR166002	WAR110815-60 02	06-SEP-11 17:38	1.82	5.69

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 11-3386

GC Column: CLP2

Instrument ID: ECD2A.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				2.03 2.01 2.07 #	6.26 6.23 6.29 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**4cmx**	**Decachlorobiphenyl**
001b0101.d	PIBLK01	WAR110902-99 01	06-SEP-11 12:19	2.03	6.26
002b0201.d	AR166001	WAR110906-01 60	06-SEP-11 12:31	2.04	6.26
003b0301.d	AR166002	WAR110906-02 60	06-SEP-11 12:42	2.04	6.26
004b0401.d	AR166003	WAR110906-03 60	06-SEP-11 12:53	2.04	6.26
005b0501.d	AR166004	WAR110906-04 60	06-SEP-11 13:04	2.04	6.26
006b0601.d	AR166005	IAR110623-01 60	06-SEP-11 13:16	2.04	6.26
007b0701.d	AR166001	WAR110815-60 01	06-SEP-11 13:27	2.03	6.26
008b0801.d	AR125401	WAR110906-05 54	06-SEP-11 13:38	2.04	6.26
009b0901.d	AR125402	WAR110906-06 54	06-SEP-11 13:49	2.03	6.26
010b1001.d	AR125403	WAR110906-07 54	06-SEP-11 14:01	2.04	6.26
011b1101.d	AR125404	WAR110906-08 54	06-SEP-11 14:12	2.04	6.26
012b1201.d	AR125405	IAR110811-01 54	06-SEP-11 14:23	2.04	6.26
013b1301.d	AR125401	WAR110614-54	06-SEP-11 14:34	2.03	6.26
014b1401.d	AR124201	WAR110726-42	06-SEP-11 14:46	2.04	6.26
015b1501.d	AR124801	WAR110726-48	06-SEP-11 14:57	2.04	6.26
016b1601.d	AR123201	WAR110701-32	06-SEP-11 15:08	2.03	6.26
017b1701.d	AR122101	WAR110829-21	06-SEP-11 15:19	2.04	6.26
018b1801.d	AR126201	WAR110829-62	06-SEP-11 15:30	2.04	6.26
019b1901.d	AR126801	WAR110809-68	06-SEP-11 15:42	2.03	6.26
020b2001.d	DDTANALOGSTD	WAR110609-DDT	06-SEP-11 15:53	NA	NA
021b2101.d	PIBLK02	WAR110902-99 02	06-SEP-11 16:04	2.04	6.26
022b2201.d	PBKL01	1202479946	06-SEP-11 16:15	2.04	6.26
023b2301.d	BLK01LCS	1202479947	06-SEP-11 16:27	2.04	6.26
024b2401.d	BLK01LCSD	1202479954	06-SEP-11 16:38	2.03	6.26
025b2501.d	NPDES03A199-11-13860	285124002	06-SEP-11 16:49	2.03	6.26
026b2601.d	NPDES03A199-11-13860	1202479948	06-SEP-11 17:00	2.04	6.26
027b2701.d	NPDES03A113-11-13857	285124005	06-SEP-11 17:11	2.04	6.26
028b2801.d	NPDES13S-11-26995	285124008	06-SEP-11 17:23	2.04	6.26
029b2901.d	AR166002	WAR110815-60 02	06-SEP-11 17:38	2.04	6.26

Column used to flag retention time values with an asterisk.

Identification Summary

SDG Number: 11-3386 **Client ID:** LCS for batch 1138564

Lab Sample ID: 1202479947

Data File: 023f2301.d **Data File:** 023b2301.d

Inst: ECD2A.I_1 **Inst:** ECD2A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 06-SEP-11 16:27 **Analyzed:** 06-SEP-11 16:27

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.28
Column 1	1	2.34	2.31 - 2.37	.677		ug/L	
	2	2.67	2.64 - 2.7	.738		ug/L	
	3	2.81	2.78 - 2.84	.687		ug/L	
	4	2.9	2.87 - 2.93	.7		ug/L	
	5	3.05	3.02 - 3.08	.73		ug/L	
					.706		
Column 2	1	2.72	2.68 - 2.74	.691		ug/L	
	2	3.22	3.19 - 3.25	.686		ug/L	
	3	3.3	3.27 - 3.33	.688		ug/L	
	4	3.33	3.3 - 3.36	.693		ug/L	
	5	3.49	3.45 - 3.51	.694		ug/L	
					.69		
Aroclor-1260							5.38
Column 1	1	3.9	3.87 - 3.93	.757		ug/L	
	2	4.1	4.07 - 4.13	.769		ug/L	
	3	4.18	4.15 - 4.21	.722		ug/L	
	4	4.37	4.34 - 4.4	.75		ug/L	
	5	4.53	4.5 - 4.56	.766		ug/L	
					.753		
Column 2	1	4.38	4.35 - 4.41	.718		ug/L	
	2	4.53	4.5 - 4.56	.725		ug/L	
	3	4.64	4.61 - 4.67	.688		ug/L	
	4	4.84	4.81 - 4.87	.716		ug/L	
	5	5.04	5.01 - 5.07	.722		ug/L	
					.713		

Identification Summary

SDG Number: 11-3386 **Client ID:** NPDES03A199-11-13860MS

Lab Sample ID: 1202479948

Data File:	026f2601.d	**Data File:**	026b2601.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	06-SEP-11 17:00	**Analyzed:**	06-SEP-11 17:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							1.24
Column 1	1	2.34	2.31 - 2.37	.852		ug/L	
	2	2.67	2.64 - 2.7	.823		ug/L	
	3	2.81	2.78 - 2.84	.804		ug/L	
	4	2.9	2.87 - 2.93	.849		ug/L	
	5	3.05	3.02 - 3.08	.867		ug/L	
					.839		
Column 2	1	2.71	2.68 - 2.74	.834		ug/L	
	2	3.22	3.19 - 3.25	.814		ug/L	
	3	3.3	3.27 - 3.33	.826		ug/L	
	4	3.33	3.3 - 3.36	.836		ug/L	
	5	3.48	3.45 - 3.51	.834		ug/L	
					.829		
Aroclor-1260							8.15
Column 1	1	3.9	3.87 - 3.93	.954		ug/L	
	2	4.1	4.07 - 4.13	.931		ug/L	
	3	4.18	4.15 - 4.21	.913		ug/L	
	4	4.37	4.34 - 4.4	.892		ug/L	
	5	4.53	4.5 - 4.56	.922		ug/L	
					.922		
Column 2	1	4.38	4.35 - 4.41	.852		ug/L	
	2	4.53	4.5 - 4.56	.858		ug/L	
	3	4.64	4.61 - 4.67	.848		ug/L	
	4	4.84	4.81 - 4.87	.85		ug/L	
	5	5.04	5.01 - 5.07	.842		ug/L	
					.85		

Identification Summary

SDG Number: 11-3386 **Client ID:** LCSD for batch 1138564

Lab Sample ID: 1202479954

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	06-SEP-11 16:38	**Analyzed:**	06-SEP-11 16:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.53
Column 1	1	2.34	2.31 - 2.37	.72		ug/L	
	2	2.67	2.64 - 2.7	.746		ug/L	
	3	2.81	2.78 - 2.84	.738		ug/L	
	4	2.9	2.87 - 2.93	.737		ug/L	
	5	3.05	3.02 - 3.08	.755		ug/L	
					.739		
Column 2	1	2.71	2.68 - 2.74	.71		ug/L	
	2	3.22	3.19 - 3.25	.711		ug/L	
	3	3.3	3.27 - 3.33	.722		ug/L	
	4	3.33	3.3 - 3.36	.708		ug/L	
	5	3.48	3.45 - 3.51	.719		ug/L	
					.714		
Aroclor-1260							6.7
Column 1	1	3.9	3.87 - 3.93	.782		ug/L	
	2	4.1	4.07 - 4.13	.8		ug/L	
	3	4.18	4.15 - 4.21	.788		ug/L	
	4	4.37	4.34 - 4.4	.787		ug/L	
	5	4.53	4.5 - 4.56	.8		ug/L	
					.791		
Column 2	1	4.38	4.35 - 4.41	.743		ug/L	
	2	4.53	4.5 - 4.56	.751		ug/L	
	3	4.64	4.61 - 4.67	.709		ug/L	
	4	4.84	4.81 - 4.87	.749		ug/L	
	5	5.04	5.01 - 5.07	.748		ug/L	
					.74		

Identification Summary

SDG Number: 11-3386 **Client ID:** NPDES03A113-11-13857

Lab Sample ID: 285124005

Data File:	027f2701.d	**Data File:**	027b2701.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	06-SEP-11 17:11	**Analyzed:**	06-SEP-11 17:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							27.7
Column 1	1	3.32	3.29 - 3.35	.0729		ug/L	
	2	3.5	3.47 - 3.53	.0942		ug/L	
	3	3.69	3.66 - 3.72	.0814		ug/L	
	4	3.9	3.87 - 3.93	.162		ug/L	
	5	4.15	4.12 - 4.18	.0533		ug/L	
					.0928		
Column 2	1	3.3	3.27 - 3.33	.0694		ug/L	
	2	3.79	3.75 - 3.81	.079		ug/L	
	3	3.97	3.94 - 4	.0404		ug/L	
	4	4.16	4.13 - 4.19	.062		ug/L	
	5	4.38	4.35 - 4.41	.1		ug/L	
					.0702		
Aroclor-1260							41.3
Column 1	1	3.9	3.87 - 3.93	.0785		ug/L	
	2	4.1	4.07 - 4.13	.0833		ug/L	
	3	4.18	4.15 - 4.21	.0879		ug/L	
	4	4.37	4.34 - 4.4	.0445		ug/L	
	5	4.53	4.5 - 4.56	.0509		ug/L	
					.069		
Column 2	1	4.38	4.35 - 4.41	.0533		ug/L	
	2	4.53	4.5 - 4.56	.0694		ug/L	
	3	4.64	4.61 - 4.67	.0264		ug/L	
	4	4.84	4.81 - 4.87	.0466		ug/L	
	5	5.04	5.01 - 5.07	.0313		ug/L	
					.0454		

QC Data

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479946**				
Client Sample:	**QC for batch 1138564**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 1138564**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:15**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	022b2201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
4cmx	0.212	0.200	ug/L	106		(21%-109%)
Decachlorobiphenyl	0.267	0.200	ug/L	134	*	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/022f2201.d
Lab Smp Id: 1202479946 Client Smp ID: PBLK01
Inj Date : 06-SEP-2011 16:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202479946|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|MB|||
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 22 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.825	1.822	0.003	12275699	211.478	0.21	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	10868025	220.128	0.22	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/090611a.b/022f2201.d

Page 1

Date : 06-SEP-2011 16:15

Client ID: PBLK01

Instrument: ecd2a.i

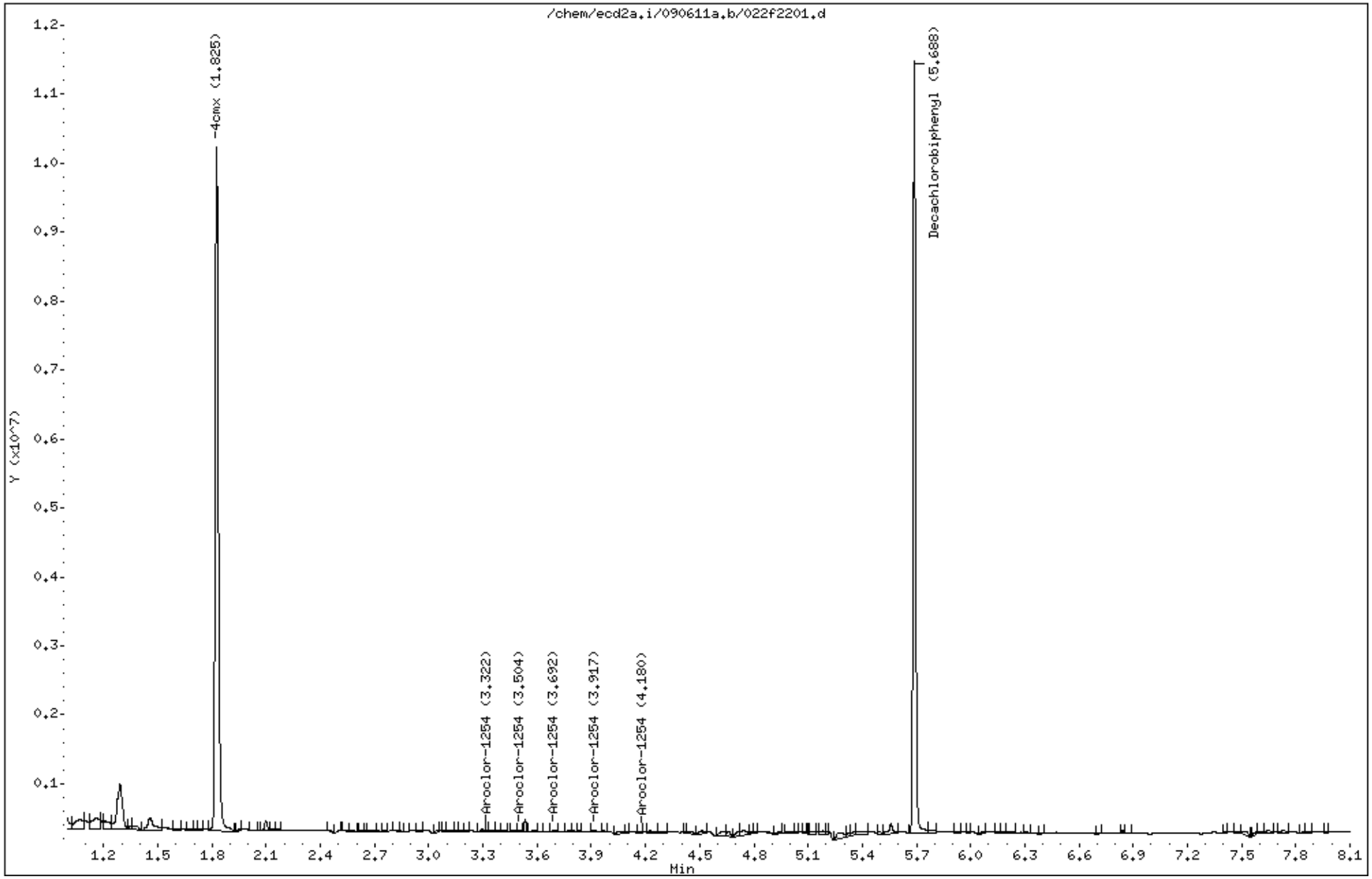
Sample Info: |1202479946|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/022b2201.d
Lab Smp Id: 1202479946 Client Smp ID: PBKL01
Inj Date : 06-SEP-2011 16:15
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202479946|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|MB|||
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 22 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.037	2.035	0.002	34801406	211.509	0.21	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	43268870	267.125	0.27	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/090611a.b/022b2201.d

Page 1

Date : 06-SEP-2011 16:15

Client ID: PBKL01

Instrument: ecd2a.i

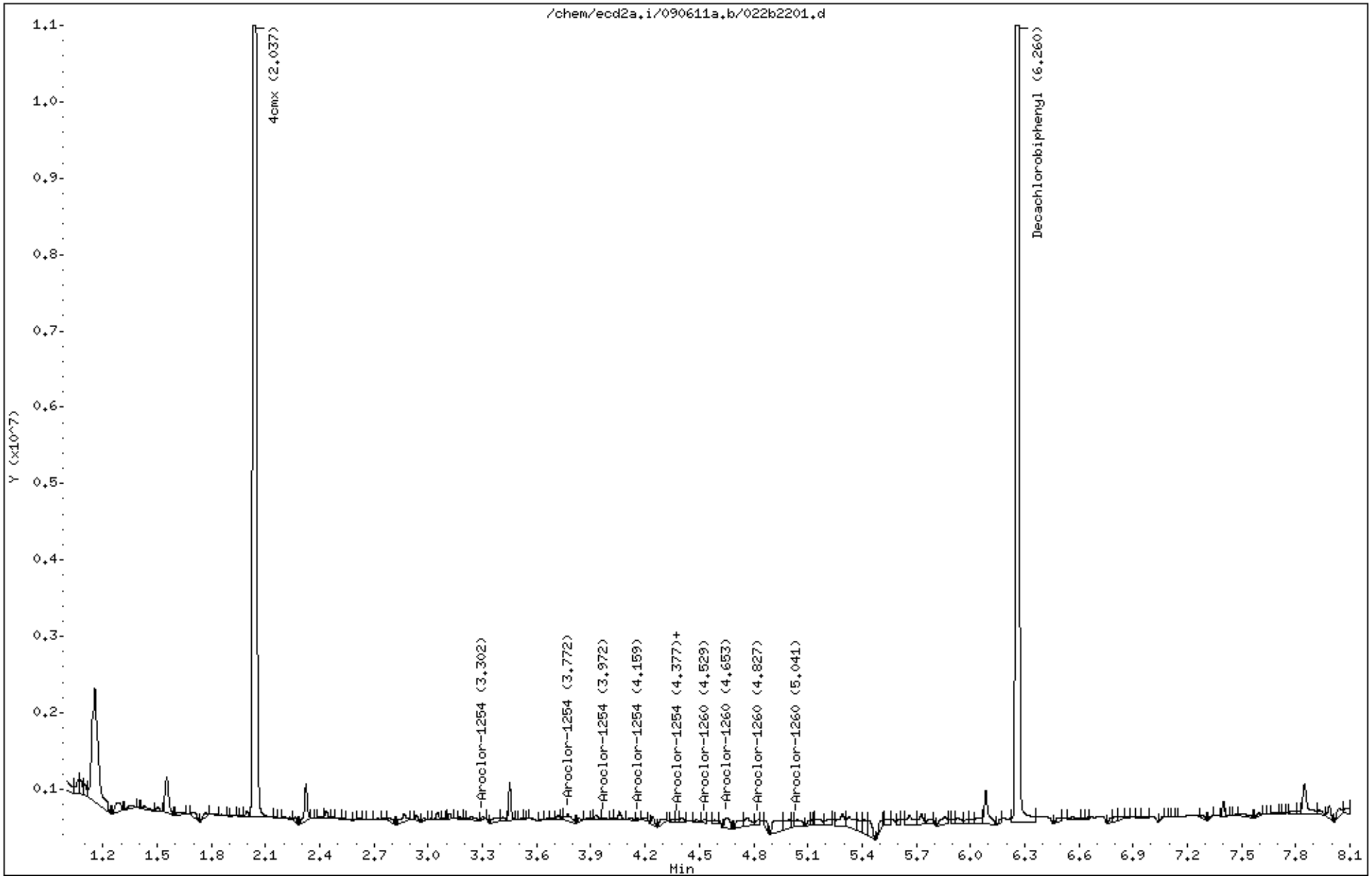
Sample Info: |1202479946|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479947**				
Client Sample:	**QC for batch 1138564**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 1138564**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	023b2301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.710	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.750	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.132	0.200	ug/L	65.8	(21%-109%)
Decachlorobiphenyl	0.156	0.200	ug/L	78.1	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/023f2301.d
Lab Smp Id: 1202479947 Client Smp ID: PBLK01LCS
Inj Date : 06-SEP-2011 16:27
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202479947|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 23 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	7642233	131.656	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	7707523	156.113	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.343	2.341	0.002	1312968	676.527	0.68	80.00- 120.00	100.00
2.673	2.672	0.001	1939870	738.093	0.74	118.17- 158.17	147.75
2.808	2.808	0.000	698870	686.573	0.69	34.13- 74.13	53.23
2.900	2.900	0.000	592710	699.877	0.70	23.45- 63.45	45.14
3.053	3.053	0.000	891595	729.692	0.73	43.79- 83.79	67.91

Average of Peak Concentrations = 0.71

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.903	3.904	-0.001	1853342	756.892	0.76	80.00- 120.00	100.00
4.096	4.097	-0.001	2792195	768.686	0.77	130.78- 170.78	150.66
4.182	4.182	0.000	1134550	722.342	0.72	45.67- 85.67	61.22
4.367	4.368	-0.001	1704649	750.096	0.75	74.00- 114.00	91.98
4.533	4.534	-0.001	1785912	766.473	0.77	76.98- 116.98	96.36
Average of Peak Concentrations =					0.75		

Data File: /chem/ecd2a.i/090611a.b/023f2301.d

Page 1

Date : 06-SEP-2011 16:27

Client ID: PBLK01LCS

Instrument: ecd2a.i

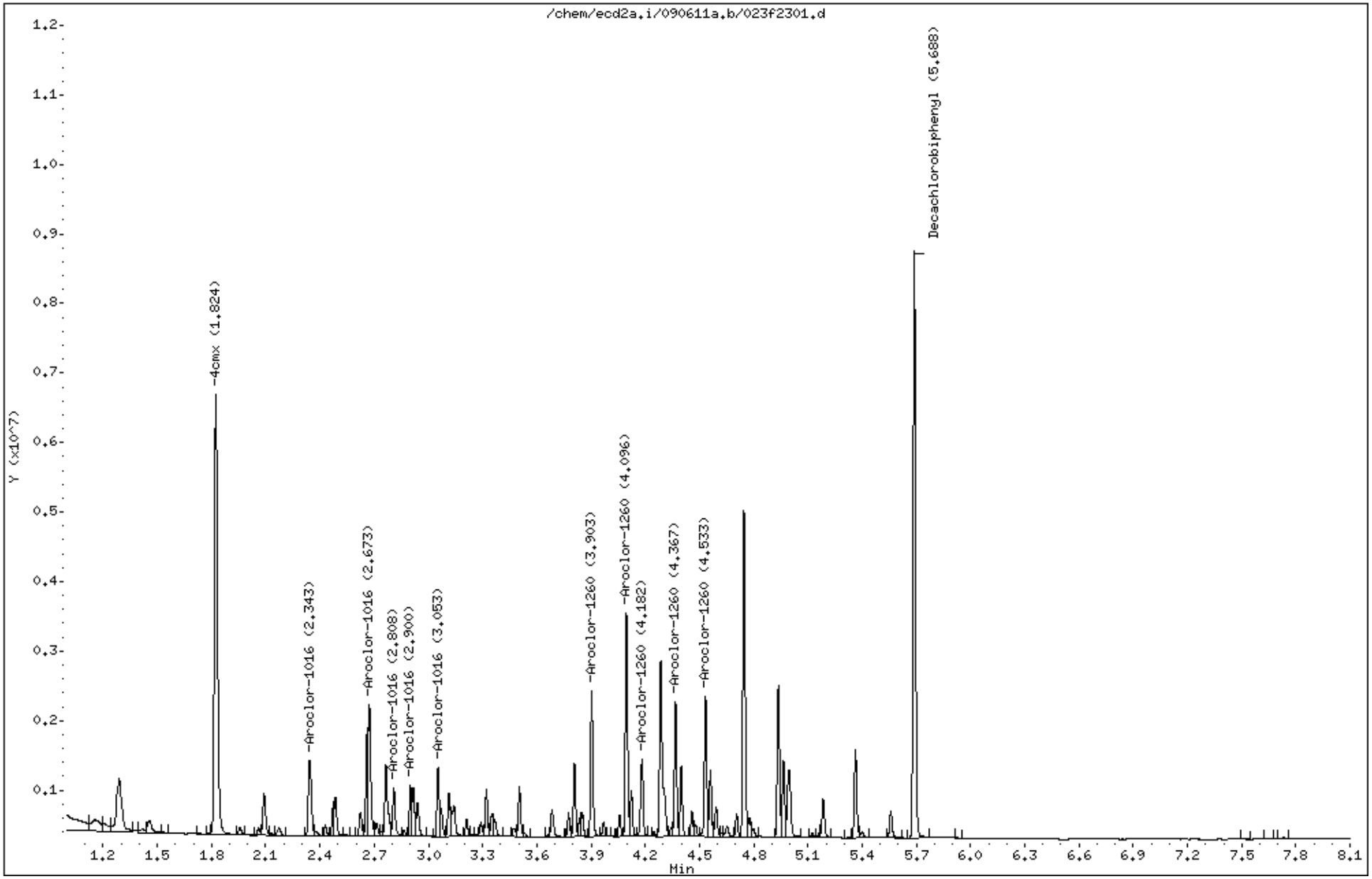
Sample Info: |1202479947|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/090611a.b/023b2301.d
Lab Smp Id: 1202479947                    Client Smp ID: PBLK01LCS
Inj Date  : 06-SEP-2011 16:27
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202479947|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|LCS|||
Comment   :
Method    : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212    Quant Type: ESTD
Cal Date  : 02-SEP-2011 08:55             Cal File: 007b0701.d
Als bottle: 23                            QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386.sub
Target Version:  3.50                     Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.036	2.035	0.001	21455955	130.401	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	24741160	152.742	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.715	2.714	0.001	3747125	690.522	0.69	80.00- 120.00	100.00
3.221	3.220	0.001	1916082	686.207	0.69	30.63- 70.63	51.13
3.298	3.298	0.000	1772655	688.000	0.69	26.80- 66.80	47.31
3.327	3.327	0.000	1852400	692.669	0.69	28.94- 68.94	49.44
3.485	3.485	0.000	2517982	693.808	0.69	46.41- 86.41	67.20

Average of Peak Concentrations = 0.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	5093647	718.012	0.72	80.00- 120.00	100.00
4.528	4.529	-0.001	6422561	724.786	0.72	105.45- 145.45	126.09
4.640	4.641	-0.001	4088735	687.519	0.69	64.98- 104.98	80.27
4.837	4.837	0.000	4927267	715.601	0.72	77.47- 117.47	96.73
5.037	5.037	0.000	5074726	721.505	0.72	79.77- 119.77	99.63
			Average of Peak Concentrations =		0.71		

Data File: /chem/ecd2a.i/090611a.b/023b2301.d

Date : 06-SEP-2011 16:27

Client ID: PBLK01LCS

Sample Info: |1202479947|1|

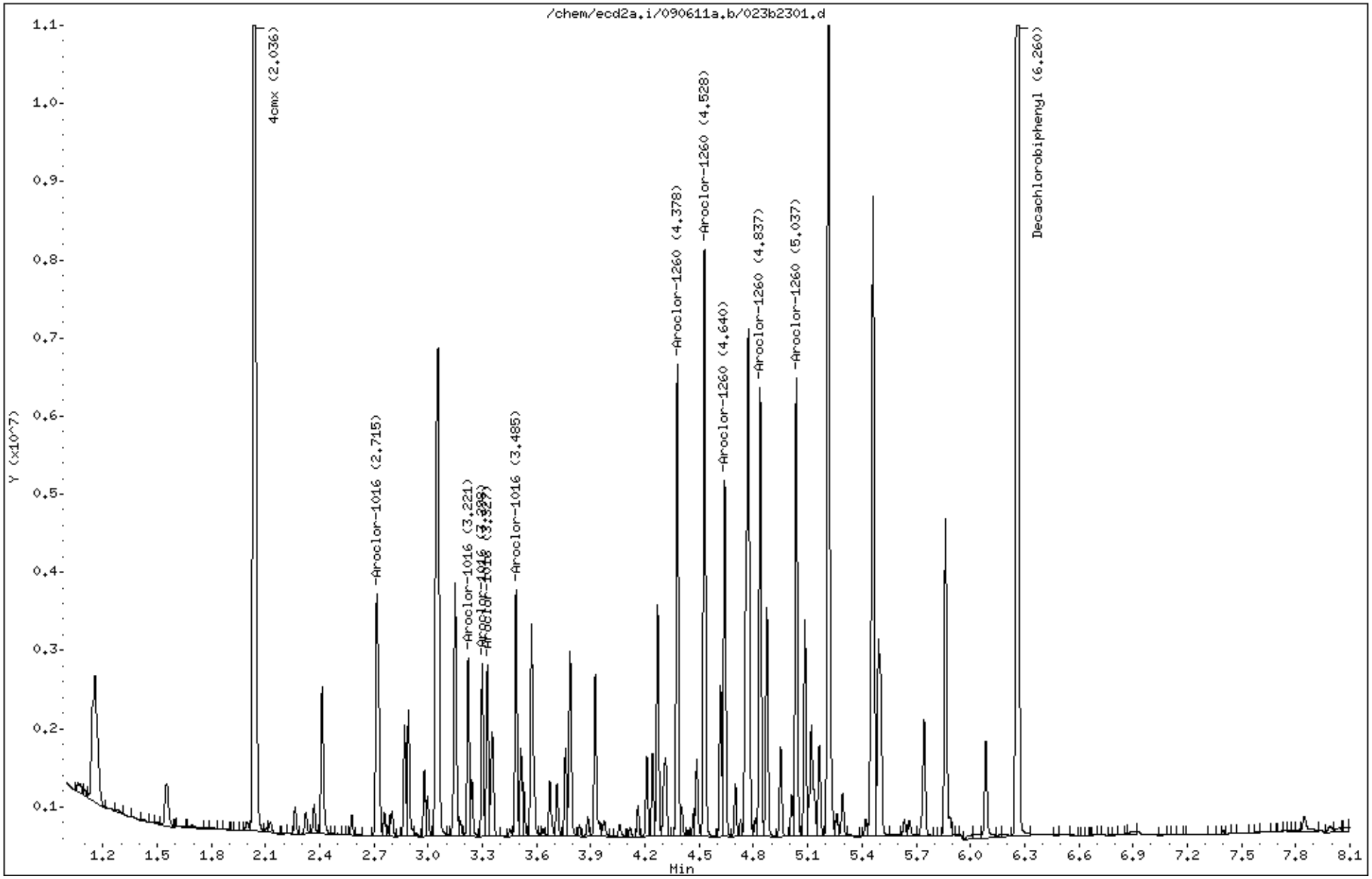
Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**			**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479954**				
Client Sample:	**QC for batch 1138564**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCSD for batch 1138564**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 16:38**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.740	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.790	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.149	0.200	ug/L	74.3	(21%-109%)
Decachlorobiphenyl	0.166	0.200	ug/L	82.8	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/090611a.b/024f2401.d
Lab Smp Id: 1202479954                    Client Smp ID: PBLK01LCSD
Inj Date  : 06-SEP-2011 16:38
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202479954|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|LCSD|||
Comment   :
Method    : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212    Quant Type: ESTD
Cal Date  : 02-SEP-2011 08:55             Cal File: 007f0701.d
Als bottle: 24                            QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386.sub
Target Version:  3.50                     Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	8624065	148.570	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.689	5.689	0.000	8174208	165.566	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.341	2.341	0.000	1398229	720.459	0.72	80.00- 120.00	100.00
2.673	2.672	0.001	1961857	746.459	0.75	118.17- 158.17	140.31
2.808	2.808	0.000	751696	738.469	0.74	34.13- 74.13	53.76
2.900	2.900	0.000	624425	737.326	0.74	23.45- 63.45	44.66
3.053	3.053	0.000	922023	754.595	0.75	43.79- 83.79	65.94

Average of Peak Concentrations = 0.74

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.904	3.904	0.000	1914018	781.672	0.78	80.00- 120.00	100.00
4.096	4.097	-0.001	2904621	799.637	0.80	130.78- 170.78	151.76
4.181	4.182	-0.001	1237174	787.680	0.79	45.67- 85.67	64.64
4.368	4.368	0.000	1789213	787.306	0.79	74.00- 114.00	93.48
4.534	4.534	0.000	1863323	799.696	0.80	76.98- 116.98	97.35
Average of Peak Concentrations =					0.79		

Data File: /chem/ecd2a.i/090611a.b/024f2401.d

Page 1

Date : 06-SEP-2011 16:38

Client ID: PBLK01LCSD

Instrument: ecd2a.i

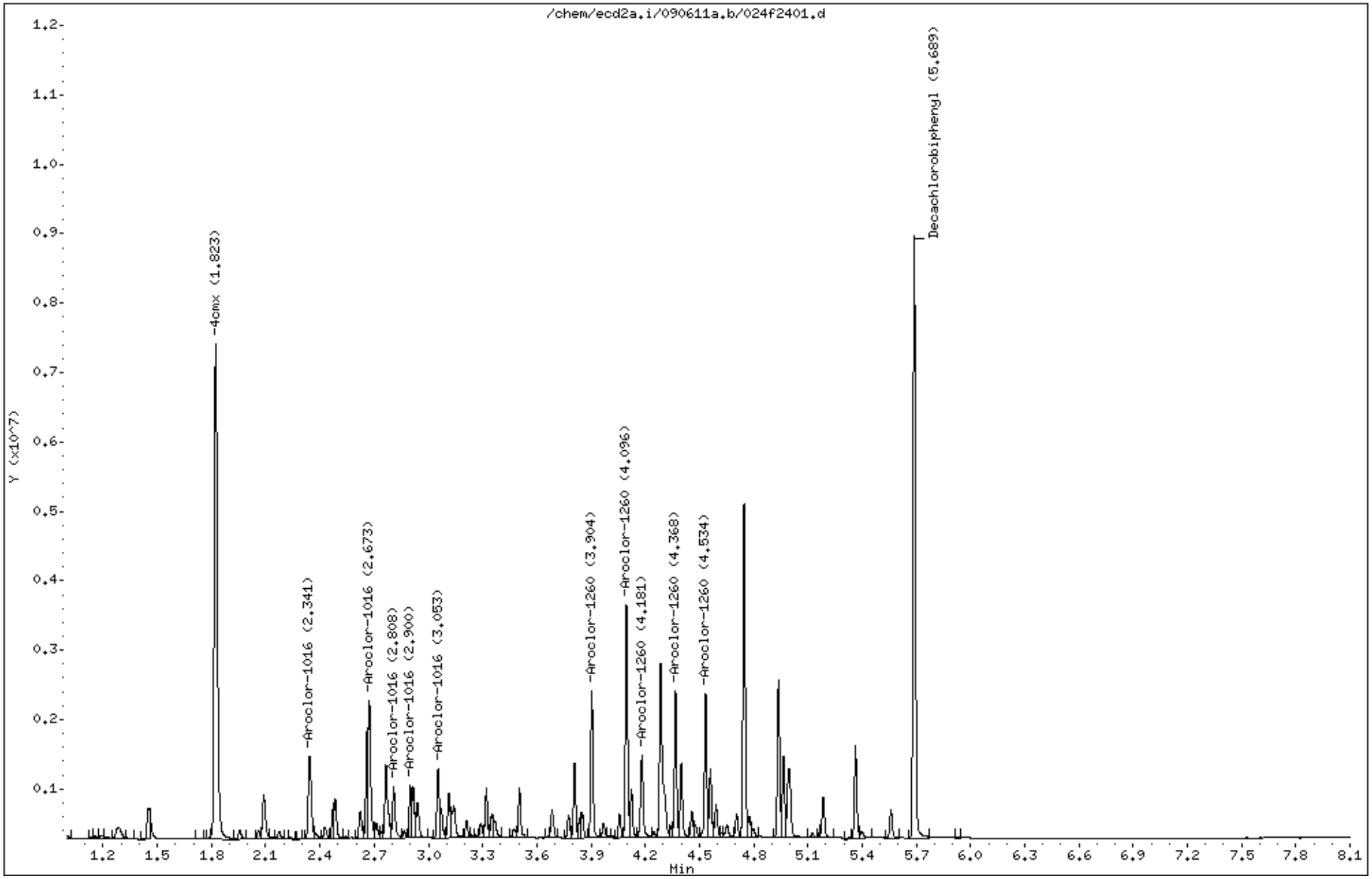
Sample Info: |1202479954|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

```
Data file : /chem/ecd2a.i/090611a.b/024b2401.d
Lab Smp Id: 1202479954                    Client Smp ID: PBLK01LCSD
Inj Date  : 06-SEP-2011 16:38
Operator  : JAOC                          Inst ID: ecd2a.i
Smp Info  : |1202479954|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|LCSD|||
Comment   :
Method    : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212    Quant Type: ESTD
Cal Date  : 02-SEP-2011 08:55             Cal File: 007b0701.d
Als bottle: 24                            QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon                        Compound Sublist: 11-3386.sub
Target Version:  3.50                     Sample Matrix: Waste Water
```

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	24066612	146.267	0.15	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.261	6.261	0.000	25995787	160.488	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.715	2.714	0.001	3850285	710.063	0.71	80.00- 120.00	100.00
3.220	3.220	0.000	1985366	710.578	0.71	30.63- 70.63	51.56
3.298	3.298	0.000	1859146	722.059	0.72	26.80- 66.80	48.29
3.326	3.327	-0.001	1891475	707.513	0.71	28.94- 68.94	49.13
3.485	3.485	0.000	2609210	718.792	0.72	46.41- 86.41	67.77

Average of Peak Concentrations = 0.71

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.378	4.378	0.000	5269449	742.793	0.74	80.00- 120.00	100.00
4.529	4.529	0.000	6655005	751.017	0.75	105.45- 145.45	126.29
4.640	4.641	-0.001	4219230	709.462	0.71	64.98- 104.98	80.07
4.837	4.837	0.000	5155917	748.808	0.75	77.47- 117.47	97.85
5.037	5.037	0.000	5257863	747.542	0.75	79.77- 119.77	99.78

Average of Peak Concentrations = 0.74

Data File: /chem/ecd2a.i/090611a.b/024b2401.d

Page 1

Date : 06-SEP-2011 16:38

Client ID: PBLK01LCSD

Instrument: ecd2a.i

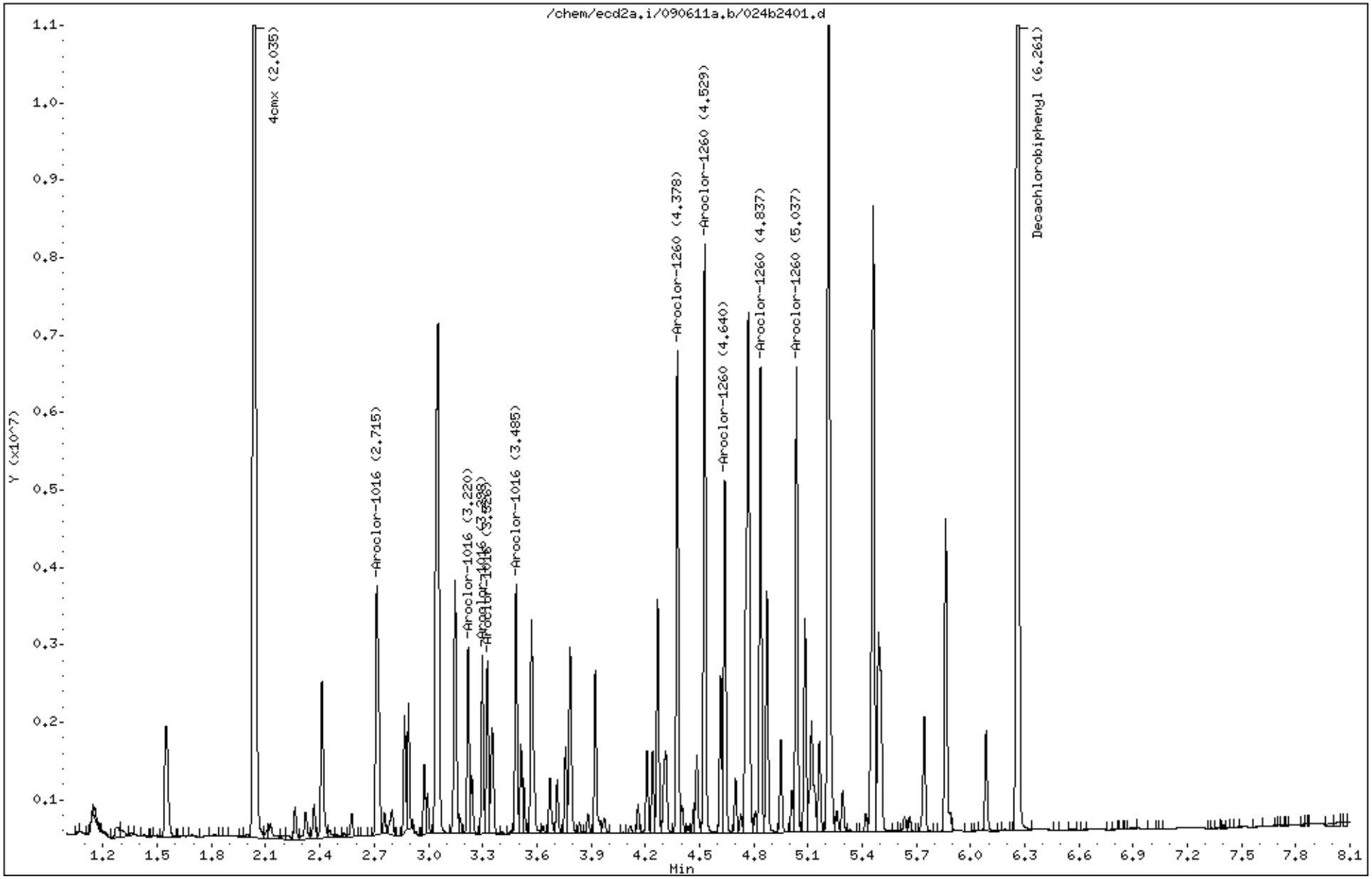
Sample Info: |1202479954|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



PCB
Certificate of Analysis
Sample Summary

SDG Number:	**11-3386**	**Date Collected:**	**08/31/2011 12:00**	**Matrix:**	**WASTE WATER**
Lab Sample ID:	**1202479948**	**Date Received:**	**09/02/2011 08:45**		
Client Sample:	**QC for batch 1138564**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**NPDES03A199-11-13860MS**	**Method:**	**EPA 608 ATP**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**1138565**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**09/06/2011 17:00**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**09/02/2011 16:45**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**026f2601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	026b2601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.840	ug/L	0.0354	0.106	1
11104-28-2	Aroclor-1221	U	0.106	ug/L	0.0354	0.106	1
11141-16-5	Aroclor-1232	U	0.106	ug/L	0.0354	0.106	1
53469-21-9	Aroclor-1242	U	0.106	ug/L	0.0354	0.106	1
12672-29-6	Aroclor-1248	U	0.106	ug/L	0.0354	0.106	1
11097-69-1	Aroclor-1254	U	0.106	ug/L	0.0354	0.106	1
11096-82-5	Aroclor-1260		0.930	ug/L	0.0354	0.106	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.158	0.213	ug/L	74.4	(21%-109%)
Decachlorobiphenyl	0.184	0.213	ug/L	86.7	(23%-119%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/026f2601.d
Lab Smp Id: 1202479948 Client Smp ID: NPDES03A199-11-13MS
Inj Date : 06-SEP-2011 17:00
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202479948|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|MS|||
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.824	1.822	0.002	8636603	148.786	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.687	5.689	-0.002	8559362	173.367	0.18	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 2051-24-3		
2.343	2.341	0.002	1560398	804.019	0.86	80.00- 120.00	100.00
2.673	2.672	0.001	2040892	776.531	0.83	118.17- 158.17	130.79
2.808	2.808	0.000	771944	758.361	0.81	34.13- 74.13	49.47
2.900	2.900	0.000	678473	801.146	0.85	23.45- 63.45	43.48
3.053	3.053	0.000	998843	817.465	0.87	43.79- 83.79	64.01

Average of Peak Concentrations = 0.84

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.903	3.904	-0.001	2204403	900.263	0.96	80.00- 120.00	100.00
4.096	4.097	-0.001	3189477	878.057	0.93	130.78- 170.78	144.69
4.181	4.182	-0.001	1352754	861.267	0.92	45.67- 85.67	61.37
4.367	4.368	-0.001	1912488	841.551	0.90	74.00- 114.00	86.76
4.533	4.534	-0.001	2025866	869.456	0.92	76.98- 116.98	91.90
Average of Peak Concentrations =					0.93		

Data File: /chem/ecd2a.i/090611a.b/026f2601.d

Page 1

Date : 06-SEP-2011 17:00

Client ID: NPDES03A199-11-13MS

Instrument: ecd2a.i

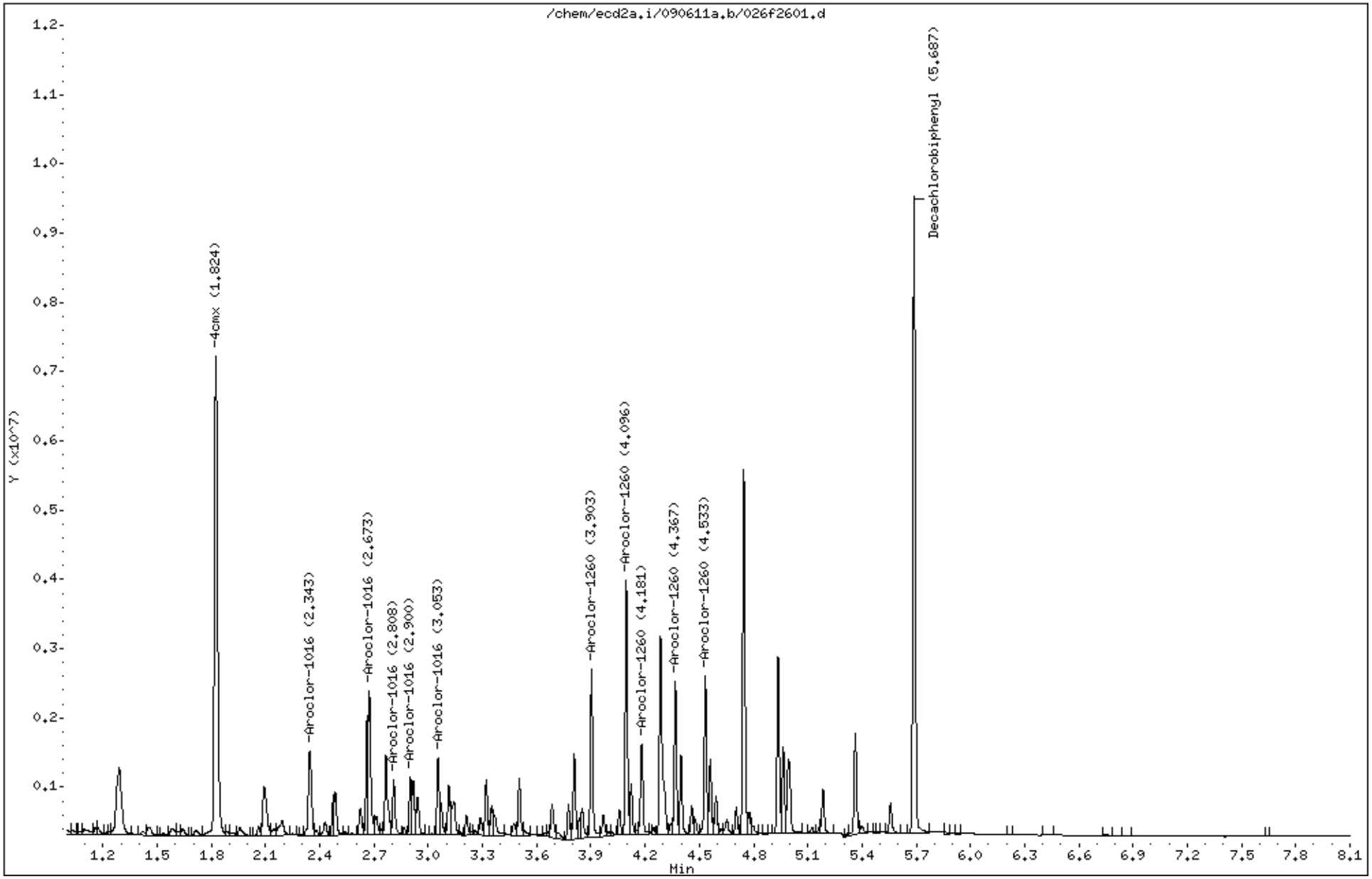
Sample Info: |1202479948|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/026b2601.d
Lab Smp Id: 1202479948 Client Smp ID: NPDES03A199-11-13MS
Inj Date : 06-SEP-2011 17:00
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202479948|1|
Misc Info : |ECDWWBS_1L|1138565|SVA|QC A|WASTE WATER|MS|||
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 26 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 11-3386.sub
Target Version: 3.50 Sample Matrix: Waste Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.037	2.035	0.002	24140736	146.718	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	26500940	163.607	0.17	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.715	2.714	0.001	4254815	786.692	0.84	80.00- 120.00	100.00(M)
3.220	3.220	0.000	2149302	768.244	0.82	30.63- 70.63	50.51
3.298	3.298	0.000	2003283	778.820	0.83	26.80- 66.80	47.08
3.327	3.327	0.000	2104610	788.477	0.84	28.94- 68.94	49.46
3.485	3.485	0.000	2855998	786.381	0.84	46.41- 86.41	67.12

Average of Peak Concentrations = 0.83

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.377	4.378	-0.001	5702947	803.900	0.86	80.00- 120.00	100.00(M)
4.528	4.529	-0.001	7176344	809.850	0.86	105.45- 145.45	125.84
4.639	4.641	-0.002	4757608	799.990	0.85	64.98- 104.98	83.42
4.837	4.837	0.000	5522607	802.064	0.85	77.47- 117.47	96.84
5.036	5.037	-0.001	5586168	794.220	0.84	79.77- 119.77	97.95
			Average of Peak Concentrations =		0.85		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/090611a.b/026b2601.d

Page 1

Date : 06-SEP-2011 17:00

Client ID: NPDES03A199-11-13MS

Instrument: ecd2a.i

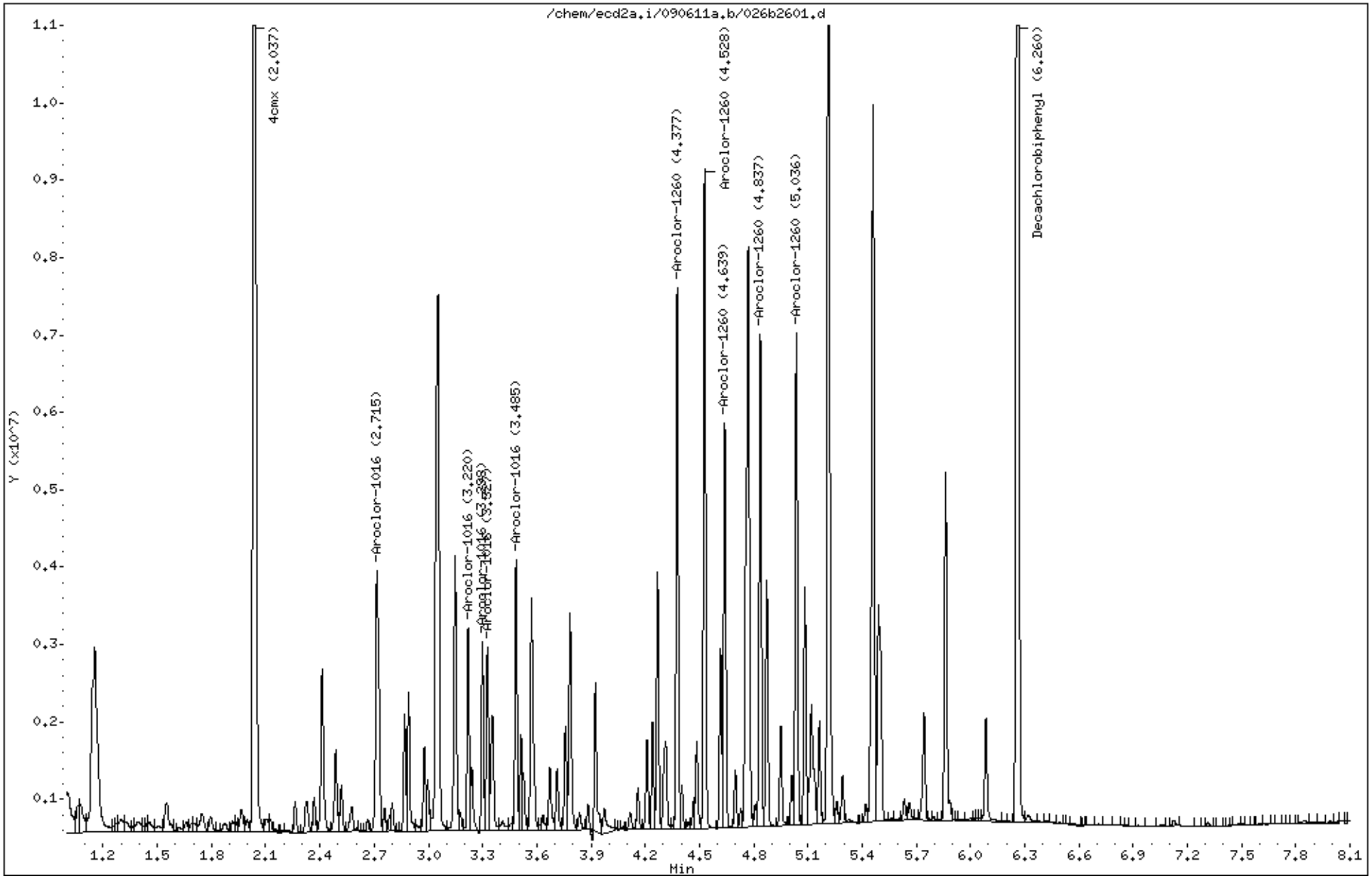
Sample Info: |1202479948|1|

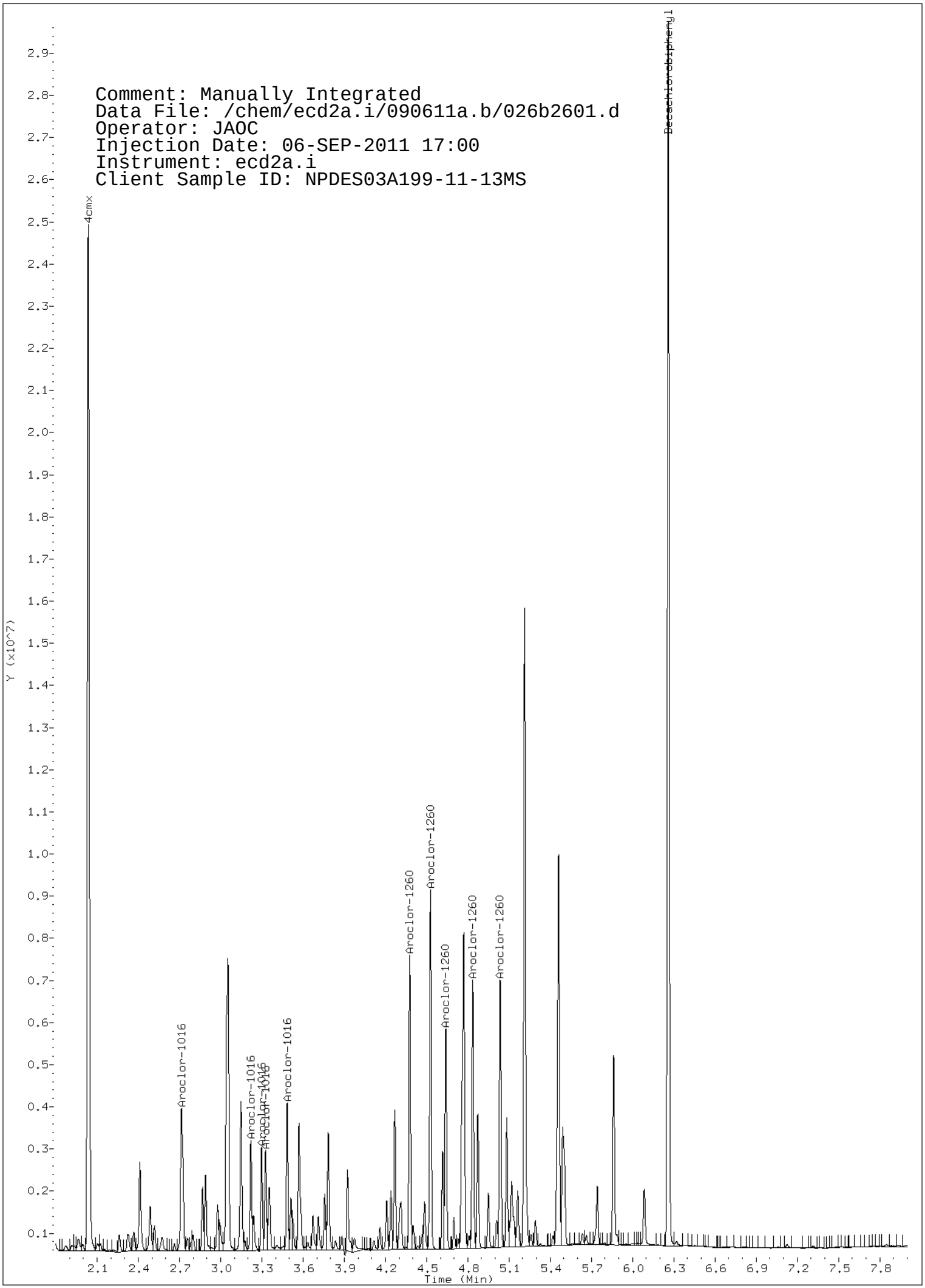
Volume Injected (uL): 1.0

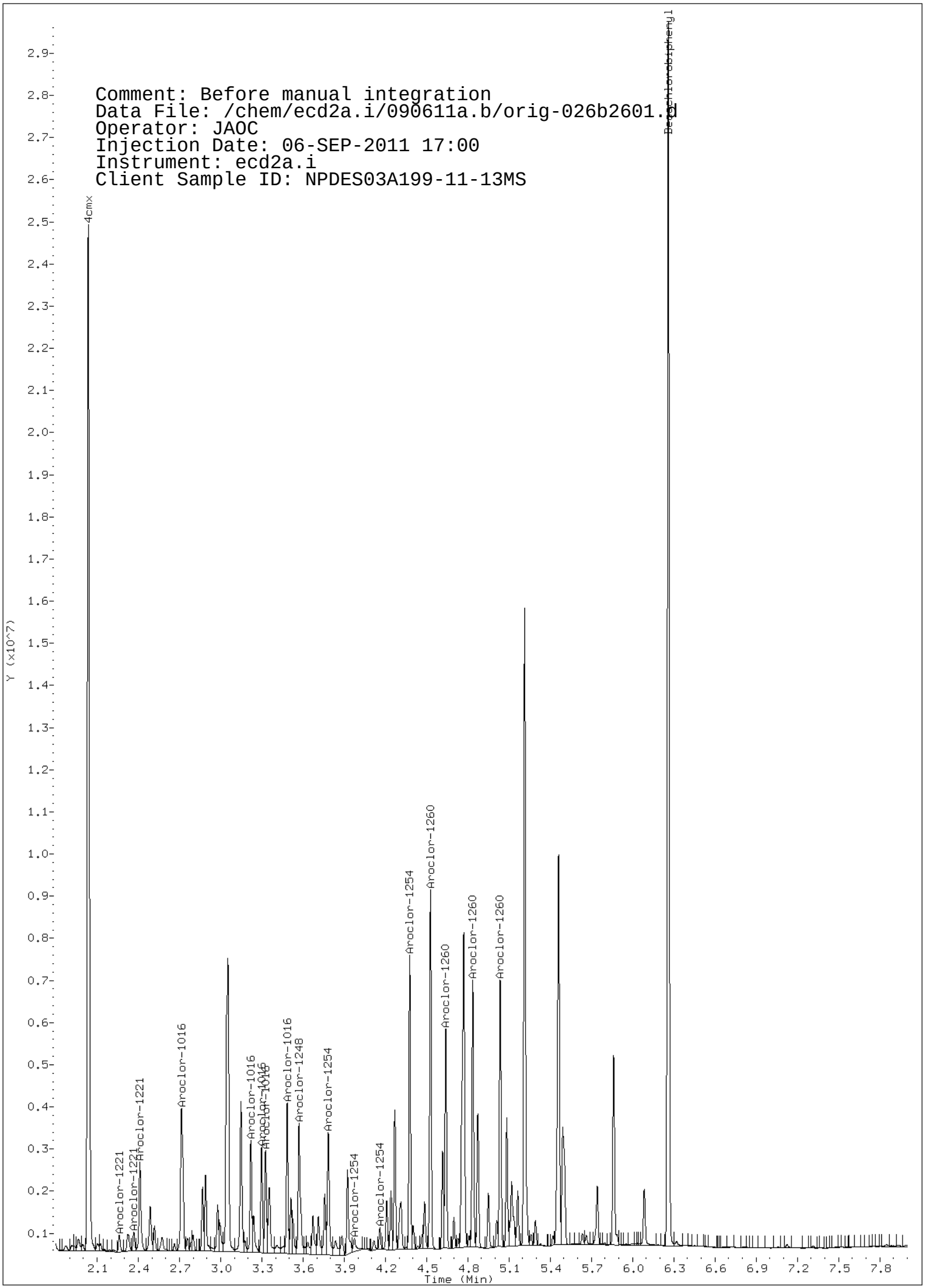
Operator: JAOC

Column phase: CLP2

Column diameter: 0.25




Comment: Manually Integrated
Data File: /chem/ecd2a.i/090611a.b/026b2601.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:00
Instrument: ecd2a.i
Client Sample ID: NPDES03A199-11-13MS
4cmx
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)


Comment: Before manual integration
Data File: /chem/ecd2a.i/090611a.b/orig-026b2601.d
Operator: JAOC
Injection Date: 06-SEP-2011 17:00
Instrument: ecd2a.i
Client Sample ID: NPDES03A199-11-13MS
4cmx
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

Miscellaneous Data

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 09/07/2011 METHOD: ECD2-F-8082-090611.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DB823
ALUMINA LOT:100709-A
COPPER LOT:1350083-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:090611a Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR110902-99 01	JAOC	06-SEP-2011 12:19		090611a	1.0		CLEAN
002f0201.d	WAR110906-01 60	JAOC	06-SEP-2011 12:31		090611a	1.0		1660 LEVEL 1
003f0301.d	WAR110906-02 60	JAOC	06-SEP-2011 12:42		090611a	1.0		1660 LEVEL 2
004f0401.d	WAR110906-03 60	JAOC	06-SEP-2011 12:53		090611a	1.0		1660 LEVEL 3
005f0501.d	WAR110906-04 60	JAOC	06-SEP-2011 13:04		090611a	1.0		1660 LEVEL 4
006f0601.d	IAR110623-01 60	JAOC	06-SEP-2011 13:16		090611a	1.0		1660 LEVEL 5
007f0701.d	WAR110815-60 01	JAOC	06-SEP-2011 13:27		090611a	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR110906-05 54	JAOC	06-SEP-2011 13:38		090611a	1.0		1254 LEVEL 1
009f0901.d	WAR110906-06 54	JAOC	06-SEP-2011 13:49		090611a	1.0		1254 LEVEL 2
010f1001.d	WAR110906-07 54	JAOC	06-SEP-2011 14:01		090611a	1.0		1254 LEVEL 3
011f1101.d	WAR110906-08 54	JAOC	06-SEP-2011 14:12		090611a	1.0		1254 LEVEL 4
012f1201.d	IAR110811-01 54	JAOC	06-SEP-2011 14:23		090611a	1.0		1254 LEVEL 5
013f1301.d	WAR110614-54	JAOC	06-SEP-2011 14:34		090611a	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR110726-42	JAOC	06-SEP-2011 14:46		090611a	1.0		PASSES BOTH COLUMNS AVG
015f1501.d	WAR110726-48	JAOC	06-SEP-2011 14:57		090611a	1.0		PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd2a.i/090611a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR110701-32	JAOC	06-SEP-2011 15:08		090611a	1.0		PATTERN ONLY

017f1701.d	WAR110829-21	JAOC	06-SEP-2011 15:19		090611a	1.0		PATTERN ONLY
018f1801.d	WAR110829-62	JAOC	06-SEP-2011 15:30		090611a	1.0		PATTERN ONLY
019f1901.d	WAR110809-68	JAOC	06-SEP-2011 15:42		090611a	1.0		PATTERN ONLY
020f2001.d	WAR110609-DDT	JAOC	06-SEP-2011 15:53		090611a	1.0		DDT
021f2101.d	WAR110902-99 02	JAOC	06-SEP-2011 16:04		090611a	1.0		CLEAN
022f2201.d	1202479946	JAOC	06-SEP-2011 16:15	1138565	11-3386	1.0	QC A	UPLOAD BOTH, USE HIGHER
023f2301.d	1202479947	JAOC	06-SEP-2011 16:27	1138565	11-3386	1.0	QC A	UPLOAD BOTH, USE HIGHER
024f2401.d	1202479954	JAOC	06-SEP-2011 16:38	1138565	11-3386	1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	285124002	JAOC	06-SEP-2011 16:49	1138565	11-3386	1.0	ARSL	UPLOAD BOTH, USE HIGHER
026f2601.d	1202479948	JAOC	06-SEP-2011 17:00	1138565	11-3386	1.0	QC A	UPLOAD BOTH, USE HIGHER
027f2701.d	285124005	JAOC	06-SEP-2011 17:11	1138565	11-3386	1.0	ARSL	UPLOAD BOTH, USE HIGHER
028f2801.d	285124008	JAOC	06-SEP-2011 17:23	1138565	11-3386	1.0	ARSL	UPLOAD BOTH, USE HIGHER
029f2901.d	WAR110815-60 02	JAOC	06-SEP-2011 17:38		090611a	1.0		PASSES BOTH COLUMNS
030f3001.d	WAR110902-99 03	JAOC	06-SEP-2011 17:50		090611a	1.0		CLEAN

Prep Logbook

Solid-Phase Extraction

Batch ID: **1138564** **Verified by:** _____

Analyst: **Sequan Smalls**

Method: **EPA 608 SPE Prep**

Lab SOP: **GL-OA-E-070 REV# 4**

Instrument: **Semi-Volatiles Manual**

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Ph 2	Clean Up	Amount 1 (mL)	Amount 2 (mL)	Amount 3 (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202479946 MB	02-SEP-2011 16:45:00	1000	5	1	H2SO4/KMNO4	2	2	8	1	0.001
1202479947 LCS	02-SEP-2011 16:45:00	1000	5	1	H2SO4/KMNO4	2	2	8	1	0.001
1202479954 LCSD	02-SEP-2011 16:45:00	1000	5	1	H2SO4/KMNO4	2	2	8	1	0.001
285124002	02-SEP-2011 16:45:00	950	6	1	H2SO4/KMNO4	2	2	8	1	0.00105
1202479948 MS (285124002)	02-SEP-2011 16:45:00	940	6	1	H2SO4/KMNO4	2	2	8	1	0.00106
285124005	02-SEP-2011 16:45:00	960	6	1	H2SO4/KMNO4	2	2	8	1	0.00104
285124008	02-SEP-2011 16:45:00	920	6	1	H2SO4/KMNO4	2	2	8	1	0.00109

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202479947	PCB Laboratory Control	WE110727-06	1	mL
LCSD	1202479954	PCB Laboratory Control	WE110727-06	1	mL
MS	1202479948	PCB Laboratory Control	WE110727-06	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE110822-01	1	mL
REGNT	All	Acetone	1601189-B1	5	mL
REGNT	All	Hexane	1605285-B4	5	mL
REGNT	All	Methylene Chloride	1605750-D	50	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1608510	20	mL
SOURC	All	SODIUM SULFATE	1594298	30	g

Comments:

Sample 4005 had a yellowish-tint
LOT #91826TT
Int Ext pH:1
FINAL SOLVENT:HEXANE
VERIFIED BY:TRA
CLEANUP INITIALS: SSS
CLEANUP DATE: 9/2/11

PRIOR TO CLEANUP:2mL
AMOUNT CLEANED:2mL
AFTER CLEANUP:8mL

DER Report No.: 993722
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	EPA 608 ATP	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1138565	See Below		

Potentially affected work order(s)(SDG): 285124(11-3386)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. 1202479946(MB) does not meet surrogate recovery limits.	1. The surrogate is bias slightly high on one column in the method blank. There are no target analytes detected above the PQL in the client samples. The data were reported.

Originator's Name:

Jennifer Oliver 07-SEP-11

Data Validator/Group Leader:

Jimin Cao 07-SEP-11

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/001b0101.d
Lab Smp Id: WAR110902-99 01 Client Smp ID: PIBLK01
Inj Date : 06-SEP-2011 12:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-99 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 06-Sep-2011 14:46 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.034	2.035	-0.001	26577299	161.526	162	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.259	6.261	-0.002	25916287	159.997	160	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/090611a.b/001b0101.d

Page 1

Date : 06-SEP-2011 12:19

Client ID: PIBLK01

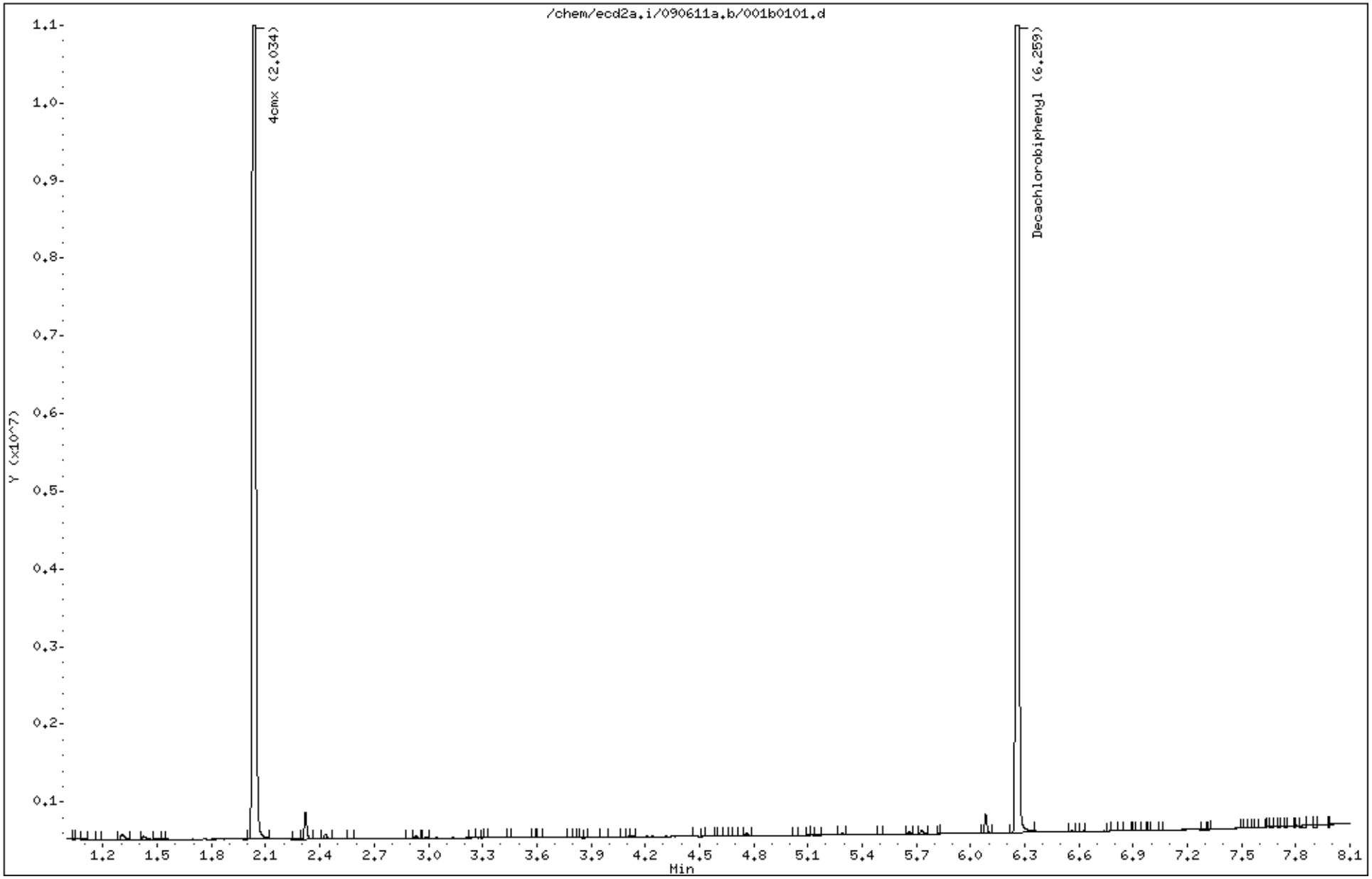
Instrument: ecd2a.i

Sample Info: IWAR110902-99 01

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/001f0101.d
Lab Smp Id: WAR110902-99 01 Client Smp ID: PIBLK01
Inj Date : 06-SEP-2011 12:19
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-99 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 06-Sep-2011 14:47 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.820	1.822	-0.002	9406502	162.050	162	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.686	5.689	-0.003	7958858	161.204	161	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/090611a.b/001f0101.d

Page 1

Date : 06-SEP-2011 12:19

Client ID: PIBLK01

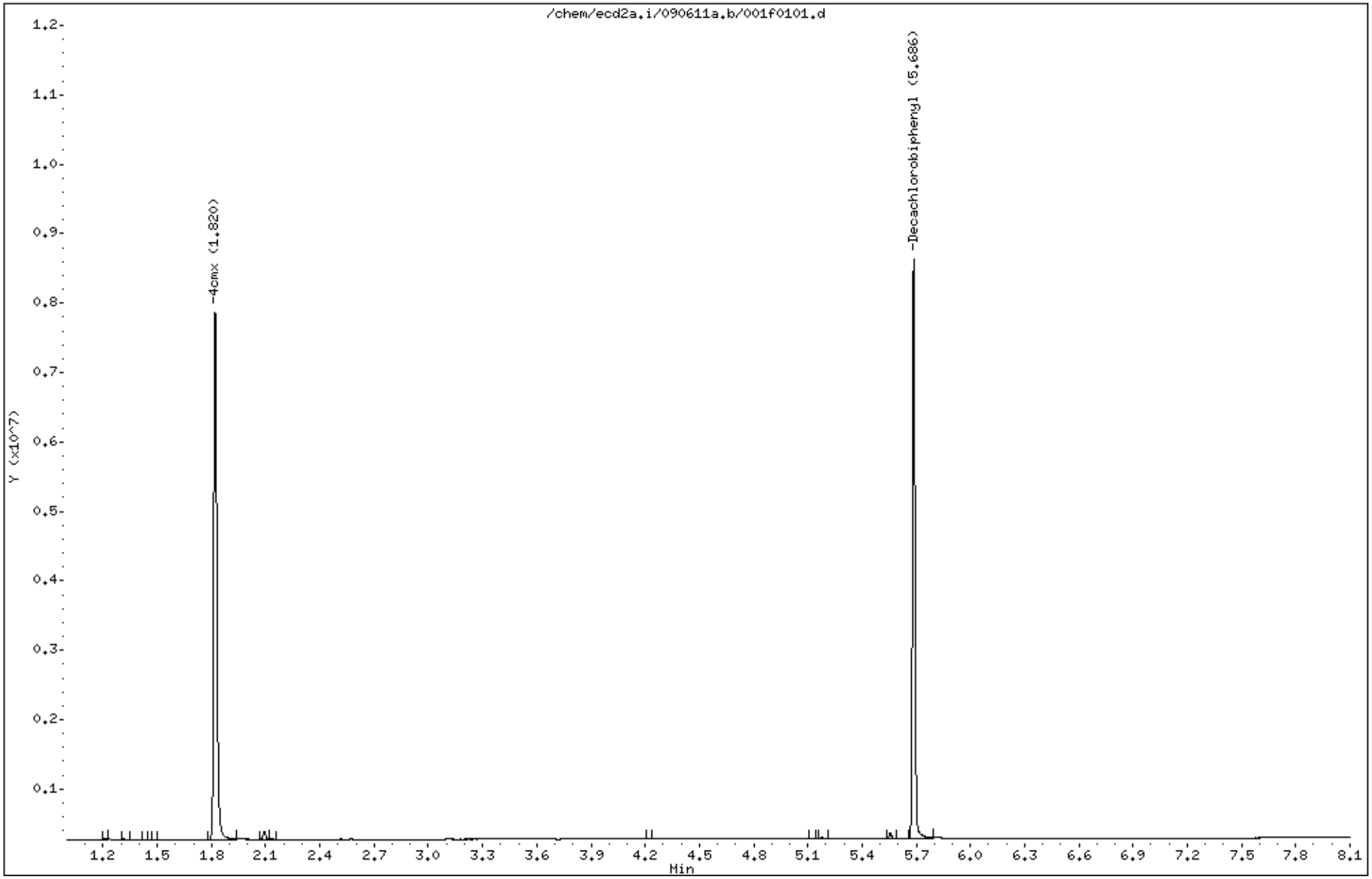
Instrument: ecd2a.i

Sample Info: IWAR110902-99 01

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/021b2101.d
Lab Smp Id: WAR110902-99 02 Client Smp ID: PIBLK02
Inj Date : 06-SEP-2011 16:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-99 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-B-8082-090611.m
Meth Date : 07-Sep-2011 08:37 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007b0701.d
Als bottle: 21 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.035	2.035	0.000	27227381	165.477	165	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.260	6.261	-0.001	26266644	162.160	162	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/090611a.b/021b2101.d

Page 1

Date : 06-SEP-2011 16:04

Client ID: PIBLK02

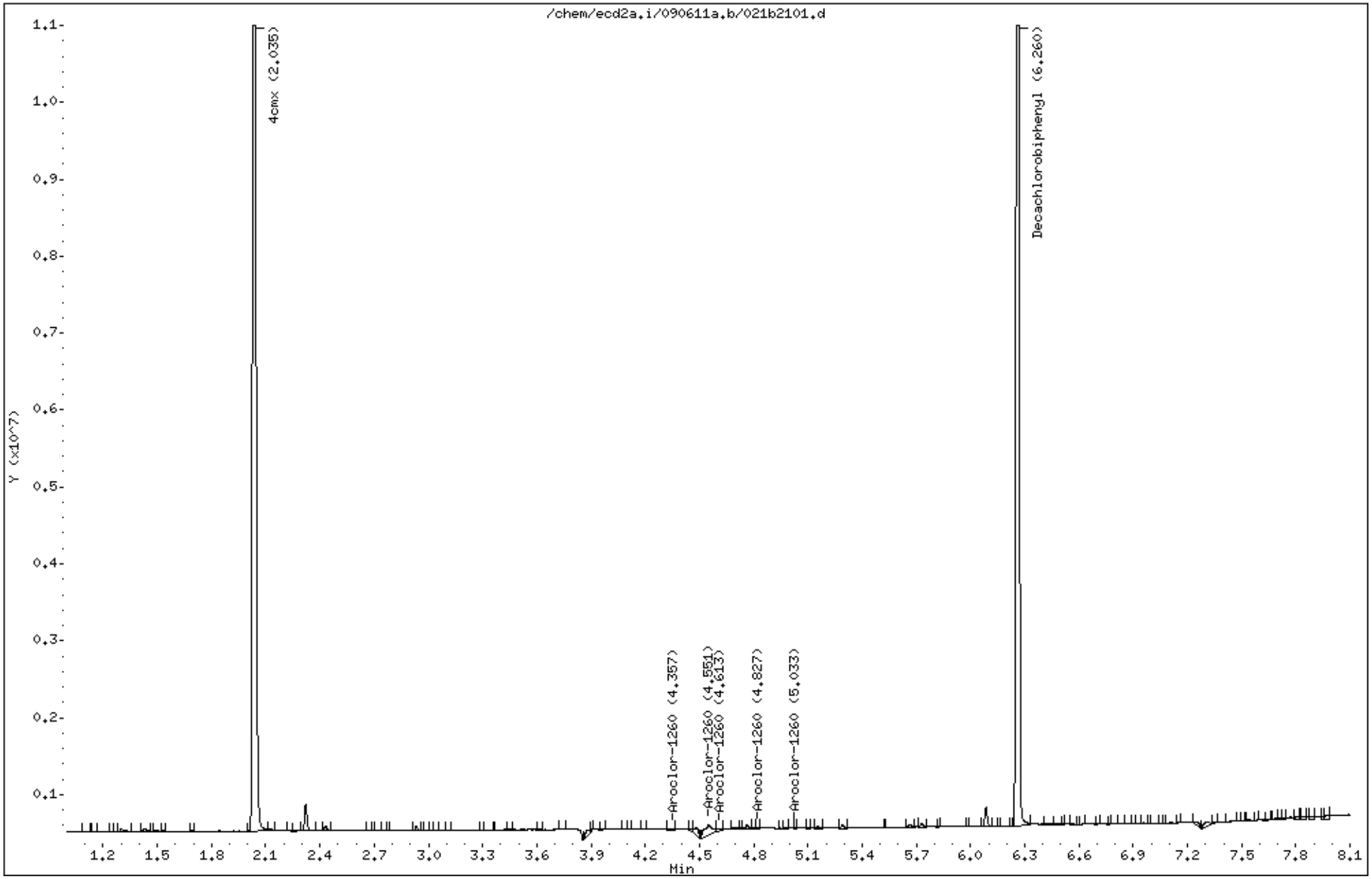
Instrument: ecd2a.i

Sample Info: IWAR110902-99 02

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/090611a.b/021f2101.d
Lab Smp Id: WAR110902-99 02 Client Smp ID: PIBLK02
Inj Date : 06-SEP-2011 16:04
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR110902-99 02
Misc Info :
Comment :
Method : /chem/ecd2a.i/090611a.b/ECD2-F-8082-090611.m
Meth Date : 07-Sep-2011 08:38 jen01212 Quant Type: ESTD
Cal Date : 02-SEP-2011 08:55 Cal File: 007f0701.d
Als bottle: 21 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.823	1.822	0.001	9651443	166.269	166	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.688	5.689	-0.001	8094873	163.959	164	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/090611a.b/021f2101.d

Page 1

Date : 06-SEP-2011 16:04

Client ID: PIBLK02

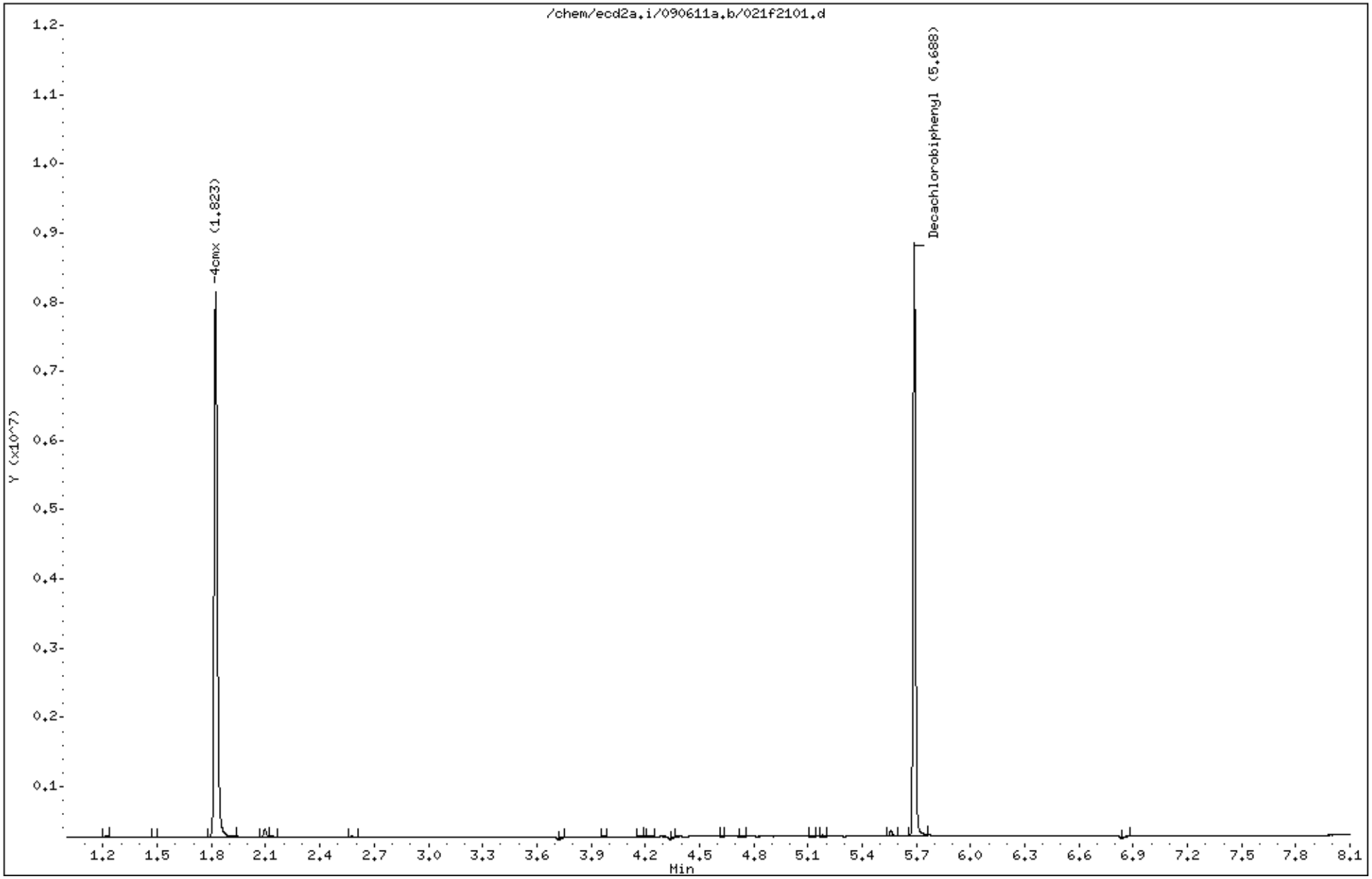
Instrument: ecd2a.i

Sample Info: IWAR110902-99 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25



General Chem Analysis

Case Narrative

General Chemistry Narrative
ARS International (ARSL)
SDG 11-3386

Method/Analysis Information

Product:	**n-Hexane Extractable Material**		
Analytical Batch:	1138662	**Method:**	EPA 1664A n-Hexane Extractable Material (Oil and G

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 1664A:

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
1202480116	Method Blank (MB)
1202480117	284370002(WST64-11-9766) Matrix Spike (MS)
1202480118	285124001(NPDES03A199-11-13860) Matrix Spike (MS)
1202480119	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-094 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Oil & Grease analysis was performed on a Sartorius Balance BAL745. Oil and Grease lab

Initial Calibration
All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
LCSD N/A

LCS/LCSD Relative Percent Difference (RPD) Statement
LCSD N/A

Quality Control (QC) Designation
The following samples were selected for QC analysis: 284370002 (WST64-11-9766) and 285124001 (NPDES03A199-11-13860).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
Per EPA methodology, the entire sample was used for the analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Less sample used due to limited sample volume for this test. 1202480117 (WST64-11-9766), 1202480118 (NPDES03A199-11-13860), 285124001 (NPDES03A199-11-13860) and 285124004 (NPDES03A113-11-13857).

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages

electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:**_____09Sep11_____

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3386 GEL Work Order: 285124

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 8, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL-WQH NPDES 03A

Client SDG: 11-3386

Client Sample ID:	NPDES03A199-11-13860	Project:	ESHL01310
Sample ID:	285124001	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	31-AUG-11 12:00		
Receive Date:	02-SEP-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Oil & Grease Analysis											
EPA 1664A n-Hexane Extractable Material (Oil and G "As Received"											
Oil and Grease	J	1.86	1.53	5.46	mg/L		JXT1	09/06/11	0713	1138662	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 1664A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 8, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL-WQH NPDES 03A

Client SDG: 11-3386

Client Sample ID:	NPDES03A113-11-13857	Project:	ESHL01310
Sample ID:	285124004	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	31-AUG-11 12:00		
Receive Date:	02-SEP-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Oil & Grease Analysis											
EPA 1664A n-Hexane Extractable Material (Oil and G "As Received"											
Oil and Grease	U	ND	1.49	5.32	mg/L		JXT1	09/06/11	0713	1138662	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 1664A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 8, 2011

Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **285124**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Oil & Grease Analysis											
Batch 1138662											
QC1202480119 LCS											
Oil and Grease	40.0				37.1	mg/L		92.8	(78%-114%)	JXT1	09/06/11 07:13
QC1202480116 MB											
Oil and Grease				U	ND	mg/L					09/06/11 07:13
QC1202480117 284370002 MS											
Oil and Grease	41.0	J	1.45		40.2	mg/L		94.5	(78%-114%)		09/06/11 07:13
QC1202480118 285124001 MS											
Oil and Grease	46.0	J	1.86		38.6	mg/L		80	(78%-114%)		09/06/11 07:13

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

QC Summary

Workorder: 285124

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

n-Hexane Extractable Material Raw Data

Oil & Grease / TPH LogBook

Batch: 1138662.0
Analyst: John Thomas
Procedure Code BALHEM_L
Procedure Description EPA 1664A n-Hexane Extractable Material (HEM)
Lab SOP :GL-GC-E-094

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202480119	WOG110906-01.3	40	92.75
MS	1202480117	WOG110906-01.1	41.02564	94.464
MS	1202480118	WOG110906-01.2	45.97701	79.959

Sample Type	Sample Id	Rpd(%)

Sample Identification	Run Date	Balance ID	Aliquot	Initial Holder Wt.	1st Final Holder Wt.	2nd Final Holder Wt.	3rd Final Holder Wt.	Result	Result Units
1202480116 MB	06-SEP-11 07:13	BAL745	1 L	2.5939	2.5946	2.5949	N/A	1	mg/L
1202480119 LCS	06-SEP-11 07:13	BAL745	1 L	2.5885	2.6257	2.6256	N/A	37.1	mg/L
284217013	06-SEP-11 07:13	BAL745	0.82 L	2.5975	2.5979	2.5984	N/A	1.09756	mg/L
284217014	06-SEP-11 07:13	BAL745	0.86 L	2.6126	2.6137	2.6135	N/A	1.04651	mg/L
284217015	06-SEP-11 07:13	BAL745	0.875 L	2.6056	2.6072	2.6074	N/A	2.05714	mg/L
284217016	06-SEP-11 07:13	BAL745	0.84 L	2.6117	2.6129	2.6133	N/A	1.90476	mg/L
284370002	06-SEP-11 07:13	BAL745	0.965 L	2.5989	2.5999	2.6003	N/A	1.45078	mg/L
1202480117 MS(284370002)	06-SEP-11 07:13	BAL745	0.975 L	2.5993	2.6381	2.6385	N/A	40.20513	mg/L
284623002	06-SEP-11 07:13	BAL745	1.255 L	2.6208	2.6233	2.6237	N/A	2.31076	mg/L
284676001	06-SEP-11 07:13	BAL745	1.13 L	2.6104	2.6652	2.6653	N/A	48.58407	mg/L
284683001	06-SEP-11 07:13	BAL745	1.26 L	2.6089	2.6261	2.626	N/A	13.57143	mg/L
284693001	06-SEP-11 07:13	BAL745	1.23 L	2.5958	2.5983	2.598	N/A	1.78862	mg/L
284794001	06-SEP-11 07:13	BAL745	1.25 L	2.5982	2.6001	2.5998	N/A	1.28	mg/L
284971004	06-SEP-11 07:13	BAL745	1.01 L	2.6094	2.6111	2.611	N/A	1.58416	mg/L
285124001	06-SEP-11 07:13	BAL745	0.915 L	2.6077	2.6091	2.6094	N/A	1.85792	mg/L
1202480118 MS(285124001)	06-SEP-11 07:13	BAL745	0.87 L	2.5988	2.6327	2.6324	N/A	38.62069	mg/L
285124004	06-SEP-11 07:13	BAL745	0.94 L	2.6127	2.6139	2.6138	N/A	1.17021	mg/L

All Weights are in Grams

Time in Desiccator: 06-SEP-11 11:05:00
Time out Desiccator: 06-SEP-11 13:33:07
Thermometer ID: 13704
Speedisk ID: 2089
Speed Vap Temperature: 40 C

Comments:

A) Result Liquid = ((Final - Initial) - Blank) / Aliquot * 1000
B) Result Hexane Liquid = (Final - Initial)/ Aliquot * 1000
C) Result Solid = ((Final - Initial) / Aliquot) / (1 - Moisture) * 1000
D) All samples were cooled in the desiccator for at least 30 minutes before they are weighed.
E) Note: Aliquot is used for the determination of the MDL and PQL in LIMS

Miscellaneous

There are no "Data Exception Reports" associated with this analytical report.

Radiological Analysis

Radiochemistry Case Narrative
ARS International (ARSL)
SDG 11-3386
Work Order 285124

Method/Analysis Information

Product:	**WSP-GrossA/B**
Analytical Method:	EPA 900.0/SW846 9310
Analytical Batch Number:	1138752

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
1202480298	Method Blank (MB)
1202480299	285124001(NPDES03A199-11-13860) Sample Duplicate (DUP)
1202480300	285124001(NPDES03A199-11-13860) Matrix Spike (MS)
1202480301	285124001(NPDES03A199-11-13860) Matrix Spike Duplicate (MSD)
1202480302	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2010. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202480298 (MB) and 1202480302 (LCS) were changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 285124001 (NPDES03A199-11-13860). The QC was from ARSL work order 285124.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202480302 (LCS) was recounted due to high recovery. The recount is reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The matrix spike and matrix spike duplicate, 1202480300 (NPDES03A199-11-13860) and 1202480301 (NPDES03A199-11-13860), aliquots were reduced to conserve sample volume.

Blank Decision Level
The blank result is less than the decision level.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Ra228**
Analytical Method:	EPA 904.0/SW846 9320 Modified
Analytical Batch Number:	1138818

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
1202480496	Method Blank (MB)
1202480497	285124004(NPDES03A113-11-13857) Sample Duplicate (DUP)
1202480498	285124004(NPDES03A113-11-13857) Matrix Spike (MS)
1202480499	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-009 REV# 16.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202480496 (MB) and 1202480499 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 285124004 (NPDES03A113-11-13857). The QC was from ARSL work order 285124.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202480496 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprecipitated due to low recovery. The reprecipitated count is being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The matrix spike, 1202480498 (NPDES03A113-11-13857), aliquot was reduced to conserve sample volume.

Blank Decision Level
The blank 1202480496 (MB) result is greater than the decision level but less than the MDC.

Qualifier Information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Ra226**
Analytical Method:	EPA 903.1 Modified
Analytical Batch Number:	1139043

Sample ID	Client ID
285124001	NPDES03A199-11-13860
285124004	NPDES03A113-11-13857
1202481136	Method Blank (MB)
1202481137	285124001(NPDES03A199-11-13860) Sample Duplicate (DUP)
1202481138	285124001(NPDES03A199-11-13860) Matrix Spike (MS)
1202481139	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in September 2010, November 2010, January 2011, April 2011 and June 2011.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202481136 (MB) and 1202481139 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 285124001 (NPDES03A199-11-13860). The QC was from ARSL work order 285124.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202481136 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202481136 (MB) result is greater than the decision level but less than the MDC.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3386 GEL Work Order: 285124

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: **Name: Kate Gellatly**

Date: 12 SEP 2011 **Title: Analyst I**

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 12, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 03A

Client Sample ID: NPDES03A199-11-13860
Sample ID: 285124001
Matrix: Waste Water
Collect Date: 31-AUG-11
Receive Date: 02-SEP-11
Collector: Client

Project: ESHL01310
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228	U	0.694	+/-0.279	0.869	+/-0.293	1.00	pCi/L		LXE3	09/10/11	1316	1138818	1
WSP-GrossA/B "As Received"													
Beta		7.25	+/-1.04	1.95	+/-1.20	3.00	pCi/L		DXF3	09/06/11	1608	1138752	2
Alpha		3.15	+/-1.11	2.35	+/-1.15	3.00	pCi/L		DXF3	09/06/11	2037	1138752	3
Rad Radium-226													
Ra226 "As Received"													
Radium-226		0.642	+/-0.143	0.223	+/-0.161	1.00	pCi/L		KSD1	09/12/11	1305	1139043	4

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 900.0/SW846 9310
3	EPA 900.0/SW846 9310
4	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1138818	57.2	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 12, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 03A

Client Sample ID: NPDES03A113-11-13857
Sample ID: 285124004
Matrix: Waste Water
Collect Date: 31-AUG-11
Receive Date: 02-SEP-11
Collector: Client

Project: ESHL01310
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
Ra228 "As Received"													
Radium-228		0.824	+/-0.226	0.612	+/-0.251	1.00	pCi/L		LXE3	09/10/11	1316	1138818	1
WSP-GrossA/B "As Received"													
Beta		5.91	+/-1.01	2.21	+/-1.12	3.00	pCi/L		DXF3	09/06/11	1608	1138752	2
Alpha	U	1.20	+/-0.730	2.25	+/-0.741	3.00	pCi/L		DXF3	09/06/11	2037	1138752	3
Rad Radium-226													
Ra226 "As Received"													
Radium-226	U	0.342	+/-0.126	0.352	+/-0.137	1.00	pCi/L		KSD1	09/12/11	1305	1139043	4

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	EPA 900.0/SW846 9310
3	EPA 900.0/SW846 9310
4	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	Ra228 "As Received"	1138818	57.0	(50%-105%)

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

Quality Control Data

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 12, 2011

Client : **Los Alamos National Laboratory**
TA-03, SM271, Drop Pt. 02U, Rm

Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **285124**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1138752										
QC1202480299 285124001 DUP										
Alpha		3.15		3.99	pCi/L	0.170		(0-1)	DXF3	09/06/1120:36
	Uncert:	+/-1.11		+/-1.27						
	TPU:	+/-1.15		+/-1.32						
Beta		7.25		6.24	pCi/L	0.214		(0-1)		09/06/1116:08
	Uncert:	+/-1.04		+/-1.03						
	TPU:	+/-1.20		+/-1.16						
QC1202480302 LCS										
Alpha	12.0			14.3	pCi/L		119	(80%-120%)		09/06/1121:42
	Uncert:			+/-0.706						
	TPU:			+/-1.66						
Beta	49.7			53.1	pCi/L		107	(80%-120%)		09/06/1116:52
	Uncert:			+/-0.910						
	TPU:			+/-4.51						
QC1202480298 MB										
Alpha			U	0.121	pCi/L					09/06/1120:37
	Uncert:			+/-0.0842						
	TPU:			+/-0.0851						
Beta			U	0.111	pCi/L					09/06/1116:38
	Uncert:			+/-0.098						
	TPU:			+/-0.0985						
QC1202480300 285124001 MS										
Alpha	241	3.15		199	pCi/L		81.3	(75%-125%)		09/06/1120:37
	Uncert:	+/-1.11		+/-12.8						
	TPU:	+/-1.15		+/-24.5						
Beta	995	7.25		1110	pCi/L		111	(75%-125%)		09/06/1116:52
	Uncert:	+/-1.04		+/-19.9						
	TPU:	+/-1.20		+/-94.4						
QC1202480301 285124001 MSD										
Alpha	241	3.15		197	pCi/L	0.0165	80.6	(0-1)		09/06/1120:37
	Uncert:	+/-1.11		+/-12.7						
	TPU:	+/-1.15		+/-24.4						
Beta	995	7.25		1170	pCi/L	0.136	116	(0-1)		09/06/1116:52
	Uncert:	+/-1.04		+/-20.4						
	TPU:	+/-1.20		+/-98.7						
Batch 1138818										
QC1202480497 285124004 DUP										
Radium-228		0.824	U	0.525	pCi/L	0.305		(0-1)	LXE3	09/10/1113:23
	Uncert:	+/-0.226		+/-0.229						
	TPU:	+/-0.251		+/-0.239						
	Yield:	57.0		85.4						
QC1202480499 LCS										
Radium-228	18.1			16.2	pCi/L		89.8	(80%-120%)		09/10/1113:48

QC Summary

Workorder: 285124

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1138818										
Uncert:				+/-0.705						
TPU:				+/-2.24						
Yield:				60.4						
QC1202480496 MB										
Radium-228			U	0.559	pCi/L					09/10/1113:16
Uncert:				+/-0.271						
TPU:				+/-0.280						
Yield:				53.0						
QC1202480498 285124004 MS										
Radium-228	90.6	0.824		80.2	pCi/L		87.6	(75%-125%)		09/10/1113:47
Uncert:		+/-0.226		+/-3.14						
TPU:		+/-0.251		+/-10.9						
Yield:		57.0		74.2						
Rad Ra-226										
Batch 1139043										
QC1202481137 285124001 DUP										
Radium-226		0.642	U	0.224	pCi/L	0.813		(0-1)	KSD1	09/12/1113:05
Uncert:		+/-0.143		+/-0.0897						
TPU:		+/-0.161		+/-0.0964						
QC1202481139 LCS										
Radium-226	12.4			11.7	pCi/L		94.6	(80%-120%)		
Uncert:				+/-0.405						
TPU:				+/-1.74						
QC1202481136 MB										
Radium-226			U	0.0807	pCi/L					
Uncert:				+/-0.0484						
TPU:				+/-0.0497						
QC1202481138 285124001 MS										
Radium-226	24.7	0.642		28.6	pCi/L		113	(75%-125%)		
Uncert:		+/-0.143		+/-0.973						
TPU:		+/-0.161		+/-4.84						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value

QC Summary

Workorder: **285124**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Gas Flow Raw Data

Batch# 1138752 Product: GAB Date: 9/7/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.	✓		
Samples have been blank corrected (if required). Blank correction reported included (if required).	✓		
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

Primary Review Performed By: KDatz 9/7/11

Secondary Review Performed By: [signature]

ARSL
Fax 9/8

Gross Alpha Beta Queue Sheet

~~Fax~~ 9-8-11 09/06/2011 09:25:41

Batch #:1138752 **Analyst:**DXF3 **First Client DueDate** 09/13/2011 **Internal Due Date**09/05/2011

Alpha Spike Isotope: Th-230 **Spike Code:** 1242-D **Vol:** 0.1 **Balance #:** 17955160
Beta Spike Isotope: Sr-90 **Spike Code:** 1243-F **Vol:** 0.1 **Pipette #:** 1795419
Alpha LCS Isotope: Th-230 **LCS Code:** 1242-D **Vol:** 0.1 **Prep Date:** 9-6-11
Beta LCS Isotope: Sr-90 **LCS Code:** 1243-F **Vol:** 0.1 **Initials:** BF recopied 8MS 9/6/11

Analytical Scale #1113092273 **Witness:** JLR 9-6-11 recopied 8MS

10% HNO3: 1000225
Conc HNO3: 1602542.12
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
285124001-1	NPDES03A199-11-13860	SAMPLE		3 pCi/L	ARSL001	WASTE WATER	1	150	9A	7.5370	7.5833	46.3
285124004-1	NPDES03A113-11-13857	SAMPLE		3 pCi/L	ARSL001	WASTE WATER	2	150	10B	~~7.6~~ 7.5750 8MS 9/6/11	7.6055	~~54.8~~ 30.5
1202480298-1	MB	MB		3 pCi/L	QC ACCOUNT	WASTE WATER	3	1000	10C	7.5985	7.5994	0.9
1202480299-1	DUP NPDES03A199-11-13860(285124001)	DUP		3 pCi/L	QC ACCOUNT	WASTE WATER	4	150	2B	7.5763	7.6234	47.1
1202480300-1	MS NPDES03A199-11-13860(285124001)	MS		3 pCi/L	QC ACCOUNT	WASTE WATER	5	50	9C	7.5770	7.5931	16.1
1202480301-1	MSD NPDES03A199-11-13860(285124001)	MSD		3 pCi/L	QC ACCOUNT	WASTE WATER	6	50	9D	7.5713	7.5884	17.1
1202480302-1	LCS	LCS		3 pCi/L	QC ACCOUNT	WASTE WATER	7	1000	~~5D~~ 9C 9/7/11	7.5910	7.5932	2.2

✓ wts - ✓ daitres

Have the planchets been flamed? Yes / No

Data Reviewed By: [illegible] 9/7/11

Gross Alpha Beta Queue Sheet

Fax 9-8-11 09/06/2011 09:25:41

Batch #:1138752 **Analyst:**DXF3 **First Client DueDate** 09/13/2011 **Internal Due Date** 09/05/2011

Alpha Spike Isotope: Th-230 **Spike Code:** 1242-D **Vol:** 0.1 **Balance #:** 17955160
Beta Spike Isotope: Sr-90 **Spike Code:** 1243-F **Vol:** 0.1 **Pipette #:** 17954119
Alpha LCS Isotope: Th-230 **LCS Code:** 1242-D **Vol:** 0.1 **Prep Date:** 9-6-11
Beta LCS Isotope: Sr-90 **LCS Code:** 1243-F **Vol:** 0.1 **Initials:** BF

Analytical Scale # 1113092223
Witness: JLR 9-6-11

10% HNO3: 1100225
Conc HNO3: 1100542.12
Conc HCl: –
Conc HF: –
Conc Boric: –

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
285124001-1	NPDES03A199-11-13860	SAMPLE		3 pCi/L	ARSL001	WASTE WATER	1	150	1C	7.5370	7.6130	76.0
285124004-1	NPDES03A113-11-13857	SAMPLE		3 pCi/L	ARSL001	WASTE WATER	2	150	2C	7.5750	7.6329	57.9
1202480298-1	MB	MB		3 pCi/L	QC ACCOUNT	WASTE WATER	3	1000	7A	7.5985	7.5984	0
1202480299-1	DUP NPDES03A199-11-13860(285124001)	DUP		3 pCi/L	QC ACCOUNT	WASTE WATER	4	150	4B	7.5763	7.6627	86.4
1202480300-1	MS NPDES03A199-11-13860(285124001)	MS		3 pCi/L	QC ACCOUNT	WASTE WATER	5	50	7C	7.5770	7.6075	30.5
1202480301-1	MSD NPDES03A199-11-13860(285124001)	MSD		3 pCi/L	QC ACCOUNT	WASTE WATER	6	50	8A	7.5713	7.6019	30.6
1202480302-1	LCS	LCS		3 pCi/L	QC ACCOUNT	WASTE WATER	7	1000	8C	7.5910	7.5912	0.2

✓ WB.

Have the planchets been flamed? Yes / No

Data Reviewed By: [signature] 9/1/11

Blank Correction Report

Batch ID 1138752

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202480299	DUP	ALPHA	0.150 L	3.99	1.32	2.50	.806666667	pCi/L	YES
		BETA	0.150 L	6.24	1.16	2.14	.74	pCi/L	NO
1202480302	LCS	ALPHA	1.00 L	14.3	1.66	0.285	.121	pCi/L	NO
		BETA	1.00 L	53.1	4.51	0.314	.111	pCi/L	NO
1202480298	MB	ALPHA	1.00 L	0.121	0.0851	0.280	.121	pCi/L	YES
		BETA	1.00 L	0.111	0.0985	0.337	.111	pCi/L	YES
1202480300	MS	ALPHA	0.050 L	199	24.5	6.67	2.42	pCi/L	NO
		BETA	0.050 L	1110	94.4	6.73	2.22	pCi/L	NO
1202480301	MSD	ALPHA	0.050 L	197	24.4	6.24	2.42	pCi/L	NO
		BETA	0.050 L	1170	98.7	7.85	2.22	pCi/L	NO
285124001	NPDES03A199-11-13860	ALPHA	0.150 L	3.15	1.15	2.35	.806666667	pCi/L	YES
		BETA	0.150 L	7.25	1.20	1.95	.74	pCi/L	NO
285124004	NPDES03A113-11-13857	ALPHA	0.150 L	1.20	0.741	2.25	.806666667	pCi/L	YES
		BETA	0.150 L	5.91	1.12	2.21	.74	pCi/L	NO

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3.7

Batch : 1138752
Analyst : DXF3
Prep Date : 9/6/2011

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-D
Spike Exp Date : 7/5/2012
Spike Activity (dpm/ml): 267.22
Spike Volume Added: 0.10
Spike Nuclide: Th-230

LCS S/N : 1242-D
LCS Exp Date : 7/5/2012
LCS Activity (dpm/ml): 267.22
LCS Volume Added: 0.10
LCS Nuclide: Th-230

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	285124001.2	0.1500	46.3	1.4035E-05	8/31/2011 12:00	9A	60	11	139	9/6/2011 20:37
2	285124004.2	0.1500	30.5	1.4035E-05	8/31/2011 12:00	10B	60	6	78	9/6/2011 20:37
3	1202480298.2	1.0000	0.9	2.0399E-05	9/6/2011 0:00	10C	60	6	29	9/6/2011 20:37
4	1202480299.2	0.1500	47.1	1.4035E-05	8/31/2011 12:00	2B	60	13	202	9/6/2011 20:36
5	1202480300.2	0.0500	16.1	7.8337E-06	8/31/2011 12:00	9C	60	250	3324	9/6/2011 20:37
6	1202480301.2	0.0500	17.1	7.8337E-06	8/31/2011 12:00	9D	60	249	2908	9/6/2011 20:37
7	1202480302.2	1.0000	2.2	2.0399E-05	9/6/2011 0:00	9C	60	417	3540	9/6/2011 21:42

Analytical SOP: GL-RAD-A-001
Instrument SOP: GL-RAD-I-016

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	CPM	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	PIC	8/1/2010	9/15/2011	Th230	0.1508	0.06392	0.00047	0.024	9/4/2011 14:51	1000
2	PIC	8/1/2010	9/15/2011	Th230	0.1694	0.06392	0.00098	0.031	9/4/2011 14:51	1000
3	PIC	8/1/2010	9/15/2011	Th230	0.2211	0.06392	0.00083	0.040	9/4/2011 14:51	1000
4	PIC	8/1/2010	9/15/2011	Th230	0.1429	0.03211	0.00051	0.025	9/4/2011 14:51	1000
5	PIC	8/1/2010	9/15/2011	Th230	0.1857	0.06392	0.00051	0.040	9/4/2011 14:51	1000
6	PIC	8/1/2010	9/15/2011	Th230	0.1868	0.06392	0.00058	0.033	9/4/2011 14:51	1000
7	PIC	8/1/2010	9/15/2011	Th230	0.2171	0.06392	0.00051	0.040	9/4/2011 14:51	1000

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Alpha Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.9555	0.6746	3	2.3451	**3.1517**	0.3541	0.1593	0.0555	1.1052	1.1541		SAMPLE				
2	0.9665	0.6823	3	2.2509	**1.2003**	0.6006	0.0690	0.0412	0.7303	0.7414		SAMPLE				
3	0.1262	0.0891	3	0.2801	**0.1214**	0.6915	0.0600	0.0413	0.0842	0.0851		MB				
4	1.0288	0.7263	3	2.5032	**3.9909**	0.3162	0.1917	0.0603	1.2669	1.3165	285124001.2	DUP	23.5%	0.1698		
5	3.0047	2.1213	3	6.6682	**198.8277**	0.0904	4.1267	0.2636	12.7873	24.5496	285124001.2	MS			240.7418	81.3%
6	2.7135	1.9157	3	6.2431	**197.2104**	0.0904	4.1170	0.2631	12.6879	24.3535	285124001.2	MSD	0.8%	0.0165	240.7418	80.6%
7	0.1285	0.0907	3	0.2852	**14.2733**	0.0807	6.9100	0.3404	0.7062	1.6585		LCS			12.0371	118.6%

1138752r1

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
285124001	9A	60	11	139	9/6/2011 20:37	9/6/2011 21:37	PIC	1138752
285124004	10B	60	6	78	9/6/2011 20:37	9/6/2011 21:37	PIC	1138752
1202480298	10C	60	6	29	9/6/2011 20:37	9/6/2011 21:37	PIC	1138752
1202480299	2B	60	13	202	9/6/2011 20:36	9/6/2011 21:36	PIC	1138752
1202480300	9C	60	250	3324	9/6/2011 20:37	9/6/2011 21:37	PIC	1138752
1202480301	9D	60	249	2908	9/6/2011 20:37	9/6/2011 21:37	PIC	1138752
1202480302	9C	60	417	3540	9/6/2011 21:42	9/6/2011 22:42	PIC	1138752

B1138752

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3.7

Batch : 1138752
Analyst : DXF3
Prep Date : 9/6/2011

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1243-F
Spike Exp Date : 7/5/2012
Spike Activity (dpm/ml): 552.03
Spike Volume Added: 0.10
Spike Nuclide: Sr-90

LCS S/N : 1243-F
LCS Exp Date : 7/5/2012
LCS Activity (dpm/ml): 552.03
LCS Volume Added: 0.10
LCS Nuclide: Sr-90

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	285124001.1	0.1500	76	1.4035E-05	8/31/2011 12:00	4C	60	6	79	9/6/2011 16:08
2	285124004.1	0.1500	57.9	1.4035E-05	8/31/2011 12:00	2C	60	13	73	9/6/2011 16:08
3	1202480298.1	1.0000	0	2.0399E-05	9/6/2011 0:00	7A	60	9	37	9/6/2011 16:38
4	1202480299.1	0.1500	86.4	1.4035E-05	8/31/2011 12:00	4B	60	8	74	9/6/2011 16:08
5	1202480300.1	0.0500	30.5	7.8337E-06	8/31/2011 12:00	7C	60	209	3213	9/6/2011 16:52
6	1202480301.1	0.0500	30.6	7.8337E-06	8/31/2011 12:00	8A	60	235	3369	9/6/2011 16:52
7	1202480302.1	1.0000	0.2	2.0399E-05	9/6/2011 0:00	8C	60	478	3521	9/6/2011 16:52

Analytical SOP: GL-RAD-A-001
Instrument SOP: GL-RAD-I-016

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	PIC	8/1/2010	9/15/2011	Sr90	0.4291	0.00426	0.05620	0.275	9/4/2011 14:53	1000
2	PIC	8/1/2010	9/15/2011	Sr90	0.4272	0.00575	0.04229	0.367	9/4/2011 14:51	1000
3	PIC	8/1/2010	9/15/2011	Sr90	0.4770	0.00816	0.04998	0.492	9/4/2011 14:51	1000
4	PIC	8/1/2010	9/15/2011	Sr90	0.4221	0.00196	0.19266	0.330	9/4/2011 14:53	1000
5	PIC	8/1/2010	9/15/2011	Sr90	0.4283	0.00816	0.07420	0.381	9/4/2011 14:51	1000
6	PIC	8/1/2010	9/15/2011	Sr90	0.4281	0.00816	0.05843	0.545	9/4/2011 14:51	1000
7	PIC	8/1/2010	9/15/2011	Sr90	0.4894	0.00816	0.06210	0.445	9/4/2011 14:51	1000

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.1366	0.8025	3	1.9549	**7.2511**	0.1432	1.0417	0.1491	1.0433	1.2032		SAMPLE				
2	1.3188	0.9311	3	2.2136	**5.9082**	0.1692	0.8497	0.1437	1.0100	1.1233		SAMPLE				
3	0.2051	0.1448	3	0.3369	**0.1106**	0.8325	0.1247	0.1038	0.0980	0.0985		MB				
4	1.2657	0.8936	3	2.1429	**6.2438**	0.1600	0.9033	0.1445	1.0281	1.1557	285124001.1	DUP	14.9%	0.2135		
5	4.0212	2.8390	3	6.7297	**1113.0062**	0.0196	53.1690	0.9449	19.8771	94.3931	285124001.1	MS			994.6549	111.2%
6	4.8116	3.3970	3	7.8463	**1165.4101**	0.0192	55.6050	0.9677	20.3649	98.6733	285124001.1	MSD	4.6%	0.1357	994.6549	116.4%
7	0.1901	0.1342	3	0.3145	**53.1447**	0.0188	58.2383	0.9892	0.9104	4.5150		LCS			49.7327	106.9%

1138752

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
285124001	4C	60	6	79	9/6/2011 16:08	9/6/2011 17:08	PIC	1138752
285124004	2C	60	13	73	9/6/2011 16:08	9/6/2011 17:08	PIC	1138752
1202480298	7A	60	9	37	9/6/2011 16:38	9/6/2011 17:38	PIC	1138752
1202480299	4B	60	8	74	9/6/2011 16:08	9/6/2011 17:08	PIC	1138752
1202480300	7C	60	209	3213	9/6/2011 16:52	9/6/2011 17:52	PIC	1138752
1202480301	8A	60	235	3369	9/6/2011 16:52	9/6/2011 17:52	PIC	1138752
1202480302	8C	60	478	3521	9/6/2011 16:52	9/6/2011 17:52	PIC	1138752

Radiochemistry Batch Checklist

12-Sep-2011

Batch# 1138814 Product: Ra-228 Date: 9/12/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required). Blank correction reported included (if required).	✓		
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

Primary Review Performed By: [signature] 9/12/11

Secondary Review Performed By: [signature]

ARSL
9/13

Radium-228 Queue Sheet

9/12
Fax ~~9-8~~ 9/9/11

09/06/2011

Batch #: 1138818 Analyst:LXE3 First Client Due Date:09/13/2011 Internal Due Date:09/06/2011

Spike Isotope: Radium-228 Spike Code: 1519-A Expiration Date: 5·26·12 Vol: 0.2 Ac-228 Ingrow: 1509 / 9-7-11

LCS Isotope: Radium-228 LCS Code: 1519-A Expiration Date: 5·26·12 Vol: 0.2

Tracer Isotope: Barium-133 Tracer Code: 0112-K Expiration Date: 1·7·12 Vol: 0.1 Ac-228 Separation Date/Time: 9-9-11 / 726

Prep Date: 9·6·11 Initials: ZEL Pipet ID: 1607295 Balance ID: 51204843 Witness: JMS 9/6/11

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collect Date & Time	Pos. #	Vol (mL)	Det #	Ba Yield (%)	Gamma Det. #
285124001-1	NPDES03A199-11-13860	SAMPLE		1 pCi/L	WASTE WATE	ARSL001	31-AUG-11 12:00 PM	1	900	1A	88.10	
285124004-1	NPDES03A113-11-13857	SAMPLE		1 pCi/L	WASTE WATE	ARSL001	31-AUG-11 12:00 PM	2	900	1B	86.19	
1202480496-1	MB for batch 1138818	MB		1 pCi/L	WASTE WATE	QC ACCOUNT		3	1000	2B	91.43	
1202480497-1	NPDES03A113-11-13857(285124	DUP		1 pCi/L	WASTE WATE	QC ACCOUNT	31-AUG-11 12:00 PM	4	900	3B	89.73	
1202480498-1	NPDES03A113-11-13857(285124	MS		1 pCi/L	WASTE WATE	QC ACCOUNT	31-AUG-11 12:00 PM	5	200	3D	92.23	
1202480499-1	LCS for batch 1138818	LCS		1 pCi/L	WASTE WATE	QC ACCOUNT		6	1000	4B	90.18	

NO 9/12/11

✓ dailies

Data Reviewed By: KDst 9/12/11

Radium 228 Re-Elute / Reprecipitate

Batch #: 1138818
Ra 228 Spike Code 1519-A
LCS Code 1519-A
Ba-133 Tracer Code 0112-K

Prep Date 9-6-11
Spike Vol (mls) 0.2
LCS Vol (mls) 0.2
Tracer Vol (mls) 0.1

Initials LEE

Ingrow Start Time: 9-9-11 / 9.52
Seperation Time: 9-10-11 / 1115

Sample ID	Bkr #	Vol. (mls)	Det #	% Yield	Gamma Det #	
285124001	1	900	2B	57.17		
285124004	2	900	7B	56.99		
1202480496	3	1000	5D	52.98		
1202480497	4	900	12B	85.41		
1202480498	5	200	9A	74.24		
1202480499	6	1000	Rec'd 9/10/11 ~~9D~~ 9D	60.44		

9/12/11

Blank Correction Report

Batch ID 1138818

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202480497	DUP	Radium-228	0.900 L	0.525	0.239	0.732	.621111111	pCi/L	YES
1202480499	LCS	Radium-228	1.00 L	16.2	2.24	0.611	.559	pCi/L	NO
1202480496	MB	Radium-228	1.00 L	0.559	0.280	0.870	.559	pCi/L	YES
1202480498	MS	Radium-228	0.200 L	80.2	10.9	2.35	2.795	pCi/L	NO
285124001	NPDES03A199-11-13860	Radium-228	0.900 L	0.694	0.293	0.869	.621111111	pCi/L	YES
285124004	NPDES03A113-11-13857	Radium-228	0.900 L	0.824	0.251	0.612	.621111111	pCi/L	YES

Radium-228 Liquid

Filename : RA228.XLS
File type : Excel
Version # : 1.3.7

Batch : 1138818
Analyst : LXE3
Prep Date : 9/6/2011

Ra-228 Abundance : 1
Ra-228 Method Uncertainty : 0.1268

Geometry: CeF on 25mm Filter

Spike S/N : 1519-A
Spike Exp Date : 5/26/2012
Spike Activity (dpm/ml): 200.77
Spike Volume Added: 0.20

LCS S/N : 1519-A
LCS Exp Date : 5/26/2012
LCS Activity (dpm/ml): 200.77
LCS Volume Added: 0.20

Tracer S/N : 0112-K
Tracer Exp Date : 1/7/2012
Tracer Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFC28RAL
Parmname : Radium-228
Required MDC : 1 pCi/L
Halflife of Ra-228 : 5.75 years
Halflife of Ac-228 : 6.15 hours

Sample Characteristics					Tracer Calculations					
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Tracer Concentration (cpm) (Ba-133 Ref.)	Tracer Ref. Count Uncertainty (cpm)	Tracer Concentration (cpm) (Ba-133 Samp.)	Tracer Samp. Count Uncertainty (cpm)	Tracer Aliquot (mL)	Tracer Aliquot StDev. (mL)
1	285124001.1	0.9000	2.0768E-05	8/31/2011 12:00	274.8	3.73%	157.1	5.15%	0.1	0.000701
2	285124004.1	0.9000	2.0768E-05	8/31/2011 12:00	274.8	3.73%	156.6	5.16%	0.1	0.000701
3	1202480496.1	1.0000	2.0399E-05	9/6/2011 0:00	274.8	3.73%	145.6	5.39%	0.1	0.000701
4	1202480497.1	0.9000	2.0768E-05	8/31/2011 12:00	274.8	3.73%	234.7	4.07%	0.1	0.000701
5	1202480498.1	0.2000	1.6007E-05	8/31/2011 12:00	274.8	3.73%	204.0	4.42%	0.1	0.000701
6	1202480499.1	1.0000	2.0399E-05	9/6/2011 0:00	274.8	3.73%	166.1	4.99%	0.1	0.000701

Analytical SOP: GL-RAD-A-009
Instrument SOP: GL-RAD-I-016

Count raw Data													Calibration Data							
Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Beta cpm	Count Start Date/Time	Separation Date/Time	Ra-228 Decay	Ac-228 Decay	Ac-228 Count Correction	Calculated Sample Recovery %	Sample Recovery Error %	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	cpm	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	2B	60	2	71	1.183	9/10/2011 13:16	9/10/2011 11:15	0.997	0.796	1.057	57.2%	3.33%	PIC	8/1/2010	9/15/2011	0.6003	0.00383	0.826	9/4/2011 14:51	1000
2	7B	60	11	47	0.783	9/10/2011 13:16	9/10/2011 11:15	0.997	0.796	1.057	57.0%	3.33%	PIC	8/1/2010	9/15/2011	0.5986	0.00816	0.362	9/4/2011 14:51	1000
3	5D	60	9	72	1.200	9/10/2011 13:16	9/10/2011 11:15	0.998	0.796	1.057	53.0%	3.42%	PIC	8/1/2010	9/15/2011	0.6041	0.00816	0.901	9/4/2011 14:51	1000
4	12B	60	14	108	1.800	9/10/2011 13:23	9/10/2011 11:15	0.997	0.786	1.057	85.4%	2.93%	PIC	8/1/2010	9/15/2011	0.6123	0.00816	1.394	9/4/2011 14:59	1000
5	9A	60	4	705	11.750	9/10/2011 13:47	9/10/2011 11:15	0.997	0.750	1.057	74.2%	3.06%	PIC	8/1/2010	9/15/2011	0.6061	0.00816	0.418	9/4/2011 14:51	1000
6	9D	60	5	588	9.800	9/10/2011 13:48	9/10/2011 11:15	0.998	0.750	1.057	60.4%	3.27%	PIC	8/1/2010	9/15/2011	0.6043	0.00816	0.473	9/4/2011 14:51	1000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.5469	0.3861	1	0.8694	**0.6943**	0.4026	0.3573	0.1433	0.2785	0.2930		SAMPLE				
2	0.3643	0.2572	1	0.6122	**0.8238**	0.2771	0.4213	0.1158	0.2265	0.2510		SAMPLE				
3	0.5500	0.3883	1	0.8702	**0.5595**	0.4848	0.2990	0.1446	0.2705	0.2803		MB				
4	0.4726	0.3337	1	0.7320	**0.5248**	0.4375	0.4060	0.1772	0.2290	0.2390	285124004.1	DUP	44.3%	0.3051		
5	1.4171	1.0005	1	2.3549	**80.2024**	0.0503	11.3320	0.4430	3.1354	10.9404	285124004.1	MS			90.6025	87.6%
6	0.3708	0.2618	1	0.6107	**16.2382**	0.0549	9.3270	0.4047	0.7046	2.2440		LCS			18.0876	89.8%

1138818rp

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
285124001	2B	60	2	71	9/10/2011 13:16	9/10/2011 14:16	PIC	1138818
285124004	7B	60	11	47	9/10/2011 13:16	9/10/2011 14:16	PIC	1138818
1202480496	5D	60	9	72	9/10/2011 13:16	9/10/2011 14:16	PIC	1138818
1202480497	12B	60	14	108	9/10/2011 13:23	9/10/2011 14:23	PIC	1138818
1202480498	9A	60	4	705	9/10/2011 13:47	9/10/2011 14:47	PIC	1138818
1202480499	9D	60	5	588	9/10/2011 13:48	9/10/2011 14:48	PIC	1138818

ASSAY 10-Sep-11 8:52:35

Protocol	id	9	228_REC2
Time	limit	180	
Count	limit	50000	
Isotope	Ba-133		
Protocol	date	9-Apr-07	10:02:22
Run	id.	14	

POS	RACK	BATCH	TIME	COUNTS	CPM	ERROR	% RECOVERY	COUNT TIME
1	87	1	180	915	274.8	3.73		08:52:43
2	87	2	180	562	157.1	5.15	57.17	08:55:54
3	87	3	180	561	156.6	5.16	56.99	08:59:05
4	87	4	180	528	145.6	5.39	52.98	09:02:17
5	87	5	180	795	234.7	4.07	85.41	09:05:28
6	77	6	180	703	204	4.42	74.24	09:08:53
7	77	7	180	589	166.1	4.99	60.44	09:12:04

END OF ASSAY

Lucas Cell Raw Data

Radiochemistry Batch Checklist

12-Sep-2011

Batch# 1139043 Product: Ra-226 Date: 9/12/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.			NA
Samples have been blank corrected (if required). Blank correction reported included (if required).			NA
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 9/12/11

ATRSL 9/13/11
FAX 9/12/11

Radium-226 Queue Sheet

06-SEP-11 fax due: 9/12/11

GEL Laboratories, Radiochemistry Division

Batch #: 1139043 **Analyst:** KSD1 **First Client Due Date:** 09/13/2011 **Internal Due Date:** 09/06/2011

Spike Isotope: Radium-226 **Spike Code:** D6238J **Expiration Date:** 9/14/11 **Vol:** 0.1 **End Initial/Degas Date/Time:** 9/7/11 1600

LCS Isotope: Radium-226 **LCS Code:** D6238J **Expiration Date:** 9/14/11 **Vol:** 0.1 **End LN De-em Date:** 9/12/11

Bkg Count Time: 30 (Min) **Sample Count Time:** 30 (Min) **Start Count Date:** 9/12/11

Prep Date: 9/7/11 **Pipet ID:** 2766953 **Balance ID:** 3608000009 **Initials:** LO **Witness:** DHF 9/7/11

Sample I	Client Description	Type	Hazard Code	Matrix	Min CRDL	Client	Position (Label)	Aliquot (mL or g)	End LN De-em Time	Start Count Time	Cell #	Det #	Bkg counts	Total Counts
285124001-1	NPDES03A199-11-13860	SAMPLE		WASTE WATE	1 pCi/L	ARSL001	1	500	0955	1305	111	1	1	23
285124004-1	NPDES03A113-11-13857	SAMPLE		WASTE WATE	1 pCi/L	ARSL001	2	500	0955	1305	212	2	5	18
1202481136-1	MB for batch 1139043	MB		WASTE WATE	1 pCi/L	QC ACCOUNT	3	~~500~~ 1000	0955	1305	405	4	2	7
1202481137-1	NPDES03A199-11-13860(285124001	DUP		WASTE WATE	1 pCi/L	QC ACCOUNT	4	500	0955	1305	501	5	2	11
1202481138-1	NPDES03A199-11-13860(285124001	MS		WASTE WATE	1 pCi/L	QC ACCOUNT	5	500	0955	1305	608	6	2	872
1202481139-1	LCS for batch 1139043	LCS		WASTE WATE	1 pCi/L	QC ACCOUNT	6	~~500~~ 1000	0955	1305	705	7	8	859

#9/12/11

JP 9/12/11

Comments:

Data Reviewed By: Lynndsey Pace 9/12/11

Blank Correction Report

Batch ID 1139043

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202481137	DUP	Radium-226	0.500 L	0.224	0.0964	0.238	.1614	pCi/L	YES
1202481139	LCS	Radium-226	1.00 L	11.7	1.74	0.222	.0807	pCi/L	NO
1202481136	MB	Radium-226	1.00 L	0.0807	0.0497	0.155	.0807	pCi/L	YES
1202481138	MS	Radium-226	0.500 L	28.6	4.84	0.315	.1614	pCi/L	NO
285124001	NPDES03A199-11-13860	Radium-226	0.500 L	0.642	0.161	0.223	.1614	pCi/L	YES
285124004	NPDES03A113-11-13857	Radium-226	0.500 L	0.342	0.137	0.352	.1614	pCi/L	YES

Radium-226 Liquid

Filename : RA226.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 0638-J
Spike Exp Date : 9/14/2011
Spike Activity (dpm/ml): 274.32
Spike Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Batch : 1139043
Analyst : KSD1
Prep Date : 9/7/2011
Ra-226 Abundance : 1
Ra-226 Method Uncertainty : 0.0918

LCS S/N : 0638-J
LCS Exp Date : 9/14/2011
LCS Activity (dpm/ml): 274.32
LCS Volume Added: 0.10

Procedure Code : LUC26RAL
Parmname : Radium-226
Required MDC : 1 pCi/L
Halflife of Ra-226 : 1600 years
Halflife of Rn-222: 3.8235 days
Batch counted on : LUCAS CELL DETECTOR
BKG Count time : 30 min

Sample Characteristics					Count Raw Data					Background		
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Cell Number	Counting Time (min.)	Gross Counts	Gross CPM	Counts	CPM	Count Time (min.)	Detector Efficiency (cpm/dpm)
1	285124001.1	0.5000	2.0256E-05	8/31/2011 12:00	111	30	23	0.767	1	0.033	30	1.8230
2	285124004.1	0.5000	2.0256E-05	8/31/2011 12:00	212	30	18	0.600	5	0.167	30	2.0240
3	1202481136.1	1.0000	2.0399E-05	9/7/2011 0:00	405	30	7	0.233	2	0.067	30	1.6490
4	1202481137.1	0.5000	2.0256E-05	8/31/2011 12:00	501	30	11	0.367	2	0.067	30	2.1380
5	1202481138.1	0.5000	2.0256E-05	8/31/2011 12:00	608	30	872	29.067	2	0.067	30	1.6170
6	1202481139.1	1.0000	2.0399E-05	9/7/2011 0:00	705	30	859	28.633	8	0.267	30	1.9360

Analytical SOP: GL-RAD-A-008
Instrument SOP: GL-RAD-I-007

Detector Efficiency Error (cpm/dpm)	Cell Calibration Date	Cell Calibration Due Date	De-Gas Date/Time	Rn-222 Ingrow End Date/Time	Count Start Date/Time	Rn-222 Corrections			Ra-226 Decay
						De-Gas to Ingrowth	Ingrowth to Count	During Count	
0.06792	9/1/2010	9/30/2011	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000
0.13069	1/26/2011	1/26/2012	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000
0.10392	1/4/2011	1/4/2012	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000
0.12813	6/9/2011	6/8/2012	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000
0.13776	4/28/2011	4/27/2012	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000
0.11201	11/22/2010	11/22/2011	9/7/2011 16:00	9/12/2011 9:55	9/12/2011 13:05	0.577	0.976	1.002	1.000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.0962	0.0679	1	0.2233	**0.6420**	0.2328	0.7333	0.1633	0.1430	0.1607		SAMPLE				
2	0.1937	0.1367	1	0.3523	**0.3417**	0.3914	0.4333	0.1599	0.1261	0.1374		SAMPLE				
3	0.0752	0.0531	1	0.1545	**0.0807**	0.6089	0.1667	0.1000	0.0484	0.0497		MB				
4	0.1160	0.0819	1	0.2384	**0.2240**	0.4206	0.3000	0.1202	0.0897	0.0964	285124001.1	DUP	96.6%	0.8131		
5	0.1533	0.1082	1	0.3152	**28.6240**	0.1419	29.0000	0.9854	0.9727	4.8374	285124001.1	MS			24.7133	113.2%
6	0.1281	0.0904	1	0.2220	**11.6926**	0.1172	28.3667	0.9815	0.4046	1.7410		LCS			12.3566	94.6%

Continuing Calibration Data

Gas Flow Proportional Counter Checks for 06-Sep-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100A1	need 2nd	Alpha bkg	06:12	60	0.017	-8.39E-2	0.173	-0.65
LB4100A1	Above	Beta eff	07:26	5	23649	20200	22720	+5.21
LB4100A2	Above	Beta eff	07:26	5	26565	22750	25060	+6.91
LB4100A3	Above	Beta eff	07:26	5	24663	21780	23690	+6.06
LB4100B1	Below	Alpha XTalk	07:27	5	0.188	0.197	0.257	-3.93
LB4100C2	Below	Alpha XTalk	07:30	5	0.212	0.217	0.265	-3.68
LB4100C2	Below	Beta eff	07:52	5	22518	22800	24850	-3.82
LB4100D1	Below	Alpha XTalk	06:57	5	0.207	0.208	0.267	-3.03
LB4100D3	Above	Beta bkg	08:56	60	4.600	0.564	1.600	+20.37
LB4100D4	need 2nd	Beta bkg	08:56	60	1.800	0.693	2.201	+1.40
LB4100E3	Above	Beta bkg	06:12	60	1.533	0.692	1.456	+3.61
LB4100E3	Below	Beta eff	06:40	5	19362	19520	21420	-3.50
LB4100F2	Above	Alpha eff	06:32	5	9202	8192	9048	+4.08
LB4100F2	Below	Alpha XTalk	06:32	5	0.269	0.270	0.314	-3.09
LB4100F2	need 2nd	Beta bkg	06:12	60	1.600	0.620	1.611	+2.93
LB4100F4	Above	Alpha eff	06:32	5	14311	11770	14210	+3.25
LB4100G2	Above	Alpha eff	06:40	5	11921	10120	11860	+3.21
LB4100G3	Above	Beta eff	06:32	5	23815	20310	22930	+5.03
LB4100G3	need 2nd	Beta XTalk	06:32	5	1.61E-4	2.39E-5	2.28E-4	+1.02
LB4100H4	Above	Alpha eff	06:40	5	14225	10860	14180	+3.08
LB4100I1	Above	Alpha eff	07:12	5	11162	10760	11070	+4.77
LB4100I1	Above	Beta bkg	06:12	60	1.433	0.441	1.366	+3.44
LB4100I2	Above	Beta bkg	06:12	60	8.733	0.500	2.000	+29.93
LB4100I4	Above	Alpha bkg	06:12	60	0.683	0.225	0.847	+1.42
LB4100I4	Below	Alpha eff	07:12	5	11917	11930	12280	-3.23
LB4100I4	Below	Beta eff	07:05	5	21258	21460	23540	-3.58
LB4100J1	Above	Alpha eff	07:12	5	11486	11120	11470	+3.28
LB4100J2	Above	Alpha eff	07:12	5	10786	10320	10750	+3.50

PIC1A	need 2nd	Beta bkg	08:51	60	0.683	0.113	0.837	+1.72
PIC1B	Above	Beta XTalk	07:58	5	0.001	6.42E-5	0.001	+3.95
PIC1C	Below	Alpha eff	05:10	5	0.00E+0	11090	11450	-187.83
PIC1C	Below	Alpha XTalk	05:10	5	0.00E+0	0.251	0.277	-61.65
PIC1C	Below	Beta bkg	06:26	60	0.00E+0	0.155	1.501	-3.69
PIC1C	Below	Beta eff	05:19	5	0.00E+0	22200	22750	-245.18
PIC3B	Below	Beta eff	08:04	5	22022	22620	23980	-5.64
PIC4A	need 2nd	Alpha eff	08:00	5	10563	10250	10570	+2.87
PIC4A	Above	Beta eff	08:09	5	58079	55910	57720	+4.19
PIC4D	Above	Alpha eff	05:20	5	18392	17680	18070	+7.95
PIC4D	Below	Alpha XTalk	05:20	5	0.245	0.253	0.267	-6.48
PIC4D	Above	Beta bkg	06:26	60	2.450	0.616	1.910	+5.50
PIC4D	Above	Beta XTalk	05:12	5	0.021	0.007	0.019	+3.88
PIC5A	Above	Alpha XTalk	05:26	5	0.279	0.249	0.269	+5.98
PIC5A	Above	Beta bkg	08:19	60	93.067	-4.00E-2	1.420	+379.62
PIC5A	Below	Beta eff	05:35	5	19228	19490	20460	-4.62
PIC5C	need 2nd	Beta bkg	08:19	60	1.067	0.024	1.083	+2.91
PIC6A	Above	Beta bkg	06:41	60	2.283	0.112	0.881	+13.94
PIC6A	Below	Beta XTalk	05:36	5	0.001	0.002	0.009	-3.35
PIC6B	Above	Beta bkg	06:41	60	1.233	-2.51E-2	1.118	+3.61
PIC6B	Above	Beta XTalk	08:06	5	0.012	9.79E-4	0.011	+3.55
PIC6C	Below	Alpha XTalk	08:06	5	0.245	0.253	0.272	-5.31
PIC8B	Below	Alpha eff	05:37	5	0.00E+0	9653	10140	-121.93
PIC8B	Below	Alpha XTalk	05:37	5	0.00E+0	0.265	0.307	-40.71
PIC8B	Below	Beta bkg	06:40	60	0.00E+0	0.230	1.433	-4.15
PIC8B	Below	Beta eff	05:28	5	0.00E+0	23210	24620	-101.77
PIC8B	Below	Beta XTalk	05:28	5	0.00E+0	5.80E-5	4.99E-4	-3.79
PIC8D	Above	Beta eff	08:07	5	51458	45180	48730	+7.61
PIC10D	need 2nd	Alpha bkg	09:02	60	0.017	-5.49E-2	0.150	-0.90
PIC11B	Above	Alpha bkg	07:34	60	0.217	-8.72E-2	0.201	+3.32
PIC11B	Above	Beta bkg	07:34	60	1.900	0.258	1.485	+5.03
PIC11B	Above	Beta eff	08:17	5	25495	23420	24130	+14.53
PIC11C	Above	Alpha bkg	07:34	60	0.350	-5.59E-1	1.284	-0.04
PIC11C	Above	Alpha eff	06:15	5	11832	11050	11370	+11.67
PIC11C	Below	Alpha XTalk	06:15	5	0.261	0.277	0.305	-6.39
PIC11C	need 2nd	Beta bkg	07:34	60	0.850	-1.05E+0	3.580	-0.54

PIC11D	Above	Alpha XTalk	08:30	5	0.279	0.257	0.275	+4.25
PIC12A	Above	Beta bkg	07:34	60	29.100	-2.26E-1	1.297	+112.56
PIC14A	Above	Beta bkg	09:11	60	2.700	-9.53E-1	3.417	+2.02

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk

Reviewed by Charlotte Segal

Date 9/6/11 9:15

GEL Laboratories LLC

Gas Flow Proportional Counter Checks for 10-Sep-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100A1	Above	Alpha bkg	09:35	60	0.467	-8.39E-2	0.173	+9.86
LB4100A1	need 2nd	Alpha XTalk	10:45	5	0.309	0.242	0.327	+1.75
LB4100A1	Above	Beta bkg	09:35	60	2.183	0.876	2.429	+2.05
LB4100A1	Above	Beta eff	11:21	5	24101	20200	22720	+6.29
LB4100A1	Above	Beta XTalk	11:21	5	2.15E-4	-5.91E-6	2.01E-4	+3.40
LB4100A2	Above	Alpha bkg	09:35	60	4.467	-9.63E-2	0.245	+77.31
LB4100A2	Above	Beta bkg	09:35	60	2.783	0.640	1.938	+6.91
LB4100A2	Above	Beta eff	11:21	5	25947	22750	25060	+5.30
LB4100A2	Above	Beta XTalk	11:21	5	4.08E-4	5.84E-5	3.12E-4	+5.27
LB4100A3	Above	Beta eff	11:21	5	23730	21780	23690	+3.12
LB4100B1	Below	Alpha XTalk	10:45	5	0.193	0.197	0.257	-3.37
LB4100C1	Below	Beta bkg	09:35	60	1.000	1.054	2.036	-3.33
LB4100C2	Above	Alpha bkg	09:35	60	0.217	-3.05E-2	0.171	+4.38
LB4100C2	Below	Beta eff	10:46	5	22411	22800	24850	-4.14
LB4100C3	Below	Beta eff	10:46	5	22000	22170	23890	-3.59
LB4100D1	Above	Alpha bkg	09:43	60	0.267	-6.41E-2	0.201	+4.47
LB4100D1	Below	Alpha XTalk	11:24	5	0.195	0.208	0.267	-4.25
LB4100D2	Below	Beta eff	10:46	5	23003	24050	27430	-4.86
LB4100D3	Above	Alpha bkg	09:43	60	0.217	-6.91E-2	0.199	+3.39
LB4100D3	Above	Beta bkg	09:43	60	2.117	0.564	1.600	+5.99
LB4100E1	Above	Alpha bkg	09:35	60	0.283	-7.53E-2	0.187	+5.20
LB4100E1	need 2nd	Beta eff	11:36	5	18626	18170	19660	-1.16
LB4100E2	Above	Alpha bkg	09:35	60	0.183	-7.73E-2	0.174	+3.23
LB4100E4	Below	Beta eff	11:36	5	20667	21480	24210	-4.79
LB4100F2	Above	Beta bkg	09:35	60	1.817	0.620	1.611	+4.25
LB4100F3	need 2nd	Alpha bkg	09:35	60	0.117	-3.92E-2	0.142	+2.16
LB4100F4	Above	Beta XTalk	11:36	5	1.32E-4	3.84E-5	1.29E-4	+3.21
LB4100G3	Above	Beta eff	11:10	5	24307	20310	22930	+6.15
LB4100G4	Above	Alpha bkg	09:35	60	0.500	-5.48E-2	0.122	+15.87

- SEB 9.10.11

LB4100G4	Above	Beta bkg	09:35	60	1.883	0.490	1.442	+5.78	
LB4100H1	need 2nd	Alpha bkg	09:35	60	0.100	-6.13E-2	0.193	+0.81	
LB4100H2	Above	Alpha bkg	09:35	60	0.150	-5.08E-2	0.139	+3.35	
LB4100I1	Above	Alpha eff	09:57	5	11150	10760	11070	+4.55	
LB4100I3	Above	Alpha XTalk	09:57	5	0.139	0.119	0.137	+3.80	
LB4100I4	Above	Alpha bkg	12:42	60	0.850	0.225	0.847	+3.03	
LB4100I4	Below	Alpha eff	09:57	5	11867	11930	12280	-4.08	
PIC1C	Below	Alpha eff	08:51	5	0.00E+0	11090	11450	-187.83	
PIC1C	Below	Alpha XTalk	08:51	5	0.00E+0	0.251	0.277	-61.65	
PIC1C	Below	Beta bkg	09:59	60	0.00E+0	0.155	1.501	-3.69	
PIC1C	Below	Beta eff	08:43	5	0.00E+0	22200	22750	-245.18	
PIC2D	Above	Alpha eff	10:07	5	17909	17430	17900	+3.11	
PIC2D	Below	Alpha XTalk	10:07	5	0.252	0.253	0.269	-3.42	
PIC4A	Above	Alpha eff	10:23	5	10610	10250	10570	+3.76	
PIC4A	need 2nd	Beta eff	08:51	5	57432	55910	57720	+2.05	
PIC4D	Above	Alpha eff	09:00	5	18273	17680	18070	+6.12	
PIC4D	Below	Alpha XTalk	09:00	5	0.249	0.253	0.267	-4.84	
PIC5A	Above	Alpha XTalk	09:10	5	0.278	0.249	0.269	+5.51	
PIC5A	Above	Beta bkg	10:17	60	60.117	-4.00E-2	1.420	+244.22	
PIC5A	need 2nd	Beta eff	09:00	5	19544	19490	20460	-2.67	
PIC5C	need 2nd	Alpha bkg	10:17	60	0.033	-1.97E-1	0.390	-0.64	
PIC5C	Above	Beta bkg	10:17	60	1.183	0.024	1.083	+3.57	
PIC6A	Above	Beta bkg	10:17	60	4.350	0.112	0.881	+30.06	
PIC6A	Below	Beta XTalk	09:00	5	0.001	0.002	0.009	-3.38	
PIC6B	Above	Beta bkg	10:17	60	1.517	-2.51E-2	1.118	+5.09	
PIC6B	Above	Beta XTalk	10:25	5	0.012	9.79E-4	0.011	+3.56	
PIC6C	need 2nd	Alpha eff	10:25	5	22473	21100	23730	+0.13	
PIC6C	Below	Alpha XTalk	10:25	5	0.240	0.253	0.272	-6.82	
PIC8B	Below	Alpha eff	09:17	5	0.00E+0	9653	10140	-121.93	
PIC8B	Below	Alpha XTalk	09:17	5	0.00E+0	0.265	0.307	-40.71	
PIC8B	Below	Beta bkg	10:24	60	0.00E+0	0.230	1.433	-4.15	
PIC8B	Below	Beta eff	09:10	5	0.00E+0	23210	24620	-101.77	
PIC8B	Below	Beta XTalk	09:10	5	0.00E+0	5.80E-5	4.99E-4	-3.79	
PIC11C	need 2nd	Alpha bkg	11:20	60	0.033	-5.59E-1	1.284	-1.07	
PIC11C	Above	Alpha eff	12:14	5	11916	11050	11370	+13.25	-SHB
PIC11C	Below	Alpha XTalk	12:14	5	0.256	0.277	0.305	-7.34	9.10.11

PIC14D	Above	Beta bkg	14:10	60	1.017	0.017	0.989	+3.17

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk } Detector has been removed from Service. -SRB 9.10.11

Reviewed by SRB

Date 9.10.11

GEL Laboratories LLC

Ludlum Alpha Scintillation Counter Checks for 12-SEP-2011

Short Name	Parmname	Run Time	Count Time	Counts	CPM	Stdev	Status	Comments
LUCAS1	EFF	07:55	1	1.36E+05	135530	-0.96		
LUCAS2	EFF	07:55	1	1.15E+05	115041	-0.61		
LUCAS4	EFF	07:55	1	98374	98374	-2		
LUCAS5	EFF	07:55	1	1.45E+05	145154	-2.2		
LUCAS6	EFF	07:55	1	1.22E+05	121609	0.65		
LUCAS7	EFF	07:55	1	1.47E+05	147212	2.98		
LUCAS8	EFF	07:55	1	1.32E+05	131831	-0.8		

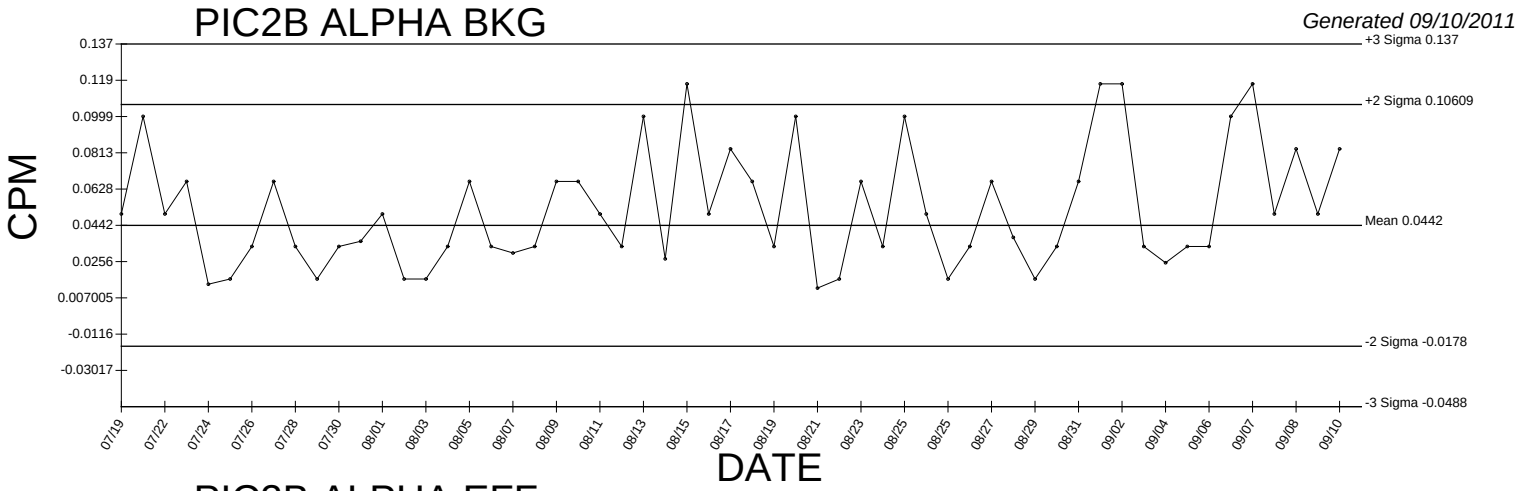
Reviewed by Lynnsey Dale

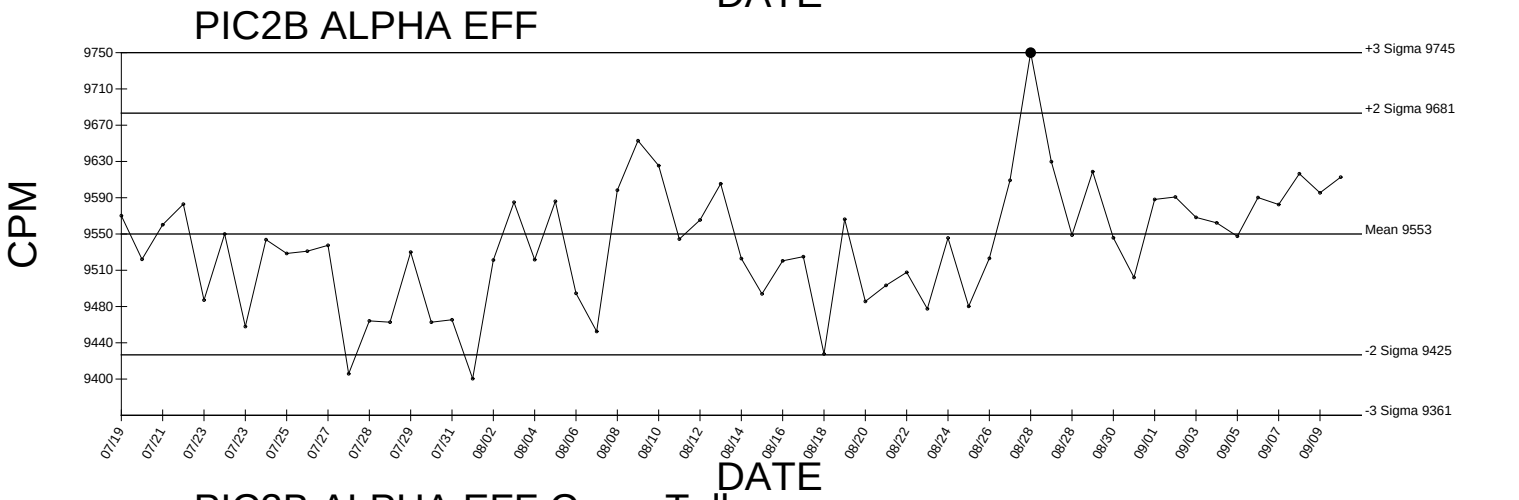
Date 9/12/11

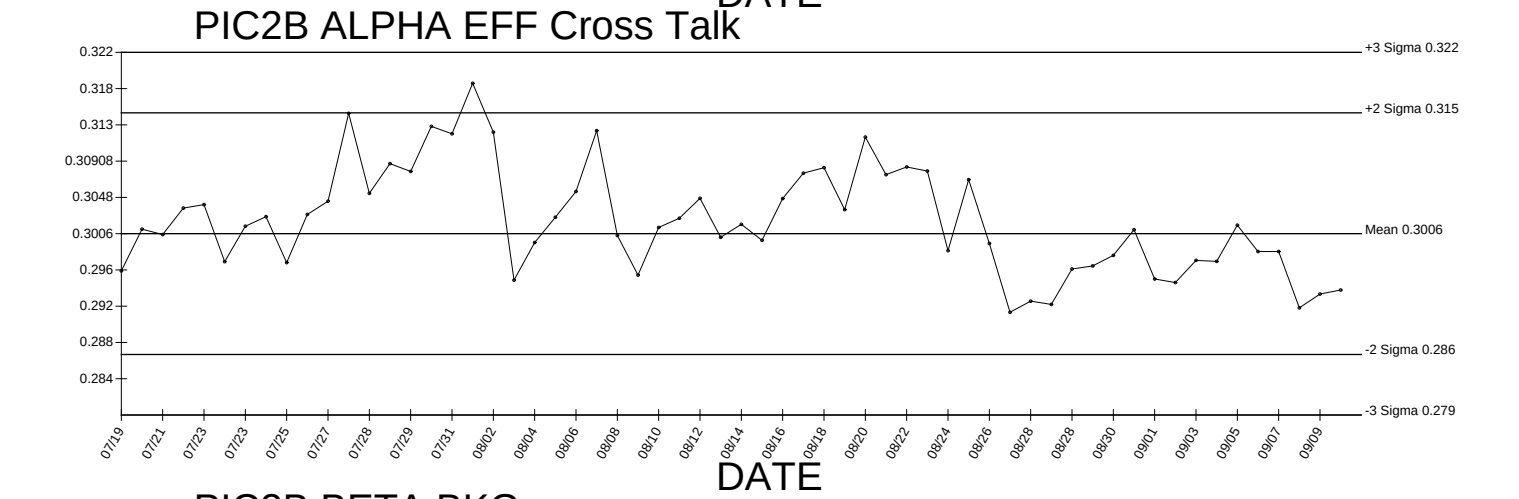
GEL Laboratories LLC

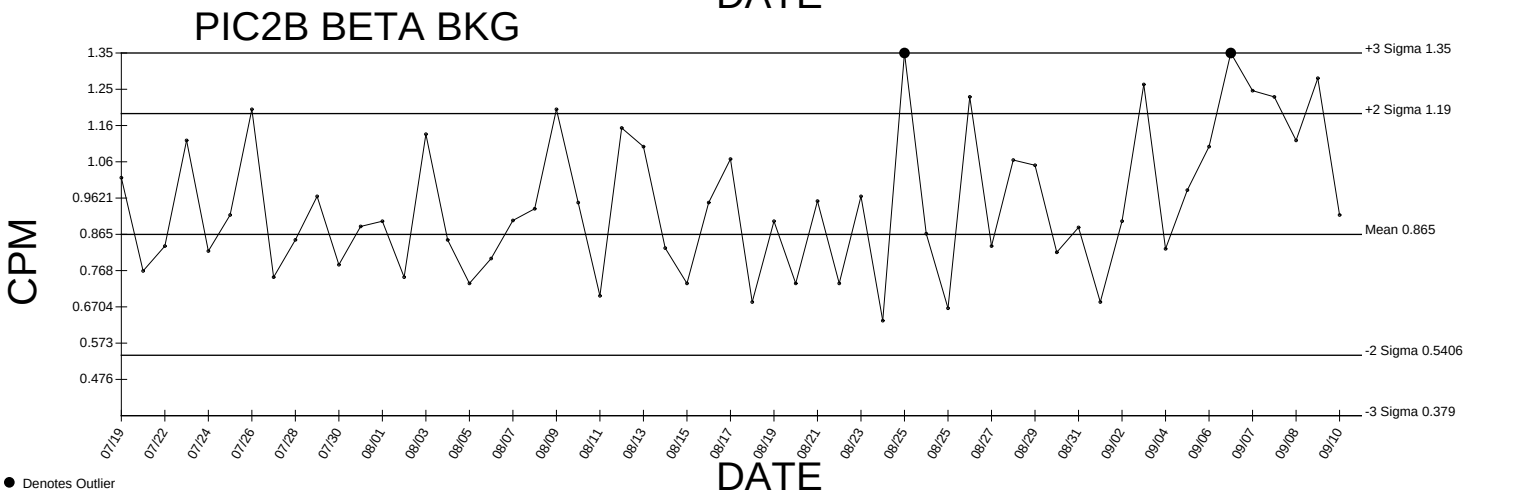
Background and Efficiency Data

Generated 09/10/2011

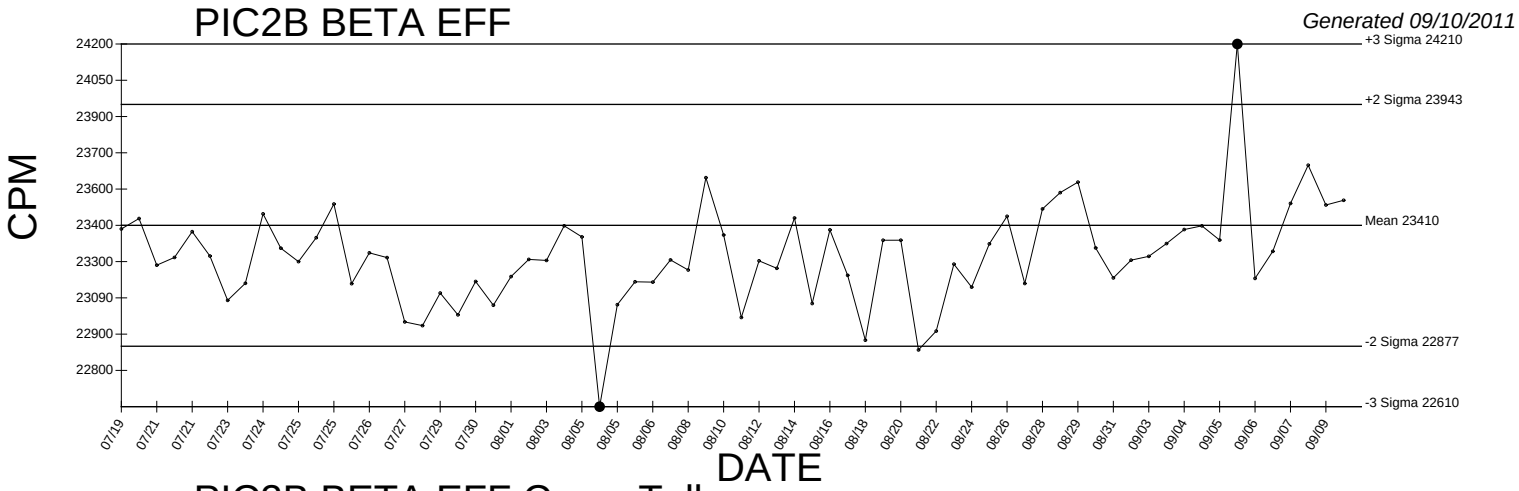


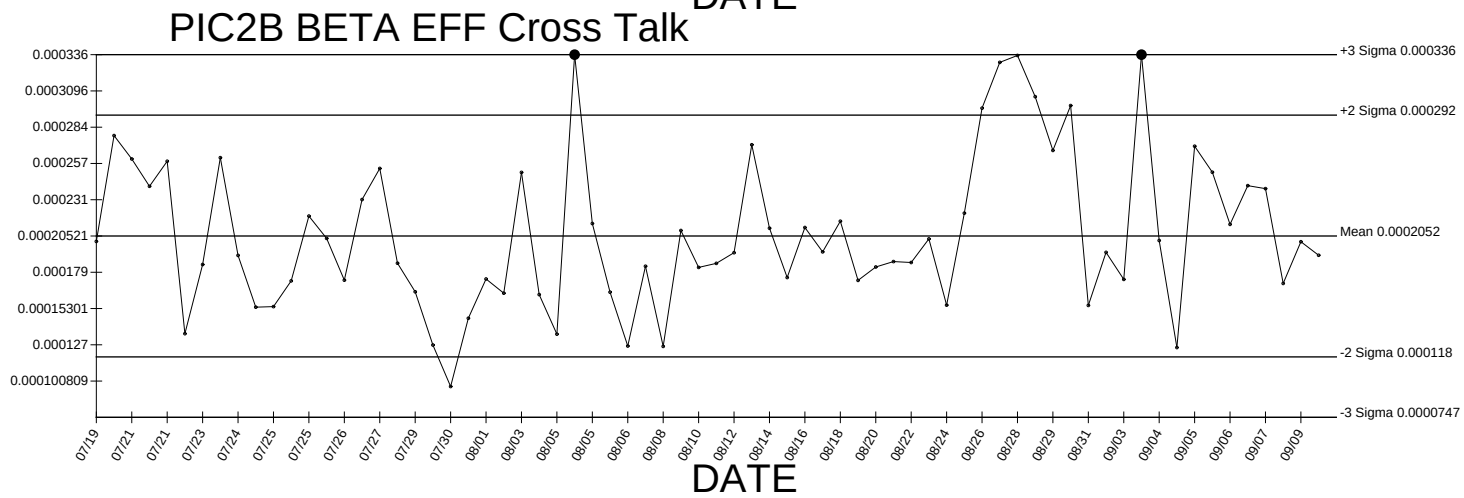






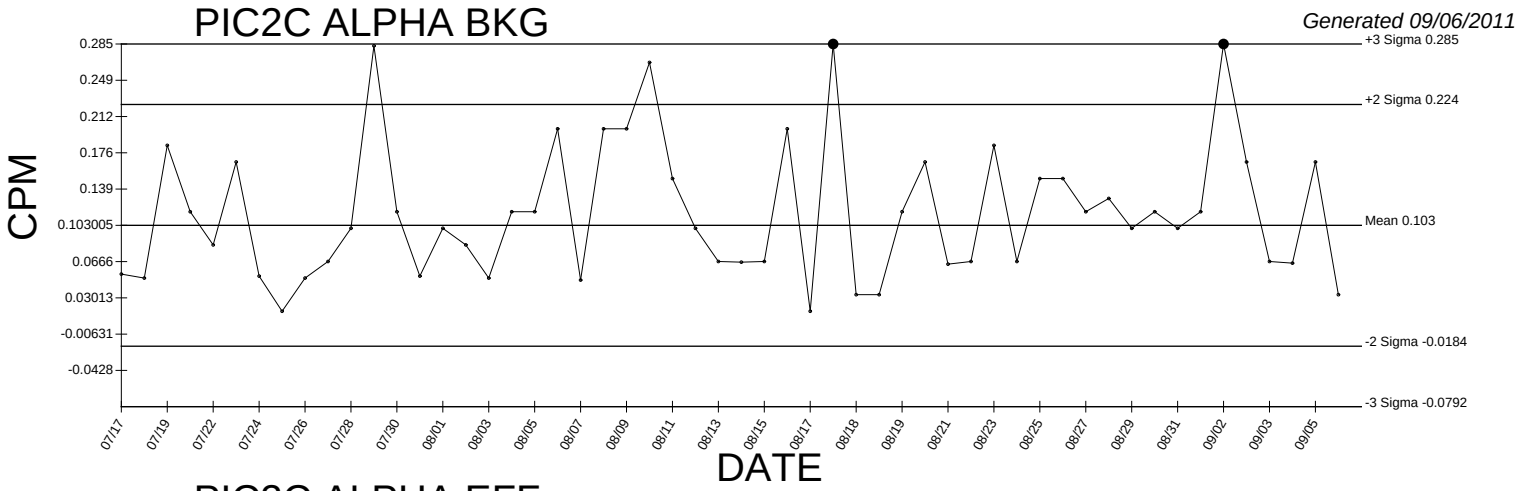
● Denotes Outlier

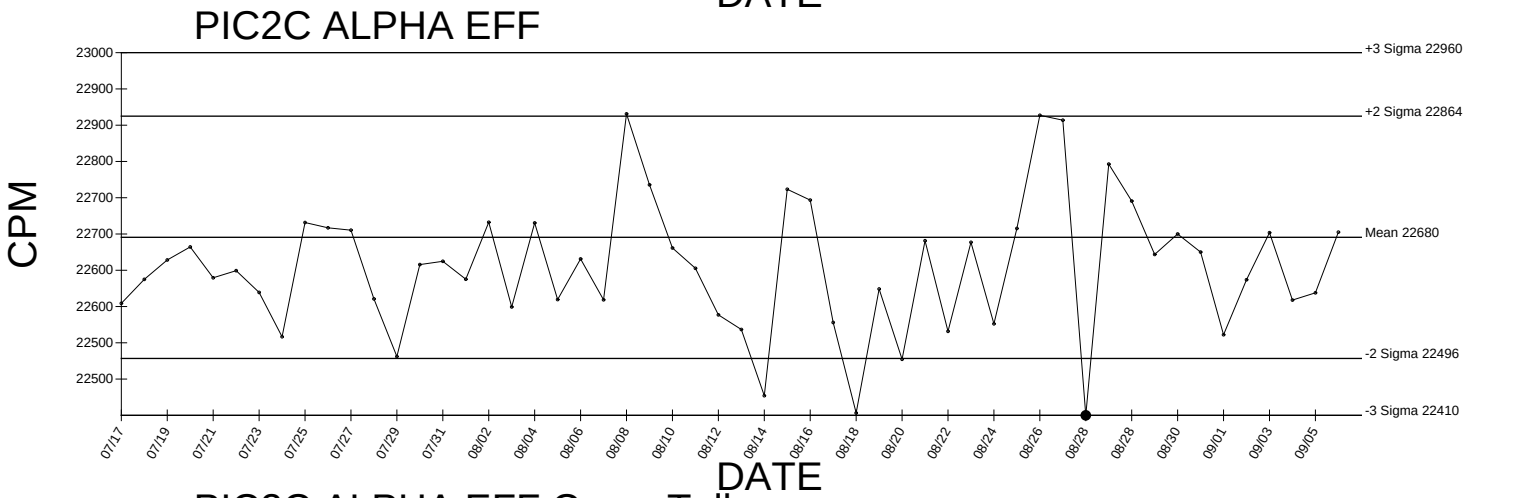


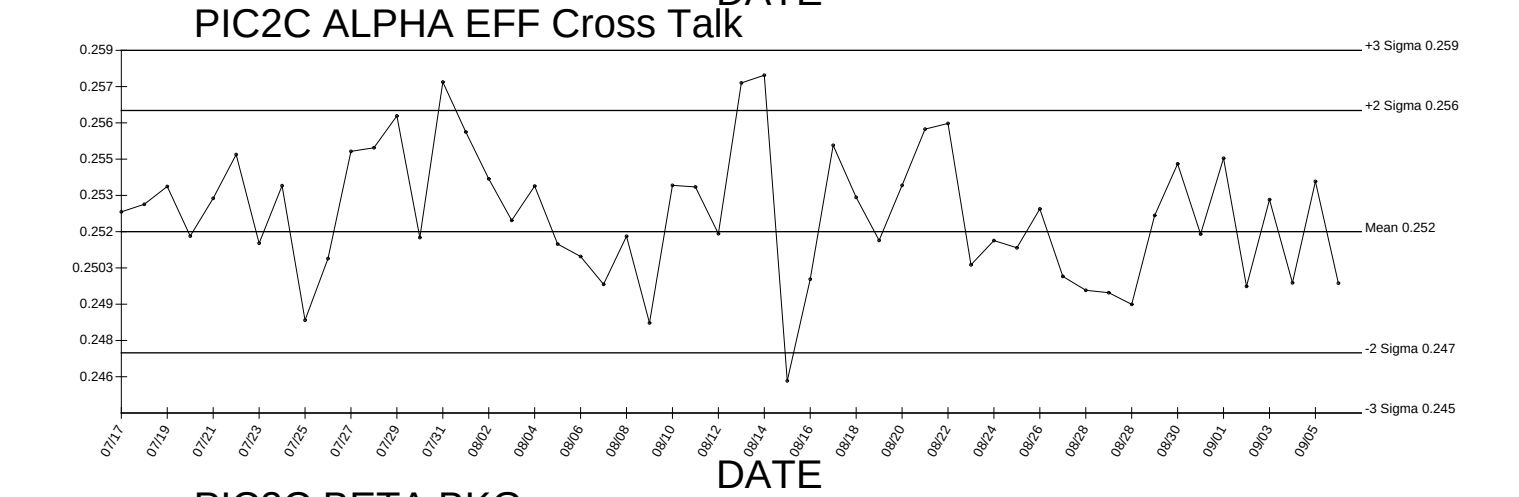


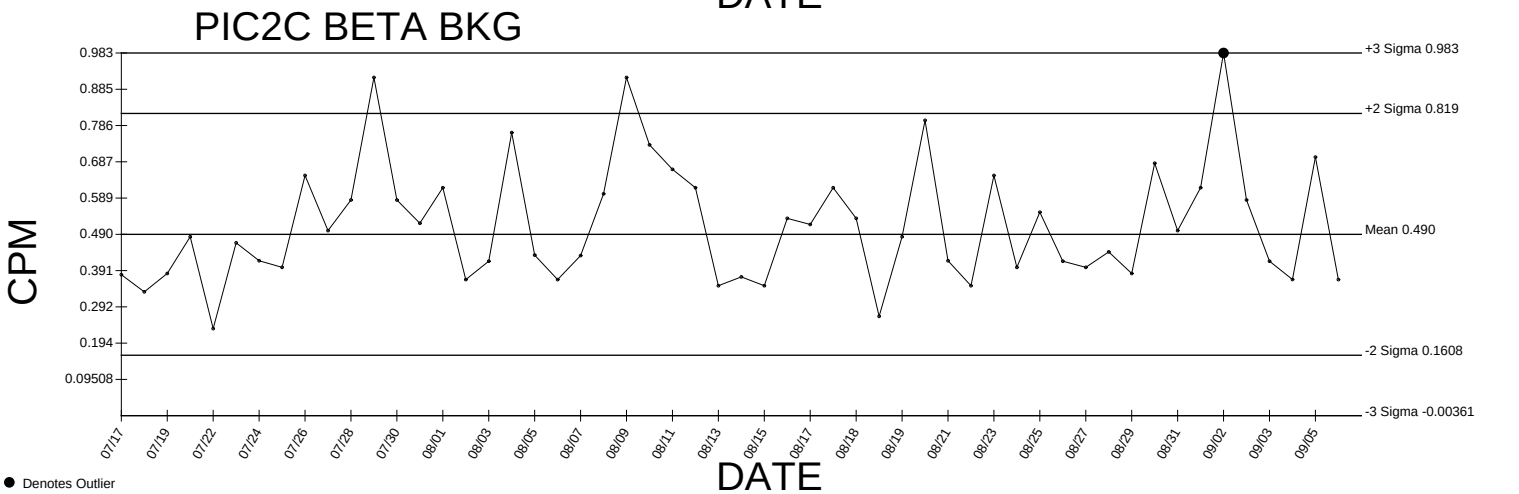
● Denotes Outlier

Generated 09/06/2011

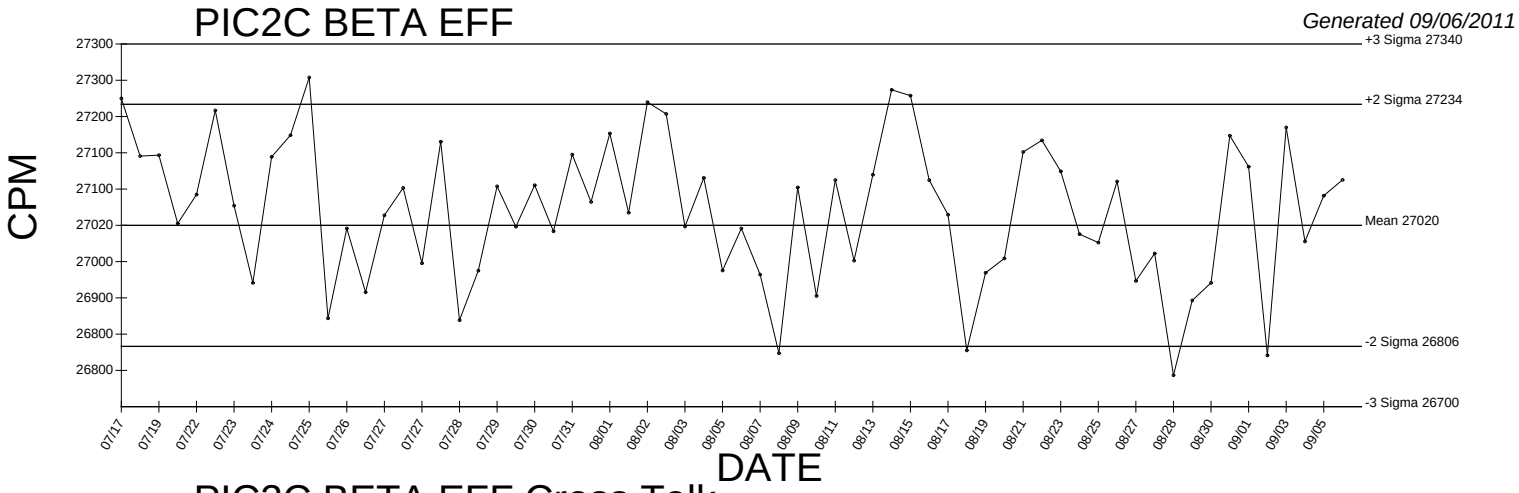


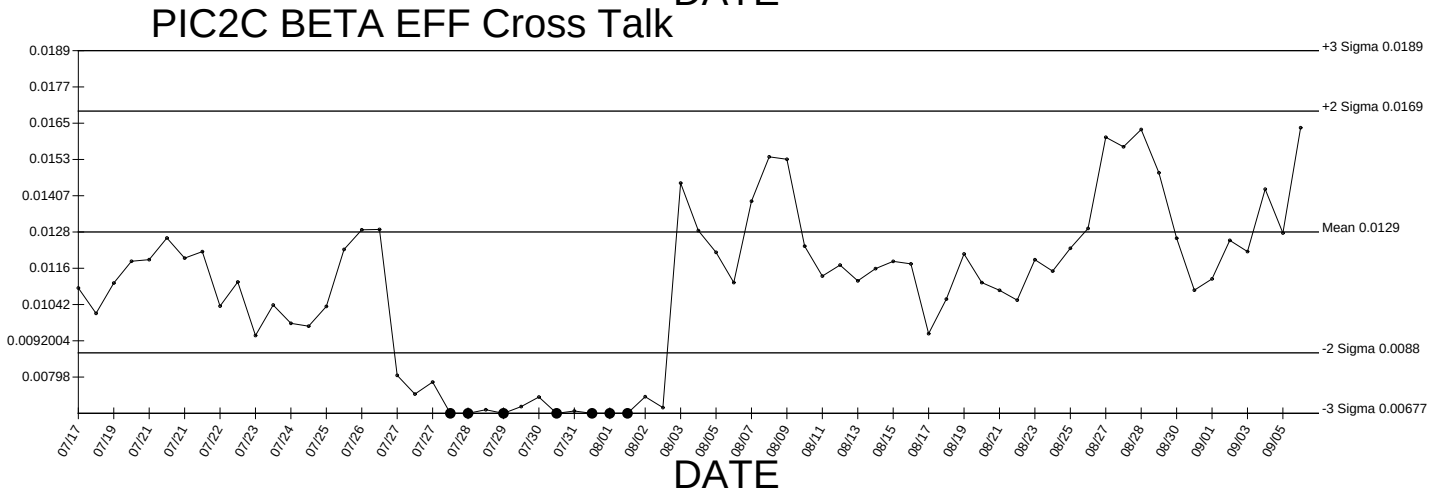






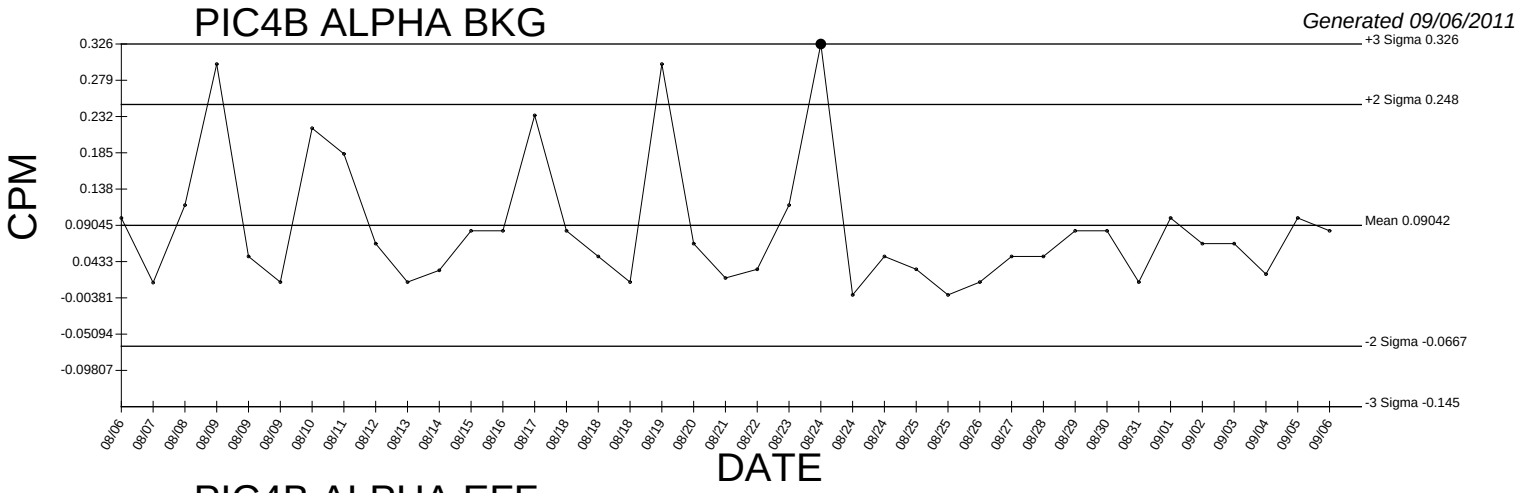
● Denotes Outlier

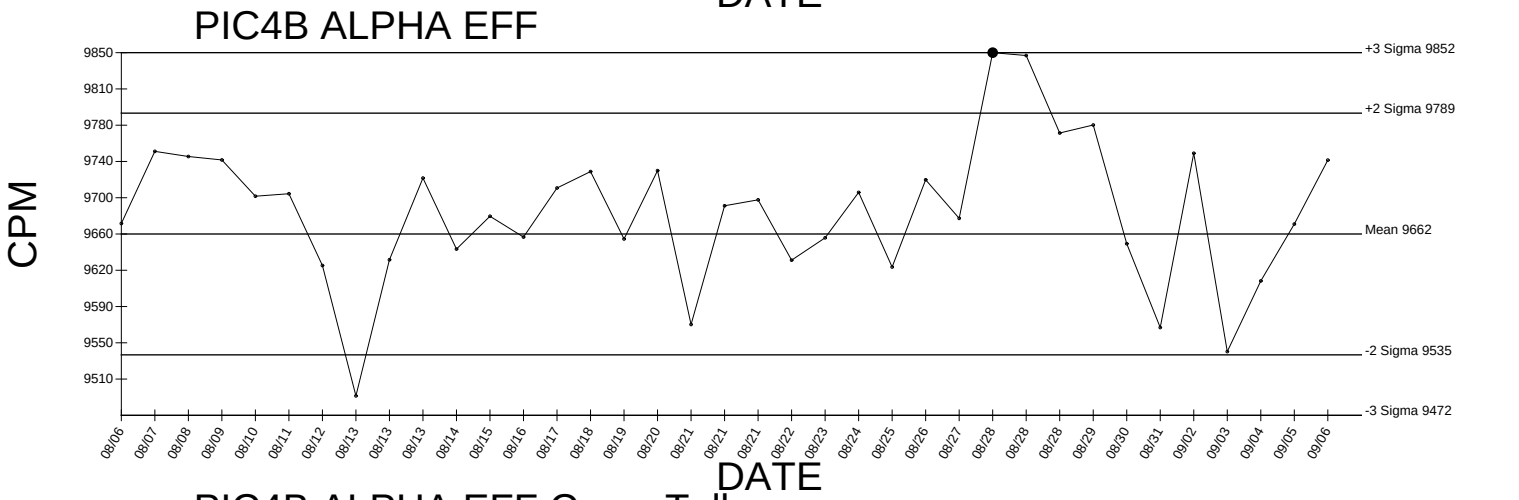


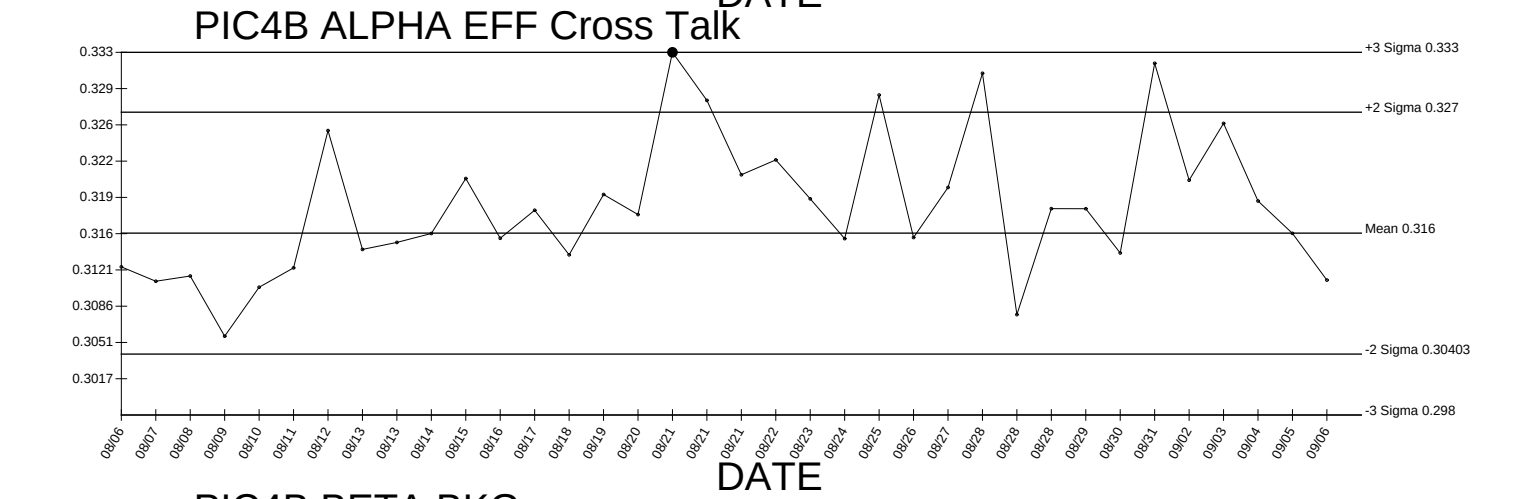


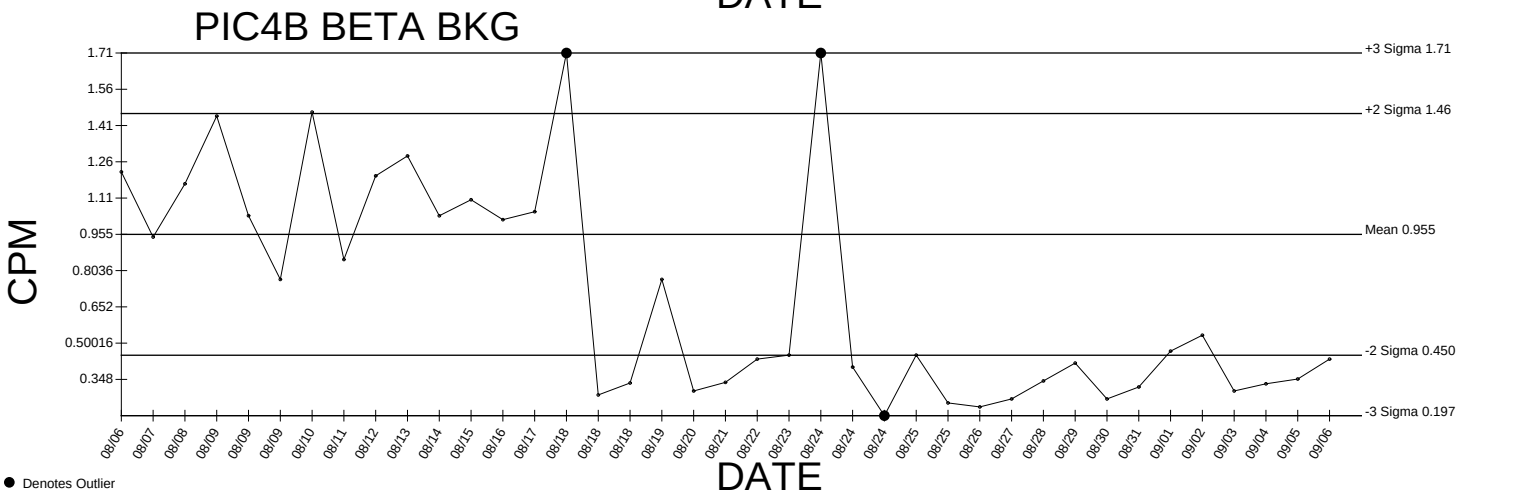
● Denotes Outlier

Generated 09/06/2011

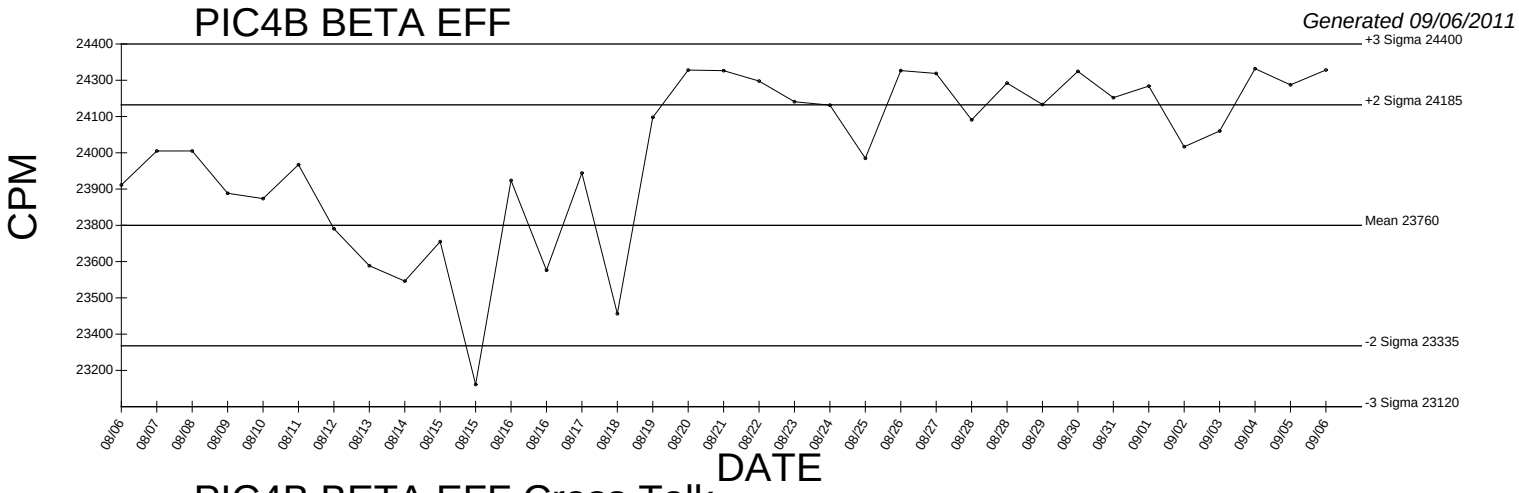


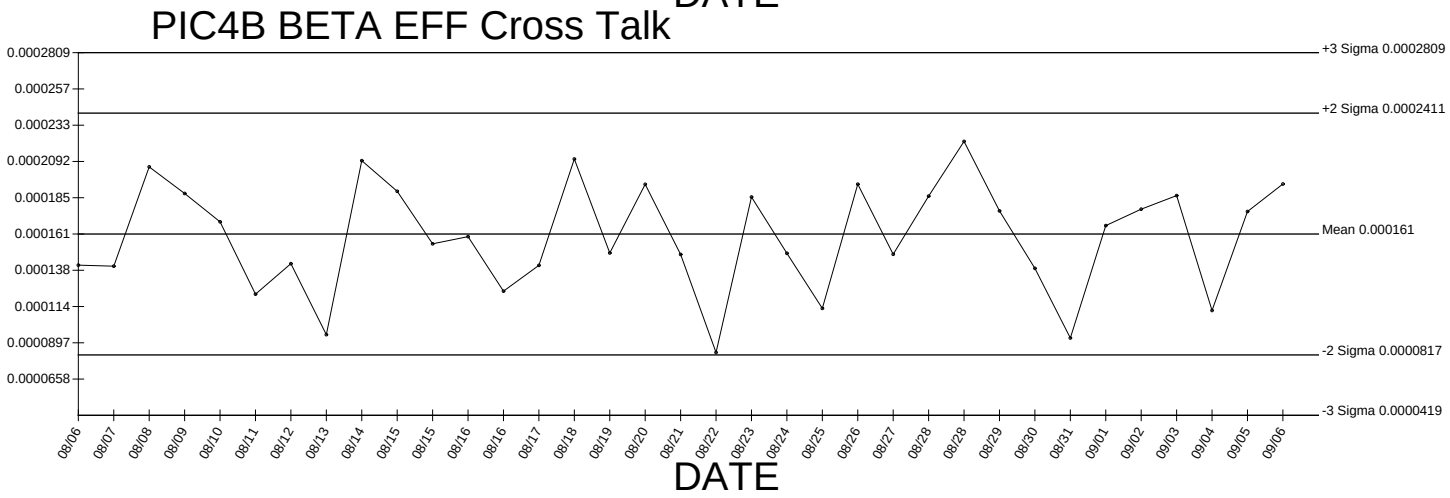




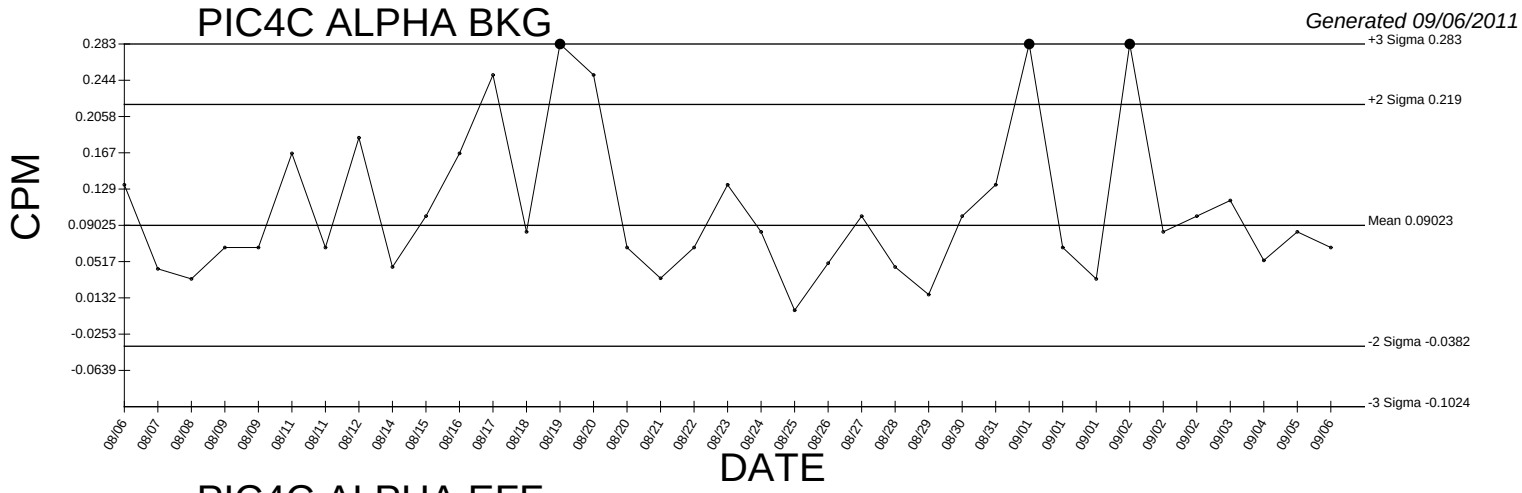


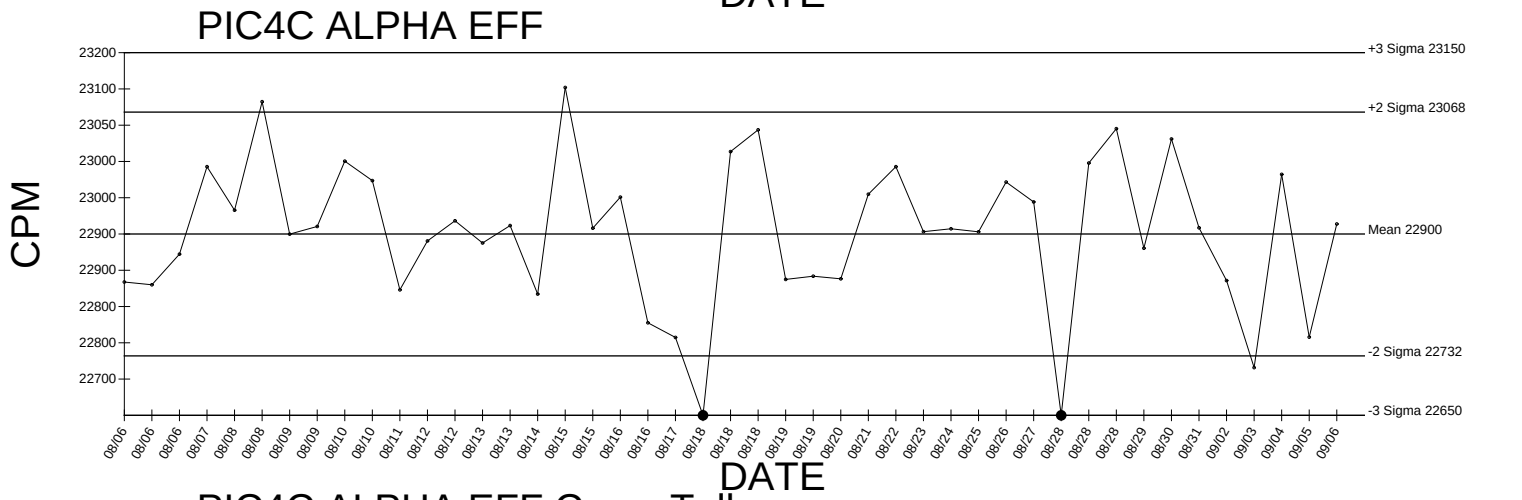
● Denotes Outlier

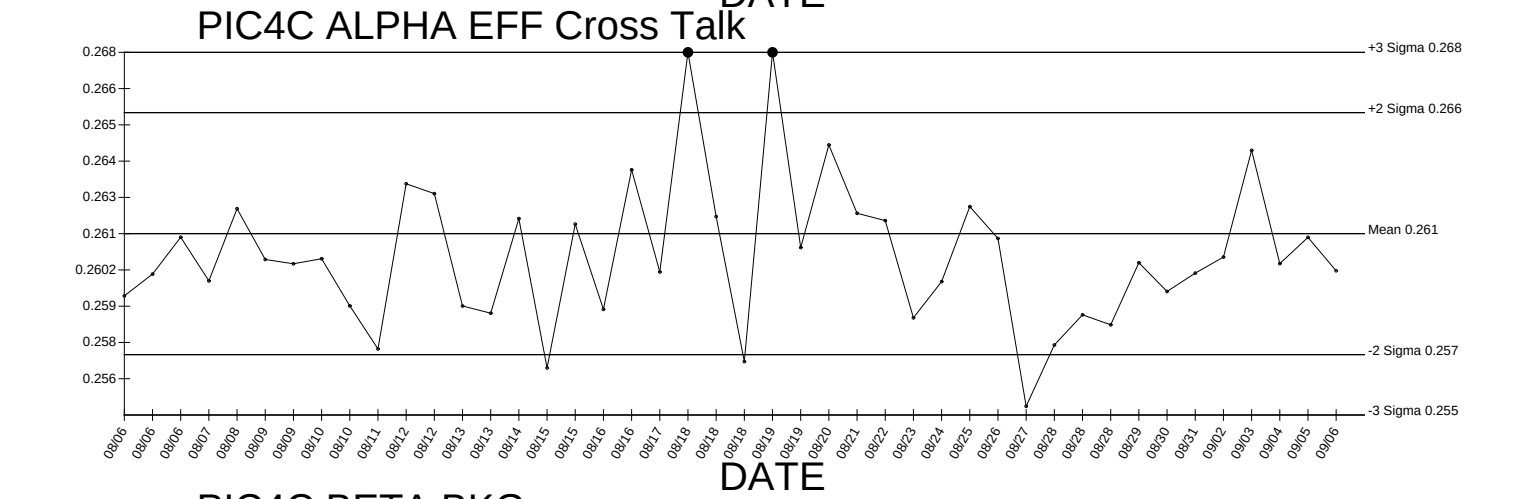


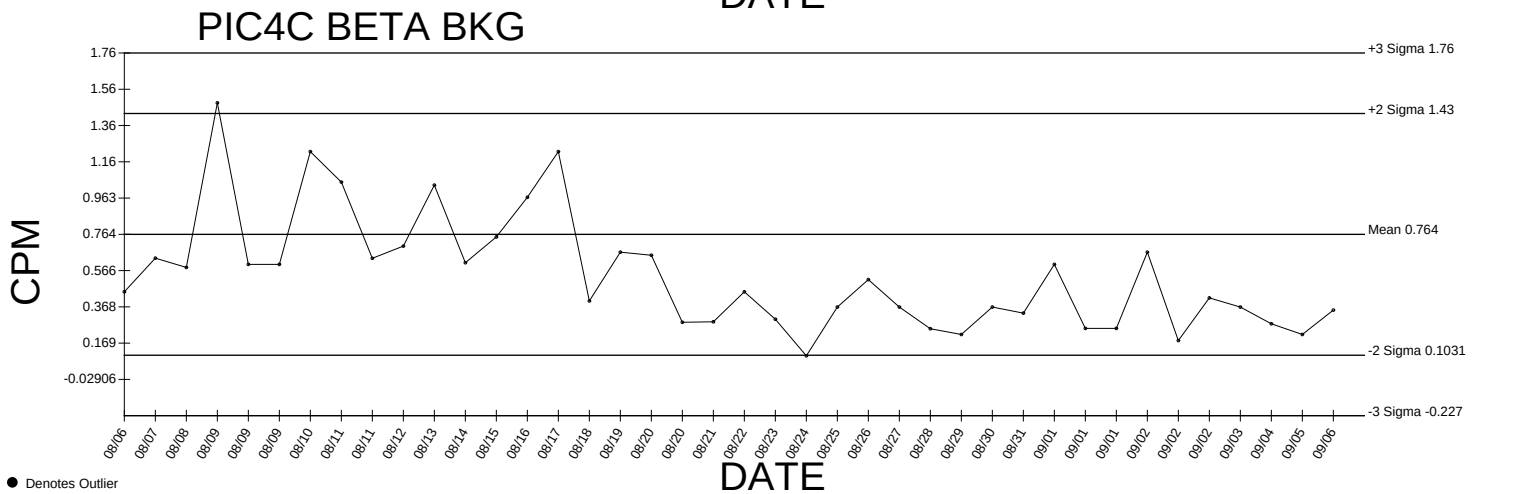


● Denotes Outlier

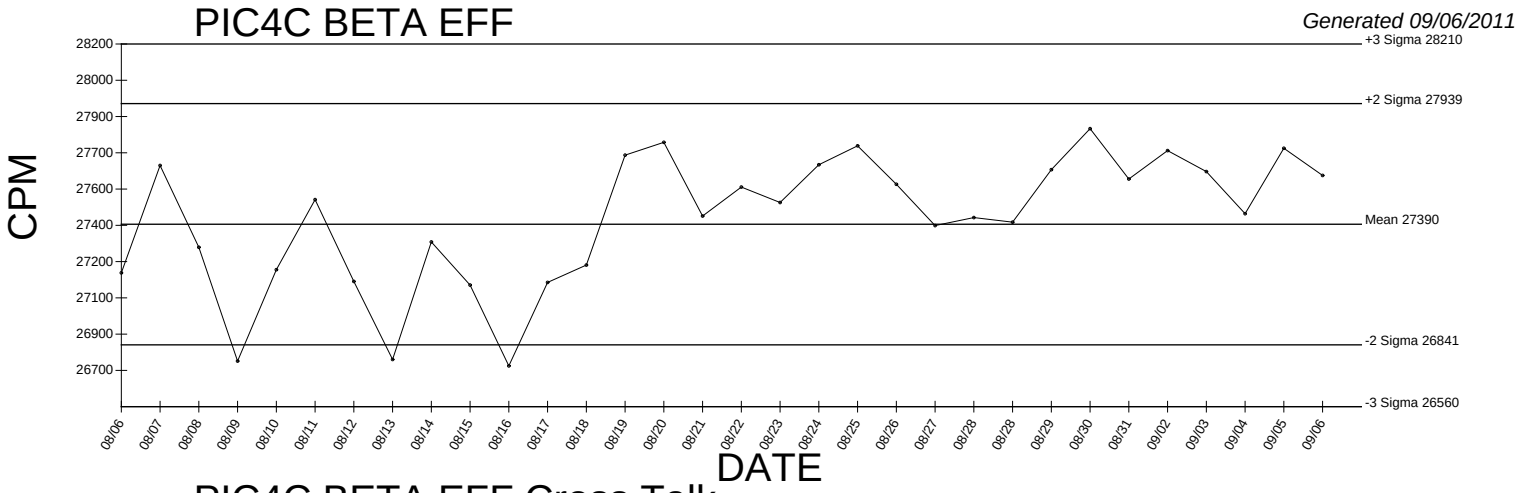


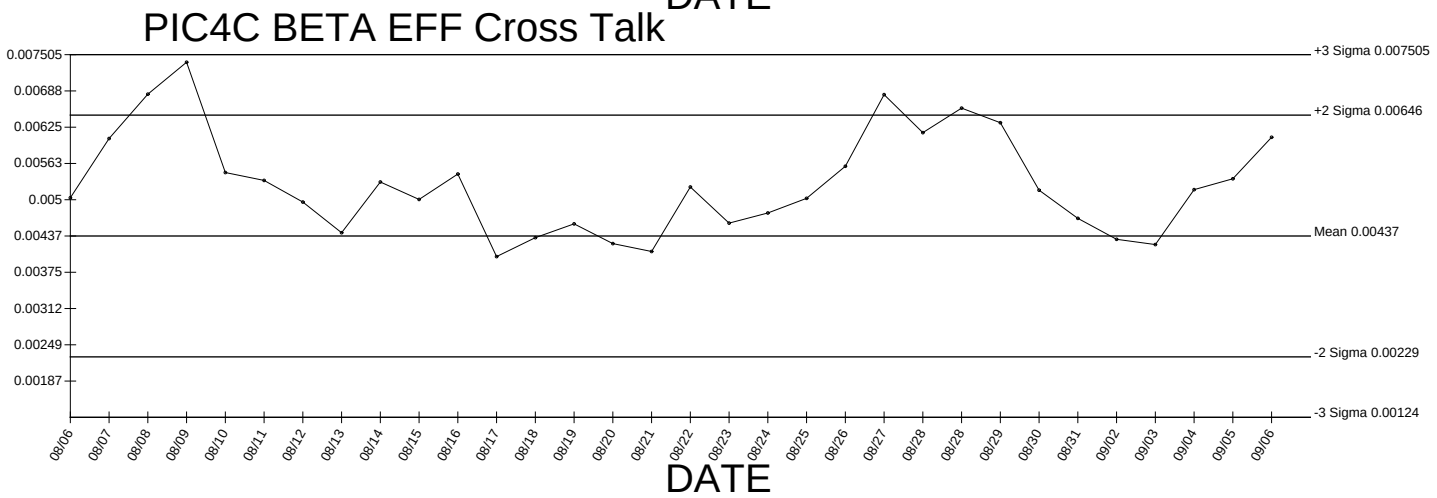




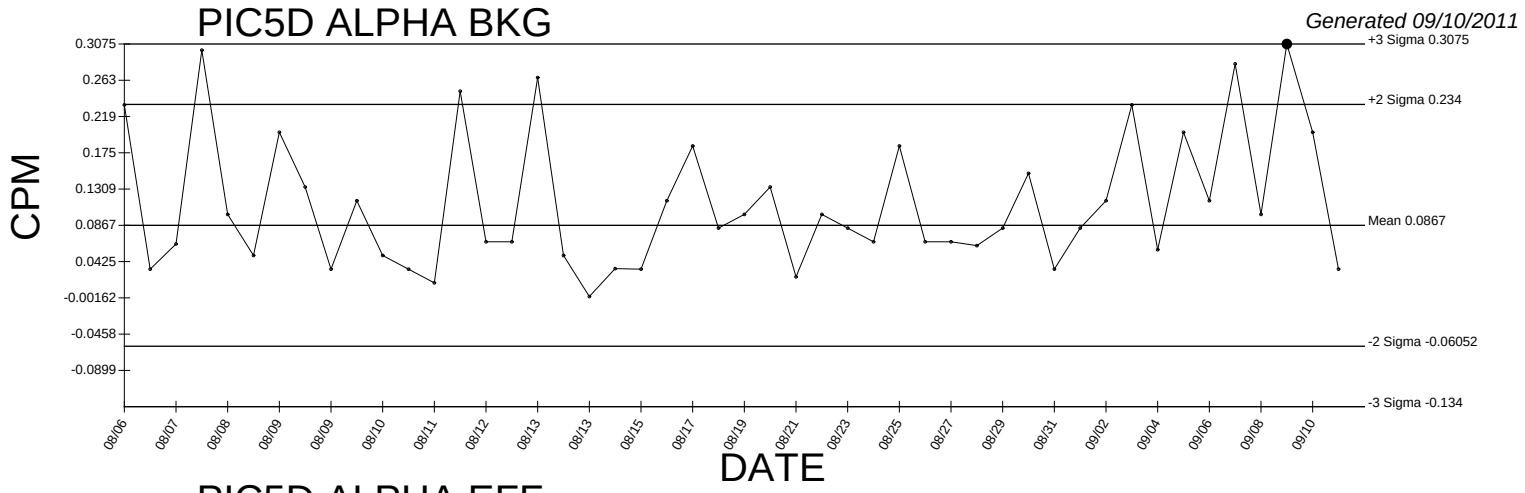


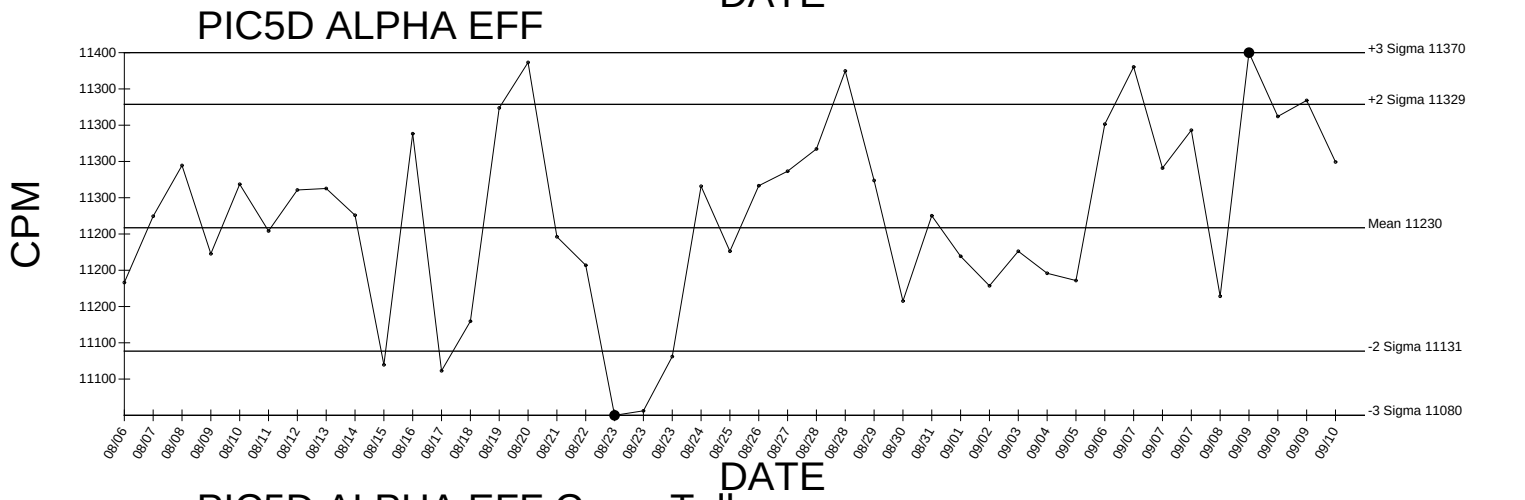
● Denotes Outlier

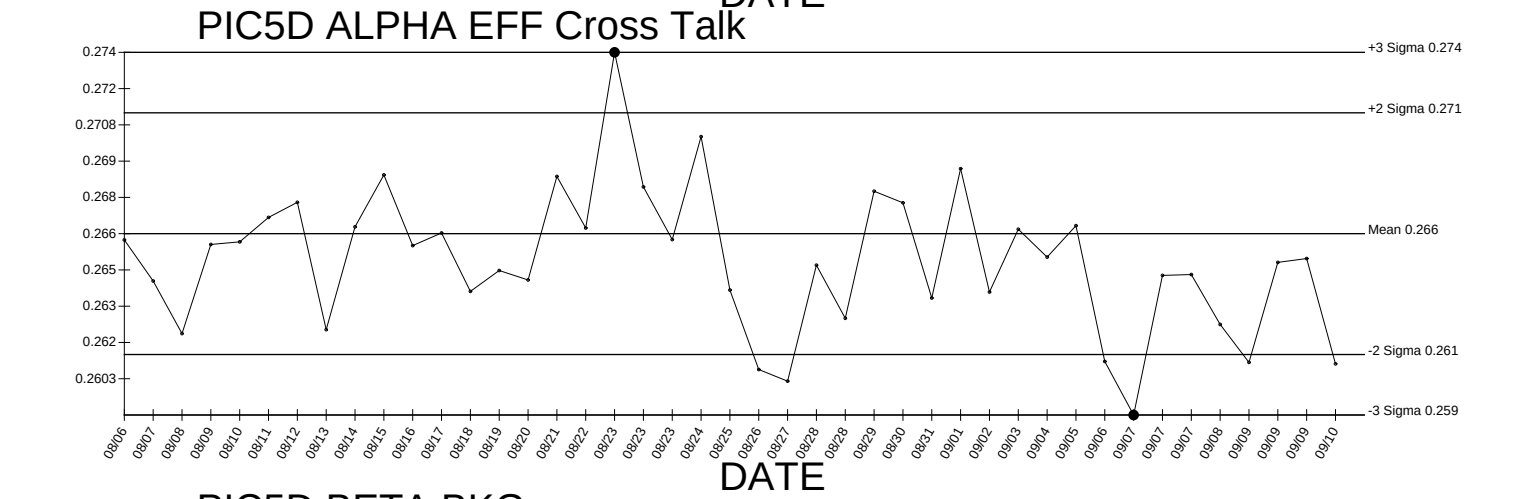


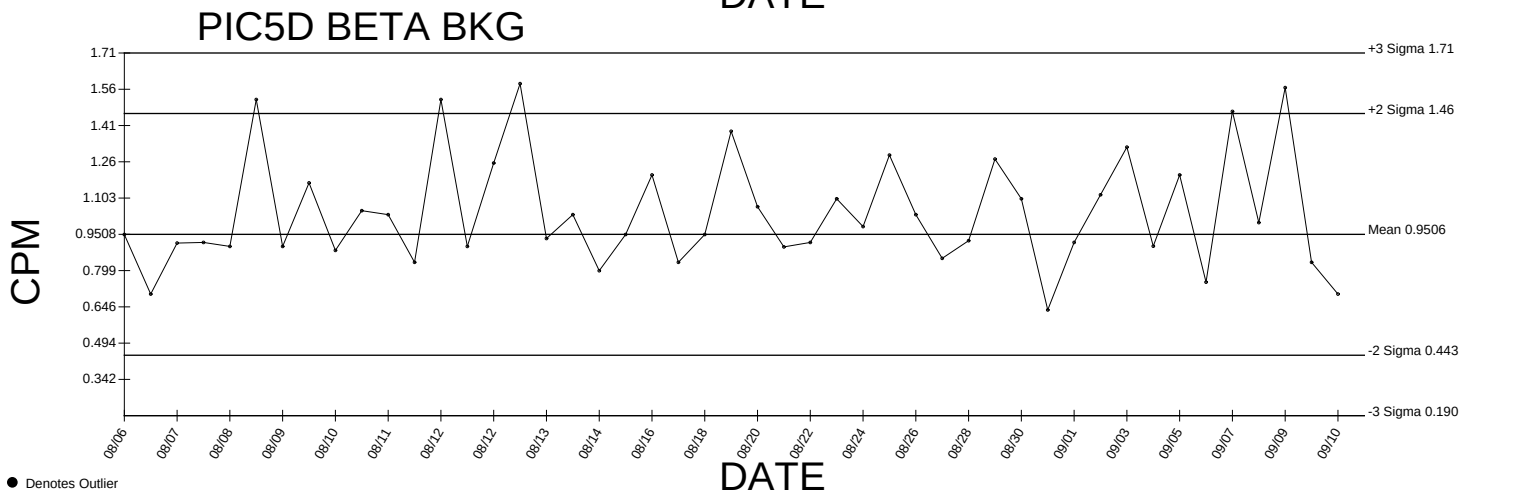


● Denotes Outlier

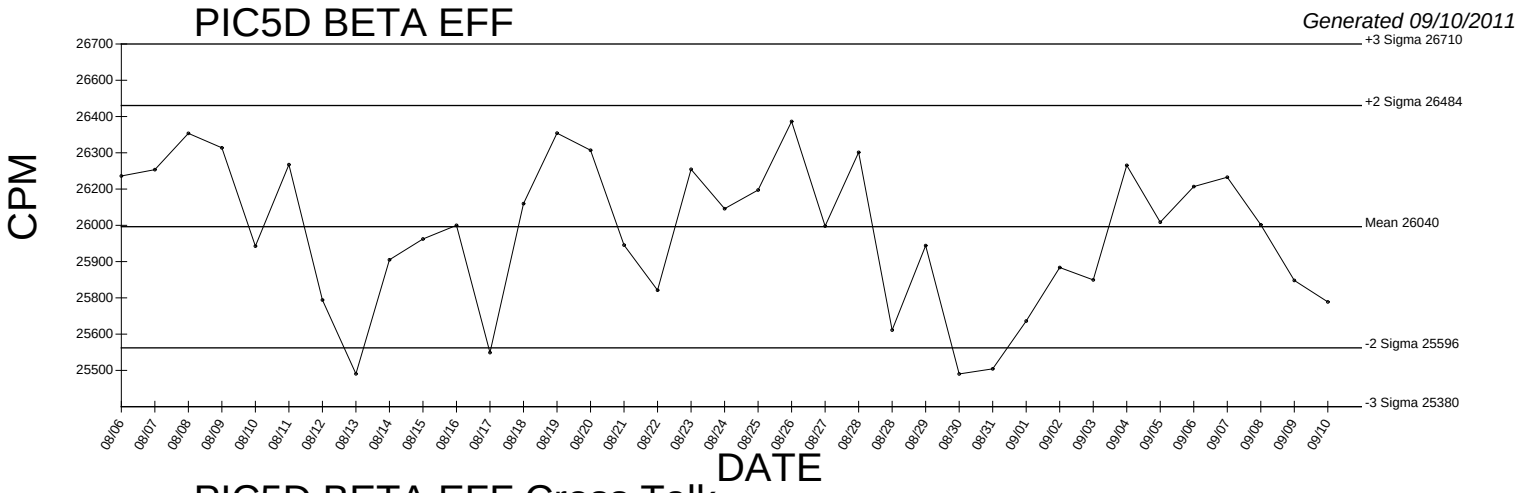


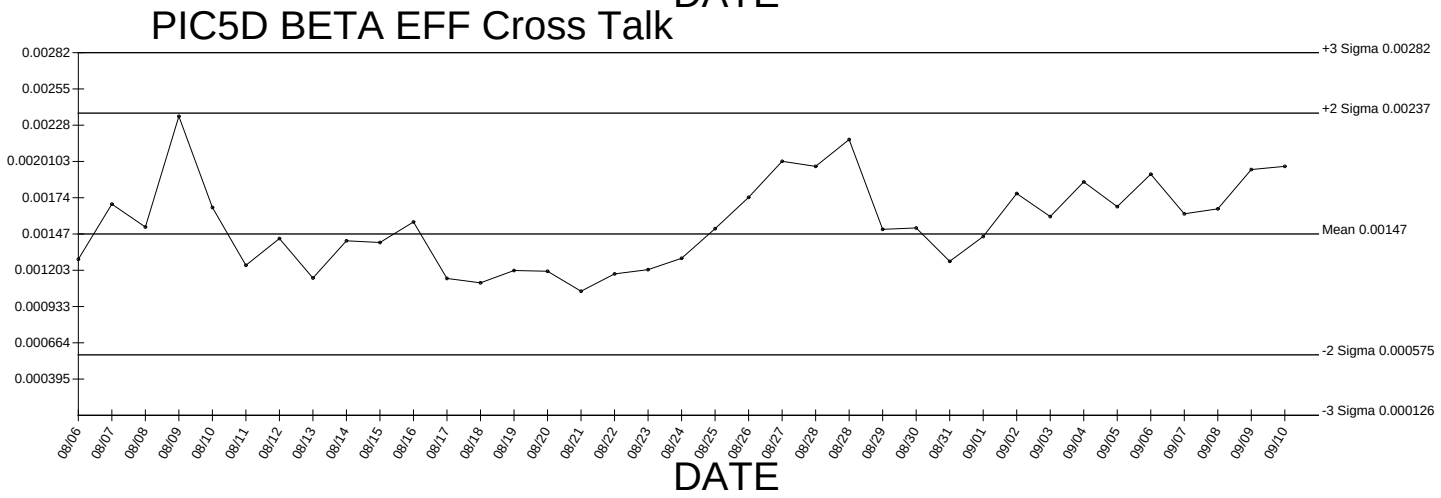




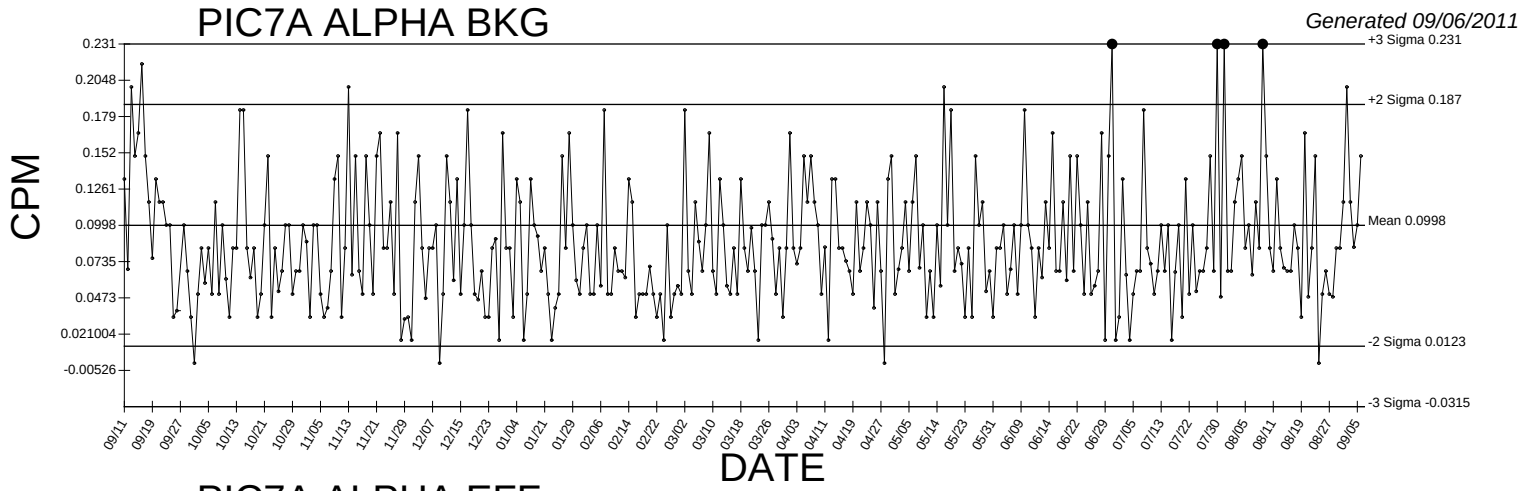


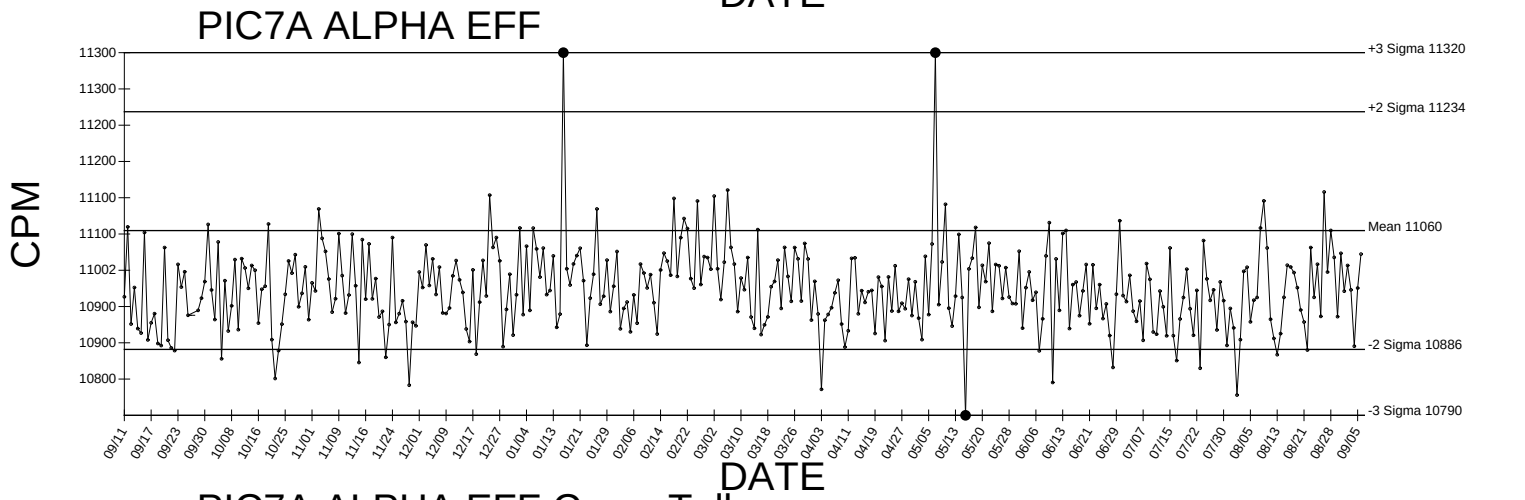
● Denotes Outlier

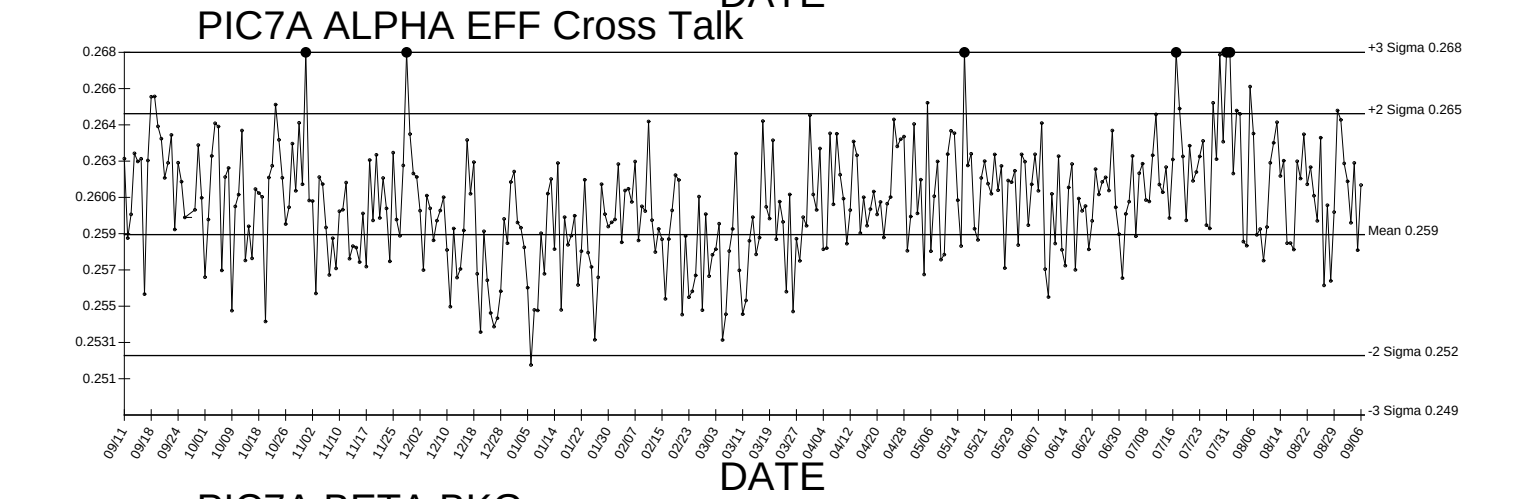


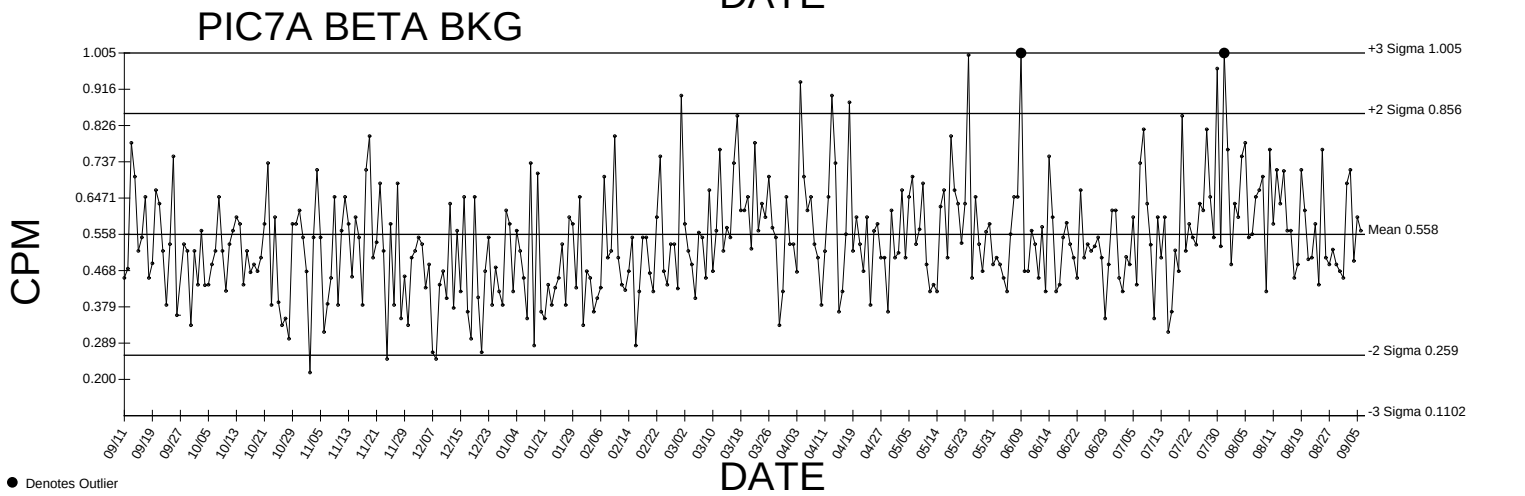


● Denotes Outlier

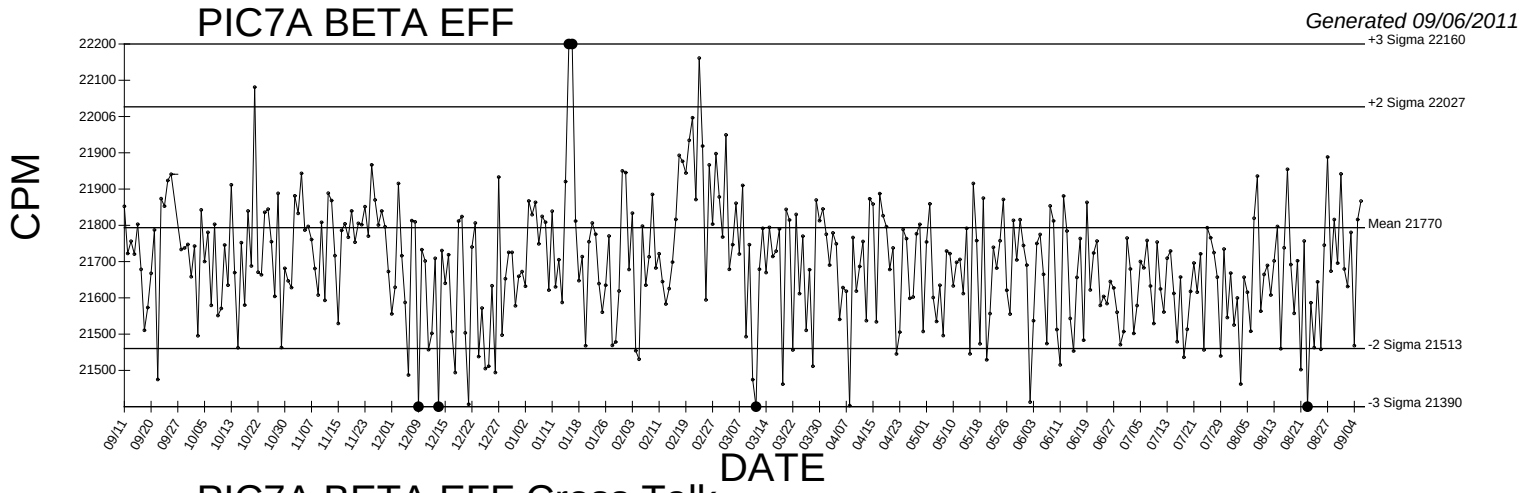


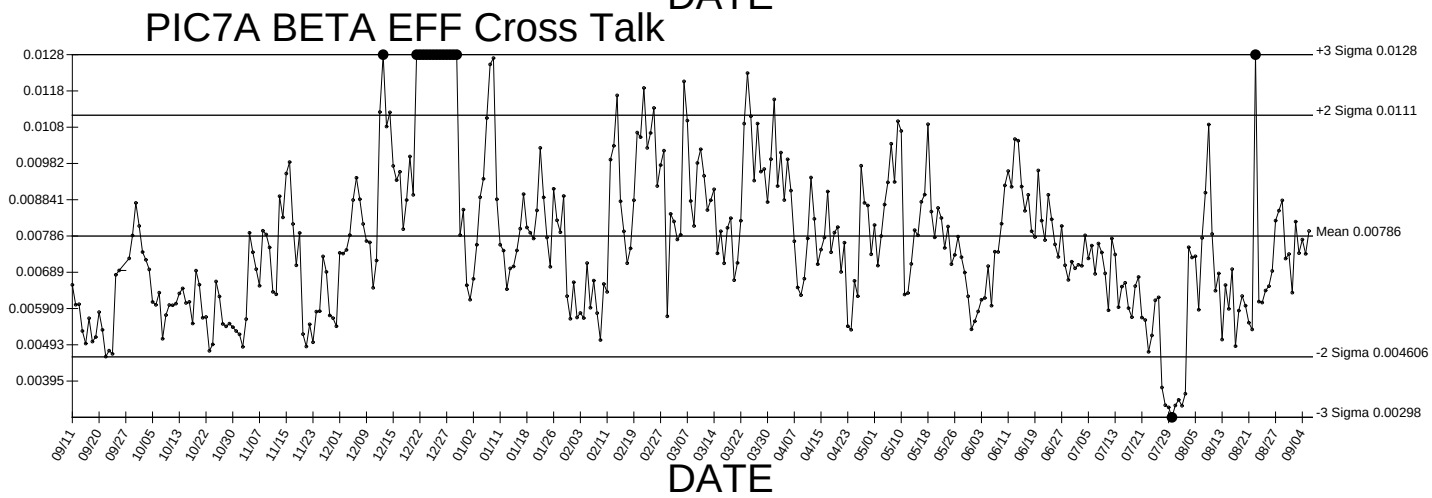




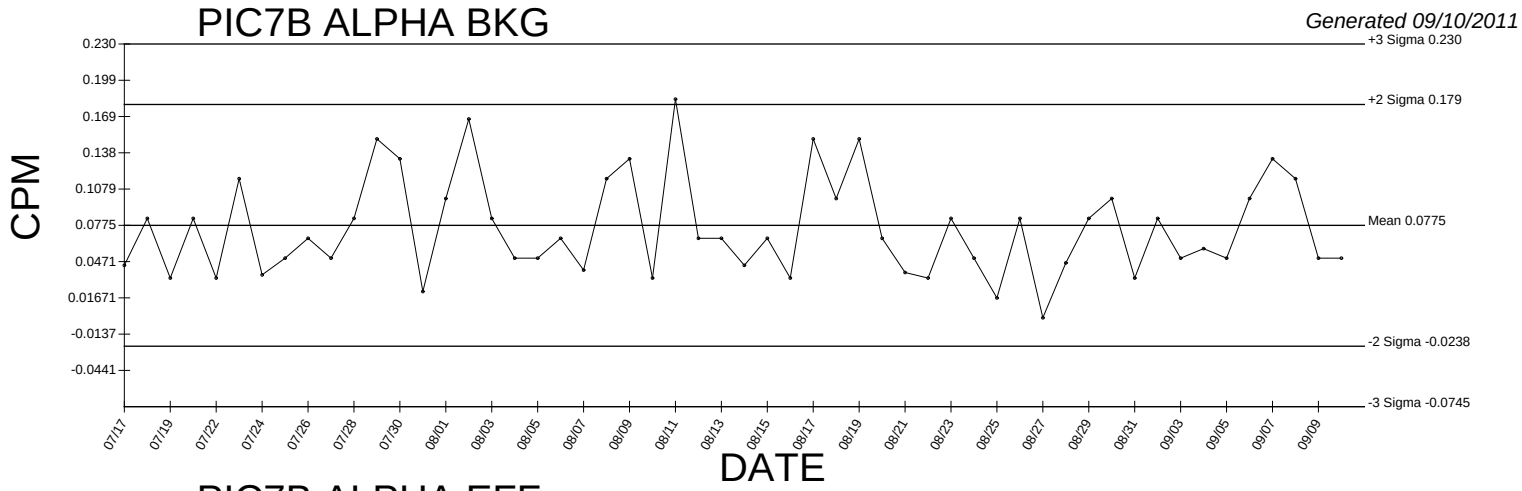


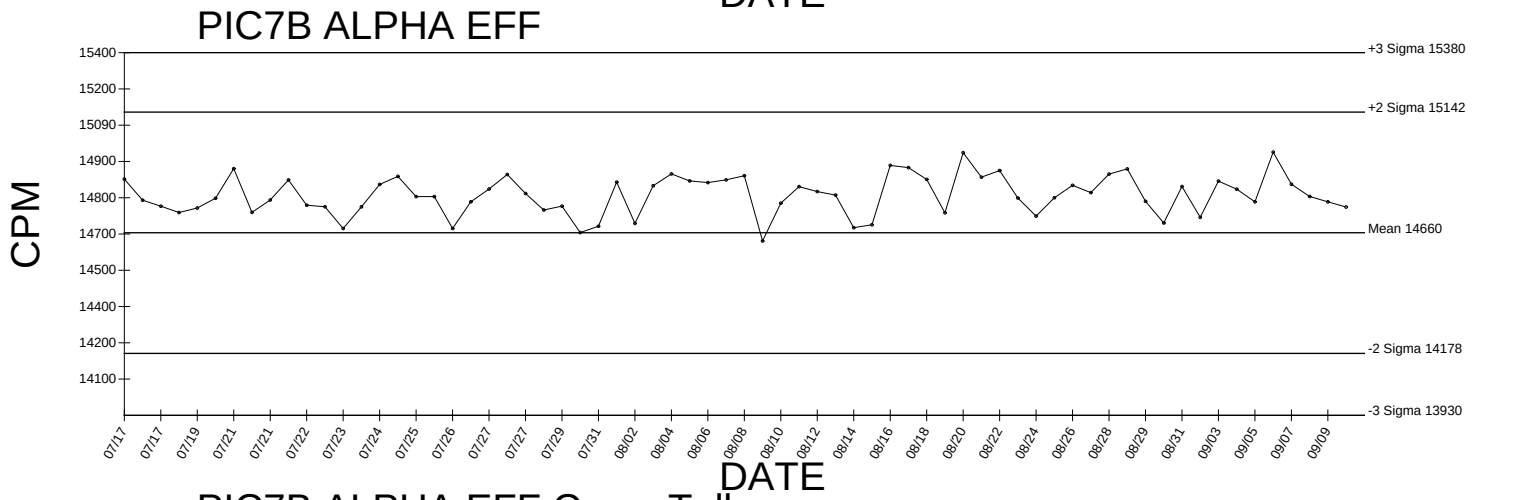
● Denotes Outlier

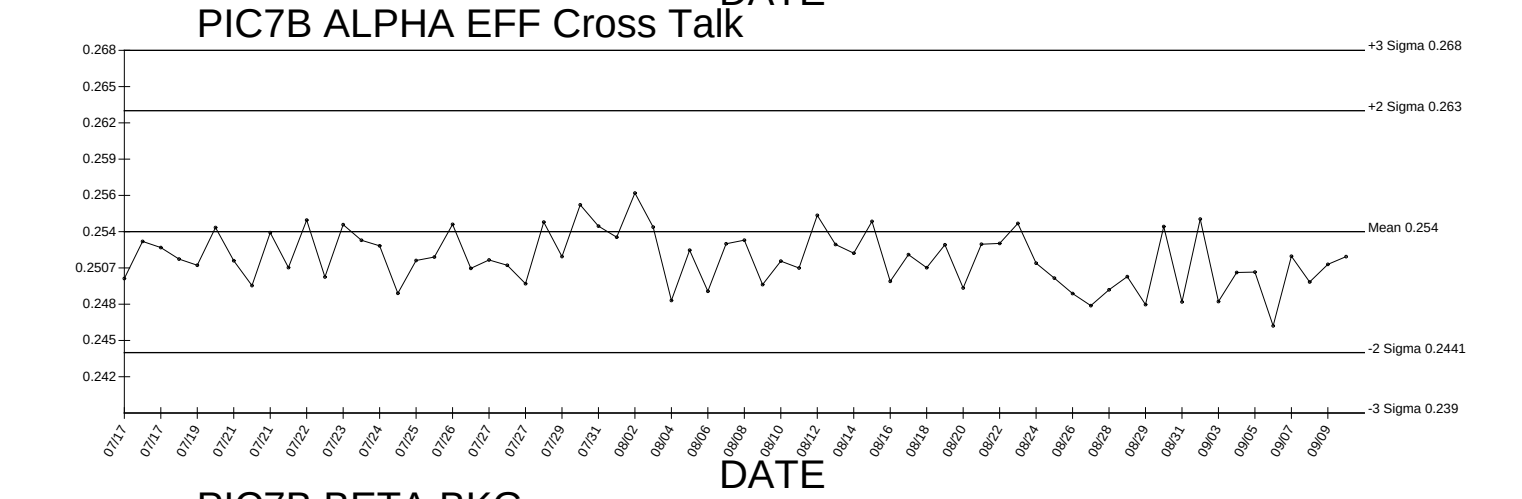


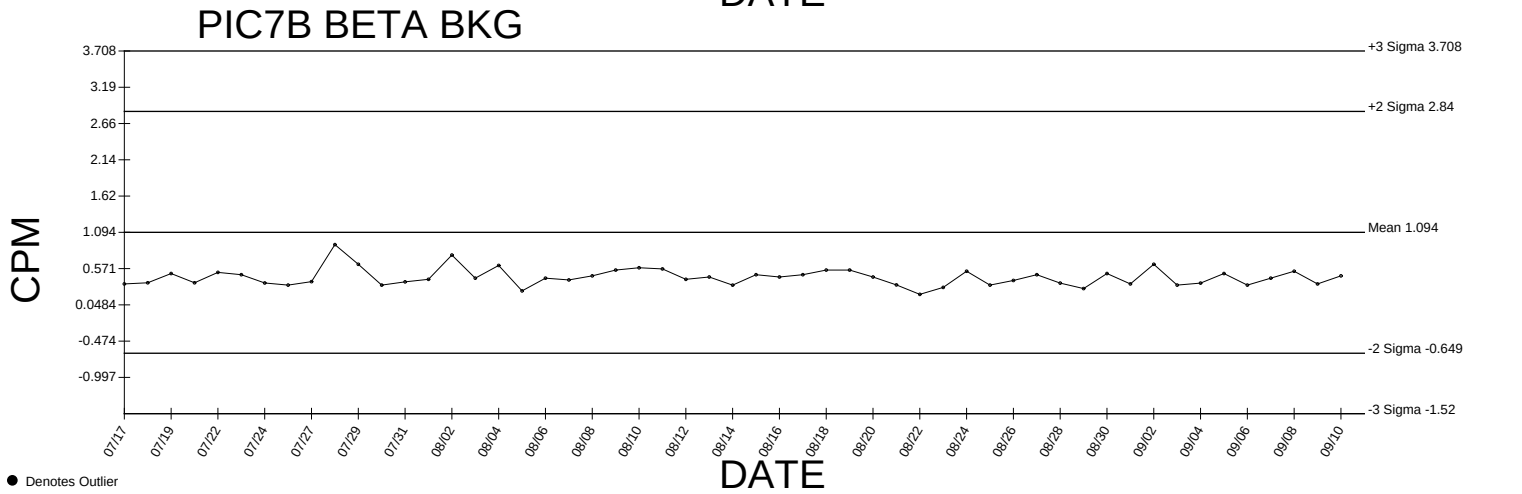


● Denotes Outlier

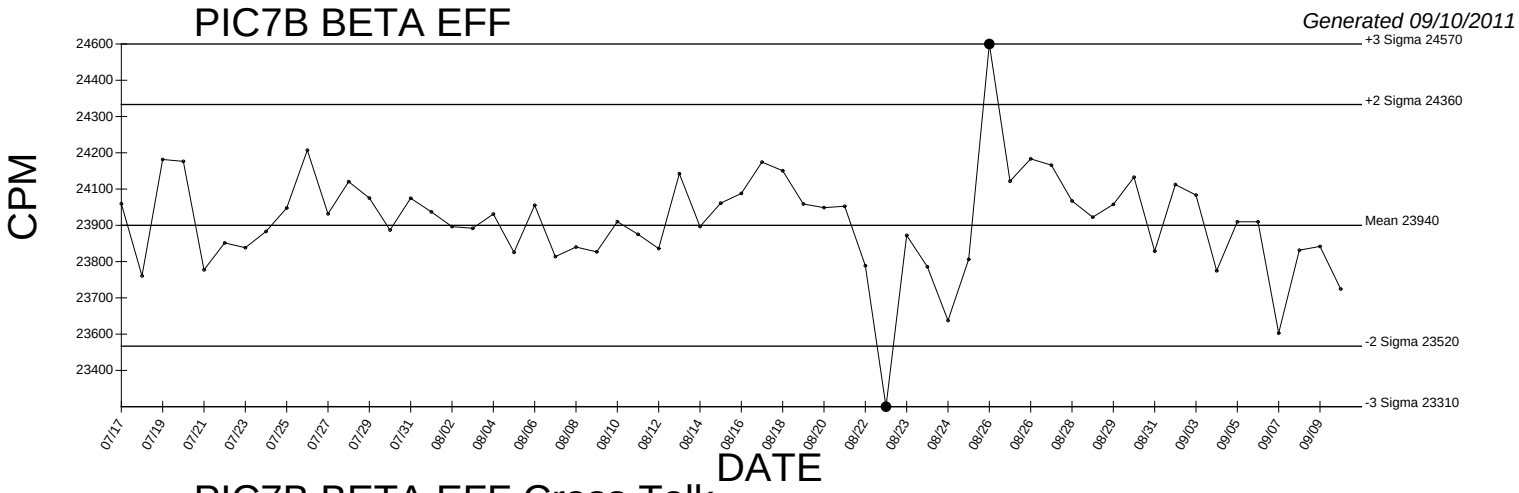


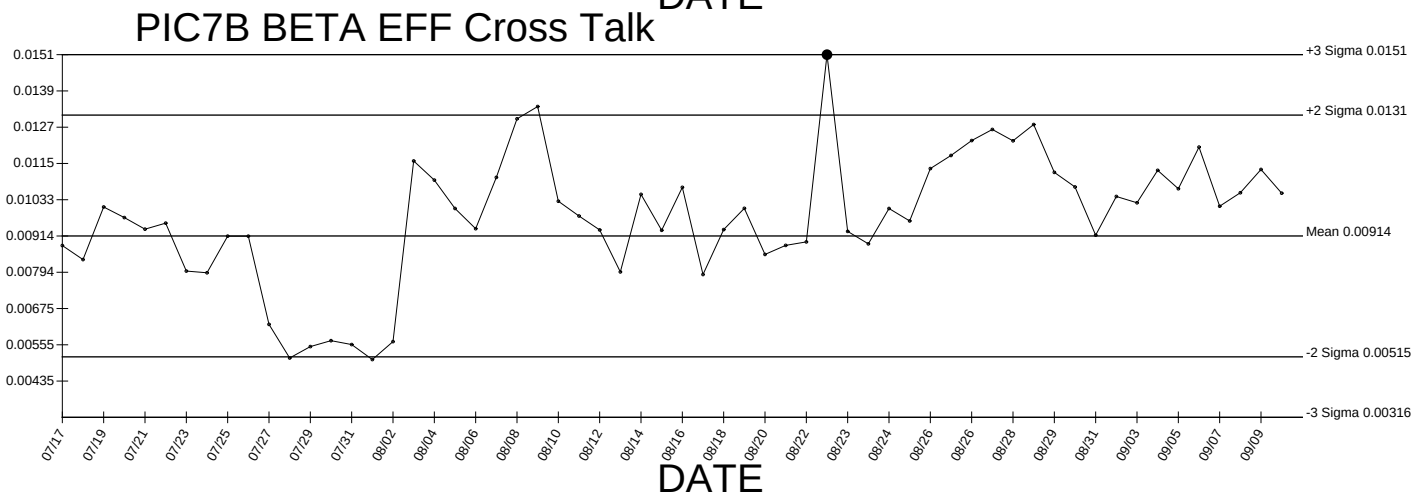




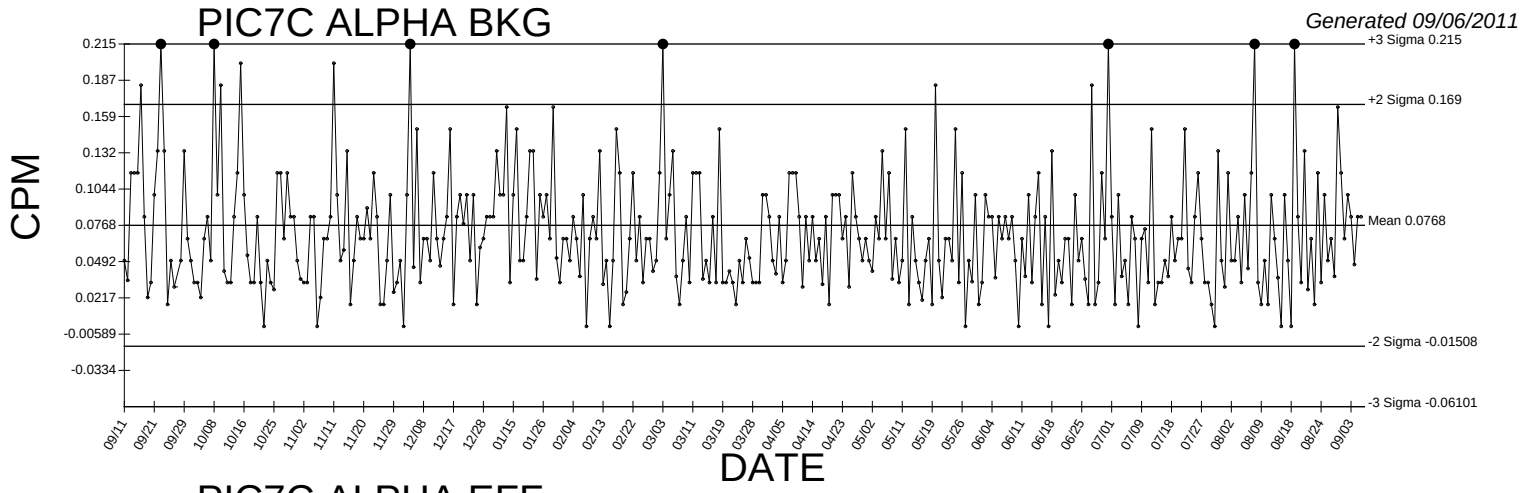


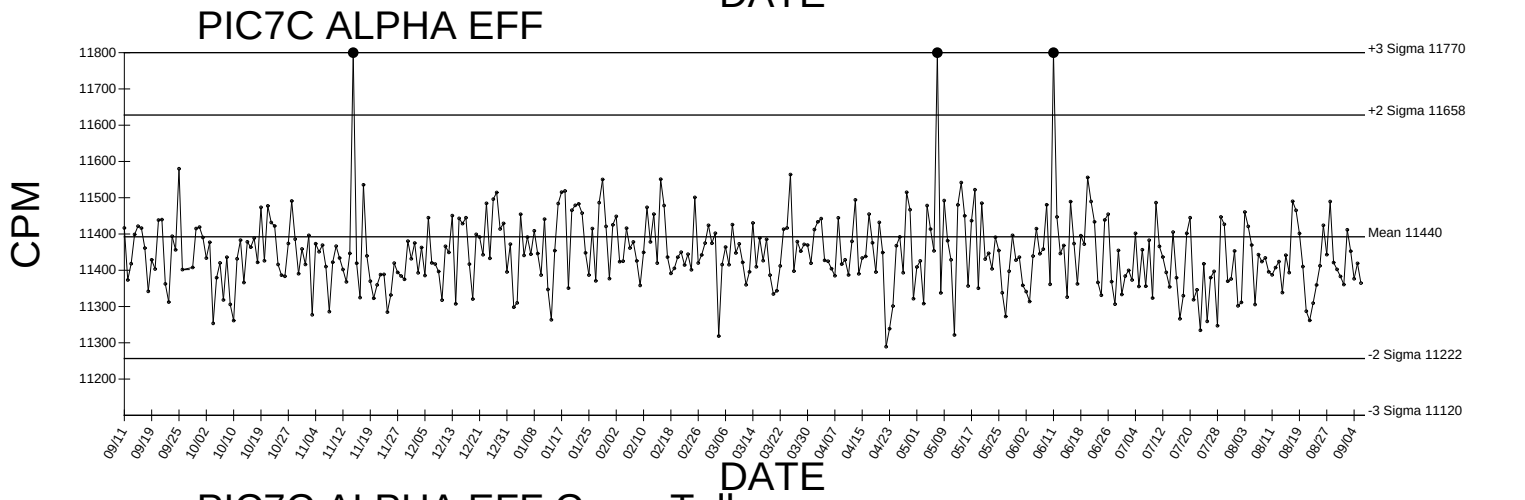
● Denotes Outlier

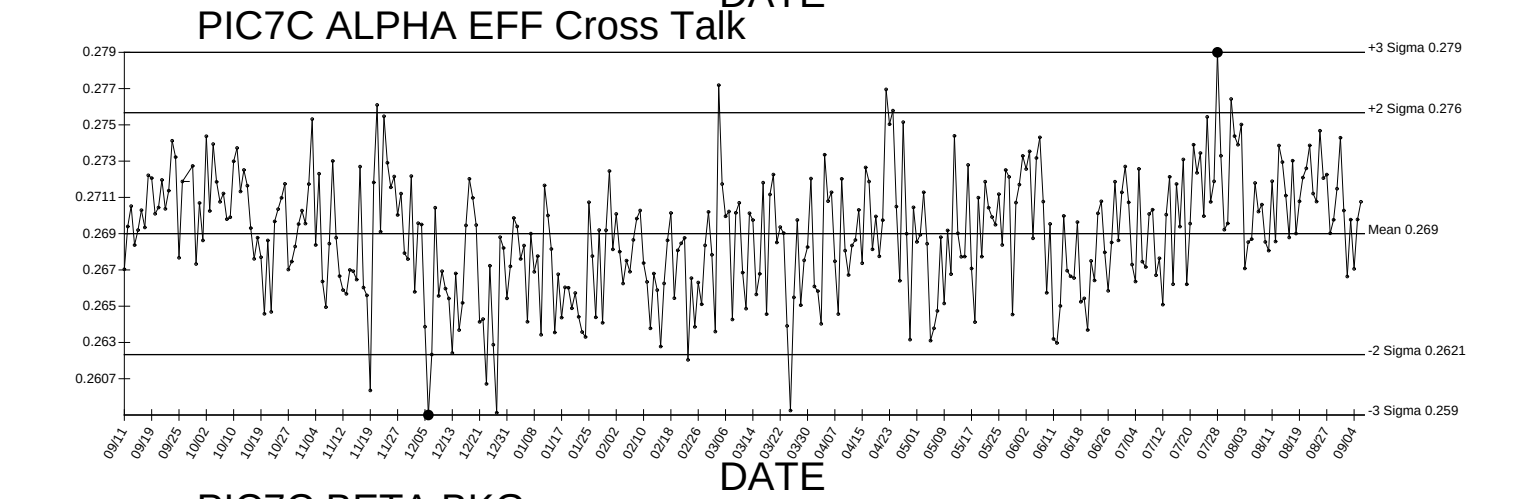


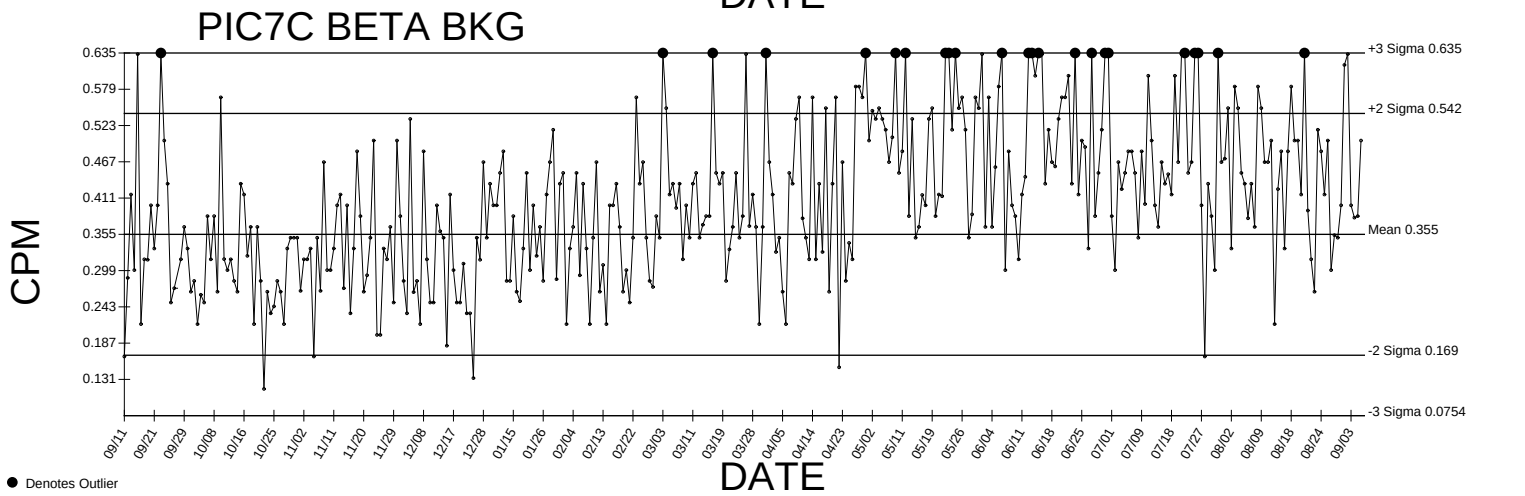


● Denotes Outlier

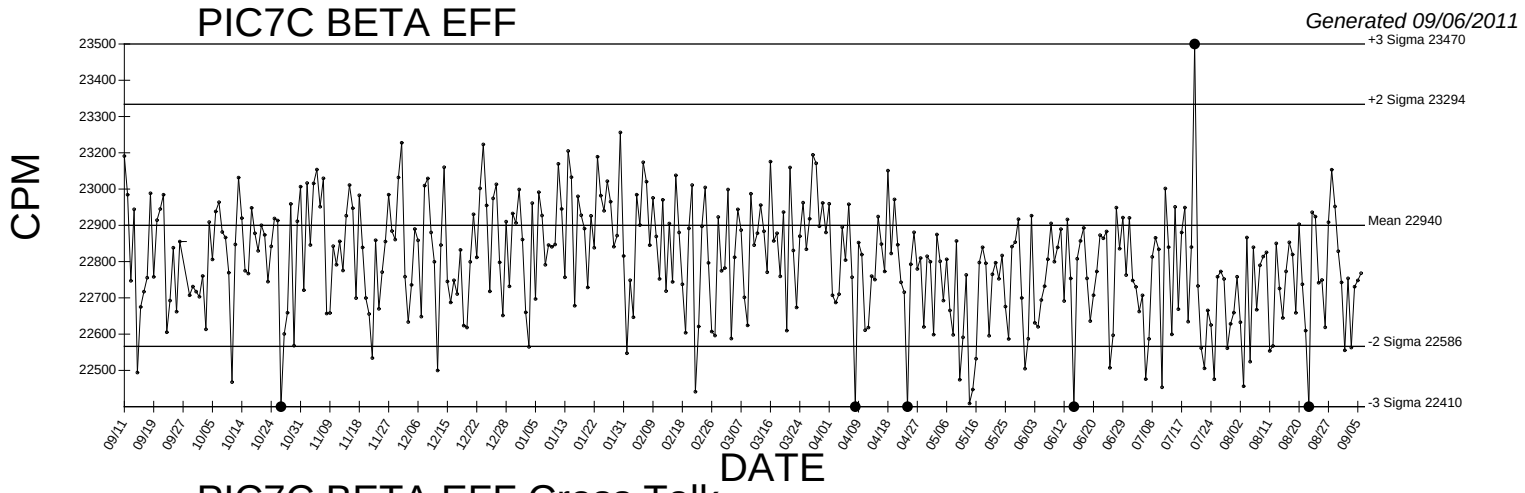


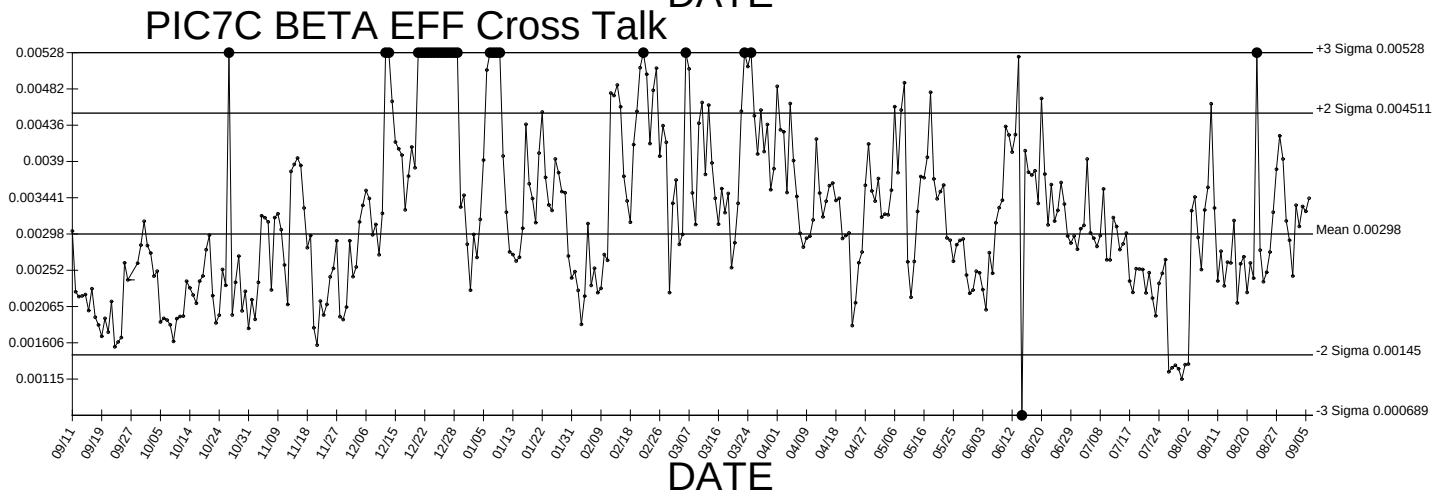




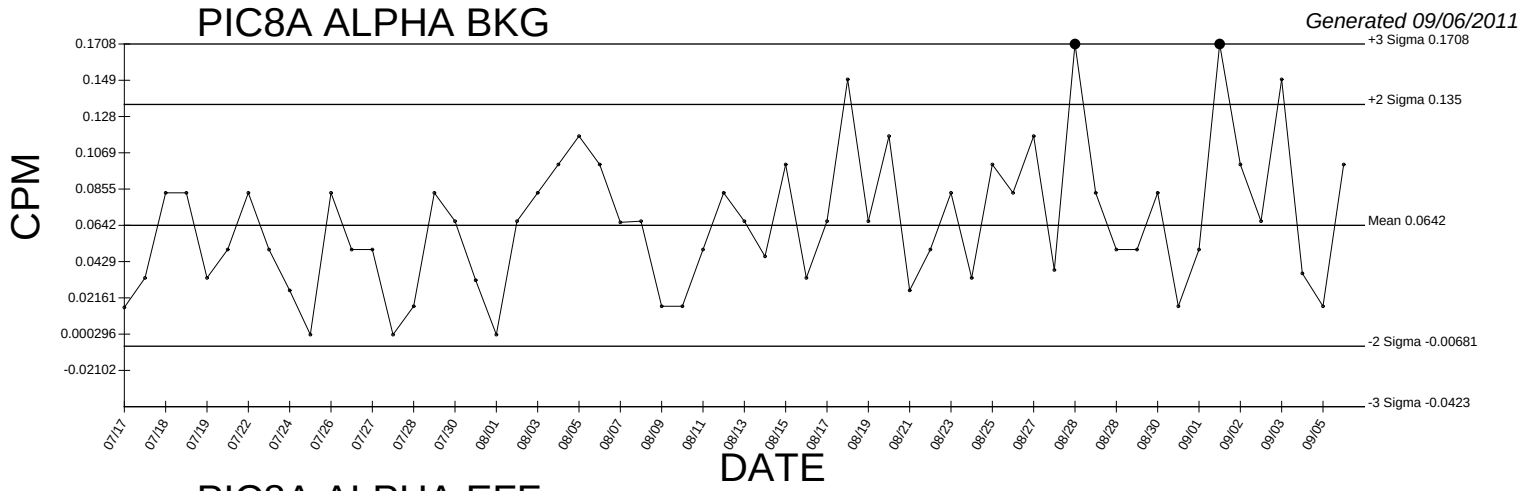


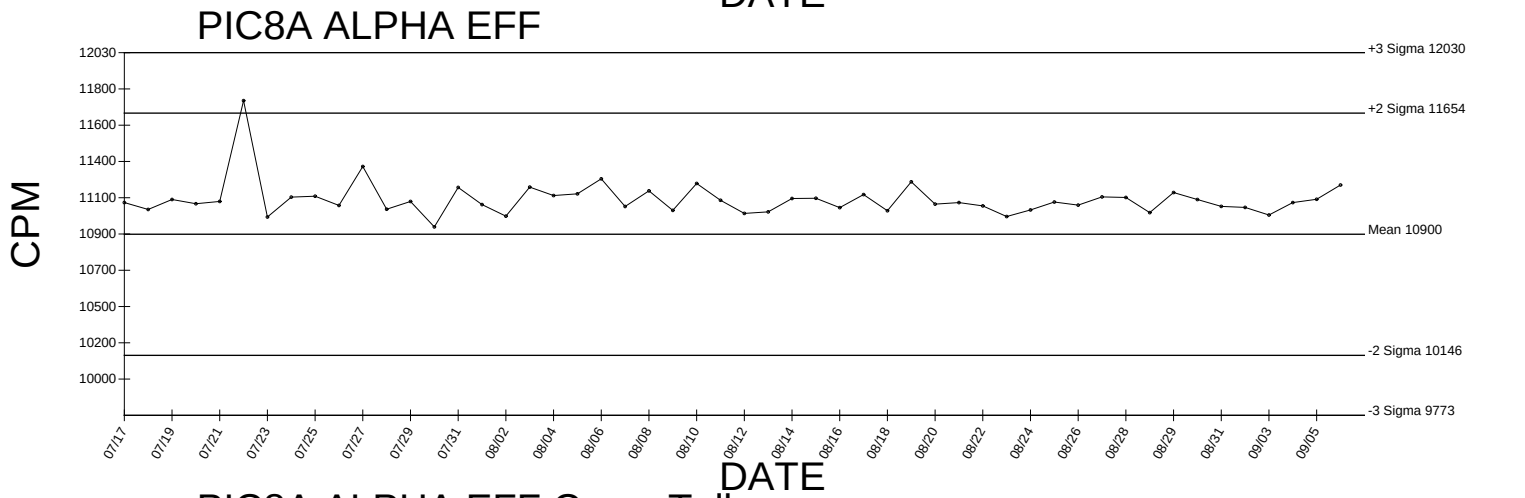
● Denotes Outlier

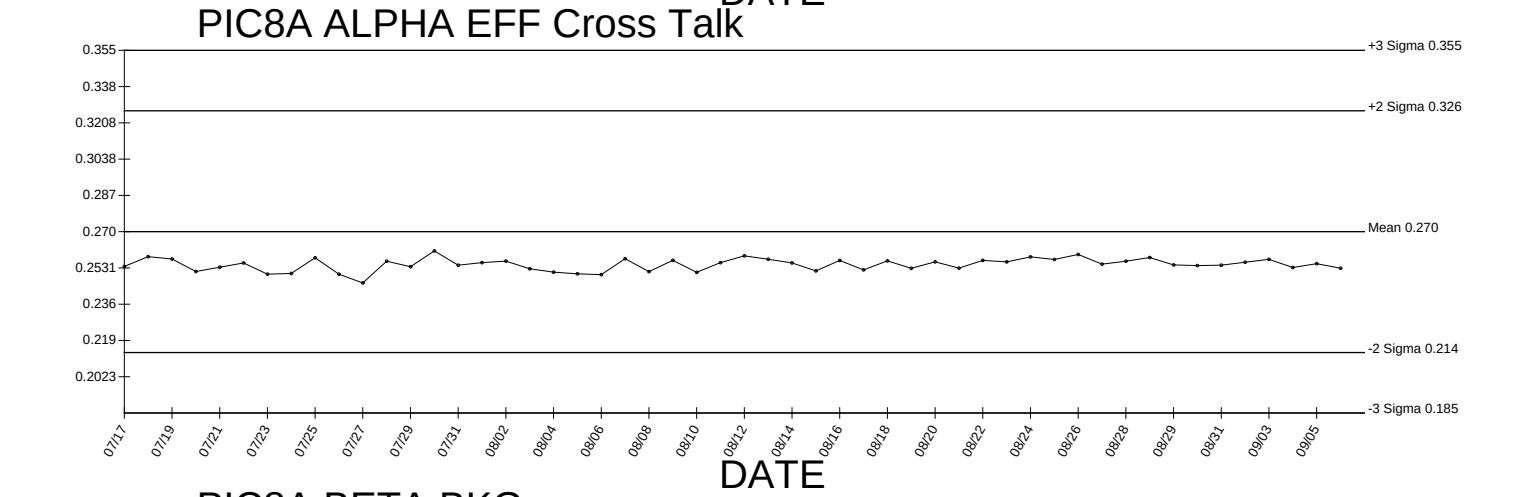


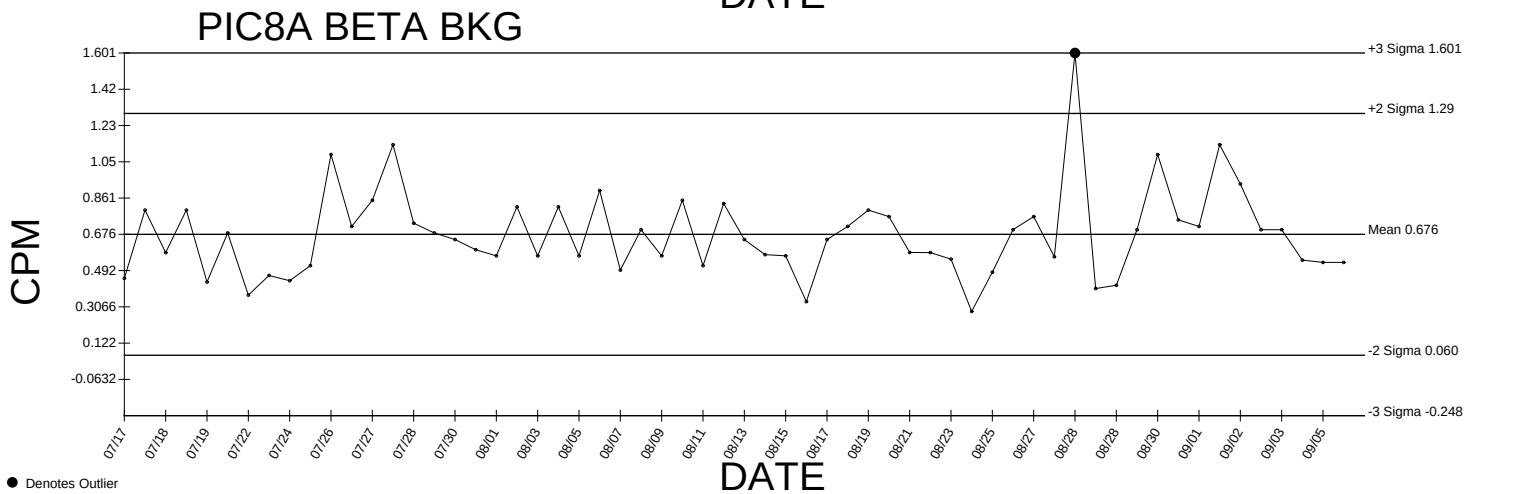


● Denotes Outlier

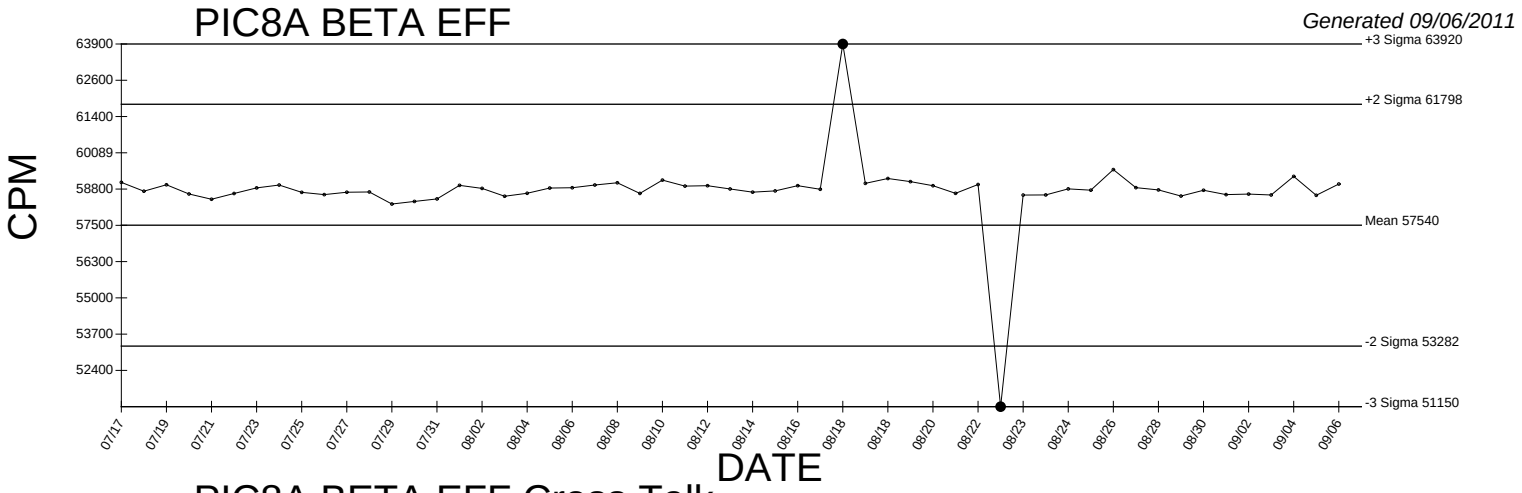


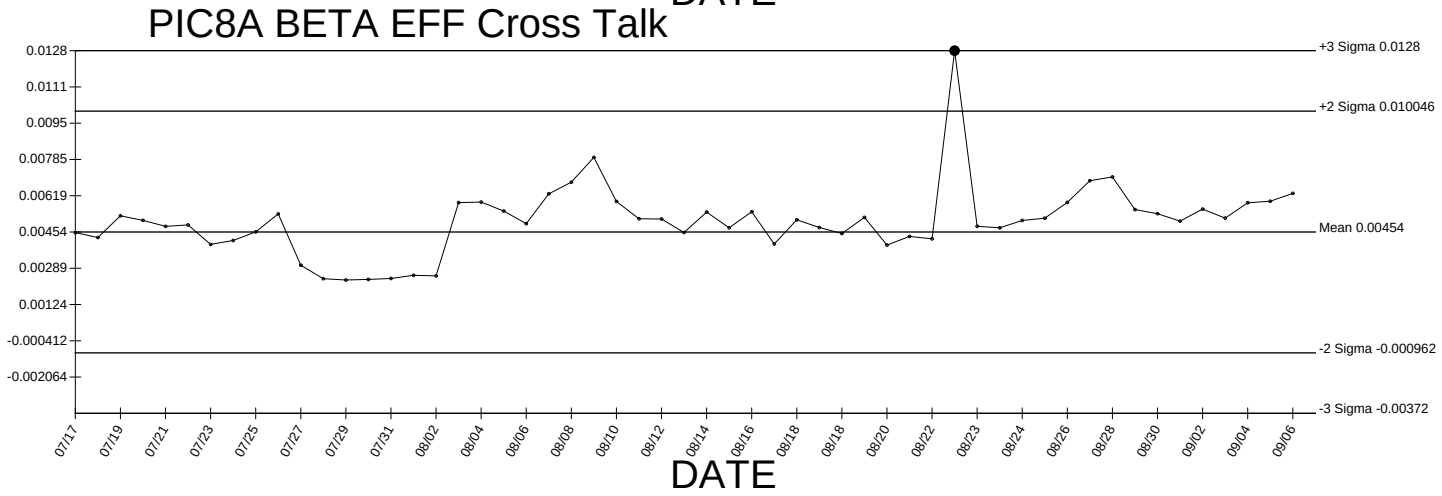




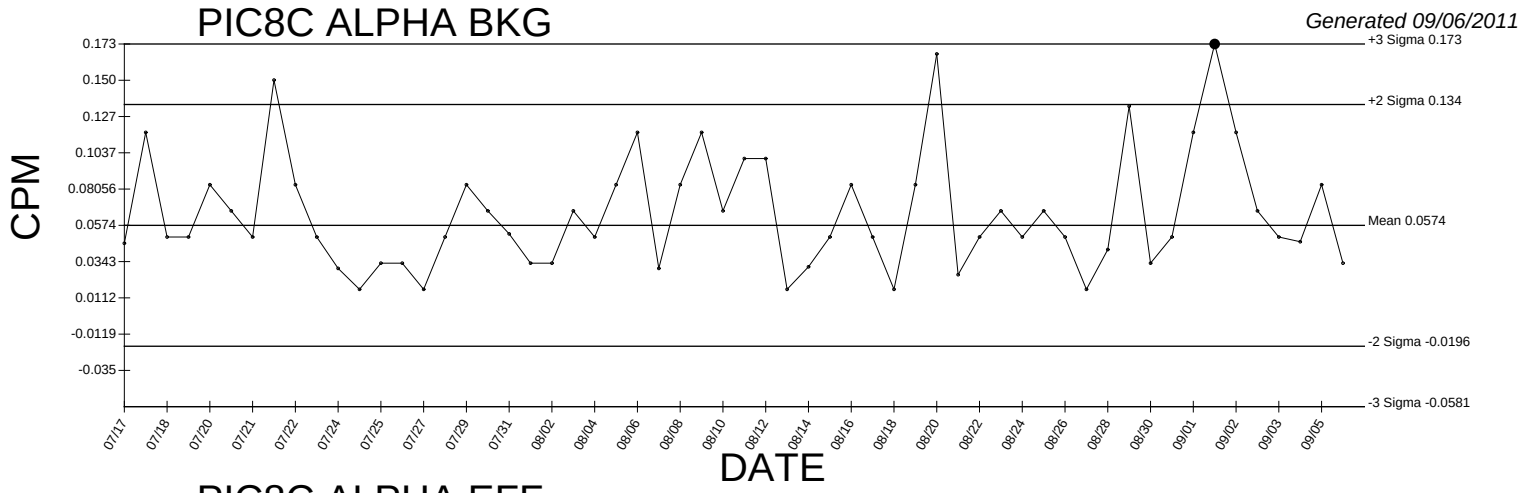


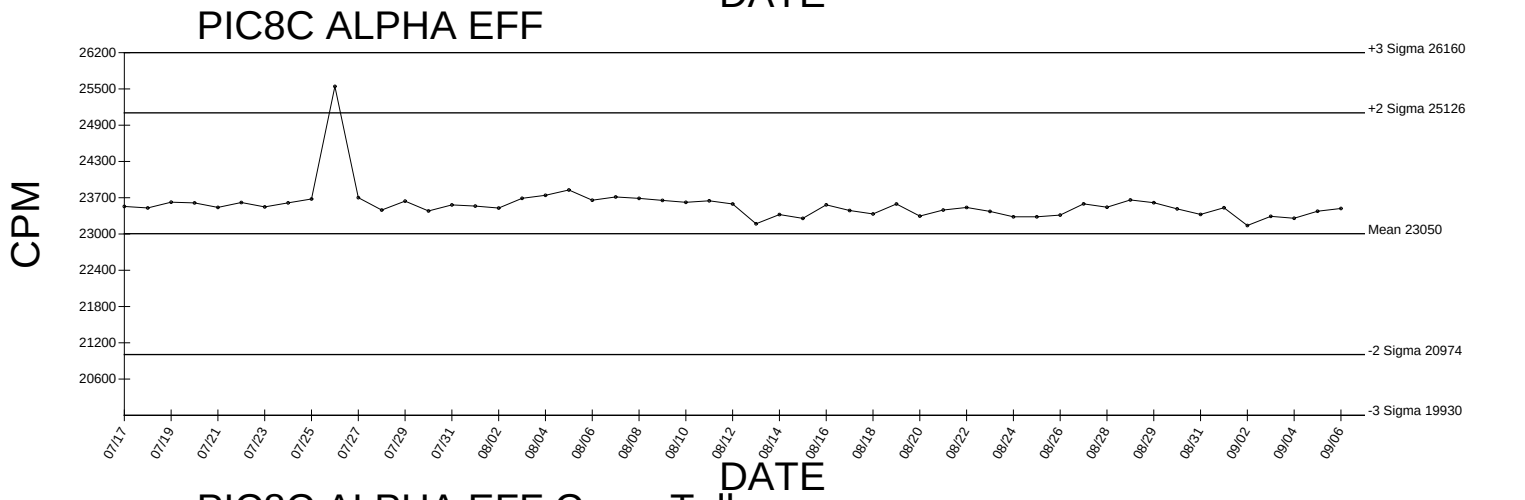
● Denotes Outlier

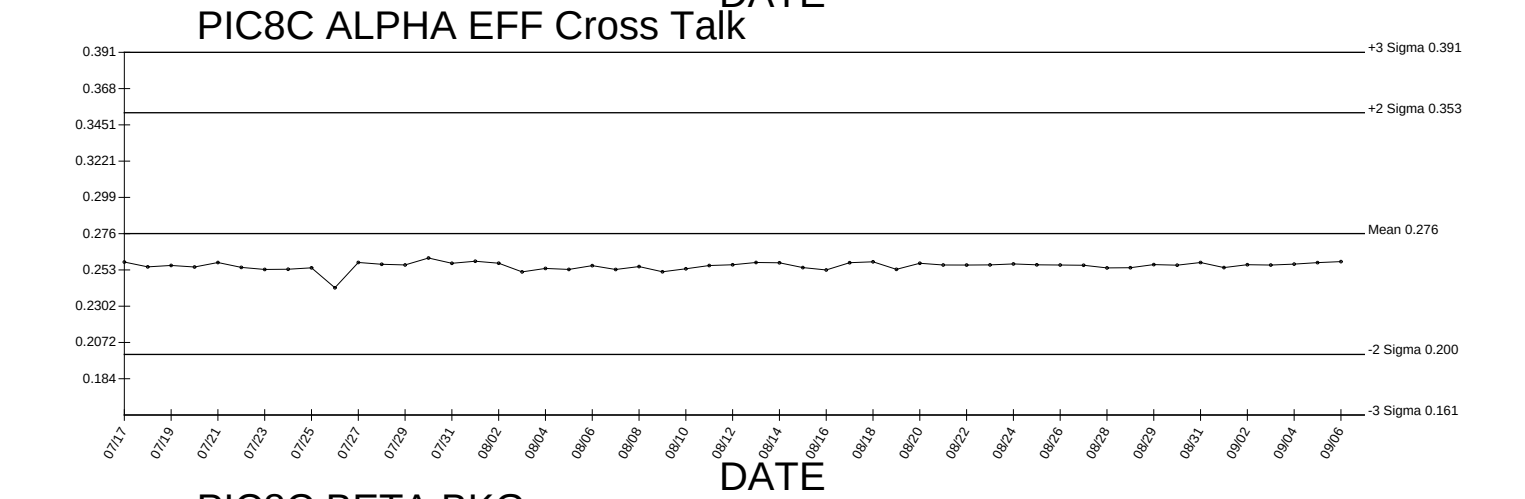


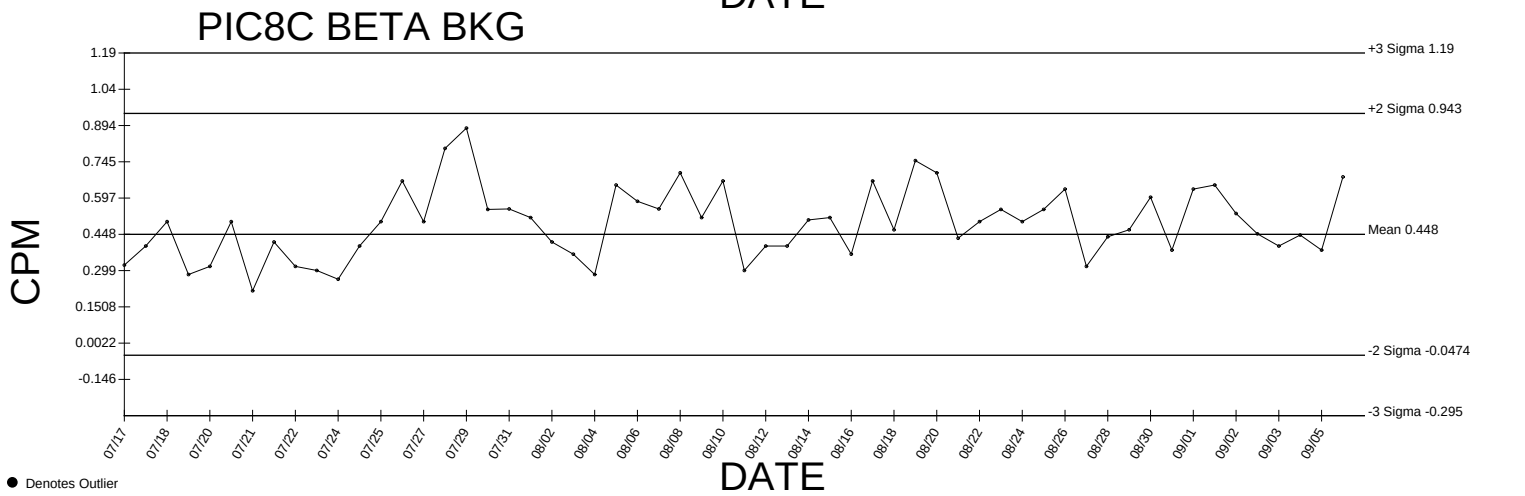


● Denotes Outlier

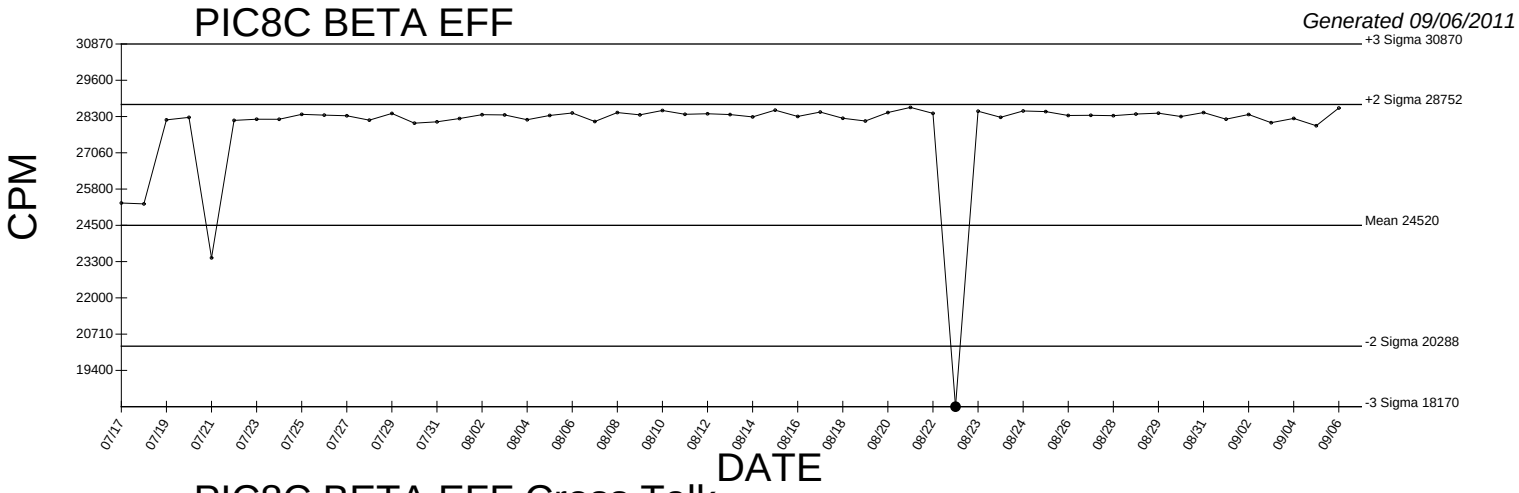


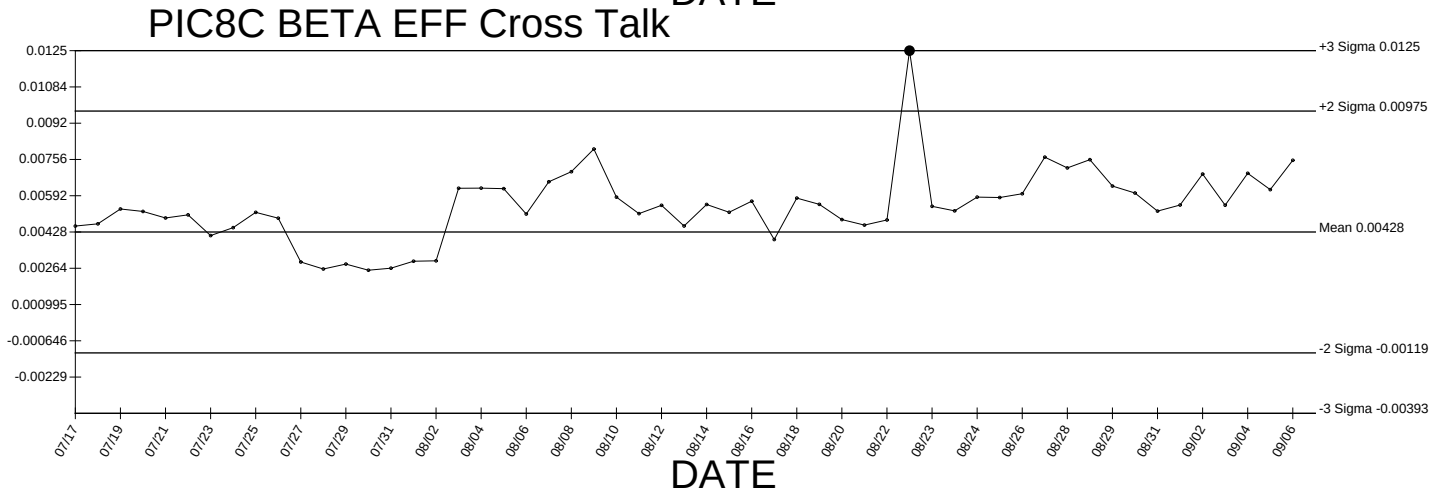






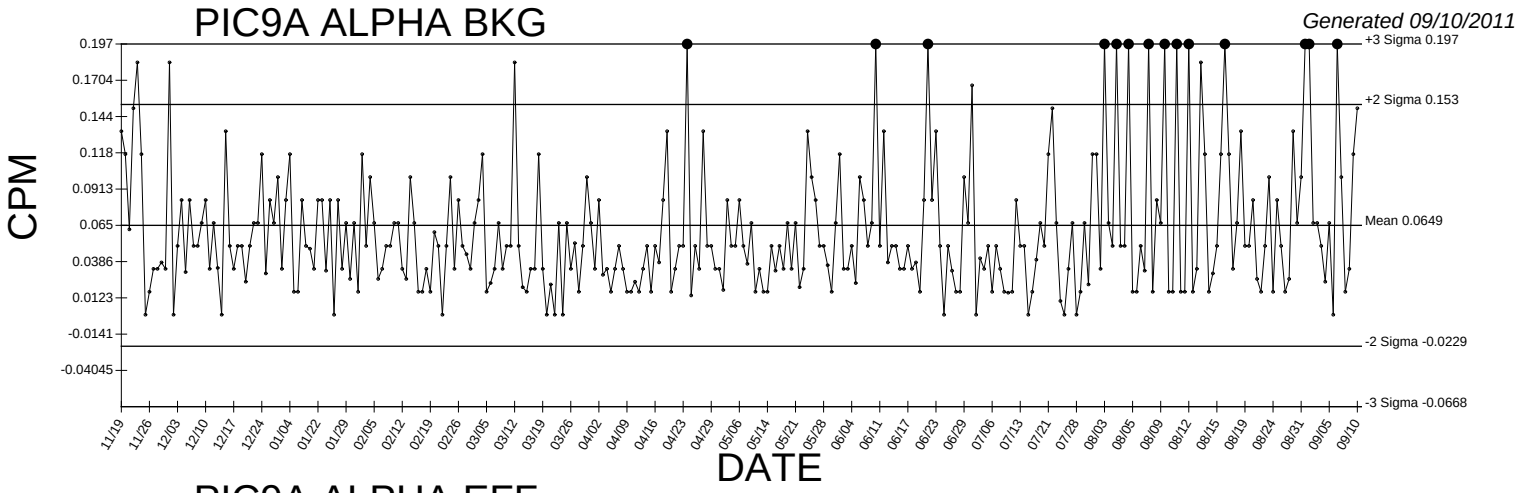
● Denotes Outlier

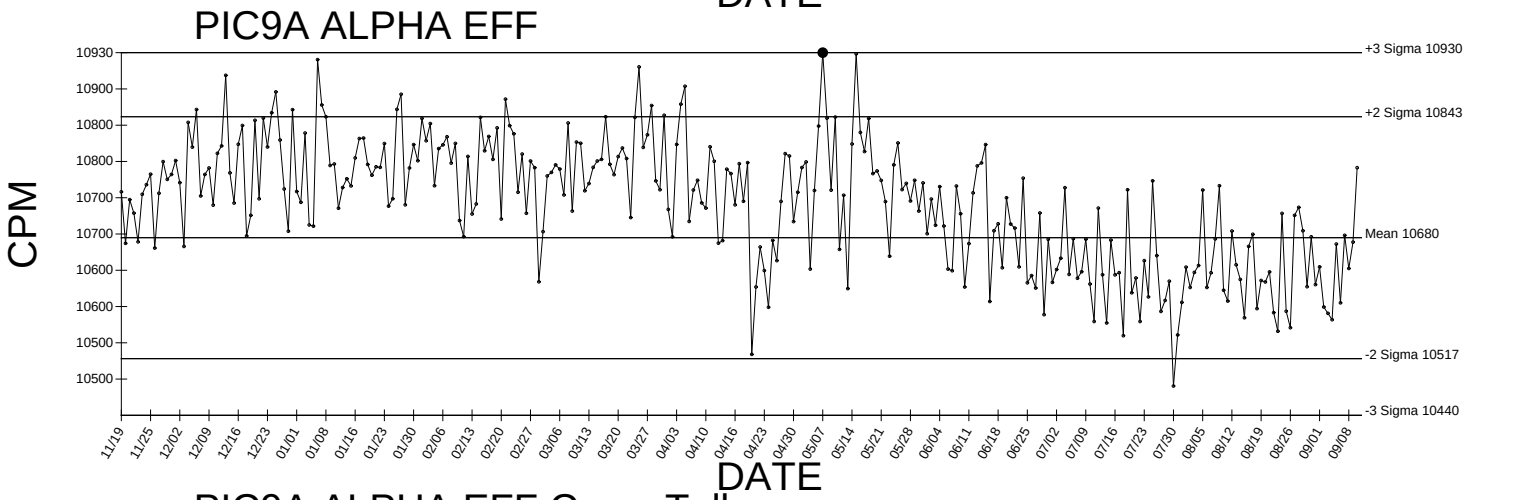


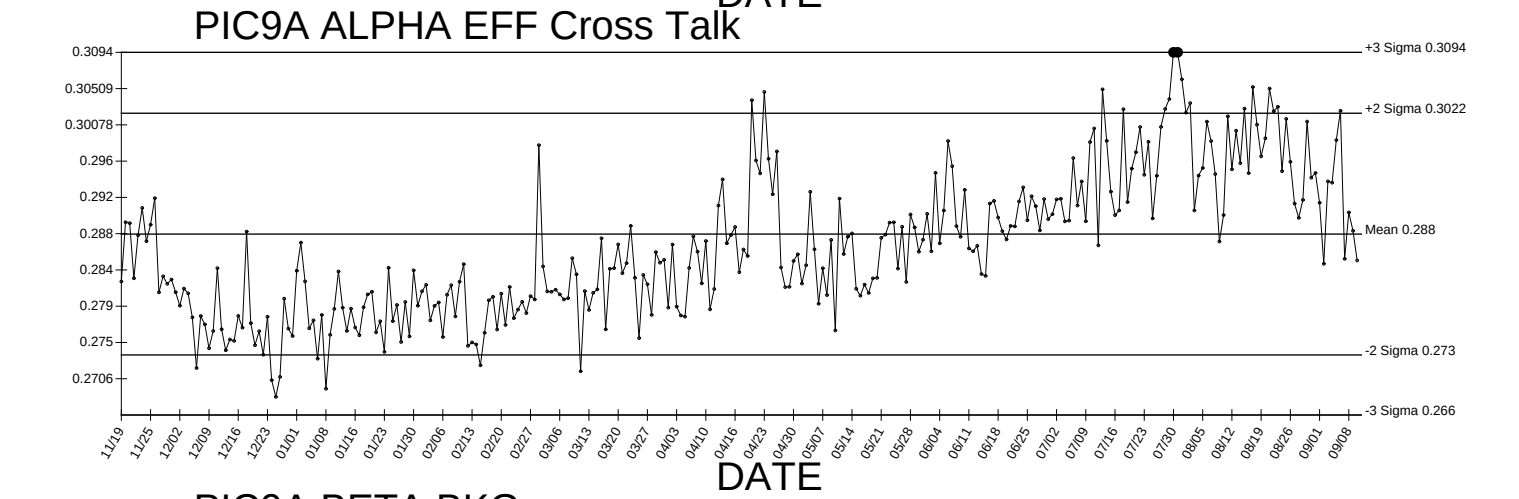


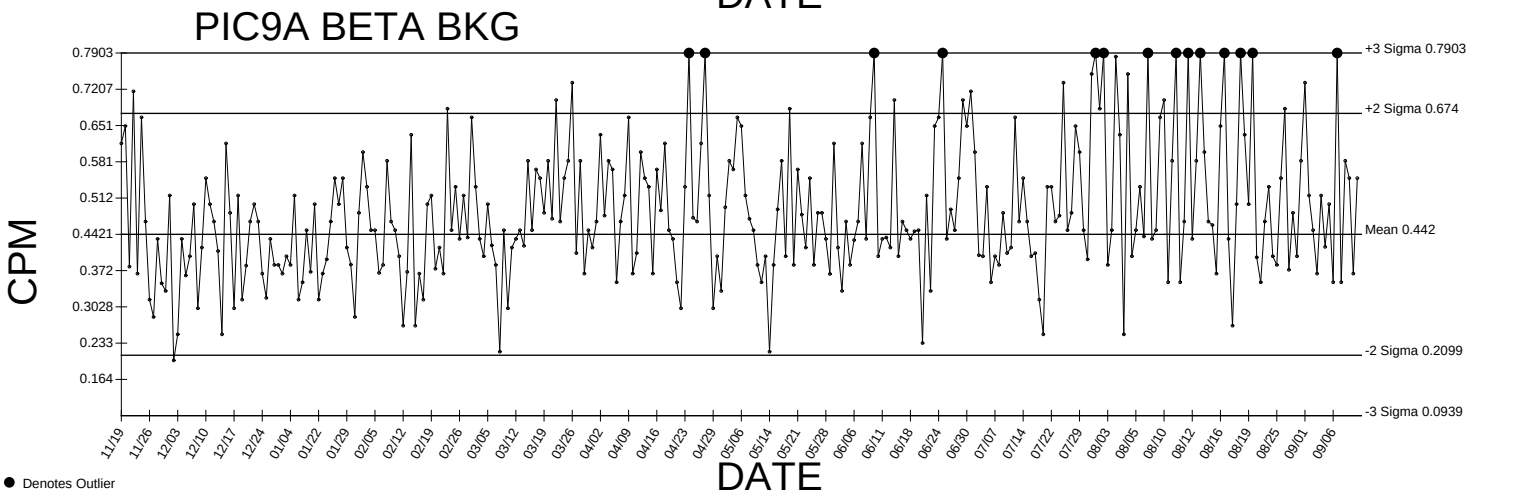
● Denotes Outlier

Generated 09/10/2011

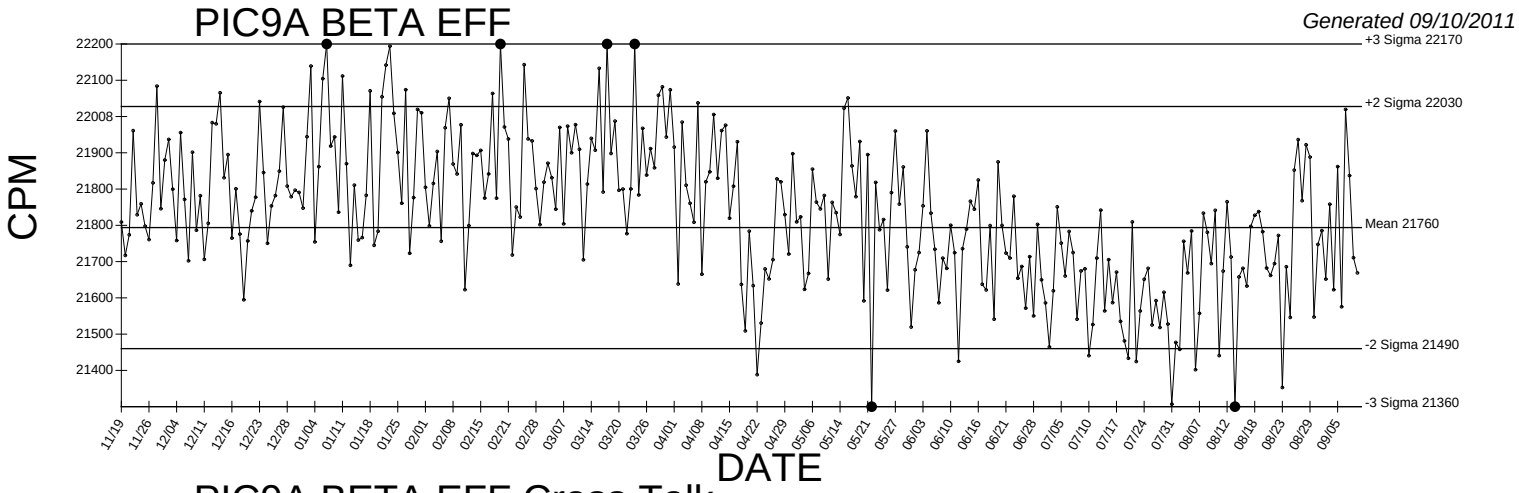


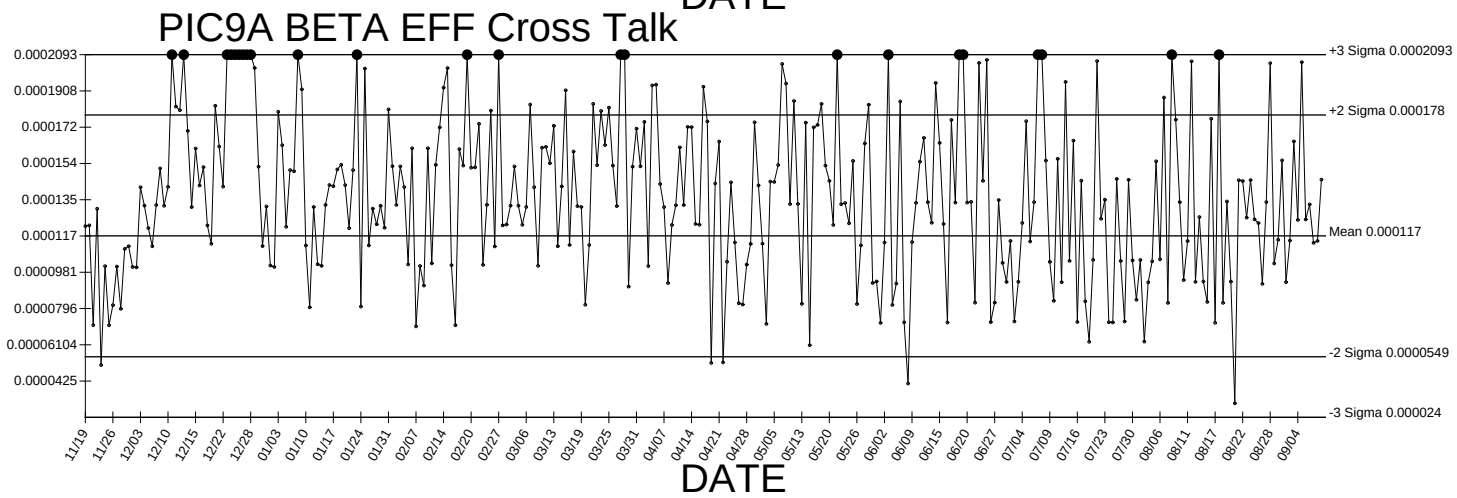




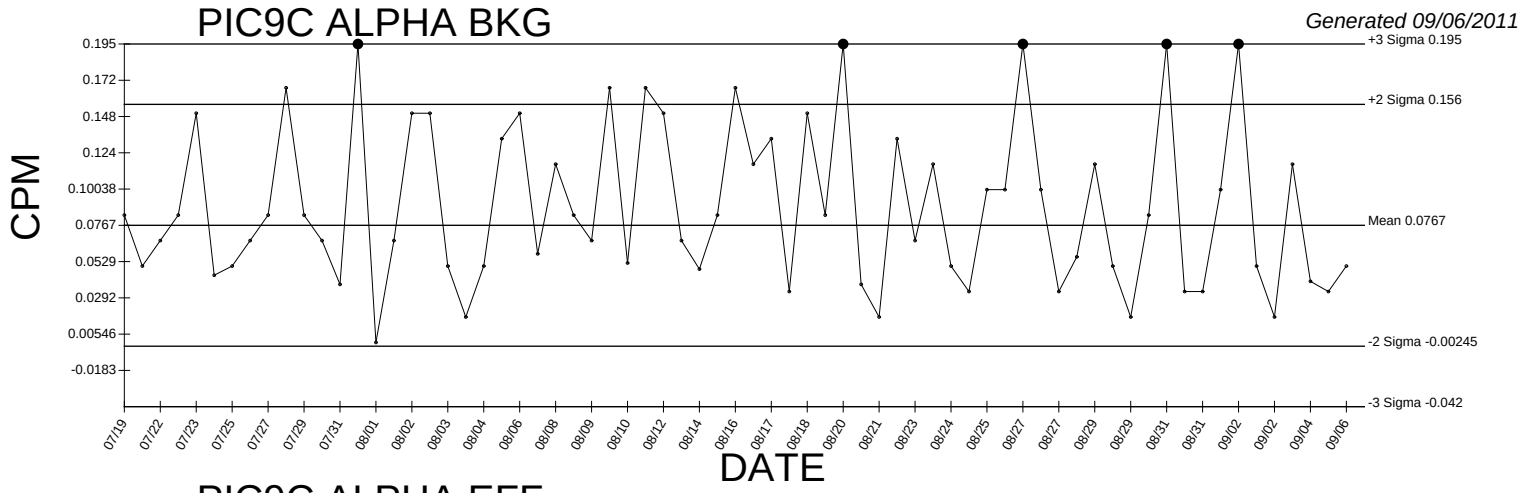


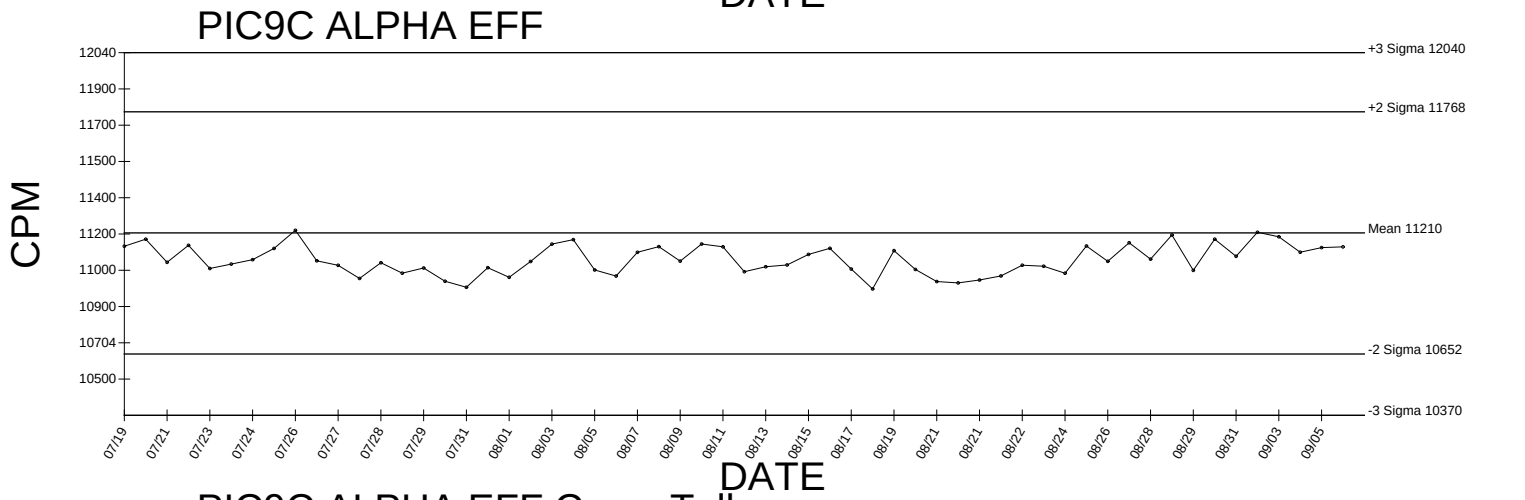
● Denotes Outlier

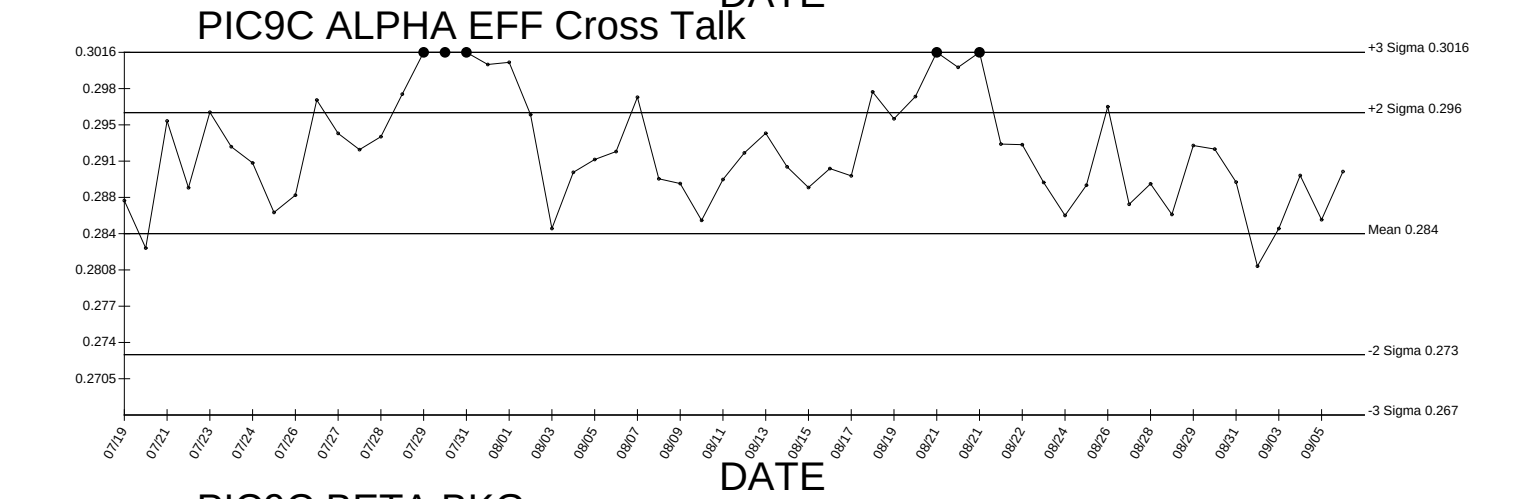


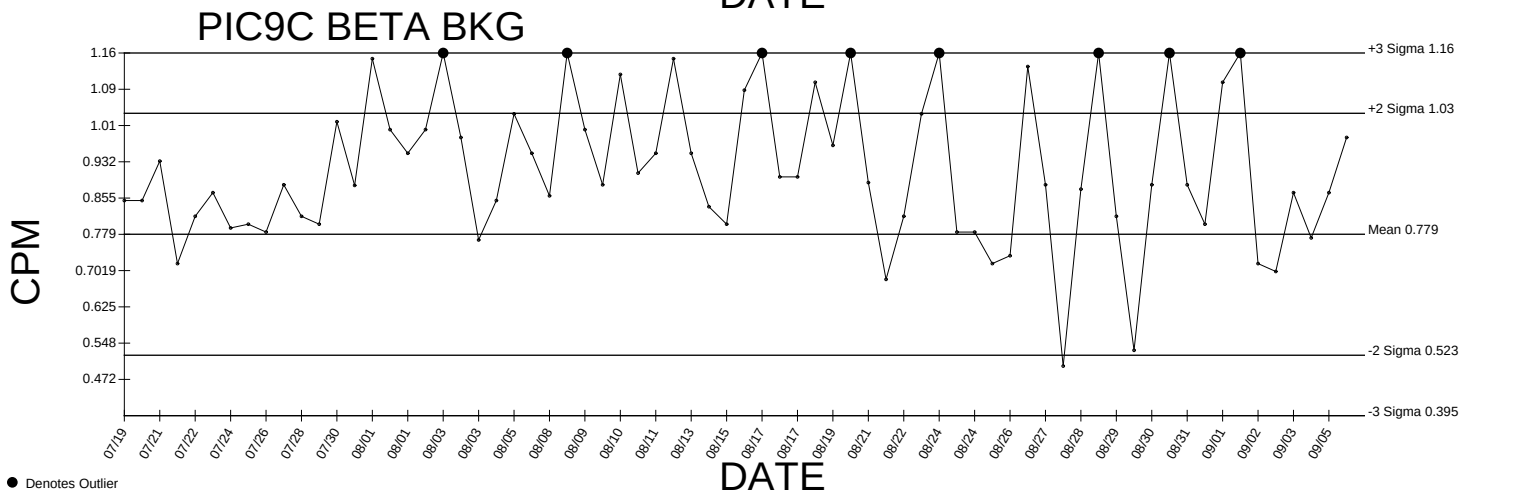


● Denotes Outlier

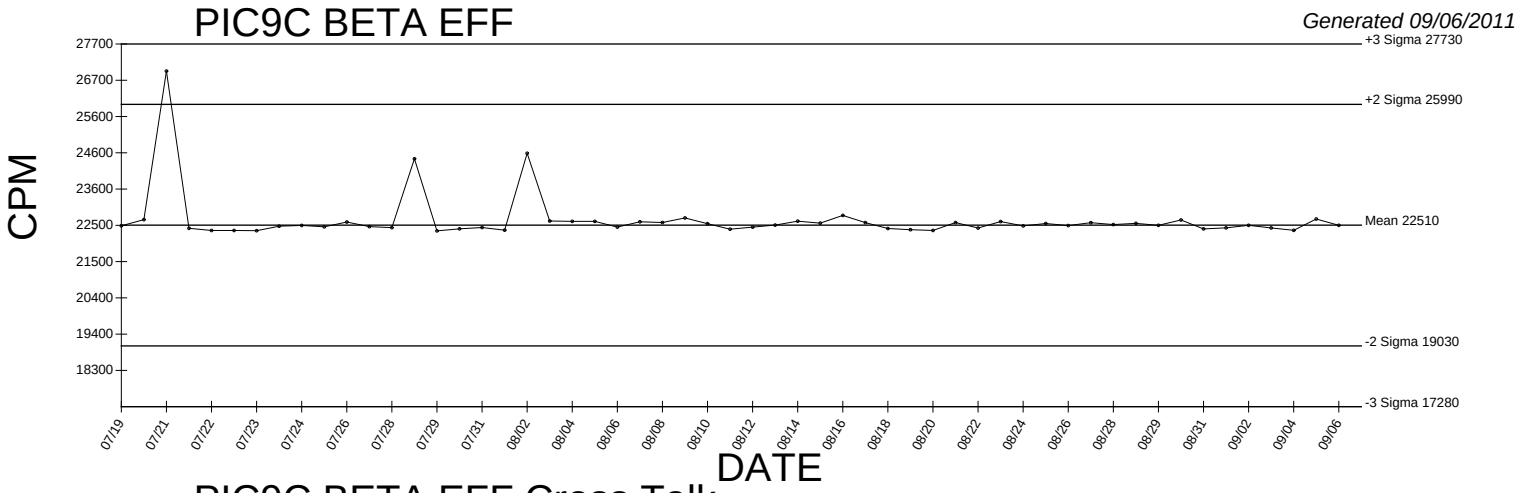


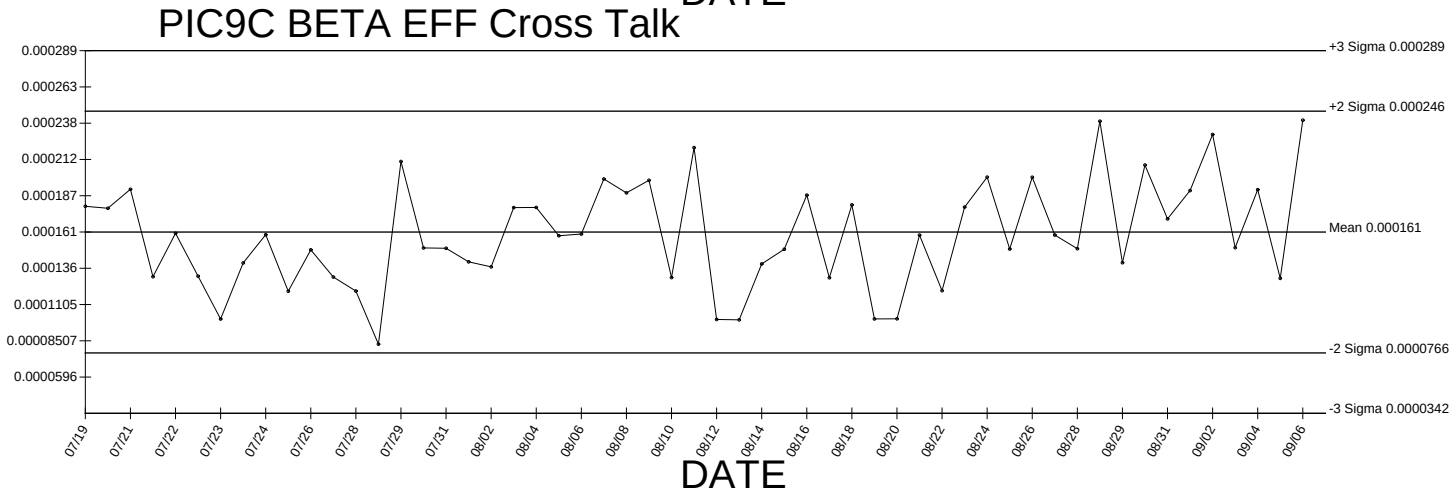






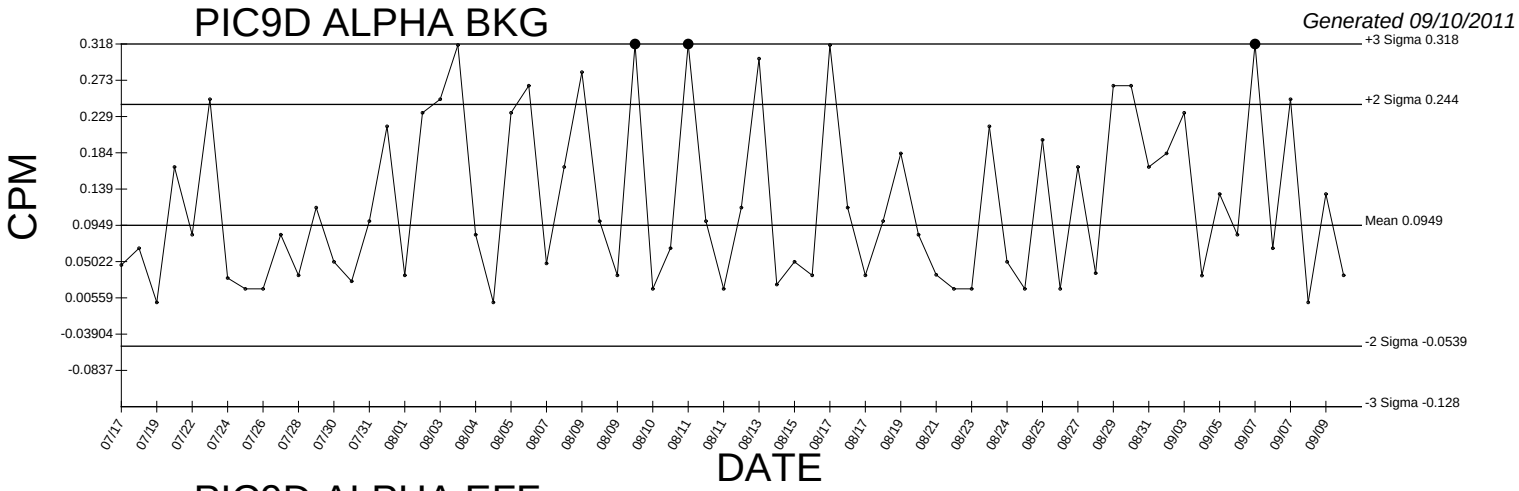
● Denotes Outlier

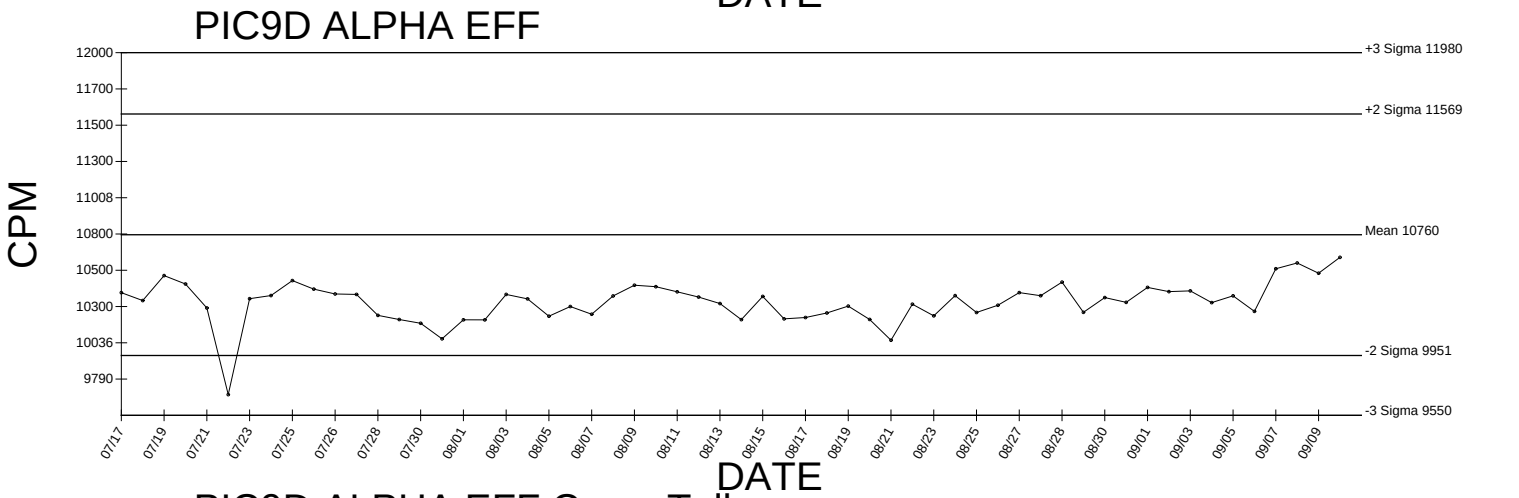


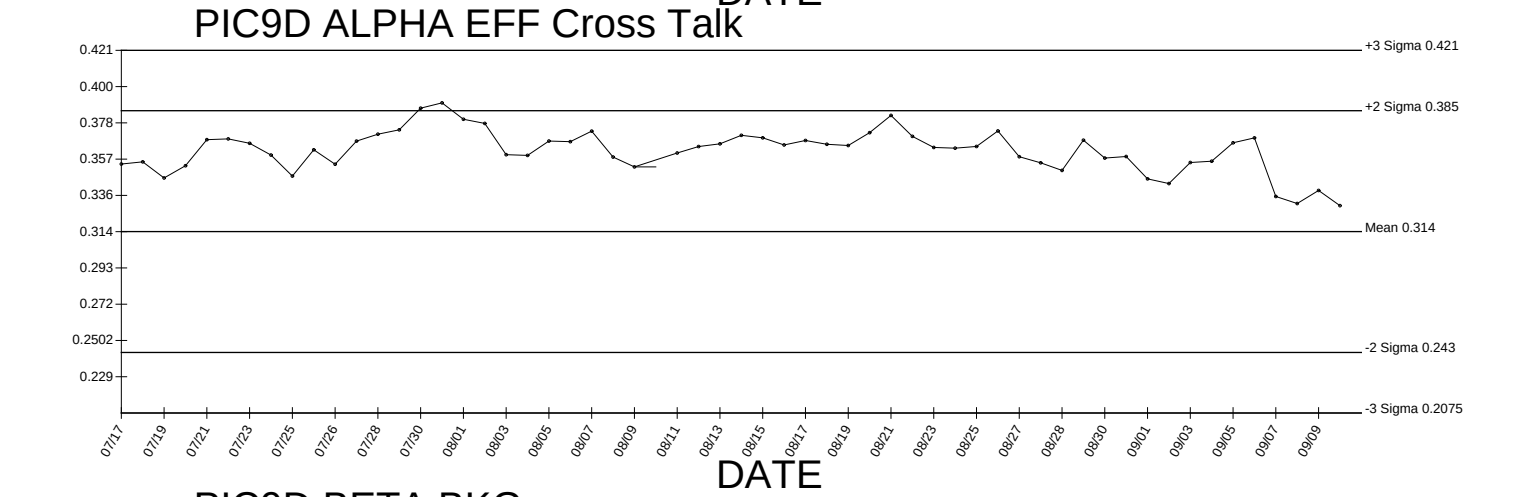


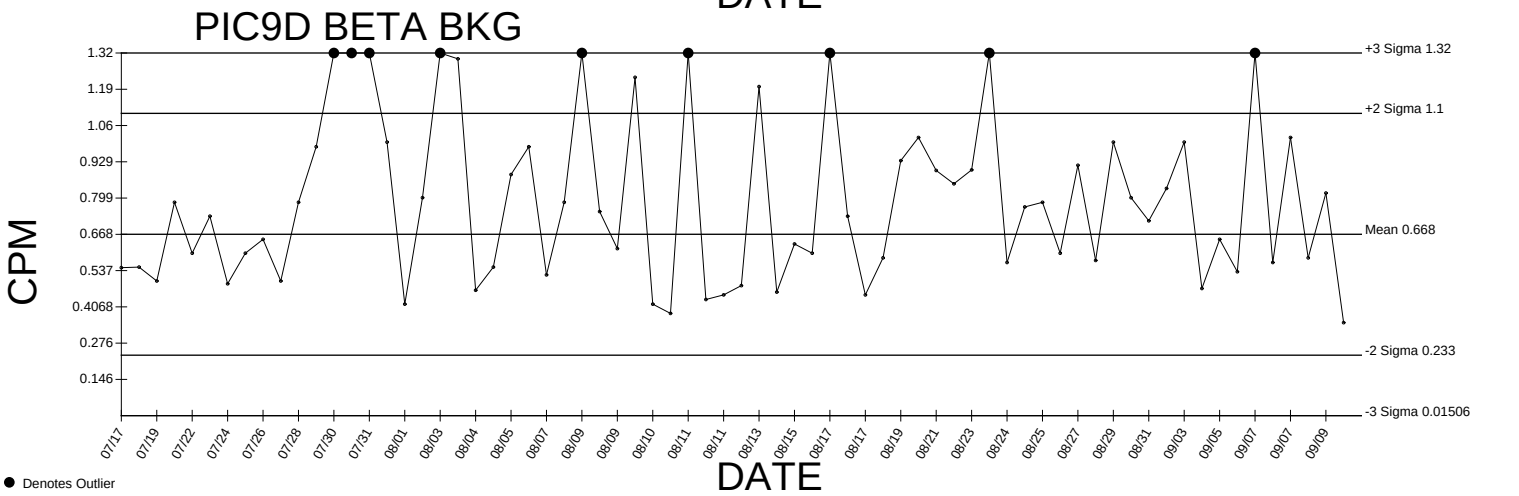
● Denotes Outlier

Generated 09/10/2011

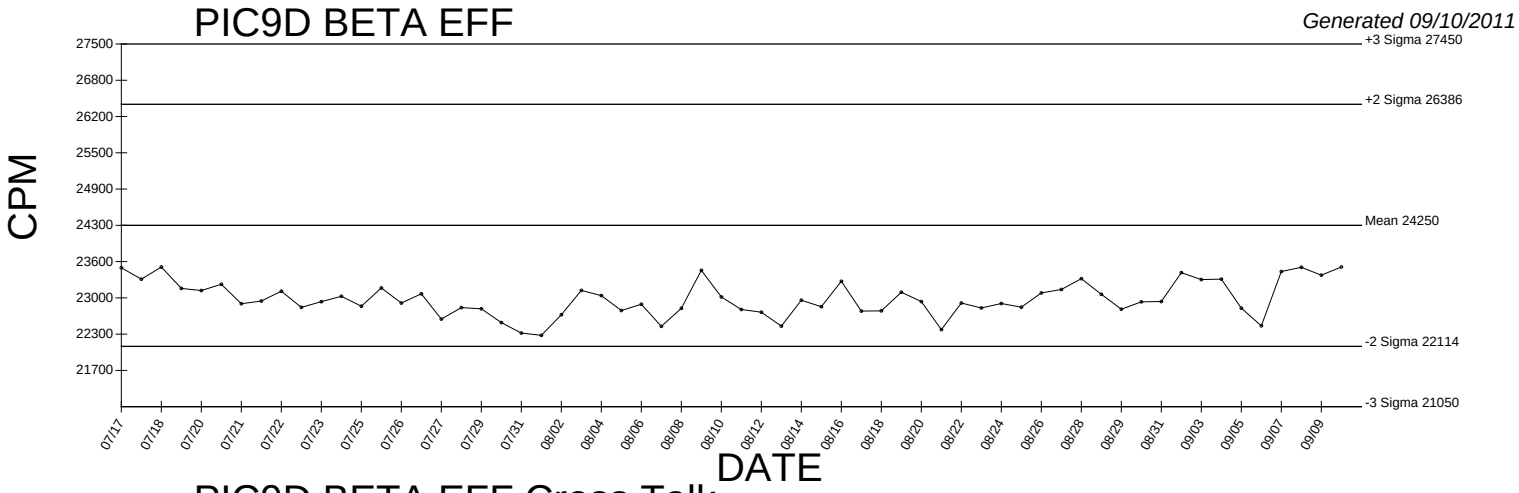


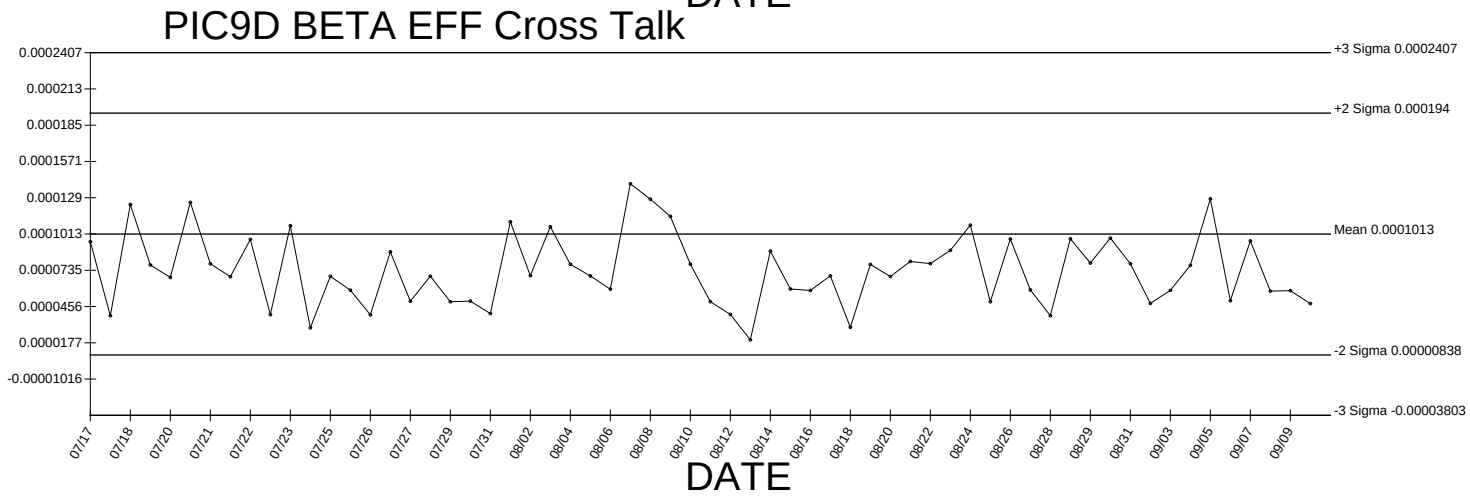




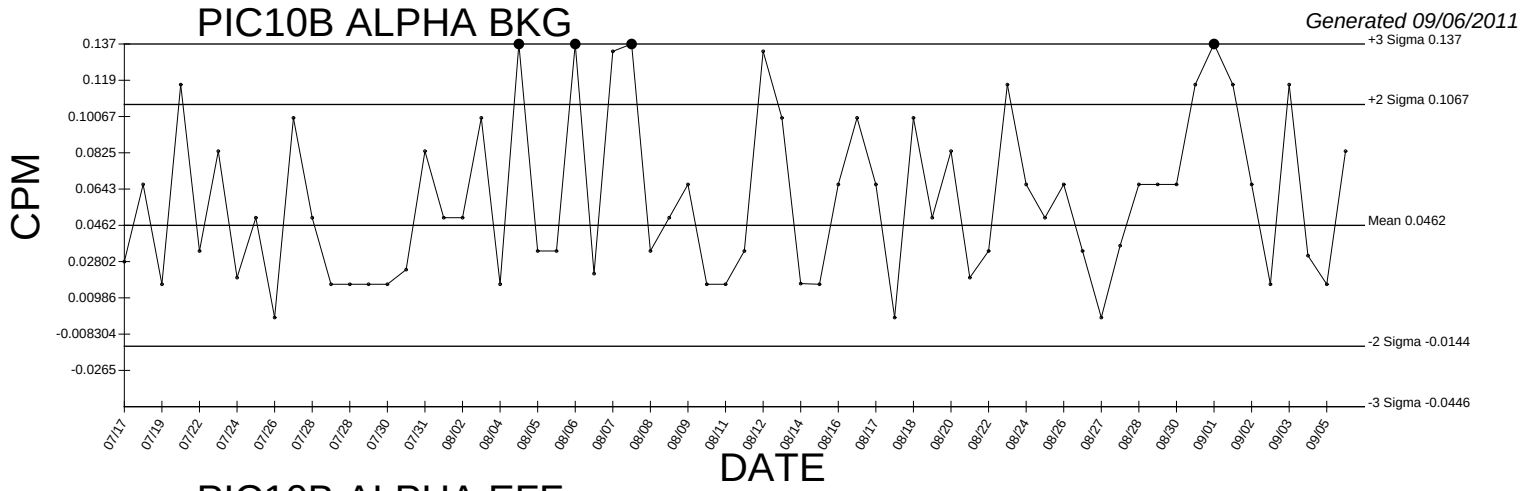


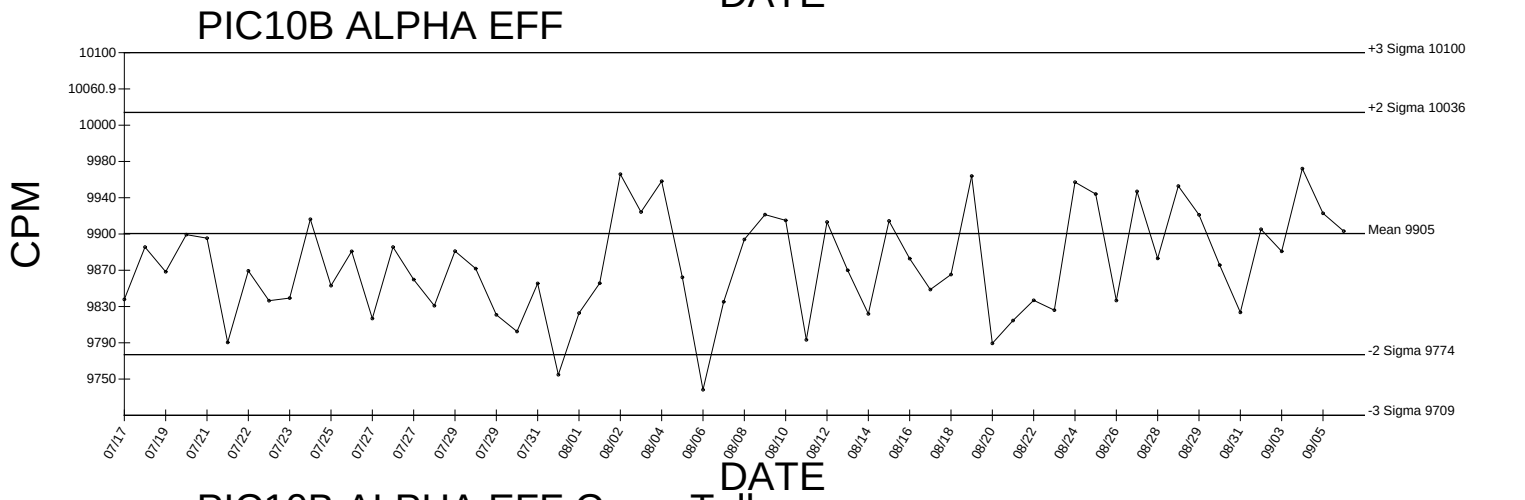
● Denotes Outlier

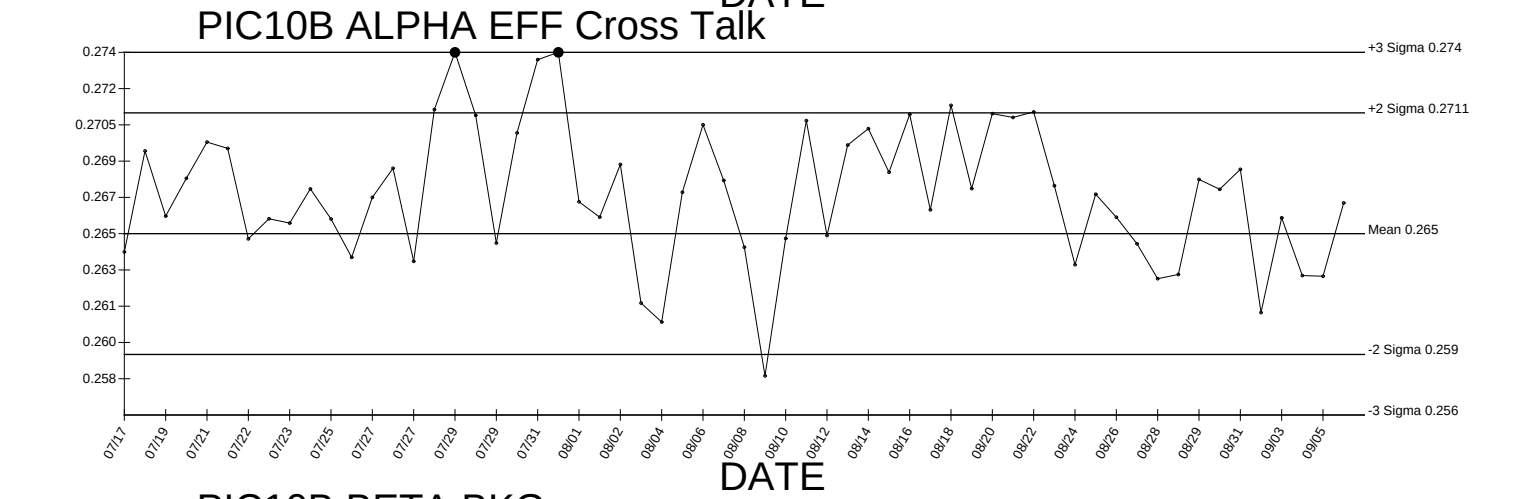


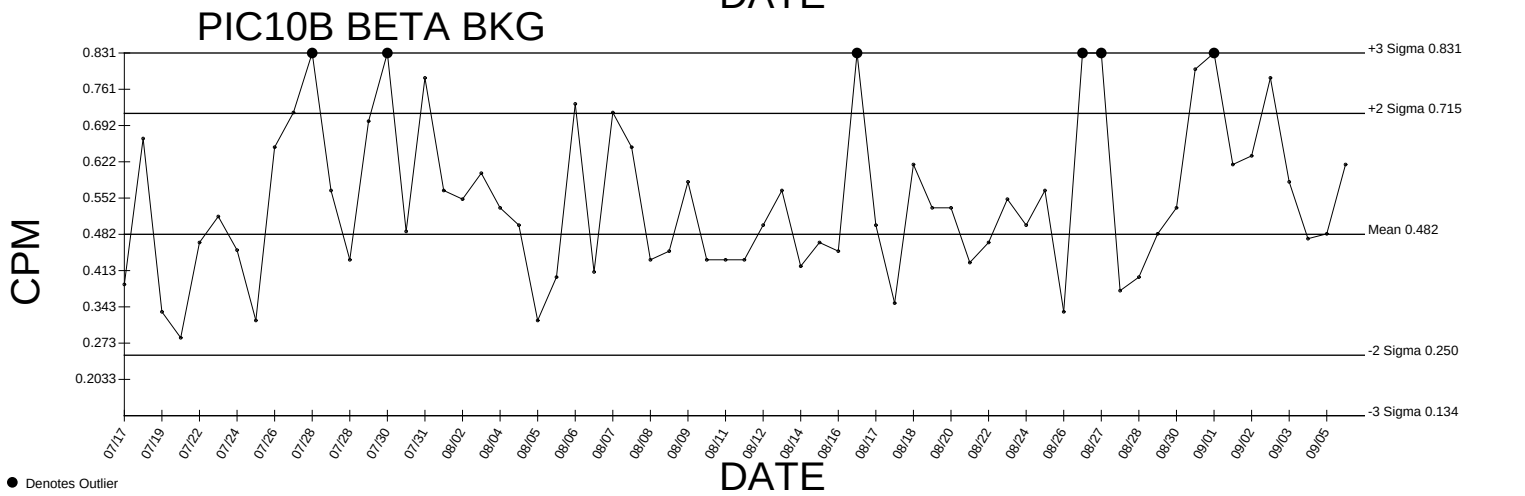


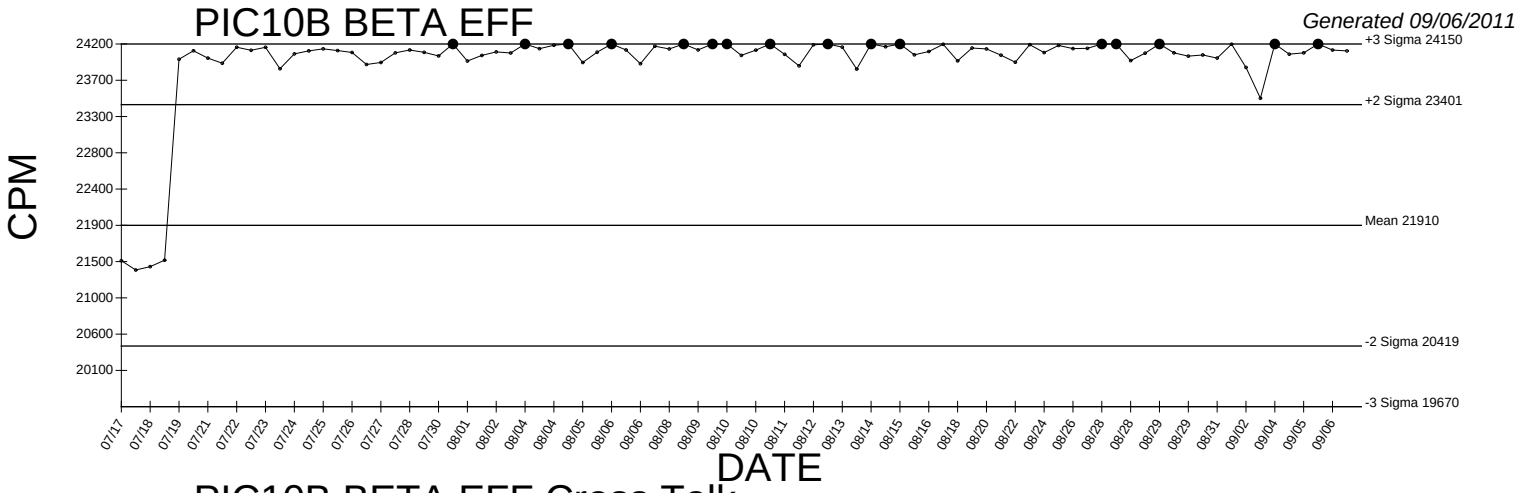
● Denotes Outlier

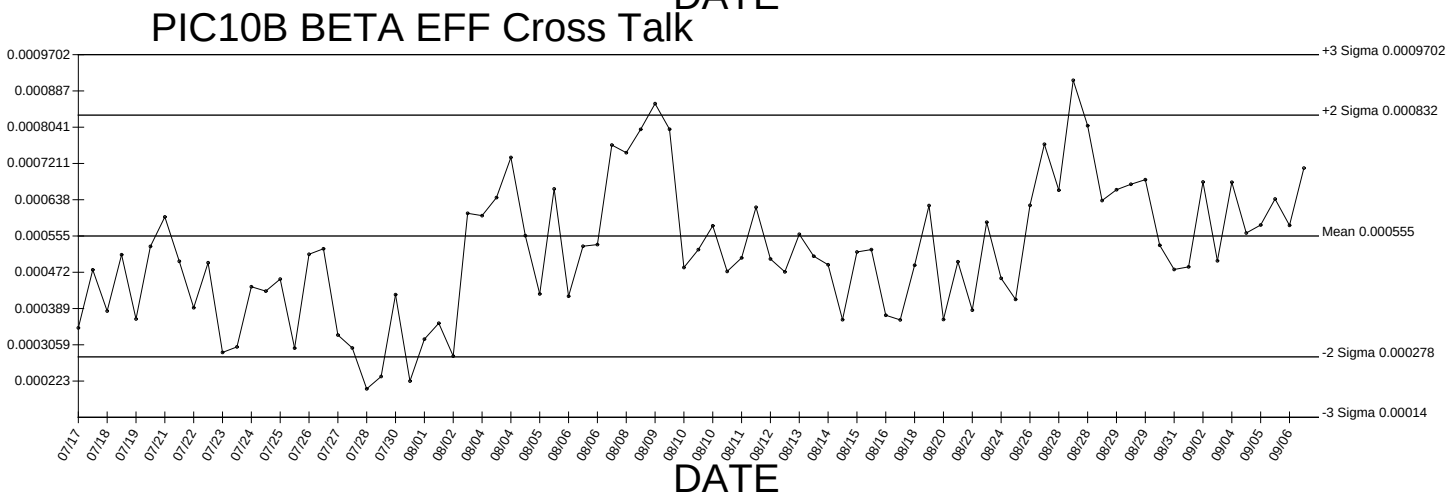

PIC10B ALPHA BKG
Generated 09/06/2011
CPM
DATE
+3 Sigma 0.137
+2 Sigma 0.1067
Mean 0.0462
-2 Sigma -0.0144
-3 Sigma -0.0446


PIC10B ALPHA EFF
CPM
DATE
+3 Sigma 10100
+2 Sigma 10036
Mean 9905
-2 Sigma 9774
-3 Sigma 9709

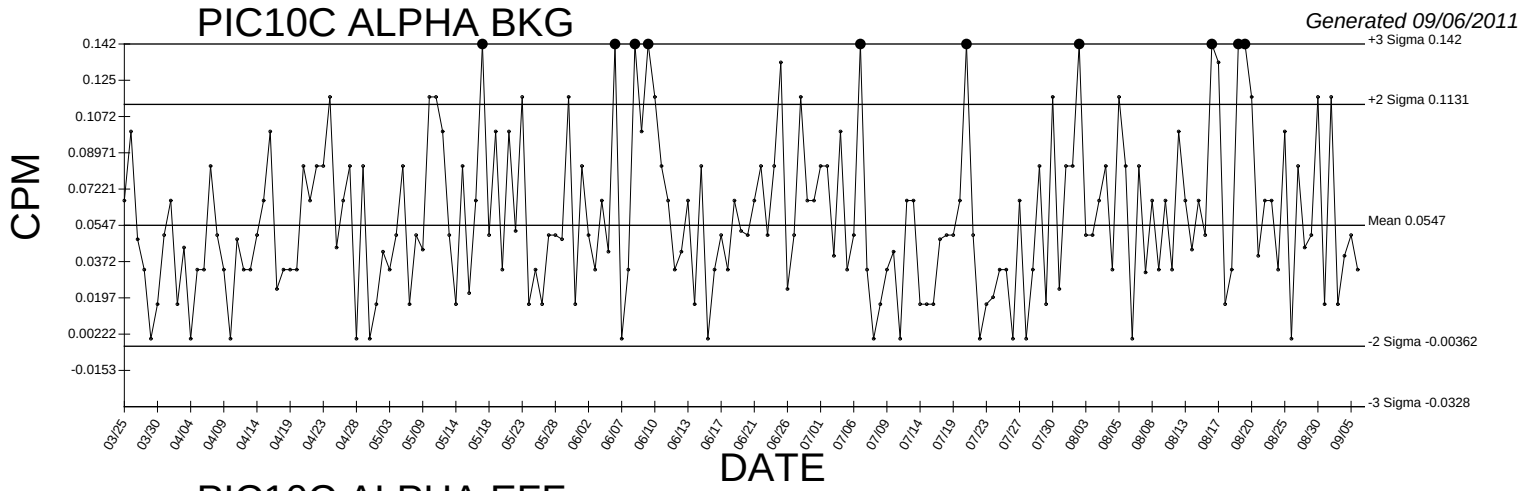

PIC10B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.274
+2 Sigma 0.2711
Mean 0.265
-2 Sigma 0.259
-3 Sigma 0.256

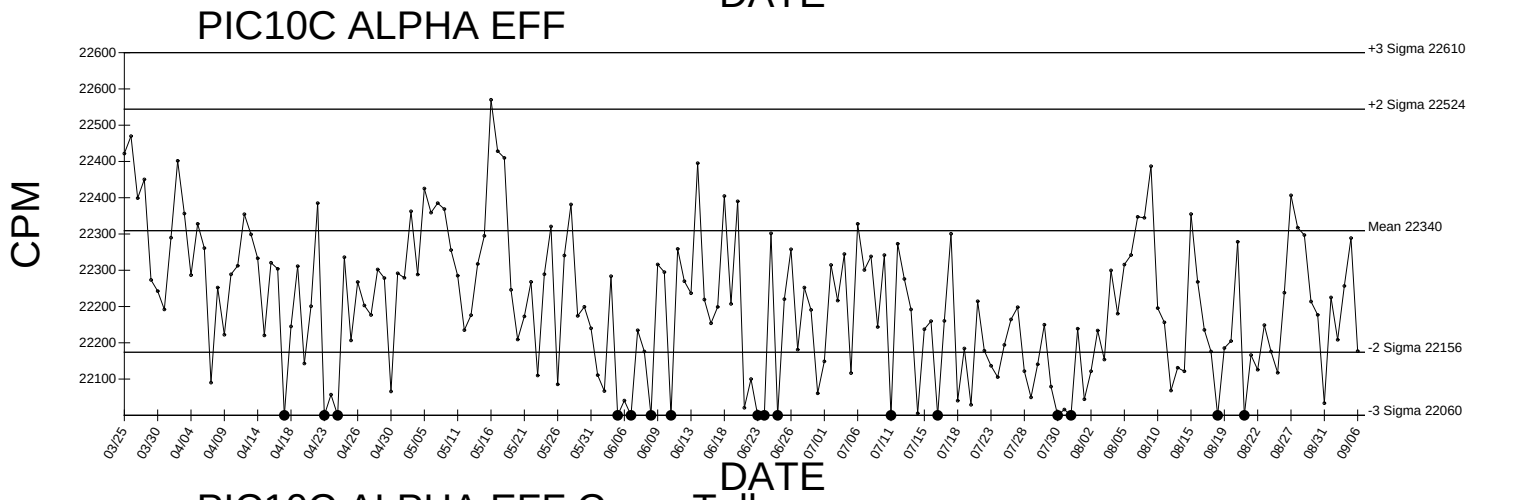

PIC10B BETA BKG
CPM
DATE
+3 Sigma 0.831
+2 Sigma 0.715
Mean 0.482
-2 Sigma 0.250
-3 Sigma 0.134
● Denotes Outlier

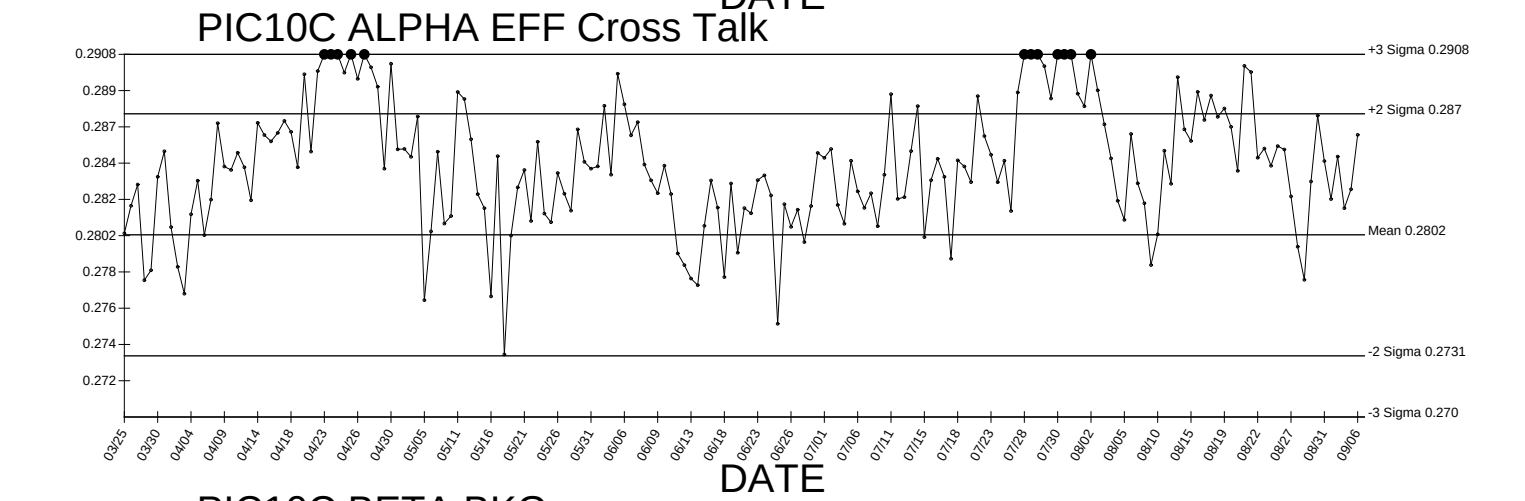


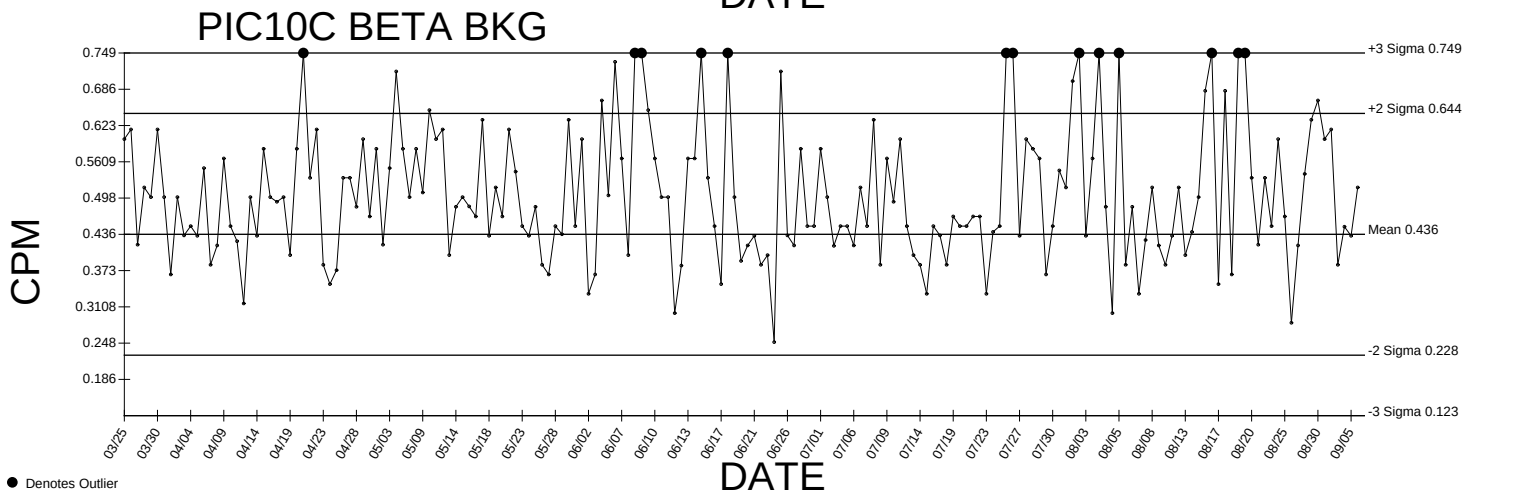


● Denotes Outlier

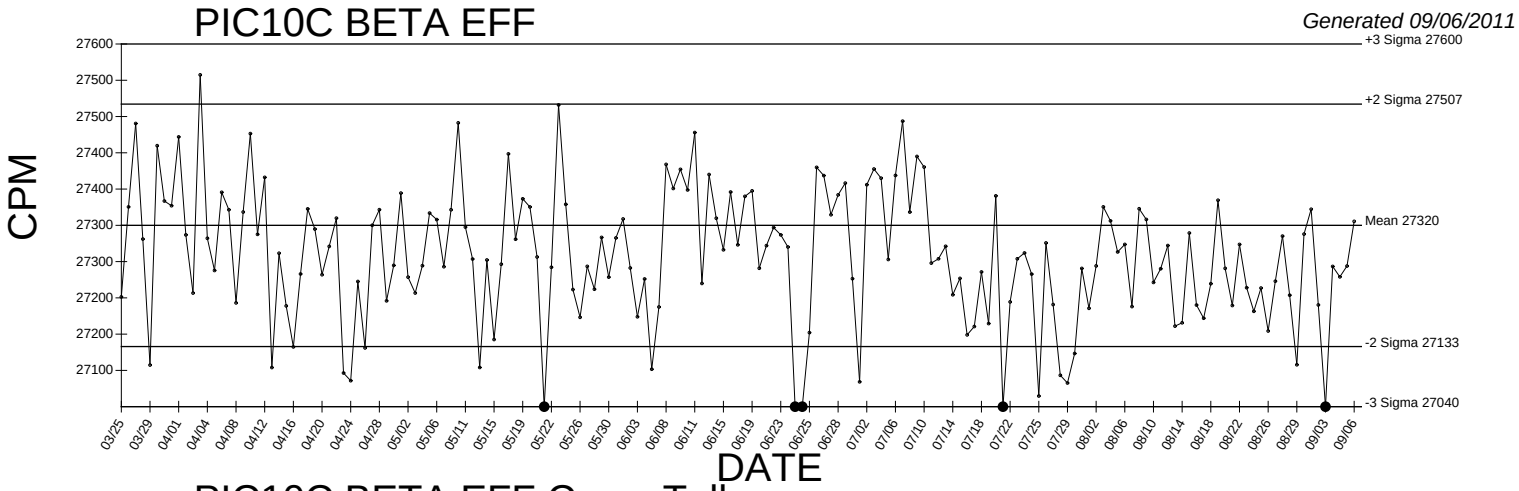


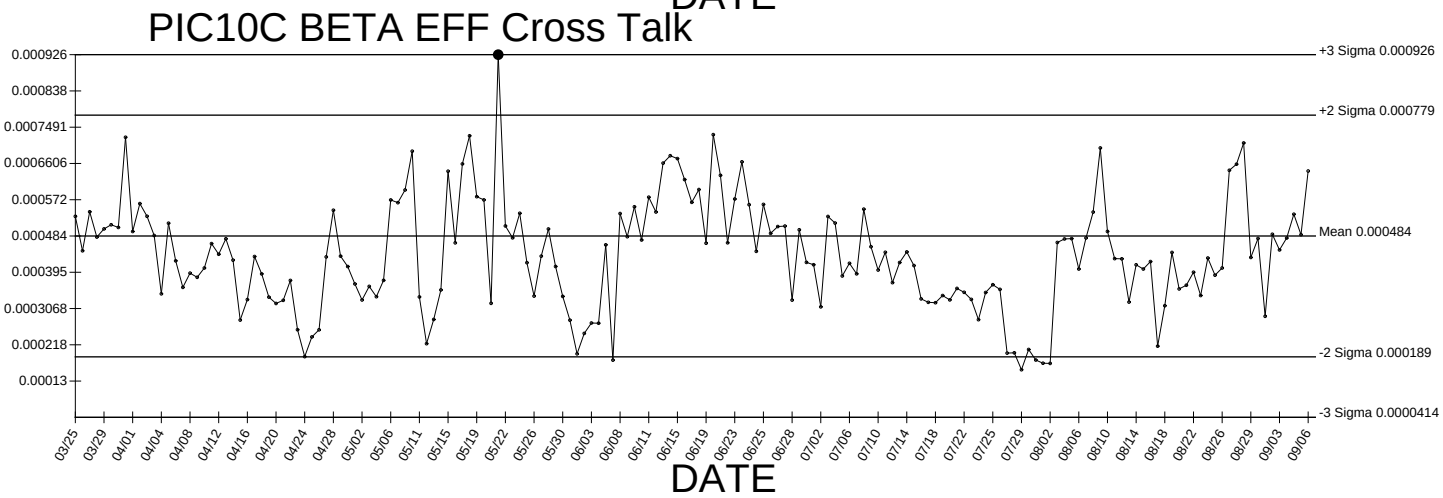




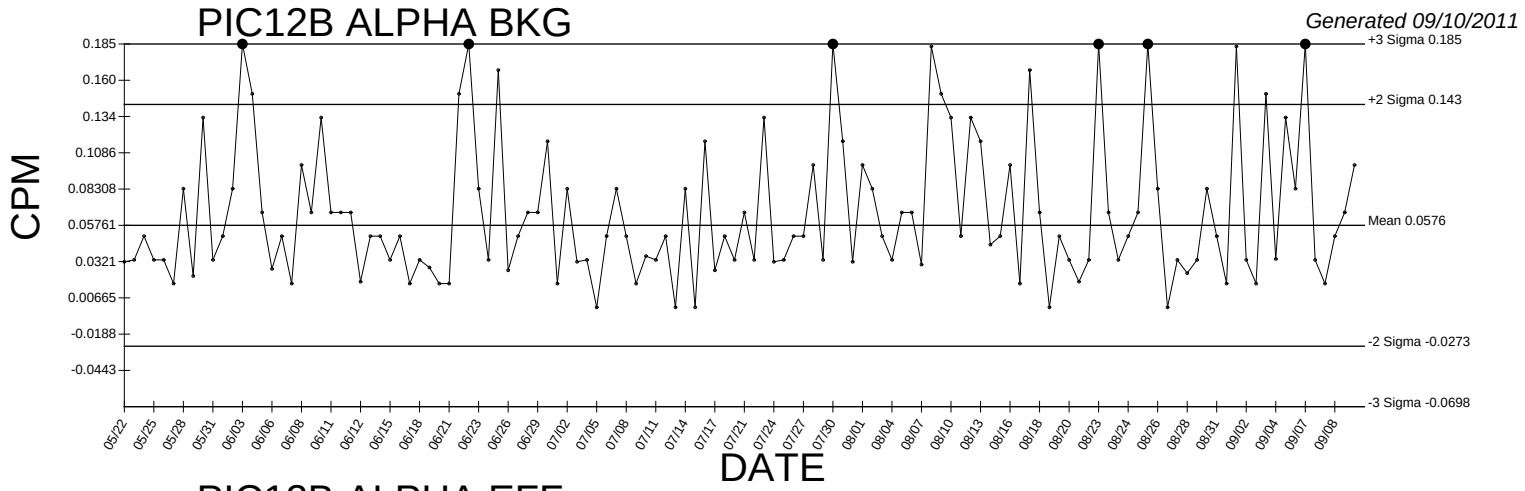


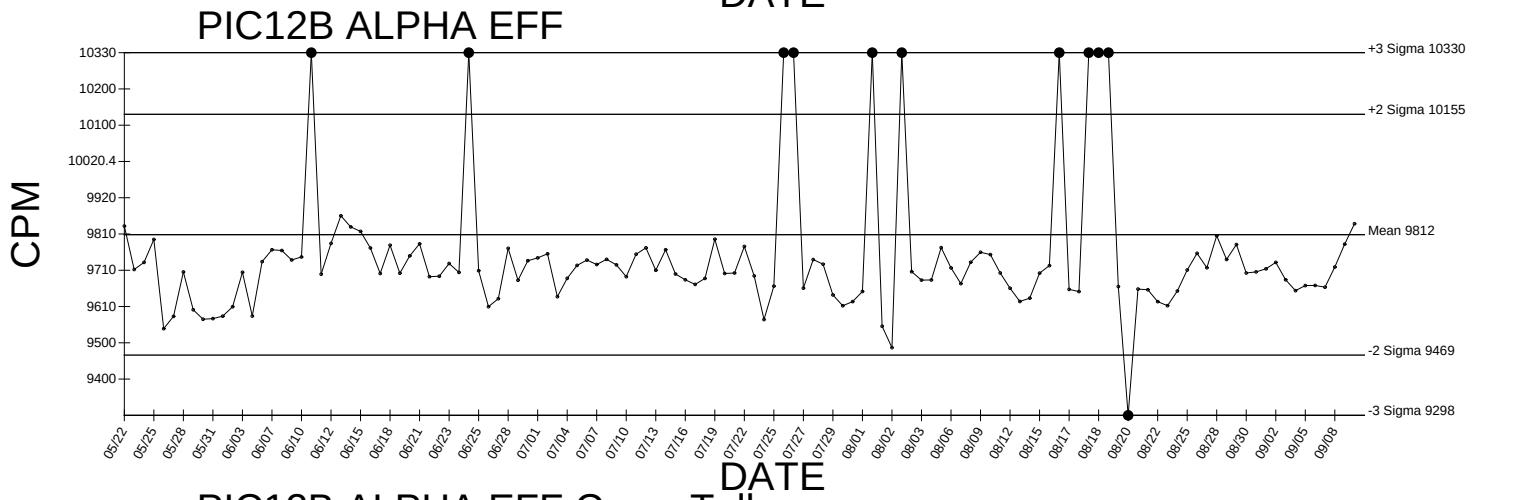
● Denotes Outlier

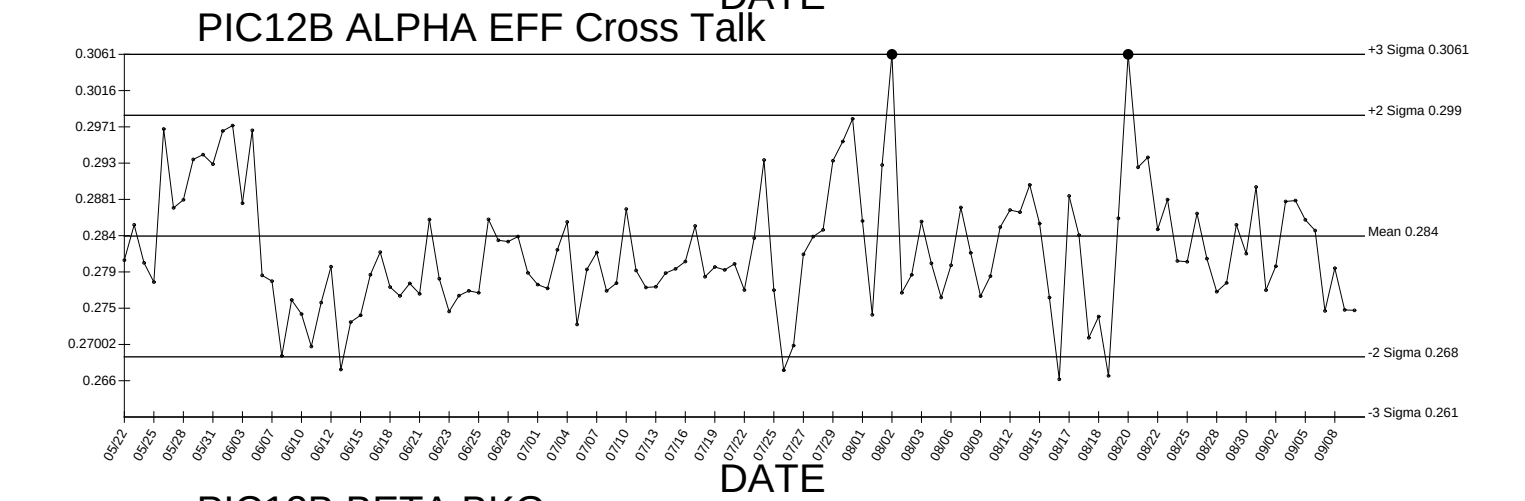


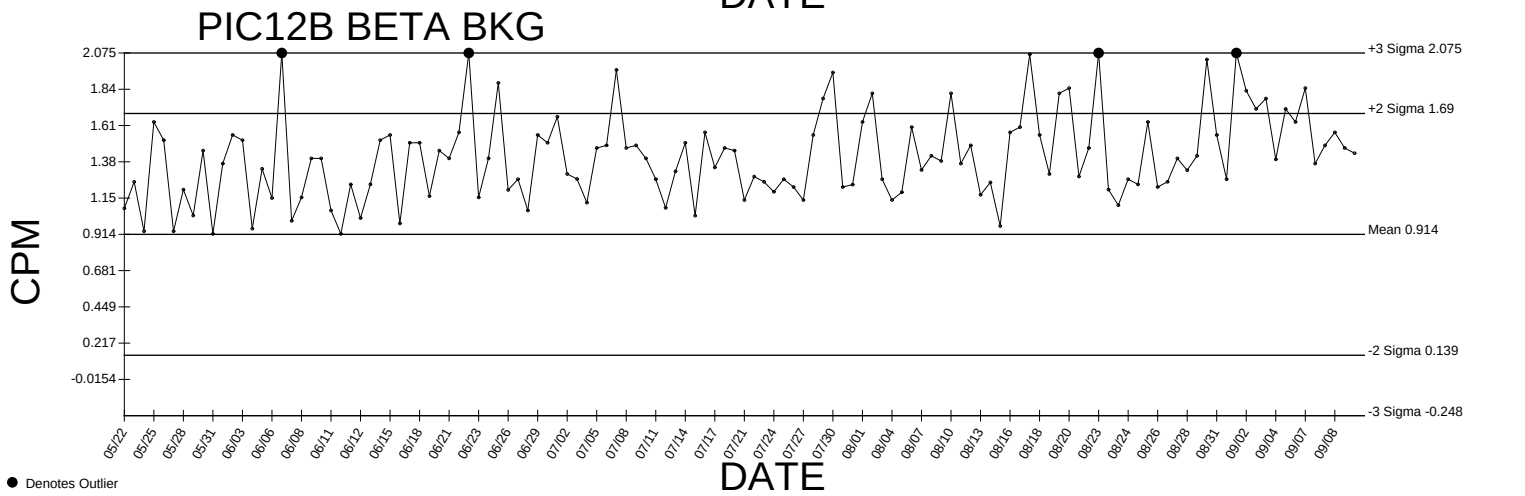


● Denotes Outlier

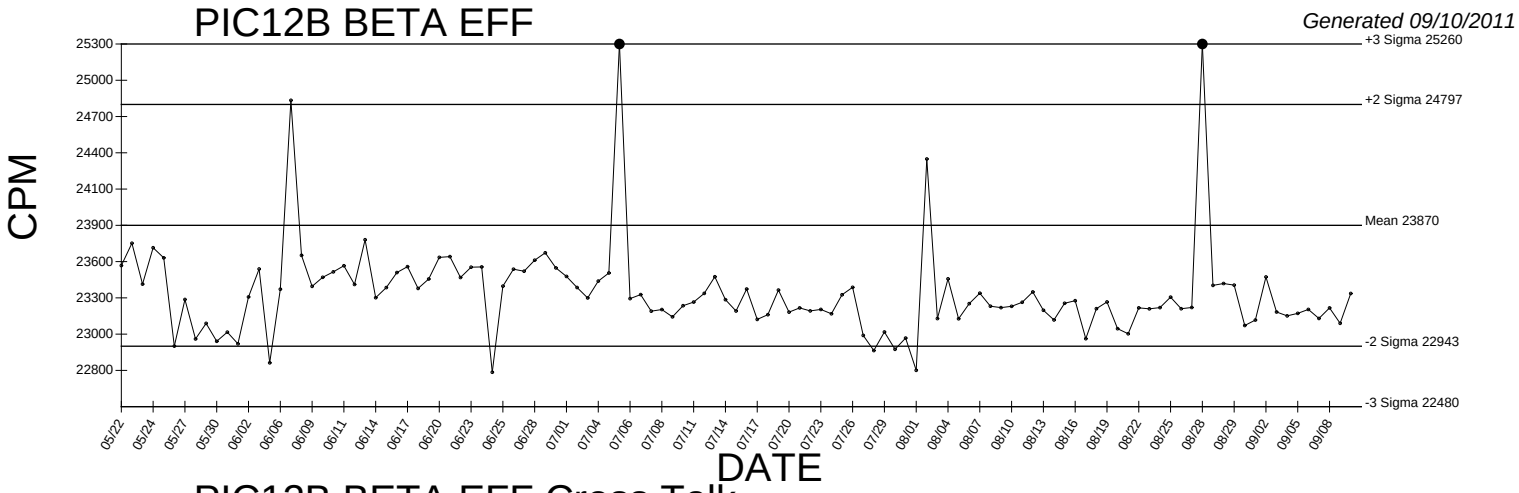


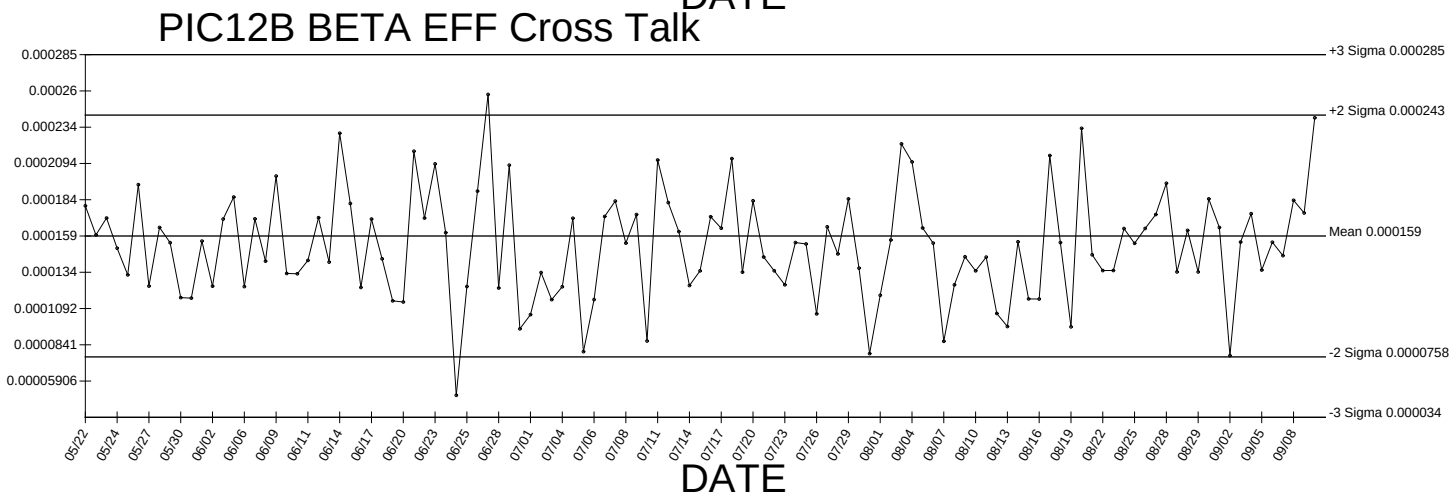




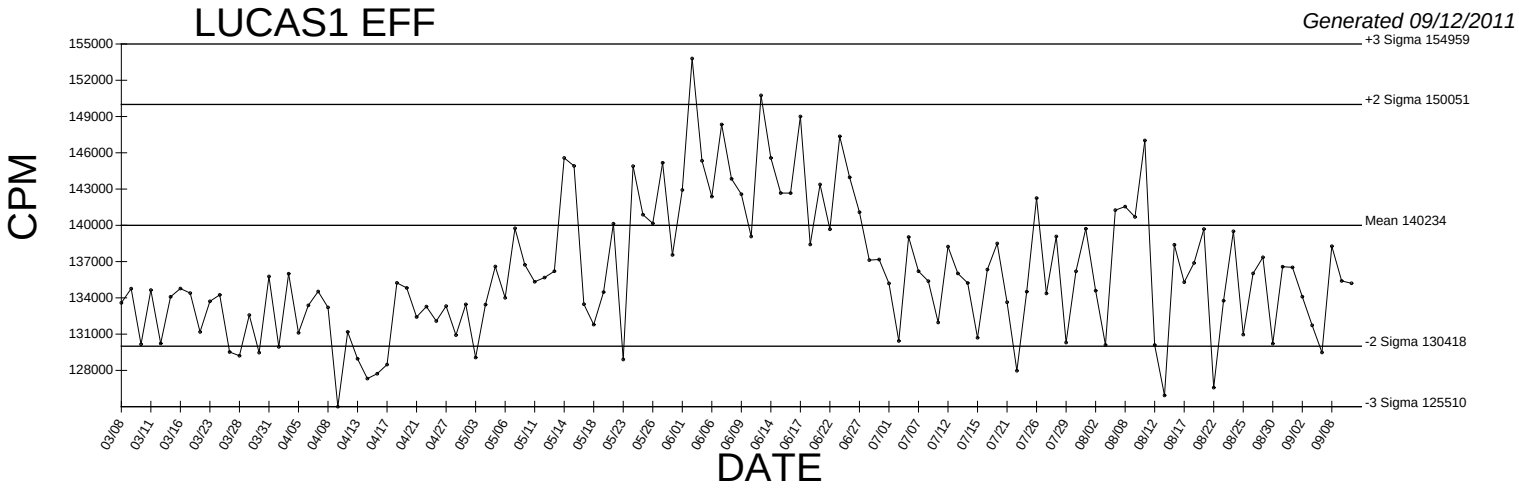


● Denotes Outlier

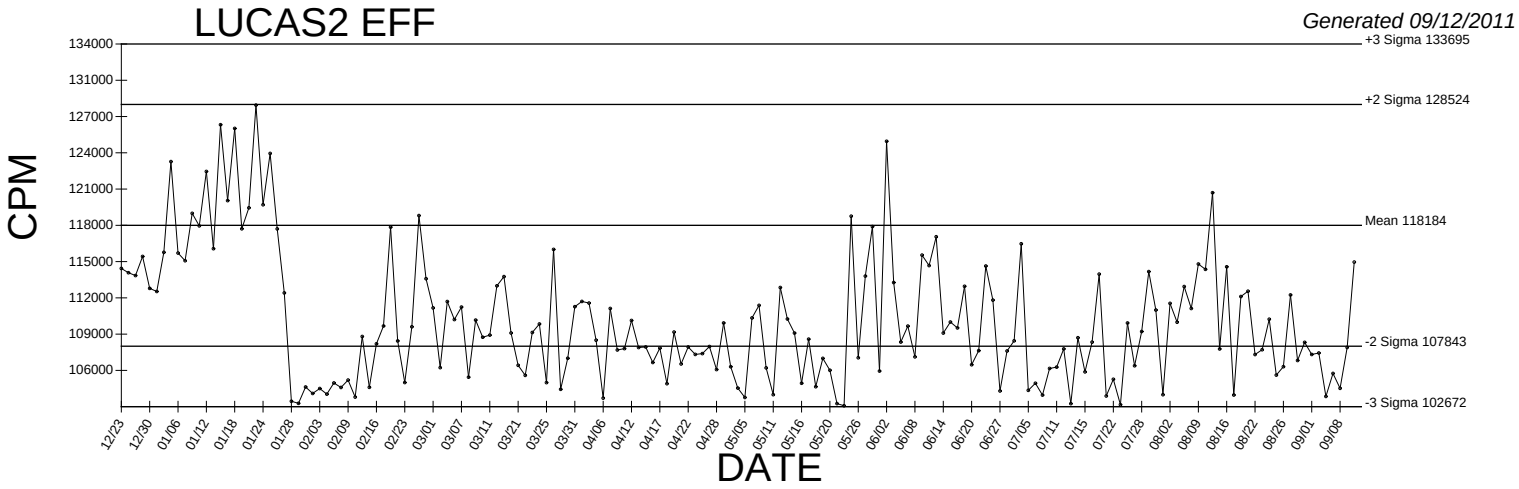




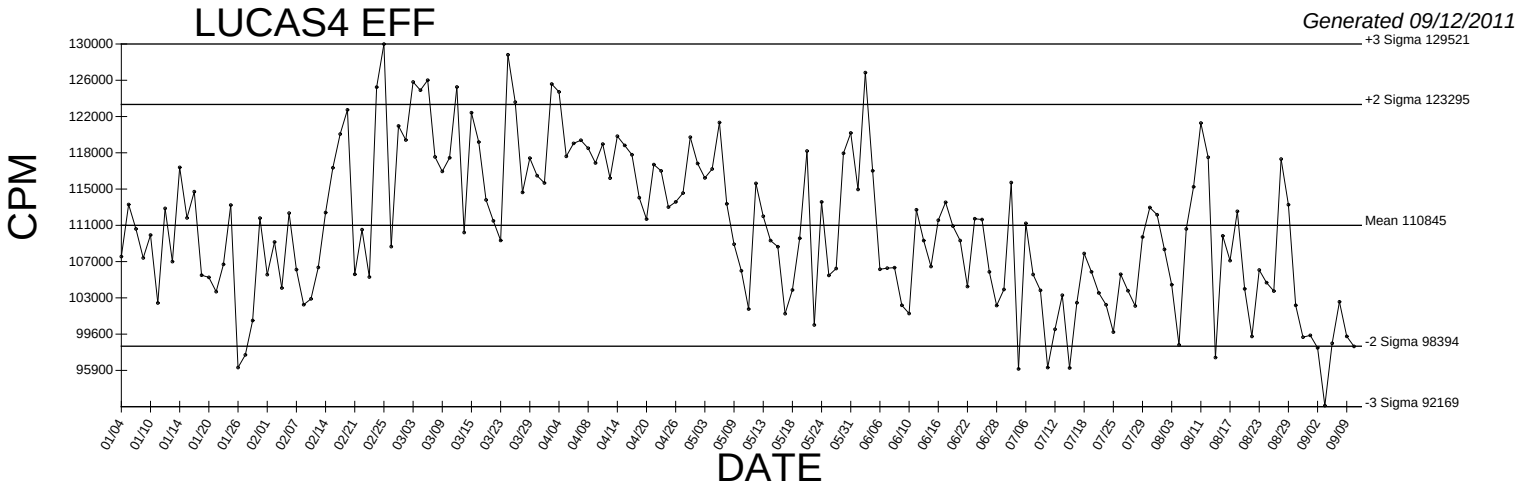
● Denotes Outlier



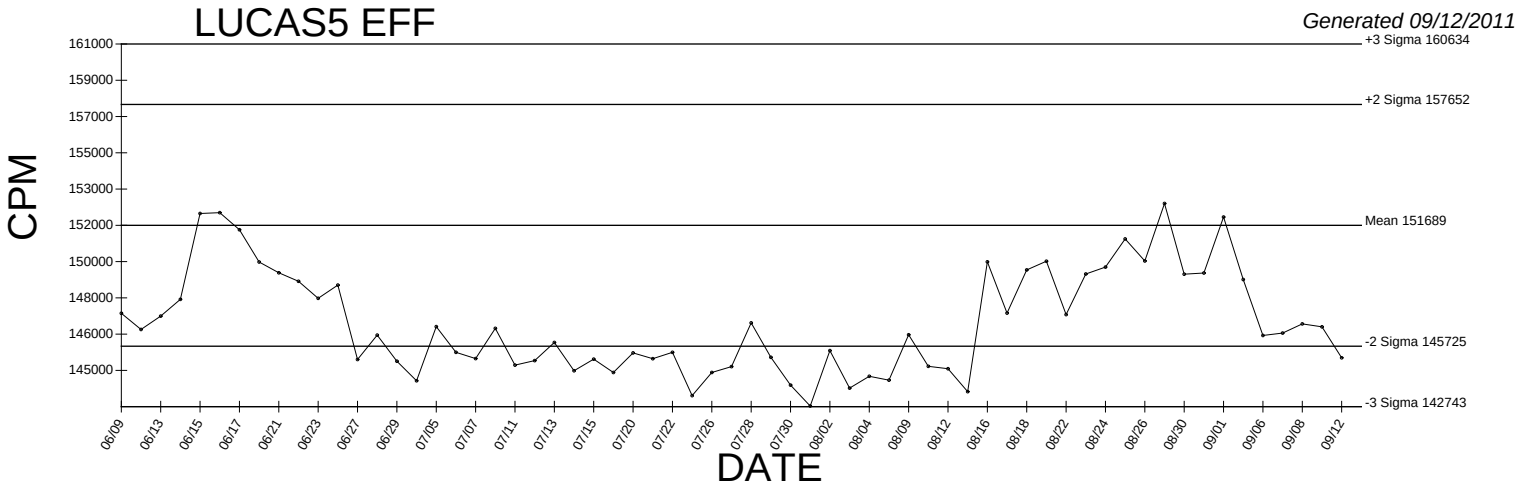
● Denotes Outlier



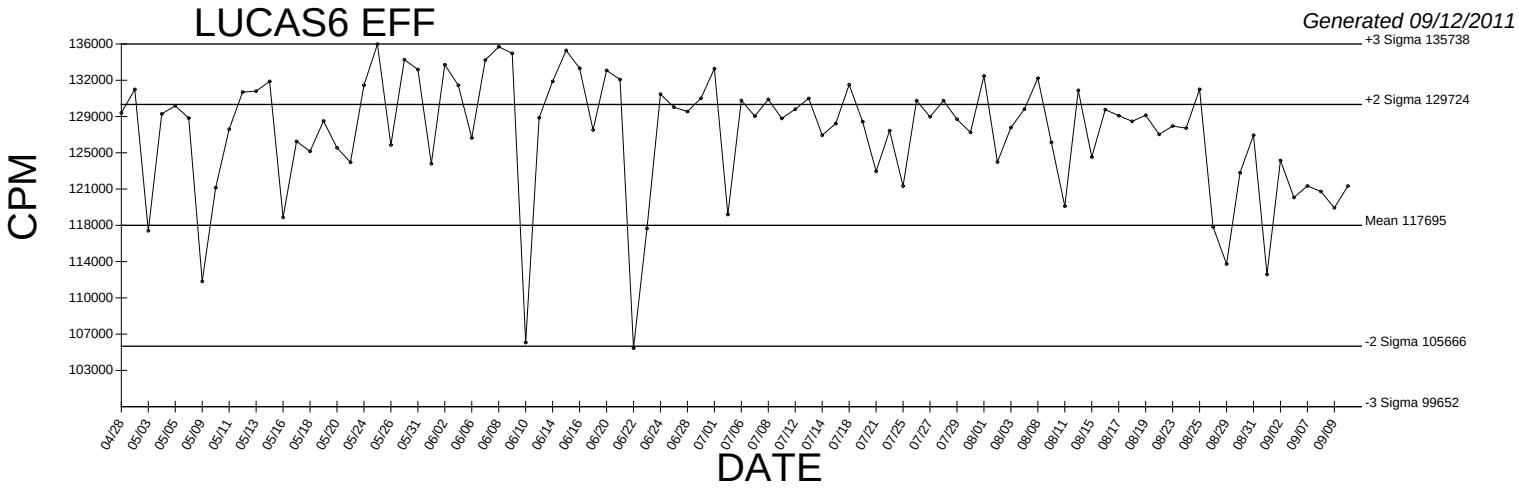
● Denotes Outlier



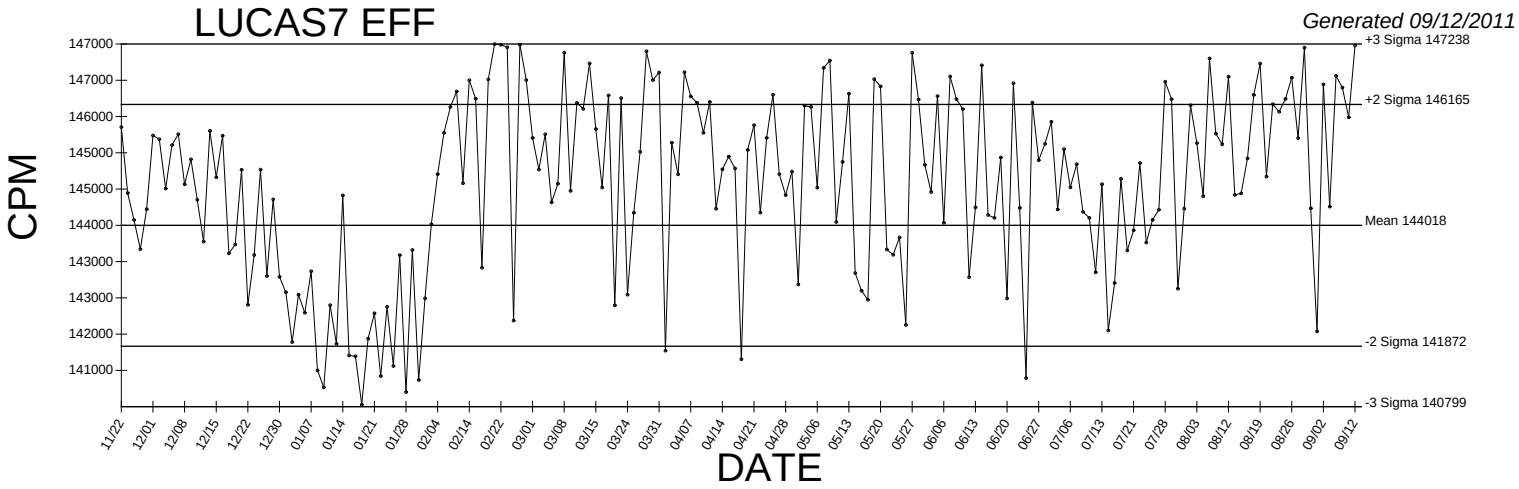
● Denotes Outlier



● Denotes Outlier



● Denotes Outlier



● Denotes Outlier

Standards Data

[redacted]

NAMAS
CALIBRATION
No. 0146

0112

ISSUED BY:	Nycomed Amersham plc Radiation & Radioactivity Calibration Laboratory Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL	ISSUED FOR:	AEA Technology plc Isotrak Amersham Laboratories White Lion Road Amersham Buckinghamshire HP7 9LL

Description Principal radionuclide: Barium-133

Product code: BDZ64
Solution number: S7/26/28

Measurement Reference time: 1200 GMT on 20 June 1997

Nuclear data Nuclear data quoted on this certificate are taken from the Joint European File, Version 2.2.

Expression of uncertainties The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor **k** = 2.00, which for a *t*-distribution with $\nu_{eff} = \infty$ effective degrees of freedom corresponds to a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Unless indicated, all other uncertainties are expressed at the confidence level associated with one standard uncertainty.

The format used for the uncertainties in the values of radionuclidic purity is illustrated by the following examples;

6.5(21)	=	6.5 ± 2.1
6.54(21)	=	6.54 ± 0.21
6.543(21)	=	6.543 ± 0.021

Approved Signatory W. F. Case

Date of issue 10 March 1999

RC-S-023-038

Nycomed Amersham

W F Case

This certificate is issued in accordance with the requirements of the United Kingdom Accreditation Service as specified in the NAMAS Accreditation Standard and NAMAS regulations. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Measurement

Reference time for solution number **S7/26/28**:	**1200 GMT on 20 June 1997**	
Radioactive concentration of barium-133:	474.0	kilobecquerels per gram of solution
which is equivalent to:	12.81	microcuries per gram of solution
Mass of solution:	5.1290	grams
Total activity of barium-133:	2.431	megabecquerels
which is equivalent to:	65.7	microcuries

Method of measurement used (see page 3 of the certificate): F

Calibration date: 20 June 1997
The calibration date is provided for added information only, and must not be confused with the reference date on pages 1 and 2 of the certificate. It is the reference date that must be used in all calculations relating to the values of activity.

Accuracy

Expanded uncertainty in the radioactive concentration quoted above: ± 1.8 %

Combined Type A uncertainty : ± 0.1 %

Combined Type B uncertainty : ± 0.9 %

Radionuclidic purity

The estimated activities of any radioactive impurities found by high-resolution gamma ray spectrometry, or in any other examination of the solution, are listed below expressed as percentages of the activity of the principal radionuclide at the reference time.

Cobalt-60	0.0011(2)%	Caesium-134	0.0006(1) %
Zinc-65	0.0017(4)%		

Chemical composition

0.1M HCl containing 100 micrograms of barium per ml.

Physical data

Reccomended half life: 10.52 ± 0.16 years (1 year = 365.25 days)

100% electron capture followed by prompt gamma rays in the energy range 0.053 MeV to 0.384 MeV.

The effect on the result of the standardization of uncertainties in the details of the decay scheme were included in the Type B uncertainty.

Remarks

This product meets the quality assurance requirements for achieving traceability to NIST as defined in ANSI N42.22-1995.

Tests made over 4 years on standardized solutions of barium-133 stored in glass ampoules have shown that loss of barium-133 from solution is negligible other than by radioactive decay.

RC-S-023-038A

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Methods of measurement

The measurement techniques listed below are currently in use at Nycomed Amersham for the absolute standardisation of radioactive solutions. The methods used for this standardisation are indicated on page 2 of the certificate.

Using a gas flow proportional counter

A	4 pi beta counting
B	4 pi alpha counting
C	4 pi internal conversion electron counting
D	4 pi coincidence counting
E	4 pi anticoincidence counting
F	4 pi coincidence and anticoincidence counting

Using a liquid scintillation counter

G	4 pi coincidence counting
H	4 pi anticoincidence counting
J	4 pi coincidence and anticoincidence counting
K	4 pi efficiency tracing

SI unit of radioactivity

The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq)	=	1 nuclear transformation per second, therefore
1 curie (Ci)	=	3.7×10^{10} becquerels exactly

Useful conversion factors are:

1 microcurie (μCi)	=	3.7×10^{4}	Bq	=	37 kilobecquerels (kBq)
1 millicurie (mCi)	=	3.7×10^{7}	Bq	=	37 megabecquerels (MBq)
1 kilobecquerel (kBq)	=	27.027 nanocuries (nCi)			
1 megabecquerel (MBq)	=	27.027 microcuries (μCi)			

RC-5-023-038B

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0112
Prepared By:	Richard Kinney
Carrier Conc:	0.1M HCL
Reference Date:	06/20/1997
Ampoule Mass (g):	5.129 g
Uncertainty:	+/- 1.8 %
LogBook No:	RC S 023 038A

A Solution Material Info			
Isotope:	Barium-133		
Prepared By:	Angela Johnson		
Prep Date:	04/09/1999		
Verification Date:	01/07/2011		
Expiration Date:	01/07/2012		
Primary Code:	0112-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	5.0881 g		
Density(g/mL):	0.9935	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (100 mL) = 1447055.6400 dpm/mL
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (0.9935 g/mL) / (100 mL) = 1456575.8226 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
10/31/2002	Angela Johnson	10.11	1000	0112-G	14725.049 dpm/mL	10/31/2003	10/31/2004
01/19/2005	Amanda Fehr	10.431	1000	0112-H	15193.542 dpm/mL	01/18/2006	01/18/2007
11/30/2006	Daniel Roy	10.0567	1000	0112-I	14648.35 dpm/mL	11/20/2008	11/20/2009
02/17/2009	Mary Aders	10.1141	1000	0112-J	14731.9535 dpm/ml	02/12/2010	02/12/2011
02/12/2010	Bethany Fiem	10.2041	1000	0112-K	14863.0453 dpm/ml	01/07/2011	01/07/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ba-133 Standard 0112-K

G. Ramsay	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
1/7/2011	0112-K N1	4985.8500	45.2000	4940.6500	0.7848	1.0000	6295.210522
	0112-K N2	5033.0000	45.2000	4987.8000	0.7848	1.0000	6355.287471
	0112-K N3	5008.0000	45.2000	4962.8000	0.7848	1.0000	6323.433309
						Average =	6324.643768
Mean Value (Counting) =	6324.643768		**103.961677**	**Pass**			
Stdev =	30.05676039		0.00475232	**Rule 3 (Pass/Fail)**			

Certificate Value =	6083.63
Lower Limit =	6264.530247
Upper Limit =	6384.757288
Rule 1 Pass/Fail	**Fail***
Two sigma =	60.11352078
10 % of Mean =	632.4643768
Rule 2 (Pass/Fail)	**Pass**

***Exception taken due to full standard recovery.**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ba-133 source 0112-K by transferring 1.0 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Gold. The Ba-133 efficiency calibration which was used for verification calculations was performed on 1/8/2011 using source 0487-A (Ba-133). Calibration data is recorded in this logbook under Ba-133 0487-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

GR 1/20/11
Amanda L. Fehr

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

0638

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

67519-278

Ra-226 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

Analytics maintains traceability to the National Institute of Standards and Technology through participation in a Measurements Assurance Program as described in USNRC Reg. Guide 4.15, Revision 1, February 1979.

ISOTOPE:	Ra-226
ACTIVITY (dps):	2.353 E4
HALF-LIFE:	1.600 E3 years
CALIBRATION DATE:	January 23, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities (other than decay products) <0.1%

5.01065 grams 0.1M HCl solution with 50 μg/g Ba carrier.

P O NUMBER 3231RD, Item 5

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 1/26/04

RC-S-037-037a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0638
Prepared By:	Amanda Fehr
Carrier Conc:	0.1M HCl
Reference Date:	01/23/2004
Ampoule Mass (g):	5.01065 g
Uncertainty:	+/- 3.3 %
LogBook No:	RC-S-037-037

A Solution Material Info			
Isotope:	Radium-226		
Prepared By:	Amanda Fehr		
Prep Date:	01/16/2006		
Verification Date:	09/14/2010		
Expiration Date:	09/14/2011		
Primary Code:	0638-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.8398 g		
Density(g/mL):	1.0266	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (5.01065 g * 100 mL) = 13636.6133 dpm/mL
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (1.0266 g/mL)/ (5.01065 g * 100 mL) = 13282.9676 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/17/2006	Amanda Fehr	2.1041	100	0638-B	279.0211 dpm/mL	01/17/2007	01/17/2008
07/17/2006	Mary Aders	2.1313	100	0638-C	282.6281 dpm/mL	07/26/2006	07/26/2007
03/28/2007	Daniel Roy	2.1025	100	0638-D	279.2744 dpm/ml	04/08/2007	04/08/2008
03/28/2007	Daniel Roy	45.468	250	0638-E	2415.7999 dpm/ml	04/08/2010	04/08/2011
12/18/2007	Daniel Roy	2.014	100	0638-F	267.519 dpm/ml	02/02/2009	02/02/2010
02/12/2008	Daniel Roy	.5004	100	0638-G	66.468 dpm/ml	03/15/2011	03/15/2012
07/23/2008	Daniel Roy	5.0607	250	0638-H	268.8845 dpm/ml	07/17/2009	07/17/2010
09/28/2009	Angela Johnson	4.052	200	0638-I	269.113 dpm/mL	09/28/2009	09/28/2010

09/14/2010	Gregory Ramsay	5.18	250	0638-J	275.2231 dpm/mL	09/14/2010	09/14/2011
08/12/2011	Tim Chandler	.0369	100	0638-K	4.9014 dpm/mL	08/11/2011	08/11/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-226 Standard 0638-J 10

G. Ramsay	**Isotope**	**Value**	**Uncertainty**
9/27/2010	0638-J	1212.679	287.3311
	0638-J	1213.513	287.4371
	0638-J	1197.598	282.3895

Mean Value (Counting) =	1207.930	97.43	**Pass**
Stdev =	8.957401906		**Rule 3 (Pass/Fail)**

Target =	1239.74	
Lower Limit =	1190.015496	
Upper Limit =	1225.845104	
Rule 1 Pass/Fail	**Fail**	*Exception Taken due to full standard recovery
Two sigma =	17.91480381	
10 % of Mean =	120.79303	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Ra-226 source 0638-J by transferring portions of the degassed standard into tared glass liquid scintillation vials. Ten mL of DI Water and 10 mL mineral oil was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 10 mL of DI water and 10 mL of mineral oil. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Red using source standard verification. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
Reference RAD SOP M-001

10-5-10
10/4/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1519

83715-278

Ra-228 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 936802RD, Item 1

This standard radionuclide source was prepared gravimetrically from a master solution calibrated by Eckert & Ziegler Analytics, using a germanium gamma spectrometer system. Radionuclide purity and calibration were checked with a germanium gamma spectrometer system. The nuclear decay rate and reference date for this source are given below. Eckert & Ziegler Analytics (EZA) maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Revision 1, February, 1979, and compliance with ANSI N42.22-1995, "Traceability of Radioactive Sources to NIST." EZA is accredited by the Health Physics Society (HPS) for the production of NIST-traceable sources, and this source was produced in accordance with the HPS accreditation requirements. Customers may report any concerns with the accreditation program to the HPS Secretariat, 1313 Dolley Madison Blvd., Ste. 402, McLean, VA 22101.

Isotope	Half-Life, Days	Activity (Bq)	Uncertainty*, % Type u_A	u_B	U	Reference Date (12:00 PM EST)
Ra-228	2.100E+03	3.729E+02	0.2	1.9	3.8	01/06/2011

***Uncertainty:** U - Relative expanded uncertainty, k = 2. See NIST Technical Note 1297, "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results."

Comments:
Impurities: γ-impurities (other than decay products) <0.1%. 5.08567 g 0.1M HCl solution with approximately 30 μg/g Ba carrier.

Source Prepared by: M I Taskaeva
M. I. Taskaeva, Radiochemist

QA Approved: J. D. McCorvey, QA Manager Alternate

Date: 1/6/11

RECEIVED 1/6/11

ACCREDITED SOURCE CALIBRATION LABORATORY HEALTH PHYSICS SOCIETY FOUNDED 1956

Single Isotope Certificate, Rev 1 9/28/2009

RC-S-060-064

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1519
Prepared By:	Ashley Drochter
Carrier Conc:	0.1M HCl
Reference Date:	01/06/2011
Ampoule Mass (g):	5.08567 g
Uncertainty:	+/- 3.8 %
LogBook No:	RC-S-060-064

A Solution Material Info			
Isotope:	Radium-228		
Prepared By:	Gregory Ramsay		
Prep Date:	05/26/2011		
Verification Date:	07/06/2011		
Expiration Date:	05/26/2012		
Primary Code:	1519-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.9447 g		
Density(g/mL):	0.9970	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.9447 g) * (372.9 Bq) * (60 dpm/Bq) / (5.08567 g * 100 mL) = 217.5381 dpm/mL
(4.9447 g) * (372.9 Bq) * (60 dpm/Bq) / (0.9970 g/mL)/ (5.08567 g * 100 mL) = 218.1945 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-228 Standard 1519-A

B. Fiem	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
7/6/2011	1519-A N1	1104.2000	42.6000	1061.6000	5.26096828	1.0000	201.7879494
	1519-A N2	1119.6000	42.6000	1077.0000	5.26096828	1.0000	204.7151672
	1519-A N3	1093.6000	42.6000	1051.0000	5.26096828	1.0000	199.7731111
						Average =	202.0920759

Mean Value (Counting) =	202.0920759	dpm/mL	**98.6118055**	**Pass**
Stdev =	2.485024982	dpm/mL	0.0122965	

Certificate Value =	204.9	dpm/mL
Lower Limit =	197.1220259	dpm/mL
Upper Limit =	207.0621258	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	4.970049965	
10 % of Mean =	20.20920759	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Ra-228 source 1519-A by transferring portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC RED ~~(Wallac) using Protocol~~ ~~23~~ for Ra-228 source standard verification. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Amanda L. Fiem

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ QA-ALT
D. M. Montgomery, QA Manager

Date: 10/3/08

RECEIVED

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info			
Isotope:	Strontium-90		
Prepared By:	Daniel Roy		
Prep Date:	12/19/2008		
Verification Date:	07/05/2011		
Expiration Date:	07/05/2012		
Primary Code:	1243-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	10.2164 g		
Density(g/mL):	0.9991	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL

(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011
08/03/2010	Bethany Fiem	2.5604	1000	1243-C	581.5851 dpm/mL	08/03/2010	08/03/2011
01/12/2011	Bethany Fiem	2.4946	1000	1243-D	566.6389 dpm/mL	01/12/2011	01/12/2012
08/12/2011	Tim Chandler	3.3115	100	1243-G	18.7877 dpm/mL	08/11/2011	08/11/2012
08/17/2011	Tim Chandler	2.5541	100	1243-H	14.49064 dpm/mL	08/18/2011	08/16/2012
06/21/2011	Tim Chandler	.0235	100	1243-E	53.37936 dpm/mL	06/22/2011	06/20/2012
07/05/2011	Bethany Fiem	2.6072	1000	1243-F	592.2156 dpm/mL	07/05/2011	07/05/2012

Verification for Sr-90 Standard 1243-F

B. Fiem	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
7/5/2011	1243-F N1	1174.3900	49.0000	1125.3900	2.076121	1.0000	542.0639035
	1243-F N2	1169.7100	49.0000	1120.7100	2.076121	1.0000	539.8096991
	1243-F N3	1192.8600	49.0000	1143.8600	2.076121	1.0000	550.96030
						Average =	544.2779689

Mean Value (Counting) =	544.2779689	dpm/mL	**98.3763484**	**Pass**
Stdev =	5.89580887	dpm/mL	0.01083235	**Rule 3 (Pass/Fail)**

Certificate Value =	553.261	dpm/mL
Lower Limit =	532.4863512	dpm/mL
Upper Limit =	556.0695866	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	11.79161774	
10 % of Mean =	54.42779689	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-F by transferring 1 mL portions of the standard into glass liquid scintillation vials. Ten mL Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1ml DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted and counted on LSC Silver for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 8-3-11 using source 0133-A (Sr-90). Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
Reference RAD SOP M-001

8-16-11
8/18/11

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info			
Isotope:	Thorium-230		
Prepared By:	Ashley Drochter		
Prep Date:	11/10/2009		
Verification Date:	07/05/2011		
Expiration Date:	07/05/2012		
Primary Code:	1242-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.8836 g		
Density(g/mL):	1.0597	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010
08/03/2010	Gregory Ramsay	12.8745	1000	1242-C	282.063 dpm/mL	07/28/2011	07/28/2012
07/05/2011	Bethany Fiem	12.1975	1000	1242-D	267.2309 dpm/mL	07/06/2011	07/05/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-D

Analyst: B. Fiem Date: 7-5-11	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
	1242-D #1	327.8000	49.6000	278.2000	1.01825897	1.0000	273.211
	1242-D #2	323.6000	49.6000	274.0000	1.01825897	1.0000	269.087
	1242-D #3	316.4000	49.6000	266.8000	1.01825897	1.0000	262.016

Mean Value (Counting) =	268.1046837	100.329568	**Pass**
Stdev =	5.662031243		**Rule 3 (Pass/Fail)**

Certificate Value =	267.224
Lower Limit =	256.7806212
Upper Limit =	279.4287461
Rule 1 Pass/Fail	**Pass**
Two sigma =	11.32406249
10 % of Mean =	26.81046837
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Th-230 source 1242-D by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC RED for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 7-5-11 using NIST source 1105-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

7-27-11

Amanda L. Hehn 8/1/11

Runlogs

Instrument Run Log

Instrument Type: GFPC **Batch ID: 1138818**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202480496	MB	LXE3	PIC5D	SEP-10-11 13:16:09	DONE	CeF on 25mm Filter	01-AUG-10 00:00
285124001	SAMPLE	LXE3	PIC2B	SEP-10-11 13:16:15	DONE	CeF on 25mm Filter	01-AUG-10 00:00
285124004	SAMPLE	LXE3	PIC7B	SEP-10-11 13:16:23	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202480497	DUP	LXE3	PIC12B	SEP-10-11 13:23:31	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202480498	MS	LXE3	PIC9A	SEP-10-11 13:47:56	DONE	CeF on 25mm Filter	01-AUG-10 00:00
1202480499	LCS	LXE3	PIC9D	SEP-10-11 13:48:00	DONE	CeF on 25mm Filter	01-AUG-10 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 1138752**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
285124004	SAMPLE	DXF3	PIC2C	SEP-06-11 16:08:39	DONE	2 inch Planchett	01-AUG-10 00:00
1202480299	DUP	DXF3	PIC4B	SEP-06-11 16:08:39	DONE	2 inch Planchett	01-AUG-10 00:00
285124001	SAMPLE	DXF3	PIC4C	SEP-06-11 16:08:39	DONE	2 inch Planchett	01-AUG-10 00:00
1202480298	MB	DXF3	PIC7A	SEP-06-11 16:38:54	DONE	2 inch Planchett	01-AUG-10 00:00
1202480300	MS	DXF3	PIC7C	SEP-06-11 16:52:00	DONE	2 inch Planchett	01-AUG-10 00:00
1202480301	MSD	DXF3	PIC8A	SEP-06-11 16:52:00	DONE	2 inch Planchett	01-AUG-10 00:00
1202480302	LCS	DXF3	PIC8C	SEP-06-11 16:52:04	DONE	2 inch Planchett	01-AUG-10 00:00
1202480299	DUP	DXF3	PIC2B	SEP-06-11 20:36:42	DONE	2 inch Planchett	01-AUG-10 00:00
285124001	SAMPLE	DXF3	PIC9A	SEP-06-11 20:37:20	DONE	2 inch Planchett	01-AUG-10 00:00
1202480300	MS	DXF3	PIC9C	SEP-06-11 20:37:26	DONE	2 inch Planchett	01-AUG-10 00:00
1202480301	MSD	DXF3	PIC9D	SEP-06-11 20:37:26	DONE	2 inch Planchett	01-AUG-10 00:00
285124004	SAMPLE	DXF3	PIC10B	SEP-06-11 20:37:34	DONE	2 inch Planchett	01-AUG-10 00:00
1202480298	MB	DXF3	PIC10C	SEP-06-11 20:37:35	DONE	2 inch Planchett	01-AUG-10 00:00
1202480302	LCS	DXF3	PIC9C	SEP-06-11 21:42:10	DONE	2 inch Planchett	01-AUG-10 00:00

Instrument Run Log

Instrument Type: LUCAS CELL DETECTOR **Batch ID: 1139043**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
285124001	SAMPLE	KSD1	LUCAS1	SEP-12-11 13:05:00	DONE	Lucas Cell	01-SEP-10 00:00
285124004	SAMPLE	KSD1	LUCAS2	SEP-12-11 13:05:00	DONE	Lucas Cell	26-JAN-11 00:00
1202481136	MB	KSD1	LUCAS4	SEP-12-11 13:05:00	DONE	Lucas Cell	04-JAN-11 00:00
1202481137	DUP	KSD1	LUCAS5	SEP-12-11 13:05:00	DONE	Lucas Cell	09-JUN-11 00:00
1202481138	MS	KSD1	LUCAS6	SEP-12-11 13:05:00	DONE	Lucas Cell	28-APR-11 00:00
1202481139	LCS	KSD1	LUCAS7	SEP-12-11 13:05:00	DONE	Lucas Cell	22-NOV-10 00:00

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3330
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 8/26/2011
TURNAROUND/REPORT DUE: 9/25/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sheri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:110.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:200.7	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:245.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:300.0	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:335.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:350.1	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:351.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:353.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:365.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:376.2	1	NPDES13S-11-13861	WOE	8/25/2011	

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:410.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:425.1	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:900	1	NPDES13S-11-13861	WOE	8/25/2011	

Final Page of REQUEST NUMBER 11-3330

Friday, August 26, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3330C

REQUEST NUMBER: 11-3330

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 9/25/2011

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-13861	1	POLY	NPDES-CN(TOTAL)	Sodium Hydroxide (NaOH)	WOE
NPDES13S-11-13861	1	POLY	NPDES-COD	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Color/Sur/ Anions	Ice	WOE
NPDES13S-11-13861	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-P	Sulfuric Acid (Hydrogen Sulfate) Ice	WOE
NPDES13S-11-13861	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-13861	1	POLY	NPDES-Metals+B+Mo+ Sn+Ti	Nitric Acid (HNO3)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Sulfide	Sodium Hydroxide (NaOH)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature	8/26/11	3pm	Signature		
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE ID: NPDES13S-11-13861 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		8/25/11	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0938.	SUB-MEDIA:	OTHER	
PRS ID:			SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall SSS13S		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: 24hr. flow weighted COMPOSITE TIME INTERVAL: 9 pulses WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		NPDES-BOD+ TSS	1 GAL POLY	None	Y	
1		NPDES-CN(TOTAL)	500 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		NPDES-COD	250 ML POLY	Sulfuric Acid (H2SO4)	Y	
1		NPDES-Color/Sur /Anions	500 ML POLY	Ice	Y	
2		NPDES-E Coli	60 ML POLY	Sodium Sulfate	Y	
1		NPDES-NH3/NO 3/NO2/TKN	1 LITER POLY	Sulfuric Acid (H2SO4)	Y	Plus TOC
3		NPDES-OIL_GREASE	1 LITER AMBER GLASS	Sulfuric Acid (H2SO4)	N	
1		NPDES-P	1 LITER POLY	Sulfuric Acid (Hydrogen Sulfate) Ice	Y	
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid (HNO3)	N	
2		NPDES-TTO 2 -CVE (624)	40 ML SEPTUM AMBER GLASS	Ice	N	
4		NPDES-TTO SVOA (625)	1 LITER AMBER GLASS	Ice		
2		NPDES-TTO VOA HCl(624)	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (HCL)	N	
2		WPS-8290-D/F	1 LITER AMBER GLASS	Ice	N	2,3,7,8-TCDD Only
2		WSP-608-PCB1	LITER AMBER GLASS	Ice	N	
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	N	
1		WSP-GrossA/B	1 LITER POLY	None	Y ~~N~~	
1		NPDES-Metals+B +Mo+Sn+Ti	1 LITER POLY	Nitric Acid (HNO3)	Y	200.8
1		NPDES-Sulfide	250 ML POLY	Sodium Hydroxide (NaOH)	Y	
1		NPDES-As	250 ML POLY	Nitric Acid HNO_3	N	Ship to SWRI Hydrid
1		NPDES-Se	" "	"	N	"

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 3496 **EVENT NAME:** NPDES Re-application Sampling

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) B. Gray **REVIEWED BY (PRINT)**

RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) B. Gray	8/25/11 1200	(Printed Name) J Valdez	8/25/11 1200
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3330 VALIDATION DATE: 09/21/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Stacey Lazzelle ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☒ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):**

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %Rs for Sb and Sn were <10%. Thus, the associated sample results were qualified R,I6.

   The MS %Rs for As, Be, B, Cd, Co, Mo, Se, and Tl were < the laboratory LAL but >10%. The sample results for As, B, Co, Mo, and Se were detects and, thus, were qualified J-,I6a. The sample results for Be, Cd, and Tl were NDs and, thus, were qualified UJ,I6a. The MS %Rs were also outside laboratory acceptance limits for Al, Ba, Cu, Pb, Mg, Mn, and Ni. However, the associated parent sample concentrations were >4X the spike concentration. Thus, the associated sample results were not qualified, based on professional judgment.

2. It should be noted that the matrix QC for ICP-AES were performed on a LANL sample from another RN and that that raw data for the parent samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan **Level:** I **Date:** 09/22/11

VALIDATOR'S SIGNATURE: Lazzelle Stacey Lazzelle DATE: 09/21/11

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 11−3330 **METHOD TYPE:** EPA

SAMPLE ID: 284865001 **CLIENT ID:** NPDES13S−11−13861

CONTRACT: ESHL00610

MATRIX: Storm Water **DATE RECEIVED** 27−AUG−11 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum		59	ug/L			MS	15	1	ICPMS7	110902−4
7440−36−0	Antimony	R,I6	1	ug/L	U		MS	1	1	ICPMS7	110831−3
7440−38−2	Arsenic	J-,I6a	2.01	ug/L	J		MS	1.7	1	ICPMS7	110831−3
7440−39−3	Barium		40.5	ug/L			MS	0.6	1	ICPMS7	110831−3
7440−41−7	Beryllium	UJ,I6a	0.2	ug/L	U		MS	0.2	1	ICPMS7	110902−4
7440−42−8	Boron	J-,I6a	74.3	ug/L			MS	4	1	ICPMS7	110902−4
7440−43−9	Cadmium	UJ,I6a	0.11	ug/L	U		MS	0.11	1	ICPMS7	110831−3
7440−47−3	Chromium		1.54	ug/L	J		P	1	1	OPTIMA	090111−1
7440−48−4	Cobalt	J-,I6a	0.11	ug/L	J		MS	0.1	1	ICPMS7	110831−3
7440−50−8	Copper		4.9	ug/L			MS	0.35	1	ICPMS7	110902−4
7439−89−6	Iron		90.2	ug/L	J		P	30	1	OPTIMA	090111−1
7439−92−1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS7	110831−3
7439−95−4	Magnesium		8800	ug/L			MS	10	1	ICPMS7	110831−3
7439−96−5	Manganese		4.71	ug/L	J		MS	1	1	ICPMS7	110831−3
7439−97−6	Mercury		0.066	ug/L	U		AV	0.066	1	MER536	083011W1−7
7439−98−7	Molybdenum	J-,I6a	6.47	ug/L			MS	0.165	1	ICPMS7	110831−3
7440−02−0	Nickel		1.06	ug/L	J		MS	0.5	1	ICPMS7	110902−4
7782−49−2	Selenium	J-,I6a	1.77	ug/L	J		MS	1.5	1	ICPMS7	110831−3
7440−22−4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS7	110831−3
7440−28−0	Thallium	UJ,I6a	0.45	ug/L	U		MS	0.45	1	ICPMS7	110831−3
7440−31−5	Tin	R,I6	1	ug/L	U		MS	1	1	ICPMS7	110831−3
7440−32−6	Titanium		9.53	ug/L	J		MS	2	1	ICPMS7	110902−6
7440−66−6	Zinc		38.5	ug/L			P	3.3	1	OPTIMA	090111−1

SL
09/21/11

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3330 VALIDATION DATE: 09/21/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Stacey Lazzelle ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☒ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):**

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the CCB, TOC was detected. The associated sample result was a detect >5X the CCB concentration and, thus, was not qualified.
2. The MS %R for sulfate was > the laboratory UAL. The associated sample result was a detect and, thus, was qualified J+,I6b. The MS %R for TKN was < the laboratory LAL but ≥10%. The associated sample result was an ND and, thus, was qualified UJ,I6a.
3. It should be noted that the matrix QC analyses for total cyanide were performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan **Level:** I **Date:** 09/22/11

VALIDATOR'S SIGNATURE: Stacey Lazzelle DATE: 09/21/11

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☒	☐	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: **********

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client SDG: 11-3330

Client Sample ID: NPDES13S-11-13861
Sample ID: 284865001
Matrix: Storm Water
Collect Date: 25-AUG-11 12:00
Receive Date: 27-AUG-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SM 5310 D Total Organic Carbon "As Received"												
Total Organic Carbon Average		6.62		0.330	1.00	mg/L	1	TSM	08/31/11	1922	1137397	1
Flow Injection Analysis												
NPDES-CN(TOTAL) "As Received"												
Cyanide, Total	J	1.61		1.50	5.00	ug/L	1	SDS	08/31/11	0847	1136860	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	J	0.136		0.066	0.200	mg/L	1	MAR1	08/29/11	2334	1133216	3
Fluoride		0.342		0.033	0.100	mg/L	1					
Sulfate		28.0	J+,I6b	0.100	0.400	mg/L	1					
Chloride		60.5		0.660	2.00	mg/L	10	MAR1	08/30/11	1542	1133216	4
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia		0.0611		0.016	0.050	mg/L	1	KLP1	08/29/11	1551	1137078	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		3.86		0.100	0.500	mg/L	10	KLP1	08/29/11	1422	1137011	6
NPDES-P "As Received"												
Phosphorus, Total as P		1.84		0.015	0.050	mg/L	1	KLP1	08/30/11	1531	1133754	7
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.035	0.100	mg/L	1	KLP1	08/31/11	1530	1135945	8
Spectrometric Analysis												
EPA 410.4 Chem. Oxygen Demand "As Received"												
COD		42.5		6.50	20.0	mg/L	1	LXA1	08/29/11	1524	1137058	9
SM 4500-S(2-) D Sulfide "As Received"												
Total Sulfide	U	ND		0.030	0.100	mg/L	1	LXA1	08/29/11	1716	1137272	10
SM 5540 C Surfactants (MBAS) "As Received"												
MBAS	U	ND		0.016	0.050	mg/L	1	TXT1	08/27/11	1325	1136759	11
Wet Chemistry General												
SM 2120 B Color "As Received"												
Color		10.0		5.00	5.00	PCU	1	TXT1	08/27/11	1049	1136760	12

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	08/30/11	1619	1136856
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	AXS5	08/29/11	1430	1137077
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	AXS5	08/29/11	1654	1135944

SL
09/21/11

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 11-3330 VALIDATION DATE: 09/21/11 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Stacey Lazzelle ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☐ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☒ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):** Gross alpha/beta only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan **Level:** I **Date:** 09/22/11

VALIDATOR'S SIGNATURE: Lazzelle Stacey Lazzelle DATE: 09/21/11

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 2, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client Sample ID: NPDES13S-11-13861
Sample ID: 284865001
Matrix: Storm Water
Collect Date: 25-AUG-11
Receive Date: 27-AUG-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
WSP-GrossA/B "As Received"													
Beta		18.8	+/-3.67	9.63	+/-4.00	3.00	pCi/L		DXF3	08/31/11	1922	1136968	1
Alpha		3.74	+/-1.15	2.76	+/-1.20	3.00	pCi/L		DXF3	09/01/11	1233	1136968	2

The following Analytical Methods were performed

Method	Description
1	EPA 900.0/SW846 9310
2	EPA 900.0/SW846 9310

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

SL
09/21/11

Friday, August 26, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3330C

REQUEST NUMBER: 11-3330

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 9/25/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

284865

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-13861	1	POLY	NPDES-CN(TOTAL)	Sodium Hydroxide (NaOH)	WOE
NPDES13S-11-13861	1	POLY	NPDES-COD	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Color/Sur/ Anions	Ice	WOE
NPDES13S-11-13861	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-P	Sulfuric Acid (Hydrogen Sulfate) Ice	WOE
NPDES13S-11-13861	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-13861	1	POLY	NPDES-Metals+B+Mo+ Sn+Ti	Nitric Acid (HNO3)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Sulfide	Sodium Hydroxide (NaOH)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Sheri Sherwood	8/26/11	3pm	Signature: [illegible]	8/27/11	0930
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3330
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 8/26/2011
TURNAROUND/REPORT DUE: 9/25/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sherri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:110.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:200.7	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:245.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:300.0	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:335.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:350.1	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:351.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:353.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:365.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:376.2	1	NPDES13S-11-13861	WOE	8/25/2011	

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:410.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:425.1	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:900	1	NPDES13S-11-13861	WOE	8/25/2011	

Final Page of REQUEST NUMBER 11-3330

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

August 30, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH NPDES 13S
Work Order: 284865
SDG: 11-3330

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on August 27, 2011, and analyzed for General Chemistry, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 11-3330
Enclosures

ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 284865
SDG # : 11-3330

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....4

Data Review Qualifier Flag Definition Sheet.....12

Metals Analysis.....14

Case Narrative.....15

Sample Data Summary.....21

Quality Control Summary.....25

Standards.....71

Raw Data.....90

Miscellaneous.....324

General Chem Analysis.....368

Case Narrative.....369

Sample Data Summary.....403

Quality Control Summary.....407

Instrument QC Data Summary.....413

Ammonia Nitrogen Raw Data.....425

COD Raw Data.....435

Carbon, Total Organic Raw Data.....437

Color Raw Data.....447

Cyanide, Total Raw Data.....449

Ion Chromatography Raw Data.....458
Nitrate Nitrite by Cadmium Reduction Raw Data.....505
Sulfide, Total Raw Data.....525
Surfactants (MBAS) Raw Data.....527
Total Kjeldahl Nitrogen Raw Data.....529
Total Phosphorus Raw Data.....540
Miscellaneous.....547
Radiological Analysis.....551
Sample Data Summary.....555
Quality Control Data.....557
Gas Flow Raw Data.....560
Continuing Calibration Data.....573
Background and Efficiency Data.....581
Standards Data.....606
Runlogs.....614

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL-WQH NPDES 13S
Workorder #: 284865
SDG # : 11-3330

August 30, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on August 27, 2011 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Please see attached email for discrepancies. The containers for radiochemistry were received at 24/25C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
284865001	NPDES13S-11-13861

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

List of current GEL Certifications as of 30 August 2011

State	Certification
Arkansas	88−0651
CLIA	42D0904046
California − NELAP	01151CA
Colorado	E87156 (FL/NELAP)
Connecticut	PH−0169
DoD ELAP − A2LA	2567.01
Florida − NELAP	E87156
Foreign Soils Permit USDA	P330−09−00191
Georgia	E87156 (FL/NELAP)
Georgia SDWA	967
Hawaii	E87156 (FL/NELAP)
ISO 17025	2567.01
Idaho	SC00012
Illinois − NELAP	200029
Indiana	C−SC−01
Kansas − NELAP	E−10332
Kentucky	90129
Louisiana − NELAP	03046 (Al33904)
Louisiana SDWA	LA110006
Maryland	270
Massachusetts	M−SC012
Mississippi	E87156 (FL/NELAP)
Nevada	SC00012
New Hampshire	2054
New Jersey − NELAP	SC002
New Mexico	E87156 (FL/NELAP)
New York − NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania − NELAP	68−00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas − NELAP	T104704235−10−3
Utah − NELAP	SC00012
Vermont	VT87156
Virginia	00151
Washington	C780
Wisconsin	999887790

Chain of Custody and Supporting Documentation

Friday, August 26, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 11-3330C

REQUEST NUMBER: 11-3330

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 9/25/2011

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

284865

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
NPDES13S-11-13861	1	POLY	NPDES-CN(TOTAL)	Sodium Hydroxide (NaOH)	WOE
NPDES13S-11-13861	1	POLY	NPDES-COD	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Color/Sur/ Anions	Ice	WOE
NPDES13S-11-13861	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
NPDES13S-11-13861	1	POLY	NPDES-P	Sulfuric Acid (Hydrogen Sulfate) Ice	WOE
NPDES13S-11-13861	1	POLY	WSP-GrossA/B	None	WOE
NPDES13S-11-13861	1	POLY	NPDES-Metals+B+Mo+ Sn+Ti	Nitric Acid (HNO3)	WOE
NPDES13S-11-13861	1	POLY	NPDES-Sulfide	Sodium Hydroxide (NaOH)	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Sheri Sherwood	8/26/11	3pm	Signature: [illegible]	8/27/11	0930
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:11-3330
Per Agreement Number:126310011
Project Cost Code: WE6L11550000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 8/26/2011
TURNAROUND/REPORT DUE: 9/25/2011
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature: Sherri Sherwood

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:110.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:200.7	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:245.2	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:300.0	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:335.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:350.1	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:351.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:353.2	1	NPDES13S-11-13861	WOE	8/25/2011	Plus TOC
	EPA:365.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:376.2	1	NPDES13S-11-13861	WOE	8/25/2011	

Friday, August 26, 2011

REQUEST NUMBER: 11-3330

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:410.4	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:425.1	1	NPDES13S-11-13861	WOE	8/25/2011	
	EPA:900	1	NPDES13S-11-13861	WOE	8/25/2011	

Final Page of REQUEST NUMBER 11-3330

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/AR/COC/Work Order: 11-3330**
Received By: Dionne Francis	**Date Received: August 27, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags **Blue ice** Dry ice **None** Other (describe) **5,6C 24,25C**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: **61524646** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **NPDES13S-11-13861 Gross A/B** If Preservation added, Lot#: **K11061 - Nitric Acid**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?		X		(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **Time not indicated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			Circle Applicable: **FedEx Air** FedEx Ground UPS Field Services Courier Other **7209 7855 2699 5C 7209 7855 2714 5C 7209 7855 2736 6C 7209 7855 2688 6C 72090 7855 5057 24C 7209 7855 2747 24C 7209 7855 2703 25C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials Jme Date 8-28-11 Page ___ of 1

Subject: Re: Sample Receipt for 8/27/11
From: Keith Greene <kgreene@lanl.gov>
Date: Mon, 29 Aug 2011 08:42:25 -0600
To: Dionne Francis <Dionne.Francis@gel.com>
CC: Joylene Valdez <joylenev@lanl.gov>, TEAM.DAVIS@gel.com

for 10412 see if the bottle did show up if not try and take some from the metals bottle if possible, 20870 should be on request 11-3321 and 11423 should be on request 11-3322.

At 12:13 PM 8/27/2011, Dionne Francis wrote:

Good afternoon Keith,

RN#11-3326: The SSC for samples WTESR-11-20314 and 20367 were rec'd out of holding.

RN#11-3329: The following samples were preserved w/nitric prior to analysis: WTLAP-11-26487, 26568, 26576, 26546, 26600, 26614, 26628.

RN#11-3328: The containers for samples WTLAP-11-15716 and 15720 were preserved w/nitric prior to analysis.

RN#11-3330: The Gross A/B container for sample NPDES13S-11-13861 was preserved w/nitric prior to analysis.

RN#11-3332: The lab did not receive one of 1L poly Gross Alpha containers for sample WT_IPLAP-11-10412.

The following samples were received without a COC:
1L amber glass HE - WTESR-11-20870
1L poly Total Metals, 1L poly G/Alpha, 1L poly Ra226/228 - WT_IPWAT-11-11423

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Proverbs 4v11-12 (NLT)
I will teach you wisdom's ways and lead you in straight paths. If you live a life guided by wisdom, you won't limp or strumble as you run.

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

5c

FedEx Express

2 of 3
MPS# 0263 7209 7855 2699
Mstr# 7209 7855 2688 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

505C1/EEE7/DA47

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

5c

FedEx Express

1 of 3
TRK# 0201 7209 7855 2714
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

505C1/EEE7/DA47

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

6c

FedEx Express

3 of 3
MPS# 0263 7209 7855 2736
Mstr# 7209 7855 2714 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

6c

FedEx Express

1 of 3
TRK# 0201 7209 7855 2688
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

24¢

FedEx Express

2 of 3
MPS# 0263 7209 7855 2725
Mstr# 7209 7855 2714 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

585C1/EEE7/DA47

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

24¢

FedEx Express

TRK# 0201 7209 7855 2747

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

585C1/EEE7/DA47

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6H010AWESWMSGP0000

25¢

FedEx Express

3 of 3
MPS# 0263 7209 7855 2703
Mstr# 7209 7855 2688 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 RIT2 08/10

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Metals Analysis

Case Narrative

Metals Fractional Narrative
ARS International (ARSL)
SDG 11-3330

Sample Analysis

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202477127	Method Blank (MB) **ICP**
1202477128	Laboratory Control Sample (LCS)
1202477131	284862004(WTLAP-11-15716L) Serial Dilution (SD)
1202477129	284862004(WTLAP-11-15716D) Sample Duplicate (DUP)
1202477130	284862004(WTLAP-11-15716S) Matrix Spike (MS)
1202477132	Method Blank (MB) **ICP-MS**
1202479547	Method Blank (MB) **ICP-MS**
1202477133	Laboratory Control Sample (LCS)
1202479548	Laboratory Control Sample (LCS)
1202477136	284862004(WTLAP-11-15716L) Serial Dilution (SD)
1202479551	284865001(NPDES13S-11-13861L) Serial Dilution (SD)
1202477134	284862004(WTLAP-11-15716D) Sample Duplicate (DUP)
1202479549	284865001(NPDES13S-11-13861D) Sample Duplicate (DUP)
1202477135	284862004(WTLAP-11-15716S) Matrix Spike (MS)
1202479550	284865001(NPDES13S-11-13861S) Matrix Spike (MS)
1202476168	Method Blank (MB) **CVAA**
1202476169	Laboratory Control Sample (LCS)
1202476176	284865001(NPDES13S-11-13861L) Serial Dilution (SD)
1202476170	284865001(NPDES13S-11-13861D) Sample Duplicate (DUP)
1202476171	284865001(NPDES13S-11-13861S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 1137348, 1137351, 1138416 and 1136973
Prep Batch : 1137346, 1137350, 1138415 and 1136972

Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-016 REV# 8, GL-MA-E-014 REV# 23 and GL-MA-E-010 REV# 25
Analytical Method:	EPA 200.7, EPA 200.8 DOE-AL and EPA 245.1/245.2
Prep Method :	EPA 200.2 and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a PE 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 284862004 (WTLAP-11-15716)-ICP and ICP-MS and 284865001 (NPDES13S-11-13861)-ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, arsenic, beryllium, boron, cadmium, cobalt, molybdenum, selenium, thallium and tin.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the IDL/MDL for CVAA, 50X the IDL/MDL for ICP and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the established criteria of less than 10% difference (%D) with the exceptions of barium, cadmium, lead, cobalt, copper and nickel.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. There were no dilutions required for this SDG.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 992814 and 992945. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has

met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:**_____

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3330 GEL Work Order: 284865

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

H Analytical holding time was exceeded

J Value is estimated

N Metals--The Matrix spike sample recovery is not within specified control limits

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the RL or LOQ.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed By: Nick-Cole A. Elmore 9.2.11

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 11−3330 **METHOD TYPE:** EPA

SAMPLE ID: 284865001 **CLIENT ID:** NPDES13S−11−13861

CONTRACT: ESHL00610

MATRIX: Storm Water **DATE RECEIVED** 27−AUG−11 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7429−90−5	Aluminum	59	ug/L			MS	15	1	ICPMS7	110902−4
7440−36−0	Antimony	1	ug/L	U		MS	1	1	ICPMS7	110831−3
7440−38−2	Arsenic	2.01	ug/L	J		MS	1.7	1	ICPMS7	110831−3
7440−39−3	Barium	40.5	ug/L			MS	0.6	1	ICPMS7	110831−3
7440−41−7	Beryllium	0.2	ug/L	U		MS	0.2	1	ICPMS7	110902−4
7440−42−8	Boron	74.3	ug/L			MS	4	1	ICPMS7	110902−4
7440−43−9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS7	110831−3
7440−47−3	Chromium	1.54	ug/L	J		P	1	1	OPTIMA	090111−1
7440−48−4	Cobalt	0.11	ug/L	J		MS	0.1	1	ICPMS7	110831−3
7440−50−8	Copper	4.9	ug/L			MS	0.35	1	ICPMS7	110902−4
7439−89−6	Iron	90.2	ug/L	J		P	30	1	OPTIMA	090111−1
7439−92−1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS7	110831−3
7439−95−4	Magnesium	8800	ug/L			MS	10	1	ICPMS7	110831−3
7439−96−5	Manganese	4.71	ug/L	J		MS	1	1	ICPMS7	110831−3
7439−97−6	Mercury	0.066	ug/L	U		AV	0.066	1	MER536	083011W1−7
7439−98−7	Molybdenum	6.47	ug/L			MS	0.165	1	ICPMS7	110831−3
7440−02−0	Nickel	1.06	ug/L	J		MS	0.5	1	ICPMS7	110902−4
7782−49−2	Selenium	1.77	ug/L	J		MS	1.5	1	ICPMS7	110831−3
7440−22−4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS7	110831−3
7440−28−0	Thallium	0.45	ug/L	U		MS	0.45	1	ICPMS7	110831−3
7440−31−5	Tin	1	ug/L	U		MS	1	1	ICPMS7	110831−3
7440−32−6	Titanium	9.53	ug/L	J		MS	2	1	ICPMS7	110902−6
7440−66−6	Zinc	38.5	ug/L			P	3.3	1	OPTIMA	090111−1

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 11−3330 **METHOD TYPE:** EPA

SAMPLE ID: 284865001 **CLIENT ID:** NPDES13S−11−13861

CONTRACT: ESHL00610

MATRIX: Storm Water **DATE RECEIVED** 27−AUG−11 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Quality Control Summary

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.11	ug/L	5	ug/L	102.1	90.0 − 110.0	AV	30−AUG−11 10:12	083011W1−7
	Antimony	46.5	ug/L	50	ug/L	93.1	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Arsenic	51	ug/L	50	ug/L	102	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Barium	49.6	ug/L	50	ug/L	99.1	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Cadmium	51.2	ug/L	50	ug/L	102.4	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Cobalt	50.6	ug/L	50	ug/L	101.2	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Lead	51.3	ug/L	50	ug/L	102.6	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Manganese	51.1	ug/L	50	ug/L	102.2	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Molybdenum	48.9	ug/L	50	ug/L	97.7	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Selenium	50.7	ug/L	50	ug/L	101.3	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Silver	49.6	ug/L	50	ug/L	99.2	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Thallium	48.4	ug/L	50	ug/L	96.7	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Tin	50.2	ug/L	50	ug/L	100.5	90.0 − 110.0	MS	31−AUG−11 20:59	110831−3
	Chromium	501	ug/L	500	ug/L	100.2	95.0 − 105.0	P	01−SEP−11 06:07	090111−1
	Iron	5010	ug/L	5000	ug/L	100.3	95.0 − 105.0	P	01−SEP−11 06:07	090111−1
	Zinc	498	ug/L	500	ug/L	99.7	95.0 − 105.0	P	01−SEP−11 06:07	090111−1
	Aluminum	4990	ug/L	5050	ug/L	98.9	90.0 − 110.0	MS	02−SEP−11 10:22	110902−4
	Beryllium	47.9	ug/L	50	ug/L	95.8	90.0 − 110.0	MS	02−SEP−11 10:22	110902−4
	Boron	101	ug/L	100	ug/L	101	90.0 − 110.0	MS	02−SEP−11 10:22	110902−4
	Copper	49.5	ug/L	50	ug/L	99	90.0 − 110.0	MS	02−SEP−11 10:22	110902−4
	Nickel	49.7	ug/L	50	ug/L	99.4	90.0 − 110.0	MS	02−SEP−11 10:22	110902−4
	Titanium	49.4	ug/L	50	ug/L	98.9	90.0 − 110.0	MS	02−SEP−11 13:39	110902−6
CCV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 − 110.0	AV	30−AUG−11 10:17	083011W1−7
	Antimony	46.7	ug/L	50	ug/L	93.4	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Arsenic	49.4	ug/L	50	ug/L	98.8	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Barium	49.3	ug/L	50	ug/L	98.6	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Cadmium	50.9	ug/L	50	ug/L	101.7	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Cobalt	49.8	ug/L	50	ug/L	99.5	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Lead	49.5	ug/L	50	ug/L	99	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Magnesium	5310	ug/L	5000	ug/L	106.3	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Manganese	52.3	ug/L	50	ug/L	104.6	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Molybdenum	49.4	ug/L	50	ug/L	98.9	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Selenium	51.7	ug/L	50	ug/L	103.3	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Silver	49.1	ug/L	50	ug/L	98.2	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Thallium	47.5	ug/L	50	ug/L	95	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Tin	49.8	ug/L	50	ug/L	99.6	90.0 − 110.0	MS	31−AUG−11 21:41	110831−3
	Chromium	489	ug/L	500	ug/L	97.8	90.0 − 110.0	P	01−SEP−11 06:24	090111−1
	Iron	4960	ug/L	5000	ug/L	99.3	90.0 − 110.0	P	01−SEP−11 06:24	090111−1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 − 110.0	P	01−SEP−11 06:24	090111−1
	Aluminum	4980	ug/L	5050	ug/L	98.6	90.0 − 110.0	MS	02−SEP−11 10:40	110902−4
	Beryllium	48.2	ug/L	50	ug/L	96.3	90.0 − 110.0	MS	02−SEP−11 10:40	110902−4
	Boron	96.6	ug/L	100	ug/L	96.6	90.0 − 110.0	MS	02−SEP−11 10:40	110902−4
	Copper	51.1	ug/L	50	ug/L	102.3	90.0 − 110.0	MS	02−SEP−11 10:40	110902−4
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 − 110.0	MS	02−SEP−11 10:40	110902−4
	Titanium	50.7	ug/L	50	ug/L	101.3	90.0 − 110.0	MS	02−SEP−11 13:52	110902−6
CCV02										
	Mercury	5.2	ug/L	5	ug/L	103.9	90.0 − 110.0	AV	30−AUG−11 10:37	083011W1−7
	Antimony	48	ug/L	50	ug/L	96	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Arsenic	49.6	ug/L	50	ug/L	99.2	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Barium	49.5	ug/L	50	ug/L	99	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Cobalt	49.7	ug/L	50	ug/L	99.5	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Lead	50.8	ug/L	50	ug/L	101.6	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Manganese	51.2	ug/L	50	ug/L	102.3	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Molybdenum	48.6	ug/L	50	ug/L	97.3	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Selenium	50.6	ug/L	50	ug/L	101.2	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Silver	48.6	ug/L	50	ug/L	97.1	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Thallium	48.4	ug/L	50	ug/L	96.8	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Tin	50.3	ug/L	50	ug/L	100.6	90.0 − 110.0	MS	31−AUG−11 22:06	110831−3
	Chromium	493	ug/L	500	ug/L	98.5	90.0 − 110.0	P	01−SEP−11 06:43	090111−1
	Iron	4970	ug/L	5000	ug/L	99.5	90.0 − 110.0	P	01−SEP−11 06:43	090111−1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 − 110.0	P	01−SEP−11 06:43	090111−1
	Aluminum	4800	ug/L	5050	ug/L	95	90.0 − 110.0	MS	02−SEP−11 10:53	110902−4
	Beryllium	47.9	ug/L	50	ug/L	95.8	90.0 − 110.0	MS	02−SEP−11 10:53	110902−4
	Boron	97	ug/L	100	ug/L	97	90.0 − 110.0	MS	02−SEP−11 10:53	110902−4
	Copper	49.7	ug/L	50	ug/L	99.5	90.0 − 110.0	MS	02−SEP−11 10:53	110902−4
	Nickel	49.4	ug/L	50	ug/L	98.8	90.0 − 110.0	MS	02−SEP−11 10:53	110902−4
	Titanium	49	ug/L	50	ug/L	97.9	90.0 − 110.0	MS	02−SEP−11 14:12	110902−6
CCV03										
	Mercury	5.23	ug/L	5	ug/L	104.5	90.0 − 110.0	AV	30−AUG−11 10:58	083011W1−7
	Antimony	46.4	ug/L	50	ug/L	92.8	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Barium	49.6	ug/L	50	ug/L	99.3	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Cadmium	50	ug/L	50	ug/L	100.1	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Cobalt	50.2	ug/L	50	ug/L	100.3	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Lead	49.7	ug/L	50	ug/L	99.4	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Manganese	51.4	ug/L	50	ug/L	102.8	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Molybdenum	48.9	ug/L	50	ug/L	97.7	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Silver	48.8	ug/L	50	ug/L	97.7	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Thallium	47.5	ug/L	50	ug/L	95	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Tin	49.7	ug/L	50	ug/L	99.3	90.0 − 110.0	MS	31−AUG−11 22:39	110831−3
	Chromium	492	ug/L	500	ug/L	98.3	90.0 − 110.0	P	01−SEP−11 07:05	090111−1
	Iron	4960	ug/L	5000	ug/L	99.3	90.0 − 110.0	P	01−SEP−11 07:05	090111−1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 − 110.0	P	01−SEP−11 07:05	090111−1
	Aluminum	4850	ug/L	5050	ug/L	96.1	90.0 − 110.0	MS	02−SEP−11 11:31	110902−4

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Beryllium	49.6	ug/L	50	ug/L	99.3	90.0 − 110.0	MS	02−SEP−11 11:31	110902−4
	Boron	99.6	ug/L	100	ug/L	99.6	90.0 − 110.0	MS	02−SEP−11 11:31	110902−4
	Copper	49.5	ug/L	50	ug/L	99.1	90.0 − 110.0	MS	02−SEP−11 11:31	110902−4
	Nickel	49.2	ug/L	50	ug/L	98.3	90.0 − 110.0	MS	02−SEP−11 11:31	110902−4
CCV04										
	Mercury	5.23	ug/L	5	ug/L	104.7	90.0 − 110.0	AV	30−AUG−11 11:18	083011W1−7
	Antimony	45.5	ug/L	50	ug/L	91.1	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Arsenic	49.1	ug/L	50	ug/L	98.2	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Barium	48.2	ug/L	50	ug/L	96.3	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Cadmium	50.6	ug/L	50	ug/L	101.3	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Cobalt	48.8	ug/L	50	ug/L	97.6	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Lead	48.9	ug/L	50	ug/L	97.8	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Manganese	50.8	ug/L	50	ug/L	101.5	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Molybdenum	47.9	ug/L	50	ug/L	95.9	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Silver	48.3	ug/L	50	ug/L	96.5	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Thallium	47.3	ug/L	50	ug/L	94.6	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
	Tin	49.1	ug/L	50	ug/L	98.2	90.0 − 110.0	MS	31−AUG−11 23:38	110831−3
CCV05										
	Mercury	5	ug/L	5	ug/L	100	90.0 − 110.0	AV	30−AUG−11 11:38	083011W1−7
	Antimony	46.5	ug/L	50	ug/L	93.1	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Arsenic	49.4	ug/L	50	ug/L	98.8	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Barium	48.7	ug/L	50	ug/L	97.5	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Cadmium	50.3	ug/L	50	ug/L	100.6	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Cobalt	49.5	ug/L	50	ug/L	98.9	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Lead	49.2	ug/L	50	ug/L	98.5	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Manganese	51.1	ug/L	50	ug/L	102.2	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Molybdenum	48.3	ug/L	50	ug/L	96.6	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Selenium	51.3	ug/L	50	ug/L	102.7	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Silver	48.6	ug/L	50	ug/L	97.2	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Thallium	47.4	ug/L	50	ug/L	94.9	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
	Tin	49.7	ug/L	50	ug/L	99.5	90.0 − 110.0	MS	01−SEP−11 00:11	110831−3
CCV06										
	Mercury	4.98	ug/L	5	ug/L	99.7	90.0 − 110.0	AV	30−AUG−11 11:58	083011W1−7
	Antimony	46	ug/L	50	ug/L	92	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Arsenic	51.6	ug/L	50	ug/L	103.3	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Barium	49.3	ug/L	50	ug/L	98.6	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Cobalt	51	ug/L	50	ug/L	102.1	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Lead	50.7	ug/L	50	ug/L	101.3	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Magnesium	5390	ug/L	5000	ug/L	107.9	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Manganese	51	ug/L	50	ug/L	102	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Molybdenum	49.8	ug/L	50	ug/L	99.5	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Silver	49.9	ug/L	50	ug/L	99.7	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Thallium	49	ug/L	50	ug/L	98	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
	Tin	49.7	ug/L	50	ug/L	99.4	90.0 − 110.0	MS	01−SEP−11 01:52	110831−3
CCV07										
	Mercury	5.05	ug/L	5	ug/L	101	90.0 − 110.0	AV	30−AUG−11 12:05	083011W1−7
	Antimony	46.1	ug/L	50	ug/L	92.3	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Arsenic	50.8	ug/L	50	ug/L	101.7	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Barium	49.1	ug/L	50	ug/L	98.3	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Cobalt	52.6	ug/L	50	ug/L	105.1	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Lead	50.5	ug/L	50	ug/L	101.1	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Manganese	51.9	ug/L	50	ug/L	103.8	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Molybdenum	51.7	ug/L	50	ug/L	103.5	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Selenium	52.3	ug/L	50	ug/L	104.6	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Silver	51.7	ug/L	50	ug/L	103.4	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
	Tin	49.6	ug/L	50	ug/L	99.1	90.0 − 110.0	MS	01−SEP−11 03:25	110831−3
CCV08										
	Mercury	5.19	ug/L	5	ug/L	103.8	90.0 − 110.0	AV	30−AUG−11 12:42	083011W1−7
CCV09										
	Mercury	5.27	ug/L	5	ug/L	105.4	90.0 − 110.0	AV	30−AUG−11 13:14	083011W1−7
CCV10										
	Mercury	5.26	ug/L	5	ug/L	105.3	90.0 − 110.0	AV	30−AUG−11 13:21	083011W1−7

***Analytical Methods:**

P EPA 200.7
MS EPA 200.8
AV EPA 245.1/245.2
AF EPA 1631E

METALS
−2b−
CRDL Standard for AA & ICP

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS7,MER536,OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.183	ug/L	.2	ug/L	91.5	70.0 − 130.0	AV	30−AUG−11 10:15	083011W1−7
	Antimony	3.17	ug/L	3	ug/L	105.8	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Arsenic	5.15	ug/L	5	ug/L	102.9	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Barium	2.1	ug/L	2	ug/L	105	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Cadmium	1.04	ug/L	1	ug/L	103.8	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Cobalt	1.05	ug/L	1	ug/L	105.1	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Lead	2.28	ug/L	2	ug/L	114	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Magnesium	28.9	ug/L	30	ug/L	96.3	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Manganese	5.35	ug/L	5	ug/L	107	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Molybdenum	.482	ug/L	.5	ug/L	96.4	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Selenium	5.7	ug/L	5	ug/L	114	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Silver	1.04	ug/L	1	ug/L	103.6	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Thallium	2.11	ug/L	2	ug/L	105.6	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Tin	5.01	ug/L	5	ug/L	100.1	70.0 − 130.0	MS	31−AUG−11 21:15	110831−3
	Aluminum	48.9	ug/L	50	ug/L	97.7	70.0 − 130.0	MS	02−SEP−11 10:29	110902−4
	Nickel	1.98	ug/L	2	ug/L	99	70.0 − 130.0	MS	02−SEP−11 10:29	110902−4
	Beryllium	.506	ug/L	.5	ug/L	101.2	70.0 − 130.0	MS	02−SEP−11 10:29	110902−4
	Boron	16.7	ug/L	15	ug/L	111.5	70.0 − 130.0	MS	02−SEP−11 10:29	110902−4
	Copper	1.02	ug/L	1	ug/L	101.5	70.0 − 130.0	MS	02−SEP−11 10:29	110902−4
	Titanium	9.15	ug/L	10	ug/L	91.5	70.0 − 130.0	MS	02−SEP−11 13:45	110902−6
PQL01										
	Chromium	4.82	ug/L	5	ug/L	96.5	70.0 − 130.0	P	01−SEP−11 06:13	090111−1
	Iron	102	ug/L	100	ug/L	101.7	70.0 − 130.0	P	01−SEP−11 06:13	090111−1
	Zinc	9.41	ug/L	10	ug/L	94.1	70.0 − 130.0	P	01−SEP−11 06:13	090111−1

***Analytical Methods:**

P EPA 200.7
MS EPA 200.8
AV EPA 245.1/245.2
AF EPA1631E

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 10:13	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	31−AUG−11 21:07	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 21:07	110831−3
	Chromium	1.0	+/−5	U	1.0	5.0	LIQ	P	01−SEP−11 06:10	090111−1
	Iron	30.0	+/−100	U	30.0	100	LIQ	P	01−SEP−11 06:10	090111−1
	Zinc	3.3	+/−10	U	3.3	10.0	LIQ	P	01−SEP−11 06:10	090111−1
	Aluminum	15.0	+/−50	U	15.0	50.0	LIQ	MS	02−SEP−11 10:26	110902−4
	Beryllium	0.2	+/−.5	U	0.2	0.5	LIQ	MS	02−SEP−11 10:26	110902−4
	Boron	4.0	+/−15	U	4.0	15.0	LIQ	MS	02−SEP−11 10:26	110902−4
	Copper	0.35	+/−1	U	0.35	1.0	LIQ	MS	02−SEP−11 10:26	110902−4
	Nickel	0.5	+/−2	U	0.5	2.0	LIQ	MS	02−SEP−11 10:26	110902−4
	Titanium	2.0	+/−10	U	2.0	10.0	LIQ	MS	02−SEP−11 13:42	110902−6
CCB01										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 10:18	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	31−AUG−11 21:49	110831−3

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	31−AUG−11 21:49	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 21:49	110831−3
	Chromium	1.0	+/−5	U	1.0	5.0	LIQ	P	01−SEP−11 06:27	090111−1
	Iron	30.0	+/−100	U	30.0	100	LIQ	P	01−SEP−11 06:27	090111−1
	Zinc	3.3	+/−10	U	3.3	10.0	LIQ	P	01−SEP−11 06:27	090111−1
	Aluminum	15.0	+/−50	U	15.0	50.0	LIQ	MS	02−SEP−11 10:43	110902−4
	Beryllium	0.2	+/−.5	U	0.2	0.5	LIQ	MS	02−SEP−11 10:43	110902−4
	Boron	4.0	+/−15	U	4.0	15.0	LIQ	MS	02−SEP−11 10:43	110902−4
	Copper	0.35	+/−1	U	0.35	1.0	LIQ	MS	02−SEP−11 10:43	110902−4
	Nickel	0.5	+/−2	U	0.5	2.0	LIQ	MS	02−SEP−11 10:43	110902−4
	Titanium	2.0	+/−10	U	2.0	10.0	LIQ	MS	02−SEP−11 13:55	110902−6
CCB02										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 10:39	083011W1−7
	Antimony	1.11	+/−3	J	1.0	3.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Molybdenum	0.198	+/−.5	J	0.165	0.5	LIQ	MS	31−AUG−11 22:14	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	31−AUG−11 22:14	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 22:14	110831−3

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Chromium	1.0	+/−5	U	1.0	5.0	LIQ	P	01−SEP−11 06:45	090111−1
	Iron	30.0	+/−100	U	30.0	100	LIQ	P	01−SEP−11 06:45	090111−1
	Zinc	3.3	+/−10	U	3.3	10.0	LIQ	P	01−SEP−11 06:45	090111−1
	Aluminum	15.0	+/−50	U	15.0	50.0	LIQ	MS	02−SEP−11 10:57	110902−4
	Beryllium	0.2	+/−.5	U	0.2	0.5	LIQ	MS	02−SEP−11 10:57	110902−4
	Boron	4.0	+/−15	U	4.0	15.0	LIQ	MS	02−SEP−11 10:57	110902−4
	Copper	0.35	+/−1	U	0.35	1.0	LIQ	MS	02−SEP−11 10:57	110902−4
	Nickel	0.5	+/−2	U	0.5	2.0	LIQ	MS	02−SEP−11 10:57	110902−4
	Titanium	2.0	+/−10	U	2.0	10.0	LIQ	MS	02−SEP−11 14:15	110902−6
CCB03										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 10:59	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	31−AUG−11 22:48	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 22:48	110831−3
	Chromium	1.0	+/−5	U	1.0	5.0	LIQ	P	01−SEP−11 07:08	090111−1
	Iron	30.0	+/−100	U	30.0	100	LIQ	P	01−SEP−11 07:08	090111−1
	Zinc	3.3	+/−10	U	3.3	10.0	LIQ	P	01−SEP−11 07:08	090111−1
	Aluminum	15.0	+/−50	U	15.0	50.0	LIQ	MS	02−SEP−11 11:35	110902−4
	Beryllium	0.2	+/−.5	U	0.2	0.5	LIQ	MS	02−SEP−11 11:35	110902−4
	Boron	4.0	+/−15	U	4.0	15.0	LIQ	MS	02−SEP−11 11:35	110902−4
	Copper	0.35	+/−1	U	0.35	1.0	LIQ	MS	02−SEP−11 11:35	110902−4

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Nickel	0.5	+/−2	U	0.5	2.0	LIQ	MS	02−SEP−11 11:35	110902−4
CCB04										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 11:19	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	31−AUG−11 23:46	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	31−AUG−11 23:46	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	31−AUG−11 23:46	110831−3
CCB05										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 11:40	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	01−SEP−11 00:20	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	01−SEP−11 00:20	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 00:20	110831−3

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
CCB06										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 12:00	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	01−SEP−11 02:01	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	01−SEP−11 02:01	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 02:01	110831−3
CCB07										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 12:07	083011W1−7
	Antimony	1.0	+/−3	U	1.0	3.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Arsenic	1.7	+/−5	U	1.7	5.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Barium	0.6	+/−2	U	0.6	2.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Cadmium	0.11	+/−1	U	0.11	1.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Cobalt	0.1	+/−1	U	0.1	1.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Lead	0.5	+/−2	U	0.5	2.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Magnesium	10.0	+/−30	U	10.0	30.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Manganese	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Molybdenum	0.165	+/−.5	U	0.165	0.5	LIQ	MS	01−SEP−11 03:33	110831−3
	Selenium	1.5	+/−5	U	1.5	5.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Silver	0.2	+/−1	U	0.2	1.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Thallium	0.45	+/−2	U	0.45	2.0	LIQ	MS	01−SEP−11 03:33	110831−3
	Tin	1.0	+/−5	U	1.0	5.0	LIQ	MS	01−SEP−11 03:33	110831−3
CCB08										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 12:43	083011W1−7

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 11−3330

Contract: ESHL00610

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
CCB09										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 13:16	083011W1−7
CCB10										
	Mercury	0.066	+/−.2	U	0.066	0.2	LIQ	AV	30−AUG−11 13:23	083011W1−7

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA1631E

METALS
−3b−
PREPARATION BLANK SUMMARY

SDG NO. 11−3330

Contract: ESHL00610

Matrix: Storm Water

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M*	MDL	RDL
1202476168								
	Mercury	0.066	ug/L	+/−0.2	U	AV	0.066	0.2
1202477127								
	Chromium	1	ug/L	+/−5	U	P	1	5
	Iron	30	ug/L	+/−100	U	P	30	100
	Zinc	3.3	ug/L	+/−10	U	P	3.3	10
1202477132								
	Aluminum	15	ug/L	+/−50	U	MS	15	50
	Beryllium	0.2	ug/L	+/−0.5	U	MS	0.2	0.5
	Cadmium	0.11	ug/L	+/−1	U	MS	0.11	1
	Copper	0.35	ug/L	+/−1	U	MS	0.35	1
	Magnesium	10	ug/L	+/−30	U	MS	10	30
	Tin	1	ug/L	+/−5	U	MS	1	5
	Thallium	0.45	ug/L	+/−2	U	MS	0.45	2
	Silver	0.2	ug/L	+/−1	U	MS	0.2	1
	Selenium	1.5	ug/L	+/−5	U	MS	1.5	5
	Nickel	0.5	ug/L	+/−2	U	MS	0.5	2
	Molybdenum	0.165	ug/L	+/−0.5	U	MS	0.165	0.5
	Manganese	1	ug/L	+/−5	U	MS	1	5
	Lead	0.5	ug/L	+/−2	U	MS	0.5	2
	Cobalt	0.1	ug/L	+/−1	U	MS	0.1	1
	Boron	4	ug/L	+/−15	U	MS	4	15
	Barium	0.6	ug/L	+/−2	U	MS	0.6	2
	Antimony	1	ug/L	+/−3	U	MS	1	3
	Arsenic	1.7	ug/L	+/−5	U	MS	1.7	5
1202479547								
	Titanium	2	ug/L	+/−10	U	MS	2	10

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−4−
Interference Check Sample

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	1.05	ug/L					01−SEP−11 06:16	090111−1
	Iron	196000	ug/L	200000	ug/L	98.1	80.0 − 120.0	01−SEP−11 06:16	090111−1
	Zinc	10.4	ug/L					01−SEP−11 06:16	090111−1
ICSAB01									
	Chromium	520	ug/L	500	ug/L	104	80.0 − 120.0	01−SEP−11 06:18	090111−1
	Iron	197000	ug/L	200000	ug/L	98.3	80.0 − 120.0	01−SEP−11 06:18	090111−1
	Zinc	524	ug/L	500	ug/L	105	80.0 − 120.0	01−SEP−11 06:18	090111−1

METALS
−4−
Interference Check Sample

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.253	ug/L					31−AUG−11 21:24	110831−3
	Arsenic	−0.305	ug/L					31−AUG−11 21:24	110831−3
	Barium	0.294	ug/L					31−AUG−11 21:24	110831−3
	Cadmium	0.657	ug/L					31−AUG−11 21:24	110831−3
	Cobalt	0.134	ug/L					31−AUG−11 21:24	110831−3
	Lead	0.15	ug/L					31−AUG−11 21:24	110831−3
	Magnesium	100000	ug/L	100000	ug/L	100	80.0 − 120.0	31−AUG−11 21:24	110831−3
	Manganese	1.88	ug/L					31−AUG−11 21:24	110831−3
	Molybdenum	2000	ug/L	2000	ug/L	100	80.0 − 120.0	31−AUG−11 21:24	110831−3
	Selenium	−0.612	ug/L					31−AUG−11 21:24	110831−3
	Silver	0.053	ug/L					31−AUG−11 21:24	110831−3
	Thallium	0.036	ug/L					31−AUG−11 21:24	110831−3
	Tin	0.241	ug/L					31−AUG−11 21:24	110831−3
ICSAB01									
	Antimony	19.4	ug/L	20	ug/L	96.8	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Arsenic	21.3	ug/L	20	ug/L	106	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Barium	19.7	ug/L	20.51	ug/L	95.9	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Cadmium	20.2	ug/L	20.68	ug/L	97.7	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Cobalt	18.3	ug/L	20.21	ug/L	90.4	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Lead	18.9	ug/L	20.12	ug/L	93.7	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Magnesium	101000	ug/L	100000	ug/L	101	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Manganese	21.2	ug/L	21.95	ug/L	96.6	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Molybdenum	2000	ug/L	2000	ug/L	99.9	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Selenium	22.0	ug/L	20	ug/L	110	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Silver	18.6	ug/L	20	ug/L	93.2	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Thallium	17.8	ug/L	20	ug/L	88.9	80.0 − 120.0	31−AUG−11 21:32	110831−3
	Tin	18.5	ug/L	20	ug/L	92.4	80.0 − 120.0	31−AUG−11 21:32	110831−3

METALS
−4−
Interference Check Sample

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	92400	ug/L	100000	ug/L	92.4	80.0 − 120.0	02−SEP−11 10:33	110902−4
	Beryllium	0.022	ug/L					02−SEP−11 10:33	110902−4
	Boron	5.49	ug/L					02−SEP−11 10:33	110902−4
	Copper	2.22	ug/L					02−SEP−11 10:33	110902−4
	Nickel	2.33	ug/L					02−SEP−11 10:33	110902−4
ICSAB01									
	Aluminum	92800	ug/L	100000	ug/L	92.8	80.0 − 120.0	02−SEP−11 10:36	110902−4
	Beryllium	19.1	ug/L	20	ug/L	95.7	80.0 − 120.0	02−SEP−11 10:36	110902−4
	Boron	24.0	ug/L	20	ug/L	120	80.0 − 120.0	02−SEP−11 10:36	110902−4
	Copper	21.1	ug/L	22.41	ug/L	94.3	80.0 − 120.0	02−SEP−11 10:36	110902−4
	Nickel	21.3	ug/L	22.78	ug/L	93.4	80.0 − 120.0	02−SEP−11 10:36	110902−4

METALS
−4−
Interference Check Sample

SDG No: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Titanium	1690	ug/L	2000	ug/L	84.6	80.0 − 120.0	02−SEP−11 13:47	110902−6
ICSAB01									
	Titanium	1730	ug/L	2000	ug/L	86.3	80.0 − 120.0	02−SEP−11 13:50	110902−6

METALS
−5a−

Matrix Spike Summary

SDG NO. 11−3330 **Client ID** NPDES13S−11−13861S

Contract: ESHL00610 **Level:** Low

Matrix: STORM WATER **% Solids:**

Sample ID: 284865001 **Spike ID:** 1202476171

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	ug/L	75−125	2.01		0.066	U	2	101		AV

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−5a−

Matrix Spike Summary

SDG NO. 11−3330 **Client ID** WTLAP−11−15716S

Contract: ESHL00510 **Level:** Low

Matrix: STORM WATER **% Solids:**

Sample ID: 284862004 **Spike ID:** 1202477130

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Chromium	ug/L	75−125	665		188		500	95.5		P
Iron	ug/L		170000		166000		5000	78.6	N/A	P
Zinc	ug/L		2940		2310		500	126	N/A	P

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−5a−

Matrix Spike Summary

SDG NO. 11−3330 **Client ID** WTLAP−11−15716S

Contract: ESHL00510 **Level:** Low

Matrix: STORM WATER **% Solids:**

Sample ID: 284862004 **Spike ID:** 1202477135

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Aluminum	ug/L		286000		292000		2000	−300	N/A	MS
Antimony	ug/L	75−125	7.03		1.04	J	200	2.99	N	MS
Arsenic	ug/L	75−125	110		58.1		80	65.3	N	MS
Barium	ug/L		10000		9860		50	350	N/A	MS
Beryllium	ug/L	75−125	83.8		46.8		50	74.1	N	MS
Boron	ug/L	75−125	453		399		100	53.4	N	MS
Cadmium	ug/L	75−125	22.7		15.2		10	74.4	N	MS
Cobalt	ug/L	75−125	209		176		50	66.1	N	MS
Copper	ug/L		251		258		50	−14.2	N/A	MS
Lead	ug/L		496		498		40	−4.87	N/A	MS
Magnesium	ug/L		113000		118000		2000	−234	N/A	MS
Manganese	ug/L		81600		83300		50	−3350	N/A	MS
Molybdenum	ug/L	75−125	11.4		3.39		50	16.1	N	MS
Nickel	ug/L		276		254		50	43.6	N/A	MS
Selenium	ug/L	75−125	16.4		3.8	J	20	62.8	N	MS
Silver	ug/L	75−125	41.1		2.13		50	77.9		MS
Thallium	ug/L	75−125	59		5.71		100	53.3	N	MS
Tin	ug/L	75−125	1.78	J	2.05	J	50	−.538	N	MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−5a−

Matrix Spike Summary

SDG NO. 11−3330 **Client ID** NPDES13S−11−13861S

Contract: ESHL00610 **Level:** Low

Matrix: STORM WATER **% Solids:**

Sample ID: 284865001 **Spike ID:** 1202479550

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Titanium	ug/L	75−125	51.9		9.53	J	50	84.7		MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−6−
Duplicate Sample Summary

SDG No.: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** NPDES13S−11−13861D

Sample ID: 284865001 **Duplicate ID:** 1202476170 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	ug/L		0.066	U	0.066	U			AV

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−6−
Duplicate Sample Summary

SDG No.: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** WTLAP−11−15716D

Sample ID: 284862004 **Duplicate ID:** 1202477129 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Chromium	ug/L	+/−20%	188		181		3.59		P
Iron	ug/L	+/−20%	166000		161000		2.94		P
Zinc	ug/L	+/−20%	2310		2320		.224		P

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−6−
Duplicate Sample Summary

SDG No.: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** WTLAP−11−15716D

Sample ID: 284862004 **Duplicate ID:** 1202477134 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Aluminum	ug/L	+/−20%	292000		278000		4.72		MS
Antimony	ug/L		1.04	J	1	U	200		MS
Arsenic	ug/L	+/−20%	58.1		55.6		4.38		MS
Barium	ug/L	+/−20%	9860		10000		1.44		MS
Beryllium	ug/L	+/−20%	46.8		46.7		.15		MS
Boron	ug/L	+/−20%	399		407		1.93		MS
Cadmium	ug/L	+/−20%	15.2		15.2		.204		MS
Cobalt	ug/L	+/−20%	176		175		.769		MS
Copper	ug/L	+/−20%	258		245		5.09		MS
Lead	ug/L	+/−20%	498		495		.552		MS
Magnesium	ug/L	+/−20%	118000		117000		1.13		MS
Manganese	ug/L	+/−20%	83300		83200		.0981		MS
Molybdenum	ug/L	+/−20%	3.39		2.96		13.4		MS
Nickel	ug/L	+/−20%	254		248		2.34		MS
Selenium	ug/L	+/−5	3.8	J	5.63		38.8		MS
Silver	ug/L	+/−1	2.13		2.05		3.49		MS
Thallium	ug/L	+/−2	5.71		5.63		1.46		MS
Tin	ug/L	+/−5	2.05	J	1.51	J	30.5		MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−6−
Duplicate Sample Summary

SDG No.: 11−3330

Contract: ESHL00610 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** NPDES13S−11−13861D

Sample ID: 284865001 **Duplicate ID:** 1202479549 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Titanium	ug/L	+/−10	9.53	J	8.44	J	12.2		MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 11−3330

Contract: ESHL00610

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1202476169								
	Mercury	ug/L	2	2.18		109	85−115	AV

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 11−3330

Contract: ESHL00610

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1202477128								
	Chromium	ug/L	500	513		103	85−115	P
	Iron	ug/L	5000	5090		102	85−115	P
	Zinc	ug/L	500	518		104	85−115	P

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 11−3330

Contract: ESHL00610

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1202477133								
	Aluminum	ug/L	2000	1790		89.5	85−115	MS
	Antimony	ug/L	50	43.8		87.6	85−115	MS
	Arsenic	ug/L	50	48.1		96.2	85−115	MS
	Barium	ug/L	50	44.9		89.9	85−115	MS
	Beryllium	ug/L	50	45.9		91.8	85−115	MS
	Boron	ug/L	100	87.4		87.4	85−115	MS
	Cadmium	ug/L	50	45.3		90.6	85−115	MS
	Cobalt	ug/L	50	47.5		94.9	85−115	MS
	Copper	ug/L	50	48.8		97.6	85−115	MS
	Lead	ug/L	50	45.9		91.8	85−115	MS
	Magnesium	ug/L	2000	1900		95	85−115	MS
	Manganese	ug/L	50	45.3		90.7	85−115	MS
	Molybdenum	ug/L	50	43.7		87.5	85−115	MS
	Nickel	ug/L	50	47.4		94.8	85−115	MS
	Selenium	ug/L	50	47.9		95.7	85−115	MS
	Silver	ug/L	50	45.1		90.2	85−115	MS
	Thallium	ug/L	50	43.5		87.1	85−115	MS
	Tin	ug/L	50	44.1		88.2	85−115	MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 11−3330

Contract: ESHL00610

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1202479548								
	Titanium	ug/L	50	44.9		89.7	85−115	MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 11−3330 **Client ID** NPDES13S−11−13861L

Contract: ESHL00610

Matrix: LIQUID **Level:** Low

Sample ID: 284865001 **Serial Dilution ID:** 1202476176

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Mercury	.066	U	.33	U				AV

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 11−3330 **Client ID:** WTLAP−11−15716L

Contract: ESHL00610

Matrix: LIQUID **Level:** Low

Sample ID: 284862004 **Serial Dilution ID:** 1202477131

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Chromium	188		195		3.55		10	P
Iron	166000		176000		5.99		10	P
Zinc	2310		2410		4.24		10	P

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 11−3330 **Client ID** WTLAP−11−15716L

Contract: ESHL00610

Matrix: LIQUID **Level:** Low

Sample ID: 284862004 **Serial Dilution ID:** 1202477136

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Aluminum	5840		5810		.5		10	MS
Antimony	1.04	J	5	U	100			MS
Arsenic	58.1		50.6		12.9			MS
Barium	9860		12700		29.1	E	10	MS
Beryllium	9.35		10.3		10.4			MS
Boron	79.8		107		34.6			MS
Cadmium	15.2		17.1		12.6	E	10	MS
Cobalt	35.3		39.2		11.2	E	10	MS
Copper	51.7		64.9		25.7	E	10	MS
Lead	498		682		37	E	10	MS
Magnesium	23600		25700		9.02		10	MS
Manganese	16700		18000		8		10	MS
Molybdenum	3.39		3.37		.737			MS
Nickel	50.8		62.3		22.7	E	10	MS
Selenium	3.8	J	10.5	J	177			MS
Silver	2.13		2.25	J	5.83			MS
Thallium	5.71		7.86	J	37.6			MS
Tin	2.05	J	5	U	100			MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 11−3330 **Client ID** NPDES13S−11−13861L

Contract: ESHL00610

Matrix: LIQUID **Level:** Low

Sample ID: 284865001 **Serial Dilution ID:** 1202479551

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Titanium	9.53	J	11.1	J	16.8			MS

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 11−3330 **Method Type:** P

Contract: ESHL00610 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1137346							
1202477127	MB for batch 1137346	MB	ST	31−AUG−11	50mL	50mL	
1202477128	LCS for batch 1137346	LCS	ST	31−AUG−11	50mL	50mL	
1202477130	WTLAP−11−15716S	MS	ST	31−AUG−11	50mL	50mL	
1202477129	WTLAP−11−15716D	DUP	ST	31−AUG−11	50mL	50mL	
284865001	NPDES13S−11−13861	SAMPLE	ST	31−AUG−11	50mL	50mL	

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 11−3330 **Method Type:** MS

Contract: ESHL00610 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1137350							
1202477132	MB for batch 1137350	MB	ST	31−AUG−11	50mL	50mL	
1202477133	LCS for batch 1137350	LCS	ST	31−AUG−11	50mL	50mL	
1202477135	WTLAP−11−15716S	MS	ST	31−AUG−11	50mL	50mL	
1202477134	WTLAP−11−15716D	DUP	ST	31−AUG−11	50mL	50mL	
284865001	NPDES13S−11−13861	SAMPLE	ST	31−AUG−11	50mL	50mL	
Batch Number 1138415							
1202479547	MB for batch 1138415	MB	ST	02−SEP−11	25mL	25mL	
1202479548	LCS for batch 1138415	LCS	ST	02−SEP−11	25mL	25mL	
1202479550	NPDES13S−11−13861S	MS	ST	02−SEP−11	25mL	25mL	
1202479549	NPDES13S−11−13861D	DUP	ST	02−SEP−11	25mL	25mL	
284865001	NPDES13S−11−13861	SAMPLE	ST	02−SEP−11	25mL	25mL	

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 11−3330 **Method Type:** AV

Contract: ESHL00610 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1136972							
1202476168	MB for batch 1136972	MB	ST	30−AUG−11	20mL	20mL	
1202476169	LCS for batch 1136972	LCS	ST	30−AUG−11	20mL	20mL	
1202476171	NPDES13S−11−13861S	MS	ST	30−AUG−11	20mL	20mL	
1202476170	NPDES13S−11−13861D	DUP	ST	30−AUG−11	20mL	20mL	
284865001	NPDES13S−11−13861	SAMPLE	ST	30−AUG−11	20mL	20mL	

Metals
−14−
Analysis Run Log

Contract: ESHL00610
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 31−AUG−11
End Date: 01−SEP−11
Client Sdg: 11−3330
Method*: MS
Data File: 110831−3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
S0.0	1	20:34:14		X	X	X			X		X			X	X	X		X		X	X	X	X		
S10	1	20:42:33		X	X	X			X		X			X	X	X		X		X	X	X	X		
S100	1	20:50:50		X	X	X			X		X			X	X	X		X		X	X	X	X		
ICV01	1	20:59:08		X	X	X			X		X			X	X	X		X		X	X	X	X		
ICB01	1	21:07:27		X	X	X			X		X			X	X	X		X		X	X	X	X		
CRDL01	1	21:15:47		X	X	X			X		X			X	X	X		X		X	X	X	X		
ICSA01	1	21:24:22		X	X	X			X		X			X	X	X		X		X	X	X	X		
ICSAB01	1	21:32:41		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCV01	1	21:41:17		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB01	1	21:49:38		X	X	X			X		X			X	X	X		X		X	X	X	X		
LR01	1	21:57:57		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCV02	1	22:06:14		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB02	1	22:14:51		X	X	X			X		X			X	X	X		X		X	X	X	X		
ZZZZZZ	1	22:23:12																							
ZZZZZZ	1	22:31:32																							
CCV03	1	22:39:51		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB03	1	22:48:29		X	X	X			X		X			X	X	X		X		X	X	X	X		
ZZZZZZ	1	22:56:49																							
ZZZZZZ	1	23:05:09																							
ZZZZZZ	1	23:13:29																							
ZZZZZZ	5	23:21:49																							
ZZZZZZ	1	23:30:09																							
CCV04	1	23:38:29		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB04	1	23:46:49		X	X	X			X		X			X	X	X		X		X	X	X	X		
ZZZZZZ	1	23:55:10																							
ZZZZZZ	1	00:03:31																							
CCV05	1	00:11:51		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB05	1	00:20:28		X	X	X			X		X			X	X	X		X		X	X	X	X		
ZZZZZZ	1	00:28:49																							
ZZZZZZ	1	00:37:10																							
ZZZZZZ	1	00:45:30																							
ZZZZZZ	1	00:53:50																							
ZZZZZZ	1	01:02:11																							
ZZZZZZ	5	01:10:31																							
ZZZZZZ	1	01:19:09																							
ZZZZZZ	1	01:27:30																							
1202477132	1	01:35:50		X	X	X			X		X			X	X	X		X		X	X	X	X		
1202477133	1	01:44:10		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCV06	1	01:52:29		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB06	1	02:01:07		X	X	X			X		X			X	X	X		X		X	X	X	X		

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−14−
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	02:09:27																						
1202477134	1	02:17:47		X	X	X			X					X				X		X	X	X	X		
1202477135	1	02:26:06		X	X	X			X					X				X		X	X	X	X		
1202477136	5	02:34:25		X	X	X			X					X				X		X	X	X	X		
ZZZZZZ	5	02:43:03																						
1202477134	5	02:51:24									X				X	X									
1202477135	5	02:59:46									X				X	X									
1202477136	25	03:08:24									X				X	X									
284865001	1	03:17:01		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCV07	1	03:25:21		X	X	X			X		X			X	X	X		X		X	X	X	X		
CCB07	1	03:33:58		X	X	X			X		X			X	X	X		X		X	X	X	X		

Metals
−14−
Analysis Run Log

Contract: ESHL00610
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 02−SEP−11
End Date: 02−SEP−11
Client Sdg: 11−3330
Method*: MS
Data File: 110902−4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
S0.0	1	10:12:31	X				X	X				X							X						
S10	1	10:15:58	X				X	X				X							X						
S100	1	10:19:22	X				X	X				X							X						
ICV01	1	10:22:48	X				X	X				X							X						
ICB01	1	10:26:15	X				X	X				X							X						
CRDL01	1	10:29:43	X				X	X				X							X						
ICSA01	1	10:33:09	X				X	X				X							X						
ICSAB01	1	10:36:36	X				X	X				X							X						
CCV01	1	10:40:03	X				X	X				X							X						
CCB01	1	10:43:31	X				X	X				X							X						
1202477132	1	10:46:59	X				X	X				X							X						
1202477133	1	10:50:27	X				X	X				X							X						
CCV02	1	10:53:54	X				X	X				X							X						
CCB02	1	10:57:22	X				X	X				X							X						
ZZZZZZ	5	11:00:50																							
1202477134	5	11:04:17					X	X				X							X						
1202477135	5	11:07:44					X	X				X							X						
1202477136	25	11:11:11					X	X				X							X						
284865001	1	11:14:39	X				X	X				X							X						
ZZZZZZ	50	11:18:06																							
1202477134	50	11:21:34	X																						
1202477135	50	11:25:01	X																						
1202477136	250	11:28:29	X																						
CCV03	1	11:31:56	X				X	X				X							X						
CCB03	1	11:35:25	X				X	X				X							X						

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−14−
Analysis Run Log

Contract: ESHL00610
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 02−SEP−11
End Date: 02−SEP−11
Client Sdg: 11−3330
Method*: MS
Data File: 110902−6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
S0.0	1	13:32:32																						X	
S10	1	13:35:02																						X	
S100	1	13:37:30																						X	
ICV01	1	13:39:59																						X	
ICB01	1	13:42:30																						X	
CRDL01	1	13:45:01																						X	
ICSA01	1	13:47:30																						X	
ICSAB01	1	13:50:00																						X	
CCV01	1	13:52:31																						X	
CCB01	1	13:55:02																						X	
1202479547	1	13:57:33																						X	
1202479548	1	14:00:02																						X	
284865001	1	14:02:31																						X	
1202479549	1	14:05:00																						X	
1202479550	1	14:07:30																						X	
1202479551	5	14:10:00																						X	
CCV02	1	14:12:30																						X	
CCB02	1	14:15:02																						X	

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−14−
Analysis Run Log

Contract: ESHL00610
Lab Code: GEL
Inst Name: OPTIMA5
Start Date: 01−SEP−11
End Date: 01−SEP−11
Client Sdg: 11−3330
Method*: P
Data File: 090111−1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
S0.0	1	05:57:16								X			X												X
S0.1	1	06:00:08								X															X
S0.5	1	06:01:59								X															X
SCAL	1	06:04:49								X			X												X
S10	1	06:06:51											X												
ICV01	1	06:07:39								X			X												X
ICB01	1	06:10:29								X			X												X
PQL01	1	06:13:18								X			X												X
ICSA01	1	06:16:08								X			X												X
ICSAB01	1	06:18:05								X			X												X
LR01	1	06:19:07								X			X												X
LR02	1	06:21:05								X			X												X
CCV01	1	06:24:15								X			X												X
CCB01	1	06:27:08								X			X												X
ZZZZZZ	1	06:40:14																							
CCV02	1	06:43:04								X			X												X
CCB02	1	06:45:57								X			X												X
1202477127	1	06:48:46								X			X												X
1202477128	1	06:51:39								X			X												X
ZZZZZZ	1	06:54:30																							
1202477129	1	06:56:48								X			X												X
1202477130	1	06:59:05								X			X												X
1202477131	5	07:00:24								X			X												X
284865001	1	07:02:27								X			X												X
CCV03	1	07:05:24								X			X												X
CCB03	1	07:08:18								X			X												X

***Analytical Methods:**
P EPA 200.7
MS EPA 200.8
AV EPA 245.1/245.2
AF EPA 1631E

Metals
−14−
Analysis Run Log

Contract: ESHL00610
Lab Code: GEL
Inst Name: MER536
Start Date: 30−AUG−11
End Date: 30−AUG−11
Client Sdg: 11−3330
Method*: AV
Data File: 083011W1−7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
S0.0	1	10:02:00															X								
S0.2	1	10:03:00															X								
S0.5	1	10:05:00															X								
S2.0	1	10:07:00															X								
S5.0	1	10:08:00															X								
S10.0	1	10:10:00															X								
ICV01	1	10:12:00															X								
ICB01	1	10:13:00															X								
CRDL01	1	10:15:00															X								
CCV01	1	10:17:00															X								
CCB01	1	10:18:00															X								
ZZZZZZ	1	10:20:00																							
ZZZZZZ	1	10:22:00																							
ZZZZZZ	1	10:24:00																							
ZZZZZZ	1	10:25:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	5	10:29:00																							
ZZZZZZ	1	10:30:00																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:34:00																							
ZZZZZZ	1	10:35:00																							
CCV02	1	10:37:00															X								
CCB02	1	10:39:00															X								
ZZZZZZ	1	10:40:00																							
ZZZZZZ	1	10:42:00																							
ZZZZZZ	1	10:44:00																							
ZZZZZZ	5	10:45:00																							
ZZZZZZ	1	10:47:00																							
ZZZZZZ	1	10:49:00																							
ZZZZZZ	1	10:51:00																							
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:54:00																							
ZZZZZZ	1	10:56:00																							
CCV03	1	10:58:00															X								
CCB03	1	10:59:00															X								
ZZZZZZ	1	11:01:00																							
ZZZZZZ	1	11:03:00																							
ZZZZZZ	1	11:04:00																							
ZZZZZZ	1	11:06:00																							
ZZZZZZ	5	11:07:00																							

***Analytical Methods:**

P	EPA 200.7
MS	EPA 200.8
AV	EPA 245.1/245.2
AF	EPA 1631E

Metals
−14−
Analysis Run Log

Samp No.	D/F	Run Time																					
ZZZZZZ	1	11:09:00																					
ZZZZZZ	1	11:11:00																					
ZZZZZZ	1	11:12:00																					
ZZZZZZ	1	11:14:00																					
ZZZZZZ	1	11:16:00																					
CCV04	1	11:18:00													X								
CCB04	1	11:19:00													X								
ZZZZZZ	1	11:21:00																					
ZZZZZZ	1	11:23:00																					
ZZZZZZ	5	11:24:00																					
ZZZZZZ	1	11:26:00																					
ZZZZZZ	1	11:28:00																					
ZZZZZZ	1	11:30:00																					
ZZZZZZ	1	11:31:00																					
ZZZZZZ	1	11:33:00																					
ZZZZZZ	1	11:35:00																					
ZZZZZZ	1	11:36:00																					
CCV05	1	11:38:00													X								
CCB05	1	11:40:00													X								
ZZZZZZ	1	11:41:00																					
ZZZZZZ	1	11:43:00																					
ZZZZZZ	1	11:45:00																					
ZZZZZZ	1	11:46:00																					
ZZZZZZ	5	11:48:00																					
ZZZZZZ	1	11:50:00																					
ZZZZZZ	1	11:51:00																					
ZZZZZZ	1	11:53:00																					
ZZZZZZ	1	11:55:00																					
ZZZZZZ	1	11:56:00																					
CCV06	1	11:58:00													X								
CCB06	1	12:00:00													X								
ZZZZZZ	1	12:02:00																					
ZZZZZZ	5	12:03:00																					
CCV07	1	12:05:00													X								
CCB07	1	12:07:00													X								
ZZZZZZ	20	12:33:00																					
ZZZZZZ	20	12:35:00																					
ZZZZZZ	20	12:37:00																					
ZZZZZZ	100	12:38:00																					
ZZZZZZ	1	12:40:00																					

Metals
−14−
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Ni	Se	Ag	Tl	Sn	Ti	Zn
CCV08	1	12:42:00															X								
CCB08	1	12:43:00															X								
ZZZZZZ	1	12:57:00																							
ZZZZZZ	1	12:59:00																							
ZZZZZZ	1	13:01:00																							
ZZZZZZ	1	13:02:00																							
ZZZZZZ	1	13:04:00																							
ZZZZZZ	5	13:06:00																							
1202476168	1	13:07:00															X								
1202476169	1	13:09:00															X								
284865001	1	13:11:00															X								
1202476170	1	13:12:00															X								
CCV09	1	13:14:00															X								
CCB09	1	13:16:00															X								
1202476171	1	13:18:00															X								
1202476176	5	13:19:00															X								
CCV10	1	13:21:00															X								
CCB10	1	13:23:00															X								

Standards

METALS
−10−
Instrument Detection Limits

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL** **MDL Effective Date:** 16−JAN−11

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	50
	Antimony		1.0	3
	Arsenic		1.7	5
	Barium		0.6	2
	Beryllium		0.2	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.35	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		10.0	30
	Manganese		1.0	5
	Molybdenum		0.165	.5
	Nickel		0.5	2
	Selenium		1.5	5
	Silver		0.2	1
	Thallium		0.45	2
	Tin		1.0	5
	Titanium		2.0	10
	Zinc		3.5	10

METALS
−10−
Instrument Detection Limits

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL** **MDL Effective Date:** 17−JAN−11

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
−10−
Instrument Detection Limits

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL** **MDL Effective Date:** 23−JAN−11

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.5	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	110	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Selenium	196.026	6.0	30
	Silver	328.068	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Titanium	334.94	1.0	5
	Zinc	213.857	3.3	10

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.05261	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	225.602	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	−1.33167	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.42605	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	−0.23861	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.10797	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	−0.01658	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.20224	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.49	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.11595	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	396.153	0.00000	0.00000	−0.32345	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	24.9931	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	−3.98395	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	−0.01372	−0.34066	0.00000
Boron	249.677	0.00000	0.00000	0.00000	−1.34099	3.17191
Cadmium	225.602	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.50204	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	−0.39909
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	−0.07807	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	−0.93565
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	−0.06085	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.01900	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	−0.01099	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	4.99651
Tin	189.927	0.00000	0.00000	−0.08670	0.00000	0.00000
Titanium	334.49	0.00000	0.00000	−0.03856	0.33634	0.00000
Uranium	367.007	0.00000	0.00000	−0.24685	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	−3.32233	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	396.153	0.00000	0.34879	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00566	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	−0.01606	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.01375	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.10821	0.00000	0.00000	0.00000
Cadmium	225.602	0.00000	0.12215	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	−0.00460	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.01698	0.00000	0.00000	0.00000
Copper	324.752	0.00000	−0.11067	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.35373	0.03381	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	−0.17713	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.01530	0.00000	0.01403	0.00000
Molybdenum	202.031	0.00000	−0.04970	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	4.05771	0.85396	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.05821	0.00000
Selenium	196.026	0.00000	−0.46431	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	−0.13128	0.00000	0.00000	0.00000
Silver	328.068	0.00000	−0.78996	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.13620	0.00000	0.03335	1.14840
Thallium	190.801	0.00000	−0.10469	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.49	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	5.39114	0.00000	0.16243	0.03438
Vanadium	292.402	0.00000	0.20626	0.00000	0.00000	0.00000
Zinc	213.857	1.09413	0.04810	0.00000	0.01205	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 11−3330
Contract: ESHL00610
Instrument: OPTIMA3
Effective Dates: 01−AUG−11
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	396.153	31.7355	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	−3.50728	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	6.74814	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	225.602	0.00000	−0.35838	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	−1.72036	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.48163	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	−4.04424	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	9.28222	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	14.6521	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	−21.4207	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.49	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	−0.43898	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	−7.04178	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	6.45742	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	225.602	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.49	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: **11−3330**
Contract: **ESHL00610**
Instrument: **OPTIMA3**
Effective Dates: **01−AUG−11**
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.00000	2.60242	0.00000	0.00000	0.00000
Arsenic	**188.979**	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	−0.88787	0.00000
Beryllium	**313.107**	0.00000	0.00000	−0.35027	0.00000	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**225.602**	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.83207	−0.77627	0.00000
Cobalt	**228.616**	0.00000	2.11810	0.00000	0.00000	0.00000
Copper	**324.752**	0.00000	0.00000	−0.78715	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.00000	0.00000	−0.51503	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	13.4443	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	0.00000	−1.26848	0.00000	0.00000
Silicon	**251.611**	18.1271	9.64032	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.79774	−1.66095	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.00000	2.22122	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	−7.24738	−0.69651	2.29067	0.00000
Tin	**189.927**	0.00000	−1.39126	0.00000	0.00000	0.00000
Titanium	**334.49**	0.00000	0.00000	0.52337	0.00000	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	1.93768	0.00000
Vanadium	**292.402**	0.00000	0.96332	−1.08617	0.00000	0.00000
Zinc	**213.857**	0.00000	−0.65369	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 11−3330
Contract: ESHL00610
Instrument: OPTIMA5
Effective Dates: 01−AUG−11
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	−0.00473	0.00000	0.00000	0.00000	0.00000
Arsenic	**188.979**	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	**228.616**	0.00000	0.00000	0.00000	−1.41213	0.00000
Copper	**324.752**	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	−0.14610	0.00000	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	−0.00078	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	−0.70449	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.11193	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	−0.00523	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.11053	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	**189.927**	0.00814	0.00000	0.00000	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	**292.402**	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	**213.857**	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA5
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	13.7750	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	−4.25993	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	−0.00608	−0.24503	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	3.53500
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.14037	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	−0.77096
Iron	238.204	0.00000	0.00000	0.00000	0.00000	16.9462
Lead	220.353	0.00000	0.00000	0.00000	0.00000	−0.64327
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.37374
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.14540	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	−1.67173
Silver	328.068	0.00000	0.00000	−0.00296	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.01789	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	5.00883
Tin	189.927	0.00000	0.00000	−0.05385	0.00000	−0.09147
Titanium	334.94	0.00000	0.00000	−0.04039	0.30129	0.00000
Uranium	367.007	0.00000	0.00000	0.01298	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	−3.25556	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA5
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	396.153	0.00000	0.26274	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	−0.00301	0.00000	−0.00499	0.00000
Arsenic	188.979	0.00000	−0.11729	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.01040	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	−6.68619	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.08813	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	−0.02900	0.00000	0.00617	0.00000
Cobalt	228.616	0.00000	0.02215	0.00000	0.00000	0.00000
Copper	324.752	0.00000	−0.11287	0.00000	0.03080	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.30523	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	−0.00681	0.00000	0.01420	0.00000
Molybdenum	202.031	0.00000	−0.05790	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	−0.00570	0.00000	0.00000	0.00000
Phosphorous	214.914	23.0328	0.79221	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	−0.18085	0.00000	0.18642	0.00000
Selenium	196.026	0.00000	−0.63820	0.00000	0.00000	0.00000
Silver	328.068	0.00000	−0.00584	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	−0.08811	0.00000	0.03414	4.12814
Thallium	190.801	0.00000	−0.02188	0.00000	0.00000	−1.43864
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00371	0.00000
Uranium	367.007	0.00000	5.65400	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.08440	0.00000	−0.00267	0.00000
Zinc	213.857	0.81049	0.10025	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA5
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	396.153	31.8455	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	−12.4209	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	−2.21136	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	−3.05405	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	−0.63647	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	−1.19903	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	10.1912	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	−0.63451	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	−5.78442	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	−0.52747	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	−8.69848	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	6.36102	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA5
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Silver	Sodium	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00874	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL00610
Instrument: OPTIMA5
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 11−3330
Effective Dates: 01−AUG−11

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	−1.72624	−0.81687	−0.08800	−1.47908	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	−1.07229	0.00000
Beryllium	313.107	0.00000	0.36899	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	1.99427	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	−0.62088	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	−0.01060	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	−0.37486	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	−7.58419	0.00000	1.61430	0.00000
Tin	189.927	0.00000	−3.46230	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.97039	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	−0.67406	0.00000	0.00000	0.00000

METALS
−12−
Linear Ranges

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01−AUG−11
Antimony	20	10000	ug/L	01−AUG−11
Arsenic	20	10000	ug/L	01−AUG−11
Barium	20	15000	ug/L	01−AUG−11
Beryllium	20	3000	ug/L	01−AUG−11
Boron	20	5000	ug/L	01−AUG−11
Cadmium	20	10000	ug/L	01−AUG−11
Chromium	20	25000	ug/L	01−AUG−11
Cobalt	20	10000	ug/L	01−AUG−11
Copper	20	20000	ug/L	01−AUG−11
Iron	20	500000	ug/L	01−AUG−11
Lead	20	25000	ug/L	01−AUG−11
Magnesium	20	500000	ug/L	01−AUG−11
Manganese	20	10000	ug/L	01−AUG−11
Molybdenum	20	10000	ug/L	01−AUG−11
Nickel	20	10000	ug/L	01−AUG−11
Selenium	20	10000	ug/L	01−AUG−11
Silver	20	1000	ug/L	01−AUG−11
Thallium	20	10000	ug/L	01−AUG−11
Tin	20	10000	ug/L	01−AUG−11
Titanium	20	10000	ug/L	01−AUG−11
Zinc	20	15000	ug/L	01−AUG−11

METALS
−12−
Linear Ranges

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01−AUG−11
Antimony	1000	250	ug/L	01−AUG−11
Arsenic	1000	1000	ug/L	01−AUG−11
Barium	1000	1000	ug/L	01−AUG−11
Beryllium	1000	1000	ug/L	01−AUG−11
Boron	1000	200	ug/L	01−AUG−11
Cadmium	1000	1000	ug/L	01−AUG−11
Chromium	1000	1000	ug/L	01−AUG−11
Cobalt	1000	1000	ug/L	01−AUG−11
Copper	1000	1000	ug/L	01−AUG−11
Iron	500	50000	ug/L	01−AUG−11
Lead	1000	5000	ug/L	01−AUG−11
Magnesium	1	50000	ug/L	01−AUG−11
Manganese	1000	1000	ug/L	01−AUG−11
Molybdenum	1000	1000	ug/L	01−AUG−11
Nickel	1000	1000	ug/L	01−AUG−11
Selenium	1000	500	ug/L	01−AUG−11
Silver	1000	250	ug/L	01−AUG−11
Thallium	1000	500	ug/L	01−AUG−11
Tin	1000	1000	ug/L	01−AUG−11
Titanium	1000	100	ug/L	01−AUG−11
Zinc	1000	2500	ug/L	01−AUG−11

METALS
−12−
Linear Ranges

SDG NO. 11−3330

Contract: ESHL00610 **Lab Code: GEL**

Instrument ID OPTIMA5

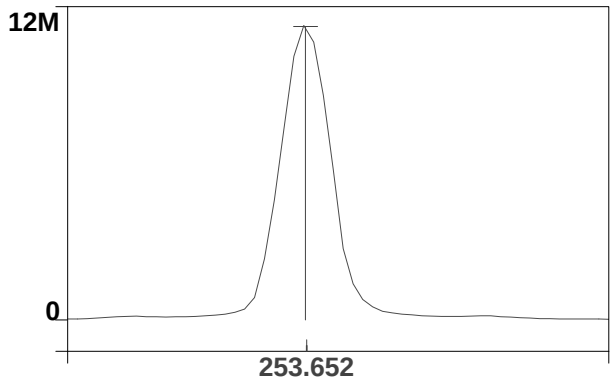
Analyte	Integration Time (sec)	LDR	Units	Effective Date
Copper	20	20000	ug/L	01−AUG−11
Iron	20	500000	ug/L	01−AUG−11
Lead	20	25000	ug/L	01−AUG−11
Magnesium	20	500000	ug/L	01−AUG−11
Manganese	20	10000	ug/L	01−AUG−11
Molybdenum	20	10000	ug/L	01−AUG−11
Nickel	20	10000	ug/L	01−AUG−11
Selenium	20	10000	ug/L	01−AUG−11
Silver	20	1000	ug/L	01−AUG−11
Thallium	20	10000	ug/L	01−AUG−11
Tin	20	10000	ug/L	01−AUG−11
Titanium	20	10000	ug/L	01−AUG−11
Zinc	20	15000	ug/L	01−AUG−11
Aluminum	20	500000	ug/L	01−AUG−11
Antimony	20	10000	ug/L	01−AUG−11
Arsenic	20	10000	ug/L	01−AUG−11
Barium	20	15000	ug/L	01−AUG−11
Beryllium	20	3000	ug/L	01−AUG−11
Boron	20	5000	ug/L	01−AUG−11
Cadmium	20	10000	ug/L	01−AUG−11
Chromium	20	25000	ug/L	01−AUG−11
Cobalt	20	10000	ug/L	01−AUG−11

Raw Data

Method: Hg_ReAlign
Result: 090111

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**



Intensity: 11245261.3 cps
Conc:

1

==========
9/1/2011 05:51:29 Hg ReAlign... Actual peak offset (nm): -0.004
Drift (nm): -0.001 Slit adjustment: -3
==========

==========
Analysis Begun

Start Time: 9/1/2011 05:57:15 **Plasma On Time: 8/31/2011 09:42:40**
Logged In Analyst: 7300Test **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0052701Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\090111.sif
Batch ID:
Results Data Set: 090111
Results Library: C:\pe\Administrator\Results\Results.mdb

==========
Method Loaded
Method Name: Gen Eng fast_new SiU **Method Last Saved: 8/31/2011 12:02:52**
IEC File: 072611.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 367.007	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 9/1/2011 05:57:16**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	22784.6	22784.6	0.000	%	05:57:49
1	Al 396.153Radial†	239.3	239.2	[0.00]	µg/L	05:57:49
1	Ca 317.933Radial†	173.9	173.8	[0.00]	µg/L	05:58:09
1	Fe 238.204 Radial†	11.1	11.1	[0.00]	µg/L	05:58:09
1	K 766.490 Radial†	1026.7	1026.3	[0.00]	µg/L	05:57:49
1	Mg 279.077 IEC†	-9.3	-9.3	[0.00]	µg/L	05:58:09
1	Na 589.592 Radial†	1129.2	1128.7	[0.00]	µg/L	05:57:49
1	Sr 421.552†	171.6	171.5	[0.00]	µg/L	05:57:49
1	Sc 361.383	1113550.4	1113550.4	0.0000	%	05:58:57
1	Y 371.029	684447.1	684447.1	0.0000	%	05:58:57
1	Ag 328.068†	-1107.2	-1107.2	[0.00]	µg/L	05:58:57
1	As 188.979†	-39.3	-39.3	[0.00]	µg/L	05:59:17
1	B 249.677†	-678.4	-678.4	[0.00]	µg/L	05:58:57
1	Ba 233.527†	-225.2	-225.2	[0.00]	µg/L	05:59:17
1	Be 313.107†	-7479.5	-7479.2	[0.00]	µg/L	05:58:57
1	Cd 226.502†	-332.4	-332.4	[0.00]	µg/L	05:59:17
1	Co 228.616†	-96.4	-96.4	[0.00]	µg/L	05:59:17
1	Cr 267.716†	384.5	384.5	[0.00]	µg/L	05:58:57
1	Cu 324.752†	3603.2	3603.1	[0.00]	µg/L	05:58:57
1	Mn 257.610†	732.6	732.6	[0.00]	µg/L	05:59:17
1	Mo 202.031†	21.4	21.4	[0.00]	µg/L	05:59:17
1	Ni 231.604†	145.1	145.1	[0.00]	µg/L	05:59:17
1	P 214.914†	-75.3	-75.3	[0.00]	µg/L	05:59:17
1	Pb 220.353†	-98.3	-98.3	[0.00]	µg/L	05:59:17
1	S 181.975 Axial†	160.1	160.1	[0.00]	µg/L	05:59:17
1	Sb 206.836†	55.0	55.0	[0.00]	µg/L	05:59:17
1	Se 196.026†	47.5	47.5	[0.00]	µg/L	05:59:17
1	SiO2†	1594.1	1594.0	[0.00]	µg/L	05:58:57
1	Si 251.611†	481.1	481.1	[0.00]	µg/L	05:59:17
1	Sn 189.927†	33.4	33.4	[0.00]	µg/L	05:59:17
1	Ti 334.940†	-898.3	-898.2	[0.00]	µg/L	05:58:57
1	Tl 190.801†	-126.5	-126.5	[0.00]	µg/L	05:59:17
1	U 367.007†	-587.4	-587.4	[0.00]	µg/L	05:58:57
1	V 292.402†	202.9	202.9	[0.00]	µg/L	05:58:57
1	Zn 213.857†	960.3	960.2	[0.00]	µg/L	05:59:17
2	Sc RADIAL	22900.0	22900.0	0.000	%	05:58:11
2	Al 396.153Radial†	193.1	192.0	[0.00]	µg/L	05:58:11
2	Ca 317.933Radial†	166.0	165.1	[0.00]	µg/L	05:58:31
2	Fe 238.204 Radial†	17.0	16.9	[0.00]	µg/L	05:58:31
2	K 766.490 Radial†	1121.4	1115.2	[0.00]	µg/L	05:58:11
2	Mg 279.077 IEC†	-14.0	-13.9	[0.00]	µg/L	05:58:31
2	Na 589.592 Radial†	1002.4	996.9	[0.00]	µg/L	05:58:11
2	Sr 421.552†	84.8	84.3	[0.00]	µg/L	05:58:11
2	Sc 361.383	1102541.6	1102541.6	0.0000	%	05:59:19
2	Y 371.029	672927.8	672927.8	0.0000	%	05:59:19
2	Ag 328.068†	-1044.6	-1055.0	[0.00]	µg/L	05:59:19
2	As 188.979†	-39.5	-39.9	[0.00]	µg/L	05:59:39
2	B 249.677†	-859.4	-867.9	[0.00]	µg/L	05:59:19
2	Ba 233.527†	-276.8	-279.6	[0.00]	µg/L	05:59:39
2	Be 313.107†	-7239.8	-7311.8	[0.00]	µg/L	05:59:19
2	Cd 226.502†	-327.8	-331.1	[0.00]	µg/L	05:59:39
2	Co 228.616†	-100.7	-101.7	[0.00]	µg/L	05:59:39
2	Cr 267.716†	283.3	286.1	[0.00]	µg/L	05:59:19
2	Cu 324.752†	3551.2	3586.5	[0.00]	µg/L	05:59:19
2	Mn 257.610†	755.6	763.2	[0.00]	µg/L	05:59:39
2	Mo 202.031†	16.7	16.9	[0.00]	µg/L	05:59:39
2	Ni 231.604†	148.2	149.7	[0.00]	µg/L	05:59:39
2	P 214.914†	-62.4	-63.1	[0.00]	µg/L	05:59:39
2	Pb 220.353†	-100.2	-101.2	[0.00]	µg/L	05:59:39
2	S 181.975 Axial†	171.5	173.2	[0.00]	µg/L	05:59:39
2	Sb 206.836†	55.6	56.1	[0.00]	µg/L	05:59:39
2	Se 196.026†	39.1	39.5	[0.00]	µg/L	05:59:39
2	SiO2†	1613.1	1629.1	[0.00]	µg/L	05:59:19
2	Si 251.611†	476.5	481.2	[0.00]	µg/L	05:59:39
2	Sn 189.927†	32.8	33.1	[0.00]	µg/L	05:59:39
2	Ti 334.940†	-894.3	-903.2	[0.00]	µg/L	05:59:19
2	Tl 190.801†	-133.1	-134.4	[0.00]	µg/L	05:59:39
2	U 367.007†	-598.1	-604.1	[0.00]	µg/L	05:59:19
2	V 292.402†	97.8	98.8	[0.00]	µg/L	05:59:19
2	Zn 213.857†	939.7	949.1	[0.00]	µg/L	05:59:39
3	Sc RADIAL	22637.1	22637.1	0.000	%	05:58:33

3	Al 396.153Radial†	137.3	138.1	[0.00]	µg/L	05:58:33
3	Ca 317.933Radial†	170.6	171.6	[0.00]	µg/L	05:58:53
3	Fe 238.204 Radial†	12.9	12.9	[0.00]	µg/L	05:58:53
3	K 766.490 Radial†	1000.0	1006.1	[0.00]	µg/L	05:58:33
3	Mg 279.077 IEC†	-7.9	-7.9	[0.00]	µg/L	05:58:53
3	Na 589.592 Radial†	1053.0	1059.4	[0.00]	µg/L	05:58:33
3	Sr 421.552†	194.9	196.1	[0.00]	µg/L	05:58:33
3	Sc 361.383	1124449.6	1124449.6	0.0000	%	05:59:41
3	Y 371.029	685926.4	685926.4	0.0000	%	05:59:41
3	Ag 328.068†	-844.7	-836.5	[0.00]	µg/L	05:59:41
3	As 188.979†	-36.1	-35.8	[0.00]	µg/L	06:00:01
3	B 249.677†	-828.3	-820.3	[0.00]	µg/L	05:59:41
3	Ba 233.527†	-245.5	-243.1	[0.00]	µg/L	06:00:01
3	Be 313.107†	-7262.0	-7191.4	[0.00]	µg/L	05:59:41
3	Cd 226.502†	-334.2	-331.0	[0.00]	µg/L	06:00:01
3	Co 228.616†	-110.1	-109.0	[0.00]	µg/L	06:00:01
3	Cr 267.716†	267.0	264.4	[0.00]	µg/L	05:59:41
3	Cu 324.752†	3326.6	3294.3	[0.00]	µg/L	05:59:41
3	Mn 257.610†	774.3	766.7	[0.00]	µg/L	06:00:01
3	Mo 202.031†	3.5	3.5	[0.00]	µg/L	06:00:01
3	Ni 231.604†	150.2	148.7	[0.00]	µg/L	06:00:01
3	P 214.914†	-61.3	-60.7	[0.00]	µg/L	06:00:01
3	Pb 220.353†	-98.3	-97.4	[0.00]	µg/L	06:00:01
3	S 181.975 Axial†	152.9	151.4	[0.00]	µg/L	06:00:01
3	Sb 206.836†	60.9	60.3	[0.00]	µg/L	06:00:01
3	Se 196.026†	57.7	57.2	[0.00]	µg/L	06:00:01
3	SiO2†	1546.9	1531.8	[0.00]	µg/L	05:59:41
3	Si 251.611†	512.9	507.9	[0.00]	µg/L	06:00:01
3	Sn 189.927†	40.6	40.2	[0.00]	µg/L	06:00:01
3	Ti 334.940†	-870.6	-862.1	[0.00]	µg/L	05:59:41
3	Tl 190.801†	-132.1	-130.9	[0.00]	µg/L	06:00:01
3	U 367.007†	-765.8	-758.3	[0.00]	µg/L	05:59:41
3	V 292.402†	193.8	191.9	[0.00]	µg/L	05:59:41
3	Zn 213.857†	971.5	962.1	[0.00]	µg/L	06:00:01

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1113513.9	10954.07	0.98%	0.0000	%
Sc RADIAL	22773.9	131.76	0.58%	0.000	%
Y 371.029	681100.4	7116.26	1.04%	0.0000	%
Ag 328.068†	-999.5	143.63	14.37%	[0.00]	µg/L
Al 396.153Radial†	189.8	50.56	26.64%	[0.00]	µg/L
As 188.979†	-38.3	2.23	5.83%	[0.00]	µg/L
B 249.677†	-788.9	98.60	12.50%	[0.00]	µg/L
Ba 233.527†	-249.3	27.73	11.12%	[0.00]	µg/L
Be 313.107†	-7327.5	144.54	1.97%	[0.00]	µg/L
Ca 317.933Radial†	170.2	4.51	2.65%	[0.00]	µg/L
Cd 226.502†	-331.5	0.82	0.25%	[0.00]	µg/L
Co 228.616†	-102.4	6.34	6.19%	[0.00]	µg/L
Cr 267.716†	311.7	64.00	20.54%	[0.00]	µg/L
Cu 324.752†	3494.6	173.73	4.97%	[0.00]	µg/L
Fe 238.204 Radial†	13.7	2.95	21.62%	[0.00]	µg/L
K 766.490 Radial†	1049.2	58.06	5.53%	[0.00]	µg/L
Mg 279.077 IEC†	-10.4	3.14	30.28%	[0.00]	µg/L
Mn 257.610†	754.2	18.76	2.49%	[0.00]	µg/L
Mo 202.031†	13.9	9.31	66.86%	[0.00]	µg/L
Na 589.592 Radial†	1061.6	65.94	6.21%	[0.00]	µg/L
Ni 231.604†	147.8	2.40	1.62%	[0.00]	µg/L
P 214.914†	-66.4	7.83	11.80%	[0.00]	µg/L
Pb 220.353†	-99.0	2.00	2.02%	[0.00]	µg/L
S 181.975 Axial†	161.6	10.98	6.79%	[0.00]	µg/L
Sb 206.836†	57.2	2.76	4.83%	[0.00]	µg/L
Se 196.026†	48.1	8.84	18.41%	[0.00]	µg/L
SiO2†	1585.0	49.27	3.11%	[0.00]	µg/L
Si 251.611†	490.1	15.46	3.16%	[0.00]	µg/L
Sn 189.927†	35.6	4.00	11.24%	[0.00]	µg/L
Sr 421.552†	150.7	58.72	38.98%	[0.00]	µg/L
Ti 334.940†	-887.9	22.44	2.53%	[0.00]	µg/L
Tl 190.801†	-130.6	3.97	3.04%	[0.00]	µg/L

U 367.007†	-649.9	94.25	14.50%	[0.00] µg/L
V 292.402†	164.6	57.20	34.76%	[0.00] µg/L
Zn 213.857†	957.1	7.03	0.73%	[0.00] µg/L

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.1 **Date Collected: 9/1/2011 06:00:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	23082.8	23082.8	101	%	06:00:39
1	K 766.490 Radial†	2115.9	1038.4	[1000]	µg/L	06:00:39
1	Sr 421.552†	23157.2	22696.6	[100]	µg/L	06:00:39
1	Sc 361.383	1111780.9	1111780.9	99.844	%	06:00:47
1	Y 371.029	679140.6	679140.6	99.712	%	06:00:47
1	Ag 328.068†	18143.4	19171.3	[100]	µg/L	06:00:47
1	As 188.979†	184.4	223.0	[100]	µg/L	06:01:07
1	B 249.677†	3822.4	4617.2	[100]	µg/L	06:00:47
1	Ba 233.527†	16684.5	16959.7	[100]	µg/L	06:00:47
1	Be 313.107†	256173.5	263900.3	[100]	µg/L	06:00:47
1	Cd 226.502†	19009.7	19370.8	[100]	µg/L	06:00:47
1	Co 228.616†	3448.9	3556.6	[100]	µg/L	06:01:07
1	Cr 267.716†	13558.2	13267.6	[100]	µg/L	06:00:47
1	Cu 324.752†	28365.3	24914.9	[100]	µg/L	06:00:47
1	Mn 257.610†	75957.3	75321.6	[100]	µg/L	06:00:47
1	Mo 202.031†	2947.4	2938.1	[100]	µg/L	06:01:07
1	Ni 231.604†	4073.3	3931.8	[100]	µg/L	06:01:07
1	P 214.914†	721.6	789.1	[500]	µg/L	06:01:07
1	Pb 220.353†	801.8	902.0	[100]	µg/L	06:01:07
1	S 181.975 Axial†	388.1	227.1	[200]	µg/L	06:01:07
1	Sb 206.836†	236.8	180.0	[100]	µg/L	06:01:07
1	Se 196.026†	261.9	214.2	[100]	µg/L	06:01:07
1	SiO2†	11511.0	9943.9	[1069.5]	µg/L	06:00:47
1	Si 251.611†	17748.9	17286.5	[500]	µg/L	06:00:47
1	Sn 189.927†	804.3	770.0	[100]	µg/L	06:01:07
1	Ti 334.940†	50433.7	51400.1	[100]	µg/L	06:00:47
1	Tl 190.801†	287.7	418.7	[100]	µg/L	06:01:07
1	U 367.007†	-70.0	579.8	[100]	µg/L	06:00:47
1	V 292.402†	11441.1	11294.4	[100]	µg/L	06:00:47
1	Zn 213.857†	10457.4	9516.6	[100]	µg/L	06:01:07
2	Sc RADIAL	22874.1	22874.1	100	%	06:00:41
2	K 766.490 Radial†	2167.4	1108.7	[1000]	µg/L	06:00:41
2	Sr 421.552†	23002.1	22750.7	[100]	µg/L	06:00:41
2	Sc 361.383	1120359.2	1120359.2	100.61	%	06:01:09
2	Y 371.029	682809.7	682809.7	100.25	%	06:01:09
2	Ag 328.068†	18419.4	19306.4	[100]	µg/L	06:01:09
2	As 188.979†	193.8	230.9	[100]	µg/L	06:01:30
2	B 249.677†	3777.6	4543.4	[100]	µg/L	06:01:09
2	Ba 233.527†	16630.5	16778.2	[100]	µg/L	06:01:09
2	Be 313.107†	256801.1	262559.6	[100]	µg/L	06:01:09
2	Cd 226.502†	19070.5	19285.4	[100]	µg/L	06:01:09
2	Co 228.616†	3456.6	3537.9	[100]	µg/L	06:01:30
2	Cr 267.716†	13619.1	13224.2	[100]	µg/L	06:01:09
2	Cu 324.752†	28546.0	24876.9	[100]	µg/L	06:01:09
2	Mn 257.610†	76312.4	75091.9	[100]	µg/L	06:01:09
2	Mo 202.031†	2922.0	2890.2	[100]	µg/L	06:01:30
2	Ni 231.604†	4035.9	3863.4	[100]	µg/L	06:01:30
2	P 214.914†	728.7	790.7	[500]	µg/L	06:01:30
2	Pb 220.353†	823.7	917.6	[100]	µg/L	06:01:30
2	S 181.975 Axial†	381.7	217.8	[200]	µg/L	06:01:30
2	Sb 206.836†	231.4	172.8	[100]	µg/L	06:01:30
2	Se 196.026†	275.5	225.8	[100]	µg/L	06:01:30
2	SiO2†	11553.3	9897.7	[1069.5]	µg/L	06:01:09
2	Si 251.611†	17743.5	17145.0	[500]	µg/L	06:01:09
2	Sn 189.927†	794.2	753.7	[100]	µg/L	06:01:30
2	Ti 334.940†	50598.3	51177.0	[100]	µg/L	06:01:09
2	Tl 190.801†	268.4	397.3	[100]	µg/L	06:01:30
2	U 367.007†	-146.4	504.5	[100]	µg/L	06:01:09
2	V 292.402†	11915.8	11678.4	[100]	µg/L	06:01:09

2	Zn 213.857†	10470.4	9449.3	[100]	µg/L	06:01:30
3	Sc RADIAL	22904.9	22904.9	101	%	06:00:43
3	K 766.490 Radial†	2316.5	1254.1	[1000]	µg/L	06:00:43
3	Sr 421.552†	23173.9	22890.6	[100]	µg/L	06:00:43
3	Sc 361.383	1109626.7	1109626.7	99.651	%	06:01:32
3	Y 371.029	676369.3	676369.3	99.305	%	06:01:32
3	Ag 328.068†	18112.8	19175.8	[100]	µg/L	06:01:32
3	As 188.979†	179.9	218.8	[100]	µg/L	06:01:52
3	B 249.677†	3717.8	4519.7	[100]	µg/L	06:01:32
3	Ba 233.527†	16486.7	16793.8	[100]	µg/L	06:01:32
3	Be 313.107†	254155.3	262373.1	[100]	µg/L	06:01:32
3	Cd 226.502†	18844.4	19241.9	[100]	µg/L	06:01:32
3	Co 228.616†	3451.6	3566.1	[100]	µg/L	06:01:52
3	Cr 267.716†	13496.2	13231.8	[100]	µg/L	06:01:32
3	Cu 324.752†	28336.4	24941.0	[100]	µg/L	06:01:32
3	Mn 257.610†	75550.4	75060.9	[100]	µg/L	06:01:32
3	Mo 202.031†	2924.5	2920.8	[100]	µg/L	06:01:52
3	Ni 231.604†	4050.0	3916.4	[100]	µg/L	06:01:52
3	P 214.914†	739.5	808.4	[500]	µg/L	06:01:52
3	Pb 220.353†	786.1	887.8	[100]	µg/L	06:01:52
3	S 181.975 Axial†	388.3	228.0	[200]	µg/L	06:01:52
3	Sb 206.836†	237.2	180.9	[100]	µg/L	06:01:52
3	Se 196.026†	263.8	216.7	[100]	µg/L	06:01:52
3	SiO2†	11486.0	9941.2	[1069.5]	µg/L	06:01:32
3	Si 251.611†	17556.9	17128.3	[500]	µg/L	06:01:32
3	Sn 189.927†	783.7	750.9	[100]	µg/L	06:01:52
3	Ti 334.940†	50224.4	51288.2	[100]	µg/L	06:01:32
3	Tl 190.801†	284.3	415.9	[100]	µg/L	06:01:52
3	U 367.007†	226.2	877.0	[100]	µg/L	06:01:32
3	V 292.402†	11713.1	11589.6	[100]	µg/L	06:01:32
3	Zn 213.857†	10474.6	9554.1	[100]	µg/L	06:01:52

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1113922.3	5677.63	0.51%	100.04	%
Sc RADIAL	22954.0	112.67	0.49%	101	%
Y 371.029	679439.9	3230.59	0.48%	99.756	%
Ag 328.068†	19217.8	76.75	0.40%	[100]	µg/L
As 188.979†	224.3	6.14	2.74%	[100]	µg/L
B 249.677†	4560.1	50.87	1.12%	[100]	µg/L
Ba 233.527†	16843.9	100.64	0.60%	[100]	µg/L
Be 313.107†	262944.3	833.13	0.32%	[100]	µg/L
Cd 226.502†	19299.4	65.57	0.34%	[100]	µg/L
Co 228.616†	3553.5	14.33	0.40%	[100]	µg/L
Cr 267.716†	13241.2	23.17	0.17%	[100]	µg/L
Cu 324.752†	24911.0	32.24	0.13%	[100]	µg/L
K 766.490 Radial†	1133.7	110.01	9.70%	[1000]	µg/L
Mn 257.610†	75158.1	142.38	0.19%	[100]	µg/L
Mo 202.031†	2916.4	24.27	0.83%	[100]	µg/L
Ni 231.604†	3903.9	35.87	0.92%	[100]	µg/L
P 214.914†	796.1	10.74	1.35%	[500]	µg/L
Pb 220.353†	902.5	14.93	1.65%	[100]	µg/L
S 181.975 Axial†	224.3	5.67	2.53%	[200]	µg/L
Sb 206.836†	177.9	4.45	2.50%	[100]	µg/L
Se 196.026†	218.9	6.08	2.78%	[100]	µg/L
SiO2†	9927.6	25.95	0.26%	[1069.5]	µg/L
Si 251.611†	17186.6	86.91	0.51%	[500]	µg/L
Sn 189.927†	758.2	10.31	1.36%	[100]	µg/L
Sr 421.552†	22779.3	100.13	0.44%	[100]	µg/L
Ti 334.940†	51288.4	111.59	0.22%	[100]	µg/L
Tl 190.801†	410.6	11.62	2.83%	[100]	µg/L
U 367.007†	653.8	196.95	30.13%	[100]	µg/L
V 292.402†	11520.8	201.06	1.75%	[100]	µg/L
Zn 213.857†	9506.7	53.10	0.56%	[100]	µg/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 9/1/2011 06:01:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22785.4	22785.4	100	%	06:02:48
1	Al 396.153Radial†	10147.1	9952.2	[5000]	µg/L	06:02:28
1	Ca 317.933Radial†	16215.8	16037.4	[5000]	µg/L	06:02:48
1	K 766.490 Radial†	6140.4	5088.1	[5000]	µg/L	06:02:28
1	Mg 279.077 IEC†	1515.7	1525.3	[5000]	µg/L	06:02:48
1	Sr 421.552†	113998.4	113790.0	[500]	µg/L	06:02:28
1	Sc 361.383	1110106.7	1110106.7	99.694	%	06:03:36
1	Y 371.029	675552.9	675552.9	99.186	%	06:03:36
1	Ag 328.068†	96876.2	98173.1	[500]	µg/L	06:03:36
1	As 188.979†	1098.3	1139.9	[500]	µg/L	06:03:56
1	B 249.677†	22617.7	23476.0	[500]	µg/L	06:03:36
1	Ba 233.527†	83397.2	83902.4	[500]	µg/L	06:03:36
1	Be 313.107†	1322044.8	1333430.0	[500]	µg/L	06:03:36
1	Cd 226.502†	96540.8	97168.5	[500]	µg/L	06:03:36
1	Co 228.616†	17515.4	17671.6	[500]	µg/L	06:03:56
1	Cr 267.716†	66218.2	66109.8	[500]	µg/L	06:03:36
1	Cu 324.752†	128400.2	125299.7	[500]	µg/L	06:03:36
1	Mn 257.610†	368830.2	369208.1	[500]	µg/L	06:03:36
1	Mo 202.031†	14878.0	14909.7	[500]	µg/L	06:03:56
1	Ni 231.604†	19588.1	19500.3	[500]	µg/L	06:03:56
1	P 214.914†	4014.5	4093.2	[2500]	µg/L	06:03:56
1	Pb 220.353†	4350.3	4462.6	[500]	µg/L	06:03:56
1	S 181.975 Axial†	1257.3	1099.5	[1000]	µg/L	06:03:56
1	Sb 206.836†	951.7	897.5	[500]	µg/L	06:03:56
1	Se 196.026†	1200.7	1156.3	[500]	µg/L	06:03:56
1	SiO2†	52719.6	51296.4	[5347.5]	µg/L	06:03:36
1	Si 251.611†	88639.0	88420.9	[2500]	µg/L	06:03:36
1	Sn 189.927†	3911.8	3888.2	[500]	µg/L	06:03:56
1	Ti 334.940†	260742.1	262430.2	[500]	µg/L	06:03:36
1	Tl 190.801†	1896.3	2032.7	[500]	µg/L	06:03:56
1	U 367.007†	2022.8	2679.0	[500]	µg/L	06:03:36
1	V 292.402†	58413.0	58427.8	[500]	µg/L	06:03:36
1	Zn 213.857†	49332.0	48526.3	[500]	µg/L	06:03:36
2	Sc RADIAL	22834.6	22834.6	100	%	06:03:10
2	Al 396.153Radial†	10105.5	9888.8	[5000]	µg/L	06:02:50
2	Ca 317.933Radial†	16283.4	16069.9	[5000]	µg/L	06:03:10
2	K 766.490 Radial†	6008.2	4943.1	[5000]	µg/L	06:02:50
2	Mg 279.077 IEC†	1514.2	1520.5	[5000]	µg/L	06:03:10
2	Sr 421.552†	113439.6	112987.3	[500]	µg/L	06:02:50
2	Sc 361.383	1108450.5	1108450.5	99.545	%	06:03:59
2	Y 371.029	678634.9	678634.9	99.638	%	06:03:59
2	Ag 328.068†	96867.4	98309.4	[500]	µg/L	06:03:59
2	As 188.979†	1110.3	1153.7	[500]	µg/L	06:04:19
2	B 249.677†	22685.6	23578.1	[500]	µg/L	06:03:59
2	Ba 233.527†	83163.8	83792.9	[500]	µg/L	06:03:59
2	Be 313.107†	1327587.9	1340979.8	[500]	µg/L	06:03:59
2	Cd 226.502†	96317.2	97088.6	[500]	µg/L	06:03:59
2	Co 228.616†	17419.5	17601.4	[500]	µg/L	06:04:19
2	Cr 267.716†	66331.0	66322.3	[500]	µg/L	06:03:59
2	Cu 324.752†	128524.0	125616.4	[500]	µg/L	06:03:59
2	Mn 257.610†	368893.2	369824.1	[500]	µg/L	06:03:59
2	Mo 202.031†	14777.4	14831.0	[500]	µg/L	06:04:19
2	Ni 231.604†	19470.0	19411.1	[500]	µg/L	06:04:19
2	P 214.914†	3998.6	4083.2	[2500]	µg/L	06:04:19
2	Pb 220.353†	4320.4	4439.1	[500]	µg/L	06:04:19
2	S 181.975 Axial†	1253.8	1098.0	[1000]	µg/L	06:04:19
2	Sb 206.836†	951.1	898.2	[500]	µg/L	06:04:19
2	Se 196.026†	1193.6	1151.0	[500]	µg/L	06:04:19
2	SiO2†	52951.5	51608.4	[5347.5]	µg/L	06:03:59

2	Si 251.611†	88591.1	88505.7	[2500]	µg/L	06:03:59
2	Sn 189.927†	3889.5	3871.6	[500]	µg/L	06:04:19
2	Ti 334.940†	260900.3	262979.9	[500]	µg/L	06:03:59
2	Tl 190.801†	1896.4	2035.6	[500]	µg/L	06:04:19
2	U 367.007†	2207.8	2867.8	[500]	µg/L	06:03:59
2	V 292.402†	58846.4	58950.6	[500]	µg/L	06:03:59
2	Zn 213.857†	49086.4	48353.5	[500]	µg/L	06:03:59
3	Sc RADIAL	22778.7	22778.7	100	%	06:03:32
3	Al 396.153Radial†	10115.8	9923.9	[5000]	µg/L	06:03:12
3	Ca 317.933Radial†	16311.2	16137.5	[5000]	µg/L	06:03:32
3	K 766.490 Radial†	6060.6	5010.1	[5000]	µg/L	06:03:12
3	Mg 279.077 IEC†	1516.3	1526.3	[5000]	µg/L	06:03:32
3	Sr 421.552†	113636.6	113461.8	[500]	µg/L	06:03:12
3	Sc 361.383	1114152.2	1114152.2	100.06	%	06:04:22
3	Y 371.029	678566.6	678566.6	99.628	%	06:04:22
3	Ag 328.068†	96538.4	97482.6	[500]	µg/L	06:04:22
3	As 188.979†	1016.3	1054.0	[500]	µg/L	06:04:43
3	B 249.677†	22533.0	23308.9	[500]	µg/L	06:04:22
3	Ba 233.527†	82444.2	82646.2	[500]	µg/L	06:04:22
3	Be 313.107†	1293836.0	1300422.2	[500]	µg/L	06:04:22
3	Cd 226.502†	94501.0	94778.3	[500]	µg/L	06:04:22
3	Co 228.616†	15926.3	16019.5	[500]	µg/L	06:04:43
3	Cr 267.716†	63773.7	63425.5	[500]	µg/L	06:04:22
3	Cu 324.752†	126190.6	122623.7	[500]	µg/L	06:04:22
3	Mn 257.610†	362108.0	361146.4	[500]	µg/L	06:04:22
3	Mo 202.031†	13481.8	13460.1	[500]	µg/L	06:04:43
3	Ni 231.604†	17809.1	17651.1	[500]	µg/L	06:04:43
3	P 214.914†	3710.0	3774.3	[2500]	µg/L	06:04:43
3	Pb 220.353†	4035.9	4132.5	[500]	µg/L	06:04:43
3	S 181.975 Axial†	1196.8	1034.5	[1000]	µg/L	06:04:43
3	Sb 206.836†	876.1	818.5	[500]	µg/L	06:04:43
3	Se 196.026†	1120.8	1072.1	[500]	µg/L	06:04:43
3	SiO2†	52471.7	50856.7	[5347.5]	µg/L	06:04:22
3	Si 251.611†	87759.0	87218.7	[2500]	µg/L	06:04:22
3	Sn 189.927†	3464.1	3426.5	[500]	µg/L	06:04:43
3	Ti 334.940†	254619.8	255361.8	[500]	µg/L	06:04:22
3	Tl 190.801†	1818.4	1947.9	[500]	µg/L	06:04:43
3	U 367.007†	2097.6	2746.3	[500]	µg/L	06:04:22
3	V 292.402†	56955.6	56758.4	[500]	µg/L	06:04:22
3	Zn 213.857†	48201.1	47216.3	[500]	µg/L	06:04:22

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1110903.1	2933.10	0.26%	99.766	%
Sc RADIAL	22799.6	30.50	0.13%	100	%
Y 371.029	677584.8	1760.00	0.26%	99.484	%
Ag 328.068†	97988.4	443.28	0.45%	[500]	µg/L
Al 396.153Radial†	9921.6	31.73	0.32%	[5000]	µg/L
As 188.979†	1115.9	54.03	4.84%	[500]	µg/L
B 249.677†	23454.3	135.86	0.58%	[500]	µg/L
Ba 233.527†	83447.2	695.83	0.83%	[500]	µg/L
Be 313.107†	1324944.0	21569.38	1.63%	[500]	µg/L
Ca 317.933Radial†	16081.6	51.05	0.32%	[5000]	µg/L
Cd 226.502†	96345.2	1357.54	1.41%	[500]	µg/L
Co 228.616†	17097.5	934.22	5.46%	[500]	µg/L
Cr 267.716†	65285.9	1614.61	2.47%	[500]	µg/L
Cu 324.752†	124513.3	1644.08	1.32%	[500]	µg/L
K 766.490 Radial†	5013.8	72.57	1.45%	[5000]	µg/L
Mg 279.077 IEC†	1524.0	3.10	0.20%	[5000]	µg/L
Mn 257.610†	366726.2	4842.09	1.32%	[500]	µg/L
Mo 202.031†	14400.3	815.15	5.66%	[500]	µg/L
Ni 231.604†	18854.2	1042.87	5.53%	[500]	µg/L
P 214.914†	3983.6	181.32	4.55%	[2500]	µg/L
Pb 220.353†	4344.7	184.16	4.24%	[500]	µg/L
S 181.975 Axial†	1077.3	37.10	3.44%	[1000]	µg/L
Sb 206.836†	871.4	45.83	5.26%	[500]	µg/L
Se 196.026†	1126.5	47.18	4.19%	[500]	µg/L
SiO2†	51253.8	377.66	0.74%	[5347.5]	µg/L
Si 251.611†	88048.4	719.83	0.82%	[2500]	µg/L

Sn 189.927†	3728.8	261.93	7.02%	[500] µg/L
Sr 421.552†	113413.0	403.54	0.36%	[500] µg/L
Ti 334.940†	260257.3	4248.56	1.63%	[500] µg/L
Tl 190.801†	2005.4	49.79	2.48%	[500] µg/L
U 367.007†	2764.4	95.70	3.46%	[500] µg/L
V 292.402†	58045.6	1145.00	1.97%	[500] µg/L
Zn 213.857†	48032.0	711.69	1.48%	[500] µg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SCAL **Date Collected: 9/1/2011 06:04:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22746.1	22746.1	99.9	%	06:05:21
1	Al 396.153Radial†	20265.4	20100.4	[10000]	µg/L	06:05:21
1	Ca 317.933Radial†	32771.7	32641.5	[10000]	µg/L	06:05:21
1	Fe 238.204 Radial†	16098.6	16104.6	[10000]	µg/L	06:05:21
1	K 766.490 Radial†	10746.7	9710.6	[10000]	µg/L	06:05:21
1	Mg 279.077 IEC†	3069.3	3083.4	[10000]	µg/L	06:05:21
1	Na 589.592 Radial†	51313.7	50314.7	[10000]	µg/L	06:05:19
1	Sr 421.552†	230773.8	230905.1	[1000]	µg/L	06:05:19
1	Sc 361.383	1093474.3	1093474.3	98.200	%	06:05:33
1	Y 371.029	680460.6	680460.6	99.906	%	06:05:35
1	Ag 328.068†	197454.9	202073.1	[1000]	µg/L	06:05:35
1	As 188.979†	2248.5	2328.0	[1000]	µg/L	06:05:55
1	B 249.677†	47356.5	49013.3	[1000]	µg/L	06:05:35
1	Ba 233.527†	170107.7	173474.5	[1000]	µg/L	06:05:35
1	Be 313.107†	2634916.8	2690533.2	[1000]	µg/L	06:05:33
1	Cd 226.502†	197610.8	201563.8	[1000]	µg/L	06:05:35
1	Co 228.616†	35418.1	36169.5	[1000]	µg/L	06:05:55
1	Cr 267.716†	135751.8	137928.0	[1000]	µg/L	06:05:35
1	Cu 324.752†	258375.1	259615.6	[1000]	µg/L	06:05:35
1	Mn 257.610†	731922.0	744581.4	[1000]	µg/L	06:05:33
1	Mo 202.031†	29943.1	30477.9	[1000]	µg/L	06:05:55
1	Ni 231.604†	40097.6	40684.6	[1000]	µg/L	06:05:35
1	P 214.914†	8230.1	8447.3	[5000]	µg/L	06:05:55
1	Pb 220.353†	8812.1	9072.5	[1000]	µg/L	06:05:55
1	S 181.975 Axial†	2358.5	2240.1	[2000]	µg/L	06:05:55
1	Sb 206.836†	1822.2	1798.4	[1000]	µg/L	06:05:55
1	Se 196.026†	2343.1	2338.0	[1000]	µg/L	06:05:55
1	SiO2†	103750.1	104066.5	[10695]	µg/L	06:05:35
1	Si 251.611†	176516.5	179261.3	[5000]	µg/L	06:05:35
1	Sn 189.927†	7723.3	7829.3	[1000]	µg/L	06:05:55
1	Ti 334.940†	528591.2	539166.3	[1000]	µg/L	06:05:35
1	Tl 190.801†	3949.9	4152.9	[1000]	µg/L	06:05:55
1	U 367.007†	5047.9	5790.3	[1000]	µg/L	06:05:35
1	V 292.402†	121159.8	123215.7	[1000]	µg/L	06:05:35
1	Zn 213.857†	98907.9	99763.4	[1000]	µg/L	06:05:35
2	Sc RADIAL	22705.9	22705.9	99.7	%	06:05:25
2	Al 396.153Radial†	20352.7	20223.9	[10000]	µg/L	06:05:25
2	Ca 317.933Radial†	32755.1	32683.0	[10000]	µg/L	06:05:25
2	Fe 238.204 Radial†	16150.9	16185.6	[10000]	µg/L	06:05:25
2	K 766.490 Radial†	10821.3	9804.5	[10000]	µg/L	06:05:25
2	Mg 279.077 IEC†	3033.4	3052.8	[10000]	µg/L	06:05:25
2	Na 589.592 Radial†	50487.6	49577.2	[10000]	µg/L	06:05:23
2	Sr 421.552†	227774.5	228305.9	[1000]	µg/L	06:05:23
2	Sc 361.383	1124392.7	1124392.7	100.98	%	06:05:58
2	Y 371.029	671859.0	671859.0	98.643	%	06:06:00
2	Ag 328.068†	195700.6	194806.7	[1000]	µg/L	06:06:00
2	As 188.979†	2261.1	2277.5	[1000]	µg/L	06:06:20
2	B 249.677†	46821.3	47157.2	[1000]	µg/L	06:06:00
2	Ba 233.527†	168460.1	167079.5	[1000]	µg/L	06:06:00
2	Be 313.107†	2733023.6	2713908.4	[1000]	µg/L	06:05:58
2	Cd 226.502†	195561.6	194001.0	[1000]	µg/L	06:06:00
2	Co 228.616†	35445.1	35204.5	[1000]	µg/L	06:06:20
2	Cr 267.716†	134447.8	132835.3	[1000]	µg/L	06:06:00
2	Cu 324.752†	255867.1	249896.9	[1000]	µg/L	06:06:00
2	Mn 257.610†	755661.5	747596.1	[1000]	µg/L	06:05:58
2	Mo 202.031†	29951.8	29648.1	[1000]	µg/L	06:06:20
2	Ni 231.604†	39636.6	39105.3	[1000]	µg/L	06:06:00
2	P 214.914†	8245.3	8231.9	[5000]	µg/L	06:06:20
2	Pb 220.353†	8835.3	8848.7	[1000]	µg/L	06:06:20

2	S 181.975 Axial†	2367.3	2182.8	[2000]	µg/L	06:06:20
2	Sb 206.836†	1842.7	1767.7	[1000]	µg/L	06:06:20
2	Se 196.026†	2353.9	2283.0	[1000]	µg/L	06:06:20
2	SiO2†	102672.1	100093.8	[10695]	µg/L	06:06:00
2	Si 251.611†	174689.7	172509.4	[5000]	µg/L	06:06:00
2	Sn 189.927†	7749.0	7638.4	[1000]	µg/L	06:06:20
2	Ti 334.940†	523097.0	518923.7	[1000]	µg/L	06:06:00
2	Tl 190.801†	3952.9	4045.3	[1000]	µg/L	06:06:20
2	U 367.007†	4785.3	5389.0	[1000]	µg/L	06:06:00
2	V 292.402†	119989.5	118664.0	[1000]	µg/L	06:06:00
2	Zn 213.857†	97523.9	95623.2	[1000]	µg/L	06:06:00
3	Sc RADIAL	22693.6	22693.6	99.6	%	06:05:29
3	Al 396.153Radial†	20198.2	20079.9	[10000]	µg/L	06:05:29
3	Ca 317.933Radial†	32176.5	32120.1	[10000]	µg/L	06:05:29
3	Fe 238.204 Radial†	15979.0	16021.9	[10000]	µg/L	06:05:29
3	K 766.490 Radial†	10727.2	9715.9	[10000]	µg/L	06:05:29
3	Mg 279.077 IEC†	2978.4	2999.3	[10000]	µg/L	06:05:29
3	Na 589.592 Radial†	51049.4	50168.4	[10000]	µg/L	06:05:27
3	Sr 421.552†	229302.1	229962.8	[1000]	µg/L	06:05:27
3	Sc 361.383	1117085.8	1117085.8	100.32	%	06:06:22
3	Y 371.029	678614.5	678614.5	99.635	%	06:06:25
3	Ag 328.068†	196113.2	196485.6	[1000]	µg/L	06:06:25
3	As 188.979†	2275.4	2306.4	[1000]	µg/L	06:06:45
3	B 249.677†	47035.1	47673.5	[1000]	µg/L	06:06:25
3	Ba 233.527†	168700.0	168409.9	[1000]	µg/L	06:06:25
3	Be 313.107†	2717918.1	2716555.0	[1000]	µg/L	06:06:22
3	Cd 226.502†	194827.6	194536.1	[1000]	µg/L	06:06:25
3	Co 228.616†	35383.8	35373.1	[1000]	µg/L	06:06:45
3	Cr 267.716†	135068.2	134324.6	[1000]	µg/L	06:06:25
3	Cu 324.752†	256749.0	252433.4	[1000]	µg/L	06:06:25
3	Mn 257.610†	750904.9	747749.7	[1000]	µg/L	06:06:22
3	Mo 202.031†	29834.3	29724.9	[1000]	µg/L	06:06:45
3	Ni 231.604†	39839.1	39563.9	[1000]	µg/L	06:06:25
3	P 214.914†	8199.3	8239.5	[5000]	µg/L	06:06:45
3	Pb 220.353†	8798.4	8869.3	[1000]	µg/L	06:06:45
3	S 181.975 Axial†	2353.1	2184.0	[2000]	µg/L	06:06:45
3	Sb 206.836†	1843.4	1780.3	[1000]	µg/L	06:06:45
3	Se 196.026†	2346.2	2290.6	[1000]	µg/L	06:06:45
3	SiO2†	103128.3	101213.6	[10695]	µg/L	06:06:25
3	Si 251.611†	175199.2	174148.9	[5000]	µg/L	06:06:25
3	Sn 189.927†	7742.9	7682.6	[1000]	µg/L	06:06:45
3	Ti 334.940†	524656.5	523866.8	[1000]	µg/L	06:06:25
3	Tl 190.801†	3952.7	4070.7	[1000]	µg/L	06:06:45
3	U 367.007†	4745.2	5379.9	[1000]	µg/L	06:06:25
3	V 292.402†	120432.6	119882.9	[1000]	µg/L	06:06:25
3	Zn 213.857†	97577.2	96308.1	[1000]	µg/L	06:06:25

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1111650.9	16159.84	1.45%	99.833	%
Sc RADIAL	22715.2	27.46	0.12%	99.7	%
Y 371.029	676978.0	4528.28	0.67%	99.395	%
Ag 328.068†	197788.5	3804.37	1.92%	[1000]	µg/L
Al 396.153Radial†	20134.7	77.89	0.39%	[10000]	µg/L
As 188.979†	2304.0	25.33	1.10%	[1000]	µg/L
B 249.677†	47948.0	958.02	2.00%	[1000]	µg/L
Ba 233.527†	169654.6	3374.33	1.99%	[1000]	µg/L
Be 313.107†	2706998.9	14320.92	0.53%	[1000]	µg/L
Ca 317.933Radial†	32481.6	313.68	0.97%	[10000]	µg/L
Cd 226.502†	196700.3	4220.40	2.15%	[1000]	µg/L
Co 228.616†	35582.4	515.43	1.45%	[1000]	µg/L
Cr 267.716†	135029.3	2618.42	1.94%	[1000]	µg/L
Cu 324.752†	253981.9	5041.01	1.98%	[1000]	µg/L
Fe 238.204 Radial†	16104.0	81.87	0.51%	[10000]	µg/L
K 766.490 Radial†	9743.7	52.73	0.54%	[10000]	µg/L
Mg 279.077 IEC†	3045.2	42.60	1.40%	[10000]	µg/L
Mn 257.610†	746642.4	1786.54	0.24%	[1000]	µg/L
Mo 202.031†	29950.3	458.51	1.53%	[1000]	µg/L
Na 589.592 Radial†	50020.1	390.50	0.78%	[10000]	µg/L

Ni 231.604†	39784.6	812.46	2.04%	[1000]	µg/L
P 214.914†	8306.2	122.25	1.47%	[5000]	µg/L
Pb 220.353†	8930.2	123.71	1.39%	[1000]	µg/L
S 181.975 Axial†	2202.3	32.74	1.49%	[2000]	µg/L
Sb 206.836†	1782.2	15.44	0.87%	[1000]	µg/L
Se 196.026†	2303.9	29.77	1.29%	[1000]	µg/L
SiO2†	101791.3	2048.40	2.01%	[10695]	µg/L
Si 251.611†	175306.6	3521.67	2.01%	[5000]	µg/L
Sn 189.927†	7716.8	99.91	1.29%	[1000]	µg/L
Sr 421.552†	229724.6	1315.89	0.57%	[1000]	µg/L
Ti 334.940†	527318.9	10553.60	2.00%	[1000]	µg/L
Tl 190.801†	4089.6	56.24	1.38%	[1000]	µg/L
U 367.007†	5519.7	234.39	4.25%	[1000]	µg/L
V 292.402†	120587.6	2356.23	1.95%	[1000]	µg/L
Zn 213.857†	97231.6	2219.19	2.28%	[1000]	µg/L

Sequence No.: 5 | **Autosampler Location: 5**
Sample ID: S10 | **Date Collected: 9/1/2011 06:06:51**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	22269.1	22269.1	97.8	%	06:07:21
1	Al 396.153Radial†	98296.9	100335.5	[50000]	µg/L	06:07:21
1	Ca 317.933Radial†	159055.5	162490.9	[50000]	µg/L	06:07:21
1	Fe 238.204 Radial†	31317.0	32013.2	[20000]	µg/L	06:07:21
1	Mg 279.077 IEC†	14713.3	15057.2	[50000]	µg/L	06:07:21
1	Na 589.592 Radial†	99779.4	100979.7	[20000]	µg/L	06:07:21
1	Sc 361.383	1087838.8	1087838.8	97.694	%	06:07:28
1	Y 371.029	662643.0	662643.0	97.290	%	06:07:28
2	Sc RADIAL	22736.1	22736.1	99.8	%	06:07:23
2	Al 396.153Radial†	99863.5	99839.8	[50000]	µg/L	06:07:23
2	Ca 317.933Radial†	163432.1	163533.9	[50000]	µg/L	06:07:23
2	Fe 238.204 Radial†	31956.2	31995.7	[20000]	µg/L	06:07:23
2	Mg 279.077 IEC†	15019.3	15054.6	[50000]	µg/L	06:07:23
2	Na 589.592 Radial†	101732.0	100839.6	[20000]	µg/L	06:07:23
2	Sc 361.383	1078154.3	1078154.3	96.825	%	06:07:31
2	Y 371.029	655675.7	655675.7	96.267	%	06:07:31
3	Sc RADIAL	22621.9	22621.9	99.3	%	06:07:25
3	Al 396.153Radial†	99822.9	100303.6	[50000]	µg/L	06:07:25
3	Ca 317.933Radial†	162011.5	162929.5	[50000]	µg/L	06:07:25
3	Fe 238.204 Radial†	31796.5	31996.5	[20000]	µg/L	06:07:25
3	Mg 279.077 IEC†	14954.4	15065.2	[50000]	µg/L	06:07:25
3	Na 589.592 Radial†	100973.4	100590.0	[20000]	µg/L	06:07:25
3	Sc 361.383	1102452.0	1102452.0	99.007	%	06:07:33
3	Y 371.029	671734.6	671734.6	98.625	%	06:07:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1089481.7	12231.90	1.12%	97.842	%
Sc RADIAL	22542.4	243.45	1.08%	99.0	%
Y 371.029	663351.1	8052.84	1.21%	97.394	%
Al 396.153Radial†	100159.6	277.41	0.28%	[50000]	µg/L
Ca 317.933Radial†	162984.8	523.67	0.32%	[50000]	µg/L
Fe 238.204 Radial†	32001.8	9.90	0.03%	[20000]	µg/L
Mg 279.077 IEC†	15059.0	5.52	0.04%	[50000]	µg/L
Na 589.592 Radial†	100803.1	197.41	0.20%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	197.4	0.00000	0.999991	
Al 396.153Radial	3	Lin Thru 0	0.0	2.003	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	2.289	0.00000	0.999919	
B 249.677	3	Lin Thru 0	0.0	47.72	0.00000	0.999954	
Ba 233.527	3	Lin Thru 0	0.0	169.1	0.00000	0.999979	
Be 313.107	3	Lin Thru 0	0.0	2695	0.00000	0.999962	
Ca 317.933Radial	3	Lin Thru 0	0.0	3.259	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	195.9	0.00000	0.999966	
Co 228.616	3	Lin Thru 0	0.0	35.31	0.00000	0.999877	
Cr 267.716	3	Lin Thru 0	0.0	134.1	0.00000	0.999912	
Cu 324.752	3	Lin Thru 0	0.0	253.0	0.00000	0.999969	
Fe 238.204 Radia	2	Lin Thru 0	0.0	1.602	0.00000	0.999997	
K 766.490 Radial	3	Lin Thru 0	0.0	0.9813	0.00000	0.999837	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.3013	0.00000	0.999997	
Mn 257.610	3	Lin Thru 0	0.0	744.1	0.00000	0.999975	
Mo 202.031	3	Lin Thru 0	0.0	29.72	0.00000	0.999880	
Na 589.592 Radia	2	Lin Thru 0	0.0	5.033	0.00000	0.999995	

Ni 231.604	3	Lin Thru 0	0.0	39.37	0.00000	0.999779
P 214.914	3	Lin Thru 0	0.0	1.647	0.00000	0.999861
Pb 220.353	3	Lin Thru 0	0.0	8.883	0.00000	0.999941
S 181.975 Axial	3	Lin Thru 0	0.0	1.097	0.00000	0.999960
Sb 206.836	3	Lin Thru 0	0.0	1.774	0.00000	0.999961
Se 196.026	3	Lin Thru 0	0.0	2.293	0.00000	0.999953
SiO2	3	Lin Thru 0	0.0	9.529	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	35.09	0.00000	0.999997
Sn 189.927	3	Lin Thru 0	0.0	7.664	0.00000	0.999909
Sr 421.552	3	Lin Thru 0	0.0	229.1	0.00000	0.999987
Ti 334.940	3	Lin Thru 0	0.0	525.9	0.00000	0.999984
Tl 190.801	3	Lin Thru 0	0.0	4.074	0.00000	0.999970
U 367.007	3	Lin Thru 0	0.0	5.530	0.00000	0.999867
V 292.402	3	Lin Thru 0	0.0	119.7	0.00000	0.999882
Zn 213.857	3	Lin Thru 0	0.0	96.98	0.00000	0.999987

Sequence No.: 6 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 9/1/2011 06:07:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22866.2	22866.2	100	%			06:08:30
1	Al 396.153Radial†	10159.4	9928.6	4938.6	µg/L	4938.6	ppb	06:08:10
1	Ca 317.933Radial†	16611.8	16374.5	5024.6	µg/L	5024.6	ppb	06:08:30
1	Fe 238.204 Radial†	8101.2	8054.9	5018.8	µg/L	5018.8	ppb	06:08:30
1	K 766.490 Radial†	3687.7	2623.7	2671.6	µg/L	2671.6	ppb	06:08:10
1	Mg 279.077 IEC†	1547.9	1552.0	5150.2	µg/L	5150.2	ppb	06:08:30
1	Na 589.592 Radial†	14186.1	13067.2	2596.5	µg/L	2596.5	ppb	06:08:10
1	Sr 421.552†	116531.2	115910.1	505.77	µg/L	505.77	ppb	06:08:10
1	Sc 361.383	1107839.1	1107839.1	99.490	%			06:09:18
1	Y 371.029	672839.0	672839.0	98.787	%			06:09:18
1	Ag 328.068†	48410.7	49658.2	252.12	µg/L	252.12	ppb	06:09:18
1	As 188.979†	1125.9	1170.0	514.96	µg/L	514.96	ppb	06:09:38
1	B 249.677†	22786.9	23692.5	528.81	µg/L	528.81	ppb	06:09:18
1	Ba 233.527†	84544.1	85226.4	504.49	µg/L	504.49	ppb	06:09:18
1	Be 313.107†	664097.0	674826.2	250.37	µg/L	250.37	ppb	06:09:18
1	Cd 226.502†	98019.0	98852.6	503.59	µg/L	503.59	ppb	06:09:18
1	Co 228.616†	18016.7	18211.4	516.33	µg/L	516.33	ppb	06:09:38
1	Cr 267.716†	67824.8	67860.6	506.38	µg/L	506.38	ppb	06:09:18
1	Cu 324.752†	132881.7	130067.7	515.00	µg/L	515.00	ppb	06:09:18
1	Mn 257.610†	384167.3	385380.9	517.90	µg/L	517.90	ppb	06:09:18
1	Mo 202.031†	14853.8	14916.0	502.25	µg/L	502.25	ppb	06:09:38
1	Ni 231.604†	19825.0	19778.7	502.26	µg/L	502.26	ppb	06:09:38
1	P 214.914†	4110.4	4197.8	2530.9	µg/L	2530.9	ppb	06:09:38
1	Pb 220.353†	4460.0	4581.8	517.28	µg/L	517.28	ppb	06:09:38
1	S 181.975 Axial†	2949.8	2803.3	2556.9	µg/L	2556.9	ppb	06:09:38
1	Sb 206.836†	940.5	888.1	501.94	µg/L	501.94	ppb	06:09:38
1	Se 196.026†	5905.7	5887.9	2570	µg/L	2570	ppb	06:09:38
1	SiO2†	102405.5	101345.0	10643	µg/L	10643	ppb	06:09:18
1	Si 251.611†	172919.1	173314.8	4939.5	µg/L	4939.5	ppb	06:09:18
1	Sn 189.927†	3950.7	3935.4	515.41	µg/L	515.41	ppb	06:09:38
1	Ti 334.940†	250866.9	253039.8	481.44	µg/L	481.44	ppb	06:09:18
1	Tl 190.801†	1981.4	2122.1	522.00	µg/L	522.00	ppb	06:09:38
1	U 367.007†	2277.3	2938.9	499.95	µg/L	499.95	ppb	06:09:18
1	V 292.402†	59336.1	59475.5	501.92	µg/L	501.92	ppb	06:09:18
1	Zn 213.857†	49465.6	48761.8	499.00	µg/L	499.00	ppb	06:09:18
2	Sc RADIAL	22863.0	22863.0	100	%			06:08:52
2	Al 396.153Radial†	10303.0	10073.0	5010.6	µg/L	5010.6	ppb	06:08:32
2	Ca 317.933Radial†	16621.1	16386.1	5028.2	µg/L	5028.2	ppb	06:08:52
2	Fe 238.204 Radial†	8085.4	8040.2	5009.6	µg/L	5009.6	ppb	06:08:52
2	K 766.490 Radial†	3662.2	2598.8	2646.2	µg/L	2646.2	ppb	06:08:32
2	Mg 279.077 IEC†	1556.1	1560.4	5178.2	µg/L	5178.2	ppb	06:08:52
2	Na 589.592 Radial†	13894.2	12778.4	2539.2	µg/L	2539.2	ppb	06:08:32
2	Sr 421.552†	117817.8	117208.0	511.44	µg/L	511.44	ppb	06:08:32
2	Sc 361.383	1098571.0	1098571.0	98.658	%			06:09:40
2	Y 371.029	669312.6	669312.6	98.269	%			06:09:40
2	Ag 328.068†	48098.1	49751.9	252.60	µg/L	252.60	ppb	06:09:40
2	As 188.979†	1130.3	1184.0	521.07	µg/L	521.07	ppb	06:10:00
2	B 249.677†	22572.3	23668.2	528.24	µg/L	528.24	ppb	06:09:40
2	Ba 233.527†	84304.6	85700.6	507.30	µg/L	507.30	ppb	06:09:40
2	Be 313.107†	661973.9	678305.6	251.66	µg/L	251.66	ppb	06:09:40
2	Cd 226.502†	98198.0	99865.1	508.76	µg/L	508.76	ppb	06:09:40
2	Co 228.616†	17928.0	18274.2	518.12	µg/L	518.12	ppb	06:10:00
2	Cr 267.716†	67438.2	68043.9	507.75	µg/L	507.75	ppb	06:09:40
2	Cu 324.752†	132129.9	130432.5	516.44	µg/L	516.44	ppb	06:09:40
2	Mn 257.610†	382644.4	387095.0	520.20	µg/L	520.20	ppb	06:09:40
2	Mo 202.031†	14748.1	14934.8	502.88	µg/L	502.88	ppb	06:10:00
2	Ni 231.604†	19715.0	19835.3	503.70	µg/L	503.70	ppb	06:10:00
2	P 214.914†	4066.0	4187.7	2524.8	µg/L	2524.8	ppb	06:10:00
2	Pb 220.353†	4418.7	4577.8	516.84	µg/L	516.84	ppb	06:10:00

2	S 181.975 Axial†	2948.0	2826.5	2578.0	µg/L	2578.0	ppb	06:10:00
2	Sb 206.836†	929.3	884.8	500.05	µg/L	500.05	ppb	06:10:00
2	Se 196.026†	5891.0	5923.1	2590	µg/L	2590	ppb	06:10:00
2	SiO2†	101899.3	101700.3	10680	µg/L	10680	ppb	06:09:40
2	Si 251.611†	172153.1	174004.7	4959.2	µg/L	4959.2	ppb	06:09:40
2	Sn 189.927†	3949.1	3967.2	519.57	µg/L	519.57	ppb	06:10:00
2	Ti 334.940†	249551.0	253833.3	482.95	µg/L	482.95	ppb	06:09:40
2	Tl 190.801†	1967.6	2124.9	522.69	µg/L	522.69	ppb	06:10:00
2	U 367.007†	2106.3	2784.9	472.16	µg/L	472.16	ppb	06:09:40
2	V 292.402†	59427.8	60071.6	506.91	µg/L	506.91	ppb	06:09:40
2	Zn 213.857†	49355.4	49069.6	502.16	µg/L	502.16	ppb	06:09:40
3	Sc RADIAL	22865.5	22865.5	100	%			06:09:14
3	Al 396.153Radial†	10189.0	9958.4	4954.7	µg/L	4954.7	ppb	06:08:54
3	Ca 317.933Radial†	16682.0	16444.9	5046.3	µg/L	5046.3	ppb	06:09:14
3	Fe 238.204 Radial†	8095.2	8049.1	5015.8	µg/L	5015.8	ppb	06:09:14
3	K 766.490 Radial†	3643.3	2579.5	2626.6	µg/L	2626.6	ppb	06:08:54
3	Mg 279.077 IEC†	1561.9	1566.0	5196.8	µg/L	5196.8	ppb	06:09:14
3	Na 589.592 Radial†	13980.1	12862.4	2555.9	µg/L	2555.9	ppb	06:08:54
3	Sr 421.552†	116007.3	115391.8	503.51	µg/L	503.51	ppb	06:08:54
3	Sc 361.383	1101118.1	1101118.1	98.887	%			06:10:03
3	Y 371.029	670714.5	670714.5	98.475	%			06:10:03
3	Ag 328.068†	47777.5	49314.9	250.36	µg/L	250.36	ppb	06:10:03
3	As 188.979†	1051.8	1101.9	485.06	µg/L	485.06	ppb	06:10:23
3	B 249.677†	22301.1	23341.0	521.44	µg/L	521.44	ppb	06:10:03
3	Ba 233.527†	83564.8	84754.8	501.69	µg/L	501.69	ppb	06:10:03
3	Be 313.107†	653340.8	668023.3	247.85	µg/L	247.85	ppb	06:10:03
3	Cd 226.502†	96244.0	97659.0	497.49	µg/L	497.49	ppb	06:10:03
3	Co 228.616†	16617.7	16907.2	479.39	µg/L	479.39	ppb	06:10:23
3	Cr 267.716†	65118.2	65539.6	489.06	µg/L	489.06	ppb	06:10:03
3	Cu 324.752†	130622.9	128598.7	509.16	µg/L	509.16	ppb	06:10:03
3	Mn 257.610†	377904.4	381404.5	512.56	µg/L	512.56	ppb	06:10:03
3	Mo 202.031†	13662.3	13802.2	464.77	µg/L	464.77	ppb	06:10:23
3	Ni 231.604†	18307.1	18365.3	466.37	µg/L	466.37	ppb	06:10:23
3	P 214.914†	3812.0	3921.3	2363.6	µg/L	2363.6	ppb	06:10:23
3	Pb 220.353†	4179.2	4325.2	488.33	µg/L	488.33	ppb	06:10:23
3	S 181.975 Axial†	2831.6	2701.9	2464.2	µg/L	2464.2	ppb	06:10:23
3	Sb 206.836†	896.2	849.1	479.61	µg/L	479.61	ppb	06:10:23
3	Se 196.026†	5637.3	5652.8	2470	µg/L	2470	ppb	06:10:23
3	SiO2†	101401.3	100957.8	10602	µg/L	10602	ppb	06:10:03
3	Si 251.611†	171660.0	173102.4	4933.5	µg/L	4933.5	ppb	06:10:03
3	Sn 189.927†	3580.0	3584.7	469.64	µg/L	469.64	ppb	06:10:23
3	Ti 334.940†	245652.1	249305.3	474.33	µg/L	474.33	ppb	06:10:03
3	Tl 190.801†	1918.2	2070.3	509.44	µg/L	509.44	ppb	06:10:23
3	U 367.007†	2017.0	2689.7	454.90	µg/L	454.90	ppb	06:10:03
3	V 292.402†	57355.7	57836.8	487.85	µg/L	487.85	ppb	06:10:03
3	Zn 213.857†	48662.6	48253.3	493.98	µg/L	493.98	ppb	06:10:03

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1102509.4	99.012	%	0.4300				0.43%
Sc RADIAL	22864.9	100	%	0.0				0.01%
Y 371.029	670955.4	98.510	%	0.2607				0.26%
Ag 328.068†	49575.0	251.69	µg/L	1.181	251.69	ppb	1.181	0.47%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	9986.7	4968.0	µg/L	37.83	4968.0	ppb	37.83	0.76%
QC value within limits for Al 396.153Radial Recovery = 99.36%								
As 188.979†	1152.0	507.03	µg/L	19.268	507.03	ppb	19.268	3.80%
QC value within limits for As 188.979 Recovery = 101.41%								
B 249.677†	23567.2	526.16	µg/L	4.101	526.16	ppb	4.101	0.78%
QC value within limits for B 249.677 Recovery = 105.23%								
Ba 233.527†	85227.3	504.49	µg/L	2.807	504.49	ppb	2.807	0.56%
QC value within limits for Ba 233.527 Recovery = 100.90%								
Be 313.107†	673718.4	249.96	µg/L	1.941	249.96	ppb	1.941	0.78%
QC value within limits for Be 313.107 Recovery = 99.98%								
Ca 317.933Radial†	16401.9	5033.0	µg/L	11.59	5033.0	ppb	11.59	0.23%
QC value within limits for Ca 317.933Radial Recovery = 100.66%								
Cd 226.502†	98792.2	503.28	µg/L	5.642	503.28	ppb	5.642	1.12%
QC value within limits for Cd 226.502 Recovery = 100.66%								
Co 228.616†	17797.6	504.62	µg/L	21.861	504.62	ppb	21.861	4.33%

```
   QC value within limits for Co 228.616  Recovery = 100.92%
Cr 267.716†            67148.0      501.06 µg/L        10.414      501.06 ppb         10.414   2.08%
   QC value within limits for Cr 267.716  Recovery = 100.21%
Cu 324.752†           129699.6      513.53 µg/L         3.855      513.53 ppb          3.855   0.75%
   QC value within limits for Cu 324.752  Recovery = 102.71%
Fe 238.204 Radial†      8048.1      5014.7 µg/L          4.67      5014.7 ppb           4.67   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.29%
K 766.490 Radial†       2600.6      2648.2 µg/L         22.58      2648.2 ppb          22.58   0.85%
   QC value within limits for K 766.490 Radial  Recovery = 105.93%
Mg 279.077 IEC†         1559.5      5175.1 µg/L         23.47      5175.1 ppb          23.47   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.50%
Mn 257.610†           384626.8      516.89 µg/L         3.924      516.89 ppb          3.924   0.76%
   QC value within limits for Mn 257.610  Recovery = 103.38%
Mo 202.031†            14551.0      489.96 µg/L        21.825      489.96 ppb         21.825   4.45%
   QC value within limits for Mo 202.031  Recovery = 97.99%
Na 589.592 Radial†     12902.7      2563.9 µg/L         29.52      2563.9 ppb          29.52   1.15%
   QC value within limits for Na 589.592 Radial  Recovery = 102.55%
Ni 231.604†            19326.5      490.77 µg/L        21.148      490.77 ppb         21.148   4.31%
   QC value within limits for Ni 231.604  Recovery = 98.15%
P 214.914†              4102.3      2473.1 µg/L         94.88      2473.1 ppb          94.88   3.84%
   QC value within limits for P 214.914  Recovery = 98.92%
Pb 220.353†             4494.9      507.49 µg/L        16.588      507.49 ppb         16.588   3.27%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†        2777.2      2533.0 µg/L         60.54      2533.0 ppb          60.54   2.39%
   QC value within limits for S 181.975 Axial  Recovery = 101.32%
Sb 206.836†              874.0      493.86 µg/L        12.385      493.86 ppb         12.385   2.51%
   QC value within limits for Sb 206.836  Recovery = 98.77%
Se 196.026†             5821.3        2540 µg/L          64.1        2540 ppb           64.1   2.52%
   QC value within limits for Se 196.026  Recovery = 101.72%
SiO2†                  101334.4       10641 µg/L          39.1       10641 ppb           39.1   0.37%
   QC value within limits for SiO2  Recovery = 99.50%
Si 251.611†            173473.9      4944.1 µg/L         13.44      4944.1 ppb          13.44   0.27%
   QC value within limits for Si 251.611  Recovery = 98.88%
Sn 189.927†             3829.1      501.54 µg/L        27.708      501.54 ppb         27.708   5.52%
   QC value within limits for Sn 189.927  Recovery = 100.31%
Sr 421.552†            116170.0      506.91 µg/L         4.083      506.91 ppb          4.083   0.81%
   QC value within limits for Sr 421.552  Recovery = 101.38%
Ti 334.940†            252059.5      479.57 µg/L         4.606      479.57 ppb          4.606   0.96%
   QC value within limits for Ti 334.940  Recovery = 95.91%
Tl 190.801†             2105.8      518.04 µg/L         7.462      518.04 ppb          7.462   1.44%
   QC value within limits for Tl 190.801  Recovery = 103.61%
U 367.007†              2804.5      475.67 µg/L        22.729      475.67 ppb         22.729   4.78%
   QC value within limits for U 367.007  Recovery = 95.13%
V 292.402†             59128.0      498.90 µg/L         9.885      498.90 ppb          9.885   1.98%
   QC value within limits for V 292.402  Recovery = 99.78%
Zn 213.857†            48694.9      498.38 µg/L         4.125      498.38 ppb          4.125   0.83%
   QC value within limits for Zn 213.857  Recovery = 99.68%
All analyte(s) passed QC.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 9/1/2011 06:10:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22883.6	22883.6	100	%			06:10:59
1	Al 396.153Radial†	147.3	-43.2	-21.594	µg/L	-21.594	ppb	06:10:59
1	Ca 317.933Radial†	143.9	-27.0	-8.2828	µg/L	-8.2828	ppb	06:11:19
1	Fe 238.204 Radial†	9.4	-4.3	-2.6633	µg/L	-2.6633	ppb	06:11:19
1	K 766.490 Radial†	1126.2	71.6	72.951	µg/L	72.951	ppb	06:10:59
1	Mg 279.077 IEC†	-7.1	3.3	11.088	µg/L	11.088	ppb	06:11:19
1	Na 589.592 Radial†	1114.4	47.4	9.4195	µg/L	9.4195	ppb	06:10:59
1	Sr 421.552†	218.9	67.2	0.2933	µg/L	0.2933	ppb	06:10:59
1	Sc 361.383	1103230.3	1103230.3	99.076	%			06:12:06
1	Y 371.029	677022.4	677022.4	99.401	%			06:12:06
1	Ag 328.068†	-1207.0	-218.7	-1.1069	µg/L	-1.1069	ppb	06:12:06
1	As 188.979†	-37.4	0.5	0.2349	µg/L	0.2349	ppb	06:12:26
1	B 249.677†	-727.6	54.5	1.1310	µg/L	1.1310	ppb	06:12:06
1	Ba 233.527†	-229.9	17.2	0.1013	µg/L	0.1013	ppb	06:12:26
1	Be 313.107†	-7126.9	134.1	0.0498	µg/L	0.0498	ppb	06:12:06
1	Cd 226.502†	-311.4	17.2	0.0878	µg/L	0.0878	ppb	06:12:26
1	Co 228.616†	-113.3	-12.0	-0.3401	µg/L	-0.3401	ppb	06:12:26
1	Cr 267.716†	318.3	9.6	0.0707	µg/L	0.0707	ppb	06:12:06
1	Cu 324.752†	3546.8	85.2	0.3359	µg/L	0.3359	ppb	06:12:06
1	Mn 257.610†	769.5	22.5	0.0300	µg/L	0.0300	ppb	06:12:26
1	Mo 202.031†	61.9	48.6	1.6340	µg/L	1.6340	ppb	06:12:26
1	Ni 231.604†	125.8	-20.8	-0.5293	µg/L	-0.5293	ppb	06:12:26
1	P 214.914†	-73.4	-7.7	-4.7352	µg/L	-4.7352	ppb	06:12:26
1	Pb 220.353†	-105.8	-7.8	-0.8796	µg/L	-0.8796	ppb	06:12:26
1	S 181.975 Axial†	150.9	-9.3	-8.4484	µg/L	-8.4484	ppb	06:12:26
1	Sb 206.836†	69.9	13.4	7.5707	µg/L	7.5707	ppb	06:12:26
1	Se 196.026†	50.4	2.8	1.21	µg/L	1.21	ppb	06:12:26
1	SiO2†	1635.2	65.5	6.8733	µg/L	6.8733	ppb	06:12:06
1	Si 251.611†	504.7	19.3	0.5505	µg/L	0.5505	ppb	06:12:26
1	Sn 189.927†	43.9	8.7	1.1400	µg/L	1.1400	ppb	06:12:26
1	Ti 334.940†	-943.6	-64.6	-0.1217	µg/L	-0.1217	ppb	06:12:06
1	Tl 190.801†	-128.4	1.0	0.2444	µg/L	0.2444	ppb	06:12:26
1	U 367.007†	-698.3	-54.8	-9.9015	µg/L	-9.9015	ppb	06:12:06
1	V 292.402†	94.1	-69.6	-0.5666	µg/L	-0.5666	ppb	06:12:06
1	Zn 213.857†	872.9	-76.1	-0.7813	µg/L	-0.7813	ppb	06:12:26
2	Sc RADIAL	22972.3	22972.3	101	%			06:11:21
2	Al 396.153Radial†	152.2	-38.9	-19.451	µg/L	-19.451	ppb	06:11:21
2	Ca 317.933Radial†	156.2	-15.3	-4.7004	µg/L	-4.7004	ppb	06:11:41
2	Fe 238.204 Radial†	14.1	0.3	0.2129	µg/L	0.2129	ppb	06:11:41
2	K 766.490 Radial†	1170.9	111.6	113.70	µg/L	113.70	ppb	06:11:21
2	Mg 279.077 IEC†	-11.7	-1.2	-4.0831	µg/L	-4.0831	ppb	06:11:41
2	Na 589.592 Radial†	964.7	-105.2	-20.912	µg/L	-20.912	ppb	06:11:21
2	Sr 421.552†	24.3	-126.6	-0.5524	µg/L	-0.5524	ppb	06:11:21
2	Sc 361.383	1128554.7	1128554.7	101.35	%			06:12:29
2	Y 371.029	694975.0	694975.0	102.04	%			06:12:29
2	Ag 328.068†	-1098.1	-83.9	-0.4241	µg/L	-0.4241	ppb	06:12:29
2	As 188.979†	-33.3	5.5	2.3842	µg/L	2.3842	ppb	06:12:49
2	B 249.677†	-817.2	-17.4	-0.3587	µg/L	-0.3587	ppb	06:12:29
2	Ba 233.527†	-229.7	22.6	0.1336	µg/L	0.1336	ppb	06:12:49
2	Be 313.107†	-7168.2	254.8	0.0945	µg/L	0.0945	ppb	06:12:29
2	Cd 226.502†	-330.3	5.6	0.0285	µg/L	0.0285	ppb	06:12:49
2	Co 228.616†	-104.7	-0.9	-0.0265	µg/L	-0.0265	ppb	06:12:49
2	Cr 267.716†	275.0	-40.4	-0.3009	µg/L	-0.3009	ppb	06:12:29
2	Cu 324.752†	3611.6	68.8	0.2723	µg/L	0.2723	ppb	06:12:29
2	Mn 257.610†	765.4	1.0	0.0014	µg/L	0.0014	ppb	06:12:49
2	Mo 202.031†	65.0	50.2	1.6883	µg/L	1.6883	ppb	06:12:49
2	Ni 231.604†	145.7	-4.1	-0.1039	µg/L	-0.1039	ppb	06:12:49
2	P 214.914†	-57.0	10.2	6.1339	µg/L	6.1339	ppb	06:12:49
2	Pb 220.353†	-113.2	-12.8	-1.4368	µg/L	-1.4368	ppb	06:12:49

2	S 181.975 Axial†	158.6	-5.1	-4.6559	µg/L	-4.6559	ppb	06:12:49
2	Sb 206.836†	57.3	-0.6	-0.3318	µg/L	-0.3318	ppb	06:12:49
2	Se 196.026†	45.0	-3.7	-1.60	µg/L	-1.60	ppb	06:12:49
2	SiO2†	1689.2	81.7	8.5670	µg/L	8.5670	ppb	06:12:29
2	Si 251.611†	516.0	19.1	0.5441	µg/L	0.5441	ppb	06:12:49
2	Sn 189.927†	29.3	-6.6	-0.8675	µg/L	-0.8675	ppb	06:12:49
2	Ti 334.940†	-934.3	-34.0	-0.0638	µg/L	-0.0638	ppb	06:12:29
2	Tl 190.801†	-120.9	11.3	2.7624	µg/L	2.7624	ppb	06:12:49
2	U 367.007†	-555.9	101.5	18.351	µg/L	18.351	ppb	06:12:29
2	V 292.402†	170.4	3.6	0.0440	µg/L	0.0440	ppb	06:12:29
2	Zn 213.857†	854.1	-114.4	-1.1790	µg/L	-1.1790	ppb	06:12:49
3	Sc RADIAL	22990.3	22990.3	101	%			06:11:43
3	Al 396.153Radial†	161.5	-29.7	-14.885	µg/L	-14.885	ppb	06:11:43
3	Ca 317.933Radial†	150.3	-21.3	-6.5307	µg/L	-6.5307	ppb	06:12:03
3	Fe 238.204 Radial†	10.3	-3.4	-2.1508	µg/L	-2.1508	ppb	06:12:03
3	K 766.490 Radial†	1159.2	99.2	101.06	µg/L	101.06	ppb	06:11:43
3	Mg 279.077 IEC†	-6.3	4.1	13.535	µg/L	13.535	ppb	06:12:03
3	Na 589.592 Radial†	889.9	-180.1	-35.787	µg/L	-35.787	ppb	06:11:43
3	Sr 421.552†	163.4	11.2	0.0492	µg/L	0.0492	ppb	06:11:43
3	Sc 361.383	1110078.9	1110078.9	99.692	%			06:12:51
3	Y 371.029	681832.7	681832.7	100.11	%			06:12:51
3	Ag 328.068†	-996.7	-0.2	-0.0005	µg/L	-0.0005	ppb	06:12:51
3	As 188.979†	-40.8	-2.6	-1.1437	µg/L	-1.1437	ppb	06:13:11
3	B 249.677†	-622.4	164.5	3.4371	µg/L	3.4371	ppb	06:12:51
3	Ba 233.527†	-226.2	22.4	0.1312	µg/L	0.1312	ppb	06:13:11
3	Be 313.107†	-7152.5	152.8	0.0566	µg/L	0.0566	ppb	06:12:51
3	Cd 226.502†	-310.9	19.6	0.1002	µg/L	0.1002	ppb	06:13:11
3	Co 228.616†	-99.5	2.5	0.0722	µg/L	0.0722	ppb	06:13:11
3	Cr 267.716†	276.6	-34.2	-0.2556	µg/L	-0.2556	ppb	06:12:51
3	Cu 324.752†	3466.0	-17.9	-0.0712	µg/L	-0.0712	ppb	06:12:51
3	Mn 257.610†	744.9	-7.0	-0.0096	µg/L	-0.0096	ppb	06:13:11
3	Mo 202.031†	53.0	39.2	1.3204	µg/L	1.3204	ppb	06:13:11
3	Ni 231.604†	122.9	-24.6	-0.6240	µg/L	-0.6240	ppb	06:13:11
3	P 214.914†	-71.2	-5.1	-3.1126	µg/L	-3.1126	ppb	06:13:11
3	Pb 220.353†	-95.9	2.8	0.3112	µg/L	0.3112	ppb	06:13:11
3	S 181.975 Axial†	159.7	-1.4	-1.2681	µg/L	-1.2681	ppb	06:13:11
3	Sb 206.836†	66.8	9.8	5.5629	µg/L	5.5629	ppb	06:13:11
3	Se 196.026†	56.1	8.2	3.57	µg/L	3.57	ppb	06:13:11
3	SiO2†	1628.7	48.8	5.1169	µg/L	5.1169	ppb	06:12:51
3	Si 251.611†	519.8	31.3	0.8919	µg/L	0.8919	ppb	06:13:11
3	Sn 189.927†	40.1	4.7	0.6062	µg/L	0.6062	ppb	06:13:11
3	Ti 334.940†	-939.7	-54.8	-0.1030	µg/L	-0.1030	ppb	06:12:51
3	Tl 190.801†	-125.8	4.3	1.0672	µg/L	1.0672	ppb	06:13:11
3	U 367.007†	-581.3	66.8	12.099	µg/L	12.099	ppb	06:12:51
3	V 292.402†	55.8	-108.6	-0.8963	µg/L	-0.8963	ppb	06:12:51
3	Zn 213.857†	836.8	-117.8	-1.2102	µg/L	-1.2102	ppb	06:13:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1113954.6	100.04	%	1.176				1.18%
Sc RADIAL	22948.7	101	%	0.3				0.25%
Y 371.029	684610.0	100.52	%	1.364				1.36%
Ag 328.068†	-100.9	-0.5105	µg/L	0.55825	-0.5105	ppb	0.55825	109.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-37.3	-18.643	µg/L	3.4269	-18.643	ppb	3.4269	18.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.4918	µg/L	1.77794	0.4918	ppb	1.77794	361.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	67.2	1.4032	µg/L	1.91248	1.4032	ppb	1.91248	136.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.7	0.1220	µg/L	0.01804	0.1220	ppb	0.01804	14.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	180.6	0.0670	µg/L	0.02407	0.0670	ppb	0.02407	35.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.2	-6.5046	µg/L	1.79135	-6.5046	ppb	1.79135	27.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.1	0.0722	µg/L	0.03830	0.0722	ppb	0.03830	53.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.5	-0.0981	µg/L	0.21526	-0.0981	ppb	0.21526	219.36%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -21.7     -0.1619 µg/L       0.20275     -0.1619 ppb        0.20275 125.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               45.4      0.1790 µg/L       0.21899      0.1790 ppb        0.21899 122.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.5     -1.5337 µg/L       1.53420     -1.5337 ppb        1.53420 100.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         94.1      95.904 µg/L       20.8589      95.904 ppb        20.8589  21.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      6.8465 µg/L       9.54404      6.8465 ppb        9.54404 139.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                5.5      0.0073 µg/L       0.02046      0.0073 ppb        0.02046 281.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               46.0      1.5476 µg/L       0.19856      1.5476 ppb        0.19856  12.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -79.3     -15.760 µg/L       23.0394     -15.760 ppb        23.0394 146.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.5     -0.4191 µg/L       0.27705     -0.4191 ppb        0.27705  66.11%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.5713 µg/L       5.86330     -0.5713 ppb        5.86330 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.9     -0.6684 µg/L       0.89298     -0.6684 ppb        0.89298 133.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.3     -4.7908 µg/L       3.59207     -4.7908 ppb        3.59207  74.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.5      4.2672 µg/L       4.10748      4.2672 ppb        4.10748  96.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4        1.06 µg/L         2.588        1.06 ppb          2.588 243.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     65.3      6.8524 µg/L       1.72514      6.8524 ppb        1.72514  25.18%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               23.2      0.6622 µg/L       0.19899      0.6622 ppb        0.19899  30.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.2      0.2929 µg/L       1.03974      0.2929 ppb        1.03974 354.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -16.1     -0.0700 µg/L       0.43524     -0.0700 ppb        0.43524 622.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -51.1     -0.0962 µg/L       0.02956     -0.0962 ppb        0.02956  30.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.5      1.3580 µg/L       1.28394      1.3580 ppb        1.28394  94.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                37.8      6.8494 µg/L      14.83970      6.8494 ppb       14.83970 216.66%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†               -58.2     -0.4729 µg/L       0.47708     -0.4729 ppb        0.47708 100.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -102.7     -1.0568 µg/L       0.23912     -1.0568 ppb        0.23912  22.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 101**
Sample ID: PQL **Date Collected: 9/1/2011 06:13:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23065.4	23065.4	101	%			06:13:49
1	Al 396.153Radial†	540.3	343.7	171.20	µg/L	171.20	ppb	06:13:49
1	Ca 317.933Radial†	849.1	668.1	205.02	µg/L	205.02	ppb	06:14:09
1	Fe 238.204 Radial†	177.4	161.5	100.73	µg/L	100.73	ppb	06:14:09
1	K 766.490 Radial†	1355.1	288.8	294.24	µg/L	294.24	ppb	06:13:49
1	Mg 279.077 IEC†	88.0	97.3	322.83	µg/L	322.83	ppb	06:14:09
1	Na 589.592 Radial†	2584.2	1489.9	296.05	µg/L	296.05	ppb	06:13:49
1	Sr 421.552†	1269.3	1102.6	4.8084	µg/L	4.8084	ppb	06:13:49
1	Sc 361.383	1114793.1	1114793.1	100.11	%			06:14:56
1	Y 371.029	686353.2	686353.2	100.77	%			06:14:56
1	Ag 328.068†	-62.8	936.8	4.7556	µg/L	4.7556	ppb	06:14:56
1	As 188.979†	34.9	73.2	32.018	µg/L	32.018	ppb	06:15:16
1	B 249.677†	1828.2	2615.0	55.463	µg/L	55.463	ppb	06:14:56
1	Ba 233.527†	648.1	896.7	5.3063	µg/L	5.3063	ppb	06:15:16
1	Be 313.107†	6626.1	13946.0	5.1753	µg/L	5.1753	ppb	06:14:56
1	Cd 226.502†	695.6	1026.3	5.2234	µg/L	5.2234	ppb	06:15:16
1	Co 228.616†	78.5	180.8	5.1265	µg/L	5.1265	ppb	06:15:16
1	Cr 267.716†	959.6	646.8	4.8264	µg/L	4.8264	ppb	06:14:56
1	Cu 324.752†	6284.9	2783.1	11.008	µg/L	11.008	ppb	06:14:56
1	Mn 257.610†	8570.7	7806.7	10.488	µg/L	10.488	ppb	06:14:56
1	Mo 202.031†	322.3	308.0	10.370	µg/L	10.370	ppb	06:15:16
1	Ni 231.604†	309.2	161.0	4.0881	µg/L	4.0881	ppb	06:15:16
1	P 214.914†	187.3	253.4	153.53	µg/L	153.53	ppb	06:15:16
1	Pb 220.353†	-31.1	67.9	7.6795	µg/L	7.6795	ppb	06:15:16
1	S 181.975 Axial†	273.5	111.6	101.77	µg/L	101.77	ppb	06:15:16
1	Sb 206.836†	70.0	12.8	7.3098	µg/L	7.3098	ppb	06:15:16
1	Se 196.026†	103.5	55.3	24.2	µg/L	24.2	ppb	06:15:16
1	SiO2†	3666.6	2077.4	218.08	µg/L	218.08	ppb	06:14:56
1	Si 251.611†	3974.9	3480.3	99.190	µg/L	99.190	ppb	06:15:16
1	Sn 189.927†	119.7	84.0	10.991	µg/L	10.991	ppb	06:15:16
1	Ti 334.940†	1662.0	2548.0	4.8578	µg/L	4.8578	ppb	06:14:56
1	Tl 190.801†	-47.3	83.4	20.483	µg/L	20.483	ppb	06:15:16
1	U 367.007†	-215.0	435.2	78.073	µg/L	78.073	ppb	06:14:56
1	V 292.402†	703.6	538.3	4.5866	µg/L	4.5866	ppb	06:14:56
1	Zn 213.857†	1908.2	948.9	9.7423	µg/L	9.7423	ppb	06:15:16
2	Sc RADIAL	22860.7	22860.7	100	%			06:14:11
2	Al 396.153Radial†	627.0	434.8	216.69	µg/L	216.69	ppb	06:14:11
2	Ca 317.933Radial†	857.3	683.9	209.85	µg/L	209.85	ppb	06:14:31
2	Fe 238.204 Radial†	181.5	167.1	104.23	µg/L	104.23	ppb	06:14:31
2	K 766.490 Radial†	1326.7	272.5	277.61	µg/L	277.61	ppb	06:14:11
2	Mg 279.077 IEC†	95.3	105.3	349.52	µg/L	349.52	ppb	06:14:31
2	Na 589.592 Radial†	2541.1	1469.8	292.06	µg/L	292.06	ppb	06:14:11
2	Sr 421.552†	1310.8	1155.1	5.0376	µg/L	5.0376	ppb	06:14:11
2	Sc 361.383	1109421.9	1109421.9	99.633	%			06:15:19
2	Y 371.029	684013.4	684013.4	100.43	%			06:15:19
2	Ag 328.068†	-12.6	986.9	5.0096	µg/L	5.0096	ppb	06:15:19
2	As 188.979†	41.2	79.7	34.864	µg/L	34.864	ppb	06:15:39
2	B 249.677†	1729.6	2524.8	53.597	µg/L	53.597	ppb	06:15:19
2	Ba 233.527†	662.0	913.7	5.4071	µg/L	5.4071	ppb	06:15:39
2	Be 313.107†	6684.6	14036.7	5.2091	µg/L	5.2091	ppb	06:15:19
2	Cd 226.502†	688.1	1022.1	5.2029	µg/L	5.2029	ppb	06:15:39
2	Co 228.616†	81.2	183.8	5.2118	µg/L	5.2118	ppb	06:15:39
2	Cr 267.716†	963.4	655.3	4.8894	µg/L	4.8894	ppb	06:15:19
2	Cu 324.752†	6088.1	2615.9	10.347	µg/L	10.347	ppb	06:15:19
2	Mn 257.610†	8470.1	7747.2	10.408	µg/L	10.408	ppb	06:15:19
2	Mo 202.031†	322.0	309.3	10.413	µg/L	10.413	ppb	06:15:39
2	Ni 231.604†	346.0	199.5	5.0663	µg/L	5.0663	ppb	06:15:39
2	P 214.914†	185.2	252.3	152.88	µg/L	152.88	ppb	06:15:39
2	Pb 220.353†	-5.7	93.3	10.543	µg/L	10.543	ppb	06:15:39

2	S 181.975 Axial†	261.9	101.3	92.384 µg/L	92.384 ppb	06:15:39
2	Sb 206.836†	71.4	14.5	8.2511 µg/L	8.2511 ppb	06:15:39
2	Se 196.026†	115.0	67.4	29.5 µg/L	29.5 ppb	06:15:39
2	SiO2†	3548.5	1976.6	207.49 µg/L	207.49 ppb	06:15:19
2	Si 251.611†	3984.5	3509.1	100.01 µg/L	100.01 ppb	06:15:39
2	Sn 189.927†	115.1	79.9	10.451 µg/L	10.451 ppb	06:15:39
2	Ti 334.940†	1533.8	2427.3	4.6290 µg/L	4.6290 ppb	06:15:19
2	Tl 190.801†	-40.4	90.0	22.117 µg/L	22.117 ppb	06:15:39
2	U 367.007†	-438.1	210.2	37.365 µg/L	37.365 ppb	06:15:19
2	V 292.402†	692.6	530.6	4.5224 µg/L	4.5224 ppb	06:15:19
2	Zn 213.857†	1888.0	937.8	9.6217 µg/L	9.6217 ppb	06:15:39
3	Sc RADIAL	22882.4	22882.4	100 %		06:14:33
3	Al 396.153Radial†	652.6	459.8	229.15 µg/L	229.15 ppb	06:14:33
3	Ca 317.933Radial†	835.0	660.9	202.79 µg/L	202.79 ppb	06:14:53
3	Fe 238.204 Radial†	174.8	160.3	99.991 µg/L	99.991 ppb	06:14:53
3	K 766.490 Radial†	1375.1	319.4	325.37 µg/L	325.37 ppb	06:14:33
3	Mg 279.077 IEC†	89.4	99.3	329.53 µg/L	329.53 ppb	06:14:53
3	Na 589.592 Radial†	2706.7	1632.2	324.33 µg/L	324.33 ppb	06:14:33
3	Sr 421.552†	1428.0	1270.5	5.5413 µg/L	5.5413 ppb	06:14:33
3	Sc 361.383	1115424.7	1115424.7	100.17 %		06:15:41
3	Y 371.029	685795.3	685795.3	100.69 %		06:15:41
3	Ag 328.068†	92.1	1091.4	5.5388 µg/L	5.5388 ppb	06:15:41
3	As 188.979†	35.8	74.0	32.400 µg/L	32.400 ppb	06:16:01
3	B 249.677†	1646.8	2432.8	51.639 µg/L	51.639 ppb	06:15:41
3	Ba 233.527†	604.0	852.3	5.0452 µg/L	5.0452 ppb	06:16:01
3	Be 313.107†	6460.2	13776.7	5.1123 µg/L	5.1123 ppb	06:15:41
3	Cd 226.502†	634.7	965.0	4.9109 µg/L	4.9109 ppb	06:16:01
3	Co 228.616†	73.1	175.4	4.9721 µg/L	4.9721 ppb	06:16:01
3	Cr 267.716†	950.8	637.5	4.7576 µg/L	4.7576 ppb	06:15:41
3	Cu 324.752†	5928.6	2423.8	9.5875 µg/L	9.5875 ppb	06:15:41
3	Mn 257.610†	8433.3	7664.7	10.297 µg/L	10.297 ppb	06:15:41
3	Mo 202.031†	301.8	287.4	9.6759 µg/L	9.6759 ppb	06:16:01
3	Ni 231.604†	342.8	194.3	4.9353 µg/L	4.9353 ppb	06:16:01
3	P 214.914†	169.2	235.3	142.58 µg/L	142.58 ppb	06:16:01
3	Pb 220.353†	-5.9	93.1	10.525 µg/L	10.525 ppb	06:16:01
3	S 181.975 Axial†	270.8	108.7	99.116 µg/L	99.116 ppb	06:16:01
3	Sb 206.836†	71.2	13.9	7.9155 µg/L	7.9155 ppb	06:16:01
3	Se 196.026†	111.5	63.2	27.7 µg/L	27.7 ppb	06:16:01
3	SiO2†	3603.2	2012.1	211.22 µg/L	211.22 ppb	06:15:41
3	Si 251.611†	3822.7	3326.1	94.796 µg/L	94.796 ppb	06:16:01
3	Sn 189.927†	99.2	63.4	8.3018 µg/L	8.3018 ppb	06:16:01
3	Ti 334.940†	1821.7	2706.4	5.1589 µg/L	5.1589 ppb	06:15:41
3	Tl 190.801†	-41.6	89.0	21.869 µg/L	21.869 ppb	06:16:01
3	U 367.007†	-274.9	375.6	67.288 µg/L	67.288 ppb	06:15:41
3	V 292.402†	844.0	678.0	5.7481 µg/L	5.7481 ppb	06:15:41
3	Zn 213.857†	1824.3	864.1	8.8639 µg/L	8.8639 ppb	06:16:01

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1113213.2	99.973	%	0.2962				0.30%
Sc RADIAL	22936.1	101	%	0.5				0.49%
Y 371.029	685387.3	100.63	%	0.179				0.18%
Ag 328.068†	1005.1	5.1013	µg/L	0.39955	5.1013	ppb	0.39955	7.83%
QC value within limits for Ag 328.068 Recovery = 102.03%								
Al 396.153Radial†	412.8	205.68	µg/L	30.503	205.68	ppb	30.503	14.83%
QC value within limits for Al 396.153Radial Recovery = 102.84%								
As 188.979†	75.6	33.094	µg/L	1.5448	33.094	ppb	1.5448	4.67%
QC value within limits for As 188.979 Recovery = 110.31%								
B 249.677†	2524.2	53.566	µg/L	1.9119	53.566	ppb	1.9119	3.57%
QC value within limits for B 249.677 Recovery = 107.13%								
Ba 233.527†	887.5	5.2529	µg/L	0.18677	5.2529	ppb	0.18677	3.56%
QC value within limits for Ba 233.527 Recovery = 105.06%								
Be 313.107†	13919.8	5.1656	µg/L	0.04911	5.1656	ppb	0.04911	0.95%
QC value within limits for Be 313.107 Recovery = 103.31%								
Ca 317.933Radial†	671.0	205.89	µg/L	3.610	205.89	ppb	3.610	1.75%
QC value within limits for Ca 317.933Radial Recovery = 102.94%								
Cd 226.502†	1004.5	5.1124	µg/L	0.17481	5.1124	ppb	0.17481	3.42%
QC value within limits for Cd 226.502 Recovery = 102.25%								
Co 228.616†	180.0	5.1034	µg/L	0.12150	5.1034	ppb	0.12150	2.38%

```
   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†              646.6      4.8245 µg/L       0.06594      4.8245 ppb        0.06594   1.37%
   QC value within limits for Cr 267.716  Recovery = 96.49%
Cu 324.752†             2607.6      10.314 µg/L        0.7109      10.314 ppb         0.7109   6.89%
   QC value within limits for Cu 324.752  Recovery = 103.14%
Fe 238.204 Radial†       163.0      101.65 µg/L         2.266      101.65 ppb          2.266   2.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.65%
K 766.490 Radial†        293.6      299.08 µg/L        24.246      299.08 ppb         24.246   8.11%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 199.38%
Mg 279.077 IEC†          100.6      333.96 µg/L        13.885      333.96 ppb         13.885   4.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 111.32%
Mn 257.610†             7739.5      10.398 µg/L        0.0959      10.398 ppb         0.0959   0.92%
   QC value within limits for Mn 257.610  Recovery = 103.98%
Mo 202.031†              301.5      10.153 µg/L        0.4138      10.153 ppb         0.4138   4.08%
   QC value within limits for Mo 202.031  Recovery = 101.53%
Na 589.592 Radial†      1530.6      304.14 µg/L        17.593      304.14 ppb         17.593   5.78%
   QC value within limits for Na 589.592 Radial  Recovery = 101.38%
Ni 231.604†              184.9      4.6966 µg/L       0.53100      4.6966 ppb        0.53100  11.31%
   QC value within limits for Ni 231.604  Recovery = 93.93%
P 214.914†               247.0      149.67 µg/L         6.144      149.67 ppb          6.144   4.10%
   QC value within limits for P 214.914  Recovery = 99.78%
Pb 220.353†               84.7      9.5824 µg/L       1.64798      9.5824 ppb        1.64798  17.20%
   QC value within limits for Pb 220.353  Recovery = 95.82%
S 181.975 Axial†         107.2      97.756 µg/L        4.8375      97.756 ppb         4.8375   4.95%
   QC value within limits for S 181.975 Axial  Recovery = 97.76%
Sb 206.836†               13.7      7.8255 µg/L       0.47710      7.8255 ppb        0.47710   6.10%
   QC value within limits for Sb 206.836  Recovery = 78.25%
Se 196.026†               62.0        27.1 µg/L          2.67        27.1 ppb           2.67   9.85%
   QC value within limits for Se 196.026  Recovery = 90.35%
SiO2†                   2022.0      212.26 µg/L         5.368      212.26 ppb          5.368   2.53%
   QC value within limits for SiO2  Recovery = 99.65%
Si 251.611†             3438.5      97.999 µg/L        2.8045      97.999 ppb         2.8045   2.86%
   QC value within limits for Si 251.611  Recovery = 98.00%
Sn 189.927†               75.8      9.9146 µg/L       1.42249      9.9146 ppb        1.42249  14.35%
   QC value within limits for Sn 189.927  Recovery = 99.15%
Sr 421.552†             1176.1      5.1291 µg/L       0.37493      5.1291 ppb        0.37493   7.31%
   QC value within limits for Sr 421.552  Recovery = 102.58%
Ti 334.940†             2560.6      4.8819 µg/L       0.26580      4.8819 ppb        0.26580   5.44%
   QC value within limits for Ti 334.940  Recovery = 97.64%
Tl 190.801†               87.5      21.490 µg/L        0.8804      21.490 ppb         0.8804   4.10%
   QC value within limits for Tl 190.801  Recovery = 107.45%
U 367.007†               340.3      60.909 µg/L       21.0904      60.909 ppb        21.0904  34.63%
   QC value within limits for U 367.007  Recovery = 121.82%
V 292.402†               582.3      4.9524 µg/L       0.68986      4.9524 ppb        0.68986  13.93%
   QC value within limits for V 292.402  Recovery = 99.05%
Zn 213.857†              916.9      9.4093 µg/L       0.47615      9.4093 ppb        0.47615   5.06%
   QC value within limits for Zn 213.857  Recovery = 94.09%
QC Failed.  Continue with analysis.
```

Sequence No.: 9 **Autosampler Location: 103**
Sample ID: ICSA **Date Collected: 9/1/2011 06:16:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21430.4	21430.4	94.1	%			06:16:42
1	Al 396.153Radial†	954715.8	1014376.1	506270	µg/L	506270	ppb	06:16:39
1	Ca 317.933Radial†	1535024.3	1631083.0	500510	µg/L	500510	ppb	06:16:39
1	Fe 238.204 Radial†	295410.1	313915.4	195930	µg/L	195930	ppb	06:16:42
1	K 766.490 Radial†	1147.2	170.0	-42.048	µg/L	-42.048	ppb	06:16:42
1	Mg 279.077 IEC†	138729.9	147437.1	489270	µg/L	489270	ppb	06:16:42
1	Na 589.592 Radial†	1358.9	382.4	75.993	µg/L	75.993	ppb	06:16:42
1	Sr 421.552†	899.5	805.2	-5.4420	µg/L	-5.4420	ppb	06:16:42
1	Sc 361.383	1000668.4	1000668.4	89.866	%			06:16:53
1	Y 371.029	613896.0	613896.0	90.133	%			06:16:53
1	Ag 328.068†	-2816.7	-2134.8	-8.2012	µg/L	-8.2012	ppb	06:16:53
1	As 188.979†	-107.5	-81.3	-12.546	µg/L	-12.546	ppb	06:17:14
1	B 249.677†	-57470.6	-63162.7	-51.283	µg/L	-51.283	ppb	06:16:53
1	Ba 233.527†	133.0	397.3	0.3324	µg/L	0.3324	ppb	06:17:14
1	Be 313.107†	-17977.8	-12677.7	-1.6568	µg/L	-1.6568	ppb	06:16:53
1	Cd 226.502†	2702.2	3338.4	-0.1923	µg/L	-0.1923	ppb	06:16:53
1	Co 228.616†	15.9	120.1	-0.9364	µg/L	-0.9364	ppb	06:17:14
1	Cr 267.716†	114.6	-184.1	1.3013	µg/L	1.3013	ppb	06:17:14
1	Cu 324.752†	3950.0	900.8	10.623	µg/L	10.623	ppb	06:16:53
1	Mn 257.610†	5611.0	5489.5	1.7660	µg/L	1.7660	ppb	06:16:53
1	Mo 202.031†	-185.9	-220.8	4.3057	µg/L	4.3057	ppb	06:16:53
1	Ni 231.604†	109.2	-26.3	0.4482	µg/L	0.4482	ppb	06:17:14
1	P 214.914†	-413.1	-393.3	-37.305	µg/L	-37.305	ppb	06:17:14
1	Pb 220.353†	-606.5	-575.9	9.1334	µg/L	9.1334	ppb	06:17:14
1	S 181.975 Axial†	252.7	119.6	53.627	µg/L	53.627	ppb	06:17:14
1	Sb 206.836†	47.8	-4.0	3.1939	µg/L	3.1939	ppb	06:17:14
1	Se 196.026†	-229.8	-303.7	-4.78	µg/L	-4.78	ppb	06:17:14
1	SiO2†	1143.4	-312.6	-32.827	µg/L	-32.827	ppb	06:17:14
1	Si 251.611†	653.2	236.8	6.7490	µg/L	6.7490	ppb	06:17:14
1	Sn 189.927†	-159.9	-213.5	-5.0801	µg/L	-5.0801	ppb	06:17:14
1	Ti 334.940†	-8591.2	-8672.2	-3.9385	µg/L	-3.9385	ppb	06:16:53
1	Tl 190.801†	-205.5	-98.1	-19.953	µg/L	-19.953	ppb	06:17:14
1	U 367.007†	5671.6	6961.1	25.845	µg/L	25.845	ppb	06:16:53
1	V 292.402†	2212.0	2296.9	-7.0381	µg/L	-7.0381	ppb	06:17:14
1	Zn 213.857†	3474.8	2909.5	10.348	µg/L	10.348	ppb	06:17:14
2	Sc RADIAL	21503.0	21503.0	94.4	%			06:16:46
2	Al 396.153Radial†	951254.0	1007286.3	502740	µg/L	502740	ppb	06:16:44
2	Ca 317.933Radial†	1524804.9	1614755.5	495500	µg/L	495500	ppb	06:16:44
2	Fe 238.204 Radial†	296468.0	313976.6	195970	µg/L	195970	ppb	06:16:46
2	K 766.490 Radial†	1128.5	146.0	-65.802	µg/L	-65.802	ppb	06:16:46
2	Mg 279.077 IEC†	139843.8	148119.4	491530	µg/L	491530	ppb	06:16:46
2	Na 589.592 Radial†	1319.1	335.4	66.651	µg/L	66.651	ppb	06:16:46
2	Sr 421.552†	893.2	795.3	-5.3955	µg/L	-5.3955	ppb	06:16:46
2	Sc 361.383	1001153.1	1001153.1	89.909	%			06:17:16
2	Y 371.029	610386.1	610386.1	89.618	%			06:17:16
2	Ag 328.068†	-2575.4	-1864.9	-6.8496	µg/L	-6.8496	ppb	06:17:16
2	As 188.979†	-120.0	-95.2	-18.633	µg/L	-18.633	ppb	06:17:36
2	B 249.677†	-57340.6	-62987.2	-47.367	µg/L	-47.367	ppb	06:17:16
2	Ba 233.527†	131.3	395.3	0.3207	µg/L	0.3207	ppb	06:17:36
2	Be 313.107†	-18058.5	-12757.8	-1.7172	µg/L	-1.7172	ppb	06:17:16
2	Cd 226.502†	2794.2	3439.2	0.3187	µg/L	0.3187	ppb	06:17:16
2	Co 228.616†	24.2	129.3	-0.6745	µg/L	-0.6745	ppb	06:17:36
2	Cr 267.716†	54.2	-251.3	0.7876	µg/L	0.7876	ppb	06:17:36
2	Cu 324.752†	3934.6	881.5	10.481	µg/L	10.481	ppb	06:17:16
2	Mn 257.610†	5660.2	5541.3	1.8036	µg/L	1.8036	ppb	06:17:16
2	Mo 202.031†	-263.9	-307.4	1.3916	µg/L	1.3916	ppb	06:17:16
2	Ni 231.604†	127.9	-5.5	0.9755	µg/L	0.9755	ppb	06:17:36
2	P 214.914†	-406.8	-386.1	-35.413	µg/L	-35.413	ppb	06:17:36
2	Pb 220.353†	-573.0	-538.3	12.848	µg/L	12.848	ppb	06:17:36

2	S 181.975 Axial†	248.8	115.1	49.774	µg/L	49.774	ppb	06:17:36
2	Sb 206.836†	54.7	3.6	7.4453	µg/L	7.4453	ppb	06:17:36
2	Se 196.026†	-220.2	-292.9	-0.055	µg/L	-0.055	ppb	06:17:36
2	SiO2†	1124.8	-333.9	-35.070	µg/L	-35.070	ppb	06:17:36
2	Si 251.611†	664.6	249.1	7.1000	µg/L	7.1000	ppb	06:17:36
2	Sn 189.927†	-144.7	-196.5	-3.1085	µg/L	-3.1085	ppb	06:17:36
2	Ti 334.940†	-8380.6	-8433.3	-3.4229	µg/L	-3.4229	ppb	06:17:16
2	Tl 190.801†	-204.9	-97.3	-19.760	µg/L	-19.760	ppb	06:17:36
2	U 367.007†	5689.9	6978.5	28.802	µg/L	28.802	ppb	06:17:16
2	V 292.402†	2240.6	2327.5	-6.8094	µg/L	-6.8094	ppb	06:17:36
2	Zn 213.857†	3481.4	2915.0	10.398	µg/L	10.398	ppb	06:17:36
3	Sc RADIAL	21402.3	21402.3	94.0	%			06:16:50
3	Al 396.153Radial†	956687.6	1017809.9	507990	µg/L	507990	ppb	06:16:48
3	Ca 317.933Radial†	1539802.7	1638315.1	502730	µg/L	502730	ppb	06:16:48
3	Fe 238.204 Radial†	295765.6	314706.9	196430	µg/L	196430	ppb	06:16:50
3	K 766.490 Radial†	1132.7	156.1	-57.314	µg/L	-57.314	ppb	06:16:50
3	Mg 279.077 IEC†	139447.9	148395.2	492450	µg/L	492450	ppb	06:16:50
3	Na 589.592 Radial†	1225.4	242.3	48.147	µg/L	48.147	ppb	06:16:50
3	Sr 421.552†	970.2	881.7	-5.1477	µg/L	-5.1477	ppb	06:16:50
3	Sc 361.383	991663.8	991663.8	89.057	%			06:17:38
3	Y 371.029	607130.6	607130.6	89.140	%			06:17:38
3	Ag 328.068†	-2487.1	-1793.2	-6.4589	µg/L	-6.4589	ppb	06:17:38
3	As 188.979†	-105.2	-79.8	-11.859	µg/L	-11.859	ppb	06:17:58
3	B 249.677†	-56903.1	-63106.2	-46.884	µg/L	-46.884	ppb	06:17:38
3	Ba 233.527†	131.9	397.4	0.3291	µg/L	0.3291	ppb	06:17:58
3	Be 313.107†	-17939.6	-12816.4	-1.6948	µg/L	-1.6948	ppb	06:17:38
3	Cd 226.502†	2687.3	3349.0	-0.1817	µg/L	-0.1817	ppb	06:17:38
3	Co 228.616†	31.1	137.3	-0.4598	µg/L	-0.4598	ppb	06:17:58
3	Cr 267.716†	85.2	-216.0	1.0590	µg/L	1.0590	ppb	06:17:58
3	Cu 324.752†	3562.1	505.1	9.0165	µg/L	9.0165	ppb	06:17:38
3	Mn 257.610†	5473.6	5392.0	1.5932	µg/L	1.5932	ppb	06:17:38
3	Mo 202.031†	-108.8	-136.1	7.1883	µg/L	7.1883	ppb	06:17:38
3	Ni 231.604†	99.3	-36.3	0.1950	µg/L	0.1950	ppb	06:17:58
3	P 214.914†	-394.0	-376.1	-25.996	µg/L	-25.996	ppb	06:17:58
3	Pb 220.353†	-573.2	-544.7	12.904	µg/L	12.904	ppb	06:17:58
3	S 181.975 Axial†	254.7	124.4	57.690	µg/L	57.690	ppb	06:17:58
3	Sb 206.836†	50.3	-0.6	5.1313	µg/L	5.1313	ppb	06:17:58
3	Se 196.026†	-247.9	-326.5	-14.4	µg/L	-14.4	ppb	06:17:58
3	SiO2†	1149.6	-294.1	-30.890	µg/L	-30.890	ppb	06:17:58
3	Si 251.611†	686.3	280.5	7.9949	µg/L	7.9949	ppb	06:17:58
3	Sn 189.927†	-149.6	-203.6	-3.6870	µg/L	-3.6870	ppb	06:17:58
3	Ti 334.940†	-8548.8	-8711.3	-3.9291	µg/L	-3.9291	ppb	06:17:38
3	Tl 190.801†	-213.1	-108.7	-22.551	µg/L	-22.551	ppb	06:17:58
3	U 367.007†	5481.6	6805.1	-5.4978	µg/L	-5.4978	ppb	06:17:38
3	V 292.402†	2311.1	2430.5	-5.9581	µg/L	-5.9581	ppb	06:17:58
3	Zn 213.857†	3451.5	2918.5	10.395	µg/L	10.395	ppb	06:17:58

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	997828.4	89.611	%	0.4799				0.54%
Sc RADIAL	21445.2	94.2	%	0.23				0.24%
Y 371.029	610470.9	89.630	%	0.4968				0.55%
Ag 328.068†	-1931.0	-7.1699	µg/L	0.91425	-7.1699	ppb	0.91425	12.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1013157.4	505670	µg/L	2678.6	505670	ppb	2678.6	0.53%
QC value within limits for Al 396.153Radial Recovery = 101.13%								
As 188.979†	-85.4	-14.346	µg/L	3.7281	-14.346	ppb	3.7281	25.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-63085.3	-48.511	µg/L	2.4123	-48.511	ppb	2.4123	4.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	396.6	0.3274	µg/L	0.00601	0.3274	ppb	0.00601	1.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12750.6	-1.6896	µg/L	0.03056	-1.6896	ppb	0.03056	1.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1628051.2	499580	µg/L	3703.4	499580	ppb	3703.4	0.74%
QC value within limits for Ca 317.933Radial Recovery = 99.92%								
Cd 226.502†	3375.5	-0.0184	µg/L	0.29200	-0.0184	ppb	0.29200	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	128.9	-0.6902	µg/L	0.23872	-0.6902	ppb	0.23872	34.59%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -217.2      1.0493 µg/L       0.25698      1.0493 ppb        0.25698  24.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              762.5      10.040 µg/L        0.8894      10.040 ppb         0.8894   8.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    314199.6      196110 µg/L         274.9      196110 ppb          274.9   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.06%
K 766.490 Radial†        157.3     -55.055 µg/L       12.0369     -55.055 ppb        12.0369  21.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       147983.9      491080 µg/L        1636.7      491080 ppb         1636.7   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.22%
Mn 257.610†             5474.3      1.7209 µg/L       0.11225      1.7209 ppb        0.11225   6.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -221.4      4.2952 µg/L       2.89839      4.2952 ppb        2.89839  67.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       320.1      63.597 µg/L       14.1721      63.597 ppb        14.1721  22.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -22.7      0.5396 µg/L       0.39820      0.5396 ppb        0.39820  73.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -385.2     -32.905 µg/L        6.0572     -32.905 ppb         6.0572  18.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -553.0      11.628 µg/L        2.1608      11.628 ppb         2.1608  18.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         119.7      53.697 µg/L        3.9590      53.697 ppb         3.9590   7.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.3      5.2569 µg/L       2.12846      5.2569 ppb        2.12846  40.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -307.7       -6.40 µg/L         7.291       -6.40 ppb          7.291 113.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -313.6     -32.929 µg/L        2.0920     -32.929 ppb         2.0920   6.35%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              255.5      7.2813 µg/L       0.64242      7.2813 ppb        0.64242   8.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -204.5     -3.9585 µg/L       1.01346     -3.9585 ppb        1.01346  25.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              827.4     -5.3284 µg/L       0.15820     -5.3284 ppb        0.15820   2.97%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -8605.6     -3.7635 µg/L       0.29501     -3.7635 ppb        0.29501   7.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -101.4     -20.755 µg/L        1.5584     -20.755 ppb         1.5584   7.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†              6914.9      16.383 µg/L       19.0069      16.383 ppb        19.0069 116.02%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†              2351.6     -6.6019 µg/L       0.56912     -6.6019 ppb        0.56912   8.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2914.3      10.380 µg/L        0.0277      10.380 ppb         0.0277   0.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 104**
Sample ID: ICSAB **Date Collected: 9/1/2011 06:18:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21342.8	21342.8	93.7	%			06:18:38
1	Al 396.153Radial†	948650.1	1012070.1	505110	µg/L	505110	ppb	06:18:36
1	Ca 317.933Radial†	1504409.6	1605114.5	492540	µg/L	492540	ppb	06:18:36
1	Fe 238.204 Radial†	294830.8	314586.5	196340	µg/L	196340	ppb	06:18:38
1	K 766.490 Radial†	6540.9	5930.3	5829.4	µg/L	5829.4	ppb	06:18:38
1	Mg 279.077 IEC†	138342.5	147629.1	489900	µg/L	489900	ppb	06:18:38
1	Na 589.592 Radial†	27531.8	28316.3	5626.7	µg/L	5626.7	ppb	06:18:38
1	Sr 421.552†	115310.6	122891.9	527.52	µg/L	527.52	ppb	06:18:38
1	Sc 361.383	999761.7	999761.7	89.784	%			06:18:50
1	Y 371.029	611672.2	611672.2	89.806	%			06:18:50
1	Ag 328.068†	46682.9	52994.0	271.60	µg/L	271.60	ppb	06:18:50
1	As 188.979†	978.3	1127.9	519.07	µg/L	519.07	ppb	06:18:52
1	B 249.677†	-30529.3	-33214.0	578.84	µg/L	578.84	ppb	06:18:50
1	Ba 233.527†	79524.8	88822.3	523.82	µg/L	523.82	ppb	06:18:50
1	Be 313.107†	610085.7	686828.3	257.78	µg/L	257.78	ppb	06:18:50
1	Cd 226.502†	91520.5	102265.1	504.07	µg/L	504.07	ppb	06:18:50
1	Co 228.616†	15535.8	17405.8	489.31	µg/L	489.31	ppb	06:18:52
1	Cr 267.716†	62543.2	69347.7	520.05	µg/L	520.05	ppb	06:18:50
1	Cu 324.752†	131317.8	142764.4	571.85	µg/L	571.85	ppb	06:18:50
1	Mn 257.610†	345786.8	384376.0	510.97	µg/L	510.97	ppb	06:18:50
1	Mo 202.031†	13693.6	15237.7	524.54	µg/L	524.54	ppb	06:18:52
1	Ni 231.604†	17266.7	19083.5	485.70	µg/L	485.70	ppb	06:18:52
1	P 214.914†	3641.0	4121.6	2684.2	µg/L	2684.2	ppb	06:18:52
1	Pb 220.353†	3357.7	3838.7	506.70	µg/L	506.70	ppb	06:18:52
1	S 181.975 Axial†	3015.6	3197.1	2861.1	µg/L	2861.1	ppb	06:18:52
1	Sb 206.836†	924.1	972.1	554.78	µg/L	554.78	ppb	06:18:52
1	Se 196.026†	5143.6	5680.8	2610	µg/L	2610	ppb	06:18:52
1	SiO2†	99236.9	108943.0	11440	µg/L	11440	ppb	06:18:50
1	Si 251.611†	169052.5	187797.1	5352.3	µg/L	5352.3	ppb	06:18:50
1	Sn 189.927†	3477.1	3837.1	524.88	µg/L	524.88	ppb	06:18:52
1	Ti 334.940†	241145.8	269471.0	525.14	µg/L	525.14	ppb	06:18:50
1	Tl 190.801†	1564.0	1872.5	465.19	µg/L	465.19	ppb	06:18:52
1	U 367.007†	8094.6	9665.5	512.40	µg/L	512.40	ppb	06:18:50
1	V 292.402†	58753.6	65274.0	524.94	µg/L	524.94	ppb	06:18:50
1	Zn 213.857†	48782.1	53375.4	527.48	µg/L	527.48	ppb	06:18:52
2	Sc RADIAL	21401.7	21401.7	94.0	%			06:18:42
2	Al 396.153Radial†	957161.2	1018340.0	508240	µg/L	508240	ppb	06:18:40
2	Ca 317.933Radial†	1539593.7	1638134.8	502670	µg/L	502670	ppb	06:18:40
2	Fe 238.204 Radial†	295505.3	314438.0	196250	µg/L	196250	ppb	06:18:42
2	K 766.490 Radial†	6650.7	6027.9	5926.7	µg/L	5926.7	ppb	06:18:42
2	Mg 279.077 IEC†	139262.8	148202.0	491810	µg/L	491810	ppb	06:18:42
2	Na 589.592 Radial†	27564.2	28269.9	5617.4	µg/L	5617.4	ppb	06:18:42
2	Sr 421.552†	115626.8	122889.6	527.33	µg/L	527.33	ppb	06:18:42
2	Sc 361.383	1002997.6	1002997.6	90.075	%			06:18:54
2	Y 371.029	610055.8	610055.8	89.569	%			06:18:54
2	Ag 328.068†	47061.2	53246.2	272.91	µg/L	272.91	ppb	06:18:54
2	As 188.979†	1067.2	1223.1	560.63	µg/L	560.63	ppb	06:18:56
2	B 249.677†	-30529.0	-33104.0	580.58	µg/L	580.58	ppb	06:18:54
2	Ba 233.527†	79693.5	88723.9	523.23	µg/L	523.23	ppb	06:18:54
2	Be 313.107†	612004.4	686766.2	257.82	µg/L	257.82	ppb	06:18:54
2	Cd 226.502†	91857.7	102310.6	504.31	µg/L	504.31	ppb	06:18:54
2	Co 228.616†	15362.7	17157.8	482.28	µg/L	482.28	ppb	06:18:56
2	Cr 267.716†	62551.6	69132.2	518.43	µg/L	518.43	ppb	06:18:54
2	Cu 324.752†	131556.7	142557.7	570.96	µg/L	570.96	ppb	06:18:54
2	Mn 257.610†	346459.0	383879.8	510.28	µg/L	510.28	ppb	06:18:54
2	Mo 202.031†	13770.4	15273.7	525.75	µg/L	525.75	ppb	06:18:56
2	Ni 231.604†	17226.4	18976.7	482.99	µg/L	482.99	ppb	06:18:56
2	P 214.914†	3698.6	4172.5	2717.4	µg/L	2717.4	ppb	06:18:56
2	Pb 220.353†	3327.3	3792.9	502.00	µg/L	502.00	ppb	06:18:56

2	S 181.975 Axial†	3086.7	3265.3	2922.8	µg/L	2922.8	ppb	06:18:56
2	Sb 206.836†	922.7	967.3	552.11	µg/L	552.11	ppb	06:18:56
2	Se 196.026†	5144.5	5663.2	2600	µg/L	2600	ppb	06:18:56
2	SiO2†	99064.1	108394.6	11382	µg/L	11382	ppb	06:18:54
2	Si 251.611†	169576.2	187771.0	5351.6	µg/L	5351.6	ppb	06:18:54
2	Sn 189.927†	3475.7	3823.1	523.57	µg/L	523.57	ppb	06:18:56
2	Ti 334.940†	241575.3	269081.3	524.44	µg/L	524.44	ppb	06:18:54
2	Tl 190.801†	1502.4	1798.6	447.07	µg/L	447.07	ppb	06:18:56
2	U 367.007†	7904.9	9425.8	469.50	µg/L	469.50	ppb	06:18:54
2	V 292.402†	58895.8	65220.7	524.52	µg/L	524.52	ppb	06:18:54
2	Zn 213.857†	48497.1	52883.7	522.44	µg/L	522.44	ppb	06:18:56
3	Sc RADIAL	21257.9	21257.9	93.3	%			06:18:46
3	Al 396.153Radial†	955132.8	1023055.1	510590	µg/L	510590	ppb	06:18:44
3	Ca 317.933Radial†	1525288.5	1633889.0	501370	µg/L	501370	ppb	06:18:44
3	Fe 238.204 Radial†	294715.0	315717.9	197050	µg/L	197050	ppb	06:18:46
3	K 766.490 Radial†	6615.1	6037.6	5936.3	µg/L	5936.3	ppb	06:18:46
3	Mg 279.077 IEC†	138693.4	148594.2	493110	µg/L	493110	ppb	06:18:46
3	Na 589.592 Radial†	27314.0	28200.2	5603.6	µg/L	5603.6	ppb	06:18:46
3	Sr 421.552†	114692.5	122720.8	526.61	µg/L	526.61	ppb	06:18:46
3	Sc 361.383	992056.6	992056.6	89.092	%			06:18:59
3	Y 371.029	606657.2	606657.2	89.070	%			06:18:59
3	Ag 328.068†	46831.6	53564.8	274.53	µg/L	274.53	ppb	06:18:59
3	As 188.979†	1033.9	1198.8	550.15	µg/L	550.15	ppb	06:19:01
3	B 249.677†	-31014.3	-34022.5	566.53	µg/L	566.53	ppb	06:18:59
3	Ba 233.527†	78752.6	88643.5	522.76	µg/L	522.76	ppb	06:18:59
3	Be 313.107†	605887.3	687393.5	258.04	µg/L	258.04	ppb	06:18:59
3	Cd 226.502†	90706.2	102142.9	503.39	µg/L	503.39	ppb	06:18:59
3	Co 228.616†	15209.3	17173.7	482.72	µg/L	482.72	ppb	06:19:01
3	Cr 267.716†	62322.0	69640.4	522.24	µg/L	522.24	ppb	06:18:59
3	Cu 324.752†	130493.8	142975.5	572.66	µg/L	572.66	ppb	06:18:59
3	Mn 257.610†	341971.1	383084.4	509.20	µg/L	509.20	ppb	06:18:59
3	Mo 202.031†	13772.6	15444.8	531.55	µg/L	531.55	ppb	06:19:01
3	Ni 231.604†	17032.6	18970.0	482.82	µg/L	482.82	ppb	06:19:01
3	P 214.914†	3545.3	4045.7	2641.4	µg/L	2641.4	ppb	06:19:01
3	Pb 220.353†	3334.3	3841.5	507.82	µg/L	507.82	ppb	06:19:01
3	S 181.975 Axial†	2971.0	3173.2	2838.7	µg/L	2838.7	ppb	06:19:01
3	Sb 206.836†	905.6	959.3	547.63	µg/L	547.63	ppb	06:19:01
3	Se 196.026†	4958.6	5517.7	2540	µg/L	2540	ppb	06:19:01
3	SiO2†	98100.4	108525.9	11396	µg/L	11396	ppb	06:18:59
3	Si 251.611†	167034.5	186994.4	5329.4	µg/L	5329.4	ppb	06:18:59
3	Sn 189.927†	3364.4	3740.7	512.73	µg/L	512.73	ppb	06:19:01
3	Ti 334.940†	238981.4	269127.7	524.57	µg/L	524.57	ppb	06:18:59
3	Tl 190.801†	1602.1	1928.8	479.04	µg/L	479.04	ppb	06:19:01
3	U 367.007†	7970.2	9595.9	495.27	µg/L	495.27	ppb	06:18:59
3	V 292.402†	58658.3	65675.3	528.27	µg/L	528.27	ppb	06:18:59
3	Zn 213.857†	47902.6	52810.1	521.60	µg/L	521.60	ppb	06:19:01

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	998272.0	89.651	%	0.5048				0.56%
Sc RADIAL	21334.1	93.7	%	0.32				0.34%
Y 371.029	609461.7	89.482	%	0.3758				0.42%
Ag 328.068†	53268.3	273.01	µg/L	1.466	273.01	ppb	1.466	0.54%
QC value within limits for Ag 328.068 Recovery = 109.21%								
Al 396.153Radial†	1017821.7	507980	µg/L	2750.5	507980	ppb	2750.5	0.54%
QC value within limits for Al 396.153Radial Recovery = 101.60%								
As 188.979†	1183.2	543.29	µg/L	21.613	543.29	ppb	21.613	3.98%
QC value within limits for As 188.979 Recovery = 108.66%								
B 249.677†	-33446.9	575.32	µg/L	7.657	575.32	ppb	7.657	1.33%
QC value within limits for B 249.677 Recovery = 115.06%								
Ba 233.527†	88729.9	523.27	µg/L	0.531	523.27	ppb	0.531	0.10%
QC value within limits for Ba 233.527 Recovery = 104.65%								
Be 313.107†	686996.0	257.88	µg/L	0.143	257.88	ppb	0.143	0.06%
QC value within limits for Be 313.107 Recovery = 103.15%								
Ca 317.933Radial†	1625712.8	498860	µg/L	5512.5	498860	ppb	5512.5	1.11%
QC value within limits for Ca 317.933Radial Recovery = 99.77%								
Cd 226.502†	102239.5	503.93	µg/L	0.481	503.93	ppb	0.481	0.10%
QC value within limits for Cd 226.502 Recovery = 100.79%								
Co 228.616†	17245.8	484.77	µg/L	3.936	484.77	ppb	3.936	0.81%

```
   QC value within limits for Co 228.616  Recovery = 96.95%
Cr 267.716†            69373.4      520.24 µg/L         1.910      520.24 ppb          1.910   0.37%
   QC value within limits for Cr 267.716  Recovery = 104.05%
Cu 324.752†           142765.9      571.82 µg/L         0.851      571.82 ppb          0.851   0.15%
   QC value within limits for Cu 324.752  Recovery = 114.36%
Fe 238.204 Radial†    314914.1      196550 µg/L         437.0      196550 ppb          437.0   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.27%
K 766.490 Radial†       5998.6      5897.5 µg/L         59.12      5897.5 ppb          59.12   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 117.95%
Mg 279.077 IEC†       148141.8      491610 µg/L        1610.7      491610 ppb         1610.7   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.32%
Mn 257.610†           383780.1      510.15 µg/L         0.895      510.15 ppb          0.895   0.18%
   QC value within limits for Mn 257.610  Recovery = 102.03%
Mo 202.031†            15318.8      527.28 µg/L         3.751      527.28 ppb          3.751   0.71%
   QC value within limits for Mo 202.031  Recovery = 105.46%
Na 589.592 Radial†     28262.1      5615.9 µg/L         11.61      5615.9 ppb          11.61   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 112.32%
Ni 231.604†            19010.1      483.83 µg/L         1.615      483.83 ppb          1.615   0.33%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†              4113.3      2681.0 µg/L         38.12      2681.0 ppb          38.12   1.42%
   QC value within limits for P 214.914  Recovery = 107.24%
Pb 220.353†             3824.4      505.51 µg/L         3.089      505.51 ppb          3.089   0.61%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        3211.9      2874.2 µg/L         43.58      2874.2 ppb          43.58   1.52%
   QC value within limits for S 181.975 Axial  Recovery = 114.97%
Sb 206.836†              966.2      551.51 µg/L         3.615      551.51 ppb          3.615   0.66%
   QC value within limits for Sb 206.836  Recovery = 110.30%
Se 196.026†             5620.6        2580 µg/L          38.8        2580 ppb           38.8   1.50%
   QC value within limits for Se 196.026  Recovery = 103.21%
SiO2†                  108621.1       11406 µg/L          30.1       11406 ppb           30.1   0.26%
   QC value within limits for SiO2  Recovery = 106.65%
Si 251.611†            187520.9      5344.4 µg/L         13.00      5344.4 ppb          13.00   0.24%
   QC value within limits for Si 251.611  Recovery = 106.89%
Sn 189.927†             3800.3      520.39 µg/L         6.670      520.39 ppb          6.670   1.28%
   QC value within limits for Sn 189.927  Recovery = 104.08%
Sr 421.552†            122834.1      527.15 µg/L         0.477      527.15 ppb          0.477   0.09%
   QC value within limits for Sr 421.552  Recovery = 105.43%
Ti 334.940†            269226.7      524.71 µg/L         0.371      524.71 ppb          0.371   0.07%
   QC value within limits for Ti 334.940  Recovery = 104.94%
Tl 190.801†             1866.6      463.77 µg/L        16.036      463.77 ppb         16.036   3.46%
   QC value within limits for Tl 190.801  Recovery = 92.75%
U 367.007†              9562.4      492.39 µg/L        21.592      492.39 ppb         21.592   4.39%
   QC value within limits for U 367.007  Recovery = 98.48%
V 292.402†             65390.0      525.91 µg/L         2.056      525.91 ppb          2.056   0.39%
   QC value within limits for V 292.402  Recovery = 105.18%
Zn 213.857†            53023.1      523.84 µg/L         3.182      523.84 ppb          3.182   0.61%
   QC value within limits for Zn 213.857  Recovery = 104.77%
All analyte(s) passed QC.
```

Sequence No.: 11 **Autosampler Location: 105**
Sample ID: LR1 **Date Collected: 9/1/2011 06:19:07**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	21003.4	21003.4	92.2	%			06:19:40
1	Al 396.153Radial†	935278.4	1013930.2	505980	µg/L	505980	ppb	06:19:38
1	Ca 317.933Radial†	1479882.1	1604462.0	492340	µg/L	492340	ppb	06:19:38
1	Fe 238.204 Radial†	716739.6	777145.2	485060	µg/L	485060	ppb	06:19:38
1	K 766.490 Radial†	1135.2	181.8	-25.772	µg/L	-25.772	ppb	06:19:40
1	Mg 279.077 IEC†	136445.2	147957.6	490990	µg/L	490990	ppb	06:19:40
1	Na 589.592 Radial†	2427337.6	2630894.1	522780	µg/L	522780	ppb	06:19:38
1	Sr 421.552†	2311.0	2355.2	1.4688	µg/L	1.4688	ppb	06:19:40
1	Sc 361.383	979371.6	979371.6	87.953	%			06:19:52
1	Y 371.029	597082.9	597082.9	87.664	%			06:19:52
1	Ag 328.068†	-6320.3	-6186.4	-27.071	µg/L	-27.071	ppb	06:19:52
1	As 188.979†	-177.7	-163.7	-14.692	µg/L	-14.692	ppb	06:20:12
1	B 249.677†	-135477.0	-153244.1	-61.505	µg/L	-61.505	ppb	06:19:52
1	Ba 233.527†	303.0	593.8	-1.5006	µg/L	-1.5006	ppb	06:20:12
1	Be 313.107†	-25724.8	-21920.8	-5.1391	µg/L	-5.1391	ppb	06:19:52
1	Cd 226.502†	7332.3	8668.1	1.5224	µg/L	1.5224	ppb	06:19:52
1	Co 228.616†	236.8	371.6	-0.2139	µg/L	-0.2139	ppb	06:20:12
1	Cr 267.716†	66.9	-235.6	9.2979	µg/L	9.2979	ppb	06:19:52
1	Cu 324.752†	-4327.6	-8414.9	6.5609	µg/L	6.5609	ppb	06:19:52
1	Mn 257.610†	-2290.2	-3358.1	-8.1805	µg/L	-8.1805	ppb	06:19:52
1	Mo 202.031†	-593.4	-688.6	5.3057	µg/L	5.3057	ppb	06:19:52
1	Ni 231.604†	224.7	107.7	5.4956	µg/L	5.4956	ppb	06:20:12
1	P 214.914†	-42.1	18.5	-15.523	µg/L	-15.523	ppb	06:20:12
1	Pb 220.353†	-480.0	-446.7	23.641	µg/L	23.641	ppb	06:20:12
1	S 181.975 Axial†	54238.0	61505.3	56058	µg/L	56058	ppb	06:19:52
1	Sb 206.836†	37.5	-14.5	-0.5569	µg/L	-0.5569	ppb	06:20:12
1	Se 196.026†	-609.7	-741.3	-11.1	µg/L	-11.1	ppb	06:20:12
1	SiO2†	1090.2	-345.5	-36.283	µg/L	-36.283	ppb	06:20:12
1	Si 251.611†	468.9	43.1	1.2286	µg/L	1.2286	ppb	06:20:12
1	Sn 189.927†	-128.4	-181.6	-1.3333	µg/L	-1.3333	ppb	06:20:12
1	Ti 334.940†	-4807.8	-4578.5	3.8887	µg/L	3.8887	ppb	06:19:52
1	Tl 190.801†	-265.3	-171.0	-31.535	µg/L	-31.535	ppb	06:20:12
1	U 367.007†	87137.0	99721.8	14991	µg/L	14991	ppb	06:19:52
1	V 292.402†	3311.8	3600.9	-36.846	µg/L	-36.846	ppb	06:19:52
1	Zn 213.857†	5760.5	5592.4	9.0399	µg/L	9.0399	ppb	06:20:12
2	Sc RADIAL	21169.5	21169.5	93.0	%			06:19:44
2	Al 396.153Radial†	936728.8	1007532.8	502780	µg/L	502780	ppb	06:19:42
2	Ca 317.933Radial†	1499829.8	1613330.1	495060	µg/L	495060	ppb	06:19:42
2	Fe 238.204 Radial†	719651.2	774179.1	483210	µg/L	483210	ppb	06:19:42
2	K 766.490 Radial†	1225.5	269.2	63.813	µg/L	63.813	ppb	06:19:44
2	Mg 279.077 IEC†	136641.3	147007.6	487840	µg/L	487840	ppb	06:19:44
2	Na 589.592 Radial†	2436596.2	2620201.6	520650	µg/L	520650	ppb	06:19:42
2	Sr 421.552†	2503.1	2542.2	2.2361	µg/L	2.2361	ppb	06:19:44
2	Sc 361.383	977517.2	977517.2	87.787	%			06:20:15
2	Y 371.029	594897.3	594897.3	87.344	%			06:20:15
2	Ag 328.068†	-6360.5	-6245.8	-27.375	µg/L	-27.375	ppb	06:20:15
2	As 188.979†	-187.6	-175.4	-19.988	µg/L	-19.988	ppb	06:20:35
2	B 249.677†	-136478.9	-154677.6	-103.57	µg/L	-103.57	ppb	06:20:15
2	Ba 233.527†	239.7	522.4	-1.9021	µg/L	-1.9021	ppb	06:20:35
2	Be 313.107†	-26297.9	-22629.1	-5.3856	µg/L	-5.3856	ppb	06:20:15
2	Cd 226.502†	7533.3	8912.8	2.9328	µg/L	2.9328	ppb	06:20:15
2	Co 228.616†	259.6	398.1	0.5751	µg/L	0.5751	ppb	06:20:35
2	Cr 267.716†	88.3	-211.1	9.4471	µg/L	9.4471	ppb	06:20:15
2	Cu 324.752†	-4110.6	-8177.1	7.3906	µg/L	7.3906	ppb	06:20:15
2	Mn 257.610†	-2841.8	-3991.3	-8.9994	µg/L	-8.9994	ppb	06:20:15
2	Mo 202.031†	-594.9	-691.6	5.0946	µg/L	5.0946	ppb	06:20:15
2	Ni 231.604†	192.2	71.1	4.5564	µg/L	4.5564	ppb	06:20:35
2	P 214.914†	-75.9	-20.1	-39.716	µg/L	-39.716	ppb	06:20:35
2	Pb 220.353†	-479.9	-447.7	23.066	µg/L	23.066	ppb	06:20:35

2	S 181.975 Axial†	54248.8	61634.5	56176	µg/L	56176	ppb	06:20:15
2	Sb 206.836†	24.6	-29.1	-8.8205	µg/L	-8.8205	ppb	06:20:35
2	Se 196.026†	-623.5	-758.3	-19.7	µg/L	-19.7	ppb	06:20:35
2	SiO2†	1035.3	-405.7	-42.593	µg/L	-42.593	ppb	06:20:35
2	Si 251.611†	412.6	-20.0	-0.5703	µg/L	-0.5703	ppb	06:20:35
2	Sn 189.927†	-111.9	-163.0	1.2664	µg/L	1.2664	ppb	06:20:35
2	Ti 334.940†	-4475.2	-4210.0	4.5047	µg/L	4.5047	ppb	06:20:15
2	Tl 190.801†	-258.3	-163.6	-29.770	µg/L	-29.770	ppb	06:20:35
2	U 367.007†	87396.9	100205.9	15090	µg/L	15090	ppb	06:20:15
2	V 292.402†	3443.6	3758.2	-35.281	µg/L	-35.281	ppb	06:20:15
2	Zn 213.857†	5795.5	5644.7	9.7700	µg/L	9.7700	ppb	06:20:35
3	Sc RADIAL	21215.3	21215.3	93.2	%			06:19:49
3	Al 396.153Radial†	935920.6	1004486.8	501260	µg/L	501260	ppb	06:19:47
3	Ca 317.933Radial†	1485575.8	1594541.2	489300	µg/L	489300	ppb	06:19:47
3	Fe 238.204 Radial†	717228.5	769905.0	480540	µg/L	480540	ppb	06:19:47
3	K 766.490 Radial†	1152.3	187.8	-18.973	µg/L	-18.973	ppb	06:19:49
3	Mg 279.077 IEC†	138183.4	148345.2	492280	µg/L	492280	ppb	06:19:49
3	Na 589.592 Radial†	2431808.5	2609396.1	518510	µg/L	518510	ppb	06:19:47
3	Sr 421.552†	2437.3	2465.7	2.0055	µg/L	2.0055	ppb	06:19:49
3	Sc 361.383	979609.9	979609.9	87.975	%			06:20:37
3	Y 371.029	593774.3	593774.3	87.179	%			06:20:37
3	Ag 328.068†	-5955.2	-5769.6	-24.993	µg/L	-24.993	ppb	06:20:37
3	As 188.979†	-188.1	-175.5	-20.350	µg/L	-20.350	ppb	06:20:57
3	B 249.677†	-137984.5	-156056.9	-149.78	µg/L	-149.78	ppb	06:20:37
3	Ba 233.527†	252.3	536.1	-1.8026	µg/L	-1.8026	ppb	06:20:57
3	Be 313.107†	-26074.2	-22310.8	-5.3028	µg/L	-5.3028	ppb	06:20:37
3	Cd 226.502†	7500.5	8857.2	2.8850	µg/L	2.8850	ppb	06:20:37
3	Co 228.616†	242.0	377.5	0.0515	µg/L	0.0515	ppb	06:20:57
3	Cr 267.716†	-132.9	-462.7	7.4610	µg/L	7.4610	ppb	06:20:37
3	Cu 324.752†	-4358.1	-8448.4	5.8803	µg/L	5.8803	ppb	06:20:37
3	Mn 257.610†	-2864.2	-4009.9	-9.1055	µg/L	-9.1055	ppb	06:20:37
3	Mo 202.031†	-513.3	-597.4	8.1089	µg/L	8.1089	ppb	06:20:37
3	Ni 231.604†	204.6	84.7	4.8873	µg/L	4.8873	ppb	06:20:57
3	P 214.914†	-52.3	6.9	-22.299	µg/L	-22.299	ppb	06:20:57
3	Pb 220.353†	-456.0	-419.4	26.037	µg/L	26.037	ppb	06:20:57
3	S 181.975 Axial†	54171.2	61414.4	55975	µg/L	55975	ppb	06:20:37
3	Sb 206.836†	28.2	-25.1	-6.4945	µg/L	-6.4945	ppb	06:20:57
3	Se 196.026†	-622.4	-755.5	-20.2	µg/L	-20.2	ppb	06:20:57
3	SiO2†	1013.9	-432.5	-45.440	µg/L	-45.440	ppb	06:20:57
3	Si 251.611†	382.9	-54.9	-1.5642	µg/L	-1.5642	ppb	06:20:57
3	Sn 189.927†	-103.8	-153.5	2.2098	µg/L	2.2098	ppb	06:20:57
3	Ti 334.940†	-4628.5	-4373.4	4.3166	µg/L	4.3166	ppb	06:20:37
3	Tl 190.801†	-259.2	-164.0	-29.901	µg/L	-29.901	ppb	06:20:57
3	U 367.007†	87818.9	100472.9	15155	µg/L	15155	ppb	06:20:37
3	V 292.402†	2537.6	2719.9	-43.551	µg/L	-43.551	ppb	06:20:37
3	Zn 213.857†	5785.0	5618.6	9.7675	µg/L	9.7675	ppb	06:20:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	978832.9	87.905	%	0.1029				0.12%
Sc RADIAL	21129.4	92.8	%	0.49				0.53%
Y 371.029	595251.5	87.396	%	0.2470				0.28%
Ag 328.068†	-6067.3	-26.480	µg/L	1.2964	-26.480	ppb	1.2964	4.90%
Al 396.153Radial†	1008649.9	503340	µg/L	2405.3	503340	ppb	2405.3	0.48%
QC value within limits for Al 396.153Radial Recovery = 100.67%								
As 188.979†	-171.5	-18.343	µg/L	3.1674	-18.343	ppb	3.1674	17.27%
B 249.677†	-154659.6	-104.95	µg/L	44.154	-104.95	ppb	44.154	42.07%
Ba 233.527†	550.7	-1.7351	µg/L	0.20912	-1.7351	ppb	0.20912	12.05%
Be 313.107†	-22286.9	-5.2758	µg/L	0.12545	-5.2758	ppb	0.12545	2.38%
Ca 317.933Radial†	1604111.1	492230	µg/L	2884.3	492230	ppb	2884.3	0.59%
QC value within limits for Ca 317.933Radial Recovery = 98.45%								
Cd 226.502†	8812.7	2.4467	µg/L	0.80088	2.4467	ppb	0.80088	32.73%
Co 228.616†	382.4	0.1376	µg/L	0.40147	0.1376	ppb	0.40147	291.82%
Cr 267.716†	-303.2	8.7353	µg/L	1.10612	8.7353	ppb	1.10612	12.66%
Cu 324.752†	-8346.8	6.6106	µg/L	0.75635	6.6106	ppb	0.75635	11.44%
Fe 238.204 Radial†	773743.1	482940	µg/L	2271.8	482940	ppb	2271.8	0.47%
QC value within limits for Fe 238.204 Radial Recovery = 96.59%								
K 766.490 Radial†	212.9	6.3561	µg/L	49.87515	6.3561	ppb	49.87515	784.69%
Mg 279.077 IEC†	147770.1	490370	µg/L	2284.0	490370	ppb	2284.0	0.47%

QC value within limits for Mg 279.077 IEC Recovery = 98.07%

Mn 257.610†	-3786.4	-8.7618 µg/L	0.50624	-8.7618 ppb	0.50624	5.78%
Mo 202.031†	-659.2	6.1697 µg/L	1.68266	6.1697 ppb	1.68266	27.27%
Na 589.592 Radial†	2620163.9	520650 µg/L	2135.9	520650 ppb	2135.9	0.41%

QC value within limits for Na 589.592 Radial Recovery = 104.13%

Ni 231.604†	87.8	4.9797 µg/L	0.47638	4.9797 ppb	0.47638	9.57%
P 214.914†	1.8	-25.846 µg/L	12.4806	-25.846 ppb	12.4806	48.29%
Pb 220.353†	-437.9	24.248 µg/L	1.5760	24.248 ppb	1.5760	6.50%
S 181.975 Axial†	61518.1	56070 µg/L	101.0	56070 ppb	101.0	0.18%

QC value greater than the upper limit for S 181.975 Axial Recovery = 112.14%

Sb 206.836†	-22.9	-5.2906 µg/L	4.26132	-5.2906 ppb	4.26132	80.55%
Se 196.026†	-751.7	-17.0 µg/L	5.14	-17.0 ppb	5.14	30.26%
SiO2†	-394.6	-41.439 µg/L	4.6862	-41.439 ppb	4.6862	11.31%
Si 251.611†	-10.6	-0.3019 µg/L	1.41561	-0.3019 ppb	1.41561	468.85%
Sn 189.927†	-166.1	0.7143 µg/L	1.83496	0.7143 ppb	1.83496	256.89%
Sr 421.552†	2454.4	1.9035 µg/L	0.39368	1.9035 ppb	0.39368	20.68%
Ti 334.940†	-4387.3	4.2367 µg/L	0.31569	4.2367 ppb	0.31569	7.45%
Tl 190.801†	-166.2	-30.402 µg/L	0.9837	-30.402 ppb	0.9837	3.24%
U 367.007†	100133.6	15079 µg/L	82.7	15079 ppb	82.7	0.55%

QC value within limits for U 367.007 Recovery = 100.53%

V 292.402†	3359.7	-38.559 µg/L	4.3929	-38.559 ppb	4.3929	11.39%
Zn 213.857†	5618.6	9.5258 µg/L	0.42078	9.5258 ppb	0.42078	4.42%

QC Failed. Continue with analysis.

Sequence No.: 12 **Autosampler Location: 108**
Sample ID: LR2 **Date Collected: 9/1/2011 06:21:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22613.0	22613.0	99.3	%			06:21:38
1	Al 396.153Radial†	966.1	783.2	63.651	µg/L	63.651	ppb	06:21:38
1	Ca 317.933Radial†	389.7	222.3	68.224	µg/L	68.224	ppb	06:21:58
1	Fe 238.204 Radial†	18.6	5.1	-172.18	µg/L	-172.18	ppb	06:21:58
1	K 766.490 Radial†	289925.9	290939.4	296490	µg/L	296490	ppb	06:21:36
1	Mg 279.077 IEC†	-36.5	-26.4	-87.459	µg/L	-87.459	ppb	06:21:58
1	Na 589.592 Radial†	1593.9	543.6	108.02	µg/L	108.02	ppb	06:21:38
1	Sr 421.552†	2315231.9	2331552.9	10175	µg/L	10175	ppb	06:21:36
1	Sc 361.383	1097181.3	1097181.3	98.533	%			06:22:55
1	Y 371.029	666663.7	666663.7	97.880	%			06:22:55
1	Ag 328.068†	-7310.0	-6419.2	-22.273	µg/L	-22.273	ppb	06:22:55
1	As 188.979†	24065.7	24462.3	10817	µg/L	10817	ppb	06:23:15
1	B 249.677†	255662.7	260257.4	5448.3	µg/L	5448.3	ppb	06:22:55
1	Ba 233.527†	2561770.2	2600154.0	15388	µg/L	15388	ppb	06:22:55
1	Be 313.107†	8113197.2	8241297.6	3060.5	µg/L	3060.5	ppb	06:22:52
1	Cd 226.502†	2003753.5	2033912.8	10370	µg/L	10370	ppb	06:22:55
1	Co 228.616†	359891.0	365350.7	10366	µg/L	10366	ppb	06:22:55
1	Cr 267.716†	3357820.6	3407493.4	25412	µg/L	25412	ppb	06:22:55
1	Cu 324.752†	5220046.3	5294257.2	20937	µg/L	20937	ppb	06:22:52
1	Mn 257.610†	7264829.5	7372219.5	9908.0	µg/L	9908.0	ppb	06:22:52
1	Mo 202.031†	300925.7	305391.4	10277	µg/L	10277	ppb	06:22:55
1	Ni 231.604†	394327.7	400049.9	10158	µg/L	10158	ppb	06:22:55
1	P 214.914†	25933.5	26385.9	15432	µg/L	15432	ppb	06:22:55
1	Pb 220.353†	222012.3	225416.1	25388	µg/L	25388	ppb	06:22:55
1	S 181.975 Axial†	217.4	59.0	72.332	µg/L	72.332	ppb	06:23:15
1	Sb 206.836†	18346.4	18562.3	10281	µg/L	10281	ppb	06:23:15
1	Se 196.026†	23610.0	23913.4	10400	µg/L	10400	ppb	06:23:15
1	SiO2†	959808.3	972511.0	102420	µg/L	102420	ppb	06:22:55
1	Si 251.611†	1644218.2	1668203.9	47544	µg/L	47544	ppb	06:22:55
1	Sn 189.927†	78925.6	80064.9	10482	µg/L	10482	ppb	06:22:55
1	Ti 334.940†	5150838.6	5228401.7	9940.4	µg/L	9940.4	ppb	06:22:52
1	Tl 190.801†	40210.9	40940.0	10070	µg/L	10070	ppb	06:23:15
1	U 367.007†	-657.7	-17.5	-3.1871	µg/L	-3.1871	ppb	06:22:55
1	V 292.402†	1246661.2	1265054.5	10735	µg/L	10735	ppb	06:22:55
1	Zn 213.857†	1446574.6	1467151.1	15053	µg/L	15053	ppb	06:22:55
2	Sc RADIAL	22526.7	22526.7	98.9	%			06:22:03
2	Al 396.153Radial†	989.5	810.6	77.859	µg/L	77.859	ppb	06:22:03
2	Ca 317.933Radial†	384.9	218.9	67.175	µg/L	67.175	ppb	06:22:23
2	Fe 238.204 Radial†	28.9	15.6	-164.01	µg/L	-164.01	ppb	06:22:23
2	K 766.490 Radial†	287366.5	289470.4	295000	µg/L	295000	ppb	06:22:00
2	Mg 279.077 IEC†	-34.0	-24.0	-79.749	µg/L	-79.749	ppb	06:22:23
2	Na 589.592 Radial†	1441.6	395.8	78.651	µg/L	78.651	ppb	06:22:03
2	Sr 421.552†	2293493.5	2318508.2	10119	µg/L	10119	ppb	06:22:00
2	Sc 361.383	1090542.9	1090542.9	97.937	%			06:23:21
2	Y 371.029	662832.7	662832.7	97.318	%			06:23:21
2	Ag 328.068†	-7102.8	-6252.9	-21.404	µg/L	-21.404	ppb	06:23:21
2	As 188.979†	23660.7	24197.4	10701	µg/L	10701	ppb	06:23:41
2	B 249.677†	253888.0	260024.7	5443.8	µg/L	5443.8	ppb	06:23:21
2	Ba 233.527†	2541974.2	2595767.2	15362	µg/L	15362	ppb	06:23:21
2	Be 313.107†	8118151.3	8296478.0	3080.9	µg/L	3080.9	ppb	06:23:18
2	Cd 226.502†	1988884.4	2031109.3	10356	µg/L	10356	ppb	06:23:21
2	Co 228.616†	354389.1	361956.3	10270	µg/L	10270	ppb	06:23:21
2	Cr 267.716†	3318017.0	3387595.4	25264	µg/L	25264	ppb	06:23:21
2	Cu 324.752†	5227333.7	5333946.7	21094	µg/L	21094	ppb	06:23:18
2	Mn 257.610†	7281338.7	7433957.3	9991.0	µg/L	9991.0	ppb	06:23:18
2	Mo 202.031†	298628.6	304905.0	10261	µg/L	10261	ppb	06:23:21
2	Ni 231.604†	391339.6	399434.9	10143	µg/L	10143	ppb	06:23:21
2	P 214.914†	25560.4	26165.1	15294	µg/L	15294	ppb	06:23:21
2	Pb 220.353†	220045.1	224779.1	25316	µg/L	25316	ppb	06:23:21

2	S 181.975 Axial†	201.5	44.1	58.312	µg/L	58.312	ppb	06:23:41
2	Sb 206.836†	18092.0	18416.0	10200	µg/L	10200	ppb	06:23:41
2	Se 196.026†	23205.1	23645.9	10300	µg/L	10300	ppb	06:23:41
2	SiO2†	953552.6	972053.0	102370	µg/L	102370	ppb	06:23:21
2	Si 251.611†	1635236.4	1669190.6	47573	µg/L	47573	ppb	06:23:21
2	Sn 189.927†	77732.0	79333.8	10387	µg/L	10387	ppb	06:23:21
2	Ti 334.940†	5169882.6	5279667.9	10038	µg/L	10038	ppb	06:23:18
2	Tl 190.801†	39880.1	40850.7	10049	µg/L	10049	ppb	06:23:41
2	U 367.007†	-791.9	-158.6	-28.750	µg/L	-28.750	ppb	06:23:21
2	V 292.402†	1236431.2	1262310.6	10712	µg/L	10712	ppb	06:23:21
2	Zn 213.857†	1433434.0	1462670.5	15007	µg/L	15007	ppb	06:23:21
3	Sc RADIAL	22588.8	22588.8	99.2	%			06:22:27
3	Al 396.153Radial†	974.6	792.8	103.43	µg/L	103.43	ppb	06:22:27
3	Ca 317.933Radial†	381.8	214.7	65.895	µg/L	65.895	ppb	06:22:47
3	Fe 238.204 Radial†	25.5	12.1	-147.52	µg/L	-147.52	ppb	06:22:47
3	K 766.490 Radial†	293729.6	295087.6	300720	µg/L	300720	ppb	06:22:25
3	Mg 279.077 IEC†	-43.7	-33.6	-111.64	µg/L	-111.64	ppb	06:22:47
3	Na 589.592 Radial†	1477.9	428.3	85.111	µg/L	85.111	ppb	06:22:27
3	Sr 421.552†	2316187.1	2335017.7	10191	µg/L	10191	ppb	06:22:25
3	Sc 361.383	1106704.7	1106704.7	99.388	%			06:23:47
3	Y 371.029	672869.4	672869.4	98.792	%			06:23:47
3	Ag 328.068†	-6606.4	-5647.5	-19.369	µg/L	-19.369	ppb	06:23:47
3	As 188.979†	18789.3	18943.2	8387.4	µg/L	8387.4	ppb	06:24:08
3	B 249.677†	239931.6	242196.7	5070.8	µg/L	5070.8	ppb	06:23:47
3	Ba 233.527†	2332489.6	2347089.9	13890	µg/L	13890	ppb	06:23:47
3	Be 313.107†	7487760.2	7541157.1	2800.1	µg/L	2800.1	ppb	06:23:44
3	Cd 226.502†	1801596.0	1813012.0	9243.5	µg/L	9243.5	ppb	06:23:47
3	Co 228.616†	320981.1	323058.4	9166.6	µg/L	9166.6	ppb	06:23:47
3	Cr 267.716†	2876513.9	2893900.4	21582	µg/L	21582	ppb	06:23:47
3	Cu 324.752†	4825372.7	4851566.8	19186	µg/L	19186	ppb	06:23:44
3	Mn 257.610†	6716431.7	6757001.2	9081.2	µg/L	9081.2	ppb	06:23:44
3	Mo 202.031†	271086.9	272740.9	9178.3	µg/L	9178.3	ppb	06:23:47
3	Ni 231.604†	351687.2	353703.2	8981.4	µg/L	8981.4	ppb	06:23:47
3	P 214.914†	23502.7	23713.7	13861	µg/L	13861	ppb	06:23:47
3	Pb 220.353†	204599.2	205957.0	23196	µg/L	23196	ppb	06:23:47
3	S 181.975 Axial†	197.9	37.5	49.771	µg/L	49.771	ppb	06:24:08
3	Sb 206.836†	14499.7	14531.8	8044.1	µg/L	8044.1	ppb	06:24:08
3	Se 196.026†	18724.4	18791.6	8210	µg/L	8210	ppb	06:24:08
3	SiO2†	889103.4	892988.7	94017	µg/L	94017	ppb	06:23:47
3	Si 251.611†	1523486.7	1532370.1	43673	µg/L	43673	ppb	06:23:47
3	Sn 189.927†	71200.5	71603.0	9374.9	µg/L	9374.9	ppb	06:23:47
3	Ti 334.940†	4765380.5	4795587.9	9118.0	µg/L	9118.0	ppb	06:23:44
3	Tl 190.801†	34025.6	34365.5	8456.5	µg/L	8456.5	ppb	06:24:08
3	U 367.007†	-590.2	56.1	10.097	µg/L	10.097	ppb	06:23:47
3	V 292.402†	1101203.0	1107813.8	9399.8	µg/L	9399.8	ppb	06:23:47
3	Zn 213.857†	1299285.0	1306321.9	13403	µg/L	13403	ppb	06:23:47

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1098143.0	98.620	%	0.7296				0.74%
Sc RADIAL	22576.2	99.1	%	0.20				0.20%
Y 371.029	667455.3	97.997	%	0.7436				0.76%
Ag 328.068†	-6106.5	-21.016	µg/L	1.4905	-21.016	ppb	1.4905	7.09%
Al 396.153Radial†	795.5	81.648	µg/L	20.1598	81.648	ppb	20.1598	24.69%
As 188.979†	22534.3	9968.4	µg/L	1370.44	9968.4	ppb	1370.44	13.75%
QC value within limits for As 188.979 Recovery = 99.68%								
B 249.677†	254159.6	5320.9	µg/L	216.67	5320.9	ppb	216.67	4.07%
QC value within limits for B 249.677 Recovery = 106.42%								
Ba 233.527†	2514337.0	14880	µg/L	857.5	14880	ppb	857.5	5.76%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	8026310.9	2980.5	µg/L	156.58	2980.5	ppb	156.58	5.25%
QC value within limits for Be 313.107 Recovery = 99.35%								
Ca 317.933Radial†	218.7	67.098	µg/L	1.1662	67.098	ppb	1.1662	1.74%
Cd 226.502†	1959344.7	9989.9	µg/L	646.45	9989.9	ppb	646.45	6.47%
QC value within limits for Cd 226.502 Recovery = 99.90%								
Co 228.616†	350121.8	9934.2	µg/L	666.47	9934.2	ppb	666.47	6.71%
QC value within limits for Co 228.616 Recovery = 99.34%								
Cr 267.716†	3229663.1	24086	µg/L	2169.7	24086	ppb	2169.7	9.01%
QC value within limits for Cr 267.716 Recovery = 96.34%								

```
Cu 324.752†          5159923.5       20406 µg/L        1059.1       20406 ppb         1059.1   5.19%
   QC value within limits for Cu 324.752  Recovery = 102.03%
Fe 238.204 Radial†        10.9     -161.24 µg/L        12.562     -161.24 ppb         12.562   7.79%
K 766.490 Radial†     291832.5      297400 µg/L        2968.8      297400 ppb         2968.8   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 99.13%
Mg 279.077 IEC†          -28.0     -92.950 µg/L       16.6413     -92.950 ppb        16.6413  17.90%
Mn 257.610†          7187726.0      9660.1 µg/L        503.04      9660.1 ppb         503.04   5.21%
   QC value within limits for Mn 257.610  Recovery = 96.60%
Mo 202.031†           294345.8      9905.3 µg/L        629.69      9905.3 ppb         629.69   6.36%
   QC value within limits for Mo 202.031  Recovery = 99.05%
Na 589.592 Radial†       455.9      90.594 µg/L       15.4320      90.594 ppb        15.4320  17.03%
Ni 231.604†           384396.0      9760.8 µg/L        675.01      9760.8 ppb         675.01   6.92%
   QC value within limits for Ni 231.604  Recovery = 97.61%
P 214.914†             25421.6       14862 µg/L         869.9       14862 ppb          869.9   5.85%
   QC value within limits for P 214.914  Recovery = 99.08%
Pb 220.353†           218717.4       24634 µg/L        1245.4       24634 ppb         1245.4   5.06%
   QC value within limits for Pb 220.353  Recovery = 98.53%
S 181.975 Axial†          46.9      60.138 µg/L       11.3908      60.138 ppb        11.3908  18.94%
Sb 206.836†            17170.0      9508.5 µg/L       1268.86      9508.5 ppb        1268.86  13.34%
   QC value within limits for Sb 206.836  Recovery = 95.08%
Se 196.026†            22117.0        9660 µg/L        1258.5        9660 ppb         1258.5  13.02%
   QC value within limits for Se 196.026  Recovery = 96.63%
SiO2†                 945850.9       99600 µg/L        4835.0       99600 ppb         4835.0   4.85%
   QC value within limits for SiO2  Recovery = 93.08%
Si 251.611†          1623254.9       46263 µg/L        2243.3       46263 ppb         2243.3   4.85%
   QC value within limits for Si 251.611  Recovery = 92.53%
Sn 189.927†            77000.6       10081 µg/L         613.5       10081 ppb          613.5   6.09%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†          2328359.6       10162 µg/L          38.0       10162 ppb           38.0   0.37%
   QC value within limits for Sr 421.552  Recovery = 101.62%
Ti 334.940†          5101219.2      9698.8 µg/L        505.38      9698.8 ppb         505.38   5.21%
   QC value within limits for Ti 334.940  Recovery = 96.99%
Tl 190.801†            38718.8      9525.1 µg/L        925.42      9525.1 ppb         925.42   9.72%
   QC value within limits for Tl 190.801  Recovery = 95.25%
U 367.007†               -40.0     -7.2801 µg/L      19.74447     -7.2801 ppb       19.74447 271.21%
V 292.402†           1211726.3       10282 µg/L         764.2       10282 ppb          764.2   7.43%
   QC value within limits for V 292.402  Recovery = 102.82%
Zn 213.857†          1412047.8       14488 µg/L         939.6       14488 ppb          939.6   6.49%
   QC value within limits for Zn 213.857  Recovery = 96.58%
All analyte(s) passed QC.
```

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/1/2011 06:24:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22971.2	22971.2	101	%			06:25:06
1	Al 396.153Radial†	10149.0	9872.1	4909.6	µg/L	4909.6	ppb	06:24:46
1	Ca 317.933Radial†	16445.9	16134.4	4951.0	µg/L	4951.0	ppb	06:25:06
1	Fe 238.204 Radial†	8052.2	7969.4	4965.6	µg/L	4965.6	ppb	06:25:06
1	K 766.490 Radial†	6332.5	5228.9	5326.6	µg/L	5326.6	ppb	06:24:46
1	Mg 279.077 IEC†	1539.8	1537.0	5100.4	µg/L	5100.4	ppb	06:25:06
1	Na 589.592 Radial†	51499.8	49995.8	9934.5	µg/L	9934.5	ppb	06:24:46
1	Sr 421.552†	114980.0	113841.9	496.75	µg/L	496.75	ppb	06:24:46
1	Sc 361.383	1121808.6	1121808.6	100.74	%			06:25:55
1	Y 371.029	680375.4	680375.4	99.894	%			06:25:55
1	Ag 328.068†	98292.4	98565.1	499.92	µg/L	499.92	ppb	06:25:55
1	As 188.979†	1137.6	1167.5	513.85	µg/L	513.85	ppb	06:26:15
1	B 249.677†	23350.6	23966.9	534.32	µg/L	534.32	ppb	06:25:55
1	Ba 233.527†	84307.8	83933.7	496.84	µg/L	496.84	ppb	06:25:55
1	Be 313.107†	1334347.6	1331808.9	494.13	µg/L	494.13	ppb	06:25:55
1	Cd 226.502†	97623.6	97233.3	495.29	µg/L	495.29	ppb	06:25:55
1	Co 228.616†	17841.9	17812.3	505.02	µg/L	505.02	ppb	06:26:15
1	Cr 267.716†	67001.0	66194.0	493.95	µg/L	493.95	ppb	06:25:55
1	Cu 324.752†	130315.4	125857.2	498.34	µg/L	498.34	ppb	06:25:55
1	Mn 257.610†	373396.3	369881.2	497.07	µg/L	497.07	ppb	06:25:55
1	Mo 202.031†	15722.6	15592.4	525.01	µg/L	525.01	ppb	06:26:15
1	Ni 231.604†	19988.5	19692.9	500.08	µg/L	500.08	ppb	06:26:15
1	P 214.914†	4082.5	4118.7	2483.1	µg/L	2483.1	ppb	06:26:15
1	Pb 220.353†	4485.5	4551.3	513.87	µg/L	513.87	ppb	06:26:15
1	S 181.975 Axial†	1328.2	1156.8	1055.6	µg/L	1055.6	ppb	06:26:15
1	Sb 206.836†	1013.7	949.1	536.74	µg/L	536.74	ppb	06:26:15
1	Se 196.026†	1237.1	1179.9	519	µg/L	519	ppb	06:26:15
1	SiO2†	53867.0	51883.7	5451.8	µg/L	5451.8	ppb	06:25:55
1	Si 251.611†	90106.7	88950.4	2535.1	µg/L	2535.1	ppb	06:25:55
1	Sn 189.927†	4040.3	3974.8	520.62	µg/L	520.62	ppb	06:26:15
1	Ti 334.940†	264041.2	262976.7	500.35	µg/L	500.35	ppb	06:25:55
1	Tl 190.801†	1927.4	2043.7	502.93	µg/L	502.93	ppb	06:26:15
1	U 367.007†	1984.5	2619.8	442.58	µg/L	442.58	ppb	06:25:55
1	V 292.402†	59495.2	58890.7	497.18	µg/L	497.18	ppb	06:25:55
1	Zn 213.857†	50190.5	48862.3	500.08	µg/L	500.08	ppb	06:25:55
2	Sc RADIAL	22936.1	22936.1	101	%			06:25:28
2	Al 396.153Radial†	10264.2	10001.9	4974.5	µg/L	4974.5	ppb	06:25:08
2	Ca 317.933Radial†	16419.9	16133.6	4950.7	µg/L	4950.7	ppb	06:25:28
2	Fe 238.204 Radial†	8020.0	7949.6	4953.3	µg/L	4953.3	ppb	06:25:28
2	K 766.490 Radial†	6221.8	5128.6	5224.3	µg/L	5224.3	ppb	06:25:08
2	Mg 279.077 IEC†	1539.6	1539.1	5107.4	µg/L	5107.4	ppb	06:25:28
2	Na 589.592 Radial†	51617.6	50190.8	9973.3	µg/L	9973.3	ppb	06:25:08
2	Sr 421.552†	115275.0	114309.0	498.78	µg/L	498.78	ppb	06:25:08
2	Sc 361.383	1115009.6	1115009.6	100.13	%			06:26:18
2	Y 371.029	673226.0	673226.0	98.844	%			06:26:18
2	Ag 328.068†	97264.9	98133.9	497.73	µg/L	497.73	ppb	06:26:18
2	As 188.979†	1133.8	1170.6	515.18	µg/L	515.18	ppb	06:26:38
2	B 249.677†	22787.8	23546.1	525.42	µg/L	525.42	ppb	06:26:18
2	Ba 233.527†	83708.5	83845.5	496.31	µg/L	496.31	ppb	06:26:18
2	Be 313.107†	1320921.9	1326477.5	492.16	µg/L	492.16	ppb	06:26:18
2	Cd 226.502†	96586.4	96788.3	493.01	µg/L	493.01	ppb	06:26:18
2	Co 228.616†	17702.4	17781.0	504.14	µg/L	504.14	ppb	06:26:38
2	Cr 267.716†	66228.7	65828.2	491.21	µg/L	491.21	ppb	06:26:18
2	Cu 324.752†	129387.4	125719.2	497.79	µg/L	497.79	ppb	06:26:18
2	Mn 257.610†	371367.7	370115.4	497.39	µg/L	497.39	ppb	06:26:18
2	Mo 202.031†	15559.6	15524.8	522.73	µg/L	522.73	ppb	06:26:38
2	Ni 231.604†	19821.0	19646.6	498.91	µg/L	498.91	ppb	06:26:38
2	P 214.914†	4077.4	4138.3	2495.1	µg/L	2495.1	ppb	06:26:38
2	Pb 220.353†	4404.5	4497.6	507.83	µg/L	507.83	ppb	06:26:38

2	S 181.975 Axial†	1313.9	1150.5	1049.9	µg/L	1049.9	ppb	06:26:38
2	Sb 206.836†	1005.8	947.3	535.74	µg/L	535.74	ppb	06:26:38
2	Se 196.026†	1218.3	1168.6	514	µg/L	514	ppb	06:26:38
2	SiO2†	53423.7	51767.0	5439.5	µg/L	5439.5	ppb	06:26:18
2	Si 251.611†	89532.6	88922.4	2534.3	µg/L	2534.3	ppb	06:26:18
2	Sn 189.927†	4003.2	3962.2	518.98	µg/L	518.98	ppb	06:26:38
2	Ti 334.940†	263048.1	263583.1	501.51	µg/L	501.51	ppb	06:26:18
2	Tl 190.801†	1911.6	2039.7	501.96	µg/L	501.96	ppb	06:26:38
2	U 367.007†	2176.0	2823.0	479.41	µg/L	479.41	ppb	06:26:18
2	V 292.402†	58182.8	57940.2	489.21	µg/L	489.21	ppb	06:26:18
2	Zn 213.857†	49752.9	48729.0	498.71	µg/L	498.71	ppb	06:26:18
3	Sc RADIAL	23061.4	23061.4	101	%			06:25:50
3	Al 396.153Radial†	10227.3	9910.0	4930.0	µg/L	4930.0	ppb	06:25:30
3	Ca 317.933Radial†	16541.4	16165.0	4960.4	µg/L	4960.4	ppb	06:25:50
3	Fe 238.204 Radial†	8097.2	7982.6	4974.5	µg/L	4974.5	ppb	06:25:50
3	K 766.490 Radial†	6325.5	5197.5	5294.6	µg/L	5294.6	ppb	06:25:30
3	Mg 279.077 IEC†	1552.9	1543.9	5123.4	µg/L	5123.4	ppb	06:25:50
3	Na 589.592 Radial†	51232.5	49532.2	9842.4	µg/L	9842.4	ppb	06:25:30
3	Sr 421.552†	114649.1	113069.2	493.37	µg/L	493.37	ppb	06:25:30
3	Sc 361.383	1124553.6	1124553.6	100.99	%			06:26:41
3	Y 371.029	684135.7	684135.7	100.45	%			06:26:41
3	Ag 328.068†	98508.0	98540.5	499.76	µg/L	499.76	ppb	06:26:41
3	As 188.979†	1066.7	1094.5	481.82	µg/L	481.82	ppb	06:27:01
3	B 249.677†	23217.0	23777.9	530.42	µg/L	530.42	ppb	06:26:41
3	Ba 233.527†	84021.4	83445.9	493.94	µg/L	493.94	ppb	06:26:41
3	Be 313.107†	1322680.8	1317023.6	488.65	µg/L	488.65	ppb	06:26:41
3	Cd 226.502†	97127.6	96505.5	491.56	µg/L	491.56	ppb	06:26:41
3	Co 228.616†	16512.7	16453.0	466.52	µg/L	466.52	ppb	06:27:01
3	Cr 267.716†	65528.6	64573.7	481.86	µg/L	481.86	ppb	06:26:41
3	Cu 324.752†	128869.5	124109.7	491.40	µg/L	491.40	ppb	06:26:41
3	Mn 257.610†	370172.1	365784.0	491.56	µg/L	491.56	ppb	06:26:41
3	Mo 202.031†	14453.6	14297.8	481.44	µg/L	481.44	ppb	06:27:01
3	Ni 231.604†	18375.8	18047.6	458.30	µg/L	458.30	ppb	06:27:01
3	P 214.914†	3840.3	3869.0	2332.1	µg/L	2332.1	ppb	06:27:01
3	Pb 220.353†	4184.8	4242.7	479.06	µg/L	479.06	ppb	06:27:01
3	S 181.975 Axial†	1264.5	1090.5	994.96	µg/L	994.96	ppb	06:27:01
3	Sb 206.836†	965.0	898.4	507.68	µg/L	507.68	ppb	06:27:01
3	Se 196.026†	1173.7	1114.1	490	µg/L	490	ppb	06:27:01
3	SiO2†	53724.1	51611.7	5423.0	µg/L	5423.0	ppb	06:26:41
3	Si 251.611†	89906.4	88533.7	2523.2	µg/L	2523.2	ppb	06:26:41
3	Sn 189.927†	3656.1	3584.6	469.67	µg/L	469.67	ppb	06:27:01
3	Ti 334.940†	259968.2	258304.0	491.45	µg/L	491.45	ppb	06:26:41
3	Tl 190.801†	1869.5	1981.8	487.86	µg/L	487.86	ppb	06:27:01
3	U 367.007†	2039.7	2669.7	451.54	µg/L	451.54	ppb	06:26:41
3	V 292.402†	58454.2	57715.8	486.95	µg/L	486.95	ppb	06:26:41
3	Zn 213.857†	49573.9	48130.1	492.79	µg/L	492.79	ppb	06:26:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1120457.2	100.62	%	0.441				0.44%
Sc RADIAL	22989.5	101	%	0.3				0.28%
Y 371.029	679245.7	99.728	%	0.8137				0.82%
Ag 328.068†	98413.2	499.14	µg/L	1.219	499.14	ppb	1.219	0.24%
QC value within limits for Ag 328.068 Recovery = 99.83%								
Al 396.153Radial†	9928.0	4938.0	µg/L	33.18	4938.0	ppb	33.18	0.67%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1144.2	503.62	µg/L	18.885	503.62	ppb	18.885	3.75%
QC value within limits for As 188.979 Recovery = 100.72%								
B 249.677†	23763.6	530.06	µg/L	4.462	530.06	ppb	4.462	0.84%
QC value within limits for B 249.677 Recovery = 106.01%								
Ba 233.527†	83741.7	495.70	µg/L	1.542	495.70	ppb	1.542	0.31%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	1325103.3	491.65	µg/L	2.778	491.65	ppb	2.778	0.57%
QC value within limits for Be 313.107 Recovery = 98.33%								
Ca 317.933Radial†	16144.3	4954.0	µg/L	5.50	4954.0	ppb	5.50	0.11%
QC value within limits for Ca 317.933Radial Recovery = 99.08%								
Cd 226.502†	96842.4	493.29	µg/L	1.878	493.29	ppb	1.878	0.38%
QC value within limits for Cd 226.502 Recovery = 98.66%								
Co 228.616†	17348.8	491.89	µg/L	21.978	491.89	ppb	21.978	4.47%

```
   QC value within limits for Co 228.616  Recovery = 98.38%
Cr 267.716†            65532.0      489.01 µg/L         6.338      489.01 ppb          6.338   1.30%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†           125228.7      495.84 µg/L         3.857      495.84 ppb          3.857   0.78%
   QC value within limits for Cu 324.752  Recovery = 99.17%
Fe 238.204 Radial†      7967.2      4964.5 µg/L         10.66      4964.5 ppb          10.66   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.29%
K 766.490 Radial†       5185.0      5281.8 µg/L         52.30      5281.8 ppb          52.30   0.99%
   QC value within limits for K 766.490 Radial  Recovery = 105.64%
Mg 279.077 IEC†         1540.0      5110.4 µg/L         11.83      5110.4 ppb          11.83   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.21%
Mn 257.610†           368593.5      495.34 µg/L         3.274      495.34 ppb          3.274   0.66%
   QC value within limits for Mn 257.610  Recovery = 99.07%
Mo 202.031†            15138.3      509.73 µg/L        24.522      509.73 ppb         24.522   4.81%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†     49906.3      9916.7 µg/L         67.23      9916.7 ppb          67.23   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 99.17%
Ni 231.604†            19129.0      485.76 µg/L        23.789      485.76 ppb         23.789   4.90%
   QC value within limits for Ni 231.604  Recovery = 97.15%
P 214.914†              4042.0      2436.8 µg/L         90.83      2436.8 ppb          90.83   3.73%
   QC value within limits for P 214.914  Recovery = 97.47%
Pb 220.353†             4430.5      500.25 µg/L        18.602      500.25 ppb         18.602   3.72%
   QC value within limits for Pb 220.353  Recovery = 100.05%
S 181.975 Axial†        1132.6      1033.5 µg/L         33.49      1033.5 ppb          33.49   3.24%
   QC value within limits for S 181.975 Axial  Recovery = 103.35%
Sb 206.836†              931.6      526.72 µg/L        16.497      526.72 ppb         16.497   3.13%
   QC value within limits for Sb 206.836  Recovery = 105.34%
Se 196.026†             1154.2         507 µg/L          15.4         507 ppb           15.4   3.03%
   QC value within limits for Se 196.026  Recovery = 101.48%
SiO2†                  51754.1      5438.1 µg/L         14.41      5438.1 ppb          14.41   0.26%
   QC value within limits for SiO2  Recovery = 101.69%
Si 251.611†            88802.1      2530.9 µg/L          6.64      2530.9 ppb           6.64   0.26%
   QC value within limits for Si 251.611  Recovery = 101.24%
Sn 189.927†             3840.6      503.09 µg/L        28.953      503.09 ppb         28.953   5.75%
   QC value within limits for Sn 189.927  Recovery = 100.62%
Sr 421.552†           113740.0      496.30 µg/L         2.733      496.30 ppb          2.733   0.55%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           261621.2      497.77 µg/L         5.504      497.77 ppb          5.504   1.11%
   QC value within limits for Ti 334.940  Recovery = 99.55%
Tl 190.801†             2021.7      497.58 µg/L         8.435      497.58 ppb          8.435   1.70%
   QC value within limits for Tl 190.801  Recovery = 99.52%
U 367.007†              2704.2      457.84 µg/L        19.206      457.84 ppb         19.206   4.19%
   QC value within limits for U 367.007  Recovery = 91.57%
V 292.402†             58182.2      491.11 µg/L         5.374      491.11 ppb          5.374   1.09%
   QC value within limits for V 292.402  Recovery = 98.22%
Zn 213.857†            48573.8      497.19 µg/L         3.873      497.19 ppb          3.873   0.78%
   QC value within limits for Zn 213.857  Recovery = 99.44%
All analyte(s) passed QC.
```

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 9/1/2011 06:27:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22765.8	22765.8	100.0	%			06:27:37
1	Al 396.153Radial†	130.7	-59.0	-29.608	µg/L	-29.608	ppb	06:27:37
1	Ca 317.933Radial†	181.0	10.9	3.3313	µg/L	3.3313	ppb	06:27:57
1	Fe 238.204 Radial†	9.1	-4.5	-2.8348	µg/L	-2.8348	ppb	06:27:57
1	K 766.490 Radial†	1153.7	104.9	106.91	µg/L	106.91	ppb	06:27:37
1	Mg 279.077 IEC†	-9.7	0.6	2.0493	µg/L	2.0493	ppb	06:27:57
1	Na 589.592 Radial†	933.5	-127.8	-25.392	µg/L	-25.392	ppb	06:27:37
1	Sr 421.552†	149.6	-1.0	-0.0044	µg/L	-0.0044	ppb	06:27:37
1	Sc 361.383	1123948.0	1123948.0	100.94	%			06:28:44
1	Y 371.029	686169.8	686169.8	100.74	%			06:28:44
1	Ag 328.068†	-897.7	110.2	0.5612	µg/L	0.5612	ppb	06:28:44
1	As 188.979†	-35.3	3.3	1.4765	µg/L	1.4765	ppb	06:29:05
1	B 249.677†	-559.9	234.1	4.9011	µg/L	4.9011	ppb	06:28:44
1	Ba 233.527†	-219.2	32.2	0.1899	µg/L	0.1899	ppb	06:29:05
1	Be 313.107†	-6818.8	571.9	0.2125	µg/L	0.2125	ppb	06:28:44
1	Cd 226.502†	-259.1	74.7	0.3815	µg/L	0.3815	ppb	06:29:05
1	Co 228.616†	-96.9	6.3	0.1796	µg/L	0.1796	ppb	06:29:05
1	Cr 267.716†	525.9	209.3	1.5604	µg/L	1.5604	ppb	06:28:44
1	Cu 324.752†	3691.0	162.1	0.6407	µg/L	0.6407	ppb	06:28:44
1	Mn 257.610†	843.5	81.5	0.1095	µg/L	0.1095	ppb	06:29:05
1	Mo 202.031†	148.5	133.2	4.4838	µg/L	4.4838	ppb	06:29:05
1	Ni 231.604†	157.9	8.6	0.2183	µg/L	0.2183	ppb	06:29:05
1	P 214.914†	-72.4	-5.4	-3.3502	µg/L	-3.3502	ppb	06:29:05
1	Pb 220.353†	-97.0	2.9	0.3271	µg/L	0.3271	ppb	06:29:05
1	S 181.975 Axial†	190.8	27.4	25.033	µg/L	25.033	ppb	06:29:05
1	Sb 206.836†	69.9	12.1	6.8603	µg/L	6.8603	ppb	06:29:05
1	Se 196.026†	61.0	12.4	5.42	µg/L	5.42	ppb	06:29:05
1	SiO2†	1674.0	73.4	7.7276	µg/L	7.7276	ppb	06:28:44
1	Si 251.611†	618.0	122.2	3.4840	µg/L	3.4840	ppb	06:29:05
1	Sn 189.927†	36.9	1.0	0.1289	µg/L	0.1289	ppb	06:29:05
1	Ti 334.940†	-788.1	107.0	0.2055	µg/L	0.2055	ppb	06:28:44
1	Tl 190.801†	-117.1	14.5	3.5722	µg/L	3.5722	ppb	06:29:05
1	U 367.007†	-654.9	1.1	0.2151	µg/L	0.2151	ppb	06:28:44
1	V 292.402†	131.6	-34.2	-0.2415	µg/L	-0.2415	ppb	06:28:44
1	Zn 213.857†	1067.5	100.4	1.0340	µg/L	1.0340	ppb	06:29:05
2	Sc RADIAL	23014.3	23014.3	101	%			06:27:59
2	Al 396.153Radial†	117.2	-73.8	-36.971	µg/L	-36.971	ppb	06:27:59
2	Ca 317.933Radial†	183.7	11.6	3.5723	µg/L	3.5723	ppb	06:28:19
2	Fe 238.204 Radial†	14.9	1.1	0.6568	µg/L	0.6568	ppb	06:28:19
2	K 766.490 Radial†	1052.5	-7.7	-7.8411	µg/L	-7.8411	ppb	06:27:59
2	Mg 279.077 IEC†	-13.0	-2.5	-8.1923	µg/L	-8.1923	ppb	06:28:19
2	Na 589.592 Radial†	1032.7	-39.8	-7.9015	µg/L	-7.9015	ppb	06:27:59
2	Sr 421.552†	149.7	-2.6	-0.0112	µg/L	-0.0112	ppb	06:27:59
2	Sc 361.383	1130674.2	1130674.2	101.54	%			06:29:07
2	Y 371.029	695954.8	695954.8	102.18	%			06:29:07
2	Ag 328.068†	-1167.4	-150.2	-0.7580	µg/L	-0.7580	ppb	06:29:07
2	As 188.979†	-31.9	6.9	3.0025	µg/L	3.0025	ppb	06:29:27
2	B 249.677†	-548.3	248.9	5.2322	µg/L	5.2322	ppb	06:29:07
2	Ba 233.527†	-239.1	13.8	0.0816	µg/L	0.0816	ppb	06:29:27
2	Be 313.107†	-6940.9	491.9	0.1824	µg/L	0.1824	ppb	06:29:07
2	Cd 226.502†	-271.9	63.7	0.3247	µg/L	0.3247	ppb	06:29:27
2	Co 228.616†	-101.8	2.1	0.0601	µg/L	0.0601	ppb	06:29:27
2	Cr 267.716†	284.9	-31.1	-0.2316	µg/L	-0.2316	ppb	06:29:07
2	Cu 324.752†	3813.8	261.3	1.0334	µg/L	1.0334	ppb	06:29:07
2	Mn 257.610†	809.8	43.3	0.0583	µg/L	0.0583	ppb	06:29:27
2	Mo 202.031†	143.3	127.2	4.2804	µg/L	4.2804	ppb	06:29:27
2	Ni 231.604†	139.2	-10.8	-0.2741	µg/L	-0.2741	ppb	06:29:27
2	P 214.914†	-67.1	0.3	0.0928	µg/L	0.0928	ppb	06:29:27
2	Pb 220.353†	-94.3	6.1	0.6817	µg/L	0.6817	ppb	06:29:27

2	S 181.975 Axial†	184.7	20.3	18.570	µg/L	18.570 ppb	06:29:27
2	Sb 206.836†	60.9	2.9	1.6692	µg/L	1.6692 ppb	06:29:27
2	Se 196.026†	55.9	7.0	3.05	µg/L	3.05 ppb	06:29:27
2	SiO2†	1735.3	124.0	13.004	µg/L	13.004 ppb	06:29:07
2	Si 251.611†	650.6	150.6	4.2935	µg/L	4.2935 ppb	06:29:27
2	Sn 189.927†	48.6	12.3	1.6059	µg/L	1.6059 ppb	06:29:27
2	Ti 334.940†	-818.6	81.7	0.1575	µg/L	0.1575 ppb	06:29:07
2	Tl 190.801†	-118.4	14.0	3.4377	µg/L	3.4377 ppb	06:29:27
2	U 367.007†	-577.2	81.5	14.733	µg/L	14.733 ppb	06:29:07
2	V 292.402†	168.2	1.1	0.0455	µg/L	0.0455 ppb	06:29:07
2	Zn 213.857†	1039.3	66.4	0.6859	µg/L	0.6859 ppb	06:29:27
3	Sc RADIAL	23073.5	23073.5	101	%		06:28:21
3	Al 396.153Radial†	175.7	-16.3	-8.2833	µg/L	-8.2833 ppb	06:28:21
3	Ca 317.933Radial†	182.5	9.9	3.0413	µg/L	3.0413 ppb	06:28:41
3	Fe 238.204 Radial†	15.7	1.8	1.1175	µg/L	1.1175 ppb	06:28:41
3	K 766.490 Radial†	1148.7	84.6	86.230	µg/L	86.230 ppb	06:28:21
3	Mg 279.077 IEC†	-15.3	-4.7	-15.700	µg/L	-15.700 ppb	06:28:41
3	Na 589.592 Radial†	953.0	-121.0	-24.049	µg/L	-24.049 ppb	06:28:21
3	Sr 421.552†	175.6	22.7	0.0989	µg/L	0.0989 ppb	06:28:21
3	Sc 361.383	1119515.4	1119515.4	100.54	%		06:29:29
3	Y 371.029	688631.1	688631.1	101.11	%		06:29:29
3	Ag 328.068†	-1133.7	-128.0	-0.6458	µg/L	-0.6458 ppb	06:29:29
3	As 188.979†	-28.0	10.5	4.5845	µg/L	4.5845 ppb	06:29:49
3	B 249.677†	-628.8	163.4	3.4437	µg/L	3.4437 ppb	06:29:29
3	Ba 233.527†	-262.1	-11.4	-0.0666	µg/L	-0.0666 ppb	06:29:49
3	Be 313.107†	-7093.1	272.4	0.1011	µg/L	0.1011 ppb	06:29:29
3	Cd 226.502†	-251.5	81.3	0.4143	µg/L	0.4143 ppb	06:29:49
3	Co 228.616†	-96.0	6.9	0.1947	µg/L	0.1947 ppb	06:29:49
3	Cr 267.716†	396.7	82.9	0.6183	µg/L	0.6183 ppb	06:29:29
3	Cu 324.752†	3670.0	155.7	0.6162	µg/L	0.6162 ppb	06:29:29
3	Mn 257.610†	802.5	44.1	0.0594	µg/L	0.0594 ppb	06:29:49
3	Mo 202.031†	139.9	125.2	4.2135	µg/L	4.2135 ppb	06:29:49
3	Ni 231.604†	163.4	14.7	0.3745	µg/L	0.3745 ppb	06:29:49
3	P 214.914†	-70.0	-3.3	-2.0747	µg/L	-2.0747 ppb	06:29:49
3	Pb 220.353†	-75.8	23.6	2.6627	µg/L	2.6627 ppb	06:29:49
3	S 181.975 Axial†	173.6	11.1	10.145	µg/L	10.145 ppb	06:29:49
3	Sb 206.836†	59.3	1.8	1.0885	µg/L	1.0885 ppb	06:29:49
3	Se 196.026†	71.7	23.2	10.1	µg/L	10.1 ppb	06:29:49
3	SiO2†	1640.9	47.1	4.9520	µg/L	4.9520 ppb	06:29:29
3	Si 251.611†	621.2	127.8	3.6426	µg/L	3.6426 ppb	06:29:49
3	Sn 189.927†	37.4	1.6	0.2108	µg/L	0.2108 ppb	06:29:49
3	Ti 334.940†	-658.6	232.8	0.4443	µg/L	0.4443 ppb	06:29:29
3	Tl 190.801†	-108.9	22.3	5.4633	µg/L	5.4633 ppb	06:29:49
3	U 367.007†	-579.2	73.8	13.343	µg/L	13.343 ppb	06:29:29
3	V 292.402†	243.3	77.4	0.6852	µg/L	0.6852 ppb	06:29:29
3	Zn 213.857†	1035.6	72.9	0.7493	µg/L	0.7493 ppb	06:29:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1124712.6	101.01	%	0.505				0.50%
Sc RADIAL	22951.2	101	%	0.7				0.71%
Y 371.029	690251.9	101.34	%	0.747				0.74%
Ag 328.068†	-56.0	-0.2809	µg/L	0.73142	-0.2809	ppb	0.73142	260.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-49.7	-24.954	µg/L	14.8994	-24.954	ppb	14.8994	59.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	3.0212	µg/L	1.55408	3.0212	ppb	1.55408	51.44%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	215.5	4.5257	µg/L	0.95154	4.5257	ppb	0.95154	21.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.5	0.0683	µg/L	0.12876	0.0683	ppb	0.12876	188.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	445.4	0.1654	µg/L	0.05766	0.1654	ppb	0.05766	34.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.8	3.3150	µg/L	0.26588	3.3150	ppb	0.26588	8.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	73.2	0.3735	µg/L	0.04533	0.3735	ppb	0.04533	12.14%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.1	0.1448	µg/L	0.07371	0.1448	ppb	0.07371	50.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               87.0      0.6490 µg/L       0.89636      0.6490 ppb        0.89636 138.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              193.0      0.7635 µg/L       0.23413      0.7635 ppb        0.23413  30.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -0.3535 µg/L       2.16118     -0.3535 ppb        2.16118 611.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         60.6      61.767 µg/L       61.1627      61.767 ppb        61.1627  99.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.2     -7.2809 µg/L       8.90954     -7.2809 ppb        8.90954 122.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               56.3      0.0758 µg/L       0.02922      0.0758 ppb        0.02922  38.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              128.5      4.3259 µg/L       0.14080      4.3259 ppb        0.14080   3.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -96.2     -19.114 µg/L        9.7338     -19.114 ppb         9.7338  50.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                4.2      0.1062 µg/L       0.33848      0.1062 ppb        0.33848 318.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.8     -1.7774 µg/L       1.74063     -1.7774 ppb        1.74063  97.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.9      1.2238 µg/L       1.25867      1.2238 ppb        1.25867 102.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          19.6      17.916 µg/L        7.4656      17.916 ppb         7.4656  41.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.6      3.2060 µg/L       3.17803      3.2060 ppb        3.17803  99.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               14.2        6.20 µg/L         3.606        6.20 ppb          3.606  58.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     81.5      8.5613 µg/L       4.09038      8.5613 ppb        4.09038  47.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              133.6      3.8067 µg/L       0.42896      3.8067 ppb        0.42896  11.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      0.6485 µg/L       0.83008      0.6485 ppb        0.83008 127.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.4      0.0278 µg/L       0.06172      0.0278 ppb        0.06172 222.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              140.5      0.2691 µg/L       0.15359      0.2691 ppb        0.15359  57.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               16.9      4.1577 µg/L       1.13267      4.1577 ppb        1.13267  27.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                52.1      9.4302 µg/L       8.01068      9.4302 ppb        8.01068  84.95%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                14.8      0.1631 µg/L       0.47437      0.1631 ppb        0.47437 290.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.9      0.8231 µg/L       0.18543      0.8231 ppb        0.18543  22.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/1/2011 06:43:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22924.8	22924.8	101	%			06:43:56
1	Al 396.153Radial†	10178.0	9921.2	4934.9	µg/L	4934.9	ppb	06:43:36
1	Ca 317.933Radial†	16419.7	16141.5	4953.1	µg/L	4953.1	ppb	06:43:56
1	Fe 238.204 Radial†	8050.1	7983.4	4974.4	µg/L	4974.4	ppb	06:43:56
1	K 766.490 Radial†	6081.5	4992.3	5085.5	µg/L	5085.5	ppb	06:43:36
1	Mg 279.077 IEC†	1526.7	1527.0	5067.4	µg/L	5067.4	ppb	06:43:56
1	Na 589.592 Radial†	51433.5	50033.3	9942.0	µg/L	9942.0	ppb	06:43:36
1	Sr 421.552†	115292.5	114382.9	499.11	µg/L	499.11	ppb	06:43:36
1	Sc 361.383	1124661.2	1124661.2	101.00	%			06:44:44
1	Y 371.029	683843.0	683843.0	100.40	%			06:44:44
1	Ag 328.068†	98784.9	98805.3	501.12	µg/L	501.12	ppb	06:44:44
1	As 188.979†	1150.4	1177.3	518.09	µg/L	518.09	ppb	06:45:04
1	B 249.677†	23228.5	23787.1	530.55	µg/L	530.55	ppb	06:44:44
1	Ba 233.527†	84487.8	83899.7	496.64	µg/L	496.64	ppb	06:44:44
1	Be 313.107†	1341540.1	1335570.7	495.53	µg/L	495.53	ppb	06:44:44
1	Cd 226.502†	97913.7	97274.7	495.50	µg/L	495.50	ppb	06:44:44
1	Co 228.616†	17859.9	17785.2	504.26	µg/L	504.26	ppb	06:45:04
1	Cr 267.716†	67404.9	66425.1	495.67	µg/L	495.67	ppb	06:44:44
1	Cu 324.752†	130303.3	125517.1	496.99	µg/L	496.99	ppb	06:44:44
1	Mn 257.610†	374583.6	370116.6	497.39	µg/L	497.39	ppb	06:44:44
1	Mo 202.031†	15119.4	14955.6	503.58	µg/L	503.58	ppb	06:45:04
1	Ni 231.604†	19901.5	19556.4	496.62	µg/L	496.62	ppb	06:45:04
1	P 214.914†	4095.3	4121.1	2484.8	µg/L	2484.8	ppb	06:45:04
1	Pb 220.353†	4411.6	4466.8	504.34	µg/L	504.34	ppb	06:45:04
1	S 181.975 Axial†	1350.6	1175.7	1072.7	µg/L	1072.7	ppb	06:45:04
1	Sb 206.836†	983.7	916.8	518.25	µg/L	518.25	ppb	06:45:04
1	Se 196.026†	1224.8	1164.6	512	µg/L	512	ppb	06:45:04
1	SiO2†	53650.2	51533.4	5415.0	µg/L	5415.0	ppb	06:44:44
1	Si 251.611†	89568.7	88190.8	2513.5	µg/L	2513.5	ppb	06:44:44
1	Sn 189.927†	3999.5	3924.3	514.03	µg/L	514.03	ppb	06:45:04
1	Ti 334.940†	264584.1	262849.4	500.10	µg/L	500.10	ppb	06:44:44
1	Tl 190.801†	1924.0	2035.5	500.91	µg/L	500.91	ppb	06:45:04
1	U 367.007†	1955.2	2585.7	436.36	µg/L	436.36	ppb	06:44:44
1	V 292.402†	59765.8	59008.9	497.99	µg/L	497.99	ppb	06:44:44
1	Zn 213.857†	49818.5	48367.6	495.00	µg/L	495.00	ppb	06:44:44
2	Sc RADIAL	22886.5	22886.5	100	%			06:44:18
2	Al 396.153Radial†	10146.4	9906.7	4927.7	µg/L	4927.7	ppb	06:43:58
2	Ca 317.933Radial†	16396.9	16146.1	4954.5	µg/L	4954.5	ppb	06:44:18
2	Fe 238.204 Radial†	8035.8	7982.6	4973.9	µg/L	4973.9	ppb	06:44:18
2	K 766.490 Radial†	6110.7	5031.4	5125.3	µg/L	5125.3	ppb	06:43:58
2	Mg 279.077 IEC†	1527.2	1530.1	5077.6	µg/L	5077.6	ppb	06:44:18
2	Na 589.592 Radial†	51343.6	50029.4	9941.2	µg/L	9941.2	ppb	06:43:58
2	Sr 421.552†	115219.6	114502.3	499.63	µg/L	499.63	ppb	06:43:58
2	Sc 361.383	1120480.2	1120480.2	100.63	%			06:45:07
2	Y 371.029	683159.0	683159.0	100.30	%			06:45:07
2	Ag 328.068†	98346.7	98734.8	500.76	µg/L	500.76	ppb	06:45:07
2	As 188.979†	1117.8	1149.2	505.82	µg/L	505.82	ppb	06:45:27
2	B 249.677†	23315.8	23959.7	534.16	µg/L	534.16	ppb	06:45:07
2	Ba 233.527†	84389.5	84114.1	497.91	µg/L	497.91	ppb	06:45:07
2	Be 313.107†	1340364.3	1339358.4	496.94	µg/L	496.94	ppb	06:45:07
2	Cd 226.502†	97692.8	97416.9	496.22	µg/L	496.22	ppb	06:45:07
2	Co 228.616†	17740.4	17732.5	502.76	µg/L	502.76	ppb	06:45:27
2	Cr 267.716†	67263.3	66533.5	496.48	µg/L	496.48	ppb	06:45:07
2	Cu 324.752†	129952.0	125649.4	497.51	µg/L	497.51	ppb	06:45:07
2	Mn 257.610†	373175.5	370101.1	497.37	µg/L	497.37	ppb	06:45:07
2	Mo 202.031†	14995.2	14888.0	501.30	µg/L	501.30	ppb	06:45:27
2	Ni 231.604†	19866.2	19594.8	497.59	µg/L	497.59	ppb	06:45:27
2	P 214.914†	4086.8	4127.8	2488.8	µg/L	2488.8	ppb	06:45:27
2	Pb 220.353†	4391.9	4463.6	503.97	µg/L	503.97	ppb	06:45:27

2	S 181.975 Axial†	1333.5	1163.7	1061.7 µg/L	1061.7 ppb	06:45:27
2	Sb 206.836†	971.8	908.6	513.61 µg/L	513.61 ppb	06:45:27
2	Se 196.026†	1222.0	1166.4	513 µg/L	513 ppb	06:45:27
2	SiO2†	53550.6	51632.7	5425.5 µg/L	5425.5 ppb	06:45:07
2	Si 251.611†	89561.1	88514.2	2522.7 µg/L	2522.7 ppb	06:45:07
2	Sn 189.927†	3962.0	3901.8	511.10 µg/L	511.10 ppb	06:45:27
2	Ti 334.940†	264035.0	263281.3	500.92 µg/L	500.92 ppb	06:45:07
2	Tl 190.801†	1919.0	2037.7	501.47 µg/L	501.47 ppb	06:45:27
2	U 367.007†	1992.1	2629.7	444.31 µg/L	444.31 ppb	06:45:07
2	V 292.402†	59740.9	59205.0	499.61 µg/L	499.61 ppb	06:45:07
2	Zn 213.857†	49744.3	48477.9	496.13 µg/L	496.13 ppb	06:45:07
3	Sc RADIAL	23095.6	23095.6	101 %		06:44:40
3	Al 396.153Radial†	10238.1	9905.7	4928.1 µg/L	4928.1 ppb	06:44:20
3	Ca 317.933Radial†	16594.6	16193.2	4969.0 µg/L	4969.0 ppb	06:44:40
3	Fe 238.204 Radial†	8109.8	7983.2	4974.8 µg/L	4974.8 ppb	06:44:40
3	K 766.490 Radial†	6144.1	5009.4	5102.8 µg/L	5102.8 ppb	06:44:20
3	Mg 279.077 IEC†	1544.1	1533.0	5087.1 µg/L	5087.1 ppb	06:44:40
3	Na 589.592 Radial†	51789.5	50006.4	9936.6 µg/L	9936.6 ppb	06:44:20
3	Sr 421.552†	116217.9	114448.3	499.39 µg/L	499.39 ppb	06:44:20
3	Sc 361.383	1124176.7	1124176.7	100.96 %		06:45:30
3	Y 371.029	687267.4	687267.4	100.91 %		06:45:30
3	Ag 328.068†	98800.5	98862.9	501.39 µg/L	501.39 ppb	06:45:30
3	As 188.979†	1095.7	1123.6	494.54 µg/L	494.54 ppb	06:45:50
3	B 249.677†	23287.5	23855.5	532.00 µg/L	532.00 ppb	06:45:30
3	Ba 233.527†	83952.3	83405.3	493.71 µg/L	493.71 ppb	06:45:30
3	Be 313.107†	1332680.8	1327367.8	492.49 µg/L	492.49 ppb	06:45:30
3	Cd 226.502†	97608.1	97013.8	494.16 µg/L	494.16 ppb	06:45:30
3	Co 228.616†	16740.7	16684.3	473.07 µg/L	473.07 ppb	06:45:50
3	Cr 267.716†	66059.8	65121.6	485.95 µg/L	485.95 ppb	06:45:30
3	Cu 324.752†	128897.3	124180.0	491.68 µg/L	491.68 ppb	06:45:30
3	Mn 257.610†	370343.4	366076.5	491.96 µg/L	491.96 ppb	06:45:30
3	Mo 202.031†	14158.1	14009.9	471.75 µg/L	471.75 ppb	06:45:50
3	Ni 231.604†	18671.6	18346.6	465.90 µg/L	465.90 ppb	06:45:50
3	P 214.914†	3874.4	3904.0	2353.5 µg/L	2353.5 ppb	06:45:50
3	Pb 220.353†	4228.4	4287.2	484.06 µg/L	484.06 ppb	06:45:50
3	S 181.975 Axial†	1303.3	1129.4	1030.3 µg/L	1030.3 ppb	06:45:50
3	Sb 206.836†	928.1	862.2	487.14 µg/L	487.14 ppb	06:45:50
3	Se 196.026†	1173.0	1113.8	490 µg/L	490 ppb	06:45:50
3	SiO2†	53416.9	51325.3	5393.0 µg/L	5393.0 ppb	06:45:30
3	Si 251.611†	89391.5	88053.5	2509.6 µg/L	2509.6 ppb	06:45:30
3	Sn 189.927†	3704.3	3633.6	476.07 µg/L	476.07 ppb	06:45:50
3	Ti 334.940†	260611.1	259027.0	492.82 µg/L	492.82 ppb	06:45:30
3	Tl 190.801†	1881.9	1994.6	490.97 µg/L	490.97 ppb	06:45:50
3	U 367.007†	2167.5	2796.9	474.54 µg/L	474.54 ppb	06:45:30
3	V 292.402†	59460.2	58731.7	495.37 µg/L	495.37 ppb	06:45:30
3	Zn 213.857†	49492.9	48066.4	492.09 µg/L	492.09 ppb	06:45:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1123106.1	100.86	%	0.205				0.20%
Sc RADIAL	22968.9	101	%	0.5				0.48%
Y 371.029	684756.5	100.54	%	0.323				0.32%
Ag 328.068†	98801.0	501.09	µg/L	0.315	501.09	ppb	0.315	0.06%
QC value within limits for Ag 328.068 Recovery = 100.22%								
Al 396.153Radial†	9911.2	4930.2	µg/L	4.03	4930.2	ppb	4.03	0.08%
QC value within limits for Al 396.153Radial Recovery = 98.60%								
As 188.979†	1150.0	506.15	µg/L	11.779	506.15	ppb	11.779	2.33%
QC value within limits for As 188.979 Recovery = 101.23%								
B 249.677†	23867.4	532.24	µg/L	1.818	532.24	ppb	1.818	0.34%
QC value within limits for B 249.677 Recovery = 106.45%								
Ba 233.527†	83806.4	496.09	µg/L	2.152	496.09	ppb	2.152	0.43%
QC value within limits for Ba 233.527 Recovery = 99.22%								
Be 313.107†	1334098.9	494.99	µg/L	2.274	494.99	ppb	2.274	0.46%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	16160.3	4958.9	µg/L	8.80	4958.9	ppb	8.80	0.18%
QC value within limits for Ca 317.933Radial Recovery = 99.18%								
Cd 226.502†	97235.1	495.29	µg/L	1.046	495.29	ppb	1.046	0.21%
QC value within limits for Cd 226.502 Recovery = 99.06%								
Co 228.616†	17400.7	493.36	µg/L	17.590	493.36	ppb	17.590	3.57%

```
   QC value within limits for Co 228.616  Recovery = 98.67%
Cr 267.716†            66026.7      492.70 µg/L         5.859      492.70 ppb          5.859   1.19%
   QC value within limits for Cr 267.716  Recovery = 98.54%
Cu 324.752†           125115.5      495.40 µg/L         3.227      495.40 ppb          3.227   0.65%
   QC value within limits for Cu 324.752  Recovery = 99.08%
Fe 238.204 Radial†      7983.1      4974.4 µg/L          0.44      4974.4 ppb           0.44   0.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.49%
K 766.490 Radial†       5011.0      5104.5 µg/L         19.98      5104.5 ppb          19.98   0.39%
   QC value within limits for K 766.490 Radial  Recovery = 102.09%
Mg 279.077 IEC†         1530.0      5077.3 µg/L          9.86      5077.3 ppb           9.86   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.55%
Mn 257.610†           368764.7      495.57 µg/L         3.129      495.57 ppb          3.129   0.63%
   QC value within limits for Mn 257.610  Recovery = 99.11%
Mo 202.031†            14617.9      492.21 µg/L        17.754      492.21 ppb         17.754   3.61%
   QC value within limits for Mo 202.031  Recovery = 98.44%
Na 589.592 Radial†     50023.0      9939.9 µg/L          2.89      9939.9 ppb           2.89   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 99.40%
Ni 231.604†            19166.0      486.70 µg/L        18.024      486.70 ppb         18.024   3.70%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†              4051.0      2442.4 µg/L         77.02      2442.4 ppb          77.02   3.15%
   QC value within limits for P 214.914  Recovery = 97.69%
Pb 220.353†             4405.9      497.46 µg/L        11.600      497.46 ppb         11.600   2.33%
   QC value within limits for Pb 220.353  Recovery = 99.49%
S 181.975 Axial†        1156.2      1054.9 µg/L         21.99      1054.9 ppb          21.99   2.08%
   QC value within limits for S 181.975 Axial  Recovery = 105.49%
Sb 206.836†              895.9      506.33 µg/L        16.782      506.33 ppb         16.782   3.31%
   QC value within limits for Sb 206.836  Recovery = 101.27%
Se 196.026†             1148.3         505 µg/L          13.1         505 ppb           13.1   2.59%
   QC value within limits for Se 196.026  Recovery = 100.97%
SiO2†                  51497.1      5411.2 µg/L         16.54      5411.2 ppb          16.54   0.31%
   QC value within limits for SiO2  Recovery = 101.19%
Si 251.611†            88252.9      2515.2 µg/L          6.74      2515.2 ppb           6.74   0.27%
   QC value within limits for Si 251.611  Recovery = 100.61%
Sn 189.927†             3819.9      500.40 µg/L        21.121      500.40 ppb         21.121   4.22%
   QC value within limits for Sn 189.927  Recovery = 100.08%
Sr 421.552†           114444.5      499.38 µg/L         0.261      499.38 ppb          0.261   0.05%
   QC value within limits for Sr 421.552  Recovery = 99.88%
Ti 334.940†           261719.2      497.94 µg/L         4.460      497.94 ppb          4.460   0.90%
   QC value within limits for Ti 334.940  Recovery = 99.59%
Tl 190.801†             2022.6      497.78 µg/L         5.907      497.78 ppb          5.907   1.19%
   QC value within limits for Tl 190.801  Recovery = 99.56%
U 367.007†              2670.8      451.74 µg/L        20.147      451.74 ppb         20.147   4.46%
   QC value within limits for U 367.007  Recovery = 90.35%
V 292.402†             58981.9      497.66 µg/L         2.139      497.66 ppb          2.139   0.43%
   QC value within limits for V 292.402  Recovery = 99.53%
Zn 213.857†            48303.9      494.41 µg/L         2.086      494.41 ppb          2.086   0.42%
   QC value within limits for Zn 213.857  Recovery = 98.88%
All analyte(s) passed QC.
```

Sequence No.: 3 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 9/1/2011 06:45:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22913.0	22913.0	101	%			06:46:27
1	Al 396.153Radial†	170.9	-19.9	-9.9884	µg/L	-9.9884	ppb	06:46:27
1	Ca 317.933Radial†	161.0	-10.2	-3.1239	µg/L	-3.1239	ppb	06:46:47
1	Fe 238.204 Radial†	15.9	2.1	1.3326	µg/L	1.3326	ppb	06:46:47
1	K 766.490 Radial†	1012.9	-42.4	-43.188	µg/L	-43.188	ppb	06:46:27
1	Mg 279.077 IEC†	-15.2	-4.7	-15.762	µg/L	-15.762	ppb	06:46:47
1	Na 589.592 Radial†	902.7	-164.4	-32.664	µg/L	-32.664	ppb	06:46:27
1	Sr 421.552†	212.0	60.1	0.2623	µg/L	0.2623	ppb	06:46:27
1	Sc 361.383	1129215.5	1129215.5	101.41	%			06:47:34
1	Y 371.029	691788.4	691788.4	101.57	%			06:47:34
1	Ag 328.068†	-1229.1	-212.5	-1.0753	µg/L	-1.0753	ppb	06:47:34
1	As 188.979†	-34.2	4.6	2.0086	µg/L	2.0086	ppb	06:47:55
1	B 249.677†	-682.1	116.3	2.4493	µg/L	2.4493	ppb	06:47:34
1	Ba 233.527†	-230.2	22.3	0.1315	µg/L	0.1315	ppb	06:47:55
1	Be 313.107†	-7237.5	190.6	0.0707	µg/L	0.0707	ppb	06:47:34
1	Cd 226.502†	-309.6	26.2	0.1329	µg/L	0.1329	ppb	06:47:55
1	Co 228.616†	-93.4	10.3	0.2912	µg/L	0.2912	ppb	06:47:55
1	Cr 267.716†	323.1	7.0	0.0520	µg/L	0.0520	ppb	06:47:34
1	Cu 324.752†	3548.3	4.4	0.0183	µg/L	0.0183	ppb	06:47:34
1	Mn 257.610†	789.2	24.0	0.0325	µg/L	0.0325	ppb	06:47:55
1	Mo 202.031†	64.4	49.6	1.6685	µg/L	1.6685	ppb	06:47:55
1	Ni 231.604†	127.6	-22.0	-0.5587	µg/L	-0.5587	ppb	06:47:55
1	P 214.914†	-70.2	-2.9	-1.7889	µg/L	-1.7889	ppb	06:47:55
1	Pb 220.353†	-93.5	6.7	0.7594	µg/L	0.7594	ppb	06:47:55
1	S 181.975 Axial†	189.8	25.6	23.343	µg/L	23.343	ppb	06:47:55
1	Sb 206.836†	63.8	5.7	3.2521	µg/L	3.2521	ppb	06:47:55
1	Se 196.026†	52.7	3.9	1.71	µg/L	1.71	ppb	06:47:55
1	SiO2†	1659.4	51.3	5.3849	µg/L	5.3849	ppb	06:47:34
1	Si 251.611†	546.2	48.5	1.3827	µg/L	1.3827	ppb	06:47:55
1	Sn 189.927†	37.4	1.3	0.1747	µg/L	0.1747	ppb	06:47:55
1	Ti 334.940†	-848.2	51.5	0.0983	µg/L	0.0983	ppb	06:47:34
1	Tl 190.801†	-125.7	6.6	1.6320	µg/L	1.6320	ppb	06:47:55
1	U 367.007†	-564.4	93.4	16.881	µg/L	16.881	ppb	06:47:34
1	V 292.402†	138.0	-28.5	-0.2239	µg/L	-0.2239	ppb	06:47:34
1	Zn 213.857†	913.9	-56.0	-0.5736	µg/L	-0.5736	ppb	06:47:55
2	Sc RADIAL	23060.6	23060.6	101	%			06:46:49
2	Al 396.153Radial†	135.6	-55.9	-27.936	µg/L	-27.936	ppb	06:46:49
2	Ca 317.933Radial†	165.0	-7.2	-2.2072	µg/L	-2.2072	ppb	06:47:09
2	Fe 238.204 Radial†	10.2	-3.5	-2.2062	µg/L	-2.2062	ppb	06:47:09
2	K 766.490 Radial†	1064.8	2.4	2.4063	µg/L	2.4063	ppb	06:46:49
2	Mg 279.077 IEC†	-0.9	9.5	31.451	µg/L	31.451	ppb	06:47:09
2	Na 589.592 Radial†	1026.9	-47.5	-9.4342	µg/L	-9.4342	ppb	06:46:49
2	Sr 421.552†	273.2	119.1	0.5200	µg/L	0.5200	ppb	06:46:49
2	Sc 361.383	1125097.2	1125097.2	101.04	%			06:47:57
2	Y 371.029	690773.5	690773.5	101.42	%			06:47:57
2	Ag 328.068†	-1048.6	-38.3	-0.1931	µg/L	-0.1931	ppb	06:47:57
2	As 188.979†	-45.4	-6.6	-2.8884	µg/L	-2.8884	ppb	06:48:17
2	B 249.677†	-865.6	-67.8	-1.4314	µg/L	-1.4314	ppb	06:47:57
2	Ba 233.527†	-235.5	16.2	0.0953	µg/L	0.0953	ppb	06:48:17
2	Be 313.107†	-7094.7	305.8	0.1132	µg/L	0.1132	ppb	06:47:57
2	Cd 226.502†	-327.5	7.4	0.0373	µg/L	0.0373	ppb	06:48:17
2	Co 228.616†	-105.1	-1.7	-0.0467	µg/L	-0.0467	ppb	06:48:17
2	Cr 267.716†	156.7	-156.5	-1.1675	µg/L	-1.1675	ppb	06:47:57
2	Cu 324.752†	3760.0	226.7	0.8949	µg/L	0.8949	ppb	06:47:57
2	Mn 257.610†	772.4	10.3	0.0133	µg/L	0.0133	ppb	06:48:17
2	Mo 202.031†	56.5	42.0	1.4134	µg/L	1.4134	ppb	06:48:17
2	Ni 231.604†	111.8	-37.2	-0.9438	µg/L	-0.9438	ppb	06:48:17
2	P 214.914†	-65.8	1.3	0.7245	µg/L	0.7245	ppb	06:48:17
2	Pb 220.353†	-115.7	-15.6	-1.7542	µg/L	-1.7542	ppb	06:48:17

2	S 181.975 Axial†	189.3	25.8	23.524	µg/L	23.524	ppb	06:48:17
2	Sb 206.836†	59.5	1.7	0.9826	µg/L	0.9826	ppb	06:48:17
2	Se 196.026†	56.7	8.1	3.53	µg/L	3.53	ppb	06:48:17
2	SiO2†	1673.9	71.7	7.5080	µg/L	7.5080	ppb	06:47:57
2	Si 251.611†	519.2	23.8	0.6786	µg/L	0.6786	ppb	06:48:17
2	Sn 189.927†	34.1	-1.8	-0.2412	µg/L	-0.2412	ppb	06:48:17
2	Ti 334.940†	-932.9	-35.4	-0.0655	µg/L	-0.0655	ppb	06:47:57
2	Tl 190.801†	-131.7	0.2	0.0483	µg/L	0.0483	ppb	06:48:17
2	U 367.007†	-601.1	55.0	9.9631	µg/L	9.9631	ppb	06:47:57
2	V 292.402†	131.2	-34.7	-0.2813	µg/L	-0.2813	ppb	06:47:57
2	Zn 213.857†	938.4	-28.4	-0.2877	µg/L	-0.2877	ppb	06:48:17
3	Sc RADIAL	23288.5	23288.5	102	%			06:47:11
3	Al 396.153Radial†	162.2	-31.1	-15.581	µg/L	-15.581	ppb	06:47:11
3	Ca 317.933Radial†	185.9	11.6	3.5734	µg/L	3.5734	ppb	06:47:31
3	Fe 238.204 Radial†	12.4	-1.5	-0.9607	µg/L	-0.9607	ppb	06:47:31
3	K 766.490 Radial†	1073.6	0.7	0.6955	µg/L	0.6955	ppb	06:47:11
3	Mg 279.077 IEC†	-2.9	7.5	24.921	µg/L	24.921	ppb	06:47:31
3	Na 589.592 Radial†	861.6	-219.1	-43.528	µg/L	-43.528	ppb	06:47:11
3	Sr 421.552†	142.2	-11.6	-0.0505	µg/L	-0.0505	ppb	06:47:11
3	Sc 361.383	1119712.2	1119712.2	100.56	%			06:48:19
3	Y 371.029	685245.4	685245.4	100.61	%			06:48:19
3	Ag 328.068†	-791.0	212.9	1.0796	µg/L	1.0796	ppb	06:48:19
3	As 188.979†	-47.0	-8.4	-3.6821	µg/L	-3.6821	ppb	06:48:39
3	B 249.677†	-773.3	19.9	0.4143	µg/L	0.4143	ppb	06:48:19
3	Ba 233.527†	-224.1	26.4	0.1572	µg/L	0.1572	ppb	06:48:39
3	Be 313.107†	-6972.2	393.9	0.1461	µg/L	0.1461	ppb	06:48:19
3	Cd 226.502†	-311.1	22.1	0.1121	µg/L	0.1121	ppb	06:48:39
3	Co 228.616†	-102.3	0.7	0.0199	µg/L	0.0199	ppb	06:48:39
3	Cr 267.716†	279.0	-34.3	-0.2551	µg/L	-0.2551	ppb	06:48:19
3	Cu 324.752†	3590.8	76.3	0.3007	µg/L	0.3007	ppb	06:48:19
3	Mn 257.610†	764.7	6.3	0.0081	µg/L	0.0081	ppb	06:48:39
3	Mo 202.031†	57.7	43.4	1.4620	µg/L	1.4620	ppb	06:48:39
3	Ni 231.604†	125.9	-22.6	-0.5748	µg/L	-0.5748	ppb	06:48:39
3	P 214.914†	-70.8	-4.1	-2.4948	µg/L	-2.4948	ppb	06:48:39
3	Pb 220.353†	-88.0	11.4	1.2870	µg/L	1.2870	ppb	06:48:39
3	S 181.975 Axial†	182.7	20.1	18.309	µg/L	18.309	ppb	06:48:39
3	Sb 206.836†	64.0	6.5	3.7014	µg/L	3.7014	ppb	06:48:39
3	Se 196.026†	50.6	2.3	1.01	µg/L	1.01	ppb	06:48:39
3	SiO2†	1611.8	17.9	1.8779	µg/L	1.8779	ppb	06:48:19
3	Si 251.611†	507.7	14.8	0.4219	µg/L	0.4219	ppb	06:48:39
3	Sn 189.927†	46.0	10.2	1.3301	µg/L	1.3301	ppb	06:48:39
3	Ti 334.940†	-838.7	53.8	0.1039	µg/L	0.1039	ppb	06:48:19
3	Tl 190.801†	-125.7	5.6	1.3632	µg/L	1.3632	ppb	06:48:39
3	U 367.007†	-765.2	-111.0	-20.073	µg/L	-20.073	ppb	06:48:19
3	V 292.402†	260.5	94.5	0.8015	µg/L	0.8015	ppb	06:48:19
3	Zn 213.857†	934.1	-28.2	-0.2871	µg/L	-0.2871	ppb	06:48:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1124675.0	101.00	%	0.428				0.42%
Sc RADIAL	23087.4	101	%	0.8				0.82%
Y 371.029	689269.1	101.20	%	0.517				0.51%
Ag 328.068†	-12.6	-0.0630	µg/L	1.08333	-0.0630	ppb	1.08333	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.6	-17.835	µg/L	9.1836	-17.835	ppb	9.1836	51.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.5	-1.5206	µg/L	3.08203	-1.5206	ppb	3.08203	202.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	22.8	0.4774	µg/L	1.94109	0.4774	ppb	1.94109	406.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.6	0.1280	µg/L	0.03109	0.1280	ppb	0.03109	24.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	296.8	0.1100	µg/L	0.03780	0.1100	ppb	0.03780	34.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-0.5859	µg/L	3.63116	-0.5859	ppb	3.63116	619.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.5	0.0941	µg/L	0.05024	0.0941	ppb	0.05024	53.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.1	0.0881	µg/L	0.17895	0.0881	ppb	0.17895	203.07%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -61.3     -0.4569 µg/L       0.63431     -0.4569 ppb        0.63431 138.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              102.5      0.4046 µg/L       0.44748      0.4046 ppb        0.44748 110.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.0     -0.6114 µg/L       1.79508     -0.6114 ppb        1.79508 293.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -13.1     -13.362 µg/L       25.8441     -13.362 ppb        25.8441 193.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            4.1      13.537 µg/L       25.5827      13.537 ppb        25.5827 188.99%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               13.5      0.0180 µg/L       0.01285      0.0180 ppb        0.01285  71.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               45.0      1.5146 µg/L       0.13544      1.5146 ppb        0.13544   8.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -143.6     -28.542 µg/L       17.4168     -28.542 ppb        17.4168  61.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -27.3     -0.6924 µg/L       0.21779     -0.6924 ppb        0.21779  31.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.9     -1.1864 µg/L       1.69207     -1.1864 ppb        1.69207 142.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.9      0.0974 µg/L       1.62508      0.0974 ppb        1.62508 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.8      21.725 µg/L        2.9598      21.725 ppb         2.9598  13.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.6      2.6454 µg/L       1.45739      2.6454 ppb        1.45739  55.09%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.8        2.08 µg/L         1.300        2.08 ppb          1.300  62.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     47.0      4.9236 µg/L       2.84323      4.9236 ppb        2.84323  57.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               29.0      0.8278 µg/L       0.49748      0.8278 ppb        0.49748  60.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2      0.4212 µg/L       0.81412      0.4212 ppb        0.81412 193.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               55.9      0.2439 µg/L       0.28571      0.2439 ppb        0.28571 117.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               23.3      0.0456 µg/L       0.09622      0.0456 ppb        0.09622 211.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      1.0145 µg/L       0.84745      1.0145 ppb        0.84745  83.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                12.5      2.2572 µg/L      19.64522      2.2572 ppb       19.64522 870.33%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                10.4      0.0988 µg/L       0.60930      0.0988 ppb        0.60930 616.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -37.5     -0.3828 µg/L       0.16524     -0.3828 ppb        0.16524  43.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: 1202477127|1137348|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 201
Date Collected: 9/1/2011 06:48:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202477127|1137348|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23355.1	23355.1	103	%			06:49:19
1	Al 396.153Radial†	177.8	-16.4	-8.1765	µg/L	-8.1765	ppb	06:49:19
1	Ca 317.933Radial†	201.5	26.3	8.0724	µg/L	8.0724	ppb	06:49:39
1	Fe 238.204 Radial†	13.3	-0.7	-0.4530	µg/L	-0.4530	ppb	06:49:39
1	K 766.490 Radial†	1041.9	-33.2	-33.814	µg/L	-33.814	ppb	06:49:19
1	Mg 279.077 IEC†	6.3	16.5	54.775	µg/L	54.775	ppb	06:49:39
1	Na 589.592 Radial†	972.4	-113.4	-22.539	µg/L	-22.539	ppb	06:49:19
1	Sr 421.552†	150.8	-3.6	-0.0159	µg/L	-0.0159	ppb	06:49:19
1	Sc 361.383	1146919.3	1146919.3	103.00	%			06:50:26
1	Y 371.029	701122.2	701122.2	102.94	%			06:50:26
1	Ag 328.068†	-1200.6	-166.1	-0.8417	µg/L	-0.8417	ppb	06:50:26
1	As 188.979†	-34.4	4.9	2.1215	µg/L	2.1215	ppb	06:50:46
1	B 249.677†	-639.6	167.9	3.5144	µg/L	3.5144	ppb	06:50:26
1	Ba 233.527†	-243.0	13.4	0.0785	µg/L	0.0785	ppb	06:50:46
1	Be 313.107†	-7114.3	420.4	0.1560	µg/L	0.1560	ppb	06:50:26
1	Cd 226.502†	-325.6	15.4	0.0787	µg/L	0.0787	ppb	06:50:46
1	Co 228.616†	-98.7	6.6	0.1863	µg/L	0.1863	ppb	06:50:46
1	Cr 267.716†	265.4	-54.0	-0.4030	µg/L	-0.4030	ppb	06:50:26
1	Cu 324.752†	3715.8	112.9	0.4448	µg/L	0.4448	ppb	06:50:26
1	Mn 257.610†	834.9	56.4	0.0751	µg/L	0.0751	ppb	06:50:46
1	Mo 202.031†	10.4	-3.8	-0.1287	µg/L	-0.1287	ppb	06:50:46
1	Ni 231.604†	147.7	-4.4	-0.1127	µg/L	-0.1127	ppb	06:50:46
1	P 214.914†	-60.1	8.0	4.8607	µg/L	4.8607	ppb	06:50:46
1	Pb 220.353†	-109.9	-7.7	-0.8729	µg/L	-0.8729	ppb	06:50:46
1	S 181.975 Axial†	153.9	-12.1	-11.057	µg/L	-11.057	ppb	06:50:46
1	Sb 206.836†	62.4	3.4	1.9154	µg/L	1.9154	ppb	06:50:46
1	Se 196.026†	33.7	-15.4	-6.70	µg/L	-6.70	ppb	06:50:46
1	SiO2†	1562.5	-68.0	-7.1411	µg/L	-7.1411	ppb	06:50:26
1	Si 251.611†	572.2	65.4	1.8651	µg/L	1.8651	ppb	06:50:46
1	Sn 189.927†	33.9	-2.7	-0.3508	µg/L	-0.3508	ppb	06:50:46
1	Ti 334.940†	-1016.4	-99.0	-0.1867	µg/L	-0.1867	ppb	06:50:26
1	Tl 190.801†	-125.0	9.2	2.2649	µg/L	2.2649	ppb	06:50:46
1	U 367.007†	-658.4	10.7	1.9454	µg/L	1.9454	ppb	06:50:26
1	V 292.402†	113.5	-54.4	-0.4567	µg/L	-0.4567	ppb	06:50:26
1	Zn 213.857†	894.7	-88.5	-0.9125	µg/L	-0.9125	ppb	06:50:46
2	Sc RADIAL	23615.4	23615.4	104	%			06:49:41
2	Al 396.153Radial†	246.0	47.5	23.719	µg/L	23.719	ppb	06:49:41
2	Ca 317.933Radial†	217.4	39.5	12.114	µg/L	12.114	ppb	06:50:01
2	Fe 238.204 Radial†	10.6	-3.4	-2.1320	µg/L	-2.1320	ppb	06:50:01
2	K 766.490 Radial†	1219.2	126.6	128.99	µg/L	128.99	ppb	06:49:41
2	Mg 279.077 IEC†	-5.9	4.6	15.386	µg/L	15.386	ppb	06:50:01
2	Na 589.592 Radial†	888.0	-205.3	-40.790	µg/L	-40.790	ppb	06:49:41
2	Sr 421.552†	48.5	-103.9	-0.4537	µg/L	-0.4537	ppb	06:49:41
2	Sc 361.383	1145817.5	1145817.5	102.90	%			06:50:49
2	Y 371.029	700992.9	700992.9	102.92	%			06:50:49
2	Ag 328.068†	-845.0	178.4	0.9038	µg/L	0.9038	ppb	06:50:49
2	As 188.979†	-42.5	-3.0	-1.3245	µg/L	-1.3245	ppb	06:51:09
2	B 249.677†	-753.2	56.9	1.1782	µg/L	1.1782	ppb	06:50:49
2	Ba 233.527†	-237.7	18.3	0.1073	µg/L	0.1073	ppb	06:51:09
2	Be 313.107†	-7193.1	337.1	0.1250	µg/L	0.1250	ppb	06:50:49
2	Cd 226.502†	-342.2	-1.1	-0.0059	µg/L	-0.0059	ppb	06:51:09
2	Co 228.616†	-105.0	0.4	0.0107	µg/L	0.0107	ppb	06:51:09
2	Cr 267.716†	258.5	-60.5	-0.4516	µg/L	-0.4516	ppb	06:50:49
2	Cu 324.752†	3708.6	109.4	0.4315	µg/L	0.4315	ppb	06:50:49
2	Mn 257.610†	802.9	26.1	0.0349	µg/L	0.0349	ppb	06:51:09
2	Mo 202.031†	8.1	-6.1	-0.2039	µg/L	-0.2039	ppb	06:51:09
2	Ni 231.604†	136.3	-15.3	-0.3893	µg/L	-0.3893	ppb	06:51:09
2	P 214.914†	-73.8	-5.4	-3.2613	µg/L	-3.2613	ppb	06:51:09
2	Pb 220.353†	-88.7	12.7	1.4379	µg/L	1.4379	ppb	06:51:09

2	S 181.975 Axial†	153.6	-12.3	-11.228	µg/L	-11.228	ppb	06:51:09
2	Sb 206.836†	52.4	-6.2	-3.5068	µg/L	-3.5068	ppb	06:51:09
2	Se 196.026†	38.4	-10.7	-4.67	µg/L	-4.67	ppb	06:51:09
2	SiO2†	1630.5	-0.5	-0.0540	µg/L	-0.0540	ppb	06:50:49
2	Si 251.611†	541.0	35.7	1.0171	µg/L	1.0171	ppb	06:51:09
2	Sn 189.927†	39.5	2.8	0.3685	µg/L	0.3685	ppb	06:51:09
2	Ti 334.940†	-823.7	87.4	0.1666	µg/L	0.1666	ppb	06:50:49
2	Tl 190.801†	-131.1	3.1	0.7749	µg/L	0.7749	ppb	06:51:09
2	U 367.007†	-797.8	-125.4	-22.661	µg/L	-22.661	ppb	06:50:49
2	V 292.402†	95.0	-72.3	-0.6069	µg/L	-0.6069	ppb	06:50:49
2	Zn 213.857†	909.5	-73.3	-0.7533	µg/L	-0.7533	ppb	06:51:09
3	Sc RADIAL	23229.7	23229.7	102	%			06:50:03
3	Al 396.153Radial†	159.8	-33.1	-16.522	µg/L	-16.522	ppb	06:50:03
3	Ca 317.933Radial†	193.3	19.3	5.9255	µg/L	5.9255	ppb	06:50:23
3	Fe 238.204 Radial†	12.4	-1.5	-0.9495	µg/L	-0.9495	ppb	06:50:23
3	K 766.490 Radial†	1048.2	-21.6	-21.969	µg/L	-21.969	ppb	06:50:03
3	Mg 279.077 IEC†	-12.3	-1.6	-5.4704	µg/L	-5.4704	ppb	06:50:23
3	Na 589.592 Radial†	866.2	-212.5	-42.223	µg/L	-42.223	ppb	06:50:03
3	Sr 421.552†	70.0	-82.0	-0.3581	µg/L	-0.3581	ppb	06:50:03
3	Sc 361.383	1139798.6	1139798.6	102.36	%			06:51:11
3	Y 371.029	700953.4	700953.4	102.91	%			06:51:11
3	Ag 328.068†	-1029.5	-6.2	-0.0311	µg/L	-0.0311	ppb	06:51:11
3	As 188.979†	-34.4	4.7	2.0469	µg/L	2.0469	ppb	06:51:31
3	B 249.677†	-789.2	17.9	0.3693	µg/L	0.3693	ppb	06:51:11
3	Ba 233.527†	-233.5	21.2	0.1252	µg/L	0.1252	ppb	06:51:31
3	Be 313.107†	-7109.1	382.4	0.1417	µg/L	0.1417	ppb	06:51:11
3	Cd 226.502†	-333.7	5.5	0.0273	µg/L	0.0273	ppb	06:51:31
3	Co 228.616†	-99.9	4.8	0.1357	µg/L	0.1357	ppb	06:51:31
3	Cr 267.716†	226.7	-90.1	-0.6721	µg/L	-0.6721	ppb	06:51:11
3	Cu 324.752†	3701.3	121.3	0.4797	µg/L	0.4797	ppb	06:51:11
3	Mn 257.610†	799.6	27.0	0.0364	µg/L	0.0364	ppb	06:51:31
3	Mo 202.031†	21.1	6.7	0.2255	µg/L	0.2255	ppb	06:51:31
3	Ni 231.604†	96.3	-53.8	-1.3665	µg/L	-1.3665	ppb	06:51:31
3	P 214.914†	-74.2	-6.1	-3.7530	µg/L	-3.7530	ppb	06:51:31
3	Pb 220.353†	-108.0	-6.5	-0.7344	µg/L	-0.7344	ppb	06:51:31
3	S 181.975 Axial†	155.4	-9.8	-8.9245	µg/L	-8.9245	ppb	06:51:31
3	Sb 206.836†	51.3	-7.0	-3.9537	µg/L	-3.9537	ppb	06:51:31
3	Se 196.026†	46.0	-3.1	-1.36	µg/L	-1.36	ppb	06:51:31
3	SiO2†	1482.5	-136.7	-14.358	µg/L	-14.358	ppb	06:51:11
3	Si 251.611†	613.5	109.2	3.1135	µg/L	3.1135	ppb	06:51:31
3	Sn 189.927†	32.5	-3.8	-0.5010	µg/L	-0.5010	ppb	06:51:31
3	Ti 334.940†	-904.3	4.4	0.0085	µg/L	0.0085	ppb	06:51:11
3	Tl 190.801†	-129.7	3.9	0.9531	µg/L	0.9531	ppb	06:51:31
3	U 367.007†	-645.5	19.3	3.5019	µg/L	3.5019	ppb	06:51:11
3	V 292.402†	166.6	-1.8	-0.0148	µg/L	-0.0148	ppb	06:51:11
3	Zn 213.857†	905.5	-72.5	-0.7396	µg/L	-0.7396	ppb	06:51:31

Mean Data: 1202477127|1137348|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1144178.5	102.75	%	0.344				0.33%
Sc RADIAL	23400.1	103	%	0.9				0.84%
Y 371.029	701022.8	102.93	%	0.013				0.01%
Ag 328.068†	2.0	0.0103	µg/L	0.87347	0.0103	ppb	0.87347	>999.9%
Al 396.153Radial†	-0.7	-0.3265	µg/L	21.23818	-0.3265	ppb	21.23818	>999.9%
As 188.979†	2.2	0.9479	µg/L	1.96838	0.9479	ppb	1.96838	207.65%
B 249.677†	80.9	1.6873	µg/L	1.63320	1.6873	ppb	1.63320	96.79%
Ba 233.527†	17.6	0.1037	µg/L	0.02355	0.1037	ppb	0.02355	22.72%
Be 313.107†	380.0	0.1409	µg/L	0.01553	0.1409	ppb	0.01553	11.02%
Ca 317.933Radial†	28.4	8.7040	µg/L	3.14214	8.7040	ppb	3.14214	36.10%
Cd 226.502†	6.6	0.0334	µg/L	0.04262	0.0334	ppb	0.04262	127.69%
Co 228.616†	3.9	0.1109	µg/L	0.09038	0.1109	ppb	0.09038	81.52%
Cr 267.716†	-68.2	-0.5089	µg/L	0.14343	-0.5089	ppb	0.14343	28.18%
Cu 324.752†	114.5	0.4520	µg/L	0.02492	0.4520	ppb	0.02492	5.51%
Fe 238.204 Radial†	-1.9	-1.1782	µg/L	0.86254	-1.1782	ppb	0.86254	73.21%
K 766.490 Radial†	24.0	24.404	µg/L	90.7714	24.404	ppb	90.7714	371.96%
Mg 279.077 IEC†	6.5	21.564	µg/L	30.5943	21.564	ppb	30.5943	141.88%
Mn 257.610†	36.5	0.0488	µg/L	0.02278	0.0488	ppb	0.02278	46.71%
Mo 202.031†	-1.1	-0.0357	µg/L	0.22929	-0.0357	ppb	0.22929	641.87%
Na 589.592 Radial†	-177.1	-35.184	µg/L	10.9745	-35.184	ppb	10.9745	31.19%

Ni 231.604†	-24.5	-0.6228	µg/L	0.65873	-0.6228	ppb	0.65873 105.76%
P 214.914†	-1.2	-0.7179	µg/L	4.83741	-0.7179	ppb	4.83741 673.87%
Pb 220.353†	-0.5	-0.0565	µg/L	1.29600	-0.0565	ppb	1.29600 >999.9%
S 181.975 Axial†	-11.4	-10.403	µg/L	1.2834	-10.403	ppb	1.2834 12.34%
Sb 206.836†	-3.3	-1.8484	µg/L	3.26716	-1.8484	ppb	3.26716 176.76%
Se 196.026†	-9.7	-4.24	µg/L	2.692	-4.24	ppb	2.692 63.43%
SiO2†	-68.4	-7.1843	µg/L	7.15191	-7.1843	ppb	7.15191 99.55%
Si 251.611†	70.1	1.9986	µg/L	1.05458	1.9986	ppb	1.05458 52.77%
Sn 189.927†	-1.2	-0.1611	µg/L	0.46477	-0.1611	ppb	0.46477 288.52%
Sr 421.552†	-63.2	-0.2759	µg/L	0.23020	-0.2759	ppb	0.23020 83.43%
Ti 334.940†	-2.4	-0.0038	µg/L	0.17699	-0.0038	ppb	0.17699 >999.9%
Tl 190.801†	5.4	1.3310	µg/L	0.81371	1.3310	ppb	0.81371 61.14%
U 367.007†	-31.8	-5.7380	µg/L	14.67666	-5.7380	ppb	14.67666 255.78%
V 292.402†	-42.8	-0.3595	µg/L	0.30777	-0.3595	ppb	0.30777 85.62%
Zn 213.857†	-78.1	-0.8018	µg/L	0.09611	-0.8018	ppb	0.09611 11.99%

Sequence No.: 5 **Autosampler Location: 202**
Sample ID: 1202477128|1137348|1 **Date Collected: 9/1/2011 06:51:39**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202477128|1137348|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23290.8	23290.8	102	%			06:52:28
1	Al 396.153Radial†	10711.2	10283.7	5115.8	µg/L	5115.8	ppb	06:52:08
1	Ca 317.933Radial†	17355.1	16799.7	5155.1	µg/L	5155.1	ppb	06:52:28
1	Fe 238.204 Radial†	8368.4	8169.0	5089.9	µg/L	5089.9	ppb	06:52:28
1	K 766.490 Radial†	6285.3	5096.7	5191.8	µg/L	5191.8	ppb	06:52:08
1	Mg 279.077 IEC†	1615.3	1589.9	5275.9	µg/L	5275.9	ppb	06:52:28
1	Na 589.592 Radial†	27607.8	25933.4	5153.2	µg/L	5153.2	ppb	06:52:08
1	Sr 421.552†	121175.3	118335.2	516.35	µg/L	516.35	ppb	06:52:08
1	Sc 361.383	1151722.4	1151722.4	103.43	%			06:53:17
1	Y 371.029	701434.8	701434.8	102.99	%			06:53:17
1	Ag 328.068†	91819.9	89773.3	455.36	µg/L	455.36	ppb	06:53:17
1	As 188.979†	1190.8	1189.6	523.58	µg/L	523.58	ppb	06:53:37
1	B 249.677†	24108.5	24097.6	537.75	µg/L	537.75	ppb	06:53:17
1	Ba 233.527†	89595.3	86872.3	514.24	µg/L	514.24	ppb	06:53:17
1	Be 313.107†	1408124.4	1368737.2	507.85	µg/L	507.85	ppb	06:53:17
1	Cd 226.502†	104178.4	101053.8	514.80	µg/L	514.80	ppb	06:53:17
1	Co 228.616†	18855.1	18331.9	519.76	µg/L	519.76	ppb	06:53:37
1	Cr 267.716†	71486.6	68803.4	513.41	µg/L	513.41	ppb	06:53:17
1	Cu 324.752†	139572.2	131447.2	520.46	µg/L	520.46	ppb	06:53:17
1	Mn 257.610†	399383.5	385379.8	517.90	µg/L	517.90	ppb	06:53:17
1	Mo 202.031†	15454.2	14927.6	502.64	µg/L	502.64	ppb	06:53:37
1	Ni 231.604†	20906.8	20065.4	509.54	µg/L	509.54	ppb	06:53:37
1	P 214.914†	842.7	881.1	517.39	µg/L	517.39	ppb	06:53:37
1	Pb 220.353†	4619.5	4565.2	515.44	µg/L	515.44	ppb	06:53:37
1	S 181.975 Axial†	6057.7	5695.1	5194.0	µg/L	5194.0	ppb	06:53:37
1	Sb 206.836†	1010.5	919.8	519.74	µg/L	519.74	ppb	06:53:37
1	Se 196.026†	1269.4	1179.2	518	µg/L	518	ppb	06:53:37
1	SiO2†	107338.2	102192.2	10732	µg/L	10732	ppb	06:53:17
1	Si 251.611†	181335.3	174829.4	4982.7	µg/L	4982.7	ppb	06:53:17
1	Sn 189.927†	4148.1	3974.9	520.61	µg/L	520.61	ppb	06:53:37
1	Ti 334.940†	266073.2	258134.1	491.13	µg/L	491.13	ppb	06:53:17
1	Tl 190.801†	2045.6	2108.4	518.66	µg/L	518.66	ppb	06:53:37
1	U 367.007†	2302.0	2875.6	488.05	µg/L	488.05	ppb	06:53:17
1	V 292.402†	63283.0	61019.0	514.83	µg/L	514.83	ppb	06:53:17
1	Zn 213.857†	53154.8	50434.3	516.19	µg/L	516.19	ppb	06:53:17
2	Sc RADIAL	23136.0	23136.0	102	%			06:52:50
2	Al 396.153Radial†	10784.2	10425.7	5186.2	µg/L	5186.2	ppb	06:52:30
2	Ca 317.933Radial†	17211.9	16772.4	5146.7	µg/L	5146.7	ppb	06:52:50
2	Fe 238.204 Radial†	8318.2	8174.4	5093.1	µg/L	5093.1	ppb	06:52:50
2	K 766.490 Radial†	6435.4	5285.5	5384.2	µg/L	5384.2	ppb	06:52:30
2	Mg 279.077 IEC†	1600.6	1585.9	5262.8	µg/L	5262.8	ppb	06:52:50
2	Na 589.592 Radial†	27881.0	26383.0	5242.5	µg/L	5242.5	ppb	06:52:30
2	Sr 421.552†	121865.3	119807.4	522.78	µg/L	522.78	ppb	06:52:30
2	Sc 361.383	1120215.7	1120215.7	100.60	%			06:53:40
2	Y 371.029	685611.9	685611.9	100.66	%			06:53:40
2	Ag 328.068†	90109.0	90569.4	459.41	µg/L	459.41	ppb	06:53:40
2	As 188.979†	1195.9	1227.1	539.99	µg/L	539.99	ppb	06:54:00
2	B 249.677†	23768.4	24415.1	544.41	µg/L	544.41	ppb	06:53:40
2	Ba 233.527†	88348.5	88069.2	521.32	µg/L	521.32	ppb	06:53:40
2	Be 313.107†	1389091.5	1388108.7	515.03	µg/L	515.03	ppb	06:53:40
2	Cd 226.502†	101812.0	101534.4	517.25	µg/L	517.25	ppb	06:53:40
2	Co 228.616†	18882.5	18871.9	535.06	µg/L	535.06	ppb	06:54:00
2	Cr 267.716†	70351.9	69619.4	519.50	µg/L	519.50	ppb	06:53:40
2	Cu 324.752†	137684.8	133366.5	528.06	µg/L	528.06	ppb	06:53:40
2	Mn 257.610†	393209.3	390102.7	524.25	µg/L	524.25	ppb	06:53:40
2	Mo 202.031†	15427.8	15321.5	515.90	µg/L	515.90	ppb	06:54:00
2	Ni 231.604†	20797.3	20525.0	521.21	µg/L	521.21	ppb	06:54:00
2	P 214.914†	823.6	885.0	519.50	µg/L	519.50	ppb	06:54:00
2	Pb 220.353†	4635.8	4707.1	531.45	µg/L	531.45	ppb	06:54:00

2	S 181.975 Axial†	6043.0	5845.2	5330.9	µg/L	5330.9	ppb	06:54:00
2	Sb 206.836†	1012.5	949.3	536.46	µg/L	536.46	ppb	06:54:00
2	Se 196.026†	1269.9	1214.3	534	µg/L	534	ppb	06:54:00
2	SiO2†	105961.0	103742.1	10894	µg/L	10894	ppb	06:53:40
2	Si 251.611†	178615.0	177056.4	5046.2	µg/L	5046.2	ppb	06:53:40
2	Sn 189.927†	4156.6	4096.1	536.45	µg/L	536.45	ppb	06:54:00
2	Ti 334.940†	262342.2	261660.6	497.84	µg/L	497.84	ppb	06:53:40
2	Tl 190.801†	2067.5	2185.7	537.62	µg/L	537.62	ppb	06:54:00
2	U 367.007†	2420.2	3055.7	520.60	µg/L	520.60	ppb	06:53:40
2	V 292.402†	62100.6	61564.5	519.52	µg/L	519.52	ppb	06:53:40
2	Zn 213.857†	52320.6	51050.5	522.47	µg/L	522.47	ppb	06:53:40
3	Sc RADIAL	23190.5	23190.5	102	%			06:53:12
3	Al 396.153Radial†	10713.5	10331.2	5140.2	µg/L	5140.2	ppb	06:52:52
3	Ca 317.933Radial†	17251.9	16771.7	5146.5	µg/L	5146.5	ppb	06:53:12
3	Fe 238.204 Radial†	8350.5	8186.8	5101.4	µg/L	5101.4	ppb	06:53:12
3	K 766.490 Radial†	6481.2	5315.6	5414.9	µg/L	5414.9	ppb	06:52:52
3	Mg 279.077 IEC†	1612.9	1594.2	5290.5	µg/L	5290.5	ppb	06:53:12
3	Na 589.592 Radial†	27790.7	26229.7	5212.0	µg/L	5212.0	ppb	06:52:52
3	Sr 421.552†	121894.7	119554.0	521.67	µg/L	521.67	ppb	06:52:52
3	Sc 361.383	1138306.3	1138306.3	102.23	%			06:54:03
3	Y 371.029	695073.7	695073.7	102.05	%			06:54:03
3	Ag 328.068†	90577.1	89603.9	454.49	µg/L	454.49	ppb	06:54:03
3	As 188.979†	1130.1	1143.8	503.46	µg/L	503.46	ppb	06:54:23
3	B 249.677†	23864.3	24133.4	538.58	µg/L	538.58	ppb	06:54:03
3	Ba 233.527†	88699.1	87016.5	515.08	µg/L	515.08	ppb	06:54:03
3	Be 313.107†	1386442.4	1363573.1	505.93	µg/L	505.93	ppb	06:54:03
3	Cd 226.502†	102710.2	100804.6	513.53	µg/L	513.53	ppb	06:54:03
3	Co 228.616†	17939.0	17650.7	500.47	µg/L	500.47	ppb	06:54:23
3	Cr 267.716†	69772.4	67941.0	506.98	µg/L	506.98	ppb	06:54:03
3	Cu 324.752†	137335.8	130850.0	518.08	µg/L	518.08	ppb	06:54:03
3	Mn 257.610†	393381.5	384059.5	516.12	µg/L	516.12	ppb	06:54:03
3	Mo 202.031†	14642.9	14310.1	481.86	µg/L	481.86	ppb	06:54:23
3	Ni 231.604†	19867.1	19286.5	489.76	µg/L	489.76	ppb	06:54:23
3	P 214.914†	782.0	831.3	487.42	µg/L	487.42	ppb	06:54:23
3	Pb 220.353†	4496.1	4497.1	507.74	µg/L	507.74	ppb	06:54:23
3	S 181.975 Axial†	5861.5	5572.2	5081.8	µg/L	5081.8	ppb	06:54:23
3	Sb 206.836†	964.3	886.2	500.54	µg/L	500.54	ppb	06:54:23
3	Se 196.026†	1244.9	1169.7	514	µg/L	514	ppb	06:54:23
3	SiO2†	106254.4	102355.2	10749	µg/L	10749	ppb	06:54:03
3	Si 251.611†	179365.6	174969.0	4986.7	µg/L	4986.7	ppb	06:54:03
3	Sn 189.927†	3895.5	3775.1	494.52	µg/L	494.52	ppb	06:54:23
3	Ti 334.940†	260450.9	255666.1	486.43	µg/L	486.43	ppb	06:54:03
3	Tl 190.801†	2032.0	2118.3	521.17	µg/L	521.17	ppb	06:54:23
3	U 367.007†	2246.0	2847.1	482.82	µg/L	482.82	ppb	06:54:03
3	V 292.402†	62116.3	60598.8	511.12	µg/L	511.12	ppb	06:54:03
3	Zn 213.857†	52514.6	50413.7	516.10	µg/L	516.10	ppb	06:54:03

Mean Data: 1202477128|1137348|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1136748.1	102.09	%	1.420				1.39%
Sc RADIAL	23205.8	102	%	0.3				0.34%
Y 371.029	694040.1	101.90	%	1.169				1.15%
Ag 328.068†	89982.2	456.42	µg/L	2.624	456.42	ppb	2.624	0.57%
Al 396.153Radial†	10346.9	5147.4	µg/L	35.77	5147.4	ppb	35.77	0.69%
As 188.979†	1186.8	522.34	µg/L	18.295	522.34	ppb	18.295	3.50%
B 249.677†	24215.4	540.25	µg/L	3.631	540.25	ppb	3.631	0.67%
Ba 233.527†	87319.3	516.88	µg/L	3.868	516.88	ppb	3.868	0.75%
Be 313.107†	1373473.0	509.60	µg/L	4.799	509.60	ppb	4.799	0.94%
Ca 317.933Radial†	16781.3	5149.5	µg/L	4.90	5149.5	ppb	4.90	0.10%
Cd 226.502†	101130.9	515.20	µg/L	1.892	515.20	ppb	1.892	0.37%
Co 228.616†	18284.8	518.43	µg/L	17.337	518.43	ppb	17.337	3.34%
Cr 267.716†	68787.9	513.30	µg/L	6.260	513.30	ppb	6.260	1.22%
Cu 324.752†	131887.9	522.20	µg/L	5.211	522.20	ppb	5.211	1.00%
Fe 238.204 Radial†	8176.7	5094.8	µg/L	5.93	5094.8	ppb	5.93	0.12%
K 766.490 Radial†	5232.6	5330.3	µg/L	120.95	5330.3	ppb	120.95	2.27%
Mg 279.077 IEC†	1590.0	5276.4	µg/L	13.83	5276.4	ppb	13.83	0.26%
Mn 257.610†	386514.0	519.42	µg/L	4.270	519.42	ppb	4.270	0.82%
Mo 202.031†	14853.1	500.13	µg/L	17.157	500.13	ppb	17.157	3.43%
Na 589.592 Radial†	26182.1	5202.6	µg/L	45.41	5202.6	ppb	45.41	0.87%

Ni 231.604†	19959.0	506.84	µg/L	15.897	506.84	ppb	15.897	3.14%
P 214.914†	865.8	508.10	µg/L	17.943	508.10	ppb	17.943	3.53%
Pb 220.353†	4589.8	518.21	µg/L	12.092	518.21	ppb	12.092	2.33%
S 181.975 Axial†	5704.2	5202.2	µg/L	124.77	5202.2	ppb	124.77	2.40%
Sb 206.836†	918.4	518.91	µg/L	17.973	518.91	ppb	17.973	3.46%
Se 196.026†	1187.7	522	µg/L	10.3	522	ppb	10.3	1.96%
SiO2†	102763.1	10791	µg/L	89.4	10791	ppb	89.4	0.83%
Si 251.611†	175618.2	5005.2	µg/L	35.55	5005.2	ppb	35.55	0.71%
Sn 189.927†	3948.7	517.19	µg/L	21.174	517.19	ppb	21.174	4.09%
Sr 421.552†	119232.2	520.27	µg/L	3.435	520.27	ppb	3.435	0.66%
Ti 334.940†	258486.9	491.80	µg/L	5.736	491.80	ppb	5.736	1.17%
Tl 190.801†	2137.5	525.81	µg/L	10.299	525.81	ppb	10.299	1.96%
U 367.007†	2926.1	497.16	µg/L	20.470	497.16	ppb	20.470	4.12%
V 292.402†	61060.8	515.16	µg/L	4.208	515.16	ppb	4.208	0.82%
Zn 213.857†	50632.8	518.25	µg/L	3.650	518.25	ppb	3.650	0.70%

Sequence No.: 7
Sample ID: 1202477129|1137348|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 204
Date Collected: 9/1/2011 06:56:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202477129|1137348|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22764.1	22764.1	100.0	%			06:57:20
1	Al 396.153Radial†	559863.5	559914.4	279440	µg/L	279440	ppb	06:57:17
1	Ca 317.933Radial†	4016869.0	4018425.5	1233100	µg/L	1233100	ppb	06:57:17
1	Fe 238.204 Radial†	257683.2	257780.3	160890	µg/L	160890	ppb	06:57:20
1	K 766.490 Radial†	103170.1	102165.3	103890	µg/L	103890	ppb	06:57:20
1	Mg 279.077 IEC†	34615.2	34640.4	114950	µg/L	114950	ppb	06:57:20
1	Na 589.592 Radial†	78961.3	77933.6	15486	µg/L	15486	ppb	06:57:20
1	Sr 421.552†	1814675.4	1815304.8	7900.4	µg/L	7900.4	ppb	06:57:17
1	Sc 361.383	1077920.8	1077920.8	96.804	%			06:57:37
1	Y 371.029	1202156.0	1202156.0	176.50	%			06:57:37
1	Ag 328.068†	1732.3	2789.0	18.993	µg/L	18.993	ppb	06:57:39
1	As 188.979†	86.8	128.0	75.524	µg/L	75.524	ppb	06:57:59
1	B 249.677†	-26768.9	-26863.9	481.20	µg/L	481.20	ppb	06:57:39
1	Ba 233.527†	2109672.5	2179583.5	12888	µg/L	12888	ppb	06:57:37
1	Be 313.107†	97722.7	108277.0	47.434	µg/L	47.434	ppb	06:57:39
1	Cd 226.502†	4971.4	5467.0	12.365	µg/L	12.365	ppb	06:57:59
1	Co 228.616†	5756.1	6048.6	185.93	µg/L	185.93	ppb	06:57:59
1	Cr 267.716†	23575.0	24041.7	183.34	µg/L	183.34	ppb	06:57:39
1	Cu 324.752†	68620.9	67392.2	281.18	µg/L	281.18	ppb	06:57:39
1	Mn 257.610†	56554099.1	58420771.0	78515	µg/L	78515	ppb	06:57:34
1	Mo 202.031†	-447.3	-476.0	-6.4865	µg/L	-6.4865	ppb	06:57:59
1	Ni 231.604†	8744.9	8885.8	226.57	µg/L	226.57	ppb	06:57:59
1	P 214.914†	31053.0	32144.8	19578	µg/L	19578	ppb	06:57:39
1	Pb 220.353†	5200.4	5471.0	656.73	µg/L	656.73	ppb	06:57:59
1	S 181.975 Axial†	22165.8	22736.1	20389	µg/L	20389	ppb	06:57:59
1	Sb 206.836†	33.3	-22.8	-12.157	µg/L	-12.157	ppb	06:57:59
1	Se 196.026†	-64.1	-114.2	54.6	µg/L	54.6	ppb	06:57:59
1	SiO2†	3996199.4	4126569.6	433050	µg/L	433050	ppb	06:57:37
1	Si 251.611†	6716247.2	6937528.8	197720	µg/L	197720	ppb	06:57:37
1	Sn 189.927†	-170.8	-212.0	39.100	µg/L	39.100	ppb	06:57:59
1	Ti 334.940†	384440.2	398022.3	759.10	µg/L	759.10	ppb	06:57:39
1	Tl 190.801†	-753.9	-648.2	-38.110	µg/L	-38.110	ppb	06:57:59
1	U 367.007†	4279.0	5070.2	-106.30	µg/L	-106.30	ppb	06:57:39
1	V 292.402†	25784.4	26471.3	198.68	µg/L	198.68	ppb	06:57:39
1	Zn 213.857†	222972.3	229377.8	2347.9	µg/L	2347.9	ppb	06:57:39
2	Sc RADIAL	22898.2	22898.2	101	%			06:57:24
2	Al 396.153Radial†	556965.2	553751.3	276360	µg/L	276360	ppb	06:57:22
2	Ca 317.933Radial†	4020232.1	3998233.5	1226900	µg/L	1226900	ppb	06:57:22
2	Fe 238.204 Radial†	257886.6	256472.7	160080	µg/L	160080	ppb	06:57:24
2	K 766.490 Radial†	102107.8	100504.2	102200	µg/L	102200	ppb	06:57:24
2	Mg 279.077 IEC†	34638.0	34460.3	114360	µg/L	114360	ppb	06:57:24
2	Na 589.592 Radial†	78829.1	77339.5	15368	µg/L	15368	ppb	06:57:24
2	Sr 421.552†	1803723.4	1793779.2	7806.6	µg/L	7806.6	ppb	06:57:22
2	Sc 361.383	1086629.2	1086629.2	97.586	%			06:58:06
2	Y 371.029	1215852.6	1215852.6	178.51	%			06:58:06
2	Ag 328.068†	1360.5	2393.7	16.965	µg/L	16.965	ppb	06:58:08
2	As 188.979†	87.8	128.3	75.535	µg/L	75.535	ppb	06:58:28
2	B 249.677†	-27260.8	-27146.4	469.99	µg/L	469.99	ppb	06:58:08
2	Ba 233.527†	2129537.2	2182474.2	12905	µg/L	12905	ppb	06:58:06
2	Be 313.107†	97181.9	106913.8	46.893	µg/L	46.893	ppb	06:58:08
2	Cd 226.502†	4911.5	5364.5	11.926	µg/L	11.926	ppb	06:58:28
2	Co 228.616†	5728.9	5973.1	183.83	µg/L	183.83	ppb	06:58:28
2	Cr 267.716†	23239.0	23502.3	179.30	µg/L	179.30	ppb	06:58:08
2	Cu 324.752†	68655.2	66859.2	278.99	µg/L	278.99	ppb	06:58:08
2	Mn 257.610†	56223402.4	57613694.3	77431	µg/L	77431	ppb	06:58:03
2	Mo 202.031†	-419.2	-443.5	-5.4431	µg/L	-5.4431	ppb	06:58:28
2	Ni 231.604†	8563.4	8627.5	220.01	µg/L	220.01	ppb	06:58:28
2	P 214.914†	30764.8	31592.4	19241	µg/L	19241	ppb	06:58:08
2	Pb 220.353†	5141.0	5367.1	644.58	µg/L	644.58	ppb	06:58:28

2	S 181.975 Axial†	21834.6	22213.2	19917	µg/L	19917	ppb	06:58:28
2	Sb 206.836†	47.1	-8.9	-4.2911	µg/L	-4.2911	ppb	06:58:28
2	Se 196.026†	-51.0	-100.3	60.1	µg/L	60.1	ppb	06:58:28
2	SiO2†	4034558.3	4132793.9	433710	µg/L	433710	ppb	06:58:06
2	Si 251.611†	6791009.0	6958538.1	198320	µg/L	198320	ppb	06:58:06
2	Sn 189.927†	-162.6	-202.2	40.039	µg/L	40.039	ppb	06:58:28
2	Ti 334.940†	383228.7	393598.1	750.68	µg/L	750.68	ppb	06:58:08
2	Tl 190.801†	-752.5	-640.5	-37.849	µg/L	-37.849	ppb	06:58:28
2	U 367.007†	4412.9	5172.1	-82.690	µg/L	-82.690	ppb	06:58:08
2	V 292.402†	25840.3	26315.1	197.49	µg/L	197.49	ppb	06:58:08
2	Zn 213.857†	221580.6	226105.7	2314.3	µg/L	2314.3	ppb	06:58:08
3	Sc RADIAL	23162.8	23162.8	102	%			06:57:28
3	Al 396.153Radial†	547449.6	538068.7	268540	µg/L	268540	ppb	06:57:26
3	Ca 317.933Radial†	3952700.0	3886168.5	1192500	µg/L	1192500	ppb	06:57:26
3	Fe 238.204 Radial†	263670.5	259230.1	161800	µg/L	161800	ppb	06:57:28
3	K 766.490 Radial†	104833.4	102024.2	103750	µg/L	103750	ppb	06:57:28
3	Mg 279.077 IEC†	35462.3	34877.3	115740	µg/L	115740	ppb	06:57:28
3	Na 589.592 Radial†	80005.8	77600.9	15420	µg/L	15420	ppb	06:57:28
3	Sr 421.552†	1772097.6	1742195.4	7582.0	µg/L	7582.0	ppb	06:57:26
3	Sc 361.383	1085718.9	1085718.9	97.504	%			06:58:35
3	Y 371.029	1205873.4	1205873.4	177.05	%			06:58:35
3	Ag 328.068†	1950.8	3000.3	19.944	µg/L	19.944	ppb	06:58:37
3	As 188.979†	93.6	134.3	78.365	µg/L	78.365	ppb	06:58:57
3	B 249.677†	-27694.4	-27614.5	471.35	µg/L	471.35	ppb	06:58:37
3	Ba 233.527†	2119414.2	2173921.7	12855	µg/L	12855	ppb	06:58:35
3	Be 313.107†	96139.0	105927.7	46.320	µg/L	46.320	ppb	06:58:37
3	Cd 226.502†	4931.7	5389.4	11.912	µg/L	11.912	ppb	06:58:57
3	Co 228.616†	5734.9	5984.1	184.03	µg/L	184.03	ppb	06:58:57
3	Cr 267.716†	23480.9	23770.4	181.34	µg/L	181.34	ppb	06:58:37
3	Cu 324.752†	68058.3	66306.0	276.96	µg/L	276.96	ppb	06:58:37
3	Mn 257.610†	56802033.1	58255443.9	78293	µg/L	78293	ppb	06:58:32
3	Mo 202.031†	-428.0	-452.9	-5.6653	µg/L	-5.6653	ppb	06:58:57
3	Ni 231.604†	8685.1	8759.6	223.37	µg/L	223.37	ppb	06:58:57
3	P 214.914†	30677.2	31528.9	19196	µg/L	19196	ppb	06:58:37
3	Pb 220.353†	5179.0	5410.6	648.33	µg/L	648.33	ppb	06:58:57
3	S 181.975 Axial†	21999.2	22400.9	20085	µg/L	20085	ppb	06:58:57
3	Sb 206.836†	22.3	-34.2	-18.631	µg/L	-18.631	ppb	06:58:57
3	Se 196.026†	-70.1	-119.9	52.6	µg/L	52.6	ppb	06:58:57
3	SiO2†	4012485.2	4113622.1	431690	µg/L	431690	ppb	06:58:35
3	Si 251.611†	6755954.4	6928420.7	197460	µg/L	197460	ppb	06:58:35
3	Sn 189.927†	-169.2	-209.1	37.335	µg/L	37.335	ppb	06:58:57
3	Ti 334.940†	380736.5	391371.4	746.50	µg/L	746.50	ppb	06:58:37
3	Tl 190.801†	-746.2	-634.7	-35.174	µg/L	-35.174	ppb	06:58:57
3	U 367.007†	4496.4	5261.4	-76.855	µg/L	-76.855	ppb	06:58:37
3	V 292.402†	25230.7	25712.0	192.22	µg/L	192.22	ppb	06:58:37
3	Zn 213.857†	219892.3	224564.6	2298.2	µg/L	2298.2	ppb	06:58:37

Mean Data: 1202477129|1137348|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1083422.9	97.298	%	0.4299				0.44%
Sc RADIAL	22941.7	101	%	0.9				0.88%
Y 371.029	1207960.6	177.35	%	1.040				0.59%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 177.4%								
Ag 328.068†	2727.7	18.634	µg/L	1.5218	18.634	ppb	1.5218	8.17%
Al 396.153Radial†	550578.1	274780	µg/L	5622.2	274780	ppb	5622.2	2.05%
As 188.979†	130.2	76.474	µg/L	1.6369	76.474	ppb	1.6369	2.14%
B 249.677†	-27208.3	474.18	µg/L	6.114	474.18	ppb	6.114	1.29%
Ba 233.527†	2178659.8	12883	µg/L	25.7	12883	ppb	25.7	0.20%
Be 313.107†	107039.5	46.882	µg/L	0.5572	46.882	ppb	0.5572	1.19%
Ca 317.933Radial†	3967609.2	1217500	µg/L	21863.2	1217500	ppb	21863.2	1.80%
Concentration greater than upper limit for Ca 317.933Radial.								
Cd 226.502†	5407.0	12.068	µg/L	0.2575	12.068	ppb	0.2575	2.13%
Co 228.616†	6001.9	184.60	µg/L	1.156	184.60	ppb	1.156	0.63%
Cr 267.716†	23771.5	181.33	µg/L	2.021	181.33	ppb	2.021	1.11%
Cu 324.752†	66852.5	279.04	µg/L	2.109	279.04	ppb	2.109	0.76%
Fe 238.204 Radial†	257827.7	160920	µg/L	860.9	160920	ppb	860.9	0.53%
K 766.490 Radial†	101564.5	103280	µg/L	939.6	103280	ppb	939.6	0.91%
Mg 279.077 IEC†	34659.4	115020	µg/L	694.0	115020	ppb	694.0	0.60%
Mn 257.610†	58096636.4	78080	µg/L	573.0	78080	ppb	573.0	0.73%

```
   Concentration greater than upper limit for Mn 257.610.
Mo 202.031†              -457.5     -5.8650 µg/L       0.54961     -5.8650 ppb        0.54961   9.37%
Na 589.592 Radial†     77624.7       15425 µg/L          59.2       15425 ppb           59.2   0.38%
Ni 231.604†              8757.6      223.32 µg/L         3.284      223.32 ppb          3.284   1.47%
P 214.914†             31755.4       19338 µg/L         208.8       19338 ppb          208.8   1.08%
   Concentration greater than upper limit for P 214.914.
Pb 220.353†              5416.3      649.88 µg/L         6.220      649.88 ppb          6.220   0.96%
S 181.975 Axial†       22450.1       20130 µg/L         239.3       20130 ppb          239.3   1.19%
Sb 206.836†               -22.0     -11.693 µg/L        7.1810     -11.693 ppb         7.1810  61.41%
   Concentration less than lower limit for Sb 206.836.
Se 196.026†              -111.5        55.8 µg/L          3.89        55.8 ppb           3.89   6.98%
SiO2†                 4124328.5      432820 µg/L        1026.4      432820 ppb         1026.4   0.24%
   Concentration greater than upper limit for SiO2.
Si 251.611†           6941495.9      197840 µg/L         440.2      197840 ppb          440.2   0.22%
   Concentration greater than upper limit for Si 251.611.
Sn 189.927†              -207.8      38.824 µg/L        1.3730      38.824 ppb         1.3730   3.54%
Sr 421.552†           1783759.8      7763.0 µg/L        163.58      7763.0 ppb         163.58   2.11%
Ti 334.940†            394330.6      752.09 µg/L         6.419      752.09 ppb          6.419   0.85%
Tl 190.801†              -641.2     -37.044 µg/L        1.6253     -37.044 ppb         1.6253   4.39%
   Concentration less than lower limit for Tl 190.801.
U 367.007†               5167.9     -88.613 µg/L       15.5886     -88.613 ppb        15.5886  17.59%
   Concentration less than lower limit for U 367.007.
V 292.402†              26166.1      196.13 µg/L         3.437      196.13 ppb          3.437   1.75%
Zn 213.857†            226682.7      2320.1 µg/L         25.36      2320.1 ppb          25.36   1.09%
Internal Standard Check failed.  Continue with analysis.
```

Sequence No.: 8
Sample ID: 1202477130|1137348|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 205
Date Collected: 9/1/2011 06:59:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202477130|1137348|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23092.4	23092.4	101	%			06:59:37
1	Al 396.153Radial†	643514.4	634447.5	316640	µg/L	316640	ppb	06:59:35
1	Ca 317.933Radial†	4120397.2	4063386.6	1246900	µg/L	1246900	ppb	06:59:35
1	Fe 238.204 Radial†	276281.1	272456.2	170050	µg/L	170050	ppb	06:59:37
1	K 766.490 Radial†	114777.2	112144.7	114050	µg/L	114050	ppb	06:59:37
1	Mg 279.077 IEC†	37710.1	37200.3	123450	µg/L	123450	ppb	06:59:37
1	Na 589.592 Radial†	110404.6	107819.9	21425	µg/L	21425	ppb	06:59:37
1	Sr 421.552†	1966789.1	1939506.8	8442.2	µg/L	8442.2	ppb	06:59:35
1	Sc 361.383	1082970.2	1082970.2	97.257	%			06:59:55
1	Y 371.029	1245348.1	1245348.1	182.84	%			06:59:55
1	Ag 328.068†	97806.0	101564.0	519.58	µg/L	519.58	ppb	06:59:55
1	As 188.979†	1031.8	1099.3	503.25	µg/L	503.25	ppb	06:59:57
1	B 249.677†	-5991.2	-5371.3	989.91	µg/L	989.91	ppb	06:59:55
1	Ba 233.527†	2351643.9	2418218.0	14300	µg/L	14300	ppb	06:59:55
1	Be 313.107†	1355302.7	1400854.6	527.27	µg/L	527.27	ppb	06:59:55
1	Cd 226.502†	91328.3	94235.6	465.18	µg/L	465.18	ppb	06:59:55
1	Co 228.616†	21261.2	21963.2	638.40	µg/L	638.40	ppb	06:59:57
1	Cr 267.716†	85926.4	88038.2	660.96	µg/L	660.96	ppb	06:59:55
1	Cu 324.752†	184094.6	185792.1	750.36	µg/L	750.36	ppb	06:59:55
1	Mn 257.610†	57932280.2	59565424.6	80054	µg/L	80054	ppb	06:59:52
1	Mo 202.031†	3971.7	4069.8	147.05	µg/L	147.05	ppb	06:59:57
1	Ni 231.604†	26247.6	26840.0	682.53	µg/L	682.53	ppb	06:59:57
1	P 214.914†	33660.3	34676.0	21121	µg/L	21121	ppb	06:59:57
1	Pb 220.353†	9391.2	9755.0	1144.8	µg/L	1144.8	ppb	06:59:57
1	S 181.975 Axial†	28498.8	29141.0	26220	µg/L	26220	ppb	06:59:57
1	Sb 206.836†	61.8	6.4	0.5118	µg/L	0.5118	ppb	06:59:57
1	Se 196.026†	797.2	771.6	448	µg/L	448	ppb	06:59:57
1	SiO2†	4728205.4	4859972.7	510020	µg/L	510020	ppb	06:59:55
1	Si 251.611†	8045152.9	8271565.1	235740	µg/L	235740	ppb	06:59:52
1	Sn 189.927†	-56.4	-93.6	54.783	µg/L	54.783	ppb	06:59:57
1	Ti 334.940†	349791.5	360544.7	687.98	µg/L	687.98	ppb	06:59:55
1	Tl 190.801†	734.3	885.6	337.31	µg/L	337.31	ppb	06:59:57
1	U 367.007†	7061.1	7910.2	349.77	µg/L	349.77	ppb	06:59:55
1	V 292.402†	74723.3	76666.2	619.87	µg/L	619.87	ppb	06:59:55
1	Zn 213.857†	280622.7	287580.2	2943.8	µg/L	2943.8	ppb	06:59:55
2	Sc RADIAL	23155.0	23155.0	102	%			06:59:41
2	Al 396.153Radial†	647574.9	636726.0	317770	µg/L	317770	ppb	06:59:39
2	Ca 317.933Radial†	4162115.2	4093436.4	1256100	µg/L	1256100	ppb	06:59:39
2	Fe 238.204 Radial†	275763.2	271210.4	169270	µg/L	169270	ppb	06:59:41
2	K 766.490 Radial†	113722.7	110801.7	112680	µg/L	112680	ppb	06:59:41
2	Mg 279.077 IEC†	37641.9	37032.7	122890	µg/L	122890	ppb	06:59:41
2	Na 589.592 Radial†	110087.1	107213.4	21304	µg/L	21304	ppb	06:59:41
2	Sr 421.552†	1978157.6	1945446.4	8467.9	µg/L	8467.9	ppb	06:59:39
2	Sc 361.383	1068019.8	1068019.8	95.914	%			07:00:05
2	Y 371.029	1225685.1	1225685.1	179.96	%			07:00:05
2	Ag 328.068†	98357.9	103547.2	529.65	µg/L	529.65	ppb	07:00:05
2	As 188.979†	1073.3	1157.3	528.55	µg/L	528.55	ppb	07:00:07
2	B 249.677†	-7029.3	-6539.8	960.32	µg/L	960.32	ppb	07:00:05
2	Ba 233.527†	2322218.3	2421386.4	14318	µg/L	14318	ppb	07:00:05
2	Be 313.107†	1335166.3	1399367.5	526.78	µg/L	526.78	ppb	07:00:05
2	Cd 226.502†	90511.5	94698.4	467.63	µg/L	467.63	ppb	07:00:05
2	Co 228.616†	21586.3	22608.2	656.71	µg/L	656.71	ppb	07:00:07
2	Cr 267.716†	85700.3	89039.2	668.41	µg/L	668.41	ppb	07:00:05
2	Cu 324.752†	180814.9	185022.3	747.26	µg/L	747.26	ppb	07:00:05
2	Mn 257.610†	58024009.3	60494886.9	81303	µg/L	81303	ppb	07:00:02
2	Mo 202.031†	3966.0	4121.1	148.73	µg/L	148.73	ppb	07:00:07
2	Ni 231.604†	26592.9	27577.8	701.26	µg/L	701.26	ppb	07:00:07
2	P 214.914†	34324.2	35852.7	21837	µg/L	21837	ppb	07:00:07
2	Pb 220.353†	9478.6	9981.3	1170.4	µg/L	1170.4	ppb	07:00:07

2	S 181.975 Axial†	28729.3	29791.5	26808	µg/L	26808	ppb	07:00:07
2	Sb 206.836†	15.5	-41.0	-26.249	µg/L	-26.249	ppb	07:00:07
2	Se 196.026†	790.7	776.3	449	µg/L	449	ppb	07:00:07
2	SiO2†	4679277.0	4877013.8	511810	µg/L	511810	ppb	07:00:05
2	Si 251.611†	8066257.1	8409363.0	239670	µg/L	239670	ppb	07:00:02
2	Sn 189.927†	-9.6	-45.6	61.525	µg/L	61.525	ppb	07:00:07
2	Ti 334.940†	344131.0	359677.7	686.31	µg/L	686.31	ppb	07:00:05
2	Tl 190.801†	841.3	1007.7	368.95	µg/L	368.95	ppb	07:00:07
2	U 367.007†	6957.7	7904.0	353.41	µg/L	353.41	ppb	07:00:05
2	V 292.402†	74646.7	77661.9	628.34	µg/L	628.34	ppb	07:00:05
2	Zn 213.857†	276169.2	286976.0	2937.5	µg/L	2937.5	ppb	07:00:05
3	Sc RADIAL	23047.0	23047.0	101	%			06:59:45
3	Al 396.153Radial†	640049.7	632276.3	315550	µg/L	315550	ppb	06:59:43
3	Ca 317.933Radial†	4067238.3	4018877.4	1233200	µg/L	1233200	ppb	06:59:43
3	Fe 238.204 Radial†	275055.0	271782.4	169630	µg/L	169630	ppb	06:59:45
3	K 766.490 Radial†	112147.1	109769.2	111630	µg/L	111630	ppb	06:59:45
3	Mg 279.077 IEC†	37738.5	37301.7	123790	µg/L	123790	ppb	06:59:45
3	Na 589.592 Radial†	109494.5	107135.5	21289	µg/L	21289	ppb	06:59:45
3	Sr 421.552†	1956532.4	1933199.7	8414.9	µg/L	8414.9	ppb	06:59:43
3	Sc 361.383	1088092.1	1088092.1	97.717	%			07:00:15
3	Y 371.029	1245728.8	1245728.8	182.90	%			07:00:15
3	Ag 328.068†	99562.1	102887.8	526.24	µg/L	526.24	ppb	07:00:15
3	As 188.979†	1090.1	1153.9	527.06	µg/L	527.06	ppb	07:00:17
3	B 249.677†	-6810.6	-6180.8	970.19	µg/L	970.19	ppb	07:00:15
3	Ba 233.527†	2367719.4	2423287.2	14330	µg/L	14330	ppb	07:00:15
3	Be 313.107†	1361502.2	1400639.4	527.11	µg/L	527.11	ppb	07:00:15
3	Cd 226.502†	92997.8	95502.0	471.69	µg/L	471.69	ppb	07:00:15
3	Co 228.616†	21534.1	22139.6	643.45	µg/L	643.45	ppb	07:00:17
3	Cr 267.716†	87048.1	88770.2	666.41	µg/L	666.41	ppb	07:00:15
3	Cu 324.752†	184517.7	185334.0	748.49	µg/L	748.49	ppb	07:00:15
3	Mn 257.610†	58265404.7	59625943.6	80135	µg/L	80135	ppb	07:00:12
3	Mo 202.031†	3883.1	3959.9	143.32	µg/L	143.32	ppb	07:00:17
3	Ni 231.604†	26641.7	27116.3	689.55	µg/L	689.55	ppb	07:00:17
3	P 214.914†	34243.3	35109.7	21384	µg/L	21384	ppb	07:00:17
3	Pb 220.353†	9619.9	9943.6	1165.8	µg/L	1165.8	ppb	07:00:17
3	S 181.975 Axial†	28750.2	29260.3	26329	µg/L	26329	ppb	07:00:17
3	Sb 206.836†	41.2	-15.0	-11.648	µg/L	-11.648	ppb	07:00:17
3	Se 196.026†	842.2	813.8	466	µg/L	466	ppb	07:00:17
3	SiO2†	4759961.1	4869586.2	511030	µg/L	511030	ppb	07:00:15
3	Si 251.611†	8107024.9	8295944.6	236440	µg/L	236440	ppb	07:00:12
3	Sn 189.927†	-38.3	-74.8	56.506	µg/L	56.506	ppb	07:00:17
3	Ti 334.940†	350333.5	359406.5	685.83	µg/L	685.83	ppb	07:00:15
3	Tl 190.801†	715.0	862.3	331.64	µg/L	331.64	ppb	07:00:17
3	U 367.007†	7013.3	7827.1	337.57	µg/L	337.57	ppb	07:00:15
3	V 292.402†	75662.0	77265.2	624.93	µg/L	624.93	ppb	07:00:15
3	Zn 213.857†	282808.6	288458.9	2952.8	µg/L	2952.8	ppb	07:00:15

Mean Data: 1202477130|1137348|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1079694.0	96.963	%	0.9366				0.97%
Sc RADIAL	23098.1	101	%	0.2				0.23%
Y 371.029	1238920.7	181.90	%	1.683				0.93%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 181.9%								
Ag 328.068†	102666.3	525.15	µg/L	5.122	525.15	ppb	5.122	0.98%
Al 396.153Radial†	634483.2	316650	µg/L	1110.6	316650	ppb	1110.6	0.35%
As 188.979†	1136.8	519.62	µg/L	14.201	519.62	ppb	14.201	2.73%
B 249.677†	-6030.6	973.47	µg/L	15.068	973.47	ppb	15.068	1.55%
Ba 233.527†	2420963.9	14316	µg/L	15.2	14316	ppb	15.2	0.11%
Be 313.107†	1400287.2	527.05	µg/L	0.252	527.05	ppb	0.252	0.05%
Ca 317.933Radial†	4058566.8	1245400	µg/L	11511.0	1245400	ppb	11511.0	0.92%
Concentration greater than upper limit for Ca 317.933Radial.								
Cd 226.502†	94812.0	468.17	µg/L	3.289	468.17	ppb	3.289	0.70%
Co 228.616†	22237.0	646.19	µg/L	9.458	646.19	ppb	9.458	1.46%
Cr 267.716†	88615.9	665.26	µg/L	3.855	665.26	ppb	3.855	0.58%
Cu 324.752†	185382.8	748.70	µg/L	1.560	748.70	ppb	1.560	0.21%
Fe 238.204 Radial†	271816.3	169650	µg/L	389.4	169650	ppb	389.4	0.23%
K 766.490 Radial†	110905.2	112790	µg/L	1213.0	112790	ppb	1213.0	1.08%
Mg 279.077 IEC†	37178.2	123380	µg/L	450.9	123380	ppb	450.9	0.37%
Mn 257.610†	59895418.4	80497	µg/L	698.9	80497	ppb	698.9	0.87%

```
   Concentration greater than upper limit for Mn 257.610.
Mo 202.031†              4050.3      146.37 µg/L          2.766      146.37 ppb           2.766   1.89%
Na 589.592 Radial†     107389.6       21339 µg/L           74.5       21339 ppb            74.5   0.35%
Ni 231.604†             27178.0      691.11 µg/L          9.463      691.11 ppb           9.463   1.37%
P 214.914†              35212.8       21447 µg/L          362.1       21447 ppb           362.1   1.69%
   Concentration greater than upper limit for P 214.914.
Pb 220.353†              9893.3      1160.3 µg/L          13.68      1160.3 ppb           13.68   1.18%
S 181.975 Axial†        29397.6       26452 µg/L          312.8       26452 ppb           312.8   1.18%
Sb 206.836†               -16.5     -12.462 µg/L        13.3989     -12.462 ppb         13.3989 107.52%
   Concentration less than lower limit for Sb 206.836.
Se 196.026†               787.3         454 µg/L           10.0         454 ppb            10.0   2.21%
SiO2†                 4868857.6      510960 µg/L          896.7      510960 ppb           896.7   0.18%
   Concentration greater than upper limit for SiO2.
Si 251.611†           8325624.2      237280 µg/L         2095.8      237280 ppb          2095.8   0.88%
   Concentration greater than upper limit for Si 251.611.
Sn 189.927†               -71.3      57.605 µg/L         3.5025      57.605 ppb          3.5025   6.08%
Sr 421.552†           1939384.3      8441.7 µg/L          26.52      8441.7 ppb           26.52   0.31%
Ti 334.940†            359876.3      686.71 µg/L          1.129      686.71 ppb           1.129   0.16%
Tl 190.801†               918.5      345.97 µg/L         20.109      345.97 ppb          20.109   5.81%
U 367.007†               7880.4      346.92 µg/L          8.300      346.92 ppb           8.300   2.39%
V 292.402†              77197.8      624.38 µg/L          4.261      624.38 ppb           4.261   0.68%
Zn 213.857†            287671.7      2944.7 µg/L           7.71      2944.7 ppb            7.71   0.26%
Internal Standard Check failed.  Continue with analysis.
```

Sequence No.: 9 **Autosampler Location: 206**
Sample ID: 1202477131|1137348|5 **Date Collected: 9/1/2011 07:00:24**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202477131|1137348|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23055.9	23055.9	101	%			07:00:56
1	Al 396.153Radial†	114901.3	113306.2	56548	µg/L	56548	ppb	07:00:54
1	Ca 317.933Radial†	804563.8	794553.1	243810	µg/L	243810	ppb	07:00:54
1	Fe 238.204 Radial†	57276.7	56562.5	35303	µg/L	35303	ppb	07:00:56
1	K 766.490 Radial†	20686.5	19384.3	19709	µg/L	19709	ppb	07:00:56
1	Mg 279.077 IEC†	7237.9	7159.7	23759	µg/L	23759	ppb	07:00:56
1	Na 589.592 Radial†	16715.3	15449.2	3069.9	µg/L	3069.9	ppb	07:00:56
1	Sr 421.552†	349722.5	345294.4	1502.6	µg/L	1502.6	ppb	07:00:54
1	Sc 361.383	1105378.5	1105378.5	99.269	%			07:01:11
1	Y 371.029	787951.4	787951.4	115.69	%			07:01:11
1	Ag 328.068†	-680.5	314.0	2.5807	µg/L	2.5807	ppb	07:01:11
1	As 188.979†	-5.7	32.6	18.539	µg/L	18.539	ppb	07:01:31
1	B 249.677†	-6734.4	-5995.0	103.49	µg/L	103.49	ppb	07:01:11
1	Ba 233.527†	453053.0	456636.6	2700.1	µg/L	2700.1	ppb	07:01:11
1	Be 313.107†	14553.4	21988.0	9.5867	µg/L	9.5867	ppb	07:01:11
1	Cd 226.502†	769.5	1106.6	2.2289	µg/L	2.2289	ppb	07:01:31
1	Co 228.616†	1136.8	1247.5	38.360	µg/L	38.360	ppb	07:01:31
1	Cr 267.716†	5381.5	5109.4	39.001	µg/L	39.001	ppb	07:01:31
1	Cu 324.752†	18277.5	14917.3	62.254	µg/L	62.254	ppb	07:01:11
1	Mn 257.610†	13184003.5	13280281.1	17848	µg/L	17848	ppb	07:01:08
1	Mo 202.031†	-73.1	-87.6	-0.8590	µg/L	-0.8590	ppb	07:01:31
1	Ni 231.604†	2024.7	1891.8	48.244	µg/L	48.244	ppb	07:01:31
1	P 214.914†	6424.1	6537.7	3979.4	µg/L	3979.4	ppb	07:01:31
1	Pb 220.353†	1111.9	1219.0	145.49	µg/L	145.49	ppb	07:01:31
1	S 181.975 Axial†	4564.6	4436.6	3968.2	µg/L	3968.2	ppb	07:01:31
1	Sb 206.836†	51.1	-5.7	-3.0718	µg/L	-3.0718	ppb	07:01:31
1	Se 196.026†	36.3	-11.5	17.9	µg/L	17.9	ppb	07:01:31
1	SiO2†	842765.4	847383.0	88927	µg/L	88927	ppb	07:01:11
1	Si 251.611†	1436289.6	1446370.3	41222	µg/L	41222	ppb	07:01:11
1	Sn 189.927†	-135.0	-171.6	-9.1303	µg/L	-9.1303	ppb	07:01:31
1	Ti 334.940†	88068.4	89604.4	170.86	µg/L	170.86	ppb	07:01:11
1	Tl 190.801†	-253.0	-124.3	-3.0129	µg/L	-3.0129	ppb	07:01:31
1	U 367.007†	490.6	1144.2	-17.253	µg/L	-17.253	ppb	07:01:11
1	V 292.402†	5682.7	5559.9	41.511	µg/L	41.511	ppb	07:01:31
1	Zn 213.857†	47862.4	47257.5	483.50	µg/L	483.50	ppb	07:01:11
2	Sc RADIAL	23576.3	23576.3	104	%			07:01:00
2	Al 396.153Radial†	116427.6	112275.4	56033	µg/L	56033	ppb	07:00:58
2	Ca 317.933Radial†	808392.6	780710.2	239570	µg/L	239570	ppb	07:00:58
2	Fe 238.204 Radial†	58465.0	56461.6	35240	µg/L	35240	ppb	07:01:00
2	K 766.490 Radial†	20849.5	19090.7	19411	µg/L	19411	ppb	07:01:00
2	Mg 279.077 IEC†	7425.6	7183.3	23838	µg/L	23838	ppb	07:01:00
2	Na 589.592 Radial†	16668.7	15039.7	2988.5	µg/L	2988.5	ppb	07:01:00
2	Sr 421.552†	355003.2	342770.7	1491.7	µg/L	1491.7	ppb	07:00:58
2	Sc 361.383	1108551.1	1108551.1	99.554	%			07:01:35
2	Y 371.029	790659.2	790659.2	116.09	%			07:01:35
2	Ag 328.068†	-520.3	476.9	3.3926	µg/L	3.3926	ppb	07:01:35
2	As 188.979†	-12.4	25.8	15.565	µg/L	15.565	ppb	07:01:56
2	B 249.677†	-6800.8	-6042.4	102.09	µg/L	102.09	ppb	07:01:35
2	Ba 233.527†	453887.7	456168.9	2697.4	µg/L	2697.4	ppb	07:01:35
2	Be 313.107†	14462.1	21854.4	9.5116	µg/L	9.5116	ppb	07:01:35
2	Cd 226.502†	794.0	1129.0	2.3500	µg/L	2.3500	ppb	07:01:56
2	Co 228.616†	1141.1	1248.5	38.386	µg/L	38.386	ppb	07:01:56
2	Cr 267.716†	5375.3	5087.7	38.836	µg/L	38.836	ppb	07:01:56
2	Cu 324.752†	18369.4	14957.0	62.401	µg/L	62.401	ppb	07:01:35
2	Mn 257.610†	12948592.9	13005807.2	17479	µg/L	17479	ppb	07:01:33
2	Mo 202.031†	-80.1	-94.3	-1.0910	µg/L	-1.0910	ppb	07:01:56
2	Ni 231.604†	2007.0	1868.1	47.643	µg/L	47.643	ppb	07:01:56
2	P 214.914†	6364.4	6459.2	3931.5	µg/L	3931.5	ppb	07:01:56
2	Pb 220.353†	1123.0	1227.0	146.32	µg/L	146.32	ppb	07:01:56

2	S 181.975 Axial†	4519.3	4377.9	3916.2	µg/L	3916.2	ppb	07:01:56
2	Sb 206.836†	40.5	-16.4	-9.1511	µg/L	-9.1511	ppb	07:01:56
2	Se 196.026†	9.7	-38.3	6.15	µg/L	6.15	ppb	07:01:56
2	SiO2†	844366.2	846561.3	88840	µg/L	88840	ppb	07:01:35
2	Si 251.611†	1437944.7	1443892.1	41152	µg/L	41152	ppb	07:01:35
2	Sn 189.927†	-119.6	-155.7	-7.2774	µg/L	-7.2774	ppb	07:01:56
2	Ti 334.940†	87921.2	89202.7	170.10	µg/L	170.10	ppb	07:01:35
2	Tl 190.801†	-271.7	-142.4	-7.9955	µg/L	-7.9955	ppb	07:01:56
2	U 367.007†	601.4	1254.0	3.0683	µg/L	3.0683	ppb	07:01:35
2	V 292.402†	5626.6	5487.3	40.910	µg/L	40.910	ppb	07:01:56
2	Zn 213.857†	47935.9	47193.3	482.85	µg/L	482.85	ppb	07:01:35
3	Sc RADIAL	23144.9	23144.9	102	%			07:01:04
3	Al 396.153Radial†	114125.2	112105.8	55949	µg/L	55949	ppb	07:01:02
3	Ca 317.933Radial†	792714.1	779835.4	239300	µg/L	239300	ppb	07:01:02
3	Fe 238.204 Radial†	57034.9	56106.9	35019	µg/L	35019	ppb	07:01:04
3	K 766.490 Radial†	20531.0	19152.7	19474	µg/L	19474	ppb	07:01:04
3	Mg 279.077 IEC†	7287.9	7181.5	23832	µg/L	23832	ppb	07:01:04
3	Na 589.592 Radial†	16449.8	15124.5	3005.3	µg/L	3005.3	ppb	07:01:04
3	Sr 421.552†	346790.8	341080.5	1484.3	µg/L	1484.3	ppb	07:01:02
3	Sc 361.383	1099460.5	1099460.5	98.738	%			07:02:00
3	Y 371.029	778215.1	778215.1	114.26	%			07:02:00
3	Ag 328.068†	-516.1	476.8	3.3908	µg/L	3.3908	ppb	07:02:00
3	As 188.979†	-22.8	15.2	10.914	µg/L	10.914	ppb	07:02:20
3	B 249.677†	-6471.5	-5765.4	106.45	µg/L	106.45	ppb	07:02:00
3	Ba 233.527†	449078.1	455067.5	2690.8	µg/L	2690.8	ppb	07:02:00
3	Be 313.107†	14087.9	21595.5	9.4137	µg/L	9.4137	ppb	07:02:00
3	Cd 226.502†	792.2	1133.8	2.3927	µg/L	2.3927	ppb	07:02:20
3	Co 228.616†	1145.9	1262.9	38.788	µg/L	38.788	ppb	07:02:20
3	Cr 267.716†	5345.6	5102.3	38.939	µg/L	38.939	ppb	07:02:20
3	Cu 324.752†	18107.2	14844.0	61.930	µg/L	61.930	ppb	07:02:00
3	Mn 257.610†	12926702.5	13091178.4	17594	µg/L	17594	ppb	07:01:58
3	Mo 202.031†	-61.9	-76.6	-0.5072	µg/L	-0.5072	ppb	07:02:20
3	Ni 231.604†	2010.0	1887.9	48.142	µg/L	48.142	ppb	07:02:20
3	P 214.914†	6375.6	6523.5	3970.6	µg/L	3970.6	ppb	07:02:20
3	Pb 220.353†	1113.1	1226.3	146.23	µg/L	146.23	ppb	07:02:20
3	S 181.975 Axial†	4538.4	4434.8	3967.6	µg/L	3967.6	ppb	07:02:20
3	Sb 206.836†	46.2	-10.3	-5.6981	µg/L	-5.6981	ppb	07:02:20
3	Se 196.026†	21.2	-26.6	11.1	µg/L	11.1	ppb	07:02:20
3	SiO2†	835320.4	844412.5	88615	µg/L	88615	ppb	07:02:00
3	Si 251.611†	1424026.4	1441738.3	41090	µg/L	41090	ppb	07:02:00
3	Sn 189.927†	-134.0	-171.2	-9.3206	µg/L	-9.3206	ppb	07:02:20
3	Ti 334.940†	87551.6	89558.5	170.78	µg/L	170.78	ppb	07:02:00
3	Tl 190.801†	-258.1	-130.8	-5.0009	µg/L	-5.0009	ppb	07:02:20
3	U 367.007†	741.0	1400.4	30.930	µg/L	30.930	ppb	07:02:00
3	V 292.402†	5659.4	5567.2	41.615	µg/L	41.615	ppb	07:02:20
3	Zn 213.857†	47405.0	47053.8	481.43	µg/L	481.43	ppb	07:02:00

Mean Data: 1202477131|1137348|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1104463.4	99.187	%	0.4144				0.42%
Sc RADIAL	23259.0	102	%	1.2				1.20%
Y 371.029	785608.5	115.34	%	0.961				0.83%
Ag 328.068†	422.6	3.1214	µg/L	0.46824	3.1214	ppb	0.46824	15.00%
Al 396.153Radial†	112562.5	56176	µg/L	324.2	56176	ppb	324.2	0.58%
As 188.979†	24.5	15.006	µg/L	3.8430	15.006	ppb	3.8430	25.61%
B 249.677†	-5934.3	104.01	µg/L	2.229	104.01	ppb	2.229	2.14%
Ba 233.527†	455957.7	2696.1	µg/L	4.76	2696.1	ppb	4.76	0.18%
Be 313.107†	21812.6	9.5040	µg/L	0.08679	9.5040	ppb	0.08679	0.91%
Ca 317.933Radial†	785032.9	240890	µg/L	2533.5	240890	ppb	2533.5	1.05%
Cd 226.502†	1123.1	2.3238	µg/L	0.08497	2.3238	ppb	0.08497	3.66%
Co 228.616†	1253.0	38.511	µg/L	0.2402	38.511	ppb	0.2402	0.62%
Cr 267.716†	5099.8	38.925	µg/L	0.0833	38.925	ppb	0.0833	0.21%
Cu 324.752†	14906.1	62.195	µg/L	0.2407	62.195	ppb	0.2407	0.39%
Fe 238.204 Radial†	56377.0	35188	µg/L	149.4	35188	ppb	149.4	0.42%
K 766.490 Radial†	19209.3	19531	µg/L	157.3	19531	ppb	157.3	0.81%
Mg 279.077 IEC†	7174.8	23810	µg/L	43.5	23810	ppb	43.5	0.18%
Mn 257.610†	13125755.5	17641	µg/L	188.8	17641	ppb	188.8	1.07%
Concentration greater than upper limit for Mn 257.610.								
Mo 202.031†	-86.2	-0.8191	µg/L	0.29390	-0.8191	ppb	0.29390	35.88%

Na 589.592 Radial†	15204.5	3021.2	µg/L	42.94	3021.2	ppb	42.94	1.42%
Ni 231.604†	1882.6	48.010	µg/L	0.3218	48.010	ppb	0.3218	0.67%
P 214.914†	6506.8	3960.5	µg/L	25.52	3960.5	ppb	25.52	0.64%
Pb 220.353†	1224.1	146.01	µg/L	0.453	146.01	ppb	0.453	0.31%
S 181.975 Axial†	4416.4	3950.7	µg/L	29.83	3950.7	ppb	29.83	0.75%
Sb 206.836†	-10.8	-5.9737	µg/L	3.04897	-5.9737	ppb	3.04897	51.04%
Se 196.026†	-25.5	11.7	µg/L	5.87	11.7	ppb	5.87	50.16%
SiO2†	846118.9	88794	µg/L	161.0	88794	ppb	161.0	0.18%
Si 251.611†	1444000.2	41155	µg/L	66.1	41155	ppb	66.1	0.16%
Sn 189.927†	-166.2	-8.5761	µg/L	1.12873	-8.5761	ppb	1.12873	13.16%
Sr 421.552†	343048.5	1492.8	µg/L	9.21	1492.8	ppb	9.21	0.62%
Ti 334.940†	89455.2	170.58	µg/L	0.417	170.58	ppb	0.417	0.24%
Tl 190.801†	-132.5	-5.3364	µg/L	2.50822	-5.3364	ppb	2.50822	47.00%
U 367.007†	1266.2	5.5818	µg/L	24.19001	5.5818	ppb	24.19001	433.37%
V 292.402†	5538.1	41.345	µg/L	0.3801	41.345	ppb	0.3801	0.92%
Zn 213.857†	47168.2	482.59	µg/L	1.059	482.59	ppb	1.059	0.22%

Sequence No.: 10 **Autosampler Location: 207**
Sample ID: 284865001|1137348|1 **Date Collected: 9/1/2011 07:02:27**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 284865001|1137348|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23416.9	23416.9	103	%			07:02:59
1	Al 396.153Radial†	206.6	11.2	5.3232	µg/L	5.3232	ppb	07:02:59
1	Ca 317.933Radial†	106215.9	103129.1	31646	µg/L	31646	ppb	07:02:59
1	Fe 238.204 Radial†	150.2	132.4	82.657	µg/L	82.657	ppb	07:03:19
1	K 766.490 Radial†	21448.8	19810.7	20182	µg/L	20182	ppb	07:02:59
1	Mg 279.077 IEC†	2978.3	2906.9	9646.4	µg/L	9646.4	ppb	07:03:19
1	Na 589.592 Radial†	409646.3	397336.1	78954	µg/L	78954	ppb	07:02:57
1	Sr 421.552†	35830.7	34696.2	150.86	µg/L	150.86	ppb	07:02:59
1	Sc 361.383	1119274.4	1119274.4	100.52	%			07:04:11
1	Y 371.029	676839.4	676839.4	99.374	%			07:04:11
1	Ag 328.068†	-1061.8	-56.7	-0.1895	µg/L	-0.1895	ppb	07:04:11
1	As 188.979†	-25.0	13.5	5.9090	µg/L	5.9090	ppb	07:04:31
1	B 249.677†	3489.9	4260.8	89.839	µg/L	89.839	ppb	07:04:31
1	Ba 233.527†	7768.6	7977.9	47.197	µg/L	47.197	ppb	07:04:31
1	Be 313.107†	-8165.2	-795.7	-0.1019	µg/L	-0.1019	ppb	07:04:11
1	Cd 226.502†	-258.3	74.5	0.3758	µg/L	0.3758	ppb	07:04:31
1	Co 228.616†	-101.3	1.6	0.1094	µg/L	0.1094	ppb	07:04:31
1	Cr 267.716†	547.5	233.0	1.6912	µg/L	1.6912	ppb	07:04:31
1	Cu 324.752†	5389.7	1867.3	7.0939	µg/L	7.0939	ppb	07:04:11
1	Mn 257.610†	4724.8	3946.3	5.1674	µg/L	5.1674	ppb	07:04:31
1	Mo 202.031†	222.3	207.2	6.9778	µg/L	6.9778	ppb	07:04:31
1	Ni 231.604†	123.9	-24.6	-0.6236	µg/L	-0.6236	ppb	07:04:31
1	P 214.914†	6105.3	6140.2	3727.3	µg/L	3727.3	ppb	07:04:31
1	Pb 220.353†	-75.7	23.7	2.6712	µg/L	2.6712	ppb	07:04:31
1	S 181.975 Axial†	11849.4	11626.8	10602	µg/L	10602	ppb	07:04:31
1	Sb 206.836†	56.6	-0.8	-0.3543	µg/L	-0.3543	ppb	07:04:31
1	Se 196.026†	48.2	-0.1	-0.001	µg/L	-0.001	ppb	07:04:31
1	SiO2†	1110615.0	1103314.0	115780	µg/L	115780	ppb	07:04:11
1	Si 251.611†	1880751.1	1870581.5	53312	µg/L	53312	ppb	07:04:11
1	Sn 189.927†	-37.0	-72.4	-7.7462	µg/L	-7.7462	ppb	07:04:31
1	Ti 334.940†	-1779.9	-882.9	-1.4418	µg/L	-1.4418	ppb	07:04:11
1	Tl 190.801†	-131.1	0.1	-0.0058	µg/L	-0.0058	ppb	07:04:31
1	U 367.007†	-735.4	-81.6	-15.689	µg/L	-15.689	ppb	07:04:11
1	V 292.402†	2294.6	2118.2	17.785	µg/L	17.785	ppb	07:04:31
1	Zn 213.857†	4849.6	3867.6	39.867	µg/L	39.867	ppb	07:04:31
2	Sc RADIAL	23162.5	23162.5	102	%			07:03:23
2	Al 396.153Radial†	228.8	35.2	17.319	µg/L	17.319	ppb	07:03:23
2	Ca 317.933Radial†	104920.1	102989.6	31603	µg/L	31603	ppb	07:03:23
2	Fe 238.204 Radial†	168.5	152.0	94.885	µg/L	94.885	ppb	07:03:43
2	K 766.490 Radial†	21438.5	20029.6	20405	µg/L	20405	ppb	07:03:23
2	Mg 279.077 IEC†	2963.5	2924.1	9703.6	µg/L	9703.6	ppb	07:03:43
2	Na 589.592 Radial†	409340.7	401411.2	79763	µg/L	79763	ppb	07:03:21
2	Sr 421.552†	35350.2	34606.4	150.47	µg/L	150.47	ppb	07:03:23
2	Sc 361.383	1121463.4	1121463.4	100.71	%			07:04:34
2	Y 371.029	678256.1	678256.1	99.582	%			07:04:34
2	Ag 328.068†	-942.9	63.3	0.4185	µg/L	0.4185	ppb	07:04:34
2	As 188.979†	-26.1	12.4	5.4637	µg/L	5.4637	ppb	07:04:54
2	B 249.677†	3495.1	4259.2	89.884	µg/L	89.884	ppb	07:04:54
2	Ba 233.527†	7767.1	7961.3	47.099	µg/L	47.099	ppb	07:04:54
2	Be 313.107†	-8212.8	-827.1	-0.1139	µg/L	-0.1139	ppb	07:04:34
2	Cd 226.502†	-265.1	68.3	0.3429	µg/L	0.3429	ppb	07:04:54
2	Co 228.616†	-85.7	17.3	0.5548	µg/L	0.5548	ppb	07:04:54
2	Cr 267.716†	534.5	219.1	1.5871	µg/L	1.5871	ppb	07:04:54
2	Cu 324.752†	5493.8	1960.2	7.4617	µg/L	7.4617	ppb	07:04:34
2	Mn 257.610†	4821.4	4033.1	5.2832	µg/L	5.2832	ppb	07:04:54
2	Mo 202.031†	218.8	203.3	6.8481	µg/L	6.8481	ppb	07:04:54
2	Ni 231.604†	126.0	-22.8	-0.5779	µg/L	-0.5779	ppb	07:04:54
2	P 214.914†	6093.8	6117.0	3713.1	µg/L	3713.1	ppb	07:04:54
2	Pb 220.353†	-100.0	-0.3	-0.0293	µg/L	-0.0293	ppb	07:04:54

2	S 181.975 Axial†	11745.9	11501.1	10488	µg/L	10488	ppb	07:04:54
2	Sb 206.836†	54.6	-2.9	-1.5344	µg/L	-1.5344	ppb	07:04:54
2	Se 196.026†	43.4	-4.9	-2.09	µg/L	-2.09	ppb	07:04:54
2	SiO2†	1117153.1	1107649.1	116240	µg/L	116240	ppb	07:04:34
2	Si 251.611†	1893123.6	1879214.1	53558	µg/L	53558	ppb	07:04:34
2	Sn 189.927†	-40.5	-75.8	-8.1918	µg/L	-8.1918	ppb	07:04:54
2	Ti 334.940†	-1721.1	-821.1	-1.3228	µg/L	-1.3228	ppb	07:04:34
2	Tl 190.801†	-129.5	2.0	0.4486	µg/L	0.4486	ppb	07:04:54
2	U 367.007†	-496.4	157.1	27.405	µg/L	27.405	ppb	07:04:34
2	V 292.402†	2298.5	2117.7	17.778	µg/L	17.778	ppb	07:04:54
2	Zn 213.857†	4807.8	3816.6	39.341	µg/L	39.341	ppb	07:04:54
3	Sc RADIAL	22981.2	22981.2	101	%			07:03:47
3	Al 396.153Radial†	208.8	17.1	8.3179	µg/L	8.3179	ppb	07:03:47
3	Ca 317.933Radial†	103685.6	102580.2	31477	µg/L	31477	ppb	07:03:47
3	Fe 238.204 Radial†	164.3	149.1	93.070	µg/L	93.070	ppb	07:04:07
3	K 766.490 Radial†	21399.9	20157.7	20535	µg/L	20535	ppb	07:03:47
3	Mg 279.077 IEC†	2951.8	2935.6	9741.7	µg/L	9741.7	ppb	07:04:07
3	Na 589.592 Radial†	407068.6	402335.1	79947	µg/L	79947	ppb	07:03:45
3	Sr 421.552†	35301.6	34832.5	151.45	µg/L	151.45	ppb	07:03:47
3	Sc 361.383	1117217.1	1117217.1	100.33	%			07:04:57
3	Y 371.029	675153.4	675153.4	99.127	%			07:04:57
3	Ag 328.068†	-1148.2	-144.8	-0.6367	µg/L	-0.6367	ppb	07:04:57
3	As 188.979†	-29.8	8.6	3.8017	µg/L	3.8017	ppb	07:05:17
3	B 249.677†	3318.8	4096.7	86.466	µg/L	86.466	ppb	07:05:17
3	Ba 233.527†	7266.2	7491.3	44.318	µg/L	44.318	ppb	07:05:17
3	Be 313.107†	-7842.0	-488.6	0.0109	µg/L	0.0109	ppb	07:04:57
3	Cd 226.502†	-273.3	59.1	0.2962	µg/L	0.2962	ppb	07:05:17
3	Co 228.616†	-92.2	10.5	0.3577	µg/L	0.3577	ppb	07:05:17
3	Cr 267.716†	498.1	184.8	1.3302	µg/L	1.3302	ppb	07:05:17
3	Cu 324.752†	5344.0	1831.6	6.9517	µg/L	6.9517	ppb	07:04:57
3	Mn 257.610†	5810.8	5037.4	6.6324	µg/L	6.6324	ppb	07:05:17
3	Mo 202.031†	197.5	182.9	6.1618	µg/L	6.1618	ppb	07:05:17
3	Ni 231.604†	124.6	-23.6	-0.5999	µg/L	-0.5999	ppb	07:05:17
3	P 214.914†	5617.7	5665.5	3439.1	µg/L	3439.1	ppb	07:05:17
3	Pb 220.353†	-89.7	9.6	1.0849	µg/L	1.0849	ppb	07:05:17
3	S 181.975 Axial†	11095.6	10897.2	9937.1	µg/L	9937.1	ppb	07:05:17
3	Sb 206.836†	50.4	-6.9	-3.7737	µg/L	-3.7737	ppb	07:05:17
3	Se 196.026†	41.0	-7.2	-3.07	µg/L	-3.07	ppb	07:05:17
3	SiO2†	1098234.1	1093008.7	114700	µg/L	114700	ppb	07:04:57
3	Si 251.611†	1861003.2	1854344.4	52850	µg/L	52850	ppb	07:04:57
3	Sn 189.927†	-38.6	-74.0	-7.9671	µg/L	-7.9671	ppb	07:05:17
3	Ti 334.940†	-1726.7	-833.1	-1.3449	µg/L	-1.3449	ppb	07:04:57
3	Tl 190.801†	-125.8	5.2	1.2391	µg/L	1.2391	ppb	07:05:17
3	U 367.007†	-560.4	91.4	15.538	µg/L	15.538	ppb	07:04:57
3	V 292.402†	2067.6	1896.2	15.920	µg/L	15.920	ppb	07:05:17
3	Zn 213.857†	4506.0	3533.9	36.426	µg/L	36.426	ppb	07:05:17

Mean Data: 284865001|1137348|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1119318.3	100.52	%	0.191				0.19%
Sc RADIAL	23186.9	102	%	1.0				0.94%
Y 371.029	676749.7	99.361	%	0.2281				0.23%
Ag 328.068†	-46.1	-0.1359	µg/L	0.52962	-0.1359	ppb	0.52962	389.76%
Al 396.153Radial†	21.1	10.320	µg/L	6.2435	10.320	ppb	6.2435	60.50%
As 188.979†	11.5	5.0582	µg/L	1.11067	5.0582	ppb	1.11067	21.96%
B 249.677†	4205.6	88.729	µg/L	1.9607	88.729	ppb	1.9607	2.21%
Ba 233.527†	7810.2	46.205	µg/L	1.6348	46.205	ppb	1.6348	3.54%
Be 313.107†	-703.8	-0.0683	µg/L	0.06885	-0.0683	ppb	0.06885	100.84%
Ca 317.933Radial†	102899.6	31576	µg/L	87.6	31576	ppb	87.6	0.28%
Cd 226.502†	67.3	0.3383	µg/L	0.03998	0.3383	ppb	0.03998	11.82%
Co 228.616†	9.8	0.3406	µg/L	0.22318	0.3406	ppb	0.22318	65.52%
Cr 267.716†	212.3	1.5362	µg/L	0.18583	1.5362	ppb	0.18583	12.10%
Cu 324.752†	1886.4	7.1691	µg/L	0.26318	7.1691	ppb	0.26318	3.67%
Fe 238.204 Radial†	144.5	90.204	µg/L	6.5986	90.204	ppb	6.5986	7.32%
K 766.490 Radial†	19999.3	20374	µg/L	178.8	20374	ppb	178.8	0.88%
Mg 279.077 IEC†	2922.2	9697.2	µg/L	47.95	9697.2	ppb	47.95	0.49%
Mn 257.610†	4338.9	5.6943	µg/L	0.81446	5.6943	ppb	0.81446	14.30%
Mo 202.031†	197.8	6.6626	µg/L	0.43846	6.6626	ppb	0.43846	6.58%
Na 589.592 Radial†	400360.8	79555	µg/L	528.5	79555	ppb	528.5	0.66%

Ni 231.604†	-23.7	-0.6005	µg/L	0.02286	-0.6005	ppb	0.02286	3.81%
P 214.914†	5974.2	3626.5	µg/L	162.47	3626.5	ppb	162.47	4.48%
Pb 220.353†	11.0	1.2423	µg/L	1.35711	1.2423	ppb	1.35711	109.24%
S 181.975 Axial†	11341.7	10342	µg/L	355.7	10342	ppb	355.7	3.44%
Sb 206.836†	-3.6	-1.8875	µg/L	1.73682	-1.8875	ppb	1.73682	92.02%
Se 196.026†	-4.1	-1.72	µg/L	1.568	-1.72	ppb	1.568	91.12%
SiO2†	1101324.0	115580	µg/L	789.2	115580	ppb	789.2	0.68%
Concentration greater than upper limit for SiO2.								
Si 251.611†	1868046.7	53240	µg/L	359.9	53240	ppb	359.9	0.68%
Concentration greater than upper limit for Si 251.611.								
Sn 189.927†	-74.1	-7.9684	µg/L	0.22279	-7.9684	ppb	0.22279	2.80%
Sr 421.552†	34711.7	150.93	µg/L	0.498	150.93	ppb	0.498	0.33%
Ti 334.940†	-845.7	-1.3698	µg/L	0.06333	-1.3698	ppb	0.06333	4.62%
Tl 190.801†	2.4	0.5607	µg/L	0.62995	0.5607	ppb	0.62995	112.36%
U 367.007†	55.6	9.0843	µg/L	22.26014	9.0843	ppb	22.26014	245.04%
V 292.402†	2044.0	17.161	µg/L	1.0746	17.161	ppb	1.0746	6.26%
Zn 213.857†	3739.4	38.545	µg/L	1.8535	38.545	ppb	1.8535	4.81%

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/1/2011 07:05:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	22842.2	22842.2	100	%			07:06:16
1	Al 396.153Radial†	10166.7	9946.5	4947.5	µg/L	4947.5	ppb	07:05:56
1	Ca 317.933Radial†	16343.5	16124.4	4947.9	µg/L	4947.9	ppb	07:06:16
1	Fe 238.204 Radial†	7978.2	7940.7	4947.8	µg/L	4947.8	ppb	07:06:16
1	K 766.490 Radial†	6026.2	4959.0	5051.5	µg/L	5051.5	ppb	07:05:56
1	Mg 279.077 IEC†	1513.1	1518.9	5040.5	µg/L	5040.5	ppb	07:06:16
1	Na 589.592 Radial†	50875.8	49662.0	9868.2	µg/L	9868.2	ppb	07:05:56
1	Sr 421.552†	113552.2	113061.8	493.34	µg/L	493.34	ppb	07:05:56
1	Sc 361.383	1123742.9	1123742.9	100.92	%			07:07:05
1	Y 371.029	686308.3	686308.3	100.76	%			07:07:05
1	Ag 328.068†	97819.3	97928.4	496.68	µg/L	496.68	ppb	07:07:05
1	As 188.979†	1126.1	1154.2	507.98	µg/L	507.98	ppb	07:07:25
1	B 249.677†	23030.4	23609.7	526.66	µg/L	526.66	ppb	07:07:05
1	Ba 233.527†	84341.1	83822.7	496.18	µg/L	496.18	ppb	07:07:05
1	Be 313.107†	1345370.7	1340451.7	497.34	µg/L	497.34	ppb	07:07:05
1	Cd 226.502†	97541.4	96985.0	494.02	µg/L	494.02	ppb	07:07:05
1	Co 228.616†	17773.6	17714.2	502.24	µg/L	502.24	ppb	07:07:25
1	Cr 267.716†	66968.7	66047.4	492.85	µg/L	492.85	ppb	07:07:05
1	Cu 324.752†	130285.1	125604.5	497.34	µg/L	497.34	ppb	07:07:05
1	Mn 257.610†	374539.1	370375.6	497.74	µg/L	497.74	ppb	07:07:05
1	Mo 202.031†	15056.0	14905.1	501.88	µg/L	501.88	ppb	07:07:25
1	Ni 231.604†	19827.6	19499.3	495.17	µg/L	495.17	ppb	07:07:25
1	P 214.914†	4080.6	4109.8	2478.0	µg/L	2478.0	ppb	07:07:25
1	Pb 220.353†	4402.2	4461.1	503.70	µg/L	503.70	ppb	07:07:25
1	S 181.975 Axial†	1331.1	1157.4	1056.0	µg/L	1056.0	ppb	07:07:25
1	Sb 206.836†	992.6	926.4	523.68	µg/L	523.68	ppb	07:07:25
1	Se 196.026†	1218.9	1159.8	510	µg/L	510	ppb	07:07:25
1	SiO2†	53891.8	51816.3	5444.7	µg/L	5444.7	ppb	07:07:05
1	Si 251.611†	90096.3	88786.1	2530.4	µg/L	2530.4	ppb	07:07:05
1	Sn 189.927†	4002.1	3930.1	514.79	µg/L	514.79	ppb	07:07:25
1	Ti 334.940†	264685.3	263163.8	500.70	µg/L	500.70	ppb	07:07:05
1	Tl 190.801†	1933.7	2046.7	503.69	µg/L	503.69	ppb	07:07:25
1	U 367.007†	2186.9	2816.9	478.33	µg/L	478.33	ppb	07:07:05
1	V 292.402†	59074.4	58372.2	492.65	µg/L	492.65	ppb	07:07:05
1	Zn 213.857†	50018.6	48606.2	497.47	µg/L	497.47	ppb	07:07:05
2	Sc RADIAL	22796.2	22796.2	100	%			07:06:38
2	Al 396.153Radial†	10208.0	10008.3	4978.3	µg/L	4978.3	ppb	07:06:18
2	Ca 317.933Radial†	16380.4	16194.2	4969.3	µg/L	4969.3	ppb	07:06:38
2	Fe 238.204 Radial†	8029.3	8007.7	4989.6	µg/L	4989.6	ppb	07:06:38
2	K 766.490 Radial†	6192.9	5137.7	5233.6	µg/L	5233.6	ppb	07:06:18
2	Mg 279.077 IEC†	1531.2	1540.1	5110.8	µg/L	5110.8	ppb	07:06:38
2	Na 589.592 Radial†	51463.2	50351.2	10005	µg/L	10005	ppb	07:06:18
2	Sr 421.552†	114496.4	114233.6	498.46	µg/L	498.46	ppb	07:06:18
2	Sc 361.383	1120700.2	1120700.2	100.65	%			07:07:28
2	Y 371.029	684891.9	684891.9	100.56	%			07:07:28
2	Ag 328.068†	97820.0	98192.3	498.02	µg/L	498.02	ppb	07:07:28
2	As 188.979†	1138.0	1169.0	514.47	µg/L	514.47	ppb	07:07:48
2	B 249.677†	22961.6	23603.3	526.80	µg/L	526.80	ppb	07:07:28
2	Ba 233.527†	84186.9	83896.4	496.62	µg/L	496.62	ppb	07:07:28
2	Be 313.107†	1339283.6	1338023.2	496.44	µg/L	496.44	ppb	07:07:28
2	Cd 226.502†	97057.5	96766.6	492.90	µg/L	492.90	ppb	07:07:28
2	Co 228.616†	17727.8	17716.5	502.31	µg/L	502.31	ppb	07:07:48
2	Cr 267.716†	66995.3	66254.1	494.39	µg/L	494.39	ppb	07:07:28
2	Cu 324.752†	129859.1	125531.7	497.05	µg/L	497.05	ppb	07:07:28
2	Mn 257.610†	373925.7	370773.8	498.27	µg/L	498.27	ppb	07:07:28
2	Mo 202.031†	15020.6	14910.4	502.06	µg/L	502.06	ppb	07:07:48
2	Ni 231.604†	19741.3	19466.9	494.34	µg/L	494.34	ppb	07:07:48
2	P 214.914†	4062.5	4102.8	2473.7	µg/L	2473.7	ppb	07:07:48
2	Pb 220.353†	4343.3	4414.4	498.44	µg/L	498.44	ppb	07:07:48

2	S 181.975 Axial†	1321.4	1151.3	1050.5 µg/L	1050.5 ppb	07:07:48
2	Sb 206.836†	997.0	933.5	527.65 µg/L	527.65 ppb	07:07:48
2	Se 196.026†	1214.9	1159.0	510 µg/L	510 ppb	07:07:48
2	SiO2†	53791.3	51861.4	5449.4 µg/L	5449.4 ppb	07:07:28
2	Si 251.611†	90059.7	88992.1	2536.3 µg/L	2536.3 ppb	07:07:28
2	Sn 189.927†	3987.2	3926.1	514.26 µg/L	514.26 ppb	07:07:48
2	Ti 334.940†	263918.3	263113.8	500.60 µg/L	500.60 ppb	07:07:28
2	Tl 190.801†	1919.9	2038.2	501.60 µg/L	501.60 ppb	07:07:48
2	U 367.007†	2205.5	2841.3	482.49 µg/L	482.49 ppb	07:07:28
2	V 292.402†	59105.2	58561.7	494.23 µg/L	494.23 ppb	07:07:28
2	Zn 213.857†	49838.6	48561.9	497.02 µg/L	497.02 ppb	07:07:28
3	Sc RADIAL	22823.0	22823.0	100 %		07:07:00
3	Al 396.153Radial†	10116.6	9905.0	4927.6 µg/L	4927.6 ppb	07:06:40
3	Ca 317.933Radial†	16318.6	16113.3	4944.5 µg/L	4944.5 ppb	07:07:00
3	Fe 238.204 Radial†	7974.1	7943.3	4949.8 µg/L	4949.8 ppb	07:07:00
3	K 766.490 Radial†	6032.0	4969.8	5062.5 µg/L	5062.5 ppb	07:06:40
3	Mg 279.077 IEC†	1521.8	1528.9	5073.7 µg/L	5073.7 ppb	07:07:00
3	Na 589.592 Radial†	51159.0	49987.3	9932.8 µg/L	9932.8 ppb	07:06:40
3	Sr 421.552†	114633.1	114235.9	498.47 µg/L	498.47 ppb	07:06:40
3	Sc 361.383	1119091.7	1119091.7	100.50 %		07:07:51
3	Y 371.029	681771.7	681771.7	100.10 %		07:07:51
3	Ag 328.068†	97927.9	98439.3	499.25 µg/L	499.25 ppb	07:07:51
3	As 188.979†	1084.5	1117.4	491.85 µg/L	491.85 ppb	07:08:11
3	B 249.677†	23047.5	23721.5	529.03 µg/L	529.03 ppb	07:07:51
3	Ba 233.527†	84059.7	83890.0	496.58 µg/L	496.58 ppb	07:07:51
3	Be 313.107†	1332875.1	1333559.2	494.78 µg/L	494.78 ppb	07:07:51
3	Cd 226.502†	97399.9	97245.9	495.34 µg/L	495.34 ppb	07:07:51
3	Co 228.616†	16838.8	16857.2	477.97 µg/L	477.97 ppb	07:08:11
3	Cr 267.716†	65938.2	65297.9	487.26 µg/L	487.26 ppb	07:07:51
3	Cu 324.752†	129249.9	125111.1	495.36 µg/L	495.36 ppb	07:07:51
3	Mn 257.610†	372252.6	369643.0	496.75 µg/L	496.75 ppb	07:07:51
3	Mo 202.031†	14250.0	14165.0	476.97 µg/L	476.97 ppb	07:08:11
3	Ni 231.604†	18868.4	18626.5	473.00 µg/L	473.00 ppb	07:08:11
3	P 214.914†	3902.1	3949.0	2380.6 µg/L	2380.6 ppb	07:08:11
3	Pb 220.353†	4259.3	4337.0	489.68 µg/L	489.68 ppb	07:08:11
3	S 181.975 Axial†	1296.3	1128.3	1029.3 µg/L	1029.3 ppb	07:08:11
3	Sb 206.836†	934.3	872.5	493.00 µg/L	493.00 ppb	07:08:11
3	Se 196.026†	1184.6	1130.7	497 µg/L	497 ppb	07:08:11
3	SiO2†	54038.4	52184.1	5483.2 µg/L	5483.2 ppb	07:07:51
3	Si 251.611†	90092.5	89153.4	2540.9 µg/L	2540.9 ppb	07:07:51
3	Sn 189.927†	3711.4	3657.3	479.18 µg/L	479.18 ppb	07:08:11
3	Ti 334.940†	261411.5	260996.4	496.56 µg/L	496.56 ppb	07:07:51
3	Tl 190.801†	1871.2	1992.5	490.46 µg/L	490.46 ppb	07:08:11
3	U 367.007†	1938.9	2579.2	435.34 µg/L	435.34 ppb	07:07:51
3	V 292.402†	58683.6	58226.6	491.20 µg/L	491.20 ppb	07:07:51
3	Zn 213.857†	49604.2	48399.9	495.48 µg/L	495.48 ppb	07:07:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1121178.3	100.69	%	0.212				0.21%
Sc RADIAL	22820.5	100	%	0.1				0.10%
Y 371.029	684324.0	100.47	%	0.341				0.34%
Ag 328.068†	98186.7	497.98	µg/L	1.286	497.98	ppb	1.286	0.26%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	9953.3	4951.2	µg/L	25.56	4951.2	ppb	25.56	0.52%
QC value within limits for Al 396.153Radial Recovery = 99.02%								
As 188.979†	1146.9	504.77	µg/L	11.649	504.77	ppb	11.649	2.31%
QC value within limits for As 188.979 Recovery = 100.95%								
B 249.677†	23644.8	527.50	µg/L	1.327	527.50	ppb	1.327	0.25%
QC value within limits for B 249.677 Recovery = 105.50%								
Ba 233.527†	83869.7	496.46	µg/L	0.242	496.46	ppb	0.242	0.05%
QC value within limits for Ba 233.527 Recovery = 99.29%								
Be 313.107†	1337344.7	496.19	µg/L	1.297	496.19	ppb	1.297	0.26%
QC value within limits for Be 313.107 Recovery = 99.24%								
Ca 317.933Radial†	16144.0	4953.9	µg/L	13.45	4953.9	ppb	13.45	0.27%
QC value within limits for Ca 317.933Radial Recovery = 99.08%								
Cd 226.502†	96999.2	494.09	µg/L	1.224	494.09	ppb	1.224	0.25%
QC value within limits for Cd 226.502 Recovery = 98.82%								
Co 228.616†	17429.3	494.18	µg/L	14.031	494.18	ppb	14.031	2.84%

```
   QC value within limits for Co 228.616  Recovery = 98.84%
Cr 267.716†            65866.5      491.50 µg/L         3.752      491.50 ppb          3.752   0.76%
   QC value within limits for Cr 267.716  Recovery = 98.30%
Cu 324.752†           125415.8      496.58 µg/L         1.065      496.58 ppb          1.065   0.21%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†      7963.9      4962.4 µg/L         23.58      4962.4 ppb          23.58   0.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.25%
K 766.490 Radial†       5022.2      5115.9 µg/L        102.07      5115.9 ppb         102.07   2.00%
   QC value within limits for K 766.490 Radial  Recovery = 102.32%
Mg 279.077 IEC†         1529.3      5075.0 µg/L         35.17      5075.0 ppb          35.17   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.50%
Mn 257.610†           370264.2      497.59 µg/L         0.771      497.59 ppb          0.771   0.15%
   QC value within limits for Mn 257.610  Recovery = 99.52%
Mo 202.031†            14660.2      493.63 µg/L        14.431      493.63 ppb         14.431   2.92%
   QC value within limits for Mo 202.031  Recovery = 98.73%
Na 589.592 Radial†     50000.1      9935.4 µg/L         68.51      9935.4 ppb          68.51   0.69%
   QC value within limits for Na 589.592 Radial  Recovery = 99.35%
Ni 231.604†            19197.6      487.50 µg/L        12.564      487.50 ppb         12.564   2.58%
   QC value within limits for Ni 231.604  Recovery = 97.50%
P 214.914†              4053.9      2444.1 µg/L         55.02      2444.1 ppb          55.02   2.25%
   QC value within limits for P 214.914  Recovery = 97.76%
Pb 220.353†             4404.2      497.27 µg/L         7.084      497.27 ppb          7.084   1.42%
   QC value within limits for Pb 220.353  Recovery = 99.45%
S 181.975 Axial†        1145.6      1045.3 µg/L         14.09      1045.3 ppb          14.09   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 104.53%
Sb 206.836†              910.8      514.78 µg/L        18.963      514.78 ppb         18.963   3.68%
   QC value within limits for Sb 206.836  Recovery = 102.96%
Se 196.026†             1149.8         506 µg/L           7.3         506 ppb            7.3   1.44%
   QC value within limits for Se 196.026  Recovery = 101.10%
SiO2†                  51953.9      5459.1 µg/L         21.00      5459.1 ppb          21.00   0.38%
   QC value within limits for SiO2  Recovery = 102.09%
Si 251.611†            88977.2      2535.9 µg/L          5.25      2535.9 ppb           5.25   0.21%
   QC value within limits for Si 251.611  Recovery = 101.44%
Sn 189.927†             3837.8      502.74 µg/L        20.412      502.74 ppb         20.412   4.06%
   QC value within limits for Sn 189.927  Recovery = 100.55%
Sr 421.552†           113843.8      496.75 µg/L         2.955      496.75 ppb          2.955   0.59%
   QC value within limits for Sr 421.552  Recovery = 99.35%
Ti 334.940†           262424.7      499.29 µg/L         2.359      499.29 ppb          2.359   0.47%
   QC value within limits for Ti 334.940  Recovery = 99.86%
Tl 190.801†             2025.8      498.58 µg/L         7.109      498.58 ppb          7.109   1.43%
   QC value within limits for Tl 190.801  Recovery = 99.72%
U 367.007†              2745.8      465.38 µg/L        26.106      465.38 ppb         26.106   5.61%
   QC value within limits for U 367.007  Recovery = 93.08%
V 292.402†             58386.8      492.69 µg/L         1.517      492.69 ppb          1.517   0.31%
   QC value within limits for V 292.402  Recovery = 98.54%
Zn 213.857†            48522.7      496.66 µg/L         1.041      496.66 ppb          1.041   0.21%
   QC value within limits for Zn 213.857  Recovery = 99.33%
All analyte(s) passed QC.
```

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 9/1/2011 07:08:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	23185.1	23185.1	102	%			07:08:47
1	Al 396.153Radial†	199.3	6.0	2.9462	µg/L	2.9462	ppb	07:08:47
1	Ca 317.933Radial†	164.8	-8.4	-2.5632	µg/L	-2.5632	ppb	07:09:07
1	Fe 238.204 Radial†	8.3	-5.5	-3.4226	µg/L	-3.4226	ppb	07:09:07
1	K 766.490 Radial†	1263.0	191.4	195.03	µg/L	195.03	ppb	07:08:47
1	Mg 279.077 IEC†	-9.4	1.2	3.8306	µg/L	3.8306	ppb	07:09:07
1	Na 589.592 Radial†	1046.7	-33.5	-6.6553	µg/L	-6.6553	ppb	07:08:47
1	Sr 421.552†	172.7	19.0	0.0831	µg/L	0.0831	ppb	07:08:47
1	Sc 361.383	1132825.4	1132825.4	101.73	%			07:09:55
1	Y 371.029	696354.0	696354.0	102.24	%			07:09:55
1	Ag 328.068†	-1097.1	-78.9	-0.3989	µg/L	-0.3989	ppb	07:09:55
1	As 188.979†	-47.0	-7.9	-3.4297	µg/L	-3.4297	ppb	07:10:15
1	B 249.677†	-522.8	275.0	5.7424	µg/L	5.7424	ppb	07:09:55
1	Ba 233.527†	-245.4	8.1	0.0473	µg/L	0.0473	ppb	07:10:15
1	Be 313.107†	-7078.4	369.8	0.1371	µg/L	0.1371	ppb	07:09:55
1	Cd 226.502†	-342.1	-4.8	-0.0242	µg/L	-0.0242	ppb	07:10:15
1	Co 228.616†	-95.8	8.2	0.2335	µg/L	0.2335	ppb	07:10:15
1	Cr 267.716†	278.2	-38.2	-0.2856	µg/L	-0.2856	ppb	07:09:55
1	Cu 324.752†	3740.5	182.1	0.7197	µg/L	0.7197	ppb	07:09:55
1	Mn 257.610†	1522.8	742.7	0.9980	µg/L	0.9980	ppb	07:10:15
1	Mo 202.031†	47.4	32.7	1.0990	µg/L	1.0990	ppb	07:10:15
1	Ni 231.604†	144.7	-5.6	-0.1425	µg/L	-0.1425	ppb	07:10:15
1	P 214.914†	-68.8	-1.2	-0.7693	µg/L	-0.7693	ppb	07:10:15
1	Pb 220.353†	-71.6	28.6	3.2169	µg/L	3.2169	ppb	07:10:15
1	S 181.975 Axial†	191.2	26.4	24.033	µg/L	24.033	ppb	07:10:15
1	Sb 206.836†	58.7	0.5	0.3263	µg/L	0.3263	ppb	07:10:15
1	Se 196.026†	31.3	-17.3	-7.54	µg/L	-7.54	ppb	07:10:15
1	SiO2†	1696.6	82.7	8.6724	µg/L	8.6724	ppb	07:09:55
1	Si 251.611†	737.4	234.8	6.6916	µg/L	6.6916	ppb	07:10:15
1	Sn 189.927†	34.8	-1.4	-0.1801	µg/L	-0.1801	ppb	07:10:15
1	Ti 334.940†	-917.4	-13.9	-0.0257	µg/L	-0.0257	ppb	07:09:55
1	Tl 190.801†	-122.4	10.3	2.5197	µg/L	2.5197	ppb	07:10:15
1	U 367.007†	-645.7	15.2	2.7731	µg/L	2.7731	ppb	07:09:55
1	V 292.402†	93.3	-72.8	-0.5993	µg/L	-0.5993	ppb	07:09:55
1	Zn 213.857†	962.0	-11.5	-0.1177	µg/L	-0.1177	ppb	07:10:15
2	Sc RADIAL	23553.3	23553.3	103	%			07:09:09
2	Al 396.153Radial†	217.0	20.0	9.9464	µg/L	9.9464	ppb	07:09:09
2	Ca 317.933Radial†	171.1	-4.8	-1.4706	µg/L	-1.4706	ppb	07:09:29
2	Fe 238.204 Radial†	17.6	3.4	2.0917	µg/L	2.0917	ppb	07:09:29
2	K 766.490 Radial†	1127.0	40.6	41.344	µg/L	41.344	ppb	07:09:09
2	Mg 279.077 IEC†	-16.5	-5.6	-18.702	µg/L	-18.702	ppb	07:09:29
2	Na 589.592 Radial†	1033.2	-62.6	-12.447	µg/L	-12.447	ppb	07:09:09
2	Sr 421.552†	120.6	-34.0	-0.1484	µg/L	-0.1484	ppb	07:09:09
2	Sc 361.383	1122766.4	1122766.4	100.83	%			07:10:17
2	Y 371.029	692544.7	692544.7	101.68	%			07:10:17
2	Ag 328.068†	-1159.0	-149.9	-0.7585	µg/L	-0.7585	ppb	07:10:17
2	As 188.979†	-32.3	6.2	2.7255	µg/L	2.7255	ppb	07:10:37
2	B 249.677†	-736.4	58.6	1.2440	µg/L	1.2440	ppb	07:10:17
2	Ba 233.527†	-235.9	15.3	0.0907	µg/L	0.0907	ppb	07:10:37
2	Be 313.107†	-7483.8	-94.7	-0.0352	µg/L	-0.0352	ppb	07:10:17
2	Cd 226.502†	-336.4	-2.1	-0.0115	µg/L	-0.0115	ppb	07:10:37
2	Co 228.616†	-94.4	8.8	0.2484	µg/L	0.2484	ppb	07:10:37
2	Cr 267.716†	284.4	-29.6	-0.2203	µg/L	-0.2203	ppb	07:10:17
2	Cu 324.752†	3510.2	-13.4	-0.0516	µg/L	-0.0516	ppb	07:10:17
2	Mn 257.610†	1480.6	714.2	0.9602	µg/L	0.9602	ppb	07:10:37
2	Mo 202.031†	53.6	39.2	1.3198	µg/L	1.3198	ppb	07:10:37
2	Ni 231.604†	130.5	-18.4	-0.4676	µg/L	-0.4676	ppb	07:10:37
2	P 214.914†	-72.6	-5.7	-3.4450	µg/L	-3.4450	ppb	07:10:37
2	Pb 220.353†	-84.3	15.3	1.7306	µg/L	1.7306	ppb	07:10:37

2	S 181.975 Axial†	190.3	27.2	24.775	µg/L	24.775	ppb	07:10:37
2	Sb 206.836†	64.1	6.4	3.6390	µg/L	3.6390	ppb	07:10:37
2	Se 196.026†	49.3	0.8	0.348	µg/L	0.348	ppb	07:10:37
2	SiO2†	1774.7	175.1	18.374	µg/L	18.374	ppb	07:10:17
2	Si 251.611†	750.7	254.5	7.2526	µg/L	7.2526	ppb	07:10:37
2	Sn 189.927†	33.6	-2.3	-0.2971	µg/L	-0.2971	ppb	07:10:37
2	Ti 334.940†	-843.1	51.7	0.0986	µg/L	0.0986	ppb	07:10:17
2	Tl 190.801†	-116.3	15.2	3.7385	µg/L	3.7385	ppb	07:10:37
2	U 367.007†	-456.5	197.3	35.659	µg/L	35.659	ppb	07:10:17
2	V 292.402†	191.5	25.3	0.2220	µg/L	0.2220	ppb	07:10:17
2	Zn 213.857†	980.9	15.7	0.1649	µg/L	0.1649	ppb	07:10:37
3	Sc RADIAL	23309.0	23309.0	102	%			07:09:31
3	Al 396.153Radial†	149.3	-43.9	-21.930	µg/L	-21.930	ppb	07:09:31
3	Ca 317.933Radial†	189.9	15.3	4.7087	µg/L	4.7087	ppb	07:09:51
3	Fe 238.204 Radial†	19.9	5.8	3.6302	µg/L	3.6302	ppb	07:09:51
3	K 766.490 Radial†	1180.1	103.9	105.84	µg/L	105.84	ppb	07:09:31
3	Mg 279.077 IEC†	-7.7	2.8	9.4401	µg/L	9.4401	ppb	07:09:51
3	Na 589.592 Radial†	1059.5	-26.5	-5.2651	µg/L	-5.2651	ppb	07:09:31
3	Sr 421.552†	194.0	38.8	0.1694	µg/L	0.1694	ppb	07:09:31
3	Sc 361.383	1115600.9	1115600.9	100.19	%			07:10:39
3	Y 371.029	689500.9	689500.9	101.23	%			07:10:39
3	Ag 328.068†	-817.5	183.5	0.9305	µg/L	0.9305	ppb	07:10:39
3	As 188.979†	-23.3	15.1	6.5918	µg/L	6.5918	ppb	07:10:59
3	B 249.677†	-731.7	58.5	1.2523	µg/L	1.2523	ppb	07:10:39
3	Ba 233.527†	-231.8	18.0	0.1055	µg/L	0.1055	ppb	07:10:59
3	Be 313.107†	-7057.0	283.7	0.1052	µg/L	0.1052	ppb	07:10:39
3	Cd 226.502†	-347.5	-15.4	-0.0783	µg/L	-0.0783	ppb	07:10:59
3	Co 228.616†	-88.0	14.6	0.4127	µg/L	0.4127	ppb	07:10:59
3	Cr 267.716†	186.0	-126.0	-0.9401	µg/L	-0.9401	ppb	07:10:39
3	Cu 324.752†	3570.6	69.2	0.2744	µg/L	0.2744	ppb	07:10:39
3	Mn 257.610†	1500.6	743.6	0.9993	µg/L	0.9993	ppb	07:10:59
3	Mo 202.031†	49.0	35.0	1.1771	µg/L	1.1771	ppb	07:10:59
3	Ni 231.604†	129.9	-18.2	-0.4618	µg/L	-0.4618	ppb	07:10:59
3	P 214.914†	-67.9	-1.4	-0.9073	µg/L	-0.9073	ppb	07:10:59
3	Pb 220.353†	-96.2	2.9	0.3303	µg/L	0.3303	ppb	07:10:59
3	S 181.975 Axial†	188.2	26.3	23.971	µg/L	23.971	ppb	07:10:59
3	Sb 206.836†	51.3	-6.0	-3.3529	µg/L	-3.3529	ppb	07:10:59
3	Se 196.026†	58.4	10.2	4.45	µg/L	4.45	ppb	07:10:59
3	SiO2†	1661.7	73.6	7.7091	µg/L	7.7091	ppb	07:10:39
3	Si 251.611†	770.6	279.1	7.9556	µg/L	7.9556	ppb	07:10:59
3	Sn 189.927†	31.5	-4.1	-0.5384	µg/L	-0.5384	ppb	07:10:59
3	Ti 334.940†	-1085.0	-195.1	-0.3699	µg/L	-0.3699	ppb	07:10:39
3	Tl 190.801†	-115.6	15.2	3.7297	µg/L	3.7297	ppb	07:10:59
3	U 367.007†	-552.3	98.7	17.819	µg/L	17.819	ppb	07:10:39
3	V 292.402†	98.6	-66.2	-0.5460	µg/L	-0.5460	ppb	07:10:39
3	Zn 213.857†	980.5	21.6	0.2245	µg/L	0.2245	ppb	07:10:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1123730.9	100.92	%	0.777				0.77%
Sc RADIAL	23349.1	103	%	0.8				0.80%
Y 371.029	692799.9	101.72	%	0.504				0.50%
Ag 328.068†	-15.1	-0.0756	µg/L	0.88967	-0.0756	ppb	0.88967	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.0	-3.0124	µg/L	16.75277	-3.0124	ppb	16.75277	556.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.5	1.9625	µg/L	5.05413	1.9625	ppb	5.05413	257.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	130.7	2.7462	µg/L	2.59479	2.7462	ppb	2.59479	94.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.8	0.0812	µg/L	0.03026	0.0812	ppb	0.03026	37.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	186.3	0.0690	µg/L	0.09170	0.0690	ppb	0.09170	132.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.7	0.2249	µg/L	3.92126	0.2249	ppb	3.92126	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-7.4	-0.0380	µg/L	0.03547	-0.0380	ppb	0.03547	93.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.5	0.2982	µg/L	0.09945	0.2982	ppb	0.09945	33.35%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -64.6     -0.4820 µg/L       0.39805     -0.4820 ppb        0.39805  82.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               79.3      0.3142 µg/L       0.38720      0.3142 ppb        0.38720 123.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      0.7664 µg/L       3.70849      0.7664 ppb        3.70849 483.87%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        111.9      114.07 µg/L        77.175      114.07 ppb         77.175  67.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.5     -1.8104 µg/L      14.89502     -1.8104 ppb       14.89502 822.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              733.5      0.9858 µg/L       0.02223      0.9858 ppb        0.02223   2.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               35.6      1.1986 µg/L       0.11198      1.1986 ppb        0.11198   9.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -40.9     -8.1223 µg/L       3.80894     -8.1223 ppb        3.80894  46.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.1     -0.3573 µg/L       0.18608     -0.3573 ppb        0.18608  52.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.8     -1.7072 µg/L       1.50653     -1.7072 ppb        1.50653  88.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               15.6      1.7593 µg/L       1.44352      1.7593 ppb        1.44352  82.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          26.6      24.260 µg/L        0.4476      24.260 ppb         0.4476   1.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.3      0.2041 µg/L       3.49754      0.2041 ppb        3.49754 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.1      -0.913 µg/L        6.0918      -0.913 ppb         6.0918 667.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    110.5      11.585 µg/L        5.8990      11.585 ppb         5.8990  50.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              256.1      7.2999 µg/L       0.63332      7.2999 ppb        0.63332   8.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.6     -0.3386 µg/L       0.18270     -0.3386 ppb        0.18270  53.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                8.0      0.0347 µg/L       0.16435      0.0347 ppb        0.16435 473.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -52.5     -0.0990 µg/L       0.24272     -0.0990 ppb        0.24272 245.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.6      3.3293 µg/L       0.70113      3.3293 ppb        0.70113  21.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†               103.7      18.750 µg/L       16.4626      18.750 ppb        16.4626  87.80%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†               -37.9     -0.3078 µg/L       0.45956     -0.3078 ppb        0.45956 149.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.6      0.0905 µg/L       0.18281      0.0905 ppb        0.18281 201.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, August 31, 2011 10:40:48
Sample Description:
Method File: C:\Elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.3622
Tuning File: C:\elandata\Tuning\default2.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1180.9	1180.912	42.926	3.6
	Mg	24.0	13825.7	13825.677	169.042	1.2
	Co	58.9	36596.7	36596.653	575.750	1.6
	Rh	102.9	74765.2	74765.201	1081.179	1.4
	In	114.9	92831.0	92830.950	639.818	0.7
	Pb	208.0	82492.3	82492.263	739.151	0.9
⌈>	Ba	137.9	90857.6	90857.565	628.158	0.7
⌊	Ba++	69.0	1074.1	0.012	0.001	4.5
⌈>	Ce	139.9	112807.0	112807.036	1308.437	1.2
⌊	CeO	155.9	3254.0	0.029	0.001	3.2
	Bkgd	220.0	5.8	5.800	0.671	11.6

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
7.00	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.0	2594.5
Co	59	21	8.0	48614.3
In	115	21	9.0	121135.6

Instrument #7 Tuning Report

File Name: Default2.tun
File Path: C:\elandata\Tuning\Default2.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	573	2060	0.629
Be	9.0	9.0	2026	2050	0.646
Mg	24.0	24.0	5690	2100	0.479
Mg	25.0	25.0	5918	2100	0.458
Mg	26.0	26.0	6179	2090	0.494
Co	58.9	59.0	14185	2030	0.665
Rh	102.9	102.9	24871	2020	0.677
In	114.9	114.9	27796	2020	0.690
Ce	139.9	139.9	33876	2010	0.690
Pb	206.0	206.0	49954	1980	0.700
Pb	207.0	207.0	50205	2000	0.670
Pb	208.0	208.0	50451	1980	0.687
U	238.1	238.0	57749	1980	0.719

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, August 31, 2011 20:34:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\Blank.063

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		**ug/L**		33	
	Be	9		**ug/L**		7	
	B	11		**ug/L**		255	
	Na	23		**ug/L**		18564	
	Mg	24		**ug/L**		3925	
	Al	27		**ug/L**		5498	
	P	31		**ug/L**		2609	
	K	39		**ug/L**		302399	
	Ca	43		**ug/L**		154	
>	Sc	45		**ug/L**		421850	
	Ti	47		**ug/L**		129	
	Cr	52		**ug/L**		-1176	
	Cr	53		**ug/L**		59142	
	Mn	55		**ug/L**		653	
	Fe	57		**ug/L**		2985	
	Co	59		**ug/L**		124	
	Ni	60		**ug/L**		64	
	Cu	63		**ug/L**		134	
	Cu	65		**ug/L**		45	
	Zn	66		**ug/L**		129	
	Zn	67		**ug/L**		2984	
	Zn	68		**ug/L**		321	
>	Ge	74		**ug/L**		156422	
	As	75		**ug/L**		608	
	Se	77		**ug/L**		4660	
	Se	82		**ug/L**		-4	
	Kr	83		**ug/L**		241	
	Sr	88		**ug/L**		247	
	Zr	90		**ug/L**		107	
	Mo	98		**ug/L**		107	
	Ag	107		**ug/L**		64	
	Cd	111		**ug/L**		20	
	Cd	114		**ug/L**		62	
>	In	115		**ug/L**		96021	
	Sn	120		**ug/L**		180	
	Sb	121		**ug/L**		356	
	Sb	123		**ug/L**		271	
	Ba	135		**ug/L**		33	
	Ba	137		**ug/L**		52	
>	Lu	175		**ug/L**		176224	
	Tl	205		**ug/L**		755	
	Pb	208		**ug/L**		765	
	Th	232		**ug/L**		538	
	U	238		**ug/L**		633	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	1.0000
B	11	Simple Linear	
Na	23	Linear Thru Zero	1.0000
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, August 31, 2011 20:42:33
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\Standard 1.064

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	4.944	4098	0.009
	Be	9	**10.000**	**ug/L**	1.787	1121	0.003
	B	11	**20.000**	**ug/L**	1.218	2319	0.005
	Na	23	**1000.000**	**ug/L**	1.147	1265881	2.914
	Mg	24	**1000.000**	**ug/L**	0.652	835170	1.942
	Al	27	**1000.000**	**ug/L**	1.312	1230947	2.864
	P	31	**1000.000**	**ug/L**	0.624	80059	0.181
	K	39	**1000.000**	**ug/L**	0.984	2574295	5.299
	Ca	43	**1000.000**	**ug/L**	2.352	4696	0.011
>	Sc	45		**ug/L**		427935	427934.975
	Ti	47	**10.000**	**ug/L**	1.200	2624	0.006
	Cr	52	**10.000**	**ug/L**	0.570	22536	0.055
	Cr	53		**ug/L**		62890	0.007
	Mn	55	**10.000**	**ug/L**	1.087	38919	0.089
	Fe	57	**1000.000**	**ug/L**	1.548	81288	0.183
	Co	59	**10.000**	**ug/L**	0.804	31483	0.073
	Ni	60	**10.000**	**ug/L**	0.640	7137	0.017
	Cu	63		**ug/L**		17189	0.040
	Cu	65	**10.000**	**ug/L**	0.410	7984	0.019
	Zn	66	**10.000**	**ug/L**	0.890	4105	0.025
	Zn	67		**ug/L**		3733	0.005
	Zn	68		**ug/L**		3238	0.019
>	Ge	74		**ug/L**		156950	156949.573
	As	75	**10.000**	**ug/L**	4.146	5058	0.028
	Se	77		**ug/L**		4992	0.002
	Se	82	**10.000**	**ug/L**	2.691	427	0.003
	Kr	83		**ug/L**		295	0.000
	Sr	88	**10.000**	**ug/L**	1.271	58330	0.602
	Zr	90	**10.000**	**ug/L**	8.290	26491	0.274
	Mo	98	**10.000**	**ug/L**	1.009	13599	0.140
	Ag	107	**10.000**	**ug/L**	0.378	21857	0.226
	Cd	111	**10.000**	**ug/L**	1.441	5067	0.052
	Cd	114		**ug/L**		12216	0.126
>	In	115		**ug/L**		96468	96468.411
	Sn	120	**10.000**	**ug/L**	0.482	24116	0.248
	Sb	121	**10.000**	**ug/L**	0.749	19292	0.196
	Sb	123		**ug/L**		14907	0.152
	Ba	135		**ug/L**		5992	0.034
	Ba	137	**10.000**	**ug/L**	1.909	10433	0.059
>	Lu	175		**ug/L**		175594	175593.891
	Tl	205	**10.000**	**ug/L**	1.514	82656	0.466
	Pb	208	**10.000**	**ug/L**	0.187	107823	0.610
	Th	232	**10.000**	**ug/L**	2.333	120603	0.684
	U	238	**10.000**	**ug/L**	0.754	129153	0.732

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, August 31, 2011 20:50:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\Standard 2.065

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.984**	**ug/L**	2.132	40555	0.093
	Be	9	**99.962**	**ug/L**	2.640	10885	0.025
	B	11	**200.002**	**ug/L**	1.082	21168	0.048
	Na	23	**10001.095**	**ug/L**	1.265	12800925	29.469
	Mg	24	**9999.713**	**ug/L**	0.600	8403059	19.367
	Al	27	**9999.017**	**ug/L**	0.934	12302855	28.355
	P	31	**10000.858**	**ug/L**	1.205	793981	1.825
	K	39	**10001.040**	**ug/L**	0.983	23534140	53.553
	Ca	43	**9999.062**	**ug/L**	1.109	45738	0.105
>	Sc	45		**ug/L**		433686	433685.661
	Ti	47	**99.996**	**ug/L**	0.294	25288	0.058
	Cr	52	**100.002**	**ug/L**	1.086	239838	0.556
	Cr	53		**ug/L**		77125	0.038
	Mn	55	**99.985**	**ug/L**	0.604	382478	0.880
	Fe	57	**9999.144**	**ug/L**	0.433	789468	1.813
	Co	59	**99.976**	**ug/L**	1.164	310493	0.716
	Ni	60	**99.886**	**ug/L**	1.467	64327	0.148
	Cu	63		**ug/L**		142422	0.328
	Cu	65	**99.812**	**ug/L**	0.588	67642	0.156
	Zn	66	**99.892**	**ug/L**	1.689	36278	0.228
	Zn	67		**ug/L**		8952	0.037
	Zn	68		**ug/L**		26607	0.166
>	Ge	74		**ug/L**		158327	158326.950
	As	75	**99.946**	**ug/L**	0.154	43166	0.269
	Se	77		**ug/L**		6813	0.013
	Se	82	**99.957**	**ug/L**	1.557	4167	0.026
	Kr	83		**ug/L**		222	-0.000
	Sr	88	**100.004**	**ug/L**	0.350	579465	6.045
	Zr	90	**100.172**	**ug/L**	0.541	317087	3.308
	Mo	98	**100.032**	**ug/L**	0.370	138619	1.446
	Ag	107	**99.993**	**ug/L**	0.786	214957	2.243
	Cd	111	**100.002**	**ug/L**	0.913	50252	0.524
	Cd	114		**ug/L**		121332	1.266
>	In	115		**ug/L**		95820	95820.438
	Sn	120	**100.007**	**ug/L**	0.688	239738	2.500
	Sb	121	**100.014**	**ug/L**	1.212	191176	1.991
	Sb	123		**ug/L**		148735	1.550
	Ba	135		**ug/L**		59914	0.335
	Ba	137	**99.987**	**ug/L**	0.360	104416	0.583
>	Lu	175		**ug/L**		178875	178875.150
	Tl	205	**99.989**	**ug/L**	0.865	825970	4.613
	Pb	208	**99.961**	**ug/L**	0.433	1050488	5.868
	Th	232	**99.982**	**ug/L**	1.467	1201249	6.712
	U	238	**99.973**	**ug/L**	1.062	1275820	7.129

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, August 31, 2011 20:59:08
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 1.066

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.492**	**ug/L**	3.163	21157	0.048
	Be	9	**50.237**	**ug/L**	2.074	5541	0.013
	B	11	**117.206**	**ug/L**	3.310	12665	0.028
	Na	23	**5120.771**	**ug/L**	0.773	6643441	15.089
	Mg	24	**5093.315**	**ug/L**	0.528	4334993	9.865
	Al	27	**5192.860**	**ug/L**	0.722	6470559	14.726
	P	31	**5120.107**	**ug/L**	0.856	412858	0.934
	K	39	**5015.230**	**ug/L**	0.361	12105199	26.855
	Ca	43	**5018.588**	**ug/L**	2.063	23320	0.053
>	Sc	45		**ug/L**		439042	439041.521
	Ti	47	**49.523**	**ug/L**	0.884	12746	0.029
	Cr	52	**49.859**	**ug/L**	0.377	120453	0.277
	Cr	53		**ug/L**		64493	0.007
	Mn	55	**51.108**	**ug/L**	0.751	198264	0.450
	Fe	57	**5047.428**	**ug/L**	1.163	404953	0.915
	Co	59	**50.602**	**ug/L**	0.472	159176	0.362
	Ni	60	**51.155**	**ug/L**	0.186	33388	0.076
	Cu	63		**ug/L**		74770	0.170
	Cu	65	**51.617**	**ug/L**	0.815	35434	0.081
	Zn	66	**49.665**	**ug/L**	0.653	18393	0.114
	Zn	67		**ug/L**		5987	0.018
	Zn	68		**ug/L**		13643	0.083
>	Ge	74		**ug/L**		160847	160846.878
	As	75	**50.986**	**ug/L**	0.546	22678	0.137
	Se	77		**ug/L**		5121	0.002
	Se	82	**50.652**	**ug/L**	2.519	2143	0.013
	Kr	83		**ug/L**		304	0.000
	Sr	88	**51.424**	**ug/L**	1.005	304148	3.108
	Zr	90	**51.225**	**ug/L**	0.723	165480	1.692
	Mo	98	**48.865**	**ug/L**	0.421	69145	0.706
	Ag	107	**49.601**	**ug/L**	0.303	108828	1.113
	Cd	111	**51.222**	**ug/L**	0.872	26273	0.269
	Cd	114		**ug/L**		63663	0.651
>	In	115		**ug/L**		97763	97762.758
	Sn	120	**50.231**	**ug/L**	1.112	122941	1.256
	Sb	121	**46.537**	**ug/L**	2.611	90956	0.927
	Sb	123		**ug/L**		70599	0.719
	Ba	135		**ug/L**		30169	0.166
	Ba	137	**49.548**	**ug/L**	1.165	52439	0.289
>	Lu	175		**ug/L**		181206	181205.890
	Tl	205	**48.362**	**ug/L**	0.780	405077	2.231
	Pb	208	**51.308**	**ug/L**	0.505	546584	3.012
	Th	232	**50.778**	**ug/L**	0.626	618257	3.409
	U	238	**52.423**	**ug/L**	0.813	677964	3.738

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.985				
	Be	9	100.473				
	B	11	117.206				
	Na	23	102.415				
	Mg	24	101.866				
	Al	27	102.829				
	P	31	102.402				
	K	39	100.305				
	Ca	43	100.372				
>	Sc	45		104.1			
	Ti	47	99.046				
	Cr	52	99.719				
	Cr	53					
	Mn	55	102.216				
	Fe	57	100.949				
	Co	59	101.204				
	Ni	60	102.310				
	Cu	63					
	Cu	65	103.234				
	Zn	66	99.331				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	101.972				
	Se	77					
	Se	82	101.304				
	Kr	83					
	Sr	88	102.849				
	Zr	90	102.451				
	Mo	98	97.730				
	Ag	107	99.202				
	Cd	111	102.444				
	Cd	114					
>	In	115		101.8			
	Sn	120	100.461				
	Sb	121	93.073				
	Sb	123					
	Ba	135					
	Ba	137	99.095				
>	Lu	175		102.8			
	Tl	205	96.723				
	Pb	208	102.615				
	Th	232	101.555				
	U	238	104.845				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	B	11ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, August 31, 2011 21:07:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 2.067

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.006**	**ug/L**	49.561	35	0.000
	Be	9	**0.029**	**ug/L**	17.040	10	0.000
	B	11	**5.560**	**ug/L**	18.669	827	0.001
	Na	23	**-0.861**	**ug/L**	50.183	17636	-0.003
	Mg	24	**0.367**	**ug/L**	19.945	4259	0.001
	Al	27	**0.423**	**ug/L**	13.113	6053	0.001
	P	31	**-1.082**	**ug/L**	194.310	2546	-0.000
	K	39	**-2.211**	**ug/L**	16.273	299823	-0.012
	Ca	43	**3.587**	**ug/L**	124.926	171	0.000
>	Sc	45		**ug/L**		425284	425283.553
	Ti	47	**-0.004**	**ug/L**	807.761	129	-0.000
	Cr	52	**-0.235**	**ug/L**	60.462	-1742	-0.001
	Cr	53		**ug/L**		52525	-0.017
	Mn	55	**-0.014**	**ug/L**	33.683	605	-0.000
	Fe	57	**-0.704**	**ug/L**	23.842	2955	-0.000
	Co	59	**0.008**	**ug/L**	15.261	150	0.000
	Ni	60	**0.008**	**ug/L**	150.319	70	0.000
	Cu	63		**ug/L**		138	0.000
	Cu	65	**0.004**	**ug/L**	85.988	48	0.000
	Zn	66	**0.044**	**ug/L**	92.962	146	0.000
	Zn	67		**ug/L**		2964	-0.000
	Zn	68		**ug/L**		329	0.000
>	Ge	74		**ug/L**		157886	157886.420
	As	75	**0.233**	**ug/L**	302.678	713	0.001
	Se	77		**ug/L**		3545	-0.007
	Se	82	**0.201**	**ug/L**	93.551	4	0.000
	Kr	83		**ug/L**		224	-0.000
	Sr	88	**0.004**	**ug/L**	16.042	276	0.000
	Zr	90	**0.011**	**ug/L**	33.212	145	0.000
	Mo	98	**0.070**	**ug/L**	19.483	207	0.001
	Ag	107	**0.006**	**ug/L**	16.378	79	0.000
	Cd	111	**0.018**	**ug/L**	46.119	30	0.000
	Cd	114		**ug/L**		72	0.000
>	In	115		**ug/L**		97656	97655.582
	Sn	120	**0.036**	**ug/L**	18.320	271	0.001
	Sb	121	**0.330**	**ug/L**	17.594	1004	0.007
	Sb	123		**ug/L**		738	0.005
	Ba	135		**ug/L**		37	0.000
	Ba	137	**0.011**	**ug/L**	67.690	64	0.000
>	Lu	175		**ug/L**		178792	178792.492
	Tl	205	**0.251**	**ug/L**	24.721	2834	0.012
	Pb	208	**0.001**	**ug/L**	135.592	789	0.000
	Th	232	**0.055**	**ug/L**	19.767	1205	0.004
	U	238	**0.008**	**ug/L**	43.201	741	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.8			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, August 31, 2011 21:15:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 3.068

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.656**	**ug/L**	5.352	4244	0.010
	Be	9	**0.501**	**ug/L**	4.415	60	0.000
	B	11	**18.354**	**ug/L**	5.347	2126	0.004
	Na	23	**261.077**	**ug/L**	1.380	343882	0.769
	Mg	24	**28.895**	**ug/L**	0.927	27597	0.056
	Al	27	**51.532**	**ug/L**	1.119	67298	0.146
	P	31	**48.108**	**ug/L**	1.117	6326	0.009
	K	39	**318.144**	**ug/L**	2.071	1023409	1.704
	Ca	43	**215.205**	**ug/L**	4.546	1110	0.002
>	Sc	45		**ug/L**		422842	422841.613
	Ti	47	**8.943**	**ug/L**	0.538	2323	0.005
	Cr	52	**10.531**	**ug/L**	0.916	23573	0.059
	Cr	53		**ug/L**		55090	-0.010
	Mn	55	**5.349**	**ug/L**	1.848	20569	0.047
	Fe	57	**105.416**	**ug/L**	0.911	11075	0.019
	Co	59	**1.051**	**ug/L**	0.726	3305	0.008
	Ni	60	**2.971**	**ug/L**	0.757	1928	0.004
	Cu	63		**ug/L**		4077	0.009
	Cu	65	**2.899**	**ug/L**	0.817	1959	0.005
	Zn	66	**11.609**	**ug/L**	0.984	4278	0.027
	Zn	67		**ug/L**		3643	0.004
	Zn	68		**ug/L**		3295	0.019
>	Ge	74		**ug/L**		156353	156352.710
	As	75	**5.147**	**ug/L**	9.036	2772	0.014
	Se	77		**ug/L**		3833	-0.005
	Se	82	**5.699**	**ug/L**	3.793	231	0.002
	Kr	83		**ug/L**		236	-0.000
	Sr	88	**10.414**	**ug/L**	0.897	61323	0.629
	Zr	90	**1.618**	**ug/L**	6.478	5291	0.053
	Mo	98	**0.482**	**ug/L**	2.383	784	0.007
	Ag	107	**1.036**	**ug/L**	0.231	2318	0.023
	Cd	111	**1.038**	**ug/L**	0.527	549	0.005
	Cd	114		**ug/L**		1337	0.013
>	In	115		**ug/L**		97019	97018.938
	Sn	120	**5.007**	**ug/L**	1.312	12324	0.125
	Sb	121	**3.173**	**ug/L**	1.467	6489	0.063
	Sb	123		**ug/L**		5007	0.049
	Ba	135		**ug/L**		1295	0.007
	Ba	137	**2.100**	**ug/L**	3.266	2222	0.012
>	Lu	175		**ug/L**		177079	177078.983
	Tl	205	**2.111**	**ug/L**	2.681	18006	0.097
	Pb	208	**2.280**	**ug/L**	1.464	24467	0.134
	Th	232	**2.077**	**ug/L**	3.749	25225	0.139
	U	238	**0.184**	**ug/L**	1.067	2954	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	106.558				
	Be	9	100.185				
	B	11	122.360				
	Na	23	104.431				
	Mg	24	96.317				
	Al	27	103.063				
	P	31	96.216				
	K	39	106.048				
	Ca	43	107.603				
>	Sc	45		100.2			
	Ti	47	89.432				
	Cr	52	105.305				
	Cr	53					
	Mn	55	106.976				
	Fe	57	105.416				
	Co	59	105.082				
	Ni	60	148.574				
	Cu	63					
	Cu	65	289.855				
	Zn	66	116.094				
	Zn	67					
	Zn	68					
>	Ge	74		100.0			
	As	75	102.950				
	Se	77					
	Se	82	113.985				
	Kr	83					
	Sr	88	104.140				
	Zr	90	80.898				
	Mo	98	96.432				
	Ag	107	103.578				
	Cd	111	103.792				
	Cd	114					
>	In	115		101.0			
	Sn	120	100.137				
	Sb	121	105.767				
	Sb	123					
	Ba	135					
	Ba	137	105.006				
>	Lu	175		100.5			
	Tl	205	105.572				
	Pb	208	113.991				
	Th	232	103.837				
	U	238	91.773				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Ni	60CRDL is out of limits
QC Std 3	Cu	65CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, August 31, 2011 21:24:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 4.069

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.104**	**ug/L**	35.235	84	0.000
	Be	9	**-0.005**	**ug/L**	400.378	7	-0.000
	B	11	**5.499**	**ug/L**	8.205	919	0.001
	Na	23	**104222.424**	**ug/L**	1.217	146436469	307.095
	Mg	24	**100382.930**	**ug/L**	0.847	92683002	194.422
	Al	27	**102399.220**	**ug/L**	0.613	138424393	290.377
	P	31	**91673.944**	**ug/L**	0.559	7977368	16.727
	K	39	**99913.966**	**ug/L**	1.037	255416744	535.013
	Ca	43	**96978.761**	**ug/L**	0.227	486154	1.019
>	Sc	45		**ug/L**		476698	476698.001
	Ti	47	**1668.625**	**ug/L**	0.679	461547	0.968
	Cr	52	**2.983**	**ug/L**	1.013	6576	0.017
	Cr	53		**ug/L**		50437	-0.034
	Mn	55	**1.878**	**ug/L**	2.226	8618	0.017
	Fe	57	**99182.911**	**ug/L**	0.768	8577729	17.986
	Co	59	**0.134**	**ug/L**	3.855	598	0.001
	Ni	60	**3.336**	**ug/L**	2.564	2433	0.005
	Cu	63		**ug/L**		4519	0.009
	Cu	65	**3.524**	**ug/L**	1.693	2674	0.006
	Zn	66	**6.941**	**ug/L**	1.585	2693	0.016
	Zn	67		**ug/L**		3584	0.003
	Zn	68		**ug/L**		1217	0.005
>	Ge	74		**ug/L**		161395	161395.216
	As	75	**-0.305**	**ug/L**	354.633	490	-0.001
	Se	77		**ug/L**		4211	-0.004
	Se	82	**-0.612**	**ug/L**	119.274	-30	-0.000
	Kr	83		**ug/L**		290	0.000
	Sr	88	**2.066**	**ug/L**	0.424	12376	0.125
	Zr	90	**0.478**	**ug/L**	22.218	1637	0.016
	Mo	98	**2000.790**	**ug/L**	0.746	2807624	28.914
	Ag	107	**0.053**	**ug/L**	9.587	179	0.001
	Cd	111	**0.657**	**ug/L**	0.589	355	0.003
	Cd	114		**ug/L**		4026	0.041
>	In	115		**ug/L**		97108	97108.129
	Sn	120	**0.241**	**ug/L**	2.165	766	0.006
	Sb	121	**0.253**	**ug/L**	13.965	847	0.005
	Sb	123		**ug/L**		678	0.004
	Ba	135		**ug/L**		219	0.001
	Ba	137	**0.294**	**ug/L**	1.555	369	0.002
>	Lu	175		**ug/L**		183224	183224.278
	Tl	205	**0.036**	**ug/L**	33.250	1090	0.002
	Pb	208	**0.150**	**ug/L**	0.564	2405	0.009
	Th	232	**0.081**	**ug/L**	49.109	1550	0.005
	U	238	**0.169**	**ug/L**	1.944	2862	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	104.222				
	Mg	24	100.383				
	Al	27	102.399				
	P	31	91.674				
	K	39	99.914				
	Ca	43	96.979				
>	Sc	45		113.0			
	Ti	47	83.431				
	Cr	52	103.600				
	Cr	53					
	Mn	55	96.298				
	Fe	57	99.183				
	Co	59	63.910				
	Ni	60	120.018				
	Cu	63					
	Cu	65	145.977				
	Zn	66	119.898				
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	98.560				
	Zr	90					
	Mo	98	100.039				
	Ag	107					
	Cd	111	96.944				
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	57.890				
>	Lu	175		104.0			
	Tl	205					
	Pb	208	130.171				
	Th	232					
	U	238	82.279				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, August 31, 2011 21:32:41
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 5.070

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.934**	**ug/L**	3.852	9522	0.020
	Be	9	**20.834**	**ug/L**	1.613	2543	0.005
	B	11	**26.114**	**ug/L**	1.388	3345	0.006
	Na	23	**104936.755**	**ug/L**	0.075	149949987	309.199
	Mg	24	**100867.357**	**ug/L**	0.184	94732571	195.360
	Al	27	**102951.645**	**ug/L**	1.343	141575355	291.943
	P	31	**91902.236**	**ug/L**	1.130	8134503	16.769
	K	39	**99540.130**	**ug/L**	1.930	258815460	533.012
	Ca	43	**98086.095**	**ug/L**	1.329	500165	1.031
>	Sc	45		**ug/L**		484892	484891.738
	Ti	47	**1670.684**	**ug/L**	0.315	470071	0.969
	Cr	52	**22.183**	**ug/L**	0.567	58437	0.123
	Cr	53		**ug/L**		55482	-0.026
	Mn	55	**21.199**	**ug/L**	0.824	91264	0.187
	Fe	57	**99426.409**	**ug/L**	0.483	8746171	18.030
	Co	59	**18.263**	**ug/L**	0.382	63541	0.131
	Ni	60	**21.225**	**ug/L**	0.830	15343	0.031
	Cu	63		**ug/L**		31715	0.065
	Cu	65	**20.745**	**ug/L**	0.198	15760	0.032
	Zn	66	**25.277**	**ug/L**	1.306	9535	0.058
	Zn	67		**ug/L**		4751	0.010
	Zn	68		**ug/L**		6249	0.036
>	Ge	74		**ug/L**		162722	162722.252
	As	75	**21.288**	**ug/L**	3.218	9949	0.057
	Se	77		**ug/L**		5034	0.001
	Se	82	**21.987**	**ug/L**	0.820	939	0.006
	Kr	83		**ug/L**		319	0.000
	Sr	88	**23.016**	**ug/L**	0.975	136882	1.391
	Zr	90	**21.305**	**ug/L**	1.778	69205	0.704
	Mo	98	**1997.307**	**ug/L**	0.654	2834921	28.864
	Ag	107	**18.629**	**ug/L**	2.070	41098	0.418
	Cd	111	**20.200**	**ug/L**	1.177	10421	0.106
	Cd	114		**ug/L**		28183	0.286
>	In	115		**ug/L**		98213	98212.741
	Sn	120	**18.471**	**ug/L**	0.841	45530	0.462
	Sb	121	**19.365**	**ug/L**	2.669	38228	0.386
	Sb	123		**ug/L**		29818	0.301
	Ba	135		**ug/L**		12091	0.065
	Ba	137	**19.663**	**ug/L**	0.707	21336	0.115
>	Lu	175		**ug/L**		185487	185487.084
	Tl	205	**17.770**	**ug/L**	0.721	152862	0.820
	Pb	208	**18.850**	**ug/L**	0.663	206062	1.107
	Th	232	**19.200**	**ug/L**	0.560	239658	1.289
	U	238	**19.552**	**ug/L**	1.154	259258	1.394

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.668				
	Be	9	104.170				
	B	11	130.568				
	Na	23	104.937				
	Mg	24	100.867				
	Al	27	102.952				
	P	31	91.902				
	K	39	99.540				
	Ca	43	98.086				
>	Sc	45		114.9			
	Ti	47	83.534				
	Cr	52	96.956				
	Cr	53					
	Mn	55	96.580				
	Fe	57	99.426				
	Co	59	90.368				
	Ni	60	93.176				
	Cu	63					
	Cu	65	92.552				
	Zn	66	98.016				
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75	106.439				
	Se	77					
	Se	82	109.935				
	Kr	83					
	Sr	88	104.163				
	Zr	90	106.527				
	Mo	98	99.865				
	Ag	107	93.146				
	Cd	111	97.687				
	Cd	114					
>	In	115		102.3			
	Sn	120	92.354				
	Sb	121	96.825				
	Sb	123					
	Ba	135					
	Ba	137	95.878				
>	Lu	175		105.3			
	Tl	205	88.848				
	Pb	208	93.710				
	Th	232	96.000				
	U	238	96.768				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	B	11ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 31, 2011 21:41:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.071

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.618**	**ug/L**	4.445	24824	0.052
	Be	9	**52.033**	**ug/L**	3.005	6235	0.013
	B	11	**120.428**	**ug/L**	0.444	14132	0.029
	Na	23	**5404.761**	**ug/L**	0.861	7616442	15.925
	Mg	24	**5314.391**	**ug/L**	0.841	4913621	10.293
	Al	27	**5400.782**	**ug/L**	0.267	7310850	15.315
	P	31	**5147.767**	**ug/L**	0.434	450950	0.939
	K	39	**5099.837**	**ug/L**	0.960	13366983	27.308
	Ca	43	**5159.662**	**ug/L**	1.179	26043	0.054
>	Sc	45		**ug/L**		476955	476955.256
	Ti	47	**50.718**	**ug/L**	0.416	14178	0.029
	Cr	52	**50.211**	**ug/L**	0.409	131787	0.279
	Cr	53		**ug/L**		66265	-0.001
	Mn	55	**52.294**	**ug/L**	0.752	220365	0.460
	Fe	57	**5091.659**	**ug/L**	1.321	443775	0.923
	Co	59	**49.768**	**ug/L**	1.277	170080	0.356
	Ni	60	**49.948**	**ug/L**	0.772	35418	0.074
	Cu	63		**ug/L**		76975	0.161
	Cu	65	**49.254**	**ug/L**	0.890	36737	0.077
	Zn	66	**50.067**	**ug/L**	0.465	19848	0.114
	Zn	67		**ug/L**		6089	0.016
	Zn	68		**ug/L**		14477	0.082
>	Ge	74		**ug/L**		172181	172180.558
	As	75	**49.389**	**ug/L**	1.508	23534	0.133
	Se	77		**ug/L**		5244	0.001
	Se	82	**51.652**	**ug/L**	0.856	2340	0.014
	Kr	83		**ug/L**		232	-0.000
	Sr	88	**53.104**	**ug/L**	1.368	334288	3.210
	Zr	90	**50.425**	**ug/L**	1.121	173385	1.665
	Mo	98	**49.436**	**ug/L**	1.349	74455	0.714
	Ag	107	**49.075**	**ug/L**	1.036	114607	1.101
	Cd	111	**50.849**	**ug/L**	0.507	27762	0.267
	Cd	114		**ug/L**		67733	0.650
>	In	115		**ug/L**		104061	104060.993
	Sn	120	**49.811**	**ug/L**	1.696	129762	1.245
	Sb	121	**46.708**	**ug/L**	1.787	97160	0.930
	Sb	123		**ug/L**		75709	0.725
	Ba	135		**ug/L**		31659	0.164
	Ba	137	**49.303**	**ug/L**	1.614	55463	0.288
>	Lu	175		**ug/L**		192593	192593.400
	Tl	205	**47.474**	**ug/L**	0.981	422647	2.190
	Pb	208	**49.509**	**ug/L**	0.660	560605	2.907
	Th	232	**47.662**	**ug/L**	0.624	616842	3.200
	U	238	**49.460**	**ug/L**	1.350	679889	3.527

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	111.237				
	Be	9	104.066				
	B	11	120.428				
	Na	23	108.095				
	Mg	24	106.288				
	Al	27	106.946				
	P	31	102.955				
	K	39	101.997				
	Ca	43	103.193				
>	Sc	45		113.1			
	Ti	47	101.435				
	Cr	52	100.422				
	Cr	53					
	Mn	55	104.588				
	Fe	57	101.833				
	Co	59	99.535				
	Ni	60	99.895				
	Cu	63					
	Cu	65	98.509				
	Zn	66	100.134				
	Zn	67					
	Zn	68					
>	Ge	74		110.1			
	As	75	98.777				
	Se	77					
	Se	82	103.304				
	Kr	83					
	Sr	88	106.209				
	Zr	90	100.850				
	Mo	98	98.873				
	Ag	107	98.150				
	Cd	111	101.698				
	Cd	114					
>	In	115		108.4			
	Sn	120	99.622				
	Sb	121	93.416				
	Sb	123					
	Ba	135					
	Ba	137	98.607				
>	Lu	175		109.3			
	Tl	205	94.948				
	Pb	208	99.019				
	Th	232	95.323				
	U	238	98.920				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, August 31, 2011 21:49:38
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.072

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.009**	**ug/L**	181.195	40	0.000
	Be	9	**0.026**	**ug/L**	109.601	11	0.000
	B	11	**3.746**	**ug/L**	24.742	690	0.001
	Na	23	**1.066**	**ug/L**	94.509	21627	0.003
	Mg	24	**3.077**	**ug/L**	17.717	6997	0.006
	Al	27	**1.778**	**ug/L**	18.103	8302	0.005
	P	31	**-0.850**	**ug/L**	463.171	2760	-0.000
	K	39	**-4.973**	**ug/L**	117.266	316622	-0.027
	Ca	43	**-0.744**	**ug/L**	385.662	163	-0.000
>	Sc	45		**ug/L**		459317	459316.835
	Ti	47	**-0.101**	**ug/L**	19.778	114	-0.000
	Cr	52	**-0.023**	**ug/L**	360.084	-1337	-0.000
	Cr	53		**ug/L**		50703	-0.030
	Mn	55	**-0.028**	**ug/L**	10.041	598	-0.000
	Fe	57	**2.167**	**ug/L**	87.052	3426	0.000
	Co	59	**0.007**	**ug/L**	69.668	157	0.000
	Ni	60	**0.001**	**ug/L**	208.909	71	0.000
	Cu	63		**ug/L**		94	-0.000
	Cu	65	**0.014**	**ug/L**	64.431	59	0.000
	Zn	66	**0.549**	**ug/L**	37.068	346	0.001
	Zn	67		**ug/L**		2899	-0.002
	Zn	68		**ug/L**		457	0.001
>	Ge	74		**ug/L**		166682	166682.110
	As	75	**-0.364**	**ug/L**	124.353	489	-0.001
	Se	77		**ug/L**		3497	-0.009
	Se	82	**0.086**	**ug/L**	926.742	0	0.000
	Kr	83		**ug/L**		246	-0.000
	Sr	88	**0.005**	**ug/L**	13.736	299	0.000
	Zr	90	**0.015**	**ug/L**	42.267	165	0.000
	Mo	98	**0.115**	**ug/L**	13.045	286	0.002
	Ag	107	**0.004**	**ug/L**	50.696	77	0.000
	Cd	111	**0.016**	**ug/L**	64.635	31	0.000
	Cd	114		**ug/L**		81	0.000
>	In	115		**ug/L**		103331	103331.430
	Sn	120	**0.030**	**ug/L**	24.753	270	0.001
	Sb	121	**0.272**	**ug/L**	20.006	942	0.005
	Sb	123		**ug/L**		753	0.004
	Ba	135		**ug/L**		38	0.000
	Ba	137	**0.007**	**ug/L**	121.818	64	0.000
>	Lu	175		**ug/L**		189898	189898.066
	Tl	205	**0.210**	**ug/L**	25.524	2654	0.010
	Pb	208	**-0.001**	**ug/L**	114.117	807	-0.000
	Th	232	**0.033**	**ug/L**	13.451	1004	0.002
	U	238	**0.005**	**ug/L**	22.587	754	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.9			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		107.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, August 31, 2011 21:57:57
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 10.073

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1018.744**	**ug/L**	5.564	416693	0.952
	Be	9	**1015.910**	**ug/L**	3.716	111562	0.255
	B	11	**1.978**	**ug/L**	25.058	473	0.000
	Na	23	**51917.205**	**ug/L**	1.306	66928279	152.976
	Mg	24	**51183.232**	**ug/L**	0.578	43357344	99.132
	Al	27	**52077.181**	**ug/L**	0.504	64589905	147.677
	P	31	**24257.948**	**ug/L**	4.083	1937734	4.426
	K	39	**50395.700**	**ug/L**	0.881	118329685	269.856
	Ca	43	**50050.856**	**ug/L**	0.312	230262	0.526
>	Sc	45		**ug/L**		437363	437363.408
	Ti	47	**39.039**	**ug/L**	0.783	10038	0.023
	Cr	52	**987.783**	**ug/L**	0.433	2400058	5.491
	Cr	53		**ug/L**		327145	0.608
	Mn	55	**999.026**	**ug/L**	0.795	3847791	8.797
	Fe	57	**50606.286**	**ug/L**	0.984	4016268	9.177
	Co	59	**967.249**	**ug/L**	1.405	3028140	6.925
	Ni	60	**923.976**	**ug/L**	0.484	599597	1.371
	Cu	63		**ug/L**		1271035	2.906
	Cu	65	**883.194**	**ug/L**	1.235	603156	1.379
	Zn	66	**2291.347**	**ug/L**	1.431	805691	5.238
	Zn	67		**ug/L**		130268	0.828
	Zn	68		**ug/L**		576580	3.747
>	Ge	74		**ug/L**		153807	153807.400
	As	75	**971.958**	**ug/L**	0.991	402539	2.614
	Se	77		**ug/L**		18456	0.090
	Se	82	**505.923**	**ug/L**	0.639	20507	0.133
	Kr	83		**ug/L**		248	0.000
	Sr	88	**1052.763**	**ug/L**	1.059	5761335	63.637
	Zr	90	**526.744**	**ug/L**	0.731	1574817	17.394
	Mo	98	**1023.733**	**ug/L**	0.405	1339490	14.794
	Ag	107	**244.475**	**ug/L**	0.501	496507	5.483
	Cd	111	**1014.858**	**ug/L**	1.448	481737	5.320
	Cd	114		**ug/L**		1162324	12.838
>	In	115		**ug/L**		90532	90532.355
	Sn	120	**1029.722**	**ug/L**	0.427	2330494	25.741
	Sb	121	**230.930**	**ug/L**	2.149	416562	4.598
	Sb	123		**ug/L**		326460	3.604
	Ba	135		**ug/L**		559119	3.233
	Ba	137	**961.435**	**ug/L**	0.462	970128	5.610
>	Lu	175		**ug/L**		172916	172915.716
	Tl	205	**451.123**	**ug/L**	1.000	3599428	20.813
	Pb	208	**4670.712**	**ug/L**	0.529	47413125	274.204
	Th	232	**2404.304**	**ug/L**	1.454	27909990	161.416
	U	238	**4969.299**	**ug/L**	0.894	61266915	354.337

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.874				
	Be	9	101.591				
	B	11					
	Na	23	103.834				
	Mg	24	102.366				
	Al	27	104.154				
	P	31	97.032				
	K	39	100.791				
	Ca	43	100.102				
>	Sc	45		103.7			
	Ti	47					
	Cr	52	98.778				
	Cr	53					
	Mn	55	99.903				
	Fe	57	101.213				
	Co	59	96.725				
	Ni	60	92.398				
	Cu	63					
	Cu	65	88.319				
	Zn	66	91.654				
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75	97.196				
	Se	77					
	Se	82	101.185				
	Kr	83					
	Sr	88	105.276				
	Zr	90	105.349				
	Mo	98	102.373				
	Ag	107	97.790				
	Cd	111	101.486				
	Cd	114					
>	In	115		94.3			
	Sn	120	102.972				
	Sb	121	92.372				
	Sb	123					
	Ba	135					
	Ba	137	96.143				
>	Lu	175		98.1			
	Tl	205	90.225				
	Pb	208	93.414				
	Th	232	96.172				
	U	238	99.386				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Cu	65LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, August 31, 2011 22:06:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 11.074

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.949**	**ug/L**	2.141	21265	0.048
	Be	9	**49.244**	**ug/L**	2.543	5518	0.012
	B	11	**110.654**	**ug/L**	3.253	12161	0.027
	Na	23	**5198.044**	**ug/L**	1.381	6849919	15.316
	Mg	24	**5193.538**	**ug/L**	1.079	4490151	10.059
	Al	27	**5264.399**	**ug/L**	0.231	6663235	14.928
	P	31	**5062.000**	**ug/L**	1.446	414684	0.924
	K	39	**5013.519**	**ug/L**	0.328	12291921	26.846
	Ca	43	**5064.664**	**ug/L**	0.449	23905	0.053
>	Sc	45		**ug/L**		445951	445951.146
	Ti	47	**48.398**	**ug/L**	0.623	12657	0.028
	Cr	52	**49.572**	**ug/L**	0.956	121639	0.276
	Cr	53		**ug/L**		61446	-0.002
	Mn	55	**51.157**	**ug/L**	0.327	201579	0.450
	Fe	57	**4969.584**	**ug/L**	0.299	405041	0.901
	Co	59	**49.737**	**ug/L**	0.641	158925	0.356
	Ni	60	**50.440**	**ug/L**	0.336	33441	0.075
	Cu	63		**ug/L**		74396	0.167
	Cu	65	**50.053**	**ug/L**	0.679	34904	0.078
	Zn	66	**49.043**	**ug/L**	0.965	18361	0.112
	Zn	67		**ug/L**		5941	0.017
	Zn	68		**ug/L**		13690	0.082
>	Ge	74		**ug/L**		162587	162586.509
	As	75	**49.575**	**ug/L**	1.146	22307	0.133
	Se	77		**ug/L**		4871	0.000
	Se	82	**50.588**	**ug/L**	1.226	2164	0.013
	Kr	83		**ug/L**		240	-0.000
	Sr	88	**51.734**	**ug/L**	0.404	308907	3.127
	Zr	90	**50.421**	**ug/L**	1.418	164429	1.665
	Mo	98	**48.638**	**ug/L**	1.163	69477	0.703
	Ag	107	**48.570**	**ug/L**	0.522	107587	1.089
	Cd	111	**50.499**	**ug/L**	2.125	26147	0.265
	Cd	114		**ug/L**		63260	0.640
>	In	115		**ug/L**		98701	98701.459
	Sn	120	**50.297**	**ug/L**	1.086	124275	1.257
	Sb	121	**48.014**	**ug/L**	1.728	94715	0.956
	Sb	123		**ug/L**		73810	0.745
	Ba	135		**ug/L**		30007	0.166
	Ba	137	**49.511**	**ug/L**	0.564	52166	0.289
>	Lu	175		**ug/L**		180374	180373.610
	Tl	205	**48.420**	**ug/L**	0.526	403734	2.234
	Pb	208	**50.796**	**ug/L**	0.411	538660	2.982
	Th	232	**50.315**	**ug/L**	1.116	609812	3.378
	U	238	**51.564**	**ug/L**	0.366	663850	3.677

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.897				
	Be	9	98.488				
	B	11	110.654				
	Na	23	103.961				
	Mg	24	103.871				
	Al	27	104.246				
	P	31	101.240				
	K	39	100.270				
	Ca	43	101.293				
>	Sc	45		105.7			
	Ti	47	96.795				
	Cr	52	99.143				
	Cr	53					
	Mn	55	102.314				
	Fe	57	99.392				
	Co	59	99.474				
	Ni	60	100.879				
	Cu	63					
	Cu	65	100.107				
	Zn	66	98.086				
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75	99.151				
	Se	77					
	Se	82	101.176				
	Kr	83					
	Sr	88	103.469				
	Zr	90	100.843				
	Mo	98	97.275				
	Ag	107	97.141				
	Cd	111	100.998				
	Cd	114					
>	In	115		102.8			
	Sn	120	100.595				
	Sb	121	96.027				
	Sb	123					
	Ba	135					
	Ba	137	99.022				
>	Lu	175		102.4			
	Tl	205	96.840				
	Pb	208	101.591				
	Th	232	100.630				
	U	238	103.129				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	B	11CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, August 31, 2011 22:14:51
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 12.075

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.062**	**ug/L**	5.417	61	0.000
	Be	9	**0.032**	**ug/L**	57.084	11	0.000
	B	11	**2.999**	**ug/L**	33.457	595	0.001
	Na	23	**0.529**	**ug/L**	62.145	20431	0.002
	Mg	24	**1.855**	**ug/L**	13.406	5783	0.004
	Al	27	**1.775**	**ug/L**	8.964	8101	0.005
	P	31	**-1.897**	**ug/L**	45.637	2618	-0.000
	K	39	**-6.495**	**ug/L**	27.212	305827	-0.035
	Ca	43	**0.434**	**ug/L**	872.434	165	0.000
>	Sc	45		**ug/L**		448404	448403.628
	Ti	47	**-0.161**	**ug/L**	22.564	95	-0.000
	Cr	52	**-0.017**	**ug/L**	100.164	-1291	-0.000
	Cr	53		**ug/L**		49278	-0.030
	Mn	55	**-0.009**	**ug/L**	83.425	658	-0.000
	Fe	57	**1.698**	**ug/L**	30.962	3311	0.000
	Co	59	**0.027**	**ug/L**	18.532	220	0.000
	Ni	60	**0.004**	**ug/L**	223.724	71	0.000
	Cu	63		**ug/L**		132	-0.000
	Cu	65	**0.029**	**ug/L**	7.259	68	0.000
	Zn	66	**0.088**	**ug/L**	20.538	167	0.000
	Zn	67		**ug/L**		2762	-0.002
	Zn	68		**ug/L**		314	-0.000
>	Ge	74		**ug/L**		162169	162168.786
	As	75	**0.226**	**ug/L**	357.105	732	0.001
	Se	77		**ug/L**		3291	-0.009
	Se	82	**0.135**	**ug/L**	28.743	2	0.000
	Kr	83		**ug/L**		244	-0.000
	Sr	88	**0.019**	**ug/L**	11.914	370	0.001
	Zr	90	**0.014**	**ug/L**	24.548	156	0.000
	Mo	98	**0.198**	**ug/L**	6.730	393	0.003
	Ag	107	**0.009**	**ug/L**	48.316	85	0.000
	Cd	111	**0.030**	**ug/L**	46.459	37	0.000
	Cd	114		**ug/L**		79	0.000
>	In	115		**ug/L**		99031	99030.552
	Sn	120	**0.145**	**ug/L**	13.362	543	0.004
	Sb	121	**1.107**	**ug/L**	7.698	2549	0.022
	Sb	123		**ug/L**		1967	0.017
	Ba	135		**ug/L**		44	0.000
	Ba	137	**0.020**	**ug/L**	31.873	74	0.000
>	Lu	175		**ug/L**		180349	180349.042
	Tl	205	**0.299**	**ug/L**	21.047	3257	0.014
	Pb	208	**0.057**	**ug/L**	29.272	1383	0.003
	Th	232	**0.085**	**ug/L**	16.352	1584	0.006
	U	238	**0.076**	**ug/L**	26.646	1619	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.3			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 31, 2011 22:39:51
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.078

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.088**	**ug/L**	5.654	22244	0.050
	Be	9	**50.497**	**ug/L**	3.700	5681	0.013
	B	11	**115.538**	**ug/L**	2.878	12741	0.028
	Na	23	**5293.899**	**ug/L**	0.895	7006316	15.599
	Mg	24	**5225.042**	**ug/L**	0.774	4536248	10.120
	Al	27	**5308.715**	**ug/L**	0.895	6747599	15.054
	P	31	**5068.306**	**ug/L**	1.021	416946	0.925
	K	39	**5036.407**	**ug/L**	0.695	12398793	26.969
	Ca	43	**5104.766**	**ug/L**	1.279	24194	0.054
>	Sc	45		**ug/L**		447867	447867.476
	Ti	47	**49.389**	**ug/L**	0.205	12968	0.029
	Cr	52	**49.685**	**ug/L**	0.285	122442	0.276
	Cr	53		**ug/L**		62910	0.000
	Mn	55	**51.394**	**ug/L**	0.698	203371	0.453
	Fe	57	**5006.275**	**ug/L**	1.112	409734	0.908
	Co	59	**50.153**	**ug/L**	0.488	160932	0.359
	Ni	60	**50.648**	**ug/L**	0.334	33722	0.075
	Cu	63		**ug/L**		73397	0.164
	Cu	65	**50.064**	**ug/L**	0.346	35061	0.078
	Zn	66	**49.522**	**ug/L**	1.782	18525	0.113
	Zn	67		**ug/L**		5773	0.016
	Zn	68		**ug/L**		13584	0.082
>	Ge	74		**ug/L**		162471	162471.386
	As	75	**49.218**	**ug/L**	0.760	22134	0.132
	Se	77		**ug/L**		4948	0.001
	Se	82	**51.276**	**ug/L**	1.581	2192	0.014
	Kr	83		**ug/L**		245	-0.000
	Sr	88	**52.071**	**ug/L**	1.092	309950	3.148
	Zr	90	**50.072**	**ug/L**	1.320	162788	1.653
	Mo	98	**48.862**	**ug/L**	0.948	69584	0.706
	Ag	107	**48.832**	**ug/L**	0.746	107829	1.095
	Cd	111	**50.025**	**ug/L**	0.631	25824	0.262
	Cd	114		**ug/L**		62908	0.639
>	In	115		**ug/L**		98395	98394.982
	Sn	120	**49.663**	**ug/L**	0.141	122338	1.241
	Sb	121	**46.404**	**ug/L**	2.364	91282	0.924
	Sb	123		**ug/L**		71201	0.721
	Ba	135		**ug/L**		29832	0.164
	Ba	137	**49.642**	**ug/L**	0.173	52720	0.290
>	Lu	175		**ug/L**		181819	181819.031
	Tl	205	**47.520**	**ug/L**	0.743	399391	2.192
	Pb	208	**49.690**	**ug/L**	0.334	531172	2.917
	Th	232	**48.803**	**ug/L**	0.916	596267	3.276
	U	238	**50.222**	**ug/L**	1.198	651722	3.581

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	106.175				
	Be	9	100.994				
	B	11	115.538				
	Na	23	105.878				
	Mg	24	104.501				
	Al	27	105.123				
	P	31	101.366				
	K	39	100.728				
	Ca	43	102.095				
>	Sc	45		106.2			
	Ti	47	98.778				
	Cr	52	99.371				
	Cr	53					
	Mn	55	102.789				
	Fe	57	100.125				
	Co	59	100.306				
	Ni	60	101.296				
	Cu	63					
	Cu	65	100.128				
	Zn	66	99.044				
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75	98.437				
	Se	77					
	Se	82	102.553				
	Kr	83					
	Sr	88	104.141				
	Zr	90	100.144				
	Mo	98	97.725				
	Ag	107	97.664				
	Cd	111	100.049				
	Cd	114					
>	In	115		102.5			
	Sn	120	99.326				
	Sb	121	92.808				
	Sb	123					
	Ba	135					
	Ba	137	99.284				
>	Lu	175		103.2			
	Tl	205	95.040				
	Pb	208	99.380				
	Th	232	97.606				
	U	238	100.443				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	B	11CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, August 31, 2011 22:48:29
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.079

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.037**	**ug/L**	48.308	50	0.000
	Be	9	**0.031**	**ug/L**	72.260	11	0.000
	B	11	**4.298**	**ug/L**	24.763	730	0.001
	Na	23	**-0.886**	**ug/L**	50.999	18432	-0.003
	Mg	24	**1.280**	**ug/L**	9.919	5246	0.002
	Al	27	**1.145**	**ug/L**	11.572	7249	0.003
	P	31	**-3.860**	**ug/L**	53.232	2440	-0.001
	K	39	**-8.679**	**ug/L**	25.019	298506	-0.046
	Ca	43	**1.249**	**ug/L**	227.541	168	0.000
>	Sc	45		**ug/L**		445323	445323.058
	Ti	47	**-0.133**	**ug/L**	17.449	102	-0.000
	Cr	52	**0.048**	**ug/L**	142.179	-1122	0.000
	Cr	53		**ug/L**		47270	-0.034
	Mn	55	**-0.021**	**ug/L**	26.641	608	-0.000
	Fe	57	**-0.615**	**ug/L**	20.033	3101	-0.000
	Co	59	**0.012**	**ug/L**	21.905	170	0.000
	Ni	60	**0.007**	**ug/L**	48.330	73	0.000
	Cu	63		**ug/L**		113	-0.000
	Cu	65	**0.013**	**ug/L**	107.436	56	0.000
	Zn	66	**0.025**	**ug/L**	52.557	143	0.000
	Zn	67		**ug/L**		2724	-0.002
	Zn	68		**ug/L**		298	-0.000
>	Ge	74		**ug/L**		161730	161729.626
	As	75	**-0.402**	**ug/L**	118.186	455	-0.001
	Se	77		**ug/L**		3325	-0.009
	Se	82	**0.615**	**ug/L**	122.908	22	0.000
	Kr	83		**ug/L**		233	-0.000
	Sr	88	**0.009**	**ug/L**	17.840	306	0.001
	Zr	90	**0.010**	**ug/L**	40.060	144	0.000
	Mo	98	**0.091**	**ug/L**	15.447	240	0.001
	Ag	107	**0.002**	**ug/L**	121.727	70	0.000
	Cd	111	**0.014**	**ug/L**	44.141	28	0.000
	Cd	114		**ug/L**		71	0.000
>	In	115		**ug/L**		98667	98667.484
	Sn	120	**0.053**	**ug/L**	3.215	314	0.001
	Sb	121	**0.593**	**ug/L**	7.380	1531	0.012
	Sb	123		**ug/L**		1209	0.009
	Ba	135		**ug/L**		34	0.000
	Ba	137	**0.013**	**ug/L**	12.034	67	0.000
>	Lu	175		**ug/L**		179247	179246.593
	Tl	205	**0.289**	**ug/L**	20.586	3159	0.013
	Pb	208	**0.020**	**ug/L**	11.058	987	0.001
	Th	232	**0.057**	**ug/L**	10.797	1232	0.004
	U	238	**0.031**	**ug/L**	4.996	1046	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.6			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		101.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, August 31, 2011 23:38:29
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.085

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.349**	**ug/L**	4.792	23391	0.053
	Be	9	**52.412**	**ug/L**	3.615	5842	0.013
	B	11	**124.078**	**ug/L**	1.146	13538	0.030
	Na	23	**5261.925**	**ug/L**	0.494	6899085	15.504
	Mg	24	**5237.529**	**ug/L**	0.617	4505250	10.144
	Al	27	**5278.648**	**ug/L**	0.472	6647490	14.969
	P	31	**5026.633**	**ug/L**	0.545	409714	0.917
	K	39	**5013.519**	**ug/L**	0.902	12229969	26.846
	Ca	43	**5076.618**	**ug/L**	1.384	23838	0.053
>	Sc	45		**ug/L**		443700	443700.110
	Ti	47	**49.088**	**ug/L**	1.212	12771	0.028
	Cr	52	**49.084**	**ug/L**	0.566	119820	0.273
	Cr	53		**ug/L**		74851	0.029
	Mn	55	**50.758**	**ug/L**	0.676	198994	0.447
	Fe	57	**4997.348**	**ug/L**	0.201	405227	0.906
	Co	59	**48.807**	**ug/L**	1.257	155156	0.349
	Ni	60	**49.322**	**ug/L**	0.912	32537	0.073
	Cu	63		**ug/L**		71526	0.161
	Cu	65	**49.121**	**ug/L**	0.335	34081	0.077
	Zn	66	**49.241**	**ug/L**	0.238	17858	0.113
	Zn	67		**ug/L**		5843	0.018
	Zn	68		**ug/L**		13374	0.083
>	Ge	74		**ug/L**		157496	157496.230
	As	75	**49.111**	**ug/L**	3.098	21412	0.132
	Se	77		**ug/L**		6822	0.014
	Se	82	**51.319**	**ug/L**	0.826	2126	0.014
	Kr	83		**ug/L**		230	-0.000
	Sr	88	**51.761**	**ug/L**	0.482	301117	3.129
	Zr	90	**49.824**	**ug/L**	1.140	158308	1.645
	Mo	98	**47.941**	**ug/L**	0.393	66729	0.693
	Ag	107	**48.248**	**ug/L**	0.879	104122	1.082
	Cd	111	**50.644**	**ug/L**	0.779	25551	0.266
	Cd	114		**ug/L**		61387	0.638
>	In	115		**ug/L**		96167	96166.888
	Sn	120	**49.110**	**ug/L**	0.762	118231	1.228
	Sb	121	**45.529**	**ug/L**	2.562	87563	0.907
	Sb	123		**ug/L**		68242	0.707
	Ba	135		**ug/L**		29108	0.163
	Ba	137	**48.160**	**ug/L**	0.318	50279	0.281
>	Lu	175		**ug/L**		178729	178729.395
	Tl	205	**47.304**	**ug/L**	1.056	390804	2.182
	Pb	208	**48.918**	**ug/L**	1.118	513995	2.872
	Th	232	**48.218**	**ug/L**	1.385	579045	3.237
	U	238	**49.382**	**ug/L**	1.071	629929	3.521

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	112.697				
	Be	9	104.825				
	B	11	124.078				
	Na	23	105.238				
	Mg	24	104.751				
	Al	27	104.528				
	P	31	100.533				
	K	39	100.270				
	Ca	43	101.532				
>	Sc	45		105.2			
	Ti	47	98.177				
	Cr	52	98.167				
	Cr	53					
	Mn	55	101.516				
	Fe	57	99.947				
	Co	59	97.614				
	Ni	60	98.643				
	Cu	63					
	Cu	65	98.241				
	Zn	66	98.483				
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
	As	75	98.221				
	Se	77					
	Se	82	102.638				
	Kr	83					
	Sr	88	103.522				
	Zr	90	99.647				
	Mo	98	95.883				
	Ag	107	96.495				
	Cd	111	101.288				
	Cd	114					
>	In	115		100.2			
	Sn	120	98.219				
	Sb	121	91.058				
	Sb	123					
	Ba	135					
	Ba	137	96.320				
>	Lu	175		101.4			
	Tl	205	94.607				
	Pb	208	97.837				
	Th	232	96.436				
	U	238	98.763				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, August 31, 2011 23:46:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.086

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.031**	**ug/L**	24.631	46	0.000
	Be	9	**0.020**	**ug/L**	174.296	9	0.000
	B	11	**7.567**	**ug/L**	16.393	1049	0.002
	Na	23	**-0.371**	**ug/L**	137.046	18552	-0.001
	Mg	24	**1.754**	**ug/L**	7.662	5491	0.003
	Al	27	**1.127**	**ug/L**	3.362	7015	0.003
	P	31	**-0.910**	**ug/L**	275.356	2602	-0.000
	K	39	**-4.108**	**ug/L**	26.043	300383	-0.022
	Ca	43	**-2.890**	**ug/L**	63.962	144	-0.000
>	Sc	45		**ug/L**		432313	432313.086
	Ti	47	**-0.093**	**ug/L**	31.924	109	-0.000
	Cr	52	**0.130**	**ug/L**	36.146	-892	0.001
	Cr	53		**ug/L**		57972	-0.006
	Mn	55	**-0.000**	**ug/L**	21780.068	669	-0.000
	Fe	57	**0.352**	**ug/L**	111.335	3086	0.000
	Co	59	**0.011**	**ug/L**	37.600	161	0.000
	Ni	60	**0.003**	**ug/L**	73.564	68	0.000
	Cu	63		**ug/L**		111	-0.000
	Cu	65	**0.013**	**ug/L**	16.378	55	0.000
	Zn	66	**0.018**	**ug/L**	193.385	136	0.000
	Zn	67		**ug/L**		2662	-0.002
	Zn	68		**ug/L**		296	-0.000
>	Ge	74		**ug/L**		156598	156597.631
	As	75	**0.612**	**ug/L**	30.666	867	0.002
	Se	77		**ug/L**		4951	0.002
	Se	82	**0.232**	**ug/L**	29.806	5	0.000
	Kr	83		**ug/L**		232	-0.000
	Sr	88	**0.031**	**ug/L**	10.193	422	0.002
	Zr	90	**0.010**	**ug/L**	44.498	137	0.000
	Mo	98	**0.079**	**ug/L**	4.705	215	0.001
	Ag	107	**0.005**	**ug/L**	40.362	74	0.000
	Cd	111	**0.013**	**ug/L**	111.742	27	0.000
	Cd	114		**ug/L**		67	0.000
>	In	115		**ug/L**		95355	95354.597
	Sn	120	**0.037**	**ug/L**	10.585	266	0.001
	Sb	121	**0.407**	**ug/L**	14.577	1126	0.008
	Sb	123		**ug/L**		851	0.006
	Ba	135		**ug/L**		39	0.000
	Ba	137	**0.018**	**ug/L**	15.871	69	0.000
>	Lu	175		**ug/L**		173680	173680.481
	Tl	205	**0.266**	**ug/L**	22.865	2873	0.012
	Pb	208	**0.017**	**ug/L**	18.730	922	0.001
	Th	232	**0.055**	**ug/L**	18.563	1170	0.004
	U	238	**0.023**	**ug/L**	6.993	903	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 00:11:51
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.089

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.943**	**ug/L**	6.679	23442	0.053
	Be	9	**52.536**	**ug/L**	4.319	5809	0.013
	B	11	**120.984**	**ug/L**	3.045	13100	0.029
	Na	23	**5367.125**	**ug/L**	1.198	6981544	15.814
	Mg	24	**5238.856**	**ug/L**	1.474	4470701	10.147
	Al	27	**5367.190**	**ug/L**	0.945	6706116	15.220
	P	31	**5115.977**	**ug/L**	0.394	413718	0.933
	K	39	**5077.666**	**ug/L**	0.817	12285873	27.190
	Ca	43	**5104.454**	**ug/L**	1.045	23787	0.054
>	Sc	45		**ug/L**		440298	440297.810
	Ti	47	**49.248**	**ug/L**	0.752	12712	0.029
	Cr	52	**49.491**	**ug/L**	1.646	119869	0.275
	Cr	53		**ug/L**		66808	0.012
	Mn	55	**51.075**	**ug/L**	0.721	198688	0.450
	Fe	57	**4993.550**	**ug/L**	1.210	401813	0.906
	Co	59	**49.462**	**ug/L**	0.682	156025	0.354
	Ni	60	**49.477**	**ug/L**	1.235	32382	0.073
	Cu	63		**ug/L**		71453	0.162
	Cu	65	**49.415**	**ug/L**	1.441	34015	0.077
	Zn	66	**50.044**	**ug/L**	1.713	18263	0.114
	Zn	67		**ug/L**		5719	0.017
	Zn	68		**ug/L**		13436	0.083
>	Ge	74		**ug/L**		158531	158531.331
	As	75	**49.415**	**ug/L**	2.380	21684	0.133
	Se	77		**ug/L**		5757	0.007
	Se	82	**51.342**	**ug/L**	1.623	2141	0.014
	Kr	83		**ug/L**		285	0.000
	Sr	88	**52.155**	**ug/L**	0.619	304150	3.153
	Zr	90	**50.201**	**ug/L**	1.518	159884	1.658
	Mo	98	**48.313**	**ug/L**	1.233	67401	0.698
	Ag	107	**48.610**	**ug/L**	0.999	105162	1.090
	Cd	111	**50.316**	**ug/L**	2.716	25440	0.264
	Cd	114		**ug/L**		61613	0.639
>	In	115		**ug/L**		96401	96400.965
	Sn	120	**49.725**	**ug/L**	1.146	119990	1.243
	Sb	121	**46.532**	**ug/L**	1.716	89694	0.927
	Sb	123		**ug/L**		70624	0.730
	Ba	135		**ug/L**		29489	0.164
	Ba	137	**48.725**	**ug/L**	1.122	51204	0.284
>	Lu	175		**ug/L**		179897	179896.789
	Tl	205	**47.440**	**ug/L**	0.877	394531	2.189
	Pb	208	**49.227**	**ug/L**	0.323	520679	2.890
	Th	232	**48.947**	**ug/L**	0.647	591700	3.286
	U	238	**50.130**	**ug/L**	0.306	643697	3.574

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	113.885				
	Be	9	105.071				
	B	11	120.984				
	Na	23	107.342				
	Mg	24	104.777				
	Al	27	106.281				
	P	31	102.320				
	K	39	101.553				
	Ca	43	102.089				
>	Sc	45		104.4			
	Ti	47	98.496				
	Cr	52	98.982				
	Cr	53					
	Mn	55	102.151				
	Fe	57	99.871				
	Co	59	98.924				
	Ni	60	98.954				
	Cu	63					
	Cu	65	98.829				
	Zn	66	100.088				
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75	98.831				
	Se	77					
	Se	82	102.684				
	Kr	83					
	Sr	88	104.310				
	Zr	90	100.401				
	Mo	98	96.626				
	Ag	107	97.220				
	Cd	111	100.632				
	Cd	114					
>	In	115		100.4			
	Sn	120	99.449				
	Sb	121	93.064				
	Sb	123					
	Ba	135					
	Ba	137	97.451				
>	Lu	175		102.1			
	Tl	205	94.881				
	Pb	208	98.454				
	Th	232	97.894				
	U	238	100.259				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, September 01, 2011 00:20:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.090

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	**ug/L**	21.660	40	0.000
	Be	9	**0.024**	**ug/L**	108.870	10	0.000
	B	11	**5.387**	**ug/L**	17.666	830	0.001
	Na	23	**-1.272**	**ug/L**	12.706	17551	-0.004
	Mg	24	**1.304**	**ug/L**	4.247	5157	0.003
	Al	27	**1.271**	**ug/L**	6.110	7253	0.004
	P	31	**-0.816**	**ug/L**	280.183	2631	-0.000
	K	39	**-7.974**	**ug/L**	17.813	293888	-0.043
	Ca	43	**0.044**	**ug/L**	4343.798	159	0.000
>	Sc	45		**ug/L**		435946	435945.545
	Ti	47	**-0.034**	**ug/L**	138.332	125	-0.000
	Cr	52	**0.021**	**ug/L**	580.230	-1166	0.000
	Cr	53		**ug/L**		52190	-0.020
	Mn	55	**-0.016**	**ug/L**	4.808	614	-0.000
	Fe	57	**-0.987**	**ug/L**	5.532	3006	-0.000
	Co	59	**0.009**	**ug/L**	36.944	156	0.000
	Ni	60	**0.007**	**ug/L**	15.946	71	0.000
	Cu	63		**ug/L**		117	-0.000
	Cu	65	**0.011**	**ug/L**	66.003	54	0.000
	Zn	66	**0.040**	**ug/L**	45.503	144	0.000
	Zn	67		**ug/L**		2604	-0.002
	Zn	68		**ug/L**		303	-0.000
>	Ge	74		**ug/L**		156303	156302.991
	As	75	**-0.345**	**ug/L**	288.518	463	-0.001
	Se	77		**ug/L**		4062	-0.004
	Se	82	**-0.143**	**ug/L**	290.628	-10	-0.000
	Kr	83		**ug/L**		195	-0.000
	Sr	88	**0.015**	**ug/L**	2.670	340	0.001
	Zr	90	**0.012**	**ug/L**	19.470	146	0.000
	Mo	98	**0.073**	**ug/L**	22.736	211	0.001
	Ag	107	**0.006**	**ug/L**	6.099	77	0.000
	Cd	111	**0.012**	**ug/L**	94.397	27	0.000
	Cd	114		**ug/L**		70	0.000
>	In	115		**ug/L**		97478	97477.599
	Sn	120	**0.037**	**ug/L**	23.390	273	0.001
	Sb	121	**0.330**	**ug/L**	7.565	1002	0.007
	Sb	123		**ug/L**		807	0.005
	Ba	135		**ug/L**		36	0.000
	Ba	137	**0.011**	**ug/L**	56.813	64	0.000
>	Lu	175		**ug/L**		176249	176248.753
	Tl	205	**0.298**	**ug/L**	21.147	3176	0.014
	Pb	208	**0.015**	**ug/L**	6.207	922	0.001
	Th	232	**0.056**	**ug/L**	13.820	1203	0.004
	U	238	**0.024**	**ug/L**	7.763	932	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.3			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		100.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477132
Sample Date/Time: Thursday, September 01, 2011 01:35:50
Sample Type: Sample
Sample Description: ARSL 2008 MB
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477132.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.005**	**ug/L**	163.825	31	-0.000
	Be	9	**-0.020**	**ug/L**	13.337	5	-0.000
	B	11	**10.191**	**ug/L**	21.129	1291	0.002
	Na	23	**-3.244**	**ug/L**	3.813	14530	-0.010
	Mg	24	**-2.352**	**ug/L**	31.894	2002	-0.005
	Al	27	**-1.973**	**ug/L**	3.358	3137	-0.006
	P	31	**-10.947**	**ug/L**	20.197	1766	-0.002
	K	39	**-8.206**	**ug/L**	26.939	283826	-0.044
	Ca	43	**4.210**	**ug/L**	26.652	172	0.000
>	Sc	45		**ug/L**		421797	421796.904
	Ti	47	**-0.071**	**ug/L**	30.826	112	-0.000
	Cr	52	**-0.085**	**ug/L**	144.499	-1375	-0.000
	Cr	53		**ug/L**		78022	0.045
	Mn	55	**-0.003**	**ug/L**	172.901	643	-0.000
	Fe	57	**-3.678**	**ug/L**	29.875	2703	-0.001
	Co	59	**-0.029**	**ug/L**	1.665	37	-0.000
	Ni	60	**0.010**	**ug/L**	54.682	70	0.000
	Cu	63		**ug/L**		131	-0.000
	Cu	65	**0.026**	**ug/L**	33.370	62	0.000
	Zn	66	**0.620**	**ug/L**	7.315	345	0.001
	Zn	67		**ug/L**		2862	-0.000
	Zn	68		**ug/L**		464	0.001
>	Ge	74		**ug/L**		153776	153776.218
	As	75	**1.577**	**ug/L**	27.491	1252	0.004
	Se	77		**ug/L**		7517	0.019
	Se	82	**-0.441**	**ug/L**	63.413	-22	-0.000
	Kr	83		**ug/L**		247	0.000
	Sr	88	**0.028**	**ug/L**	80.806	401	0.002
	Zr	90	**-0.013**	**ug/L**	1.862	63	-0.000
	Mo	98	**-0.053**	**ug/L**	1.285	33	-0.001
	Ag	107	**-0.024**	**ug/L**	5.593	11	-0.001
	Cd	111	**-0.010**	**ug/L**	51.051	15	-0.000
	Cd	114		**ug/L**		29	-0.000
>	In	115		**ug/L**		93772	93771.639
	Sn	120	**-0.006**	**ug/L**	41.604	160	-0.000
	Sb	121	**0.279**	**ug/L**	15.787	867	0.006
	Sb	123		**ug/L**		677	0.004
	Ba	135		**ug/L**		24	-0.000
	Ba	137	**-0.017**	**ug/L**	25.801	33	-0.000
>	Lu	175		**ug/L**		167378	167378.149
	Tl	205	**0.020**	**ug/L**	28.190	869	0.001
	Pb	208	**-0.037**	**ug/L**	7.041	364	-0.002
	Th	232	**-0.035**	**ug/L**	0.614	114	-0.002
	U	238	**-0.047**	**ug/L**	0.715	41	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		95.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477133
Sample Date/Time: Thursday, September 01, 2011 01:44:10
Sample Type: Sample
Sample Description: ARSL 2008 LCS
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477133.100

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.963**	**ug/L**	3.152	18190	0.044
	Be	9	**48.929**	**ug/L**	3.864	5087	0.012
	B	11	**98.321**	**ug/L**	0.647	10053	0.024
	Na	23	**1909.681**	**ug/L**	0.517	2345997	5.627
	Mg	24	**1900.365**	**ug/L**	2.238	1526629	3.681
	Al	27	**1834.692**	**ug/L**	2.053	2157857	5.203
	P	31	**1816.915**	**ug/L**	2.755	139702	0.332
	K	39	**1834.323**	**ug/L**	1.290	4359774	9.822
	Ca	43	**1833.123**	**ug/L**	0.889	8123	0.019
>	Sc	45		**ug/L**		413697	413697.275
	Ti	47	**38.774**	**ug/L**	0.723	9431	0.022
	Cr	52	**45.678**	**ug/L**	0.613	103885	0.254
	Cr	53		**ug/L**		78796	0.050
	Mn	55	**45.338**	**ug/L**	1.466	165791	0.399
	Fe	57	**1773.331**	**ug/L**	1.190	135955	0.322
	Co	59	**47.459**	**ug/L**	0.775	140677	0.340
	Ni	60	**47.346**	**ug/L**	0.624	29123	0.070
	Cu	63		**ug/L**		64885	0.157
	Cu	65	**47.366**	**ug/L**	1.552	30642	0.074
	Zn	66	**46.850**	**ug/L**	1.080	16587	0.107
	Zn	67		**ug/L**		5323	0.016
	Zn	68		**ug/L**		12203	0.077
>	Ge	74		**ug/L**		153706	153705.609
	As	75	**48.104**	**ug/L**	2.055	20478	0.129
	Se	77		**ug/L**		7773	0.021
	Se	82	**47.873**	**ug/L**	1.453	1935	0.013
	Kr	83		**ug/L**		229	-0.000
	Sr	88	**44.184**	**ug/L**	0.592	252231	2.671
	Zr	90	**43.721**	**ug/L**	1.895	136322	1.444
	Mo	98	**43.735**	**ug/L**	1.195	59734	0.632
	Ag	107	**45.123**	**ug/L**	0.696	95552	1.012
	Cd	111	**45.283**	**ug/L**	1.337	22418	0.237
	Cd	114		**ug/L**		54992	0.582
>	In	115		**ug/L**		94354	94353.701
	Sn	120	**44.120**	**ug/L**	0.794	104235	1.103
	Sb	121	**43.813**	**ug/L**	1.611	82655	0.872
	Sb	123		**ug/L**		64267	0.678
	Ba	135		**ug/L**		25473	0.150
	Ba	137	**44.933**	**ug/L**	0.121	44505	0.262
>	Lu	175		**ug/L**		169551	169551.447
	Tl	205	**43.536**	**ug/L**	0.436	341281	2.009
	Pb	208	**45.883**	**ug/L**	1.562	457385	2.694
	Th	232	**45.715**	**ug/L**	0.762	520878	3.069
	U	238	**47.412**	**ug/L**	0.692	573792	3.381

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.1			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 01:52:29
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.101

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.098**	**ug/L**	4.674	19631	0.050
	Be	9	**53.596**	**ug/L**	3.357	5319	0.013
	B	11	**124.702**	**ug/L**	3.520	12110	0.030
	Na	23	**5377.623**	**ug/L**	2.042	6276079	15.845
	Mg	24	**5392.868**	**ug/L**	0.388	4129649	10.445
	Al	27	**5312.476**	**ug/L**	1.483	5955895	15.065
	P	31	**5086.549**	**ug/L**	1.600	369047	0.928
	K	39	**5102.534**	**ug/L**	1.758	11075786	27.323
	Ca	43	**5091.059**	**ug/L**	1.498	21284	0.054
>	Sc	45		**ug/L**		395028	395027.633
	Ti	47	**50.690**	**ug/L**	1.122	11736	0.029
	Cr	52	**49.998**	**ug/L**	1.207	108677	0.278
	Cr	53		**ug/L**		77461	0.056
	Mn	55	**51.013**	**ug/L**	0.865	178055	0.449
	Fe	57	**4996.319**	**ug/L**	0.959	360686	0.906
	Co	59	**51.029**	**ug/L**	1.136	144419	0.365
	Ni	60	**52.630**	**ug/L**	1.450	30904	0.078
	Cu	63		**ug/L**		68103	0.172
	Cu	65	**52.011**	**ug/L**	0.883	32126	0.081
	Zn	66	**49.108**	**ug/L**	1.364	16355	0.112
	Zn	67		**ug/L**		5697	0.020
	Zn	68		**ug/L**		12168	0.082
>	Ge	74		**ug/L**		144639	144638.607
	As	75	**51.634**	**ug/L**	2.555	20645	0.139
	Se	77		**ug/L**		7402	0.021
	Se	82	**50.184**	**ug/L**	1.524	1909	0.013
	Kr	83		**ug/L**		230	0.000
	Sr	88	**51.934**	**ug/L**	0.334	273646	3.139
	Zr	90	**51.176**	**ug/L**	0.960	147283	1.690
	Mo	98	**49.753**	**ug/L**	0.961	62719	0.719
	Ag	107	**49.854**	**ug/L**	0.798	97449	1.118
	Cd	111	**50.717**	**ug/L**	0.875	23176	0.266
	Cd	114		**ug/L**		55894	0.641
>	In	115		**ug/L**		87097	87097.404
	Sn	120	**49.706**	**ug/L**	0.852	108388	1.243
	Sb	121	**46.001**	**ug/L**	2.669	80103	0.916
	Sb	123		**ug/L**		62292	0.712
	Ba	135		**ug/L**		26420	0.166
	Ba	137	**49.282**	**ug/L**	0.658	45671	0.288
>	Lu	175		**ug/L**		158655	158654.990
	Tl	205	**48.986**	**ug/L**	1.126	359255	2.260
	Pb	208	**50.660**	**ug/L**	0.308	472551	2.974
	Th	232	**51.357**	**ug/L**	0.798	547528	3.448
	U	238	**52.189**	**ug/L**	1.045	590992	3.721

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	106.195				
	Be	9	107.193				
	B	11	124.702				
	Na	23	107.552				
	Mg	24	107.857				
	Al	27	105.198				
	P	31	101.731				
	K	39	102.051				
	Ca	43	101.821				
>	Sc	45		93.6			
	Ti	47	101.379				
	Cr	52	99.996				
	Cr	53					
	Mn	55	102.026				
	Fe	57	99.926				
	Co	59	102.058				
	Ni	60	105.260				
	Cu	63					
	Cu	65	104.021				
	Zn	66	98.217				
	Zn	67					
	Zn	68					
>	Ge	74		92.5			
	As	75	103.269				
	Se	77					
	Se	82	100.368				
	Kr	83					
	Sr	88	103.868				
	Zr	90	102.351				
	Mo	98	99.506				
	Ag	107	99.708				
	Cd	111	101.434				
	Cd	114					
>	In	115		90.7			
	Sn	120	99.413				
	Sb	121	92.002				
	Sb	123					
	Ba	135					
	Ba	137	98.565				
>	Lu	175		90.0			
	Tl	205	97.971				
	Pb	208	101.321				
	Th	232	102.715				
	U	238	104.378				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	B	11CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, September 01, 2011 02:01:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.024**	**ug/L**	42.688	43	0.000
	Be	9	**0.015**	**ug/L**	201.331	9	0.000
	B	11	**6.725**	**ug/L**	15.948	945	0.002
	Na	23	**-0.465**	**ug/L**	99.385	18095	-0.001
	Mg	24	**1.407**	**ug/L**	3.927	5105	0.003
	Al	27	**1.074**	**ug/L**	8.142	6824	0.003
	P	31	**0.813**	**ug/L**	25.146	2687	0.000
	K	39	**-5.291**	**ug/L**	20.503	292193	-0.028
	Ca	43	**0.156**	**ug/L**	2431.448	155	0.000
>	Sc	45		**ug/L**		424401	424400.646
	Ti	47	**0.014**	**ug/L**	251.379	133	0.000
	Cr	52	**0.170**	**ug/L**	12.054	-781	0.001
	Cr	53		**ug/L**		67389	0.019
	Mn	55	**0.003**	**ug/L**	289.574	669	0.000
	Fe	57	**1.539**	**ug/L**	37.485	3121	0.000
	Co	59	**0.010**	**ug/L**	35.980	155	0.000
	Ni	60	**-0.004**	**ug/L**	224.909	62	-0.000
	Cu	63		**ug/L**		118	-0.000
	Cu	65	**0.013**	**ug/L**	73.187	54	0.000
	Zn	66	**0.041**	**ug/L**	54.288	141	0.000
	Zn	67		**ug/L**		3026	0.001
	Zn	68		**ug/L**		280	-0.000
>	Ge	74		**ug/L**		153386	153385.555
	As	75	**0.089**	**ug/L**	2135.957	635	0.000
	Se	77		**ug/L**		6220	0.011
	Se	82	**0.017**	**ug/L**	1206.120	-3	0.000
	Kr	83		**ug/L**		226	-0.000
	Sr	88	**0.015**	**ug/L**	15.394	324	0.001
	Zr	90	**0.011**	**ug/L**	7.014	138	0.000
	Mo	98	**0.075**	**ug/L**	11.303	204	0.001
	Ag	107	**0.008**	**ug/L**	41.387	78	0.000
	Cd	111	**0.002**	**ug/L**	122.760	21	0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		92752	92752.330
	Sn	120	**0.039**	**ug/L**	14.864	264	0.001
	Sb	121	**0.497**	**ug/L**	11.141	1262	0.010
	Sb	123		**ug/L**		1007	0.008
	Ba	135		**ug/L**		33	0.000
	Ba	137	**0.011**	**ug/L**	11.335	60	0.000
>	Lu	175		**ug/L**		166094	166094.436
	Tl	205	**0.263**	**ug/L**	21.896	2727	0.012
	Pb	208	**0.017**	**ug/L**	10.334	890	0.001
	Th	232	**0.061**	**ug/L**	11.489	1187	0.004
	U	238	**0.025**	**ug/L**	18.089	892	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.6			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		94.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477134
Sample Date/Time: Thursday, September 01, 2011 02:17:47
Sample Type: Sample
Sample Description: ARSL 2008 DUP
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477134.104

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**185.230**	**ug/L**	3.378	94305	0.173
	Be	9	**34.253**	**ug/L**	3.335	4690	0.009
	B	11	**303.555**	**ug/L**	1.554	40168	0.073
	Na	23	**11465.880**	**ug/L**	0.385	18418432	33.785
	Mg	24	**84632.995**	**ug/L**	0.129	89253840	163.917
	Al	27	**202506.114**	**ug/L**	0.917	312687143	574.253
	P	31	**12648.273**	**ug/L**	1.186	1260010	2.308
	K	39	**64086.075**	**ug/L**	1.318	187242871	343.164
	Ca	43	**830559.957**	**ug/L**	0.834	4753958	8.731
>	Sc	45		**ug/L**		544474	544474.028
	Ti	47	**394.751**	**ug/L**	1.051	124849	0.229
	Cr	52	**102.518**	**ug/L**	0.918	308760	0.570
	Cr	53		**ug/L**		65406	-0.020
	Mn	55	**59992.298**	**ug/L**	1.228	287630752	528.271
	Fe	57	**120960.381**	**ug/L**	0.325	11946903	21.935
	Co	59	**121.632**	**ug/L**	0.421	474279	0.871
	Ni	60	**177.364**	**ug/L**	0.640	143365	0.263
	Cu	63		**ug/L**		282576	0.519
	Cu	65	**156.815**	**ug/L**	0.869	133394	0.245
	Zn	66	**1964.178**	**ug/L**	2.933	551421	4.490
	Zn	67		**ug/L**		106704	0.850
	Zn	68		**ug/L**		457352	3.722
>	Ge	74		**ug/L**		122806	122805.974
	As	75	**55.597**	**ug/L**	3.331	18844	0.149
	Se	77		**ug/L**		8251	0.037
	Se	82	**5.630**	**ug/L**	31.889	179	0.001
	Kr	83		**ug/L**		906	0.006
	Sr	88	**7288.802**	**ug/L**	1.069	36002739	440.587
	Zr	90	**71.580**	**ug/L**	1.560	193229	2.364
	Mo	98	**2.964**	**ug/L**	3.627	3589	0.043
	Ag	107	**2.053**	**ug/L**	0.734	3819	0.046
	Cd	111	**15.184**	**ug/L**	1.708	6522	0.080
	Cd	114		**ug/L**		13187	0.161
>	In	115		**ug/L**		81729	81728.657
	Sn	120	**1.507**	**ug/L**	0.726	3232	0.038
	Sb	121	**0.953**	**ug/L**	1.917	1854	0.019
	Sb	123		**ug/L**		1747	0.019
	Ba	135		**ug/L**		6416233	32.726
	Ba	137	**9998.814**	**ug/L**	0.500	11440899	58.345
>	Lu	175		**ug/L**		196096	196095.744
	Tl	205	**5.631**	**ug/L**	0.411	51785	0.260
	Pb	208	**495.107**	**ug/L**	0.370	5700519	29.066
	Th	232	**17.700**	**ug/L**	0.664	233609	1.188
	U	238	**30.738**	**ug/L**	1.508	430459	2.192

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		129.1			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		111.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
B 11 Upper, S, EEE	B	11	Sample is out of limits (over linear range)
Mg 24 Upper, S, EEE	Mg	24	Sample is out of limits (over linear range)
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
K 39 Upper, S, EEE	K	39	Sample is out of limits (over linear range)
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
Sc 45 Int Std for san	Sc	45	
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)

Ba 137 Upper, S, EEBa 137Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477135
Sample Date/Time: Thursday, September 01, 2011 02:26:06
Sample Type: Sample
Sample Description: ARSL 2008 MS
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477135.105

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**207.202**	**ug/L**	3.614	105087	0.194
	Be	9	**64.939**	**ug/L**	2.335	8849	0.016
	B	11	**362.344**	**ug/L**	1.760	47699	0.087
	Na	23	**12716.827**	**ug/L**	1.289	20347344	37.471
	Mg	24	**82230.721**	**ug/L**	1.206	86386170	159.265
	Al	27	**195636.856**	**ug/L**	0.208	300912708	554.773
	P	31	**12699.721**	**ug/L**	0.823	1260111	2.317
	K	39	**62420.840**	**ug/L**	1.034	181678823	334.247
	Ca	43	**811201.562**	**ug/L**	1.156	4625534	8.527
>	Sc	45		**ug/L**		542384	542383.666
	Ti	47	**327.013**	**ug/L**	0.342	103053	0.190
	Cr	52	**126.215**	**ug/L**	0.976	379042	0.702
	Cr	53		**ug/L**		70109	-0.011
	Mn	55	**58169.823**	**ug/L**	0.747	277832853	512.223
	Fe	57	**107979.460**	**ug/L**	1.130	10624177	19.581
	Co	59	**145.502**	**ug/L**	0.515	565131	1.042
	Ni	60	**197.189**	**ug/L**	0.818	158755	0.293
	Cu	63		**ug/L**		286848	0.529
	Cu	65	**162.385**	**ug/L**	0.061	137593	0.254
	Zn	66	**1951.210**	**ug/L**	0.647	539199	4.460
	Zn	67		**ug/L**		104476	0.845
	Zn	68		**ug/L**		445160	3.681
>	Ge	74		**ug/L**		120857	120857.417
	As	75	**110.349**	**ug/L**	3.188	36318	0.297
	Se	77		**ug/L**		7791	0.035
	Se	82	**16.359**	**ug/L**	4.937	518	0.004
	Kr	83		**ug/L**		852	0.006
	Sr	88	**7237.856**	**ug/L**	1.345	35216638	437.508
	Zr	90	**64.705**	**ug/L**	0.750	172088	2.137
	Mo	98	**11.424**	**ug/L**	1.484	13378	0.165
	Ag	107	**41.070**	**ug/L**	1.914	74199	0.921
	Cd	111	**22.653**	**ug/L**	0.289	9578	0.119
	Cd	114		**ug/L**		21071	0.261
>	In	115		**ug/L**		80505	80504.663
	Sn	120	**1.781**	**ug/L**	2.841	3733	0.045
	Sb	121	**7.030**	**ug/L**	1.105	11566	0.140
	Sb	123		**ug/L**		9293	0.113
	Ba	135		**ug/L**		6365442	33.267
	Ba	137	**10031.175**	**ug/L**	1.048	11199268	58.533
>	Lu	175		**ug/L**		191332	191332.230
	Tl	205	**58.989**	**ug/L**	0.231	521538	2.722
	Pb	208	**495.901**	**ug/L**	0.685	5571134	29.113
	Th	232	**21.969**	**ug/L**	0.265	282773	1.475
	U	238	**60.634**	**ug/L**	0.654	827947	4.324

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		128.6			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		108.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
B 11 Upper, S, EEE	B	11	Sample is out of limits (over linear range)
Mg 24 Upper, S, EEE	Mg	24	Sample is out of limits (over linear range)
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
K 39 Upper, S, EEE	K	39	Sample is out of limits (over linear range)
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
Sc 45 Int Std for san	Sc	45	
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)

Ba 137 Upper, S, EEBa 137Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477136
Sample Date/Time: Thursday, September 01, 2011 02:34:25
Sample Type: Sample
Sample Description: ARSL 2008 SDILT
Number of Replicates: 3
Batch ID: 1137351|5|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477136.106

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.051**	**ug/L**	3.782	22790	0.053
	Be	9	**10.598**	**ug/L**	2.180	1142	0.003
	B	11	**114.389**	**ug/L**	4.878	12027	0.028
	Na	23	**3215.572**	**ug/L**	0.733	4063421	9.475
	Mg	24	**23694.688**	**ug/L**	0.877	19594394	45.892
	Al	27	**57035.467**	**ug/L**	1.135	69047446	161.737
	P	31	**3619.871**	**ug/L**	0.875	284593	0.660
	K	39	**18060.594**	**ug/L**	1.143	41589479	96.710
	Ca	43	**224655.655**	**ug/L**	0.918	1008277	2.362
>	Sc	45		**ug/L**		426893	426893.308
	Ti	47	**128.459**	**ug/L**	0.490	31940	0.075
	Cr	52	**30.767**	**ug/L**	1.405	71815	0.171
	Cr	53		**ug/L**		39138	-0.049
	Mn	55	**16558.454**	**ug/L**	0.593	62244826	145.808
	Fe	57	**36660.653**	**ug/L**	1.244	2840961	6.648
	Co	59	**35.473**	**ug/L**	0.863	108534	0.254
	Ni	60	**53.823**	**ug/L**	0.753	34154	0.080
	Cu	63		**ug/L**		70734	0.165
	Cu	65	**50.963**	**ug/L**	0.793	34018	0.080
	Zn	66	**448.321**	**ug/L**	1.330	142822	1.025
	Zn	67		**ug/L**		28415	0.185
	Zn	68		**ug/L**		116588	0.835
>	Ge	74		**ug/L**		139259	139259.255
	As	75	**10.113**	**ug/L**	5.120	4329	0.027
	Se	77		**ug/L**		3693	-0.003
	Se	82	**2.104**	**ug/L**	25.881	73	0.001
	Kr	83		**ug/L**		329	0.001
	Sr	88	**1491.748**	**ug/L**	1.467	7869892	90.172
	Zr	90	**18.689**	**ug/L**	1.456	53958	0.617
	Mo	98	**0.673**	**ug/L**	1.241	946	0.010
	Ag	107	**0.450**	**ug/L**	0.811	939	0.010
	Cd	111	**3.426**	**ug/L**	1.383	1586	0.018
	Cd	114		**ug/L**		3253	0.037
>	In	115		**ug/L**		87285	87285.153
	Sn	120	**0.420**	**ug/L**	2.643	1079	0.010
	Sb	121	**0.218**	**ug/L**	12.848	702	0.004
	Sb	123		**ug/L**		614	0.004
	Ba	135		**ug/L**		1440323	8.368
	Ba	137	**2545.067**	**ug/L**	1.787	2555882	14.851
>	Lu	175		**ug/L**		172124	172124.178
	Tl	205	**1.572**	**ug/L**	0.905	13221	0.073
	Pb	208	**136.454**	**ug/L**	1.021	1379492	8.011
	Th	232	**5.168**	**ug/L**	0.934	60241	0.347
	U	238	**8.294**	**ug/L**	1.288	102406	0.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.2			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)
Ba 137 Upper, S, EEE	Ba	137	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477134
Sample Date/Time: Thursday, September 01, 2011 02:51:24
Sample Type: Sample
Sample Description: ARSL 2008 DUP
Number of Replicates: 3
Batch ID: 1137351|5|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477134.108

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.640**	**ug/L**	5.139	21416	0.052
	Be	9	**10.559**	**ug/L**	3.811	1097	0.003
	B	11	**105.191**	**ug/L**	1.920	10679	0.025
	Na	23	**3138.608**	**ug/L**	0.436	3823355	9.248
	Mg	24	**23311.914**	**ug/L**	0.847	18581138	45.151
	Al	27	**55109.546**	**ug/L**	1.012	64304581	156.276
	P	31	**3512.780**	**ug/L**	1.031	266267	0.641
	K	39	**17582.625**	**ug/L**	0.701	39033866	94.150
	Ca	43	**224638.301**	**ug/L**	0.574	971762	2.361
>	Sc	45		**ug/L**		411481	411481.165
	Ti	47	**107.156**	**ug/L**	1.800	25698	0.062
	Cr	52	**29.228**	**ug/L**	1.393	65695	0.162
	Cr	53		**ug/L**		37655	-0.049
	Mn	55	**16644.109**	**ug/L**	1.219	60303292	146.562
	Fe	57	**34363.035**	**ug/L**	1.019	2566760	6.231
	Co	59	**34.996**	**ug/L**	1.831	103196	0.251
	Ni	60	**53.671**	**ug/L**	1.507	32824	0.080
	Cu	63		**ug/L**		65744	0.159
	Cu	65	**48.497**	**ug/L**	1.176	31203	0.076
	Zn	66	**436.051**	**ug/L**	0.748	134510	0.997
	Zn	67		**ug/L**		27280	0.183
	Zn	68		**ug/L**		111323	0.824
>	Ge	74		**ug/L**		134834	134833.738
	As	75	**10.191**	**ug/L**	3.384	4219	0.027
	Se	77		**ug/L**		3560	-0.003
	Se	82	**2.421**	**ug/L**	14.926	82	0.001
	Kr	83		**ug/L**		308	0.001
	Sr	88	**1486.224**	**ug/L**	0.886	7625201	89.838
	Zr	90	**14.946**	**ug/L**	0.197	41985	0.494
	Mo	98	**0.566**	**ug/L**	4.019	789	0.008
	Ag	107	**0.426**	**ug/L**	6.641	867	0.010
	Cd	111	**3.334**	**ug/L**	1.955	1502	0.017
	Cd	114		**ug/L**		3047	0.035
>	In	115		**ug/L**		84874	84874.311
	Sn	120	**0.307**	**ug/L**	1.500	810	0.008
	Sb	121	**0.173**	**ug/L**	9.287	607	0.003
	Sb	123		**ug/L**		533	0.003
	Ba	135		**ug/L**		1371085	8.262
	Ba	137	**2502.743**	**ug/L**	0.457	2423463	14.604
>	Lu	175		**ug/L**		165942	165941.928
	Tl	205	**1.523**	**ug/L**	1.500	12368	0.070
	Pb	208	**135.253**	**ug/L**	0.661	1318335	7.940
	Th	232	**4.622**	**ug/L**	0.219	51999	0.310
	U	238	**8.047**	**ug/L**	0.343	95815	0.574

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.5			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		94.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)
Ba 137 Upper, S, EEE	Ba	137	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477135
Sample Date/Time: Thursday, September 01, 2011 02:59:46
Sample Type: Sample
Sample Description: ARSL 2008 MS
Number of Replicates: 3
Batch ID: 1137351|5|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477135.109

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.558**	**ug/L**	2.019	22856	0.057
	Be	9	**19.372**	**ug/L**	1.815	1967	0.005
	B	11	**116.049**	**ug/L**	4.069	11524	0.028
	Na	23	**3414.282**	**ug/L**	1.003	4075518	10.060
	Mg	24	**22639.081**	**ug/L**	0.248	17689719	43.847
	Al	27	**52509.760**	**ug/L**	1.308	60063667	148.904
	P	31	**3545.576**	**ug/L**	0.480	263444	0.647
	K	39	**16912.111**	**ug/L**	0.880	36816213	90.560
	Ca	43	**218843.628**	**ug/L**	0.279	928051	2.300
>	Sc	45		**ug/L**		403358	403357.911
	Ti	47	**86.150**	**ug/L**	1.536	20281	0.050
	Cr	52	**34.280**	**ug/L**	0.628	75734	0.191
	Cr	53		**ug/L**		40004	-0.041
	Mn	55	**16325.674**	**ug/L**	1.254	57982860	143.758
	Fe	57	**30767.695**	**ug/L**	0.990	2253274	5.579
	Co	59	**41.874**	**ug/L**	1.013	121029	0.300
	Ni	60	**58.414**	**ug/L**	1.114	35018	0.087
	Cu	63		**ug/L**		65427	0.162
	Cu	65	**49.697**	**ug/L**	0.407	31345	0.078
	Zn	66	**425.492**	**ug/L**	0.718	129372	0.973
	Zn	67		**ug/L**		26270	0.179
	Zn	68		**ug/L**		105469	0.792
>	Ge	74		**ug/L**		132898	132898.429
	As	75	**19.466**	**ug/L**	1.052	7473	0.052
	Se	77		**ug/L**		3543	-0.003
	Se	82	**4.584**	**ug/L**	15.131	157	0.001
	Kr	83		**ug/L**		258	0.000
	Sr	88	**1467.652**	**ug/L**	1.155	7328557	88.715
	Zr	90	**13.371**	**ug/L**	0.211	36568	0.442
	Mo	98	**2.231**	**ug/L**	2.245	2756	0.032
	Ag	107	**8.818**	**ug/L**	0.883	16393	0.198
	Cd	111	**4.957**	**ug/L**	1.775	2164	0.026
	Cd	114		**ug/L**		4719	0.056
>	In	115		**ug/L**		82609	82609.369
	Sn	120	**0.345**	**ug/L**	1.802	866	0.009
	Sb	121	**1.386**	**ug/L**	2.718	2585	0.028
	Sb	123		**ug/L**		2062	0.022
	Ba	135		**ug/L**		1302681	8.031
	Ba	137	**2450.040**	**ug/L**	0.394	2319025	14.296
>	Lu	175		**ug/L**		162207	162206.660
	Tl	205	**15.469**	**ug/L**	1.110	116445	0.714
	Pb	208	**131.739**	**ug/L**	1.743	1255022	7.734
	Th	232	**5.568**	**ug/L**	1.248	61119	0.374
	U	238	**15.259**	**ug/L**	2.259	177034	1.088

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.6			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		92.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ca 43 Upper, S, EEE	Ca	43	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Sr 88 Upper, S, EEE	Sr	88	Sample is out of limits (over linear range)
Ba 137 Upper, S, EEE	Ba	137	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477136
Sample Date/Time: Thursday, September 01, 2011 03:08:24
Sample Type: Sample
Sample Description: ARSL 2008 SDILT
Number of Replicates: 3
Batch ID: 1137351|25|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\1202477136.110

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.719**	**ug/L**	1.274	4586	0.012
	Be	9	**2.213**	**ug/L**	6.045	219	0.001
	B	11	**30.416**	**ug/L**	3.543	3042	0.007
	Na	23	**669.954**	**ug/L**	1.927	773580	1.974
	Mg	24	**5140.523**	**ug/L**	1.057	3820322	9.956
	Al	27	**12025.890**	**ug/L**	0.875	13077683	34.102
	P	31	**768.419**	**ug/L**	0.342	56120	0.140
	K	39	**3803.999**	**ug/L**	1.064	8083428	20.369
	Ca	43	**48360.809**	**ug/L**	0.172	195022	0.508
>	Sc	45		**ug/L**		383347	383347.159
	Ti	47	**26.908**	**ug/L**	1.268	6101	0.016
	Cr	52	**6.886**	**ug/L**	0.567	13604	0.038
	Cr	53		**ug/L**		32442	-0.056
	Mn	55	**3598.696**	**ug/L**	0.735	12148107	31.689
	Fe	57	**7452.037**	**ug/L**	0.675	520735	1.351
	Co	59	**7.844**	**ug/L**	1.384	21640	0.056
	Ni	60	**13.232**	**ug/L**	1.729	7583	0.020
	Cu	63		**ug/L**		15952	0.041
	Cu	65	**12.826**	**ug/L**	1.037	7719	0.020
	Zn	66	**95.718**	**ug/L**	1.047	30259	0.219
	Zn	67		**ug/L**		7681	0.037
	Zn	68		**ug/L**		24589	0.176
>	Ge	74		**ug/L**		137778	137777.757
	As	75	**1.982**	**ug/L**	57.389	1269	0.005
	Se	77		**ug/L**		2642	-0.011
	Se	82	**0.849**	**ug/L**	95.936	27	0.000
	Kr	83		**ug/L**		307	0.001
	Sr	88	**293.093**	**ug/L**	0.580	1526406	17.717
	Zr	90	**3.623**	**ug/L**	1.022	10401	0.120
	Mo	98	**0.095**	**ug/L**	7.009	214	0.001
	Ag	107	**0.072**	**ug/L**	1.579	196	0.002
	Cd	111	**0.656**	**ug/L**	2.040	315	0.003
	Cd	114		**ug/L**		678	0.007
>	In	115		**ug/L**		86144	86143.688
	Sn	120	**0.063**	**ug/L**	8.681	296	0.002
	Sb	121	**0.007**	**ug/L**	61.685	331	0.000
	Sb	123		**ug/L**		288	0.001
	Ba	135		**ug/L**		282674	1.786
	Ba	137	**527.824**	**ug/L**	0.618	487548	3.080
>	Lu	175		**ug/L**		158283	158282.715
	Tl	205	**0.326**	**ug/L**	1.490	3057	0.015
	Pb	208	**29.934**	**ug/L**	0.297	278842	1.757
	Th	232	**1.076**	**ug/L**	0.518	11918	0.072
	U	238	**1.714**	**ug/L**	0.790	19912	0.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.9			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 284865001
Sample Date/Time: Thursday, September 01, 2011 03:17:01
Sample Type: Sample
Sample Description: ARSL 2008
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\284865001.111

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.584**	**ug/L**	3.380	20353	0.044
	Be	9	**-0.018**	**ug/L**	107.329	5	-0.000
	B	11	**90.657**	**ug/L**	2.430	10260	0.022
	Na	23	**76893.141**	**ug/L**	0.817	103565028	226.568
	Mg	24	**8803.690**	**ug/L**	1.045	7796306	17.051
	Al	27	**58.262**	**ug/L**	1.022	81480	0.165
	P	31	**2976.908**	**ug/L**	0.785	251067	0.543
	K	39	**17622.507**	**ug/L**	1.075	43451100	94.364
	Ca	43	**26609.688**	**ug/L**	0.696	128000	0.280
>	Sc	45		**ug/L**		457062	457061.712
	Ti	47	**8.907**	**ug/L**	1.215	2501	0.005
	Cr	52	**1.907**	**ug/L**	5.609	3567	0.011
	Cr	53		**ug/L**		65060	0.002
	Mn	55	**4.711**	**ug/L**	1.926	19674	0.041
	Fe	57	**126.074**	**ug/L**	2.166	13679	0.023
	Co	59	**0.110**	**ug/L**	3.464	495	0.001
	Ni	60	**1.316**	**ug/L**	0.334	962	0.002
	Cu	63		**ug/L**		8035	0.017
	Cu	65	**4.773**	**ug/L**	0.819	3455	0.007
	Zn	66	**31.350**	**ug/L**	1.076	11075	0.072
	Zn	67		**ug/L**		4607	0.011
	Zn	68		**ug/L**		8740	0.055
>	Ge	74		**ug/L**		152771	152771.440
	As	75	**2.006**	**ug/L**	109.286	1408	0.005
	Se	77		**ug/L**		6811	0.015
	Se	82	**1.769**	**ug/L**	10.928	67	0.000
	Kr	83		**ug/L**		218	-0.000
	Sr	88	**138.501**	**ug/L**	1.121	773298	8.372
	Zr	90	**0.065**	**ug/L**	10.724	300	0.002
	Mo	98	**6.468**	**ug/L**	1.456	8733	0.093
	Ag	107	**-0.021**	**ug/L**	2.268	18	-0.000
	Cd	111	**-0.010**	**ug/L**	188.062	15	-0.000
	Cd	114		**ug/L**		91	0.000
>	In	115		**ug/L**		92341	92341.248
	Sn	120	**0.143**	**ug/L**	5.927	504	0.004
	Sb	121	**0.205**	**ug/L**	2.317	719	0.004
	Sb	123		**ug/L**		569	0.003
	Ba	135		**ug/L**		22634	0.136
	Ba	137	**40.490**	**ug/L**	0.805	39184	0.236
>	Lu	175		**ug/L**		165646	165646.118
	Tl	205	**-0.034**	**ug/L**	3.089	453	-0.002
	Pb	208	**0.134**	**ug/L**	0.492	2020	0.008
	Th	232	**-0.023**	**ug/L**	5.127	251	-0.002
	U	238	**0.291**	**ug/L**	0.727	4029	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.3			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		94.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EE	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 03:25:21
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 6.112

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.375**	**ug/L**	4.151	21883	0.056
	Be	9	**58.341**	**ug/L**	3.273	5677	0.015
	B	11	**138.618**	**ug/L**	3.899	13174	0.033
	Na	23	**5689.160**	**ug/L**	1.288	6509234	16.763
	Mg	24	**5507.424**	**ug/L**	0.868	4134729	10.667
	Al	27	**5397.725**	**ug/L**	1.042	5932899	15.306
	P	31	**4976.946**	**ug/L**	1.085	354085	0.908
	K	39	**5089.982**	**ug/L**	1.330	10832932	27.256
	Ca	43	**5146.970**	**ug/L**	1.844	21094	0.054
>	Sc	45		**ug/L**		387293	387292.660
	Ti	47	**50.406**	**ug/L**	0.532	11442	0.029
	Cr	52	**50.902**	**ug/L**	0.716	108502	0.283
	Cr	53		**ug/L**		62436	0.021
	Mn	55	**51.889**	**ug/L**	1.499	177560	0.457
	Fe	57	**5170.574**	**ug/L**	2.130	365859	0.938
	Co	59	**52.571**	**ug/L**	1.115	145867	0.376
	Ni	60	**53.553**	**ug/L**	1.755	30829	0.079
	Cu	63		**ug/L**		68152	0.176
	Cu	65	**53.035**	**ug/L**	1.873	32114	0.083
	Zn	66	**49.652**	**ug/L**	0.392	16054	0.114
	Zn	67		**ug/L**		5521	0.020
	Zn	68		**ug/L**		11701	0.081
>	Ge	74		**ug/L**		140418	140417.937
	As	75	**50.824**	**ug/L**	1.431	19735	0.137
	Se	77		**ug/L**		6087	0.014
	Se	82	**52.290**	**ug/L**	0.902	1932	0.014
	Kr	83		**ug/L**		211	-0.000
	Sr	88	**52.683**	**ug/L**	1.104	269973	3.185
	Zr	90	**52.428**	**ug/L**	1.000	146750	1.731
	Mo	98	**51.724**	**ug/L**	1.047	63411	0.747
	Ag	107	**51.692**	**ug/L**	1.166	98267	1.159
	Cd	111	**51.416**	**ug/L**	1.554	22850	0.270
	Cd	114		**ug/L**		55584	0.656
>	In	115		**ug/L**		84717	84717.333
	Sn	120	**49.558**	**ug/L**	1.751	105093	1.239
	Sb	121	**46.134**	**ug/L**	3.168	78116	0.919
	Sb	123		**ug/L**		60485	0.711
	Ba	135		**ug/L**		25392	0.166
	Ba	137	**49.124**	**ug/L**	0.458	43801	0.287
>	Lu	175		**ug/L**		152651	152651.422
	Tl	205	**48.722**	**ug/L**	1.099	343794	2.248
	Pb	208	**50.541**	**ug/L**	0.490	453586	2.967
	Th	232	**50.666**	**ug/L**	1.014	519697	3.402
	U	238	**51.781**	**ug/L**	0.835	564165	3.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	120.751				
	Be	9	116.682				
	B	11	138.618				
	Na	23	113.783				
	Mg	24	110.148				
	Al	27	106.886				
	P	31	99.539				
	K	39	101.800				
	Ca	43	102.939				
>	Sc	45		91.8			
	Ti	47	100.812				
	Cr	52	101.805				
	Cr	53					
	Mn	55	103.777				
	Fe	57	103.411				
	Co	59	105.141				
	Ni	60	107.106				
	Cu	63					
	Cu	65	106.071				
	Zn	66	99.304				
	Zn	67					
	Zn	68					
>	Ge	74		89.8			
	As	75	101.647				
	Se	77					
	Se	82	104.581				
	Kr	83					
	Sr	88	105.365				
	Zr	90	104.855				
	Mo	98	103.447				
	Ag	107	103.383				
	Cd	111	102.832				
	Cd	114					
>	In	115		88.2			
	Sn	120	99.116				
	Sb	121	92.269				
	Sb	123					
	Ba	135					
	Ba	137	98.247				
>	Lu	175		86.6			
	Tl	205	97.445				
	Pb	208	101.082				
	Th	232	101.331				
	U	238	103.562				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, September 01, 2011 03:33:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\6020 2.mth
Dataset File: C:\Elandata\DataSet\110831\QC Std 7.113

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.066**	**ug/L**	21.222	53	0.000
	Be	9	**0.024**	**ug/L**	122.830	8	0.000
	B	11	**7.559**	**ug/L**	18.219	911	0.002
	Na	23	**1.192**	**ug/L**	26.011	17843	0.004
	Mg	24	**1.669**	**ug/L**	5.710	4707	0.003
	Al	27	**1.258**	**ug/L**	4.608	6234	0.004
	P	31	**-1.426**	**ug/L**	96.460	2224	-0.000
	K	39	**-0.446**	**ug/L**	249.658	268271	-0.002
	Ca	43	**-6.192**	**ug/L**	57.716	112	-0.000
>	Sc	45		**ug/L**		375493	375493.354
	Ti	47	**-0.139**	**ug/L**	10.933	85	-0.000
	Cr	52	**0.419**	**ug/L**	16.419	-173	0.002
	Cr	53		**ug/L**		46511	-0.016
	Mn	55	**0.174**	**ug/L**	4.655	1156	0.002
	Fe	57	**5.297**	**ug/L**	10.775	3017	0.001
	Co	59	**0.012**	**ug/L**	31.313	142	0.000
	Ni	60	**0.005**	**ug/L**	167.131	60	0.000
	Cu	63		**ug/L**		84	-0.000
	Cu	65	**0.011**	**ug/L**	60.295	46	0.000
	Zn	66	**-0.010**	**ug/L**	326.045	110	-0.000
	Zn	67		**ug/L**		2715	0.001
	Zn	68		**ug/L**		228	-0.000
>	Ge	74		**ug/L**		136485	136484.686
	As	75	**-0.652**	**ug/L**	71.085	292	-0.002
	Se	77		**ug/L**		4165	0.001
	Se	82	**-0.100**	**ug/L**	225.695	-7	-0.000
	Kr	83		**ug/L**		207	-0.000
	Sr	88	**0.017**	**ug/L**	29.942	305	0.001
	Zr	90	**0.023**	**ug/L**	11.673	156	0.001
	Mo	98	**0.067**	**ug/L**	22.718	175	0.001
	Ag	107	**0.007**	**ug/L**	31.671	69	0.000
	Cd	111	**0.020**	**ug/L**	7.732	27	0.000
	Cd	114		**ug/L**		63	0.000
>	In	115		**ug/L**		84040	84039.620
	Sn	120	**0.023**	**ug/L**	32.274	205	0.001
	Sb	121	**0.291**	**ug/L**	25.302	797	0.006
	Sb	123		**ug/L**		627	0.005
	Ba	135		**ug/L**		43	0.000
	Ba	137	**0.036**	**ug/L**	15.064	76	0.000
>	Lu	175		**ug/L**		150475	150474.531
	Tl	205	**0.166**	**ug/L**	28.038	1796	0.008
	Pb	208	**0.011**	**ug/L**	16.309	753	0.001
	Th	232	**0.038**	**ug/L**	23.862	847	0.003
	U	238	**0.024**	**ug/L**	12.516	794	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9998
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.0			
	Ti	47					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
>	Lu	175		85.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, September 02, 2011 10:07:43
Sample Description:
Method File: C:\Elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.3730
Tuning File: C:\elandata\Tuning\default2.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1867.5	1867.479	66.831	3.6
	Mg	24.0	25921.9	25921.852	352.391	1.4
	Co	58.9	66481.7	66481.723	351.055	0.5
	Rh	102.9	125460.6	125460.580	1016.509	0.8
	In	114.9	153274.0	153274.009	2351.810	1.5
	Pb	208.0	112838.2	112838.218	1463.460	1.3
⌈>	Ba	137.9	136115.2	136115.222	1649.526	1.2
⌊	Ba++	69.0	1673.8	0.012	0.000	1.1
⌈>	Ce	139.9	165735.7	165735.723	1854.670	1.1
⌊	CeO	155.9	3913.4	0.024	0.001	4.8
	Bkgd	220.0	7.4	7.400	1.245	16.8

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
7.00	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1000.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	8.0	2862.7
Co	59	21	9.3	68385.1
In	115	21	10.8	157504.9

Instrument #7 Tuning Report

File Name: Default2.tun
File Path: C:\elandata\Tuning\Default2.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2060	0.638
Be	9.0	9.0	2016	2050	0.649
Mg	24.0	24.0	5684	2100	0.496
Mg	25.0	25.0	5900	2100	0.463
Mg	26.0	26.0	6191	2090	0.495
Co	58.9	58.9	14160	2030	0.668
Rh	102.9	102.9	24883	2020	0.680
In	114.9	115.0	27800	2020	0.685
Ce	139.9	139.8	33864	2010	0.683
Pb	206.0	205.9	49939	1980	0.715
Pb	207.0	207.0	50211	2000	0.742
Pb	208.0	208.0	50445	1980	0.719
U	238.1	238.1	57758	1980	0.742

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, September 02, 2011 10:12:31
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\Blank.001

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		**ug/L**		6	
	B	11		**ug/L**		79	
	Al	27		**ug/L**		1209	
>	Sc	45		**ug/L**		514878	
	Ti	47		**ug/L**		129	
	Ni	60		**ug/L**		128	
	Cu	63		**ug/L**		194	
	Cu	65		**ug/L**		103	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Al	27	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45					
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, September 02, 2011 10:15:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\Standard 1.002

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	1.903	1662	0.003
	B	11	**20.000**	**ug/L**	1.000	3111	0.006
	Al	27	**1000.000**	**ug/L**	1.259	1606815	3.171
>	Sc	45		**ug/L**		506345	506344.603
	Ti	47	**10.000**	**ug/L**	1.376	3117	0.006
	Ni	60	**10.000**	**ug/L**	1.818	8272	0.016
	Cu	63		**ug/L**		18186	0.036
	Cu	65	**10.000**	**ug/L**	0.659	8637	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45					
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, September 02, 2011 10:19:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\Standard 2.003

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.036**	**ug/L**	2.517	16788	0.034
	B	11	**200.016**	**ug/L**	2.194	29940	0.060
	Al	27	**10000.499**	**ug/L**	1.835	15765706	31.873
>	Sc	45		**ug/L**		494658	494658.200
	Ti	47	**99.998**	**ug/L**	0.942	29270	0.059
	Ni	60	**99.979**	**ug/L**	2.551	78014	0.157
	Cu	63		**ug/L**		170170	0.344
	Cu	65	**99.965**	**ug/L**	1.601	80652	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45					
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, September 02, 2011 10:22:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 1.004

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.904**	**ug/L**	1.274	8169	0.016
	B	11	**100.946**	**ug/L**	1.478	15387	0.030
	Al	27	**4994.813**	**ug/L**	2.089	7997693	15.919
>	Sc	45		**ug/L**		502420	502420.177
	Ti	47	**49.388**	**ug/L**	0.338	14748	0.029
	Ni	60	**49.709**	**ug/L**	2.356	39462	0.078
	Cu	63		**ug/L**		86564	0.172
	Cu	65	**49.487**	**ug/L**	1.336	40604	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.809				
	B	11	100.946				
	Al	27	98.907				
>	Sc	45		97.6			
	Ti	47	98.777				
	Ni	60	99.418				
	Cu	63					
	Cu	65	98.974				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, September 02, 2011 10:26:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 2.005

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.013**	**ug/L**	284.165	8	0.000
	B	11	**3.373**	**ug/L**	3.248	585	0.001
	Al	27	**-0.090**	**ug/L**	64.663	1028	-0.000
>	Sc	45		**ug/L**		498689	498689.120
	Ti	47	**0.077**	**ug/L**	34.034	147	0.000
	Ni	60	**-0.014**	**ug/L**	29.510	114	-0.000
	Cu	63		**ug/L**		174	-0.000
	Cu	65	**-0.002**	**ug/L**	163.188	98	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		96.9			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, September 02, 2011 10:29:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 3.006

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.506**	**ug/L**	4.698	94	0.000
	B	11	**16.725**	**ug/L**	3.197	2664	0.005
	Al	27	**48.858**	**ug/L**	1.596	80944	0.156
>	Sc	45		**ug/L**		512170	512170.176
	Ti	47	**8.638**	**ug/L**	2.691	2734	0.005
	Ni	60	**1.980**	**ug/L**	3.774	1724	0.003
	Cu	63		**ug/L**		1993	0.004
	Cu	65	**1.015**	**ug/L**	3.811	950	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.189				
	B	11	111.503				
	Al	27	97.717				
>	Sc	45		99.5			
	Ti	47	86.375				
	Ni	60	99.005				
	Cu	63					
	Cu	65	101.523				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 10:33:09
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 4.007

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.022**	**ug/L**	21.609	10	0.000
	B	11	**5.490**	**ug/L**	3.035	866	0.002
	Al	27	**92381.619**	**ug/L**	3.209	140753617	294.436
>	Sc	45		**ug/L**		478122	478121.962
	Ti	47	**1685.717**	**ug/L**	1.053	475014	0.993
	Ni	60	**2.331**	**ug/L**	2.486	1874	0.004
	Cu	63		**ug/L**		2920	0.006
	Cu	65	**2.222**	**ug/L**	1.899	1827	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27	92.382				
>	Sc	45		92.9			
	Ti	47	84.286				
	Ni	60	83.834				
	Cu	63					
	Cu	65	92.059				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, September 02, 2011 10:36:36
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 5.008

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.140**	**ug/L**	2.387	3086	0.006
	B	11	**23.980**	**ug/L**	1.558	3508	0.007
	Al	27	**92781.374**	**ug/L**	1.044	140339646	295.710
>	Sc	45		**ug/L**		474547	474547.076
	Ti	47	**1699.218**	**ug/L**	1.074	475246	1.001
	Ni	60	**21.268**	**ug/L**	2.042	16014	0.034
	Cu	63		**ug/L**		34018	0.071
	Cu	65	**21.130**	**ug/L**	1.086	16430	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.701				
	B	11	119.902				
	Al	27	92.781				
>	Sc	45		92.2			
	Ti	47	84.961				
	Ni	60	93.364				
	Cu	63					
	Cu	65	94.270				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 10:40:03
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 6.009

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.165**	**ug/L**	0.826	7876	0.016
	B	11	**96.643**	**ug/L**	4.206	14124	0.029
	Al	27	**4978.785**	**ug/L**	1.204	7644140	15.868
>	Sc	45		**ug/L**		481698	481698.480
	Ti	47	**49.694**	**ug/L**	2.549	14228	0.029
	Ni	60	**50.900**	**ug/L**	2.068	38737	0.080
	Cu	63		**ug/L**		84203	0.174
	Cu	65	**51.134**	**ug/L**	0.682	40223	0.083

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	96.330				
	B	11	96.643				
	Al	27	98.590				
>	Sc	45		93.6			
	Ti	47	99.388				
	Ni	60	101.800				
	Cu	63					
	Cu	65	102.267				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 02, 2011 10:43:31
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 7.010

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	171.239	7	0.000
	B	11	**2.557**	**ug/L**	3.987	461	0.001
	Al	27	**0.442**	**ug/L**	12.685	1870	0.001
>	Sc	45		**ug/L**		497742	497742.443
	Ti	47	**0.060**	**ug/L**	58.679	142	0.000
	Ni	60	**-0.022**	**ug/L**	50.908	106	-0.000
	Cu	63		**ug/L**		159	-0.000
	Cu	65	**0.013**	**ug/L**	57.905	110	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		96.7			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477132
Sample Date/Time: Friday, September 02, 2011 10:46:59
Sample Type: Sample
Sample Description: ARSL 2008 MB
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477132.011

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.013**	**ug/L**	101.822	9	0.000
	B	11	**2.016**	**ug/L**	4.200	404	0.001
	Al	27	**3.077**	**ug/L**	5.868	6432	0.010
>	Sc	45		**ug/L**		529310	529309.833
	Ti	47	**0.111**	**ug/L**	52.386	167	0.000
	Ni	60	**-0.003**	**ug/L**	165.985	129	-0.000
	Cu	63		**ug/L**		183	-0.000
	Cu	65	**0.006**	**ug/L**	59.234	111	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		102.8			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477133
Sample Date/Time: Friday, September 02, 2011 10:50:27
Sample Type: Sample
Sample Description: ARSL 2008 LCS
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477133.012

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**45.890**	**ug/L**	0.950	8290	0.016
	B	11	**87.364**	**ug/L**	2.709	14117	0.026
	Al	27	**1790.208**	**ug/L**	2.589	3037683	5.706
>	Sc	45		**ug/L**		532190	532190.383
	Ti	47	**40.294**	**ug/L**	1.755	12767	0.024
	Ni	60	**47.404**	**ug/L**	1.852	39864	0.075
	Cu	63		**ug/L**		88382	0.166
	Cu	65	**48.778**	**ug/L**	1.029	42397	0.079

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		103.4			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 10:53:54
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 6.013

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.890**	**ug/L**	2.323	8049	0.016
	B	11	**97.025**	**ug/L**	1.621	14579	0.029
	Al	27	**4796.403**	**ug/L**	0.905	7570827	15.287
>	Sc	45		**ug/L**		495221	495220.679
	Ti	47	**47.609**	**ug/L**	2.829	14013	0.028
	Ni	60	**49.389**	**ug/L**	3.449	38635	0.078
	Cu	63		**ug/L**		85273	0.172
	Cu	65	**49.729**	**ug/L**	1.812	40213	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.781				
	B	11	97.025				
	Al	27	94.978				
>	Sc	45		96.2			
	Ti	47	95.218				
	Ni	60	98.778				
	Cu	63					
	Cu	65	99.459				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 02, 2011 10:57:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 7.014

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.007**	**ug/L**	212.501	7	0.000
	B	11	**3.489**	**ug/L**	3.524	595	0.001
	Al	27	**0.133**	**ug/L**	60.963	1365	0.000
>	Sc	45		**ug/L**		492948	492948.366
	Ti	47	**0.086**	**ug/L**	42.082	148	0.000
	Ni	60	**-0.026**	**ug/L**	54.030	102	-0.000
	Cu	63		**ug/L**		166	-0.000
	Cu	65	**0.001**	**ug/L**	937.255	100	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		95.7			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477134
Sample Date/Time: Friday, September 02, 2011 11:04:17
Sample Type: Sample
Sample Description: ARSL 2008 DUP
Number of Replicates: 3
Batch ID: 1137351|5|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477134.016

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**9.338**	**ug/L**	1.615	1620	0.003
	B	11	**81.383**	**ug/L**	0.909	12592	0.025
	Al	27	**51670.907**	**ug/L**	1.905	83883944	164.684
>	Sc	45		**ug/L**		509360	509359.907
	Ti	47	**111.295**	**ug/L**	1.045	33532	0.066
	Ni	60	**49.613**	**ug/L**	1.501	39933	0.078
	Cu	63		**ug/L**		85559	0.168
	Cu	65	**49.096**	**ug/L**	0.715	40845	0.080

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		98.9			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: 1202477135
Sample Date/Time: Friday, September 02, 2011 11:07:44
Sample Type: Sample
Sample Description: ARSL 2008 MS
Number of Replicates: 3
Batch ID: 1137351|5|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477135.017

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**16.759**	**ug/L**	2.055	2916	0.006
	B	11	**90.514**	**ug/L**	2.796	14062	0.027
	Al	27	**49134.828**	**ug/L**	0.629	80156937	156.601
>	Sc	45		**ug/L**		511858	511858.117
	Ti	47	**88.891**	**ug/L**	0.969	26937	0.052
	Ni	60	**55.147**	**ug/L**	2.167	44584	0.087
	Cu	63		**ug/L**		87743	0.171
	Cu	65	**50.241**	**ug/L**	0.399	42001	0.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		99.4			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477136
Sample Date/Time: Friday, September 02, 2011 11:11:11
Sample Type: Sample
Sample Description: ARSL 2008 SDILT
Number of Replicates: 3
Batch ID: 1137351|25|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477136.018

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.064**	**ug/L**	3.667	339	0.001
	B	11	**21.498**	**ug/L**	3.696	3161	0.006
	Al	27	**11890.618**	**ug/L**	3.052	18031485	37.897
>	Sc	45		**ug/L**		475847	475847.298
	Ti	47	**28.535**	**ug/L**	0.502	8120	0.017
	Ni	60	**12.466**	**ug/L**	1.319	9462	0.020
	Cu	63		**ug/L**		21018	0.044
	Cu	65	**12.987**	**ug/L**	1.627	10164	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		92.4			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 284865001
Sample Date/Time: Friday, September 02, 2011 11:14:39
Sample Type: Sample
Sample Description: ARSL 2008
Number of Replicates: 3
Batch ID: 1137351|1|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\284865001.019

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.010**	**ug/L**	56.759	8	0.000
	B	11	**74.305**	**ug/L**	2.128	11897	0.022
	Al	27	**58.996**	**ug/L**	2.005	100281	0.188
>	Sc	45		**ug/L**		526803	526802.961
	Ti	47	**8.700**	**ug/L**	2.152	2832	0.005
	Ni	60	**1.062**	**ug/L**	3.658	1012	0.002
	Cu	63		**ug/L**		9969	0.019
	Cu	65	**4.903**	**ug/L**	0.965	4314	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		102.3			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477134
Sample Date/Time: Friday, September 02, 2011 11:21:34
Sample Type: Sample
Sample Description: ARSL 2008 DUP
Number of Replicates: 3
Batch ID: 1137351|50|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477134.021

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.028**	**ug/L**	6.370	172	0.000
	B	11	**11.215**	**ug/L**	2.624	1682	0.003
	Al	27	**5566.620**	**ug/L**	0.834	8433201	17.742
>	Sc	45		**ug/L**		475294	475294.134
	Ti	47	**12.000**	**ug/L**	3.557	3478	0.007
	Ni	60	**5.444**	**ug/L**	4.131	4193	0.009
	Cu	63		**ug/L**		8916	0.018
	Cu	65	**5.383**	**ug/L**	1.029	4263	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		92.3			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477135
Sample Date/Time: Friday, September 02, 2011 11:25:01
Sample Type: Sample
Sample Description: ARSL 2008 MS
Number of Replicates: 3
Batch ID: 1137351|50|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477135.022

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.015**	**ug/L**	1.111	324	0.001
	B	11	**13.230**	**ug/L**	1.972	1930	0.004
	Al	27	**5715.537**	**ug/L**	1.333	8479142	18.216
>	Sc	45		**ug/L**		465429	465428.994
	Ti	47	**10.227**	**ug/L**	1.024	2921	0.006
	Ni	60	**6.435**	**ug/L**	3.601	4833	0.010
	Cu	63		**ug/L**		9486	0.020
	Cu	65	**5.856**	**ug/L**	1.876	4533	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		90.4			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202477136
Sample Date/Time: Friday, September 02, 2011 11:28:29
Sample Type: Sample
Sample Description: ARSL 2008 SDILT
Number of Replicates: 3
Batch ID: 1137351|250|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\1202477136.023

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.252**	**ug/L**	15.892	46	0.000
	B	11	**4.001**	**ug/L**	3.245	636	0.001
	Al	27	**1161.261**	**ug/L**	2.100	1729119	3.701
>	Sc	45		**ug/L**		466883	466882.533
	Ti	47	**2.831**	**ug/L**	3.177	895	0.002
	Ni	60	**1.182**	**ug/L**	2.212	985	0.002
	Cu	63		**ug/L**		2059	0.004
	Cu	65	**1.195**	**ug/L**	2.049	1003	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		90.7			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 11:31:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 6.024

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.624**	**ug/L**	2.080	7766	0.017
	B	11	**99.546**	**ug/L**	2.102	13926	0.030
	Al	27	**4854.539**	**ug/L**	2.070	7134438	15.472
>	Sc	45		**ug/L**		461097	461097.218
	Ti	47	**48.994**	**ug/L**	2.571	13424	0.029
	Ni	60	**49.172**	**ug/L**	2.423	35822	0.077
	Cu	63		**ug/L**		78915	0.171
	Cu	65	**49.537**	**ug/L**	1.731	37301	0.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.247				
	B	11	99.546				
	Al	27	96.129				
>	Sc	45		89.6			
	Ti	47	97.987				
	Ni	60	98.344				
	Cu	63					
	Cu	65	99.074				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 02, 2011 11:35:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 7.025

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	139.622	7	0.000
	B	11	**3.165**	**ug/L**	1.827	518	0.001
	Al	27	**-0.079**	**ug/L**	27.318	979	-0.000
>	Sc	45		**ug/L**		466632	466632.128
	Ti	47	**0.058**	**ug/L**	44.072	132	0.000
	Ni	60	**-0.028**	**ug/L**	52.716	96	-0.000
	Cu	63		**ug/L**		142	-0.000
	Cu	65	**-0.002**	**ug/L**	750.276	92	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
	B	11					
	Al	27					
>	Sc	45		90.6			
	Ti	47					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, September 02, 2011 13:32:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\Blank.047

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		470341	
	Ti	47		**ug/L**		138	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45					
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, September 02, 2011 13:35:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\Standard 1.048

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		465757	465757.264
	Ti	47	**10.000**	**ug/L**	3.596	2742	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45					
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, September 02, 2011 13:37:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\Standard 2.049

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		457519	457519.361
	Ti	47	**99.996**	**ug/L**	1.180	25628	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45					
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, September 02, 2011 13:39:59
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 1.050

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		459644	459644.479
	Ti	47	**49.437**	**ug/L**	1.647	12797	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		97.7			
	Ti	47	98.873				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, September 02, 2011 13:42:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 2.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		472863	472863.084
	Ti	47	**0.011**	**ug/L**	166.936	142	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		100.5			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, September 02, 2011 13:45:01
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 3.052

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		457939	457938.906
	Ti	47	**9.151**	**ug/L**	0.523	2470	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		97.4			
	Ti	47	91.515				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 13:47:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 4.053

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		454033	454032.571
	Ti	47	**1692.728**	**ug/L**	2.027	428488	0.943

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		96.5			
	Ti	47	84.636				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, September 02, 2011 13:50:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 5.054

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		445157	445156.691
	Ti	47	**1725.154**	**ug/L**	0.164	428109	0.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		94.6			
	Ti	47	86.258				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 13:52:31
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 6.055

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		456409	456409.435
	Ti	47	**50.664**	**ug/L**	2.001	13020	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		97.0			
	Ti	47	101.328				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 02, 2011 13:55:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 7.056

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		463834	463834.075
	Ti	47	**0.117**	**ug/L**	34.143	166	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		98.6			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202479547
Sample Date/Time: Friday, September 02, 2011 13:57:33
Sample Type: Sample
Sample Description: ARSL 2008 MB
Number of Replicates: 3
Batch ID: 1138416|1|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\1202479547.057

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		468099	468098.542
	Ti	47	**0.173**	**ug/L**	26.017	183	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		99.5			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202479548
Sample Date/Time: Friday, September 02, 2011 14:00:02
Sample Type: Sample
Sample Description: ARSL 2008 LCS
Number of Replicates: 3
Batch ID: 1138416|1|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\1202479548.058

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		458228	458227.585
	Ti	47	**44.866**	**ug/L**	0.904	11592	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		97.4			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 284865001
Sample Date/Time: Friday, September 02, 2011 14:02:31
Sample Type: Sample
Sample Description: ARSL 2008
Number of Replicates: 3
Batch ID: 1138416|1|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\284865001.059

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		494756	494755.680
	Ti	47	**9.533**	**ug/L**	10.709	2773	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		105.2			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202479549
Sample Date/Time: Friday, September 02, 2011 14:05:00
Sample Type: Sample
Sample Description: ARSL 2008 DUP
Number of Replicates: 3
Batch ID: 1138416|1|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\1202479549.060

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		466232	466231.559
	Ti	47	**8.438**	**ug/L**	1.682	2330	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		99.1			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202479550
Sample Date/Time: Friday, September 02, 2011 14:07:30
Sample Type: Sample
Sample Description: ARSL 2008 MS
Number of Replicates: 3
Batch ID: 1138416|1|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\1202479550.061

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		438462	438461.766
	Ti	47	**51.866**	**ug/L**	1.134	12801	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		93.2			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202479551
Sample Date/Time: Friday, September 02, 2011 14:10:00
Sample Type: Sample
Sample Description: ARSL 2008 SDILT
Number of Replicates: 3
Batch ID: 1138416|5|prb
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\1202479551.062

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		421563	421563.134
	Ti	47	**2.227**	**ug/L**	7.557	647	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		89.6			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 14:12:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 6.063

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		427890	427890.347
	Ti	47	**48.958**	**ug/L**	0.738	11800	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		91.0			
	Ti	47	97.915				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, September 02, 2011 14:15:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\110902\QC Std 7.064

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		422843	422842.675
	Ti	47	**0.112**	**ug/L**	28.247	151	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Sc	45		89.9			
	Ti	47					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: hg2 **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: AS-90**

Sample Information File: C:\data-AA\hg2\Sample Information\083011W1.SIF
Batch ID:
Results Data Set: 083011W1
Results Library: C:\data-AA\hg2\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 1/27/2011 16:34:14**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 8/30/2011 10:00:36**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0027	0.0151	0.0027	10:01:32	Yes
2		[0.00]	0.0026	0.0137	0.0026	10:02:02	Yes
Mean:		[0.00]	0.0027				
SD:		0.00	0.0001				
%RSD:		0.00	3.85				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 8/30/2011 10:02:21**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0020	0.0245	0.0047	10:03:11	Yes
2		[0.2]	0.0019	0.0235	0.0046	10:03:42	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	2.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00987 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 8/30/2011 10:04:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0048	0.0394	0.0075	10:04:51	Yes
2		[0.5]	0.0047	0.0379	0.0074	10:05:22	Yes
Mean:		[0.5]	0.0048				
SD:		0.0	0.0001				
%RSD:		0.0	1.75				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999862 Slope: 0.00950 Intercept: 0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 8/30/2011 10:05:41**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0187	0.1104	0.0214	10:06:33	Yes
2		[2.0]	0.0187	0.1089	0.0214	10:07:03	Yes
Mean:		[2.0]	0.0187				
SD:		0.0	0.0000				
%RSD:		0.0	0.21				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999984 Slope: 0.00933 Intercept: 0.00006

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 8/30/2011 10:07:23**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0468	0.2552	0.0495	10:08:15	Yes
2		[5.0]	0.0467	0.2523	0.0494	10:08:45	Yes
Mean:		[5.0]	0.0468				
SD:		0.0	0.0001				
%RSD:		0.0	0.11				

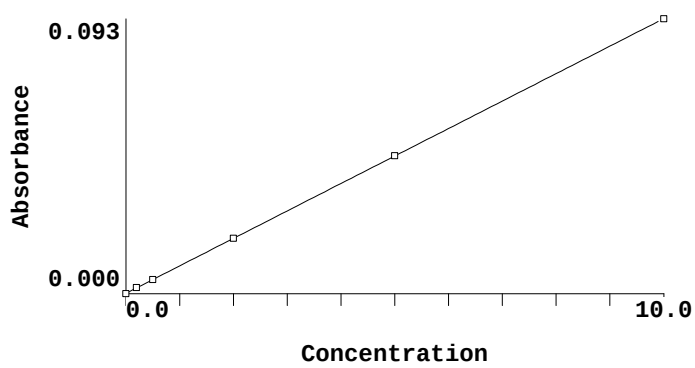
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999998 Slope: 0.00934 Intercept: 0.00006

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 8/30/2011 10:09:05**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0935	0.4973	0.0962	10:09:57	Yes
2		[10.0]	0.0933	0.4902	0.0959	10:10:27	Yes
Mean:		[10.0]	0.0934				
SD:		0.0	0.0002				
%RSD:		0.0	0.21				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999999 Slope: 0.00933 Intercept: 0.00007



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.007	0.00	3.8
S0.2	0.0020	0.2	0.204	0.00	2.4
S0.5	0.0048	0.5	0.503	0.00	1.7
S2.0	0.0187	2.0	1.998	0.00	0.2

S5.0	0.0468	5.0	5.004	0.00	0.1
S10.0	0.0934	10.0	9.998	0.00	0.2

Correlation Coef.: 0.999999 Slope: 0.00933 Intercept: 0.00007

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 8/30/2011 10:10:48**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.103	5.103	0.0477	0.2583	0.0504	10:11:38	Yes
2	5.108	5.108	0.0477	0.2560	0.0504	10:12:08	Yes
Mean:	5.105	5.105	0.0477				
SD:	0.003	0.003	0.0000				
%RSD:	0.066	0.066	0.07				

QC value within limits for Hg 253.7 Recovery = 102.11%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 8/30/2011 10:12:27**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0135	0.0027	10:13:17	Yes
2	-0.012	-0.012	-0.0000	0.0134	0.0026	10:13:47	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	56.21	56.21	460.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 8/30/2011 10:14:06**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0018	0.0232	0.0045	10:14:57	Yes
2	0.175	0.175	0.0017	0.0218	0.0044	10:15:27	Yes
Mean:	0.183	0.183	0.0018				
SD:	0.011	0.011	0.0001				
%RSD:	5.787	5.787	5.57				

QC value within limits for Hg 253.7 Recovery = 91.40%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 10:15:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.138	5.138	0.0480	0.2590	0.0507	10:16:39	Yes
2	5.118	5.118	0.0478	0.2564	0.0505	10:17:09	Yes
Mean:	5.128	5.128	0.0479				
SD:	0.014	0.014	0.0001				
%RSD:	0.278	0.278	0.28				

QC value within limits for Hg 253.7 Recovery = 102.56%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 10:17:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0001	0.0148	0.0028	10:18:24	Yes
2	0.007	0.007	0.0001	0.0138	0.0028	10:18:54	Yes
Mean:	0.007	0.007	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.609	3.609	1.82				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202475354|1136624|1 **Date Collected: 8/30/2011 10:19:16**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475354|1136624|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0002	0.0111	0.0025	10:20:07	Yes
2	0.001	0.001	0.0001	0.0139	0.0027	10:20:38	Yes
Mean:	-0.012	-0.012	-0.0000				
SD:	0.019	0.019	0.0002				
%RSD:	153.0	153.0	377.68				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202475355|1136624|1 **Date Collected: 8/30/2011 10:20:57**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475355|1136624|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.095	2.095	0.0196	0.1134	0.0223	10:21:49	Yes
2	2.102	2.102	0.0197	0.1112	0.0224	10:22:20	Yes
Mean:	2.099	2.099	0.0197				
SD:	0.005	0.005	0.0001				
%RSD:	0.261	0.261	0.26				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 284795001|1136624|1 **Date Collected: 8/30/2011 10:22:40**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284795001|1136624|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0001	0.0126	0.0025	10:23:32	Yes
2	-0.036	-0.036	-0.0003	0.0108	0.0024	10:24:03	Yes
Mean:	-0.029	-0.029	-0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	33.09	33.09	43.95				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202475356|1136624|1 **Date Collected: 8/30/2011 10:24:23**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475356|1136624|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202476181|1136978|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0005	0.0111	0.0021	10:33:38	Yes
2	-0.069	-0.069	-0.0006	0.0104	0.0021	10:34:08	Yes
Mean:	-0.066	-0.066	-0.0006				
SD:	0.004	0.004	0.0000				
%RSD:	6.461	6.461	7.26				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202476182|1136978|1 **Date Collected: 8/30/2011 10:34:27**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476182|1136978|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.181	2.181	0.0204	0.1171	0.0231	10:35:17	Yes
2	2.161	2.161	0.0202	0.1160	0.0229	10:35:48	Yes
Mean:	2.171	2.171	0.0203				
SD:	0.015	0.015	0.0001				
%RSD:	0.681	0.681	0.68				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 10:36:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.186	5.186	0.0485	0.2614	0.0511	10:36:59	Yes
2	5.206	5.206	0.0487	0.2591	0.0513	10:37:30	Yes
Mean:	5.196	5.196	0.0486				
SD:	0.014	0.014	0.0001				
%RSD:	0.272	0.272	0.27				

QC value within limits for Hg 253.7 Recovery = 103.92%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 10:37:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0000	0.0140	0.0027	10:38:44	Yes
2	-0.004	-0.004	0.0000	0.0140	0.0027	10:39:14	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	37.74	37.74	81.37				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 284861001|1136978|1 **Date Collected: 8/30/2011 10:39:36**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284861001|1136978|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0002	0.0125	0.0024	10:40:27	Yes
2	-0.043	-0.043	-0.0003	0.0117	0.0023	10:40:57	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.157	0.157	0.0015	0.0208	0.0042	10:48:53	Yes
2	0.164	0.164	0.0016	0.0220	0.0043	10:49:24	Yes
Mean:	0.161	0.161	0.0016				
SD:	0.005	0.005	0.0000				
%RSD:	3.178	3.178	3.04				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 284864004|1136978|1 **Date Collected: 8/30/2011 10:49:44**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284864004|1136978|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0004	0.0118	0.0023	10:50:36	Yes
2	-0.063	-0.063	-0.0005	0.0110	0.0021	10:51:06	Yes
Mean:	-0.057	-0.057	-0.0005				
SD:	0.008	0.008	0.0001				
%RSD:	14.30	14.30	16.38				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202475359|1136627|1 **Date Collected: 8/30/2011 10:51:27**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475359|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0004	0.0120	0.0023	10:52:19	Yes
2	-0.054	-0.054	-0.0004	0.0117	0.0022	10:52:49	Yes
Mean:	-0.053	-0.053	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	4.102	4.102	4.76				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202474497|1136627|1 **Date Collected: 8/30/2011 10:53:10**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202474497|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0006	0.0107	0.0021	10:54:03	Yes
2	-0.060	-0.060	-0.0005	0.0110	0.0022	10:54:33	Yes
Mean:	-0.063	-0.063	-0.0005				
SD:	0.005	0.005	0.0000				
%RSD:	7.229	7.229	8.17				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202475360|1136627|1 **Date Collected: 8/30/2011 10:54:54**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475360|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.110	2.110	0.0198	0.1140	0.0224	10:55:47	Yes
2	2.094	2.094	0.0196	0.1123	0.0223	10:56:17	Yes
Mean:	2.102	2.102	0.0197				
SD:	0.012	0.012	0.0001				
%RSD:	0.554	0.554	0.55				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 10:56:38**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.229	5.229	0.0489	0.2617	0.0515	10:57:31	Yes
2	5.224	5.224	0.0488	0.2605	0.0515	10:58:02	Yes
Mean:	5.226	5.226	0.0489				
SD:	0.004	0.004	0.0000				
%RSD:	0.070	0.070	0.07				

QC value within limits for Hg 253.7 Recovery = 104.53%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 10:58:23**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.009	-0.009	-0.0000	0.0141	0.0026	10:59:16	Yes
2	-0.016	-0.016	-0.0001	0.0133	0.0026	10:59:46	Yes
Mean:	-0.013	-0.013	-0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	42.75	42.75	102.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 284609004|1136627|1 **Date Collected: 8/30/2011 11:00:08**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284609004|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.387	3.387	0.0317	0.1750	0.0344	11:00:57	Yes
2	3.397	3.397	0.0318	0.1747	0.0344	11:01:27	Yes
Mean:	3.392	3.392	0.0317				
SD:	0.007	0.007	0.0001				
%RSD:	0.207	0.207	0.21				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 1202474494|1136627|1 **Date Collected: 8/30/2011 11:01:45**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202474494|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.715	4.715	0.0441	0.2378	0.0467	11:02:34	Yes
2	4.695	4.695	0.0439	0.2370	0.0466	11:03:04	Yes
Mean:	4.705	4.705	0.0440				
SD:	0.014	0.014	0.0001				
%RSD:	0.299	0.299	0.30				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 1202474496|1136627|1 **Date Collected: 8/30/2011 11:03:22**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202474496|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.795	4.795	0.0448	0.2424	0.0475	11:04:12	Yes

Replicate Data: 1202474228|1136609|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0007	0.0103	0.0020	11:12:28	Yes
2	-0.088	-0.088	-0.0008	0.0095	0.0019	11:12:58	Yes
Mean:	-0.083	-0.083	-0.0007				
SD:	0.007	0.007	0.0001				
%RSD:	8.426	8.426	9.23				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202475325|1136609|1 **Date Collected: 8/30/2011 11:13:17**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475325|1136609|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0197	0.1128	0.0224	11:14:08	Yes
2	2.096	2.096	0.0196	0.1124	0.0223	11:14:38	Yes
Mean:	2.100	2.100	0.0197				
SD:	0.006	0.006	0.0001				
%RSD:	0.276	0.276	0.27				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 284695001|1136609|1 **Date Collected: 8/30/2011 11:14:58**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284695001|1136609|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.071	-0.071	-0.0006	0.0108	0.0021	11:15:49	Yes
2	-0.074	-0.074	-0.0006	0.0113	0.0020	11:16:20	Yes
Mean:	-0.073	-0.073	-0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	2.575	2.575	2.86				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 11:16:39**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.248	5.248	0.0491	0.2629	0.0517	11:17:32	Yes
2	5.217	5.217	0.0488	0.2606	0.0514	11:18:03	Yes
Mean:	5.233	5.233	0.0489				
SD:	0.022	0.022	0.0002				
%RSD:	0.424	0.424	0.42				

QC value within limits for Hg 253.7 Recovery = 104.66%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 11:18:24**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0134	0.0026	11:19:17	Yes
2	-0.022	-0.022	-0.0001	0.0132	0.0025	11:19:47	Yes
Mean:	-0.020	-0.020	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	9.783	9.783	15.18				

QC value within limits for Hg 253.7 Recovery = Not calculated

---

Replicate Data: 1202474295|1136618|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0008	0.0103	0.0019	11:36:08	Yes
2	-0.096	-0.096	-0.0008	0.0094	0.0018	11:36:39	Yes
Mean:	-0.093	-0.093	-0.0008				
SD:	0.004	0.004	0.0000				
%RSD:	3.906	3.906	4.24				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 11:36:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.005	5.005	0.0468	0.2511	0.0494	11:37:50	Yes
2	4.994	4.994	0.0467	0.2494	0.0493	11:38:20	Yes
Mean:	5.000	5.000	0.0467				
SD:	0.008	0.008	0.0001				
%RSD:	0.153	0.153	0.15				

QC value within limits for Hg 253.7 Recovery = 99.99%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 11:38:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0136	0.0026	11:39:35	Yes
2	-0.019	-0.019	-0.0001	0.0129	0.0025	11:40:04	Yes
Mean:	-0.018	-0.018	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	8.617	8.617	14.26				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202475343|1136618|1 **Date Collected: 8/30/2011 11:40:26**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475343|1136618|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.248	2.248	0.0211	0.1188	0.0237	11:41:16	Yes
2	2.235	2.235	0.0209	0.1182	0.0236	11:41:46	Yes
Mean:	2.242	2.242	0.0210				
SD:	0.009	0.009	0.0001				
%RSD:	0.403	0.403	0.40				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 284678001|1136618|1 **Date Collected: 8/30/2011 11:42:05**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284678001|1136618|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	20.16	20.16	0.1882	0.9660	0.1909	11:42:55	Yes
	Sample concentration is greater than that of the highest standard.						
2	20.07	20.07	0.1874	0.9589	0.1901	11:43:25	Yes

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 1202474388|1136621|1 **Date Collected: 8/30/2011 11:50:25**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202474388|1136621|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0007	0.0108	0.0020	11:51:17	Yes
2	-0.094	-0.094	-0.0008	0.0098	0.0019	11:51:47	Yes
Mean:	-0.087	-0.087	-0.0007				
SD:	0.011	0.011	0.0001				
%RSD:	12.19	12.19	13.30				

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202475349|1136621|1 **Date Collected: 8/30/2011 11:52:07**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475349|1136621|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.120	2.120	0.0199	0.1141	0.0225	11:52:58	Yes
2	2.121	2.121	0.0199	0.1141	0.0225	11:53:29	Yes
Mean:	2.120	2.120	0.0199				
SD:	0.000	0.000	0.0000				
%RSD:	0.016	0.016	0.02				

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 284685001|1136621|1 **Date Collected: 8/30/2011 11:53:49**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284685001|1136621|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.071	-0.071	-0.0006	0.0102	0.0021	11:54:41	Yes
2	-0.076	-0.076	-0.0006	0.0102	0.0020	11:55:11	Yes
Mean:	-0.074	-0.074	-0.0006				
SD:	0.003	0.003	0.0000				
%RSD:	4.687	4.687	5.20				

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 1202474385|1136621|1 **Date Collected: 8/30/2011 11:55:31**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202474385|1136621|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.350	1.350	0.0127	0.0785	0.0153	11:56:24	Yes
2	1.349	1.349	0.0127	0.0780	0.0153	11:56:54	Yes
Mean:	1.349	1.349	0.0127				
SD:	0.001	0.001	0.0000				
%RSD:	0.085	0.085	0.08				

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 11:57:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.989	4.989	0.0466	0.2517	0.0493	11:58:07	Yes

2	4.978	4.978	0.0465	0.2495	0.0492	11:58:37	Yes
Mean:	4.984	4.984	0.0466				
SD:	0.008	0.008	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 99.67%
All analyte(s) passed QC.

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 11:58:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0002	0.0125	0.0025	11:59:52	Yes
2	-0.040	-0.040	-0.0003	0.0125	0.0024	12:00:22	Yes
Mean:	-0.034	-0.034	-0.0003				
SD:	0.008	0.008	0.0001				
%RSD:	21.83	21.83	27.68				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 1202475350|1136621|1 **Date Collected: 8/30/2011 12:00:44**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475350|1136621|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0005	0.0113	0.0022	12:01:36	Yes
2	-0.059	-0.059	-0.0005	0.0116	0.0022	12:02:06	Yes
Mean:	-0.059	-0.059	-0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.092	0.092	0.10				

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202475353|1136621|5 **Date Collected: 8/30/2011 12:02:27**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202475353|1136621|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.117	-0.117	-0.0010	0.0091	0.0016	12:03:16	Yes
2	-0.127	-0.127	-0.0011	0.0086	0.0015	12:03:47	Yes
Mean:	-0.122	-0.122	-0.0011				
SD:	0.007	0.007	0.0001				
%RSD:	5.994	5.994	6.37				

Sequence No.: 74 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 12:04:04**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.058	5.058	0.0473	0.2545	0.0499	12:04:57	Yes
2	5.043	5.043	0.0471	0.2526	0.0498	12:05:27	Yes
Mean:	5.050	5.050	0.0472				
SD:	0.011	0.011	0.0001				
%RSD:	0.212	0.212	0.21				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 75 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 12:05:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0002	0.0125	0.0025	12:06:42	Yes
2	-0.024	-0.024	-0.0002	0.0131	0.0025	12:07:12	Yes
Mean:	-0.026	-0.026	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	7.343	7.343	10.25				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

1	0.155	0.155	0.0015	0.0217	0.0042	12:38:22	Yes
2	0.139	0.139	0.0014	0.0205	0.0040	12:38:52	Yes
Mean:	0.147	0.147	0.0014				
SD:	0.011	0.011	0.0001				
%RSD:	7.527	7.527	7.17				

==========

Sequence No.: 5 **Autosampler Location: 69**
Sample ID: 1202477793|1136627|1 **Date Collected: 8/30/2011 12:39:11**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202477793|1136627|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.367	5.367	0.0502	0.2701	0.0528	12:40:01	Yes
2	5.336	5.336	0.0499	0.2675	0.0525	12:40:32	Yes
Mean:	5.351	5.351	0.0500				
SD:	0.021	0.021	0.0002				
%RSD:	0.400	0.400	0.40				

==========

Sequence No.: 6 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 12:40:50**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.230	5.230	0.0489	0.2579	0.0516	12:41:43	Yes
2	5.150	5.150	0.0481	0.2581	0.0508	12:42:13	Yes
Mean:	5.190	5.190	0.0485				
SD:	0.057	0.057	0.0005				
%RSD:	1.091	1.091	1.09				

QC value within limits for Hg 253.7 Recovery = 103.80%
All analyte(s) passed QC.

==========

Sequence No.: 7 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 12:42:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0002	0.0130	0.0024	12:43:28	Yes
2	-0.030	-0.030	-0.0002	0.0129	0.0024	12:43:58	Yes
Mean:	-0.031	-0.031	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.280	2.280	2.98				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 5 **Autosampler Location: 74**
Sample ID: 1202477251|1137387|1 **Date Collected: 8/30/2011 13:03:13**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202477251|1137387|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.977	2.977	0.0279	0.1603	0.0305	13:04:05	Yes
2	2.963	2.963	0.0277	0.1583	0.0304	13:04:35	Yes
Mean:	2.970	2.970	0.0278				
SD:	0.010	0.010	0.0001				
%RSD:	0.342	0.342	0.34				

Sequence No.: 6 **Autosampler Location: 75**
Sample ID: 1202477252|1137387|5 **Date Collected: 8/30/2011 13:04:55**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202477252|1137387|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0019	0.0235	0.0045	13:05:47	Yes
2	0.166	0.166	0.0016	0.0215	0.0043	13:06:17	Yes
Mean:	0.179	0.179	0.0017				
SD:	0.018	0.018	0.0002				
%RSD:	10.04	10.04	9.65				

Sequence No.: 7 **Autosampler Location: 76**
Sample ID: 1202476168|1136973|1 **Date Collected: 8/30/2011 13:06:37**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476168|1136973|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0004	0.0125	0.0022	13:07:29	Yes
2	-0.057	-0.057	-0.0005	0.0116	0.0022	13:07:59	Yes
Mean:	-0.055	-0.055	-0.0004				
SD:	0.004	0.004	0.0000				
%RSD:	6.916	6.916	7.97				

Sequence No.: 8 **Autosampler Location: 77**
Sample ID: 1202476169|1136973|1 **Date Collected: 8/30/2011 13:08:20**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476169|1136973|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.180	2.180	0.0204	0.1170	0.0231	13:09:12	Yes
2	2.170	2.170	0.0203	0.1166	0.0230	13:09:42	Yes
Mean:	2.175	2.175	0.0204				
SD:	0.007	0.007	0.0001				
%RSD:	0.342	0.342	0.34				

Sequence No.: 9 **Autosampler Location: 78**
Sample ID: 284865001|1136973|1 **Date Collected: 8/30/2011 13:10:03**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 284865001|1136973|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.072	-0.072	-0.0006	0.0105	0.0021	13:10:52	Yes

2	-0.062	-0.062	-0.0005	0.0111	0.0022	13:11:22	Yes
Mean:	-0.067	-0.067	-0.0006				
SD:	0.008	0.008	0.0001				
%RSD:	11.29	11.29	12.67				

==========

Sequence No.: 10 **Autosampler Location: 79**
Sample ID: 1202476170|1136973|1 **Date Collected: 8/30/2011 13:11:39**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476170|1136973|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	-0.0004	0.0123	0.0023	13:12:28	Yes
2	-0.055	-0.055	-0.0004	0.0117	0.0022	13:12:59	Yes
Mean:	-0.050	-0.050	-0.0004				
SD:	0.007	0.007	0.0001				
%RSD:	13.20	13.20	15.44				

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 13:13:16**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.274	5.274	0.0493	0.2642	0.0520	13:14:09	Yes
2	5.265	5.265	0.0492	0.2636	0.0519	13:14:39	Yes
Mean:	5.270	5.270	0.0493				
SD:	0.006	0.006	0.0001				
%RSD:	0.114	0.114	0.11				

QC value within limits for Hg 253.7 Recovery = 105.39%
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 13:15:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0003	0.0122	0.0024	13:15:53	Yes
2	-0.054	-0.054	-0.0004	0.0113	0.0022	13:16:24	Yes
Mean:	-0.046	-0.046	-0.0004				
SD:	0.011	0.011	0.0001				
%RSD:	23.18	23.18	27.51				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 13 **Autosampler Location: 80**
Sample ID: 1202476171|1136973|1 **Date Collected: 8/30/2011 13:16:46**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476171|1136973|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.006	2.006	0.0188	0.1105	0.0215	13:17:35	Yes
2	2.019	2.019	0.0189	0.1106	0.0216	13:18:05	Yes
Mean:	2.012	2.012	0.0189				
SD:	0.009	0.009	0.0001				
%RSD:	0.437	0.437	0.44				

==========

Sequence No.: 14 **Autosampler Location: 81**

Sample ID: 1202476176|1136973|5 **Date Collected: 8/30/2011 13:18:23**
Analyst: JXL1 **Data Type: Original**

Replicate Data: 1202476176|1136973|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0006	0.0110	0.0021	13:19:13	Yes
2	-0.073	-0.073	-0.0006	0.0106	0.0021	13:19:43	Yes
Mean:	-0.071	-0.071	-0.0006				
SD:	0.003	0.003	0.0000				
%RSD:	3.525	3.525	3.93				

==========

Sequence No.: 15 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 8/30/2011 13:20:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.302	5.302	0.0496	0.2654	0.0522	13:20:54	Yes
2	5.226	5.226	0.0488	0.2620	0.0515	13:21:24	Yes
Mean:	5.264	5.264	0.0492				
SD:	0.054	0.054	0.0005				
%RSD:	1.022	1.022	1.02				

QC value within limits for Hg 253.7 Recovery = 105.28%
All analyte(s) passed QC.

==========

Sequence No.: 16 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 8/30/2011 13:21:45**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0004	0.0110	0.0022	13:22:38	Yes
2	-0.049	-0.049	-0.0004	0.0116	0.0023	13:23:08	Yes
Mean:	-0.051	-0.051	-0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	5.096	5.096	5.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Sample Preparation for Total Recoverable Elements by EPA Method 200.2

Batch ID: **1137346.0** Verified by: _____

Analyst: Anthony Green

Method: EPA 200.2

Lab SOP: GL-MA-E-016 REV# 8

Instrument: NO_INSTRUMENT

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202477128	Metals Spike Mix II	UI1583887-06	.25	mL
LCS	1202477128	Metals Spike Mix I	UI1590350-01	.25	mL
MS	1202477130	Metals Spike Mix II	UI1583887-06	.25	mL
MS	1202477130	Metals Spike Mix I	UI1590350-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202477127 MB	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477128 LCS	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
284862004	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477129 DUP (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477130 MS (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477131 SDILT (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
284865001	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1586906	HYDROCHLORIC ACID	.5 mL
1604895	Concentrated Nitric Acid	1 mL

Comments:

Hot Block ID: 9

Thermometer ID: 17720

Block Temperature: 95 C

Prep Logbook

Sample Preparation for Total Recoverable Elements by EPA Method 200.2

Batch ID: **1138415.0** Verified by: _____

Analyst: Louis Hall

Method: EPA 200.2

Lab SOP: GL-MA-E-016 REV# 8

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202479548	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1589187-A	.25	mL
LCS	1202479548	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1589189-B	.25	mL
MS	1202479550	ICP-MS DOE liquid Spike Solution A	UI1516331-A	.25	mL
MS	1202479550	ICP-MS DOE Liquid Spike Solution B	UI1516335-B	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202479547 MB	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2
1202479548 LCS	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2
284865001 - 2	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2
1202479549 - 2 DUP (284865001)	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2
1202479550 - 2 MS (284865001)	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2
1202479551 - 2 SDILT (284865001)	02-SEP-2011 10:30:00	Storm Water	25	25	1	<2

Reagent/Solvent Lot ID	Description	Amount
1586906	HYDROCHLORIC ACID	.25 mL
1604895	Concentrated Nitric Acid	.5 mL

Comments:

Hot Block ID: 9

Thermometer ID: 17720

Block Temperature: 90 C

Prep Logbook

Sample Preparation for Total Recoverable Elements by EPA Method 200.2

Batch ID: **1137350.0** Verified by: _____

Analyst: Anthony Green

Method: EPA 200.2

Lab SOP: GL-MA-E-016 REV# 8

Instrument: NO_INSTRUMENT

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202477133	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1589187-A	.5	mL
LCS	1202477133	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1589189-B	.5	mL
MS	1202477135	ICP-MS DOE liquid Spike Solution A	UI1516331-A	.5	mL
MS	1202477135	ICP-MS DOE Liquid Spike Solution B	UI1516335-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202477132 MB	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477133 LCS	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
284862004	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477134 DUP (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477135 MS (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
1202477136 SDILT (284862004)	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2
284865001	31-AUG-2011 07:30:00	Storm Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1586906	HYDROCHLORIC ACID	.5 mL
1604895	Concentrated Nitric Acid	1 mL

Comments:

Hot Block ID: 9

Thermometer ID: 17720

Block Temperature: 95 C

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **1136972.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 25

Instrument: NO_INSTRUMENT

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202476169	Mercury working intermediate standard for LCS/MS	WHG110830-13	.2	mL
MS	1202476171	Mercury working intermediate standard for LCS/MS	WHG110830-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202476168 MB	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2
1202476169 LCS	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2
284865001	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2
1202476170 DUP (284865001)	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2
1202476171 MS (284865001)	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2
1202476176 SDILT (284865001)	30-AUG-2011 08:45:00	Storm Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1522928	Sulfuric Acid, Concentrated	1 mL
1588420-C	5% KMnO4 solution	3 mL
1596475-1	NITRIC ACID	.5 mL
1601203-C	5% Potassium Persulfate	1.5 mL
1608989-C	Hg reducing agent	1 mL
WHG110830-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG110830-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG110830-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG110830-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG110830-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG110830-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 30-AUG-11 08:45

Digestion End Date: 30-AUG-11 10:45

Hot Block ID: 12

Thermometer ID: 10461

Block Temperature: 95 C

DER Report No.: 992814
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	EPA 200.7	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1137348	See Below		

Potentially affected work order(s)(SDG): 284862(11-3328),284865(11-3330)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202477130MS	1. The matrix spike recovery failed outside of the control limits for sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 02-SEP-11

Data Validator/Group Leader:

Louise Smith 02-SEP-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-SEP-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	EPA 200.8 DOE-AL	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1137351	See Below		

Potentially affected work order(s)(SDG): 284862(11-3328),284865(11-3330)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202477135MS	The matrix spike recovery failed outside of the control limits for Sb, As, Cd, Mo, Se, Tl, Sn, U, Cr, Co, Be and B due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Paul Boyd 02-SEP-11

Data Validator/Group Leader:

Samantha Jacobs 02-SEP-11

Standard Logbook

Serial ID: UHG1576853-02 **Opened:** 13-JUN-11 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-JUN-11 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-JUN-12 **Lot Number :** 4105720
Employee: Tara Griffin **Verified:** 10-JUN-11 **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UHG1576854-01 **Opened:** 13-JUN-11 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-JUN-11 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-JUN-12 **Lot Number :** 16-81HG
Employee: Tara Griffin **Verified:** 10-JUN-11 **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UI100915-43 **Opened:** 16-OCT-10 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 14-SEP-10 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 16-OCT-11 **Lot Number :** 1014419
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI110222-10 **Opened:** 22-FEB-11 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 22-FEB-11 **Catalog Number :** 160044-11-02
Type: Source Material **Expires:** 22-FEB-12 **Lot Number :** 1024009
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Standard Logbook

Serial ID:	UI110314-40	**Opened:**	21-MAR-11	**Amount :**	500 mL
Name:	TRACE ICP ICSA SOLN A	**Received:**	14-MAR-11	**Catalog Number :**	160005-01-03
Type:	Source Material	**Expires:**	21-MAR-12	**Lot Number :**	1023819
Employee:	Helen Camello			**Solvent :**	5%HNO3
Supplier:	o2si				

Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID:	UI110314-42	**Opened:**	18-APR-11	**Amount :**	500 mL
Name:	SI 1000mg/L	**Received:**	14-MAR-11	**Catalog Number :**	060014-02-03
Type:	Source Material	**Expires:**	05-MAR-12	**Lot Number :**	1021185
Employee:	Helen Camello			**Solvent :**	0.3%H2O(NH4)2SiF6
Supplier:	o2si				

Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6

Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID:	UI110317-40	**Opened:**	18-APR-11	**Amount :**	500 mL
Name:	TRACE CALSTD#1A SOUR	**Received:**	17-MAR-11	**Catalog Number :**	HP2270-1-500
Type:	Source Material	**Expires:**	16-MAR-12	**Lot Number :**	1107319
Employee:	Helen Camello			**Solvent :**	HNO3
Supplier:	Environmental Express				

Description: Trace Calibration Std #1A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI110317-41 **Opened:** 18-APR-11 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUR **Received:** 17-MAR-11 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 16-MAR-12 **Lot Number :** 1107320
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI110317-42 **Opened:** 15-AUG-11 **Amount :** 200 mL
Name: SILICON **Received:** 17-MAR-11 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 15-AUG-12 **Lot Number :** 1029420
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: High-Purity Standards
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI110411-03 **Opened:** 11-APR-11 **Catalog Number :** 060074-05-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 11-APR-11 **Lot Number :** 1025015
Type: Source Material **Expires:** 11-APR-12 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI110425-40 **Opened:** 06-MAY-11 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-APR-11 **Catalog Number :** 160358-01-03
Type: Source Material **Expires:** 01-MAY-12 **Lot Number :** 1025375
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: 02si
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI110425-41 **Opened:** 06-MAY-11 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-APR-11 **Catalog Number :** 130358-01-03
Type: Source Material **Expires:** 01-MAY-12 **Lot Number :** 1025375
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: 02si
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI110602-09 **Opened:** 02-JUN-11 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 02-JUN-11 **Catalog Number :** 160044-13-02
Type: Source Material **Expires:** 02-JUN-12 **Lot Number :** 1026190
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	50 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	30 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	2 mg/L
Thorium	2 mg/L	Uranium	.2 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI110614-40 **Opened:** 27-JUN-11 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 14-JUN-11 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 27-JUN-12 **Lot Number :** 1026653
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI110707-48.01 **Opened:** 18-AUG-11 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-AUG-11 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 18-AUG-12 **Lot Number :** 1027899
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Standard Logbook

Serial ID:	UI110707-49.017	**Opened:**	01-SEP-11	**Amount :**	100 ml
Name:	Trace ICP ICSAB	**Received:**	09-AUG-11	**Catalog Number :**	160066-04
Type:	Source Material	**Expires:**	02-SEP-11	**Lot Number :**	1027331
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				

Description: Trace ICP Inteferent Check Standard AB

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID:	UI110720-12	**Opened:**	20-JUL-11	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master B	**Received:**	20-JUL-11	**Catalog Number :**	160033-02
Type:	Source Material	**Expires:**	01-MAY-12	**Lot Number :**	1024788
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 2% HNO3
Supplier:	02SI				

Description: ICPMS ICSAB Master B

Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI110720-13 **Opened:** 20-JUL-11 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 20-JUL-11 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 01-MAY-12 **Lot Number :** 1024789
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI110817-07 **Opened:** 17-AUG-11 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-AUG-11 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-AUG-12 **Lot Number :** 1027953
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 20ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI110817-09 **Opened:** 17-AUG-11 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-AUG-11 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-AUG-12 **Lot Number :** 1027978
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 2000ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID:	UI110819-40	**Opened:**	19-AUG-11	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD-A	**Received:**	18-AUG-11	**Catalog Number :**	160211-05-03
Type:	Source Material	**Expires:**	19-AUG-12	**Lot Number :**	1028064
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				
Description:	ICP HIGH RANGE STD SOLUTION A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Thallium	10000 ug/L	Tin	10000 ug/L
Titanium	10000 ug/L	Vanadium	10000 ug/L
Zinc	15000 ug/L		

Serial ID:	UI110819-41	**Opened:**	19-AUG-11	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD B	**Received:**	18-AUG-11	**Catalog Number :**	160211-05-03
Type:	Source Material	**Expires:**	19-AUG-12	**Lot Number :**	1028064
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				
Description:	ICP HIGH RANGE STD SOLUTION B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Sulfur	50000 ug/L
Uranium	15000 ug/L		

Serial ID:	UI110824-11	**Opened:**	24-AUG-11	**Amount :**	1000 mL
Name:	ICP-MS ICSA Master A	**Received:**	24-AUG-11	**Catalog Number :**	160013-01-01L
Type:	Source Material	**Expires:**	24-AUG-12	**Lot Number :**	1026046
Employee:	Paul Boyd			**Solvent :**	2% HNO3
Supplier:	02SI				
Description:	ICP-MS ICSA Master A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI110824-60 **Opened:** 24-AUG-11 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 24-AUG-11 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 01-AUG-12 **Lot Number :** 1027453
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI110824-61 **Opened:** 24-AUG-11 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 24-AUG-11 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 01-AUG-12 **Lot Number :** 1027453
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Standard Logbook

Serial ID: UI110829-08 **Opened:** 29-AUG-11 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 29-AUG-11 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 01-AUG-12 **Lot Number :** 1027375
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 20ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI1516331-A **Opened:** 26-JAN-11 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 26-JAN-11 **Lot Number :** 1023717
Type: Source Material **Expires:** 26-JAN-12
Employee: Anthony Green
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Cesium	5 mg/L
Chromium	5 mg/L	Cobalt	5 mg/L
Copper	5 mg/L	Iron	200 mg/L
Lead	4 mg/L	Lithium	5 mg/L
Magnesium	200 mg/L	Manganese	5 mg/L
Nickel	5 mg/L	Phosphorus, Total as P	200 mg/L
Potassium	200 mg/L	Selenium	2 mg/L
Silicon	200 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Total Uranium	5 mg/L
Uranium	5 mg/L	Uranium-235	.0364 mg/L
Uranium-238	4.96 mg/L	Vanadium	5 mg/L
Zinc	5 mg/L		

Serial ID: UI1516335-B **Opened:** 26-JAN-11 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 26-JAN-11 **Lot Number :** 1023717
Type: Source Material **Expires:** 26-JAN-12
Employee: Anthony Green
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1583887-06 **Opened:** 27-JUN-11 **Lot Number :** 1026231
Name: METALSPIKE-2 **Received:** 27-JUN-11
Type: Source Material **Expires:** 27-JUN-12
Employee: Anthony Green
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1589187-A **Opened:** 11-JUL-11 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-JUL-11 **Lot Number :** 1027275
Type: Source Material **Expires:** 11-JUL-12
Employee: Anthony Green
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1589189-B **Opened:** 11-JUL-11 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-JUL-11 **Lot Number :** 1027275
Type: Source Material **Expires:** 11-JUL-12
Employee: Anthony Green
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1590350-01 **Opened:** 13-JUL-11 **Lot Number :** 1026236
Name: METALSPIKE-1 **Received:** 13-JUL-11
Type: Source Material **Expires:** 13-JUL-12
Employee: Anthony Green
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UMS110812-01 **Opened:** 12-AUG-11 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 12-AUG-11 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 12-AUG-12 **Lot Number :** 8-095CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS110812-02 **Opened:** 12-AUG-11 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 12-AUG-11 **Lot Number :** 8-097CR
Type: Source Material **Expires:** 12-AUG-12
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS110812-03 **Opened:** 12-AUG-11 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 12-AUG-11 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 12-AUG-12 **Lot Number :** 8-096CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG110829-01 **Opened:** 29-AUG-11 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 29-AUG-11 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 30-AUG-11 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L

Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1576854-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG110829-02 **Opened:** 29-AUG-11 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Intermediate **Expires:** 30-AUG-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1576853-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG110830-01 **Opened:** 30-AUG-11 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-AUG-11 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 31-AUG-11 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1576854-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG110830-02 **Opened:** 30-AUG-11 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Intermediate **Expires:** 31-AUG-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1576853-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG110829-01a **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG110829-02 **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG110829-03 **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG110829-04 **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG110829-05 **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG110829-06 **Opened:** 29-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 29-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 05-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110829-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG110830-01a **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG110830-02 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG110830-03 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG110830-04 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG110830-05 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG110830-06 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG110830-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG110830-13 **Opened:** 30-AUG-11 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 30-AUG-11 **Solvent :** 2% HNO3-1596475
Type: Working **Expires:** 06-SEP-11
Employee: Tara Griffin
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1576854-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI110901-42 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 17-MAR-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL and 1%HNO3-1608994
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI110901-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI110901-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI110901-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI110901-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI110901-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI110901-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI110901-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI110901-43 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 17-MAR-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL and 1%HNO3 -1608994
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100915-43	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI110314-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI110314-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI110317-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI110317-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI110317-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI110317-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI110317-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI110901-44 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 17-MAR-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL and 1 %HNO3-1608994
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110314-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI110314-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110317-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110317-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI110317-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI110317-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI110317-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI110901-45 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 14-MAR-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL and 1%HNO3 -1608994
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100915-43	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI110314-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI110314-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI110314-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI110314-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI110901-46 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-APR-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL AND 1%HNO3-1608994
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110317-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI110317-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110425-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110425-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110425-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110425-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI110425-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI110425-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI110425-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI110425-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI110425-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI110425-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110425-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI110425-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI110425-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI110425-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI110901-47 **Opened:** 01-SEP-11 **Balance Id :** 216
Name: PQL Working Standard **Received:** 14-JUN-11 **Pipet Id :** 3581809
Type: Working **Expires:** 02-SEP-11 **Solvent :** 3%HCL &1%HNO3-1608994
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110614-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI110614-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI110614-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI110614-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI110614-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI110614-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI110614-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI110614-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI110614-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI110614-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI110614-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI110614-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI110614-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110614-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI110614-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI110614-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI110614-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS110831-04 **Opened:** 31-AUG-11 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 31-AUG-11 **Balance Id :** 4025216
Type: Working **Expires:** 01-SEP-11 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1608947
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110411-03	Tungsten	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Arsenic	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Barium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Beryllium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Boron	20 mg/L	2.5 mL	250 mL	200 ug/l
UMS110812-01	Cadmium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Chromium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Cobalt	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Copper	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Lead	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Lithium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Manganese	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Nickel	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Selenium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Silver	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Strontium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Thallium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Thorium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Uranium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Vanadium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Zinc	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-02	Aluminum	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Calcium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Iron	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Magnesium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Phosphorous	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Potassium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Sodium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-03	Antimony	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Molybdenum	10 mg/L	2.5 mL	250 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS110812-03	Tin	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Titanium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Zirconium	10 mg/L	2.5 mL	250 mL	100 ug/l

Serial ID: WMS110831-04A **Opened:** 31-AUG-11 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 31-AUG-11 **Pipet Id :** 3541598
Type: Working **Expires:** 01-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS110831-04	Aluminum	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Antimony	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Arsenic	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Barium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Beryllium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Boron	200 ug/l	20 mL	200 mL	20 ug/l
WMS110831-04	Cadmium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Calcium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Chromium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Cobalt	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Copper	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Iron	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Lead	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Lithium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Magnesium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Manganese	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Molybdenum	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Nickel	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Phosphorous	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Potassium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Selenium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Silver	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Sodium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110831-04	Strontium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Thallium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Thorium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Tin	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Titanium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Tungsten	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Uranium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Vanadium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110831-04	Zinc	100 ug/l	20 mL	200 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS110831-04	Zirconium	100 ug/l	20 mL	200 mL	10 ug/l

Serial ID: WMS110831-05 **Opened:** 31-AUG-11 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 31-AUG-11 **Pipet Id :** 3541598
Type: Working **Expires:** 01-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110817-07	Arsenic	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Barium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Beryllium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Boron	40 mg/L	2.5 mL	1000 mL	100 ug/L
UI110817-07	Cadmium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Chromium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Cobalt	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Copper	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Lead	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Lithium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Manganese	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Nickel	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Selenium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Strontium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Thallium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Thorium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Uranium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Vanadium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Zinc	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-09	Aluminum	2020 mg/L	2.5 mL	1000 mL	5050 ug/L
UI110817-09	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Iron	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Phosphorous	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110829-08	Antimony	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Molybdenum	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Silver	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Tin	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Titanium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Tungsten	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Zirconium	20 mg/L	2.5 mL	1000 mL	50 ug/L

Standard Logbook

Serial ID: WMS110831-06 **Opened:** 31-AUG-11 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 31-AUG-11 **Pipet Id :** 3820544
Type: Working **Expires:** 01-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110222-10	Antimony	3 mg/L	.2 mL	200 mL	3 ug/L
UI110222-10	Molybdenum	.5 mg/L	.2 mL	200 mL	.5 ug/L
UI110222-10	Silver	1 mg/L	.2 mL	200 mL	1 ug/L
UI110222-10	Tin	5 mg/L	.2 mL	200 mL	5 ug/L
UI110222-10	Titanium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110222-10	Tungsten	5 mg/L	.2 mL	200 mL	5 ug/L
UI110222-10	Zirconium	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Aluminum	50 mg/L	.2 mL	200 mL	30 ug/L
UI110602-09	Arsenic	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Barium	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Beryllium	.5 mg/L	.2 mL	200 mL	.5 ug/L
UI110602-09	Boron	15 mg/L	.2 mL	200 mL	15 ug/L
UI110602-09	Cadmium	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Calcium	200 mg/L	.2 mL	200 mL	200 ug/L
UI110602-09	Chromium	30 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Cobalt	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Copper	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Iron	100 mg/L	.2 mL	200 mL	100 ug/L
UI110602-09	Lead	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Lithium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Magnesium	30 mg/L	.2 mL	200 mL	15 ug/L
UI110602-09	Manganese	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Nickel	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Phosphorous	50 mg/L	.2 mL	200 mL	50 ug/L
UI110602-09	Potassium	300 mg/L	.2 mL	200 mL	300 ug/L
UI110602-09	Selenium	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Sodium	250 mg/L	.2 mL	200 mL	250 ug/L
UI110602-09	Strontium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Thallium	2 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Thorium	2 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Uranium	.2 mg/L	.2 mL	200 mL	.2 ug/L
UI110602-09	Vanadium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Zinc	10 mg/L	.2 mL	200 mL	10 ug/L

Standard Logbook

Serial ID: WMS110831-07 **Opened:** 31-AUG-11 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 31-AUG-11 **Lot Number :** 1010773
Type: Working **Expires:** 01-SEP-11 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1608947
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110824-11	Aluminum	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Calcium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Carbon	2000 mg/L	20 mL	200 mL	200000 ug/L
UI110824-11	Chloride	10000 mg/L	20 mL	200 mL	1000000 ug/L
UI110824-11	Iron	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Magnesium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Molybdenum	20 mg/L	20 mL	200 mL	2000 ug/L
UI110824-11	Phosphorous	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Potassium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sodium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sulfur	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Titanium	20 mg/L	20 mL	200 mL	2000 ug/L

Serial ID: WMS110831-08 **Opened:** 31-AUG-11 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 31-AUG-11 **Pipet Id :** 1758088
Type: Working **Expires:** 01-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110720-12	Arsenic	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Barium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Beryllium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Boron	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Cadmium	2 mg/L	2 mL	200 mL	20.2 ug/L
UI110720-12	Chromium	2 mg/L	2 mL	200 mL	22.2 ug/L
UI110720-12	Cobalt	2 mg/L	2 mL	200 mL	20.4 ug/L
UI110720-12	Copper	2 mg/L	2 mL	200 mL	23.4 ug/L
UI110720-12	Lead	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Lithium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Manganese	2 mg/L	2 mL	200 mL	22.7 ug/L
UI110720-12	Nickel	2 mg/L	2 mL	200 mL	22.4 ug/L
UI110720-12	Selenium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Strontium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Thallium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Thorium	2 mg/L	2 mL	200 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110720-12	Uranium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Vanadium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Zinc	2 mg/L	2 mL	200 mL	27 ug/L
UI110720-13	Antimony	2 mg/L	2 mL	200 mL	20.5 ug/L
UI110720-13	Silver	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Tin	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Tungsten	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Zirconium	2 mg/L	2 mL	200 mL	20 ug/L
UI110824-11	Aluminum	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Calcium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Carbon	2000 mg/L	20 mL	200 mL	200000 ug/L
UI110824-11	Chloride	10000 mg/L	20 mL	200 mL	1000000 ug/L
UI110824-11	Iron	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Magnesium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Molybdenum	20 mg/L	20 mL	200 mL	2000 ug/L
UI110824-11	Phosphorous	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Potassium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sodium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sulfur	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Titanium	20 mg/L	20 mL	200 mL	2000 ug/L

Serial ID: WMS110831-70 **Opened:** 31-AUG-11 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 31-AUG-11 **Pipet Id :** 1758088
Type: Working **Expires:** 01-SEP-11 **Solvent :** 2%HNO3/1%HCl-1608947
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110824-60	Aluminum	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Arsenic	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Barium	250 mg/L	2 mL	200 mL	2500 ug/L
UI110824-60	Beryllium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Cadmium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Calcium	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Chromium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Cobalt	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Copper	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Iron	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Lead	500 mg/L	2 mL	200 mL	5000 ug/L
UI110824-60	Lithium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Magnesium	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Manganese	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Nickel	100 mg/L	2 mL	200 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110824-60	Phosphorous	2500 mg/L	2 mL	200 mL	25000 ug/L
UI110824-60	Potassium	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Selenium	50 mg/L	2 mL	200 mL	500 ug/L
UI110824-60	Sodium	5000 mg/L	2 mL	200 mL	50000 ug/L
UI110824-60	Strontium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Thallium	50 mg/L	2 mL	200 mL	500 ug/L
UI110824-60	Thorium	250 mg/L	2 mL	200 mL	2500 ug/L
UI110824-60	Uranium	500 mg/L	2 mL	200 mL	5000 ug/L
UI110824-60	Vanadium	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-60	Zinc	250 mg/L	2 mL	200 mL	2500 ug/L
UI110824-61	Antimony	25 mg/L	2 mL	200 mL	250 ug/L
UI110824-61	Molybdenum	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-61	Silver	25 mg/L	2 mL	200 mL	250 ug/L
UI110824-61	Tin	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-61	Tungsten	100 mg/L	2 mL	200 mL	1000 ug/L
UI110824-61	Zirconium	50 mg/L	2 mL	200 mL	500 ug/L

Serial ID: WMS110902-04 **Opened:** 02-SEP-11 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-SEP-11 **Balance Id :** 4025216
Type: Working **Expires:** 03-SEP-11 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1608947
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110411-03	Tungsten	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Arsenic	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Barium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Beryllium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Boron	20 mg/L	2.5 mL	250 mL	200 ug/l
UMS110812-01	Cadmium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Chromium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Cobalt	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Copper	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Lead	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Lithium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Manganese	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Nickel	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Selenium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Silver	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Strontium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Thallium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Thorium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Uranium	10 mg/L	2.5 mL	250 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS110812-01	Vanadium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-01	Zinc	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-02	Aluminum	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Calcium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Iron	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Magnesium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Phosphorous	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Potassium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-02	Sodium	1000 mg/L	2.5 mL	250 mL	10000 ug/l
UMS110812-03	Antimony	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Molybdenum	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Tin	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Titanium	10 mg/L	2.5 mL	250 mL	100 ug/l
UMS110812-03	Zirconium	10 mg/L	2.5 mL	250 mL	100 ug/l

Serial ID: WMS110902-04A **Opened:** 02-SEP-11 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 02-SEP-11 **Pipet Id :** 3541598
Type: Working **Expires:** 03-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS110902-04	Aluminum	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Antimony	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Arsenic	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Barium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Beryllium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Boron	200 ug/l	20 mL	200 mL	20 ug/l
WMS110902-04	Cadmium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Calcium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Chromium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Cobalt	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Copper	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Iron	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Lead	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Lithium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Magnesium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Manganese	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Molybdenum	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Nickel	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Phosphorous	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Potassium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Selenium	100 ug/l	20 mL	200 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS110902-04	Silver	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Sodium	10000 ug/l	20 mL	200 mL	1000 ug/l
WMS110902-04	Strontium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Thallium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Thorium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Tin	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Titanium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Tungsten	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Uranium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Vanadium	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Zinc	100 ug/l	20 mL	200 mL	10 ug/l
WMS110902-04	Zirconium	100 ug/l	20 mL	200 mL	10 ug/l

Serial ID: WMS110902-05 **Opened:** 02-SEP-11 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-SEP-11 **Pipet Id :** 3541598
Type: Working **Expires:** 03-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110817-07	Arsenic	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Barium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Beryllium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Boron	40 mg/L	2.5 mL	1000 mL	100 ug/L
UI110817-07	Cadmium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Chromium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Cobalt	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Copper	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Lead	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Lithium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Manganese	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Nickel	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Selenium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Strontium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Thallium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Thorium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Uranium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Vanadium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-07	Zinc	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110817-09	Aluminum	2020 mg/L	2.5 mL	1000 mL	5050 ug/L
UI110817-09	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Iron	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110817-09	Phosphorous	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110817-09	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI110829-08	Antimony	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Molybdenum	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Silver	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Tin	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Titanium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Tungsten	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI110829-08	Zirconium	20 mg/L	2.5 mL	1000 mL	50 ug/L

Serial ID: WMS110902-06 **Opened:** 02-SEP-11 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-SEP-11 **Pipet Id :** 3820544
Type: Working **Expires:** 03-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110222-10	Antimony	3 mg/L	.2 mL	200 mL	3 ug/L
UI110222-10	Molybdenum	.5 mg/L	.2 mL	200 mL	.5 ug/L
UI110222-10	Silver	1 mg/L	.2 mL	200 mL	1 ug/L
UI110222-10	Tin	5 mg/L	.2 mL	200 mL	5 ug/L
UI110222-10	Titanium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110222-10	Tungsten	5 mg/L	.2 mL	200 mL	5 ug/L
UI110222-10	Zirconium	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Aluminum	50 mg/L	.2 mL	200 mL	30 ug/L
UI110602-09	Arsenic	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Barium	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Beryllium	.5 mg/L	.2 mL	200 mL	.5 ug/L
UI110602-09	Boron	15 mg/L	.2 mL	200 mL	15 ug/L
UI110602-09	Cadmium	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Calcium	200 mg/L	.2 mL	200 mL	200 ug/L
UI110602-09	Chromium	30 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Cobalt	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Copper	1 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Iron	100 mg/L	.2 mL	200 mL	100 ug/L
UI110602-09	Lead	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Lithium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Magnesium	30 mg/L	.2 mL	200 mL	15 ug/L
UI110602-09	Manganese	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Nickel	2 mg/L	.2 mL	200 mL	2 ug/L
UI110602-09	Phosphorous	50 mg/L	.2 mL	200 mL	50 ug/L
UI110602-09	Potassium	300 mg/L	.2 mL	200 mL	300 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110602-09	Selenium	5 mg/L	.2 mL	200 mL	5 ug/L
UI110602-09	Sodium	250 mg/L	.2 mL	200 mL	250 ug/L
UI110602-09	Strontium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Thallium	2 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Thorium	2 mg/L	.2 mL	200 mL	1 ug/L
UI110602-09	Uranium	.2 mg/L	.2 mL	200 mL	.2 ug/L
UI110602-09	Vanadium	10 mg/L	.2 mL	200 mL	10 ug/L
UI110602-09	Zinc	10 mg/L	.2 mL	200 mL	10 ug/L

Serial ID: WMS110902-07 **Opened:** 02-SEP-11 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-SEP-11 **Lot Number :** 1010773
Type: Working **Expires:** 03-SEP-11 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1608947
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110824-11	Aluminum	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Calcium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Carbon	2000 mg/L	20 mL	200 mL	200000 ug/L
UI110824-11	Chloride	10000 mg/L	20 mL	200 mL	1000000 ug/L
UI110824-11	Iron	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Magnesium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Molybdenum	20 mg/L	20 mL	200 mL	2000 ug/L
UI110824-11	Phosphorous	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Potassium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sodium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sulfur	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Titanium	20 mg/L	20 mL	200 mL	2000 ug/L

Serial ID: WMS110902-08 **Opened:** 02-SEP-11 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-SEP-11 **Pipet Id :** 1758088
Type: Working **Expires:** 03-SEP-11 **Solvent :** 2%HNO3/1%HCl - 1608947
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110720-12	Arsenic	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Barium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Beryllium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Boron	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Cadmium	2 mg/L	2 mL	200 mL	20.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI110720-12	Chromium	2 mg/L	2 mL	200 mL	22.2 ug/L
UI110720-12	Cobalt	2 mg/L	2 mL	200 mL	20.4 ug/L
UI110720-12	Copper	2 mg/L	2 mL	200 mL	23.4 ug/L
UI110720-12	Lead	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Lithium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Manganese	2 mg/L	2 mL	200 mL	22.7 ug/L
UI110720-12	Nickel	2 mg/L	2 mL	200 mL	22.4 ug/L
UI110720-12	Selenium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Strontium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Thallium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Thorium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Uranium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Vanadium	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-12	Zinc	2 mg/L	2 mL	200 mL	27 ug/L
UI110720-13	Antimony	2 mg/L	2 mL	200 mL	20.5 ug/L
UI110720-13	Silver	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Tin	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Tungsten	2 mg/L	2 mL	200 mL	20 ug/L
UI110720-13	Zirconium	2 mg/L	2 mL	200 mL	20 ug/L
UI110824-11	Aluminum	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Calcium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Carbon	2000 mg/L	20 mL	200 mL	200000 ug/L
UI110824-11	Chloride	10000 mg/L	20 mL	200 mL	1000000 ug/L
UI110824-11	Iron	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Magnesium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Molybdenum	20 mg/L	20 mL	200 mL	2000 ug/L
UI110824-11	Phosphorous	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Potassium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sodium	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Sulfur	1000 mg/L	20 mL	200 mL	100000 ug/L
UI110824-11	Titanium	20 mg/L	20 mL	200 mL	2000 ug/L

Serial ID: 110622-tclp **Opened:** 22-JUN-11 **Lot Number :** K11061
Name: I-HNO3 **Received:** 22-JUN-11
Type: Reagent/Solvent **Expires:** 22-JUN-12
Employee: Edmund Frampton
Supplier: Macron Chemicals
Description: Concentrated Nitric Acid
Comments: None

Standard Logbook

Serial ID: 1522928 **Opened:** 10-FEB-11 **Lot Number :** J51J06
Name: B-H2SO4-MER **Received:** 10-FEB-11
Type: Reagent/Solvent **Expires:** 10-FEB-12
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1543791-A **Opened:** 28-MAR-11 **Lot Number :** J04612
Name: B-NaCl-MER **Received:** 28-MAR-11
Type: Reagent/Solvent **Expires:** 28-MAR-12
Employee: Tara Griffin
Supplier: VWR
Description: Sodium Chloride
Comments: None

Serial ID: 1543794-A **Opened:** 28-MAR-11 **Lot Number :** TB09AZEMS
Name: B-KMnO4(VWR)-MER **Received:** 28-MAR-11
Type: Reagent/Solvent **Expires:** 28-MAR-12
Employee: Tara Griffin
Supplier: EMD
Description: Potassium Permanganate
Comments: None

Serial ID: 1586906 **Opened:** 05-JUL-11 **Lot Number :** K14068
Name: I-HCL **Received:** 05-JUL-11 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 05-JUL-12
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1588420-C **Opened:** 08-JUL-11 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 08-JUL-11
Type: Reagent/Solvent **Expires:** 08-JAN-12
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1543794-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	5%

Standard Logbook

Serial ID: 1596475-1 **Opened:** 28-JUL-11 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 28-JUL-11 **Lot Number :** K15030
Type: Reagent/Solvent **Expires:** 28-JUL-12
Employee: Tara Griffin
Supplier: J T Baker
Description: NITRIC ACID
Comments: None

Serial ID: 1596503 **Opened:** 28-JUL-11 **Lot Number :** K10H00
Name: B-K2S2O8S-MER **Received:** 28-JUL-11
Type: Reagent/Solvent **Expires:** 28-JUL-12
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1596507-A **Opened:** 28-JUL-11 **Lot Number :** 1850C368
Name: B-NH2OH.HCl-MER **Received:** 28-JUL-11
Type: Reagent/Solvent **Expires:** 28-JUL-13
Employee: Tara Griffin
Supplier: EMD
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1601203-C **Opened:** 09-AUG-11 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 09-AUG-11
Type: Reagent/Solvent **Expires:** 09-FEB-12
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1596503	B-K2S2O8S-MER	N/A		1000 mL	N/A

Serial ID: 1604895 **Opened:** 18-AUG-11 **Lot Number :** K26028
Name: I-HNO3 **Received:** 18-AUG-11
Type: Reagent/Solvent **Expires:** 18-AUG-12
Employee: Anthony Green
Supplier: Macron Chemicals
Description: Concentrated Nitric Acid
Comments: None

Standard Logbook

Serial ID: 1608947 **Opened:** 29-AUG-11 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 29-AUG-11
Type: Reagent/Solvent **Expires:** 05-SEP-11
Employee: Dale Mori
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
110622-tclp	I-HNO3	68.0-70.0%	160 mL	8 l	N/A
1586906	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1608989-C **Opened:** 29-AUG-11 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 29-AUG-11
Type: Reagent/Solvent **Expires:** 01-MAR-12
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1543791-A	B-NaCl-MER	N/A	120 g	1000 mL	N/A
1596507-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1608994 **Opened:** 29-AUG-11 **Amount :** 8 L
Name: B-ICP-RINSE SOLN **Received:** 05-JUL-11 **Solvent :** 3%HCL+1%HNO3
Type: Reagent/Solvent **Expires:** 05-SEP-11
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
110622-tclp	I-HNO3	68.0-70.0%	80 mL	10000 mL	N/A
1586906	I-HCL	36.5-38.0	240 mL	10000 mL	N/A

General Chem Analysis

Case Narrative

General Chemistry Narrative
ARS International (ARSL)
SDG 11-3330

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 1137397 **Method:** SM 5310 D Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 5310 D:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202477287	Method Blank (MB)
1202477288	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202477289	284791004(CAPU-11-26381) Sample Duplicate (DUP)
1202477290	284865001(NPDES13S-11-13861) Post Spike (PS)
1202477291	284791004(CAPU-11-26381) Post Spike (PS)
1202477292	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 284791004 (CAPU-11-26381) and 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages

electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	1136860	**Method:**	NPDES-CN(TOTAL)
Prep Batch :	1136856	**Method:**	EPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202475871	Method Blank (MB)
1202475872	284699012(WTESR-11-24319) Sample Duplicate (DUP)
1202475876	284699012(WTESR-11-24319) Matrix Spike (MS)
1202475880	284699012(WTESR-11-24319) Matrix Spike Duplicate (MSD)
1202475884	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 15.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 284699012 (WTESR-11-24319).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed to verify the results: 1202475871 (MB) and 1202475884 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	1133216	**Method:**	EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202467343	Method Blank (MB)
1202467344	284182001(CASA-11-24788) Sample Duplicate (DUP)
1202467345	284182001(CASA-11-24788) Post Spike (PS)
1202467346	Laboratory Control Sample (LCS)
1202475987	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202475988	284865001(NPDES13S-11-13861) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 19.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 284182001 (CASA-11-24788) and 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery for Sulfate falls outside of the GEL acceptance limits but within the client specified limits. 1202475988 (NPDES13S-11-13861).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202475987 (NPDES13S-11-13861), 1202475988 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 991872 1202475988 (NPDES13S-11-13861).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202467344 (CASA-11-24788), 1202467345 (CASA-11-24788), 1202475987 (NPDES13S-11-13861), 1202475988 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	1137078	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	1137077	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202476471	Method Blank (MB)
1202476472	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476473	284865001(NPDES13S-11-13861) Matrix Spike (MS)
1202476474	284865001(NPDES13S-11-13861) Matrix Spike Duplicate (MSD)
1202476475	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within

acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202476472 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	1135945	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	1135944	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202473596	Method Blank (MB)
1202473597	284515004(CAMO-11-24703) Sample Duplicate (DUP)
1202473599	284515004(CAMO-11-24703) Matrix Spike (MS)
1202473601	284515004(CAMO-11-24703) Matrix Spike Duplicate (MSD)
1202473603	Laboratory Control Sample (LCS)
1202476262	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476263	284865001(NPDES13S-11-13861) Matrix Spike (MS)
1202476264	284865001(NPDES13S-11-13861) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 284515004 (CAMO-11-24703) and 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202476263 (NPDES13S-11-13861).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202476264 (NPDES13S-11-13861).

MS/MSD Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the spike and spike duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample: 1202476264 (NPDES13S-11-13861).

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202473597 (CAMO-11-24703). The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202476262 (NPDES13S-11-13861).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 992204 1202476263 (NPDES13S-11-13861) and 1202476264 (NPDES13S-11-13861).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	1137011	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202476265	Method Blank (MB)
1202476266	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476267	284865001(NPDES13S-11-13861) Post Spike (PS)
1202476268	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within

acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202476266 (NPDES13S-11-13861), 1202476267 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202476268 (LCS). The following samples were re-analyzed due to CCV failure: 1202476265 (MB), 1202476268 (LCS) and 284865001 (NPDES13S-11-13861).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an

effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	1133754	**Method:**	NPDES-P
Prep Batch :	1133753	**Method:**	EPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202468497	Method Blank (MB)
1202468498	283629002(CAMO-11-24646) Sample Duplicate (DUP)
1202468499	284182001(CASA-11-24788) Sample Duplicate (DUP)
1202468500	283629002(CAMO-11-24646) Matrix Spike (MS)
1202468501	284182001(CASA-11-24788) Matrix Spike (MS)
1202468502	283629002(CAMO-11-24646) Matrix Spike Duplicate (MSD)
1202468503	284182001(CASA-11-24788) Matrix Spike Duplicate (MSD)
1202468504	Laboratory Control Sample (LCS)
1202476251	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476252	284865001(NPDES13S-11-13861) Matrix Spike (MS)
1202476253	284865001(NPDES13S-11-13861) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 283629002 (CAMO-11-24646), 284182001 (CASA-11-24788) and 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202476253 (NPDES13S-11-13861).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample: 1202468499 (CASA-11-24788).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 991690 1202468499 (CASA-11-24788) and 1202476253 (NPDES13S-11-13861).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **COD**

Analytical Batch: 1137058 **Method:** EPA 410.4 Chem. Oxygen Demand

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 410.4:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202476414	Method Blank (MB)
1202476415	284697001(11RCRA628) Sample Duplicate (DUP)
1202476416	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476417	284697001(11RCRA628) Post Spike (PS)
1202476418	284865001(NPDES13S-11-13861) Post Spike (PS)
1202476419	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-061 REV# 13.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Spectrometric analysis was performed on a Spectronic 20D + Digital Spectrophotometer.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 284697001 (11RCRA628) and 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202476416 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Sulfide, Total**

Analytical Batch: 1137272 **Method:** SM 4500-S(2-) D Sulfide

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 4500-S (2-) D:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202476941	Method Blank (MB)
1202476942	Laboratory Control Sample (LCS)
1202476943	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476944	284865001(NPDES13S-11-13861) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-052 REV# 4.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Spectrometric analysis was performed on a Spectronic 20D + Digital Spectrophotometer.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will

always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Surfactants (MBAS)**		
Analytical Batch:	1136759	**Method:**	SM 5540 C Surfactants (MBAS)

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 5540 C:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202475623	Method Blank (MB)
1202475624	Laboratory Control Sample (LCS)
1202475625	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202475626	284865001(NPDES13S-11-13861) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-047 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Spectrometric analysis was performed on a Spectronic 20D+ Digital Spectrophotometer.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 284865001 (NPDES13S-11-13861).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202475625 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are

present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Color**		
Analytical Batch:	1136760	**Method:**	SM 2120 B Color

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 2120 B:

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202475627	Method Blank (MB)
1202475628	Laboratory Control Sample (LCS)
1202475629	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-036 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Wet Chemistry General analysis was not performed on an analytical instrument.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 284865001 (NPDES13S-11-13861).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:**_____02Sep11_____

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3330 GEL Work Order: 284865

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

H Analytical holding time was exceeded

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: **********

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client SDG: 11-3330

Client Sample ID: NPDES13S-11-13861
Sample ID: 284865001
Matrix: Storm Water
Collect Date: 25-AUG-11 12:00
Receive Date: 27-AUG-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SM 5310 D Total Organic Carbon "As Received"											
Total Organic Carbon Average		6.62	0.330	1.00	mg/L	1	TSM	08/31/11	1922	1137397	1
Flow Injection Analysis											
NPDES-CN(TOTAL) "As Received"											
Cyanide, Total	J	1.61	1.50	5.00	ug/L	1	SDS	08/31/11	0847	1136860	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	J	0.136	0.066	0.200	mg/L	1	MAR1	08/29/11	2334	1133216	3
Fluoride		0.342	0.033	0.100	mg/L	1					
Sulfate		28.0	0.100	0.400	mg/L	1					
Chloride		60.5	0.660	2.00	mg/L	10	MAR1	08/30/11	1542	1133216	4
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia		0.0611	0.016	0.050	mg/L	1	KLP1	08/29/11	1551	1137078	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		3.86	0.100	0.500	mg/L	10	KLP1	08/29/11	1422	1137011	6
NPDES-P "As Received"											
Phosphorus, Total as P		1.84	0.015	0.050	mg/L	1	KLP1	08/30/11	1531	1133754	7
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.035	0.100	mg/L	1	KLP1	08/31/11	1530	1135945	8
Spectrometric Analysis											
EPA 410.4 Chem. Oxygen Demand "As Received"											
COD		42.5	6.50	20.0	mg/L	1	LXA1	08/29/11	1524	1137058	9
SM 4500-S(2-) D Sulfide "As Received"											
Total Sulfide	U	ND	0.030	0.100	mg/L	1	LXA1	08/29/11	1716	1137272	10
SM 5540 C Surfactants (MBAS) "As Received"											
MBAS	U	ND	0.016	0.050	mg/L	1	TXT1	08/27/11	1325	1136759	11
Wet Chemistry General											
SM 2120 B Color "As Received"											
Color		10.0	5.00	5.00	PCU	1	TXT1	08/27/11	1049	1136760	12

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	08/30/11	1619	1136856
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	AXS5	08/29/11	1430	1137077
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	AXS5	08/29/11	1654	1135944

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: **********

Company :	Los Alamos National Laboratory		
Address :	TA-03, SM271, Drop Pt. 02U, Rm111		
	Los Alamos, New Mexico 87545		
Contact:	Ms. Joylene Valdez	Client SDG:	11-3330
Project:	LANL-WQH NPDES 13S		

Client Sample ID:	NPDES13S-11-13861	Project:	ESHL00610
Sample ID:	284865001	Client ID:	ARSL001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
EPA 365.4 Prep		EPA 365.4 Phosphorus, Total in liquid PR		AXS5		08/29/11	1651	1133753			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 5310 D	
2	EPA 335.4	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 351.2	
9	EPA 410.4	
10	SM 4500-S (2-) D	
11	SM 5540 C	
12	SM 2120 B	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 1, 2011

Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **284865**

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Carbon Analysis												
Batch 1137397												
QC1202477288 284865001 DUP												
Total Organic Carbon Average			6.62		6.56	mg/L	0.941			(0%-20%)	TSM	08/31/11 19:40
QC1202477289 284791004 DUP												
Total Organic Carbon Average		J	0.374	U	ND	mg/L	N/A	^				08/31/11 17:27
QC1202477292 LCS												
Total Organic Carbon Average	10.0				9.53	mg/L			95.3	(85%-115%)		08/31/11 16:09
QC1202477287 MB												
Total Organic Carbon Average				U	ND	mg/L						08/31/11 16:00
QC1202477290 284865001 PS												
Total Organic Carbon Average	10.0		6.62		16.6	mg/L			99.5	(65%-121%)		08/31/11 20:00
QC1202477291 284791004 PS												
Total Organic Carbon Average	10.0	J	0.374		9.64	mg/L			92.6	(65%-121%)		08/31/11 17:46
Flow Injection Analysis												
Batch 1136860												
QC1202475872 284699012 DUP												
Cyanide, Total			47.8		46.6	ug/L	2.54			(0%-20%)	SDS	08/31/11 08:44
QC1202475884 LCS												
Cyanide, Total	50.0				50.4	ug/L			101	(90%-110%)		08/31/11 08:12
QC1202475871 MB												
Cyanide, Total				U	ND	ug/L						08/31/11 08:11
QC1202475876 284699012 MS												
Cyanide, Total	100		47.8		158	ug/L			110	(75%-125%)		08/31/11 08:45
QC1202475880 284699012 MSD												
Cyanide, Total	100		47.8		155	ug/L	1.92		107	(0%-26%)		08/31/11 08:46
Ion Chromatography												
Batch 1133216												
QC1202467344 284182001 DUP												
Bromide		J	0.107	J	0.108	mg/L	1.39	^		(+/-0.200)	MAR1	08/29/11 21:46
Chloride			5.85		5.87	mg/L	0.399			(0%-20%)		
Fluoride			0.496		0.496	mg/L	0.0806	^		(+/-0.100)		
Sulfate			6.65		6.59	mg/L	1.00			(0%-20%)		
QC1202475987 284865001 DUP												
Bromide		J	0.136	J	0.135	mg/L	0.295	^		(+/-0.200)		08/30/11 00:01
Chloride			60.5		60.5	mg/L	0.0909			(0%-20%)		08/30/11 16:09
Fluoride			0.342		0.343	mg/L	0.175	^		(+/-0.100)		08/30/11 00:01
Sulfate			28.0		28.0	mg/L	0.306			(0%-20%)		
QC1202467346 LCS												
Bromide	2.50				2.50	mg/L			100	(90%-110%)		08/29/11 20:52
Chloride	10.0				9.70	mg/L			97	(90%-110%)		
Fluoride	5.00				4.87	mg/L			97.4	(90%-110%)		
Sulfate	20.0				19.0	mg/L			94.9	(90%-110%)		
QC1202467343 MB												

QC Summary

Workorder: 284865

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 1133216											
Bromide				U	ND	mg/L					08/29/11 20:26
Chloride				U	ND	mg/L				MAR1	
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1202467345 284182001 PS											
Bromide	2.50	J	0.107		2.51	mg/L		96	(90%-110%)		08/29/11 22:13
Chloride	10.0		5.85		16.5	mg/L		106	(90%-110%)		
Fluoride	5.00		0.496		5.28	mg/L		95.7	(90%-110%)		
Sulfate	20.0		6.65		26.3	mg/L		98.3	(90%-110%)		
QC1202475988 284865001 PS											
Bromide	2.50	J	0.136		2.58	mg/L		97.8	(90%-110%)		08/30/11 00:28
Chloride	10.0		6.05		16.9	mg/L		108	(90%-110%)		08/30/11 16:36
Fluoride	5.00		0.342		5.04	mg/L		94	(90%-110%)		08/30/11 00:28
Sulfate	20.0		28.0		50.3	mg/L		111 *	(90%-110%)		
Nutrient Analysis											
Batch 1133754											
QC1202468498 283629002 DUP											
Phosphorus, Total as P			0.111		0.110	mg/L	0.905 ^		(+/-0.050)	KLP1	08/30/11 15:04
QC1202468499 284182001 DUP											
Phosphorus, Total as P			0.157		0.0904	mg/L	53.8* ^		(+/-0.050)		08/30/11 15:28
QC1202476251 284865001 DUP											
Phosphorus, Total as P			1.84		1.96	mg/L	6.32		(0%-20%)		08/30/11 15:32
QC1202468504 LCS											
Phosphorus, Total as P	1.00				1.02	mg/L		102	(84%-124%)		08/30/11 15:02
QC1202468497 MB											
Phosphorus, Total as P				U	ND	mg/L					08/30/11 15:01
QC1202468500 283629002 MS											
Phosphorus, Total as P	1.00		0.111		0.948	mg/L		83.7	(61%-138%)		08/30/11 15:05
QC1202468501 284182001 MS											
Phosphorus, Total as P	1.00		0.157		0.951	mg/L		79.4	(61%-138%)		08/30/11 15:29
QC1202476252 284865001 MS											
Phosphorus, Total as P	1.00		1.84		2.58	mg/L		74	(61%-138%)		08/30/11 15:33
QC1202468502 283629002 MSD											
Phosphorus, Total as P	1.00		0.111		1.02	mg/L	7.32	90.9	(0%-20%)		08/30/11 15:06
QC1202468503 284182001 MSD											
Phosphorus, Total as P	1.00		0.157		0.990	mg/L	4.02	83.3	(0%-20%)		08/30/11 15:30
QC1202476253 284865001 MSD											
Phosphorus, Total as P	1.00		1.84		2.35	mg/L	9.33	51 *	(0%-20%)		08/30/11 15:34
Batch 1135945											
QC1202473597 284515004 DUP											
Nitrogen, Total Kjeldahl			0.170		0.126	mg/L	29.7 ^		(+/-0.100)	KLP1	08/31/11 15:21
QC1202476262 284865001 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A				08/31/11 15:31
QC1202473603 LCS											
Nitrogen, Total Kjeldahl	1.00				1.02	mg/L		102	(90%-110%)		08/31/11 15:19
QC1202473596 MB											

QC Summary

Workorder: 284865

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 1135945											
Nitrogen, Total Kjeldahl				J	0.041	mg/L					08/31/11 15:18
QC1202473599 284515004 MS											
Nitrogen, Total Kjeldahl	1.00		0.170		1.12	mg/L		95	(90%-110%)	KLP1	08/31/11 15:22
QC1202476263 284865001 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.198	mg/L		18 *	(90%-110%)		08/31/11 15:32
QC1202473601 284515004 MSD											
Nitrogen, Total Kjeldahl	1.00		0.170		1.17	mg/L	4.37	100	(0%-20%)		08/31/11 15:22
QC1202476264 284865001 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.424	mg/L	72.7*	40.6 *	(0%-20%)		08/31/11 15:32
Batch 1137011											
QC1202476266 284865001 DUP											
Nitrogen, Nitrate/Nitrite			3.86		3.74	mg/L	3.16		(0%-20%)	KLP1	08/29/11 14:23
QC1202476268 LCS											
Nitrogen, Nitrate/Nitrite	1.00				1.09	mg/L		109	(90%-110%)		08/29/11 14:12
QC1202476265 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					08/29/11 14:06
QC1202476267 284865001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.386		1.44	mg/L		105	(90%-110%)		08/29/11 14:24
Batch 1137078											
QC1202476472 284865001 DUP											
Nitrogen, Ammonia			0.0611		0.0834	mg/L	30.9 ^		(+/-0.050)	KLP1	08/29/11 15:52
QC1202476475 LCS											
Nitrogen, Ammonia	1.00				0.950	mg/L		95	(90%-110%)		08/29/11 15:50
QC1202476471 MB											
Nitrogen, Ammonia				U	ND	mg/L					08/29/11 15:49
QC1202476473 284865001 MS											
Nitrogen, Ammonia	1.00		0.0611		1.04	mg/L		97.9	(90%-110%)		08/29/11 15:52
QC1202476474 284865001 MSD											
Nitrogen, Ammonia	1.00		0.0611		1.04	mg/L	0.00	97.9	(0%-15%)		08/29/11 15:54
Spectrometric Analysis											
Batch 1136759											
QC1202475625 284865001 DUP											
MBAS		U	ND	J	0.016	mg/L	N/A			TXT1	08/27/11 13:25
QC1202475624 LCS											
MBAS	0.500				0.513	mg/L		103	(77%-134%)		08/27/11 13:21
QC1202475623 MB											
MBAS				U	ND	mg/L					08/27/11 13:21
QC1202475626 284865001 PS											
MBAS	1.00	U	ND		1.04	mg/L		103	(54%-130%)		08/27/11 13:25
Batch 1137058											
QC1202476415 284697001 DUP											
COD			371		376	mg/L	1.27		(0%-20%)	LXA1	08/29/11 15:23
QC1202476416 284865001 DUP											
COD			42.5		52.1	mg/L	20.1 ^		(+/-20.0)		08/29/11 15:24
QC1202476419 LCS											
COD	500				509	mg/L		102	(90%-110%)		08/29/11 15:23
QC1202476414 MB											

QC Summary

Workorder: 284865

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Spectrometric Analysis											
Batch 1137058											
COD				U	ND	mg/L					08/29/11 15:23
QC1202476417 284697001 PS											
COD	500		371		843	mg/L		94.3	(90%-110%)	LXA1	08/29/11 15:24
QC1202476418 284865001 PS											
COD	500		42.5		533	mg/L		98.1	(90%-110%)		08/29/11 15:24
Batch 1137272											
QC1202476943 284865001 DUP											
Total Sulfide		U	ND	U	ND	mg/L	N/A			LXA1	08/29/11 17:16
QC1202476942 LCS											
Total Sulfide	0.400				0.396	mg/L		98.9	(88%-117%)		08/29/11 17:16
QC1202476941 MB											
Total Sulfide				U	ND	mg/L					08/29/11 17:16
QC1202476944 284865001 PS											
Total Sulfide	0.400	U	ND		0.389	mg/L		97.2	(55%-129%)		08/29/11 17:17
Wet Chemistry General											
Batch 1136760											
QC1202475629 284865001 DUP											
Color			10.0		10.0	PCU	0.00 ^		(+/-5.00)	TXT1	08/27/11 10:49
QC1202475628 LCS											
Color	35.0				35.0	PCU		100	(100%-100%)		08/27/11 10:48
QC1202475627 MB											
Color				U	ND	PCU					08/27/11 10:48

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.

QC Summary

Workorder: 284865

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Metals--The Matrix spike sample recovery is not within specified control limits
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Carbon Analysis

Method: SM 5310 D Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-AUG-2011 14:44:00**	**XP316.rlt**	**9.818**	**10**	**98.2**	**(90%-110%)**	**Yes**
CCV	31-AUG-2011 15:42:00	XP319.rlt	9.584	10	95.8	(90%-110%)	Yes
CCV	31-AUG-2011 19:05:00	XP331.rlt	10.495	10	105	(90%-110%)	Yes
CCV	31-AUG-2011 21:39:00	XP341.rlt	9.591	10	95.9	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-AUG-2011 14:53:00**	**XP317.rlt**	**0.116**	**1**	**Yes**
CCB	31-AUG-2011 15:51:00	XP320.rlt	0.131	1	Yes
CCB	31-AUG-2011 19:14:00	XP332.rlt	0.67	1	Yes
CCB	31-AUG-2011 21:48:00	XP342.rlt	0.105	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-AUG-2011 08:02:19**	**OM_8-31-2011_07-53-36**	**149**	**150**	**99.3**	**(90%-110%)**	**Yes**
CCV	31-AUG-2011 08:16:35	OM_8-31-2011_07-53-36	103	100	103	(90%-110%)	Yes
CCV	31-AUG-2011 08:28:54	OM_8-31-2011_07-53-36	102	100	102	(90%-110%)	Yes
CCV	31-AUG-2011 08:41:20	OM_8-31-2011_07-53-36	102	100	102	(90%-110%)	Yes
CCV	31-AUG-2011 08:52:52	OM_8-31-2011_07-53-36	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-AUG-2011 08:04:07**	**OM_8-31-2011_07-53-36**	**0.429**	**5**	**Yes**
CCB	31-AUG-2011 08:18:25	OM_8-31-2011_07-53-36	0.261	5	Yes
CCB	31-AUG-2011 08:30:44	OM_8-31-2011_07-53-36	0.453	5	Yes
CCB	31-AUG-2011 08:43:10	OM_8-31-2011_07-53-36	0.41	5	Yes
CCB	31-AUG-2011 08:54:42	OM_8-31-2011_07-53-36	0.367	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 11:54:00**	**110829**	**2.6241**	**2.5**	**105**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 19:32:00	110829	2.4534	2.5	98.1	(90%-110%)	Yes
CCV	30-AUG-2011 00:55:00	110829	3.8179	3.75	102	(90%-110%)	Yes
CCV	30-AUG-2011 14:48:00	110829	3.7541	3.75	100	(90%-110%)	Yes
CCV	30-AUG-2011 17:03:00	110829	2.4818	2.5	99.3	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 12:21:00**	**110829**	**0**	**0.2**	**Yes**
CCB	29-AUG-2011 19:59:00	110829	0	0.2	Yes
CCB	30-AUG-2011 01:22:00	110829	0	0.2	Yes
CCB	30-AUG-2011 15:15:00	110829	0	0.2	Yes
CCB	30-AUG-2011 17:30:00	110829	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 11:54:00**	**110829**	**9.7261**	**10**	**97.3**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 19:32:00	110829	9.7283	10	97.3	(90%-110%)	Yes
CCV	30-AUG-2011 00:55:00	110829	15.3355	15	102	(90%-110%)	Yes
CCV	30-AUG-2011 14:48:00	110829	15.3296	15	102	(90%-110%)	Yes
CCV	30-AUG-2011 17:03:00	110829	9.6542	10	96.5	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 12:21:00**	**110829**	**0**	**0.2**	**Yes**
CCB	29-AUG-2011 19:59:00	110829	0	0.2	Yes
CCB	30-AUG-2011 01:22:00	110829	0	0.2	Yes
CCB	30-AUG-2011 15:15:00	110829	0	0.2	Yes
CCB	30-AUG-2011 17:30:00	110829	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 11:54:00**	**110829**	**4.8758**	**5**	**97.5**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 19:32:00	110829	4.8485	5	97	(90%-110%)	Yes
CCV	30-AUG-2011 00:55:00	110829	7.4983	7.5	100	(90%-110%)	Yes
CCV	30-AUG-2011 14:48:00	110829	7.4784	7.5	99.7	(90%-110%)	Yes
CCV	30-AUG-2011 17:03:00	110829	4.8405	5	96.8	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 12:21:00**	**110829**	**0**	**0.1**	**Yes**
CCB	29-AUG-2011 19:59:00	110829	0	0.1	Yes
CCB	30-AUG-2011 01:22:00	110829	0	0.1	Yes
CCB	30-AUG-2011 15:15:00	110829	0	0.1	Yes
CCB	30-AUG-2011 17:30:00	110829	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 11:54:00**	**110829**	**19.7621**	**20**	**98.8**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 19:32:00	110829	19.1085	20	95.5	(90%-110%)	Yes
CCV	30-AUG-2011 00:55:00	110829	29.9061	30	99.7	(90%-110%)	Yes
CCV	30-AUG-2011 14:48:00	110829	29.7398	30	99.1	(90%-110%)	Yes
CCV	30-AUG-2011 17:03:00	110829	19.04	20	95.2	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 12:21:00**	**110829**	**0**	**0.4**	**Yes**
CCB	29-AUG-2011 19:59:00	110829	0	0.4	Yes
CCB	30-AUG-2011 01:22:00	110829	0	0.4	Yes
CCB	30-AUG-2011 15:15:00	110829	0	0.4	Yes
CCB	30-AUG-2011 17:30:00	110829	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 12:30:05**	**OM_8-29-2011_12-22-28**	**1.02**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 15:43:26	OM_8-29-2011_15-18-37	0.975	1	97.5	(90%-110%)	Yes
CCV	29-AUG-2011 15:55:27	OM_8-29-2011_15-18-37	0.972	1	97.2	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 12:31:55**	**OM_8-29-2011_12-22-28**	**-0.00553**	**0.05**	**Yes**
CCB	29-AUG-2011 15:45:16	OM_8-29-2011_15-18-37	0.00639	0.05	Yes
CCB	29-AUG-2011 15:57:17	OM_8-29-2011_15-18-37	0.00694	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-AUG-2011 10:57:10**	**OM_8-31-2011_10-50-28**	**1.07**	**1**	**107**	**(90%-110%)**	**Yes**
CCV	31-AUG-2011 15:15:01	OM_8-31-2011_15-13-29	0.976	1	97.6	(90%-110%)	Yes
CCV	31-AUG-2011 15:26:56	OM_8-31-2011_15-13-29	0.983	1	98.3	(90%-110%)	Yes
CCV	31-AUG-2011 15:34:44	OM_8-31-2011_15-13-29	0.994	1	99.4	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-AUG-2011 10:58:59**	**OM_8-31-2011_10-50-28**	**-0.0351**	**0.1**	**Yes**
CCB	31-AUG-2011 15:16:50	OM_8-31-2011_15-13-29	0.0206	0.1	Yes
CCB	31-AUG-2011 15:28:46	OM_8-31-2011_15-13-29	0.0276	0.1	Yes
CCB	31-AUG-2011 15:36:33	OM_8-31-2011_15-13-29	0.03	0.1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 10:26:39**	**OM_8-29-2011_10-17-16**	**1.04**	**1**	**104**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 14:00:46	OM_8-29-2011_13-59-44	1.03	1	103	(90%-110%)	Yes
CCV	29-AUG-2011 14:17:25	OM_8-29-2011_13-59-44	1.01	1	101	(90%-110%)	Yes
CCV	29-AUG-2011 14:34:04	OM_8-29-2011_13-59-44	1	1	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 10:29:00**	**OM_8-29-2011_10-17-16**	**0.00034**	**0.05**	**Yes**
CCB	29-AUG-2011 14:03:07	OM_8-29-2011_13-59-44	-0.00155	0.05	Yes
CCB	29-AUG-2011 14:19:46	OM_8-29-2011_13-59-44	-0.00182	0.05	Yes
CCB	29-AUG-2011 14:36:25	OM_8-29-2011_13-59-44	-0.00181	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**30-AUG-2011 14:57:50**	**OM_8-30-2011_14-50-51**	**1.03**	**1**	**103**	**(90%-110%)**	**Yes**
CCV	30-AUG-2011 15:10:16	OM_8-30-2011_14-50-51	1.04	1	104	(90%-110%)	Yes
CCV	30-AUG-2011 15:22:35	OM_8-30-2011_14-50-51	1.03	1	103	(90%-110%)	Yes
CCV	30-AUG-2011 15:36:05	OM_8-30-2011_14-50-51	1.04	1	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**30-AUG-2011 14:59:54**	**OM_8-30-2011_14-50-51**	**-0.0223**	**0.05**	**Yes**
CCB	30-AUG-2011 15:12:20	OM_8-30-2011_14-50-51	-0.0217	0.05	Yes
CCB	30-AUG-2011 15:24:39	OM_8-30-2011_14-50-51	-0.0224	0.05	Yes
CCB	30-AUG-2011 15:38:09	OM_8-30-2011_14-50-51	-0.0222	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Spectrometric Analysis

Method: EPA 410.4 Concentration Units:mg/L

Instrument: Spectronic 20D + Digital Spectrophotometer

Parmname: COD

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 15:23:53**	**1137058**	**509.21429**	**500**	**102**	**(90%-110%)**	**Yes**
CCV	29-AUG-2011 15:24:11	1137058	502.07143	500	100	(90%-110%)	Yes
CCV	29-AUG-2011 15:24:16	1137058	499.69048	500	99.9	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 15:23:54**	**1137058**	**2.07143**	**20**	**Yes**
CCB	29-AUG-2011 15:24:12	1137058	2.07143	20	Yes
CCB	29-AUG-2011 15:24:17	1137058	2.07143	20	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Spectrometric Analysis

Method: SM 4500-S (2-) D Concentration Units:mg/L

Instrument: Spectronic 20D + Digital Spectrophotometer

Parmname: Total Sulfide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-AUG-2011 17:16:54**	**1137272**	**0.39575**	**0.4**	**98.9**	**(80%-120%)**	**Yes**
CCV	29-AUG-2011 17:17:02	1137272	0.4083	0.4	102	(80%-120%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-AUG-2011 17:16:55**	**1137272**	**-0.00917**	**0.1**	**Yes**
CCB	29-AUG-2011 17:17:03	1137272	-0.00917	0.1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-SEP-2011 14:01

GEL Laboratories LLC

Contract: ESHL00610

SDG #: 11-3330

Spectrometric Analysis

Method: SM 5540 C Concentration Units:mg/L

Instrument: Spectronic 20D+ Digital Spectrophotometer

Parmname: MBAS

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**27-AUG-2011 13:21:03**	**1136759**	**1.45068**	**1.5**	**96.7**	**(90%-110%)**	**Yes**
CVL	27-AUG-2011 13:25:46	1136759	0.05525	0.05	111	(60%-140%)	Yes
CCV	27-AUG-2011 13:25:53	1136759	1.01025	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**27-AUG-2011 13:21:19**	**1136759**	**0.00292**	**0.05**	**Yes**
CCB	27-AUG-2011 13:25:58	1136759	0.00292	0.05	Yes

Ammonia Nitrogen Raw Data

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **1137077.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 15

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202476475	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202476473	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202476474	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202476471 MB	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5
1202476475 LCS	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5
284865001	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5
1202476472 DUP (284865001)	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5
1202476473 MS (284865001)	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5
1202476474 MSD (284865001)	29-AUG-2011 14:30:00	Storm Water	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount
110629-C	Borate Buffer	1.25 mL
1575789-C	50% NaOH Solution	1 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	klp1	8/29/2011 12:23:59	OM_8-29-2011_12-22-28
1.0 ppm Std.		1	klp1	8/29/2011 12:24:48	OM_8-29-2011_12-22-28
0.5 ppm Std		1	klp1	8/29/2011 12:25:38	OM_8-29-2011_12-22-28
0.1 ppm Std		1	klp1	8/29/2011 12:26:29	OM_8-29-2011_12-22-28
0.05 ppm Std		1	klp1	8/29/2011 12:27:21	OM_8-29-2011_12-22-28
ICAL-00		1	klp1	8/29/2011 12:28:14	OM_8-29-2011_12-22-28
ICV		1	klp1	8/29/2011 12:30:05	OM_8-29-2011_12-22-28
ICB		1	klp1	8/29/2011 12:31:55	OM_8-29-2011_12-22-28
1202473564	1135938	1	klp1	8/29/2011 12:33:44	OM_8-29-2011_12-22-28
1202473571	1135938	1	klp1	8/29/2011 12:34:35	OM_8-29-2011_12-22-28
284515003	1135938	1	klp1	8/29/2011 12:35:26	OM_8-29-2011_12-22-28
1202473566	1135938	1	klp1	8/29/2011 12:36:17	OM_8-29-2011_12-22-28
1202473568	1135938	1	klp1	8/29/2011 12:37:08	OM_8-29-2011_12-22-28
1202473570	1135938	1	klp1	8/29/2011 12:37:57	OM_8-29-2011_12-22-28
284528002	1135938	1	klp1	8/29/2011 12:38:46	OM_8-29-2011_12-22-28
1202473565	1135938	1	klp1	8/29/2011 12:39:36	OM_8-29-2011_12-22-28
1202473567	1135938	1	klp1	8/29/2011 12:40:25	OM_8-29-2011_12-22-28
1202473569	1135938	1	klp1	8/29/2011 12:41:14	OM_8-29-2011_12-22-28
CCV		1	klp1	8/29/2011 12:42:03	OM_8-29-2011_12-22-28
CCB		1	klp1	8/29/2011 12:43:53	OM_8-29-2011_12-22-28
284528006	1135938	1	klp1	8/29/2011 12:45:41	OM_8-29-2011_12-22-28
284528010	1135938	1	klp1	8/29/2011 12:46:29	OM_8-29-2011_12-22-28
284528016	1135938	1	klp1	8/29/2011 12:47:17	OM_8-29-2011_12-22-28
284528020	1135938	1	klp1	8/29/2011 12:48:05	OM_8-29-2011_12-22-28
284618001	1135938	1	klp1	8/29/2011 12:48:53	OM_8-29-2011_12-22-28
CCV		1	klp1	8/29/2011 12:50:41	OM_8-29-2011_12-22-28
CCB		1	klp1	8/29/2011 12:52:32	OM_8-29-2011_12-22-28

Author: klp1 Date : 8/29/2011

Original Run Filename: OM_8-29-2011_12-22-28.OMN created 8/29/2011 12:22:28
Original Run Author's Signature: [klp1]
Current Run Filename: OM_8-29-2011_12-22-28.OMN last modified 8/29/2011 12:53:36
Current Run Author's Signature: [klp1]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110829-03	1	S10	2.00	18.0	8/29/2011@12:23:59			2.0 ppm Std.
WTR110829-04	1	S11	1.00	8.96	8/29/2011@12:24:48			1.0 ppm Std.
WTR110829-05	1	S12	0.500	4.72	8/29/2011@12:25:38			0.5 ppm Std
WTR110829-06	1	S13	0.100	1.31	8/29/2011@12:26:29			0.1 ppm Std
WTR110829-07	1	S14	0.0500	0.745	8/29/2011@12:27:21			0.05 ppm Std
WTR110829-10 0.0 ppm	1	S15	0.00	0.302	8/29/2011@12:28:14			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR110829-08 ICV	1	S16	1.02	9.27	8/29/2011@12:30:05			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR110829-10 ICB	1	S15	-0.00553	0.266	8/29/2011@12:31:55			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00553 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00553 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
1202473564|1135938|MB	1	1	-0.00818	0.243	8/29/2011@12:33:44			
1202473571||LCS	1	2	0.900	8.25	8/29/2011@12:34:35			
284515003	1	3	0.0480	0.738	8/29/2011@12:35:26			
1202473566||DUP	1	4	0.0473	0.732	8/29/2011@12:36:17			
1202473568||MS	1	5	0.972	8.88	8/29/2011@12:37:08			
1202473570||MSD	1	6	1.02	9.30	8/29/2011@12:37:57			
284528002	1	7	0.416	3.98	8/29/2011@12:38:46			
1202473565||DUP	1	8	0.393	3.78	8/29/2011@12:39:36			
1202473567||MS	1	9	1.26	11.4	8/29/2011@12:40:25			
1202473569||MSD	1	10	1.36	12.3	8/29/2011@12:41:14			
WTR110829-04 CCV	1	S11	1.00	9.16	8/29/2011@12:42:03			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110829-10 CCB	1	S15	0.00499	0.359	8/29/2011@12:43:53			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00499 < 0.0490					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00499 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284528006	1	11	0.663	6.15	8/29/2011@12:45:41			
284528010	1	12	0.356	3.45	8/29/2011@12:46:29			
284528016	1	13	0.0346	0.620	8/29/2011@12:47:17			
284528020	1	14	0.431	4.11	8/29/2011@12:48:05			
284618001	1	15	0.906	8.29	8/29/2011@12:48:53			
WTR110829-04 CCV	1	S11	0.987	9.01	8/29/2011@12:50:41			CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110829-10 CCB	1	S15	0.00327	0.344	8/29/2011@12:52:32			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.00327 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00327 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NH3) : Current View

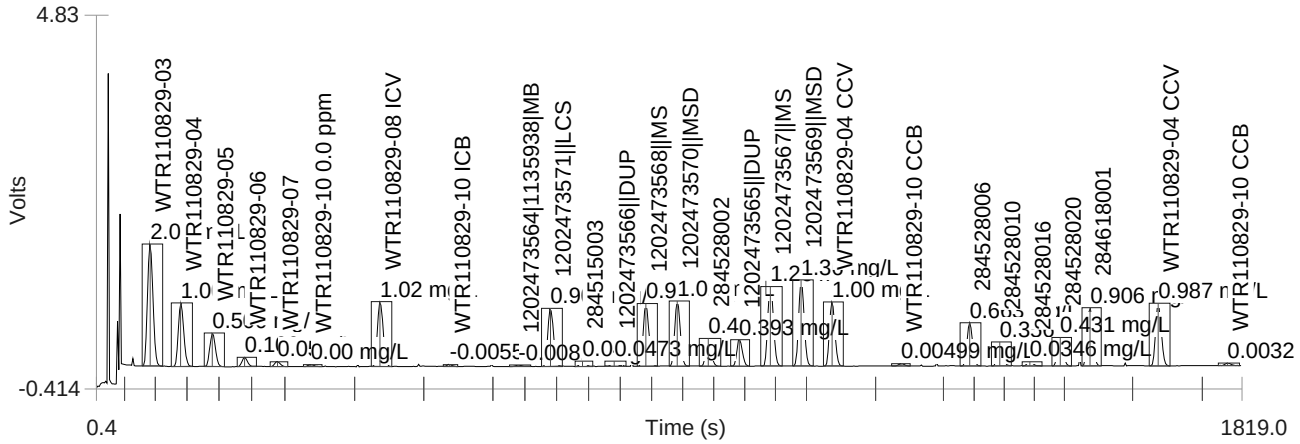
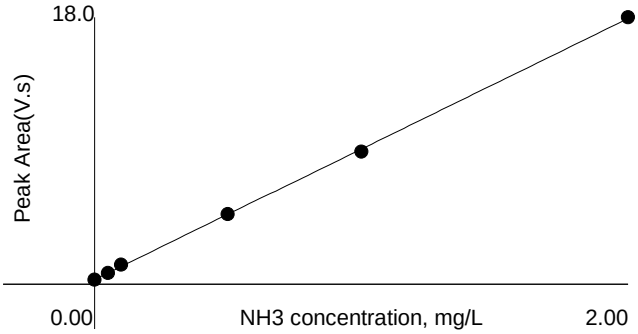


Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.00	1	18.0	1.71	-0.4	8/29/2011	12:25:02
2	1.00	1	8.96	0.888	1.8	8/29/2011	12:25:51
3	0.500	1	4.72	0.470	0.1	8/29/2011	12:26:41
4	0.100	1	1.31	0.127	-9.7	8/29/2011	12:27:32
5	0.0500	1	0.745	0.0699	1.5	8/29/2011	12:28:24
6	0.00	1	0.302	0.0281		8/29/2011	12:29:16

Author: klp1 Date : 8/29/2011

Figure 1: NH3



Area = 8.81 * Conc + 0.316
Conc = 0.114 * Area - 0.0357
Correlation Coefficient (r) = 0.99990

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	klp1	8/29/2011 15:19:36	OM_8-29-2011_15-18-37
CCB		1	klp1	8/29/2011 15:21:26	OM_8-29-2011_15-18-37
1202464120	1131914	1	klp1	8/29/2011 15:23:15	OM_8-29-2011_15-18-37
1202464127	1131914	1	klp1	8/29/2011 15:24:06	OM_8-29-2011_15-18-37
283247002	1131914	1	klp1	8/29/2011 15:24:57	OM_8-29-2011_15-18-37
1202464121	1131914	1	klp1	8/29/2011 15:25:48	OM_8-29-2011_15-18-37
1202464123	1131914	1	klp1	8/29/2011 15:26:38	OM_8-29-2011_15-18-37
1202464125	1131914	1	klp1	8/29/2011 15:27:28	OM_8-29-2011_15-18-37
283247009	1131914	1	klp1	8/29/2011 15:28:17	OM_8-29-2011_15-18-37
283484005	1131914	1	klp1	8/29/2011 15:29:07	OM_8-29-2011_15-18-37
283484012	1131914	1	klp1	8/29/2011 15:29:56	OM_8-29-2011_15-18-37
283484017	1131914	1	klp1	8/29/2011 15:30:44	OM_8-29-2011_15-18-37
CCV		1	klp1	8/29/2011 15:31:34	OM_8-29-2011_15-18-37
CCB		1	klp1	8/29/2011 15:33:24	OM_8-29-2011_15-18-37
283629002	1131914	1	klp1	8/29/2011 15:35:12	OM_8-29-2011_15-18-37
1202464122	1131914	1	klp1	8/29/2011 15:36:00	OM_8-29-2011_15-18-37
1202464124	1131914	1	klp1	8/29/2011 15:36:47	OM_8-29-2011_15-18-37
1202464126	1131914	1	klp1	8/29/2011 15:37:35	OM_8-29-2011_15-18-37
283629003	1131914	1	klp1	8/29/2011 15:38:23	OM_8-29-2011_15-18-37
283716003	1131914	1	klp1	8/29/2011 15:39:12	OM_8-29-2011_15-18-37
283717003	1131914	1	klp1	8/29/2011 15:40:03	OM_8-29-2011_15-18-37
283810002	1131914	1	klp1	8/29/2011 15:40:55	OM_8-29-2011_15-18-37
283810003	1131914	1	klp1	8/29/2011 15:41:45	OM_8-29-2011_15-18-37
283828002	1131914	1	klp1	8/29/2011 15:42:36	OM_8-29-2011_15-18-37
CCV		1	klp1	8/29/2011 15:43:26	OM_8-29-2011_15-18-37
CCB		1	klp1	8/29/2011 15:45:16	OM_8-29-2011_15-18-37
283909003	1131914	1	klp1	8/29/2011 15:47:06	OM_8-29-2011_15-18-37
283914003	1131914	1	klp1	8/29/2011 15:47:56	OM_8-29-2011_15-18-37
283916002	1131914	1	klp1	8/29/2011 15:48:45	OM_8-29-2011_15-18-37
1202476471	1137078	1	klp1	8/29/2011 15:49:35	OM_8-29-2011_15-18-37
1202476475	1137078	1	klp1	8/29/2011 15:50:24	OM_8-29-2011_15-18-37
284865001	1137078	1	klp1	8/29/2011 15:51:13	OM_8-29-2011_15-18-37
1202476472	1137078	1	klp1	8/29/2011 15:52:02	OM_8-29-2011_15-18-37
1202476473	1137078	1	klp1	8/29/2011 15:52:50	OM_8-29-2011_15-18-37
1202476474	1137078	1	klp1	8/29/2011 15:54:39	OM_8-29-2011_15-18-37
CCV		1	klp1	8/29/2011 15:55:27	OM_8-29-2011_15-18-37
CCB		1	klp1	8/29/2011 15:57:17	OM_8-29-2011_15-18-37

Author: klp1 Date : 8/29/2011

Original Run Filename: OM_8-29-2011_15-18-37.OMN created 8/29/2011 15:18:37
Original Run Author's Signature: [klp1]
Current Run Filename: OM_8-29-2011_15-18-37.OMN last modified 8/29/2011 15:58:22
Current Run Author's Signature: [klp1]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110829-04 CCV	1	S11	0.989	9.03	8/29/2011@15:19:36			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.989 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.989 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR110829-10 CCB	1	S15	0.0111	0.413	8/29/2011@15:21:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0111 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0111 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202464120|1131914|MB	1	1	-0.00537	0.268	8/29/2011@15:23:15			
1202464127||LCS	1	2	0.948	8.67	8/29/2011@15:24:06			
283247002	1	3	0.989	9.03	8/29/2011@15:24:57			
1202464121||DUP	1	4	0.853	7.83	8/29/2011@15:25:48			
1202464123||MS	1	5	2.00	17.9	8/29/2011@15:26:38			
1202464125||MSD	1	6	1.94	17.4	8/29/2011@15:27:28			
283247009	1	7	1.08	9.82	8/29/2011@15:28:17			
283484005	1	8	0.341	3.32	8/29/2011@15:29:07			
283484012	1	9	0.813	7.48	8/29/2011@15:29:56			
283484017	1	10	0.534	5.02	8/29/2011@15:30:44			
WTR110829-04 CCV	1	S11	0.979	8.94	8/29/2011@15:31:34			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.979 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.979 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110829-10 CCB	1	S15	0.00619	0.370	8/29/2011@15:33:24			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00619 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00619 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283629002	1	11	0.00910	0.395	8/29/2011@15:35:12			
1202464122||DUP	1	12	0.0126	0.426	8/29/2011@15:36:00			
1202464124||MS	1	13	0.933	8.53	8/29/2011@15:36:47			
1202464126||MSD	1	14	0.939	8.59	8/29/2011@15:37:35			

283629003	1	15	-0.00400	0.280	8/29/2011@15:38:23			
283716003	1	16	-0.00574	0.264	8/29/2011@15:39:12			
283717003	1	17	0.0104	0.406	8/29/2011@15:40:03			
283810002	1	18	-0.0236	0.107	8/29/2011@15:40:55			
283810003	1	19	0.0376	0.646	8/29/2011@15:41:45			
283828002	1	20	0.0297	0.576	8/29/2011@15:42:36			
WTR110829-04 CCV	1	S11	0.975	8.90	8/29/2011@15:43:26			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.975 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.975 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110829-10 CCB	1	S15	0.00639	0.371	8/29/2011@15:45:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00639 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00639 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283909003	1	21	0.0491	0.747	8/29/2011@15:47:06			
283914003	1	22	0.0267	0.550	8/29/2011@15:47:56			
283916002	1	23	0.00408	0.351	8/29/2011@15:48:45			
1202476471|1137078|MB	1	24	-0.0175	0.161	8/29/2011@15:49:35			
1202476475||LCS	1	25	0.950	8.68	8/29/2011@15:50:24			
284865001	1	26	0.0611	0.854	8/29/2011@15:51:13			
1202476472||DUP	1	27	0.0834	1.05	8/29/2011@15:52:02			
1202476473||MS	1	28	1.04	9.52	8/29/2011@15:52:50			
1202476474||MSD	1	29	1.04	9.51	8/29/2011@15:54:39			
WTR110829-04 CCV	1	S11	0.972	8.88	8/29/2011@15:55:27			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.972 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.972 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110829-10 CCB	1	S15	0.00694	0.376	8/29/2011@15:57:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00694 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00694 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: klp1 Date : 8/29/2011

Channel 1 (NH3) : Current View

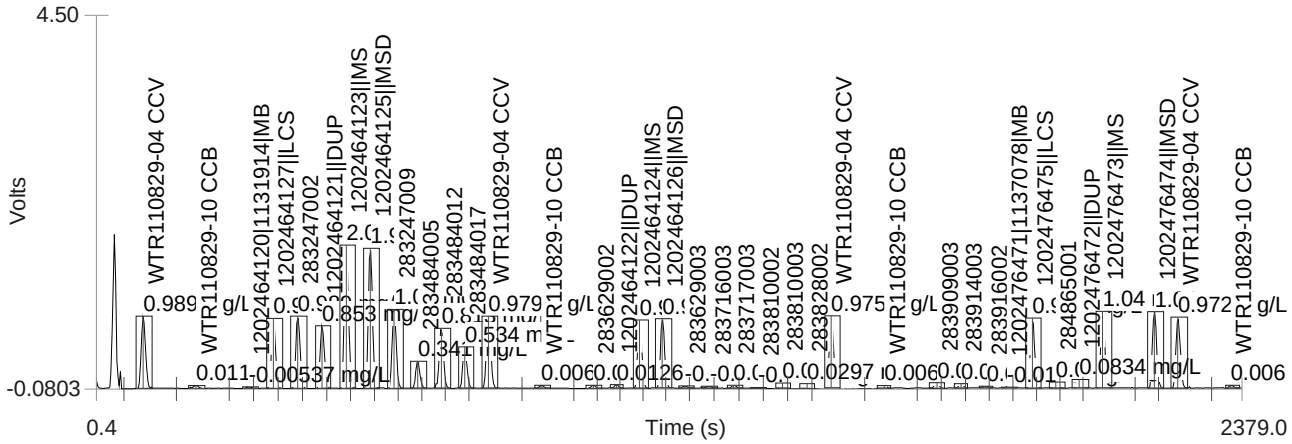
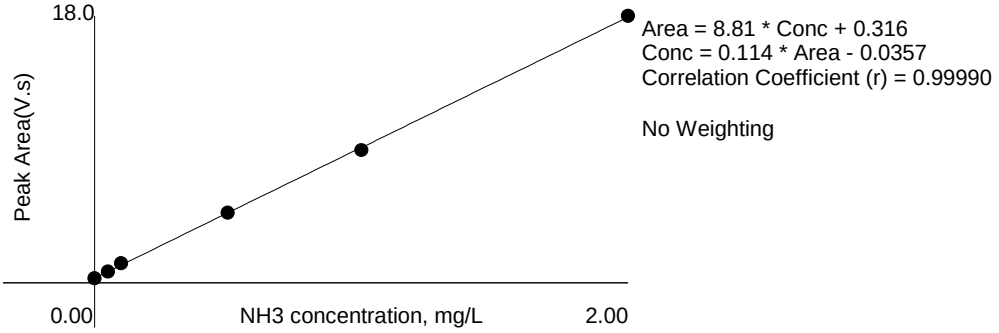


Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.00	1	18.0	1.71	-0.4	8/29/2011	12:25:02
2	1.00	1	8.96	0.888	1.8	8/29/2011	12:25:51
3	0.500	1	4.72	0.470	0.1	8/29/2011	12:26:41
4	0.100	1	1.31	0.127	-9.7	8/29/2011	12:27:32
5	0.0500	1	0.745	0.0699	1.5	8/29/2011	12:28:24
6	0.00	1	0.302	0.0281		8/29/2011	12:29:16

Figure 1: NH3



COD Raw Data

Analytical Logbook

Chemical Oxygen Demand (COD) - Digestion Reactor Method

Batch ID: **1137058.0**
Analyst: **Lindsey Jensen**
Method: **EPA 410.4 HACH 8000**
Lab SOP: **GL-GC-E-061 REV# 13**
Instrument: **Spectronic 20D + Digital Spectrophotometer**

Type	Sample Id	Description	Serial Number	Amount	Nominal	Recovery	Rpd %
	All	HIGH RANGE COD VIALS	UD110812-B.1	3.3 mL			
CCV	15:24:11	COD High Range LCS	IMM110823-COD	2 mL		100	
CCV	15:24:16	COD High Range LCS	IMM110823-COD	2 mL		99.9	
DUP	1202476415						1.275
DUP	1202476416						20.131
ICV	15:23:53	COD High Range LCS	IMM110823-COD	2 mL		102	
LCS	1202476419	COD High Range LCS	IMM110823-COD	2 mL	500 mg/L	102	
PS	1202476417	COD 10000 ppm source standard	UD110518-01f	.1 mL	500 mg/L	94.3	
PS	1202476418	COD 10000 ppm source standard	UD110518-01f	.1 mL	500 mg/L	98.1	

Sample ID	Run Date	Aliquot (mL)	Dilution	COD Absorbance (mg/L)	COD Backgroud (mg/L)	COD Initial Result (mg/L)	COD Result (mg/L)
ICV	29-AUG-2011 15:23:53	2	1	0.213	0	509.21429	509.21429
ICB	29-AUG-2011 15:23:54	2	1	0	0	2.07143	2.07143
1202476414 MB	29-AUG-2011 15:23:55	2	1	0	0	2.07143	2.07143
1202476419 LCS	29-AUG-2011 15:23:55	2	1	0.213	0	509.21429	509.21429
284693001 (gc)	29-AUG-2011 15:23:56	2	1	0.06	0	144.92857	144.92857
284697001 (gb)	29-AUG-2011 15:23:58	2	1	0.155	0	371.11905	371.11905
1202476415 DUP (284697001)	29-AUG-2011 15:23:59	2	1	0.157	0	375.88095	375.88095
1202476417 PS (284697001)	29-AUG-2011 15:24:00	2	1	0.353	0	842.54762	842.54762
284788003 (gb)	29-AUG-2011 15:24:02	2	1	0.062	0	149.69048	149.69048
284788004 (gb)	29-AUG-2011 15:24:03	2	1	0.018	0	44.92857	44.92857
284788005 (gb)	29-AUG-2011 15:24:05	2	1	0.07	0	168.7381	168.7381
284865001 (gb)	29-AUG-2011 15:24:10	2	1	0.017	0	42.54762	42.54762
CCV	29-AUG-2011 15:24:11	2	1	0.21	0	502.07143	502.07143
CCB	29-AUG-2011 15:24:12	2	1	0	0	2.07143	2.07143
1202476416 DUP (284865001)	29-AUG-2011 15:24:14	2	1	0.021	0	52.07143	52.07143
1202476418 PS (284865001)	29-AUG-2011 15:24:15	2	1	0.223	0	533.02381	533.02381
CCV	29-AUG-2011 15:24:16	2	1	0.209	0	499.69048	499.69048
CCB	29-AUG-2011 15:24:17	2	1	0	0	2.07143	2.07143

Calibration Information:

Run Date:	29-AUG-11 15
Instrument:	SPC611-H
Analyst:	LXA1
Corr. Coefficient :	0.99999
Y-Intercept :	-0.00087
Slope:	0.00042

Standard	Absorbance	True Value	Result	Units
WCD110829-4a	.008	20	21.119	mg/L
WCD110829-6a	.031	75	75.881	mg/L
WCD110829-3a	.061	150	147.31	mg/L
WCD110829-9a	.21	500	502.07	mg/L
WCD110829-8a	.422	1000	1006.8	mg/L
WCD110829-1a	0	0	2.0714	mg/L

Comments:

Calculation: {[(Corrected Absorbance - Y intercept) / Slope] * Dilution} / (1 - moisture)

Carbon, Total Organic
Raw Data

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	31-Aug-11 13:59	XP311.rlt
ICAL-02		1	TSM	31-Aug-11 14:08	XP312.rlt
ICAL-03		1	TSM	31-Aug-11 14:17	XP313.rlt
ICAL-04		1	TSM	31-Aug-11 14:26	XP314.rlt
ICAL-05		1	TSM	31-Aug-11 14:35	XP315.rlt
ICV		1	TSM	31-Aug-11 14:44	XP316.rlt
ICB		1	TSM	31-Aug-11 14:53	XP317.rlt
TIC	1137397	1	TSM	31-Aug-11 15:04	XP318.rlt
CCV		1	TSM	31-Aug-11 15:42	XP319.rlt
CCB		1	TSM	31-Aug-11 15:51	XP320.rlt
1202477287	1137397	1	TSM	31-Aug-11 16:00	XP321.rlt
1202477292	1137397	1	TSM	31-Aug-11 16:09	XP322.rlt
284772001	1137397	2	TSM	31-Aug-11 16:17	XP323.rlt
284772002	1137397	1	TSM	31-Aug-11 16:35	XP324.rlt
284791004	1137397	1	TSM	31-Aug-11 16:53	XP325.rlt
1202477289	1137397	1	TSM	31-Aug-11 17:27	XP326.rlt
1202477291	1137397	1	TSM	31-Aug-11 17:46	XP327.rlt
284832016	1137397	1	TSM	31-Aug-11 17:55	XP328.rlt
284901001	1137397	100	TSM	31-Aug-11 18:28	XP329.rlt
284901002	1137397	1	TSM	31-Aug-11 18:46	XP330.rlt
CCV		1	TSM	31-Aug-11 19:05	XP331.rlt
CCB		1	TSM	31-Aug-11 19:14	XP332.rlt
284865001	1137397	1	TSM	31-Aug-11 19:22	XP333.rlt
1202477288	1137397	1	TSM	31-Aug-11 19:40	XP334.rlt
1202477290	1137397	1	TSM	31-Aug-11 20:00	XP335.rlt
284901003	1137397	1	TSM	31-Aug-11 20:08	XP336.rlt
284901004	1137397	1	TSM	31-Aug-11 20:26	XP337.rlt
284901006	1137397	2	TSM	31-Aug-11 21:02	XP339.rlt
284901007	1137397	1	TSM	31-Aug-11 21:20	XP340.rlt
CCV		1	TSM	31-Aug-11 21:39	XP341.rlt
CCB		1	TSM	31-Aug-11 21:48	XP342.rlt
CCV		1	TSM	1-Sep-11 9:07	XP343.rlt
CCB		1	TSM	1-Sep-11 9:16	XP344.rlt
284901007	1137397	2	TSM	1-Sep-11 9:25	XP345.rlt
CCV		1	TSM	1-Sep-11 9:43	XP346.rlt
CCB		1	TSM	1-Sep-11 9:52	XP347.rlt

```
*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC         Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:             53 Vial  Vial Option:                 Neither
Needle Depth:          97 %     Preacid Volume (uL):             200
Wash Needle Depth:     94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   141    712    773

                          Sample Transfer Times (sec)
          Initial Fill      |        Loop Fill       | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low      |    High
      -----------  | -----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

08/31/2011 Wed Aug 31 14:35:37 2011

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.161
R-Squared:	0.9987
Offset (cts):	540
Offset (ugC):	-0.628
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86050	40419	5066	1883	1017
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

```
                                |- - - - - T I C  - - - -| |- - - - - T O C  - - - -| |- - - - - - T C  - - - -|
Pos/ Run  Rep   Run     Run    Area    Mass     Conc      Area    Mass     Conc      Area    Mass    Conc
Vial Type  #    Date    Time   (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)     (cts)   (ugC)   (ppm)
---- ---- --- --------- ----- ------- ------- ---------- ------- ------- ---------- ------- ------- ----------

** Std1     Name:    ICAL-01                      Data File: XP311
            Remarks: 1137397|1|1| WTC110831-01 ID:TOC267

1    Std1   1 31Aug2011 13:59      -       -          -    86050  98.000     20.000      -       -          -

** Calibration:    RF (ugC/k-cts):   1.148
                   R-Squared:       1.0000
                   Offset (cts):         0
                   Offset (ugC):     0.000


** Std2     Name:    ICAL-02                      Data File: XP312
            Remarks: 1137397|1|1| WTC110831-02 ID:TOC267

2    Std2   1 31Aug2011 14:08      -       -          -    40419  49.000     10.000      -       -          -

** Calibration:    RF (ugC/k-cts):   1.074
                   R-Squared:       1.0000
                   Offset (cts):     -5211
                   Offset (ugC):     5.597


** Std3     Name:    ICAL-03                      Data File: XP313
            Remarks: 1137397|1|1| WTC110831-03 ID:TOC267

3    Std3   1 31Aug2011 14:17      -       -          -     5066   4.900      1.000      -       -          -

** Calibration:    RF (ugC/k-cts):   1.146
                   R-Squared:       0.9982
                   Offset (cts):      -337
                   Offset (ugC):     0.386


** Std4     Name:    ICAL-04                      Data File: XP314
            Remarks: 1137397|1|1| WTC110831-04 ID:TOC267

4    Std4   1 31Aug2011 14:26      -       -          -     1883   0.980      0.200      -       -          -

** Calibration:    RF (ugC/k-cts):   1.157
                   R-Squared:       0.9985
                   Offset (cts):       311
                   Offset (ugC):    -0.360


** Std5     Name:    ICAL-05                      Data File: XP315
            Remarks: 1137397|1|1|  ID:TOC267

5    Std5   1 31Aug2011 14:35      -       -          -     1017   0.000      0.000      -       -          -

** Calibration:    RF (ugC/k-cts):   1.161
                   R-Squared:       0.9987
                   Offset (cts):       540
                   Offset (ugC):    -0.628


** Chk2     Name:    ICV                          Data File: XP316
            Remarks: 1137397|1|1| WTC110831-05 ID:TOC267

6    Chk2   1 31Aug2011 14:44      -       -          -    41993  48.107      9.818      -       -          -
```

```
** Chk5     Name:    ICB                          Data File: XP317
            Remarks: 1137397|1|1|  ID:TOC267

7    Chk5   1 31Aug2011 14:53      -       -          -     1032   0.570      0.116      -       -          -

** Spl      Name:    TIC                          Data File: XP318
            Remarks: 1137397|1|1| WIC110831-01 ID:TOC267

8    Spl    1 31Aug2011 15:04      -       -          -     1199   0.565      0.115      -       -          -
```

```
                                |- - - - - T I C  - - - -| |- - - - - T O C  - - - -| |- - - - - - T C  - - - -|
Pos/ Run  Rep   Run     Run    Area    Mass     Conc      Area    Mass     Conc      Area    Mass    Conc
Vial Type  #    Date    Time   (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)     (cts)   (ugC)   (ppm)
---- ---- --- --------- ----- ------- ------- ---------- ------- ------- ---------- ------- ------- ----------

** Chk2     Name:    CCV                          Data File: XP319
            Remarks: 1137397|1|1| WTC110831-02 ID:TOC267

9    Chk2   1 31Aug2011 15:42      -       -          -    41005  46.961      9.584      -       -          -


** Chk5     Name:    CCB                          Data File: XP320
            Remarks: 1137397|1|1|  ID:TOC267

10   Chk5   1 31Aug2011 15:51      -       -          -     1092   0.640      0.131      -       -          -


** Chk5     Name:    1202477287                   Data File: XP321
            Remarks: 1137397|1|1| MB  ID:TOC267

11   Chk5   1 31Aug2011 16:00      -       -          -      984   0.514      0.105      -       -          -


** Chk2     Name:    1202477292                   Data File: XP322
            Remarks: 1137397|1|1| WTC110831-05:LCS ID:TOC267

12   Chk2   1 31Aug2011 16:09      -       -          -    40776  46.695      9.530      -       -          -


** Spl      Name:    284772001                    Data File: XP323
            Remarks: 1137397|2|1|  ID:TOC267

13   Spl    1 31Aug2011 16:17      -       -          -    12871  14.111      2.880      -       -          -
13   Spl    2 31Aug2011 16:27      -       -          -    13857  15.255      3.113      -       -          -
13   Spl  Avg                                           13364  14.683      2.997
13   Spl  SDev                                        697.207
13   Spl  %RSD                                           5.22


** Spl      Name:    284772002                    Data File: XP324
            Remarks: 1137397|1|1|  ID:TOC267

14   Spl    1 31Aug2011 16:35      -       -          -     8237   8.733      1.782      -       -          -
14   Spl    2 31Aug2011 16:45      -       -          -     8785   9.369      1.912      -       -          -
14   Spl  Avg                                            8511   9.051      1.847
14   Spl  SDev                                        387.495
14   Spl  %RSD                                           4.55


** Spl      Name:    284791004                    Data File: XP325
            Remarks: 1137397|1|1|  ID:TOC267

15   Spl    1 31Aug2011 16:53      -       -          -     2179   1.703      0.347      -       -          -
15   Spl    2 31Aug2011 17:01      -       -          -     2529   2.109      0.430      -       -          -
15   Spl    3 31Aug2011 17:09      -       -          -     2133   1.649      0.337      -       -          -
15   Spl    4 31Aug2011 17:18      -       -          -     2328   1.875      0.383      -       -          -
15   Spl  Avg                                            2292   1.834      0.374
15   Spl  SDev                                        178.433
15   Spl  %RSD                                           7.78


** Spl      Name:    1202477289                   Data File: XP326
            Remarks: 1137397|1|1| 284791004:DUP ID:TOC267

16   Spl    1 31Aug2011 17:27      -       -          -     2021   1.519      0.310      -       -          -
```

```
16   Spl    2 31Aug2011 17:36      -       -          -     2134   1.650      0.337      -       -          -
16   Spl  Avg                                             2077   1.585      0.323
16   Spl  SDev                                          79.903
16   Spl  %RSD                                            3.85


** Spl      Name:    1202477291                   Data File: XP327
            Remarks: 1137397|1|1| 284791004:PS ID:TOC267

17   Spl    1 31Aug2011 17:46      -       -          -    41407  47.228      9.639      -       -          -


** Spl      Name:    284832016                    Data File: XP328
            Remarks: 1137397|1|1|  ID:TOC267

18   Spl    1 31Aug2011 17:55      -       -          -     2172   1.694      0.346      -       -          -
18   Spl    2 31Aug2011 18:02      -       -          -     2433   1.997      0.408      -       -          -
18   Spl    3 31Aug2011 18:10      -       -          -     2129   1.644      0.336      -       -          -
18   Spl    4 31Aug2011 18:20      -       -          -     2189   1.714      0.350      -       -          -
18   Spl  Avg                                             2230   1.763      0.360
18   Spl  SDev                                         137.177
18   Spl  %RSD                                            6.15


** Spl      Name:    284901001                    Data File: XP329
            Remarks: 1137397|100|1|  ID:TOC267

19   Spl    1 31Aug2011 18:28      -       -          -    35310  40.153      8.194      -       -          -
19   Spl    2 31Aug2011 18:38      -       -          -    38662  44.043      8.988      -       -          -
19   Spl  Avg                                            36986  42.098      8.591
19   Spl  SDev                                         2370.222
19   Spl  %RSD                                            6.41


** Spl      Name:    284901002                    Data File: XP330
            Remarks: 1137397|1|1|  ID:TOC267

20   Spl    1 31Aug2011 18:46      -       -          -    30050  34.048      6.949      -       -          -
20   Spl    2 31Aug2011 18:56      -       -          -    33292  37.811      7.716      -       -          -
20   Spl  Avg                                            31671  35.929      7.332
20   Spl  SDev                                         2292.440
20   Spl  %RSD                                            7.24


** Chk2     Name:    CCV                          Data File: XP331
            Remarks: 1137397|1|1| WTC110831-02  ID:TOC267

21   Chk2   1 31Aug2011 19:05      -       -          -    44853  51.426     10.495      -       -          -


** Chk5     Name:    CCB                          Data File: XP332
            Remarks: 1137397|1|1|  ID:TOC267

22   Chk5   1 31Aug2011 19:14      -       -          -     3369   3.282      0.670      -       -          -


** Spl      Name:    284865001                    Data File: XP333
            Remarks: 1137397|1|1|  ID:TOC267

23   Spl    1 31Aug2011 19:22      -       -          -    26834  30.316      6.187      -       -          -
23   Spl    2 31Aug2011 19:32      -       -          -    30474  34.540      7.049      -       -          -
23   Spl  Avg                                            28654  32.428      6.618
23   Spl  SDev                                         2573.869
23   Spl  %RSD                                            8.98
```

```
** Spl      Name:    1202477288                    Data File: XP334
            Remarks: 1137397|1|1|  284865001:DUP  ID:TOC267

24   Spl    1 31Aug2011 19:40      -       -          -    27260  30.810      6.288      -       -          -
24   Spl    2 31Aug2011 19:50      -       -          -    29523  33.437      6.824      -       -          -
24   Spl  Avg                                            28391  32.123      6.556
24   Spl  SDev                                         1600.183
24   Spl  %RSD                                             5.64


** Spl      Name:    1202477290                    Data File: XP335
            Remarks: 1137397|1|1|  284865001:PS  ID:TOC267

25   Spl    1 31Aug2011 20:00      -       -          -    70665  81.184     16.568      -       -          -


** Spl      Name:    284901003                     Data File: XP336
            Remarks: 1137397|1|1|  ID:TOC267

26   Spl    1 31Aug2011 20:08      -       -          -    18199  20.295      4.142      -       -          -
26   Spl    2 31Aug2011 20:18      -       -          -    18813  21.007      4.287      -       -          -
26   Spl  Avg                                            18506  20.651      4.214
26   Spl  SDev                                          434.164
26   Spl  %RSD                                              2.35


** Spl      Name:    284901004                     Data File: XP337
            Remarks: 1137397|1|1|  ID:TOC267

27   Spl    1 31Aug2011 20:26      -       -          -    15412  17.060      3.482      -       -          -
27   Spl    2 31Aug2011 20:36      -       -          -    16598  18.436      3.763      -       -          -
27   Spl  Avg                                            16005  17.748      3.622
27   Spl  SDev                                          838.629
27   Spl  %RSD                                              5.24


** Spl      Name:    284901005                     Data File: XP338
            Remarks: 1137397|1|1|  ID:TOC267

28   Spl    1 31Aug2011 20:44      -       -          -    12097  13.213      2.697      -       -          -
28   Spl    2 31Aug2011 20:54      -       -          -    13324  14.637      2.987      -       -          -
28   Spl  Avg                                            12710  13.925      2.842
28   Spl  SDev                                          867.620
28   Spl  %RSD                                              6.83


** Spl      Name:    284901006                     Data File: XP339
            Remarks: 1137397|2|1|  ID:TOC267

29   Spl    1 31Aug2011 21:02      -       -          -    23619  26.585      5.425      -       -          -
29   Spl    2 31Aug2011 21:12      -       -          -    25750  29.058      5.930      -       -          -
29   Spl  Avg                                            24684  27.821      5.678
29   Spl  SDev                                         1506.845
29   Spl  %RSD                                              6.10


** Spl      Name:    284901007                     Data File: XP340
            Remarks: 1137397|1|1|  ID:TOC267

30   Spl    1 31Aug2011 21:20      -       -          -    82094  94.448     19.275      -       -          -
30   Spl    2 31Aug2011 21:30      -       -          -    95397 109.886     22.426      -       -          -
30   Spl  Avg                                            88745 102.167     20.850
30   Spl  SDev                                         9406.642
30   Spl  %RSD                                             10.60
```

```
** Chk2     Name:    CCV                          Data File: XP341
            Remarks: 1137397|1|1| WTC110831-02 ID:TOC267

31   Chk2   1 31Aug2011 21:39      -       -          -    41034  46.994      9.591      -       -          -


** Chk5     Name:    CCB                          Data File: XP342
            Remarks: 1137397|1|1|  ID:TOC267

32   Chk5   1 31Aug2011 21:48      -       -          -      983   0.513      0.105      -       -          -
```

Color Raw Data

Analytical Logbook

Color by Visual Comparison

Batch ID: **1136760.0**
Analyst: **Travis Tola**
Method: **SM 2120 B**
Lab SOP: **GL-GC-E-036 REV# 8**
Instrument: **No analytical instrument**

Type	Sample Id	Description	Serial Number	Amount	Nominal	Recovery	Rpd %
DUP	1202475629						0
LCS	1202475628	Color LCS	WCOL110827-02	50 mL	35.0 PCU	100	

Sample ID	Run Date	pH (SU)	Dilution	Color Initial Result (PCU)	Color Result (PCU)
1202475627 MB	27-AUG-2011 10:48:10	6.43	1	0	0
1202475628 LCS	27-AUG-2011 10:48:52	1.16	1	35	35
284865001	27-AUG-2011 10:49:05	8	1	10	10
1202475629 DUP (284865001)	27-AUG-2011 10:49:53	8	1	10	10

Calibration Information:

Run Date: 20-APR-11 09
Instrument: MAN001
Analyst: TXT1

Standard	Observed	Theoretical	Recovery	Units
WCC110420-021	10	10	100	PCU
WCG110420-031	15	15	100	PCU
WCG110420-041	20	20	100	PCU
WCG110420-051	25	25	100	PCU
WCG110420-061	30	30	100	PCU
WCG110420-071	35	35	100	PCU
WCG110420-081	40	40	100	PCU
WCG110420-091	45	45	100	PCU
WCC110420-011	5	5	100	PCU
WCG110420-101	50	50	100	PCU
WCG110420-111	60	60	100	PCU
WCG110420-121	70	70	100	PCU

Comments:

Cyanide, Total Raw Data

Prep Logbook

Cyanide Sample Distillation

Batch ID: **1136856.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 16

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202475884	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.0125	mL
MS	1202475876	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475877	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475878	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475879	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475880	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475881	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475882	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475883	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202475871 MB	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475884 LCS	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284316001	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
1202475873 DUP (284316001)	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
1202475877 MS (284316001)	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
1202475881 MSD (284316001)	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316002	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316003	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316004	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316005	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316006	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284316007	30-AUG-2011 16:19:00	Ground Water	25	25	1	>12
284350001	30-AUG-2011 16:19:00	Misc Liquid	5	25	5	<2
			25	25	1	>12

Prep Logbook

Batch ID: **1136856.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 16

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202475884	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.0125	mL
MS	1202475876	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475877	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475878	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475879	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475880	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475881	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475882	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475883	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
284351001	30-AUG-2011 16:19:00	Misc Liquid				
284525003	30-AUG-2011 16:19:00	Waste Water	25	25	1	7
1202475874 DUP (284525003)	30-AUG-2011 16:19:00	Waste Water	25	25	1	7
1202475878 MS (284525003)	30-AUG-2011 16:19:00	Waste Water	25	25	1	7
1202475882 MSD (284525003)	30-AUG-2011 16:19:00	Waste Water	25	25	1	7
284528004	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475875 DUP (284528004)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475879 MS (284528004)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475883 MSD (284528004)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284528008	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284528012	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284528015	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284699012	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475872 DUP (284699012)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
1202475876 MS (284699012)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12

Prep Logbook

Batch ID: **1136856.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 16

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202475884	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.0125	mL
MS	1202475876	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475877	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475878	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MS	1202475879	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475880	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475881	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475882	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL
MSD	1202475883	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1586546-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202475880 MSD (284699012)	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12
284865001	30-AUG-2011 16:19:00	Storm Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1535115-C	0.8N H3NO3S	1.25 mL
1548439-C	51% MgCl2 Soln	1 mL
1554409-C	50% H2SO4 CN Prep	2.5 mL
1577166-C	Bismuth Nitrate Solution	1.25 mL
1609228-C	0.25N Sodium Hydroxide Solution	25 mL
WCN110830-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

Sample 284350001 was diluted due to matrix interference.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	sha00813	8/31/2011 7:55:10	OM_8-31-2011_07-53-36
150 ppb		1	sha00813	8/31/2011 7:56:02	OM_8-31-2011_07-53-36
100 ppb		1	sha00813	8/31/2011 7:56:54	OM_8-31-2011_07-53-36
50 ppb		1	sha00813	8/31/2011 7:57:47	OM_8-31-2011_07-53-36
10 ppb		1	sha00813	8/31/2011 7:58:40	OM_8-31-2011_07-53-36
5.0 ppb		1	sha00813	8/31/2011 7:59:33	OM_8-31-2011_07-53-36
ICAL-00		1	sha00813	8/31/2011 8:00:27	OM_8-31-2011_07-53-36
ICV		1	sha00813	8/31/2011 8:02:19	OM_8-31-2011_07-53-36
ICB		1	sha00813	8/31/2011 8:04:07	OM_8-31-2011_07-53-36
CRDL		1	sha00813	8/31/2011 8:05:57	OM_8-31-2011_07-53-36
1202475871*	1136860	1	sha00813	8/31/2011 8:07:46	OM_8-31-2011_07-53-36
1202475884*	1136860	1	sha00813	8/31/2011 8:08:39	OM_8-31-2011_07-53-36
284316001*	1136860	1	sha00813	8/31/2011 8:09:32	OM_8-31-2011_07-53-36
1202475873*	1136860	1	sha00813	8/31/2011 8:10:25	OM_8-31-2011_07-53-36
1202475871	1136860	1	sha00813	8/31/2011 8:11:18	OM_8-31-2011_07-53-36
1202475884	1136860	1	sha00813	8/31/2011 8:12:11	OM_8-31-2011_07-53-36
284316001	1136860	1	sha00813	8/31/2011 8:13:04	OM_8-31-2011_07-53-36
1202475873	1136860	1	sha00813	8/31/2011 8:13:57	OM_8-31-2011_07-53-36
1202475877	1136860	1	sha00813	8/31/2011 8:14:50	OM_8-31-2011_07-53-36
1202475881	1136860	1	sha00813	8/31/2011 8:15:43	OM_8-31-2011_07-53-36
CCV		1	sha00813	8/31/2011 8:16:35	OM_8-31-2011_07-53-36
CCB		1	sha00813	8/31/2011 8:18:25	OM_8-31-2011_07-53-36
284316002	1136860	1	sha00813	8/31/2011 8:20:14	OM_8-31-2011_07-53-36
284316003	1136860	1	sha00813	8/31/2011 8:21:06	OM_8-31-2011_07-53-36
284316004	1136860	1	sha00813	8/31/2011 8:21:58	OM_8-31-2011_07-53-36
284316005	1136860	1	sha00813	8/31/2011 8:22:50	OM_8-31-2011_07-53-36
284316006	1136860	1	sha00813	8/31/2011 8:23:43	OM_8-31-2011_07-53-36
284316007	1136860	1	sha00813	8/31/2011 8:24:34	OM_8-31-2011_07-53-36
284350001	1136860	1	sha00813	8/31/2011 8:25:25	OM_8-31-2011_07-53-36
284351001	1136860	1	sha00813	8/31/2011 8:26:17	OM_8-31-2011_07-53-36
284525003	1136860	1	sha00813	8/31/2011 8:27:09	OM_8-31-2011_07-53-36
1202475874	1136860	1	sha00813	8/31/2011 8:28:02	OM_8-31-2011_07-53-36
CCV		1	sha00813	8/31/2011 8:28:54	OM_8-31-2011_07-53-36
CCB		1	sha00813	8/31/2011 8:30:44	OM_8-31-2011_07-53-36
1202475878	1136860	1	sha00813	8/31/2011 8:32:33	OM_8-31-2011_07-53-36
1202475882	1136860	1	sha00813	8/31/2011 8:33:26	OM_8-31-2011_07-53-36
284528004	1136860	1	sha00813	8/31/2011 8:34:19	OM_8-31-2011_07-53-36
1202475875	1136860	1	sha00813	8/31/2011 8:35:12	OM_8-31-2011_07-53-36
1202475879	1136860	1	sha00813	8/31/2011 8:36:05	OM_8-31-2011_07-53-36
1202475883	1136860	1	sha00813	8/31/2011 8:36:58	OM_8-31-2011_07-53-36
284528008	1136860	1	sha00813	8/31/2011 8:37:50	OM_8-31-2011_07-53-36
284528012	1136860	1	sha00813	8/31/2011 8:38:43	OM_8-31-2011_07-53-36
284528015	1136860	1	sha00813	8/31/2011 8:39:35	OM_8-31-2011_07-53-36
284699012	1136860	1	sha00813	8/31/2011 8:40:27	OM_8-31-2011_07-53-36
CCV		1	sha00813	8/31/2011 8:41:20	OM_8-31-2011_07-53-36
CCB		1	sha00813	8/31/2011 8:43:10	OM_8-31-2011_07-53-36
1202475872	1136860	1	sha00813	8/31/2011 8:44:58	OM_8-31-2011_07-53-36
1202475876	1136860	1	sha00813	8/31/2011 8:45:50	OM_8-31-2011_07-53-36
1202475880	1136860	1	sha00813	8/31/2011 8:46:41	OM_8-31-2011_07-53-36
284865001	1136860	1	sha00813	8/31/2011 8:47:33	OM_8-31-2011_07-53-36
1202475921	1136876	1	sha00813	8/31/2011 8:48:27	OM_8-31-2011_07-53-36
1202475923	1136876	1	sha00813	8/31/2011 8:49:20	OM_8-31-2011_07-53-36
284350001	1136876	1	sha00813	8/31/2011 8:50:14	OM_8-31-2011_07-53-36
1202475922	1136876	1	sha00813	8/31/2011 8:51:07	OM_8-31-2011_07-53-36
284351001	1136876	1	sha00813	8/31/2011 8:52:00	OM_8-31-2011_07-53-36
CCV		1	sha00813	8/31/2011 8:52:52	OM_8-31-2011_07-53-36
CCB		1	sha00813	8/31/2011 8:54:42	OM_8-31-2011_07-53-36

Author: sha00813 Date : 8/31/2011

Original Run Filename: OM_8-31-2011_07-53-36.OMN created 8/31/2011 07:53:36
Original Run Author's Signature: [sha00813]
Current Run Filename: OM_8-31-2011_07-53-36.OMN last modified 8/31/2011 08:55:47
Current Run Author's Signature: [sha00813]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN110831-01	1	S1	200	10.0	8/31/2011@07:55:10			200 ppb
WCN110831-02	1	S2	150	7.26	8/31/2011@07:56:02			150 ppb
WCN110831-03	1	S3	100	4.73	8/31/2011@07:56:54			100 ppb
WCN110831-04	1	S4	50.0	2.66	8/31/2011@07:57:47			50 ppb
WCN110831-05	1	S5	10.0	0.524	8/31/2011@07:58:40			10 ppb
WCN110831-06	1	S6	5.00	0.248	8/31/2011@07:59:33			5.0 ppb
WCN110831-08	1	S7	0.00	0.0423	8/31/2011@08:00:27			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99934 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN110831-07	1	S8	149	7.36	8/31/2011@08:02:19			ICV
		Known Conc:	150					
DQM Test: > + Concentration Limit								
		Result:	149 < 165					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	149 > 135					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN110831-08	1	S7	0.429	0.0407	8/31/2011@08:04:07			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.429 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.429 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN110831-06	1	S6	5.41	0.286	8/31/2011@08:05:57			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.41 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.41 > 2.50					
		Message	Pass					
		Action	None					
1202475871|1136860|MB	1	1	0.104	0.0247	8/31/2011@08:07:46			
1202475884||LCS	1	2	56.5	2.80	8/31/2011@08:08:39			
284316001	1	3	0.415	0.0400	8/31/2011@08:09:32			
1202475873||DUP	1	4	0.681	0.0530	8/31/2011@08:10:25			
1202475871|1136860|MB	1	1	0.203	0.0295	8/31/2011@08:11:18			
1202475884||LCS	1	2	50.4	2.50	8/31/2011@08:12:11			
284316001	1	3	-0.293	0.00517	8/31/2011@08:13:04			
1202475873||DUP	1	4	0.588	0.0485	8/31/2011@08:13:57			
1202475877||MS	1	5	107	5.29	8/31/2011@08:14:50			
1202475881||MSD	1	6	112	5.51	8/31/2011@08:15:43			
WCN110831-03	1	S3	103	5.07	8/31/2011@08:16:35			CCV
		Known Conc:	100					
DQM Test: > + Concentration Limit								
		Result:	103 < 110					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	103 > 90.0					
		Message	CCV Passed					
		Action	Continue					
WCN110831-08	1	S7	0.261	0.0324	8/31/2011@08:18:25			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.261 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.261 > -5.00					
		Message	CCB Passed					
		Action	Continue					
284316002	1	7	0.199	0.0294	8/31/2011@08:20:14			
284316003	1	8	0.148	0.0269	8/31/2011@08:21:06			
284316004	1	9	0.567	0.0475	8/31/2011@08:21:58			
284316005	1	10	0.414	0.0399	8/31/2011@08:22:50			
284316006	1	11	-0.293	0.00516	8/31/2011@08:23:43			
284316007	1	12	-0.258	0.00688	8/31/2011@08:24:34			
284350001	1	13	0.154	0.0271	8/31/2011@08:25:25			
284351001	1	14	9.63	0.493	8/31/2011@08:26:17			
284525003	1	15	0.645	0.0513	8/31/2011@08:27:09			
1202475874||DUP	1	16	0.745	0.0562	8/31/2011@08:28:02			
WCN110831-03	1	S3	102	5.04	8/31/2011@08:28:54			CCV
		Known Conc:	100					
			DQM Test: > + Concentration Limit					
		Result:	102 < 110					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	102 > 90.0					
		Message	CCV Passed					
		Action	Continue					
WCN110831-08	1	S7	0.453	0.0418	8/31/2011@08:30:44			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.453 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.453 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202475878||MS	1	17	107	5.27	8/31/2011@08:32:33			
1202475882||MSD	1	18	106	5.22	8/31/2011@08:33:26			
284528004	1	19	1.16	0.0764	8/31/2011@08:34:19			
1202475875||DUP	1	20	1.14	0.0759	8/31/2011@08:35:12			
1202475879||MS	1	21	106	5.21	8/31/2011@08:36:05			
1202475883||MSD	1	22	110	5.45	8/31/2011@08:36:58			
284528008	1	23	0.478	0.0431	8/31/2011@08:37:50			
284528012	1	24	1.35	0.0858	8/31/2011@08:38:43			
284528015	1	25	0.959	0.0667	8/31/2011@08:39:35			
284699012	1	26	47.8	2.37	8/31/2011@08:40:27			
WCN110831-03	1	S3	102	5.04	8/31/2011@08:41:20			CCV
		Known Conc:	100					
			DQM Test: > + Concentration Limit					
		Result:	102 < 110					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	102 > 90.0					
		Message	CCV Passed					
		Action	Continue					
WCN110831-08	1	S7	0.410	0.0397	8/31/2011@08:43:10			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	0.410 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.410 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202475872||DUP	1	27	46.6	2.31	8/31/2011@08:44:58			
1202475876||MS	1	28	158	7.77	8/31/2011@08:45:50			
1202475880||MSD	1	29	155	7.66	8/31/2011@08:46:41			
284865001	1	30	1.61	0.0988	8/31/2011@08:47:33			
1202475921|1136876|MB	1	31	0.537	0.0460	8/31/2011@08:48:27			
1202475923||LCS	1	32	-0.598	-0.00986	8/31/2011@08:49:20			
284350001	1	33	53.5	2.65	8/31/2011@08:50:14			
1202475922||DUP	1	34	56.0	2.77	8/31/2011@08:51:07			
284351001	1	35	24.7	1.23	8/31/2011@08:52:00			
WCN110831-03	1	S3	102	5.02	8/31/2011@08:52:52			CCV
		Known Conc:	100					
DQM Test: > + Concentration Limit								
		Result:	102 < 110					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	102 > 90.0					
		Message	CCV Passed					
		Action	Continue					
WCN110831-08	1	S7	0.367	0.0376	8/31/2011@08:54:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.367 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.367 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_8-31-2011_07-53-36.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: sha00813 Date : 8/31/2011

Channel 1: Current View

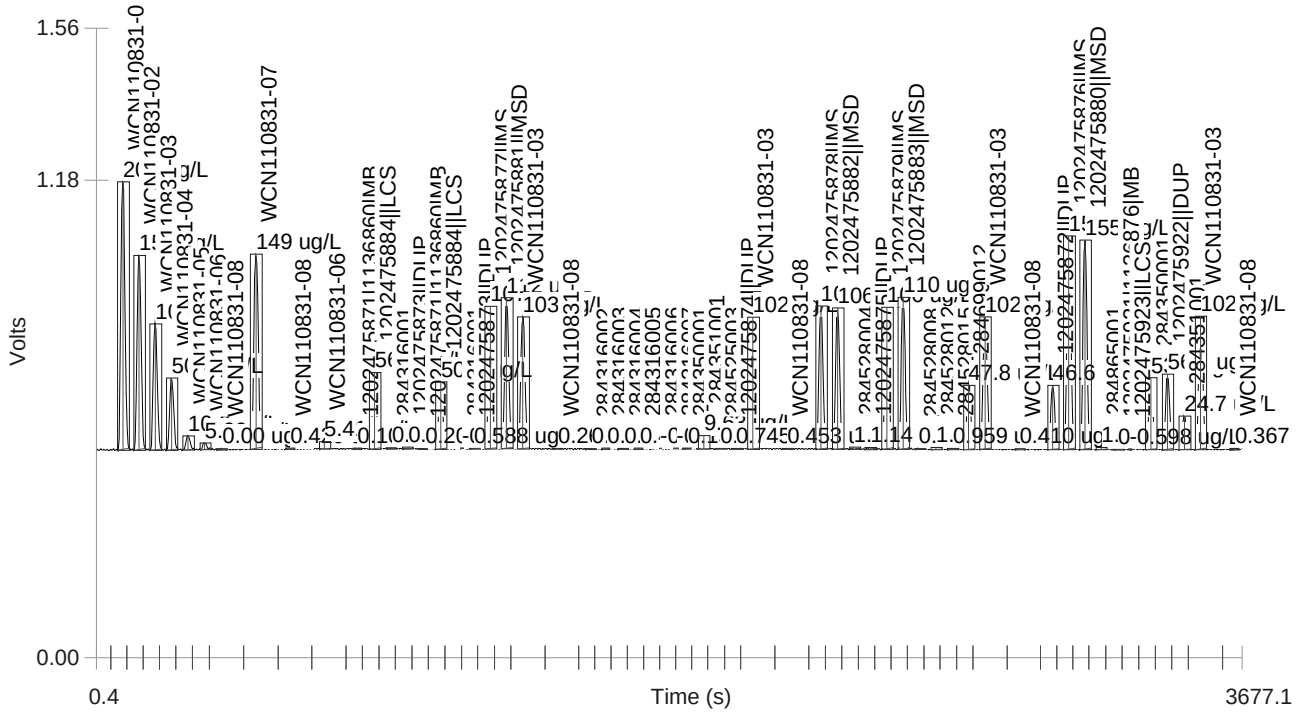
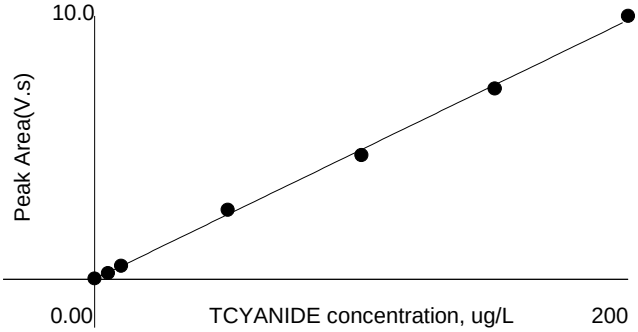


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.0	0.662	-1.6	8/31/2011	07:56:13
2	150	1	7.26	0.480	1.8	8/31/2011	07:57:05
3	100	1	4.73	0.311	4.2	8/31/2011	07:57:57
4	50.0	1	2.66	0.178	-7.1	8/31/2011	07:58:49
5	10.0	1	0.524	0.0341	-1.6	8/31/2011	07:59:42
6	5.00	1	0.248	0.0164	8.1	8/31/2011	08:00:36
7	0.00	1	0.0423	0.00220		8/31/2011	08:01:30

Figure 1: TCYANIDE



Area = 0.0491 * Conc + 0.0243
Conc = 20.3 * Area - 0.398
Correlation Coefficient (r) = 0.99934

No Weighting

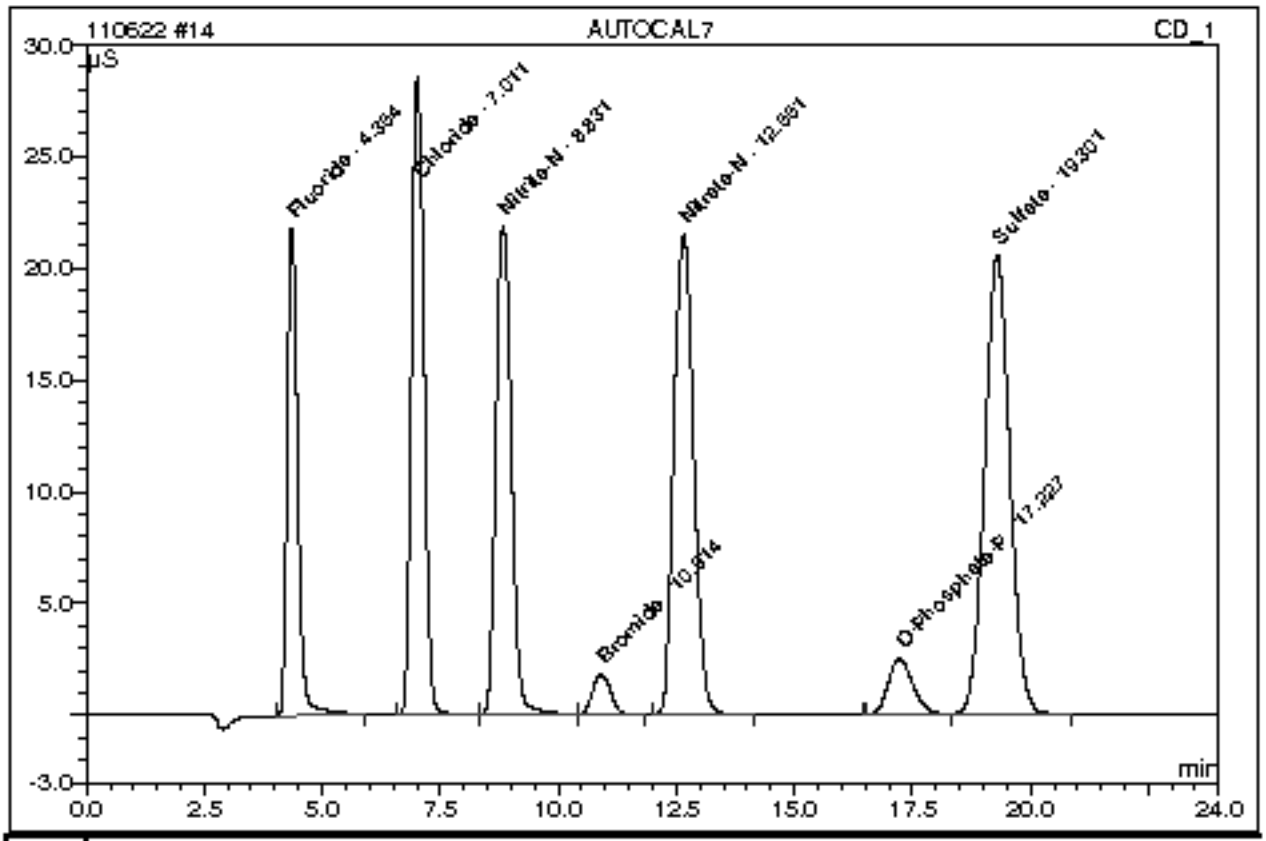
Ion Chromatography Raw Data

This is runlog for Sequence 110831.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	06/22/11 14:26	1		110831	MAR1
ICAL-06	06/22/11 14:52	1		110831	MAR1
ICAL-05	06/22/11 15:19	1		110831	MAR1
ICAL-04	06/22/11 15:46	1		110831	MAR1
ICAL-03	06/22/11 16:13	1		110831	MAR1
ICAL-02	06/22/11 16:40	1		110831	MAR1
ICAL-01	06/22/11 17:07	1		110831	MAR1

14 AUTOCAL7

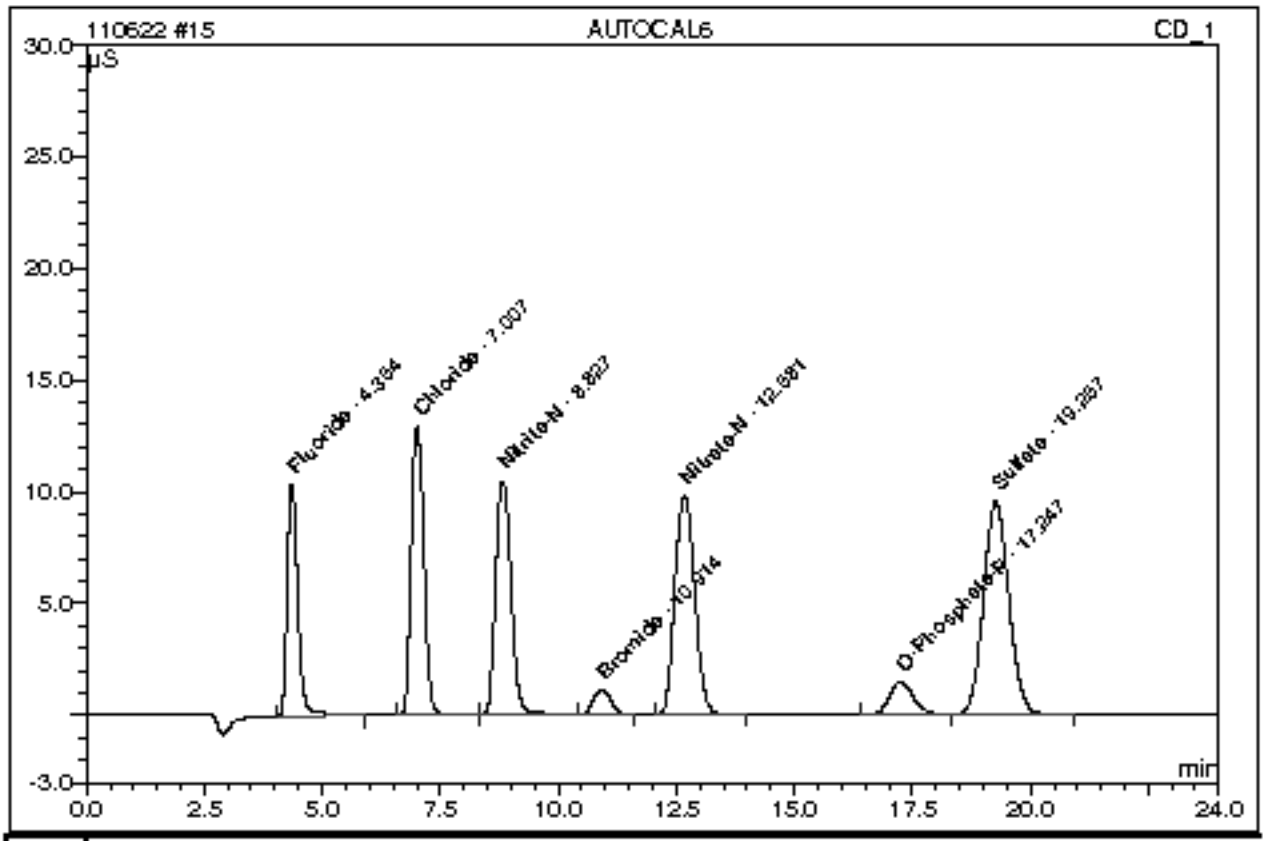
Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 14:26	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	10.0000	10.0717		5.72014	11.86
2	7.01	Chloride	20.0000	20.3058		8.69363	18.03
3	8.83	Nitrite-N	10.0000	10.0805		8.39831	17.42
4	10.91	Bromide	5.0000	5.0113		0.78665	1.63
5	12.66	Nitrate-N	10.0000	10.1430		10.40211	21.58
6	17.23	O-Phosphate-P	5.0000	5.0273		1.49225	3.10
7	19.30	Sulfate	40.0000	40.4594		12.71772	26.38
Total:				101.0990	0.000	48.211	100.00

15 AUTOCAL6

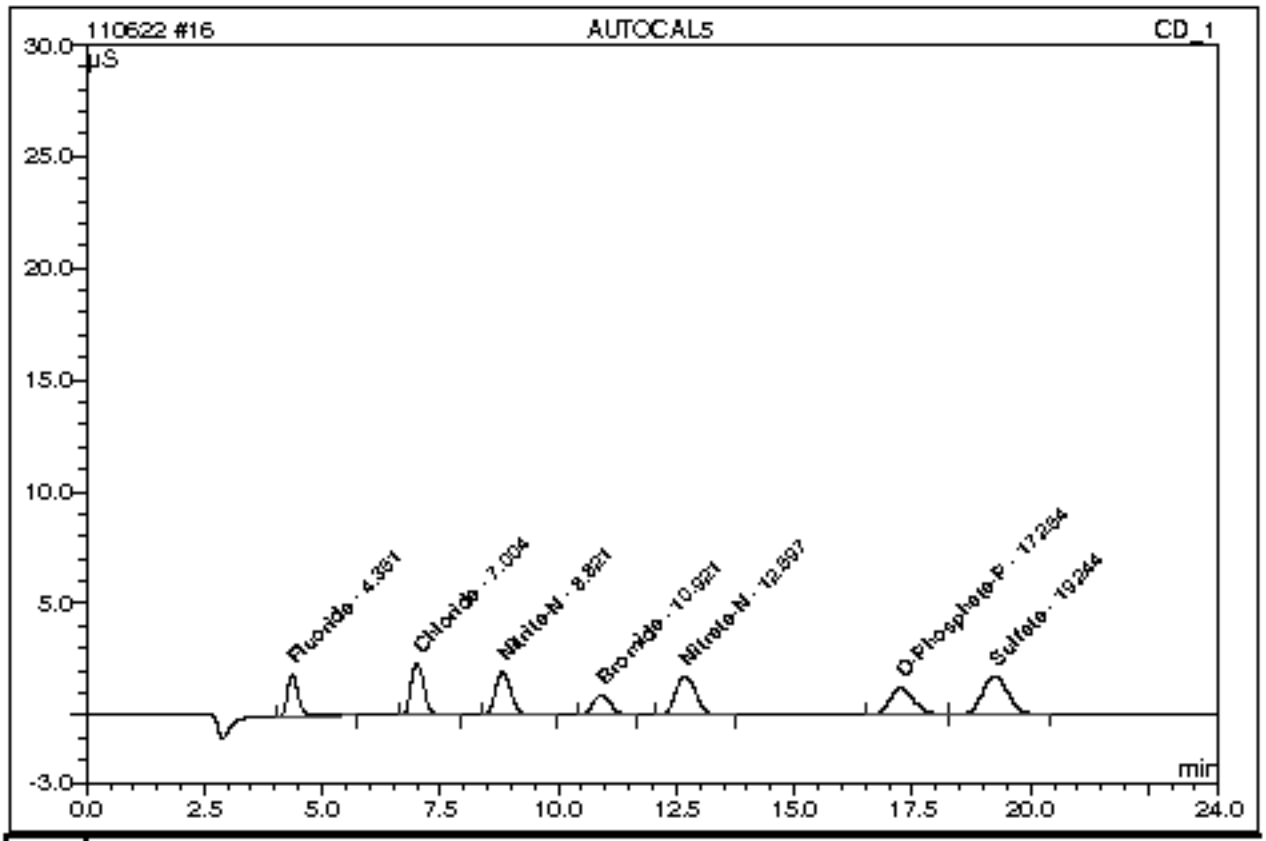
Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 14:52	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	5.0000	4.8644		2.74831	12.02
2	7.01	Chloride	10.0000	9.4068		3.98773	17.45
3	8.83	Nitrite-N	5.0000	4.8489		4.01188	17.55
4	10.91	Bromide	3.0000	3.0062		0.47053	2.06
5	12.68	Nitrate-N	5.0000	4.7249		4.79338	20.97
6	17.25	O-Phosphate-P	3.0000	3.0085		0.88291	3.86
7	19.27	Sulfate	20.0000	19.1156		5.96177	26.08
Total:				48.9752	0.000	22.857	100.00

16 AUTOCAL5

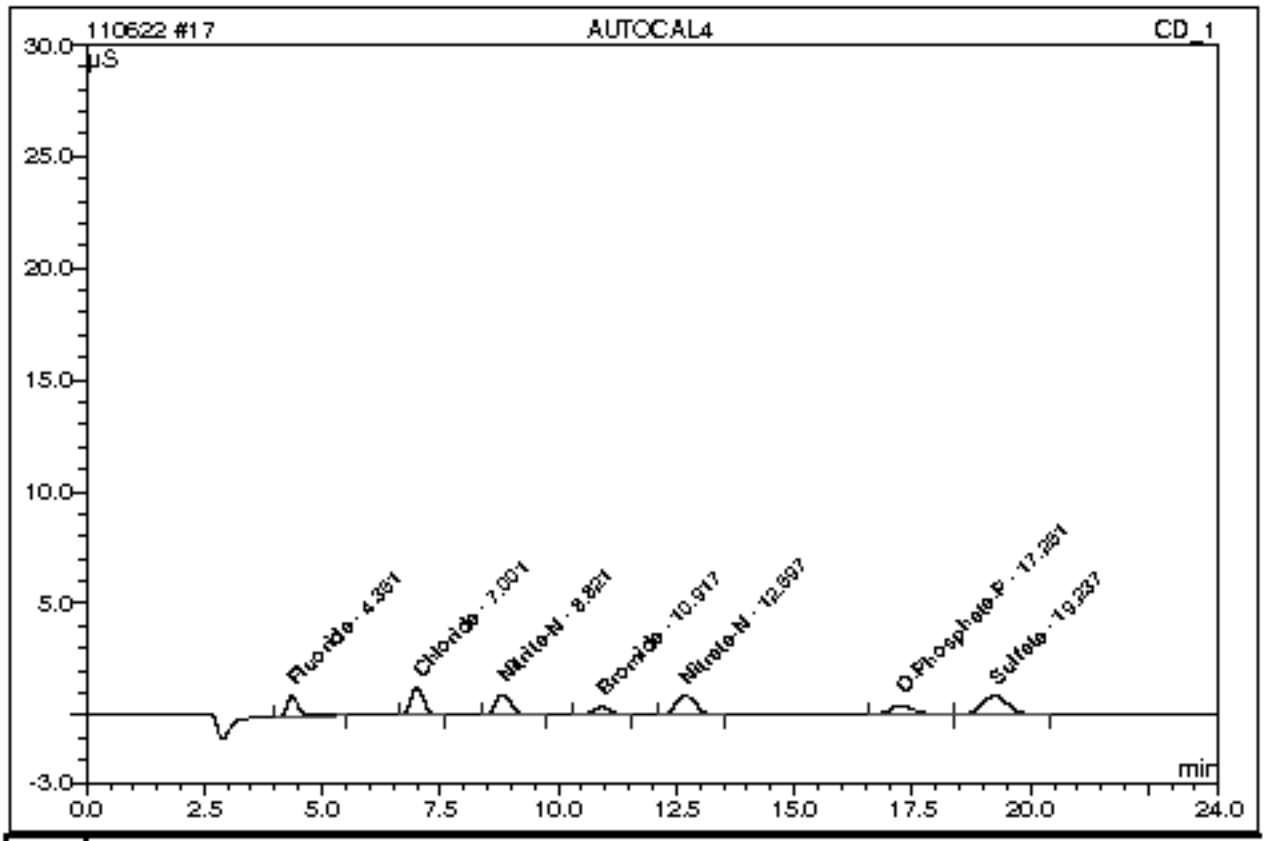
Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 15:19	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	1.0000	0.9505		0.51463	10.21
2	7.00	Chloride	2.0000	1.8531		0.72626	14.41
3	8.82	Nitrite-N	1.0000	0.9425		0.73654	14.61
4	10.92	Bromide	2.5000	2.4744		0.38669	7.67
5	12.70	Nitrate-N	1.0000	0.9284		0.86332	17.12
6	17.25	O-Phosphate-P	2.5000	2.4520		0.71493	14.18
7	19.24	Sulfate	4.0000	3.7535		1.09923	21.80
Total:				13.3544	0.000	5.042	100.00

17 AUTOCAL4

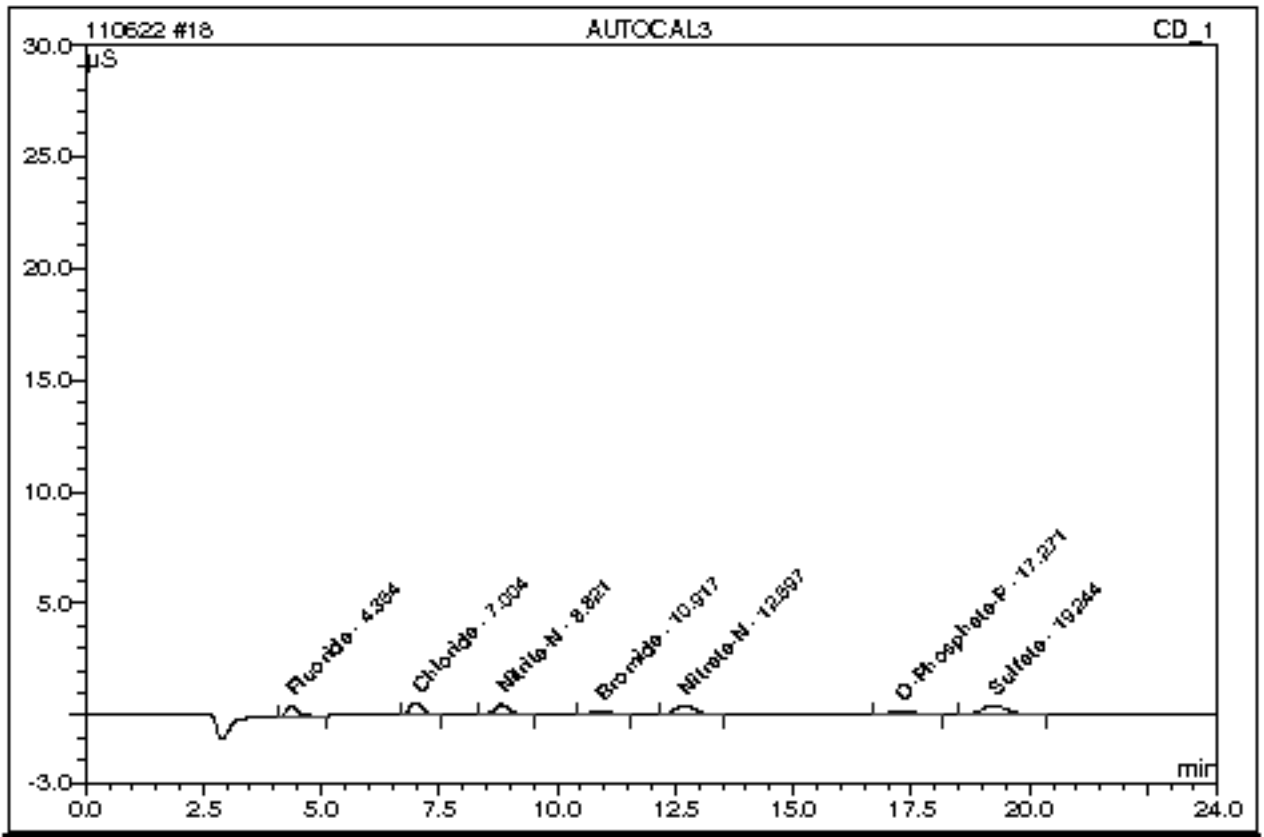
Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 15:46	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	0.5000	0.5048		0.26030	10.86
2	7.00	Chloride	1.0000	1.0402		0.37527	15.65
3	8.82	Nitrite-N	0.5000	0.4954		0.36172	15.09
4	10.92	Bromide	1.0000	0.9914		0.15289	6.38
5	12.70	Nitrate-N	0.5000	0.4994		0.41922	17.48
6	17.26	O-Phosphate-P	1.0000	0.9814		0.27107	11.30
7	19.24	Sulfate	2.0000	2.0416		0.55734	23.24
Total:				6.5542	0.000	2.398	100.00

18 AUTOCAL3

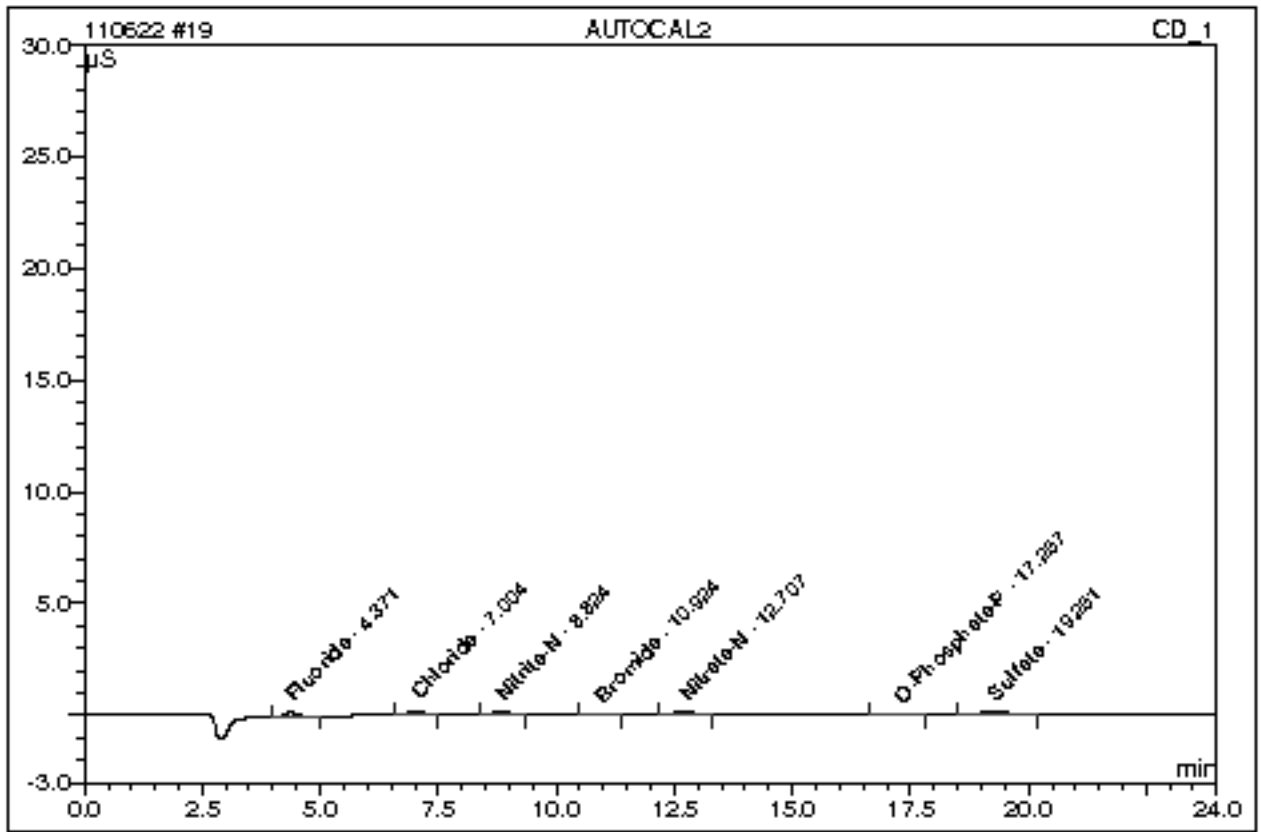
Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 16:13	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	0.2500	0.2661		0.12408	10.92
2	7.00	Chloride	0.5000	0.5815		0.17721	15.59
3	8.82	Nitrite-N	0.2500	0.2743		0.17632	15.52
4	10.92	Bromide	0.5000	0.4964		0.07485	6.59
5	12.70	Nitrate-N	0.2500	0.2907		0.20319	17.88
6	17.27	O-Phosphate-P	0.5000	0.4564		0.11261	9.91
7	19.24	Sulfate	1.0000	1.1279		0.26813	23.60
Total:				3.4934	0.000	1.136	100.00

19 AUTOCAL2

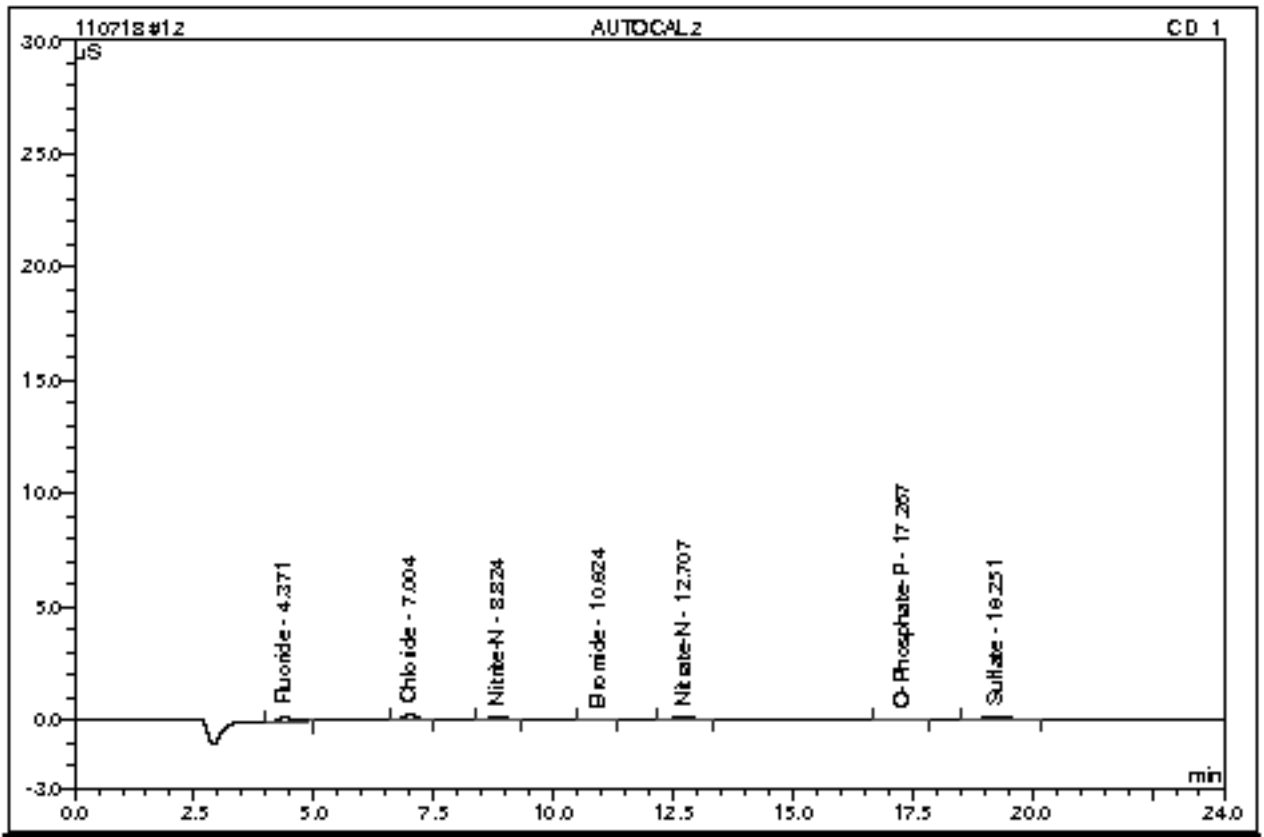
Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 16:40	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	0.1000	0.1438		0.05424	12.31
2	7.00	Chloride	0.2000	0.3413		0.07350	16.68
3	8.82	Nitrite-N	0.1000	0.1444		0.06742	15.29
4	10.92	Bromide	0.2000	0.1989		0.02795	6.34
5	12.71	Nitrate-N	0.1000	0.1692		0.07740	17.56
6	17.27	O-Phosphate-P	0.2000	0.1910		0.03249	7.37
7	19.25	Sulfate	0.4000	0.6213		0.10778	24.45
Total:				1.8099	0.000	0.441	100.00

12 AUTOCAL2

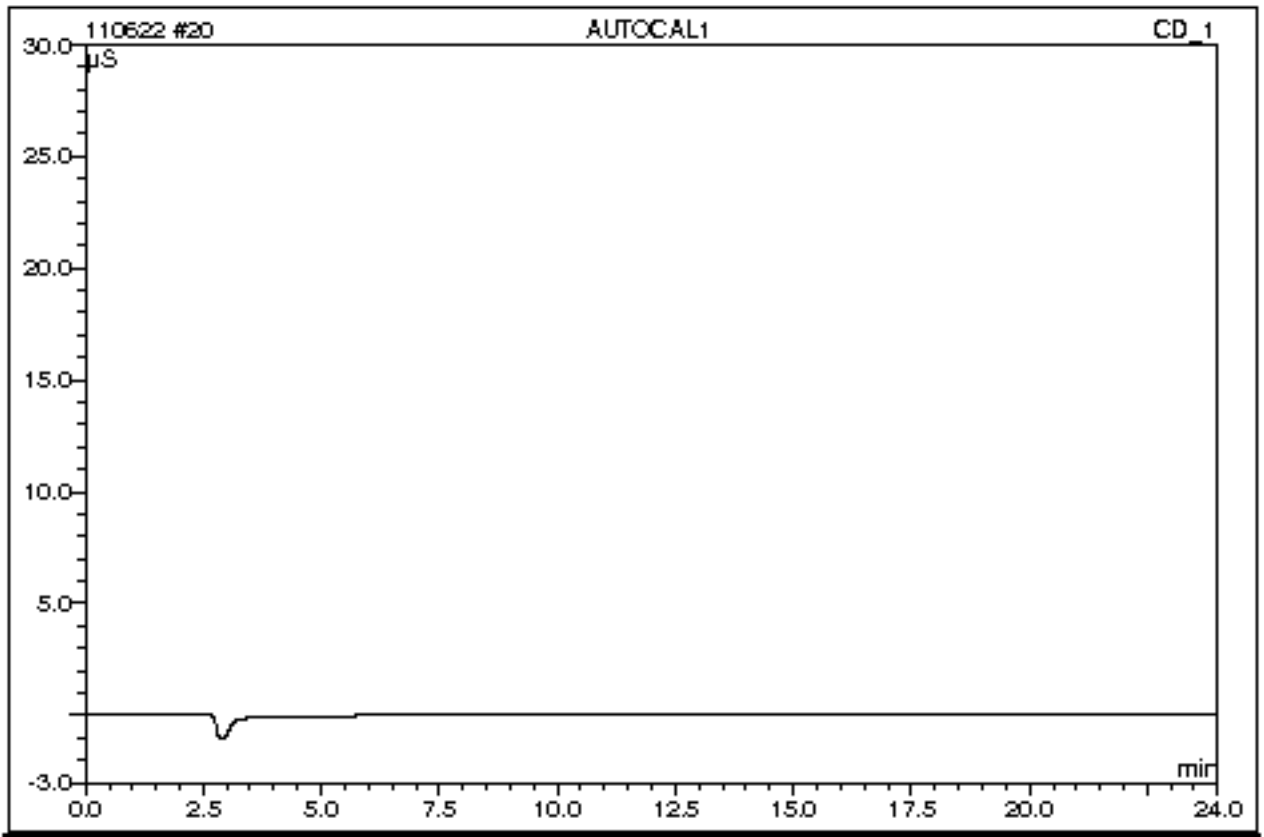
Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 16:40	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



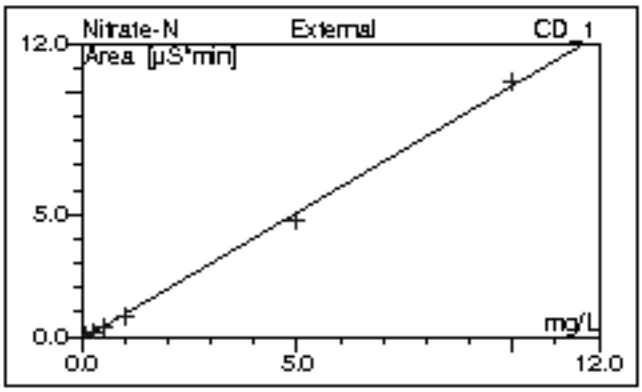
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	0.1000	0.1438		0.05424	12.31
2	7.00	Chloride	0.2000	0.3413		0.07350	16.68
3	8.82	Nitrite-N	0.1000	0.1444		0.06742	15.29
4	10.92	Bromide	0.2000	0.1989		0.02795	6.34
5	12.71	Nitrate-N	0.1000	0.1692		0.07740	17.56
6	17.27	O-Phosphate-P	0.2000	0.1910		0.03249	7.37
7	19.25	Sulfate	0.4000	0.6213		0.10778	24.45
Total:				1.8099	0.000	0.441	100.00

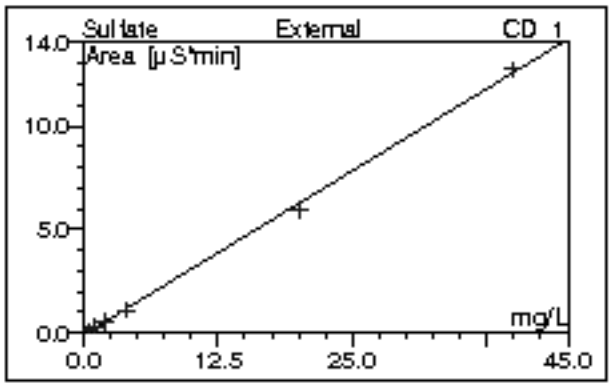
20 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 17:07	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

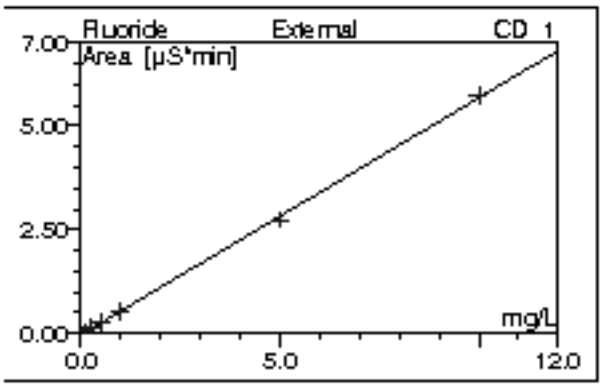


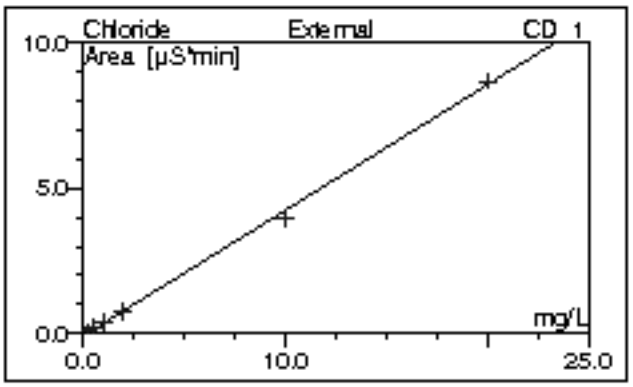


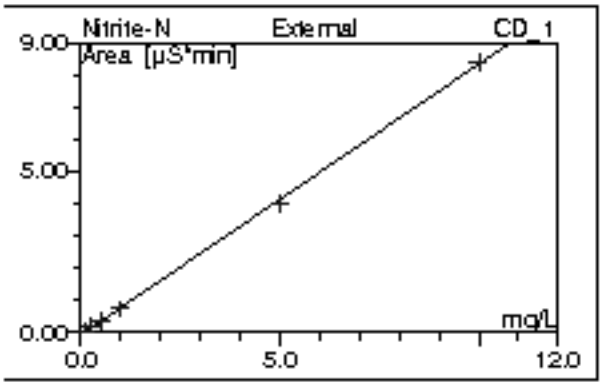
No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.9645	-0.0278	0.5707	0.0000
n.a.	n.a.	Chloride	0LOff	99.8445	-0.0739	0.4318	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9557	-0.0537	0.8384	0.0000
n.a.	n.a.	Bromide	0LOff	99.9946	-0.0034	0.1577	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.8648	-0.0977	1.0352	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.9681	-0.0252	0.3018	0.0000
n.a.	n.a.	Sulfate	0LOff	99.9118	-0.0889	0.3165	0.0000
Average:				99.9291	-0.0529	0.5217	0.0000

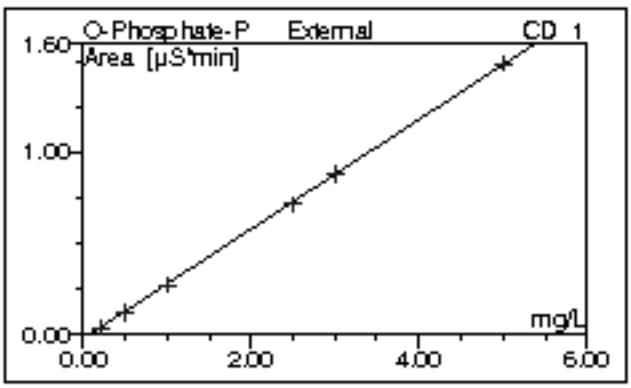
20 AUTOCAL1

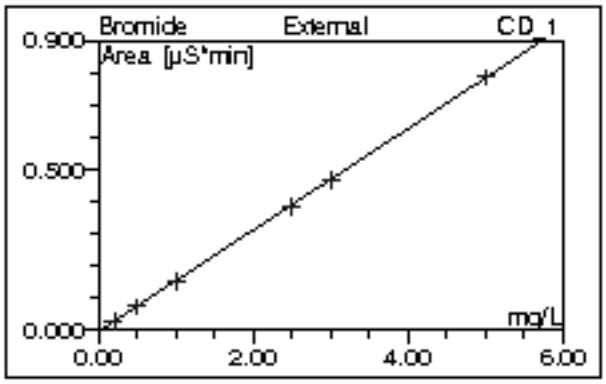
Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 17:07	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-003004; GL GCB086;300;9056

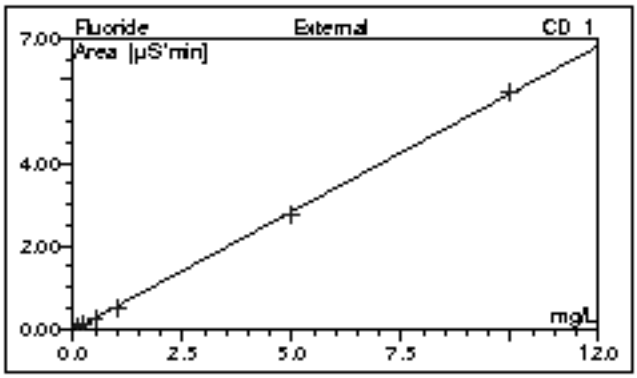










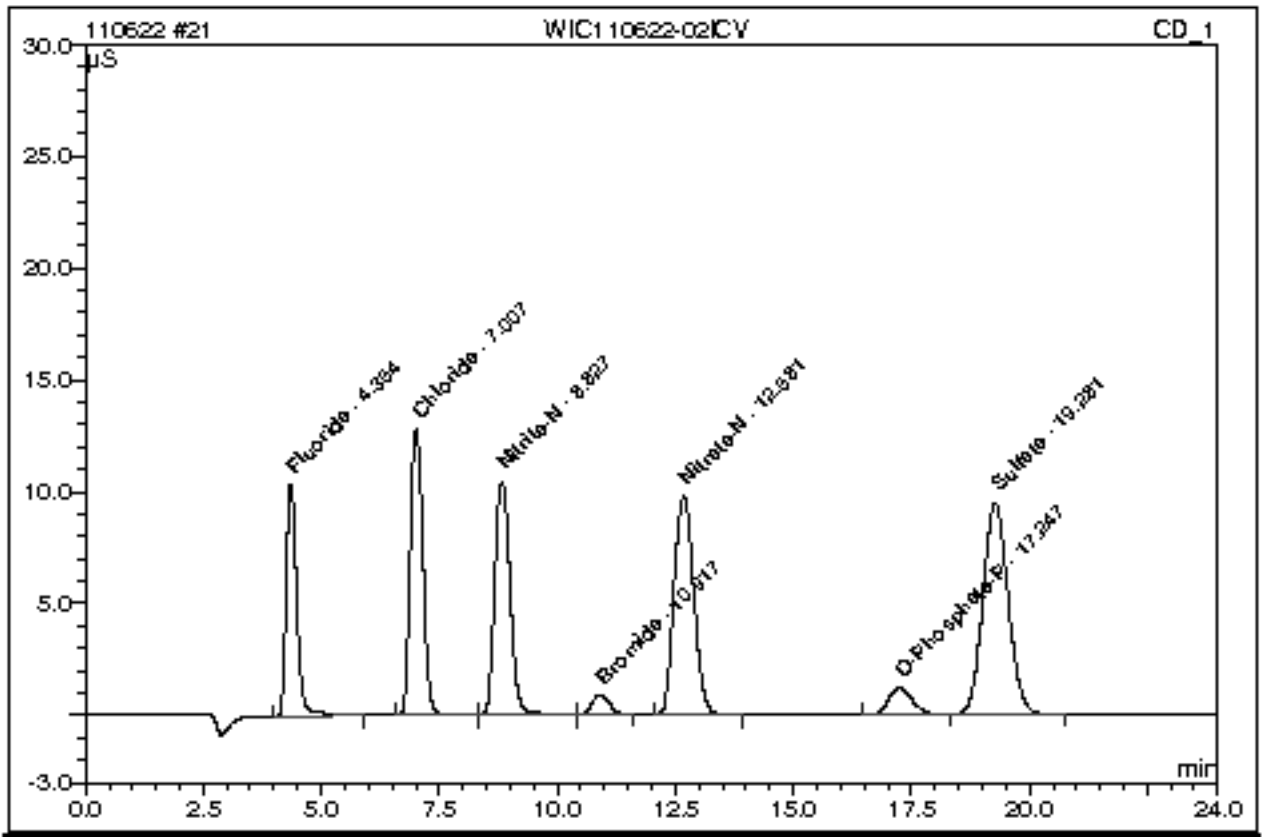


This is runlog for Sequence 110622.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
E	06/22/11 11:17	1		110622	MAR1
E	06/22/11 11:44	1		110622	MAR1
E	06/22/11 12:11	1		110622	MAR1
E	06/22/11 12:38	1		110622	MAR1
BLK	06/22/11 13:05	1		110622	MAR1
BLK	06/22/11 13:59	1		110622	MAR1
ICAL-07	06/22/11 14:26	1		110622	MAR1
ICAL-06	06/22/11 14:52	1		110622	MAR1
ICAL-05	06/22/11 15:19	1		110622	MAR1
ICAL-04	06/22/11 15:46	1		110622	MAR1
ICAL-03	06/22/11 16:13	1		110622	MAR1
ICAL-02	06/22/11 16:40	1		110622	MAR1
ICAL-01	06/22/11 17:07	1		110622	MAR1
ICV	06/22/11 17:34	1		110622	MAR1
ICB	06/22/11 18:01	1		110622	MAR1

21 WIC110622-02ICV

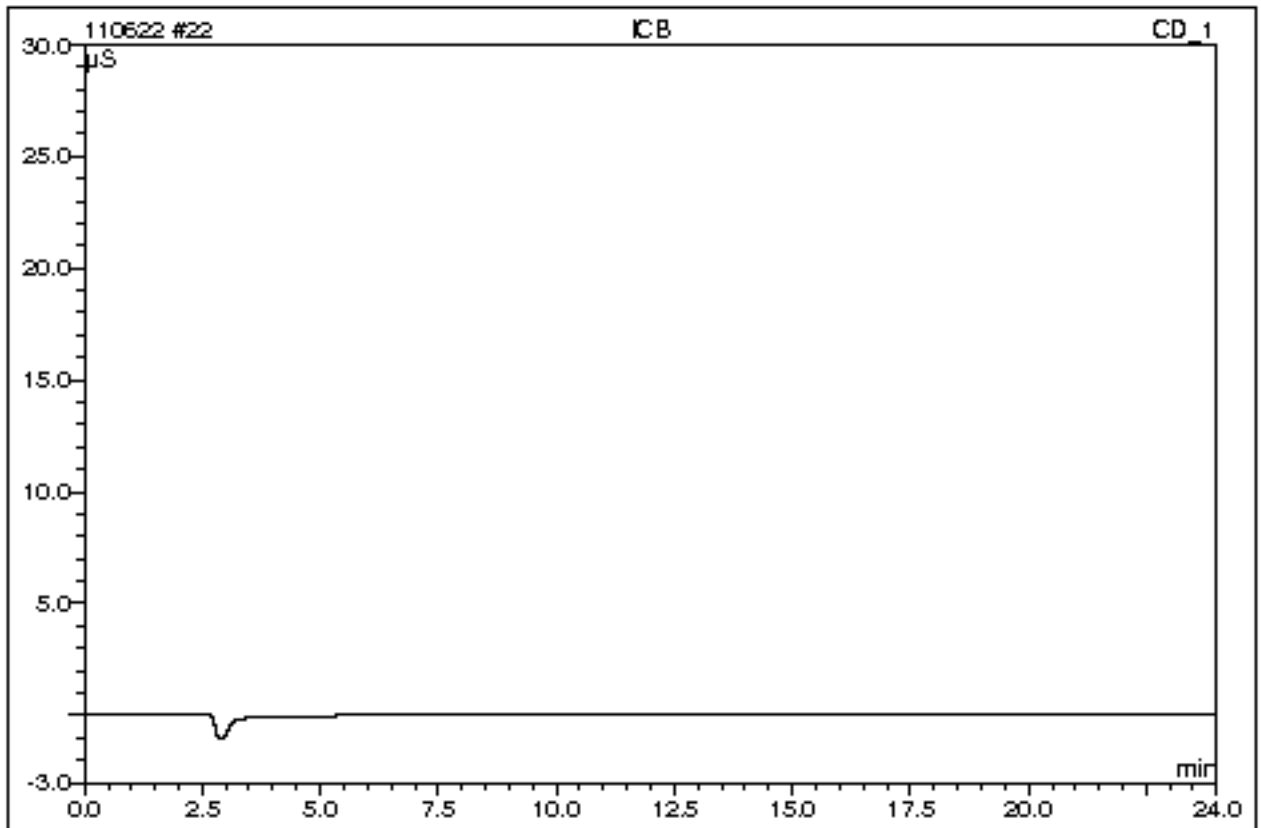
Sample Name:	WIC110622-02ICV	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 17:34	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.8388		2.73373	12.20
2	7.01	Chloride	n.a.	9.3361		3.95721	17.66
3	8.83	Nitrite-N	n.a.	4.8105		3.97968	17.76
4	10.92	Bromide	n.a.	2.4204		0.37818	1.69
5	12.68	Nitrate-N	n.a.	4.6818		4.74875	21.19
6	17.25	O-Phosphate-P	n.a.	2.4782		0.72285	3.22
7	19.28	Sulfate	n.a.	18.9005		5.89369	26.29
Total:				47.4663	0.000	22.414	100.00

22 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	6/22/2011 18:01	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

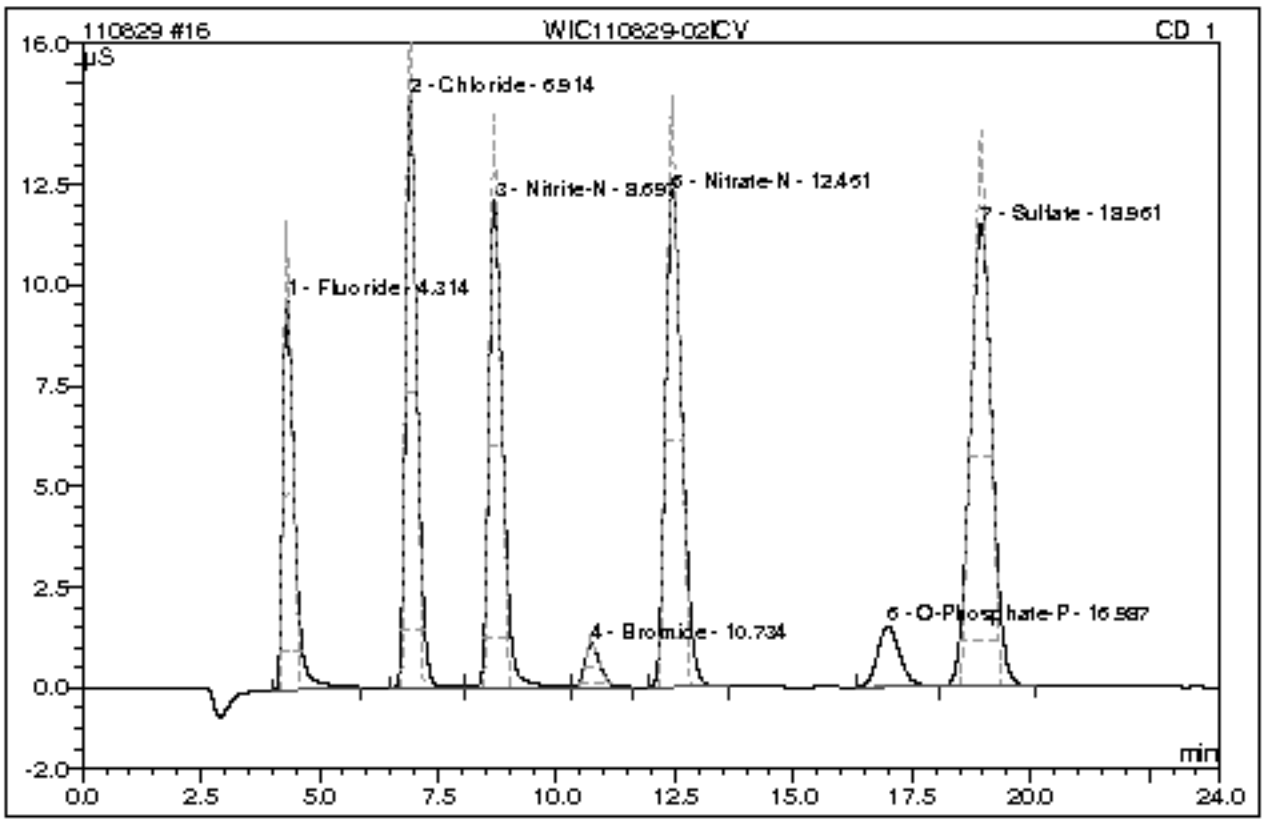
This is runlog for Sequence 110829.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	08/29/11 11:01		1	110829	MAR1
BLK	08/29/11 11:27		1	110829	MAR1
ICV	08/29/11 11:54		1	110829	MAR1
ICB	08/29/11 12:21		1	110829	MAR1
284789007	08/29/11 12:48	1136479	5	110829	MAR1
284789008	08/29/11 13:15	1136479	5	110829	MAR1
284789009	08/29/11 13:42	1136479	5	110829	MAR1
284789010	08/29/11 14:09	1136479	5	110829	MAR1
1202475009	08/29/11 14:36	1136479	5	110829	MAR1
1202475010	08/29/11 15:03	1136479	5	110829	MAR1
CVH	08/29/11 15:30		1	110829	MAR1
CCB	08/29/11 15:56		1	110829	MAR1
1202468275	08/29/11 16:23	1133650	1	110829	MAR1
1202468279	08/29/11 16:50	1133650	1	110829	MAR1
284271005	08/29/11 17:17	1133650	1	110829	MAR1
1202468276	08/29/11 17:44	1133650	1	110829	MAR1
1202468277	08/29/11 18:11	1133650	1	110829	MAR1
1202468278	08/29/11 18:38	1133650	1	110829	MAR1
284271006	08/29/11 19:05	1133650	1	110829	MAR1
CCV	08/29/11 19:32		1	110829	MAR1
CCB	08/29/11 19:59		1	110829	MAR1
1202467343	08/29/11 20:26	1133216	1	110829	MAR1
1202467346	08/29/11 20:52	1133216	1	110829	MAR1
284182001	08/29/11 21:19	1133216	1	110829	MAR1
1202467344	08/29/11 21:46	1133216	1	110829	MAR1
1202467345	08/29/11 22:13	1133216	1	110829	MAR1
284183001	08/29/11 22:40	1133216	1	110829	MAR1
284791005	08/29/11 23:07	1133216	1	110829	MAR1

284865001 08/29/11 23:34 1133216 1 110829 MAR1

16 WIC110829-02ICV

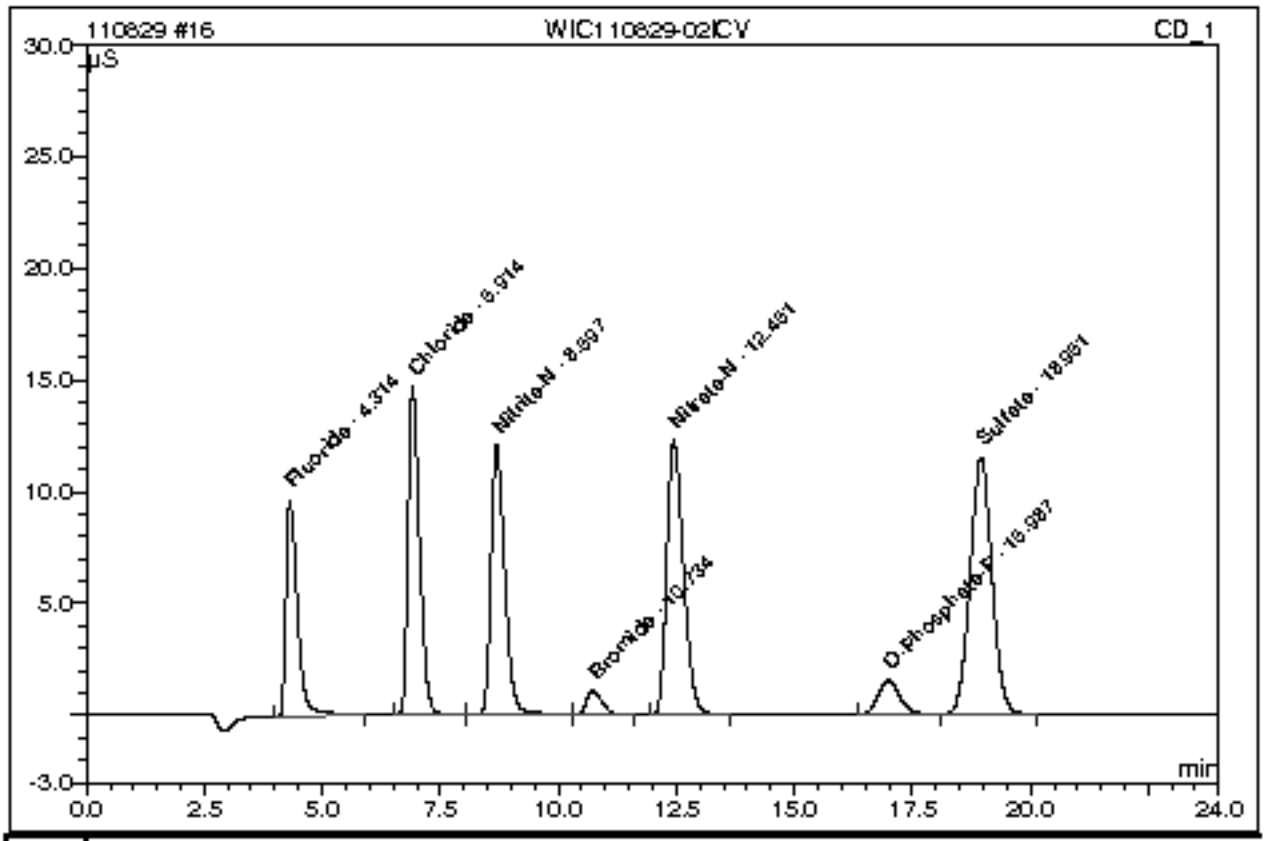
Sample Name:	WIC110829-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 11:54	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-003004;GLGCB086;300;9056



No.	Ret.Time min	Peakname min	Ret. Dev. (%) Lim: ± 10%	Type	Resol. (EP)	Asym. (EP)	Plates (EP)
1	4.314	Fluoride	-1.3	BMB	6.05	1.76	1650
2	6.914	Chloride	-1.3	BM	3.73	1.41	3994
3	8.697	Nitrite-N	-1.4	M	3.64	1.34	4442
4	10.734	Bromide	-1.7	MB	2.77	1.28	5123
5	12.451	Nitrate-N	-2.0	BMB	8.79	1.30	6011
6	16.987	O-Phosphate-P	-1.6	Ru	n.a.	n.a.	n.a.
7	18.961	Sulfate	-1.5	BMB	n.a.	1.03	8090
Average:			-1.556		4.99	1.35	4885

16 WIC110829-02ICV

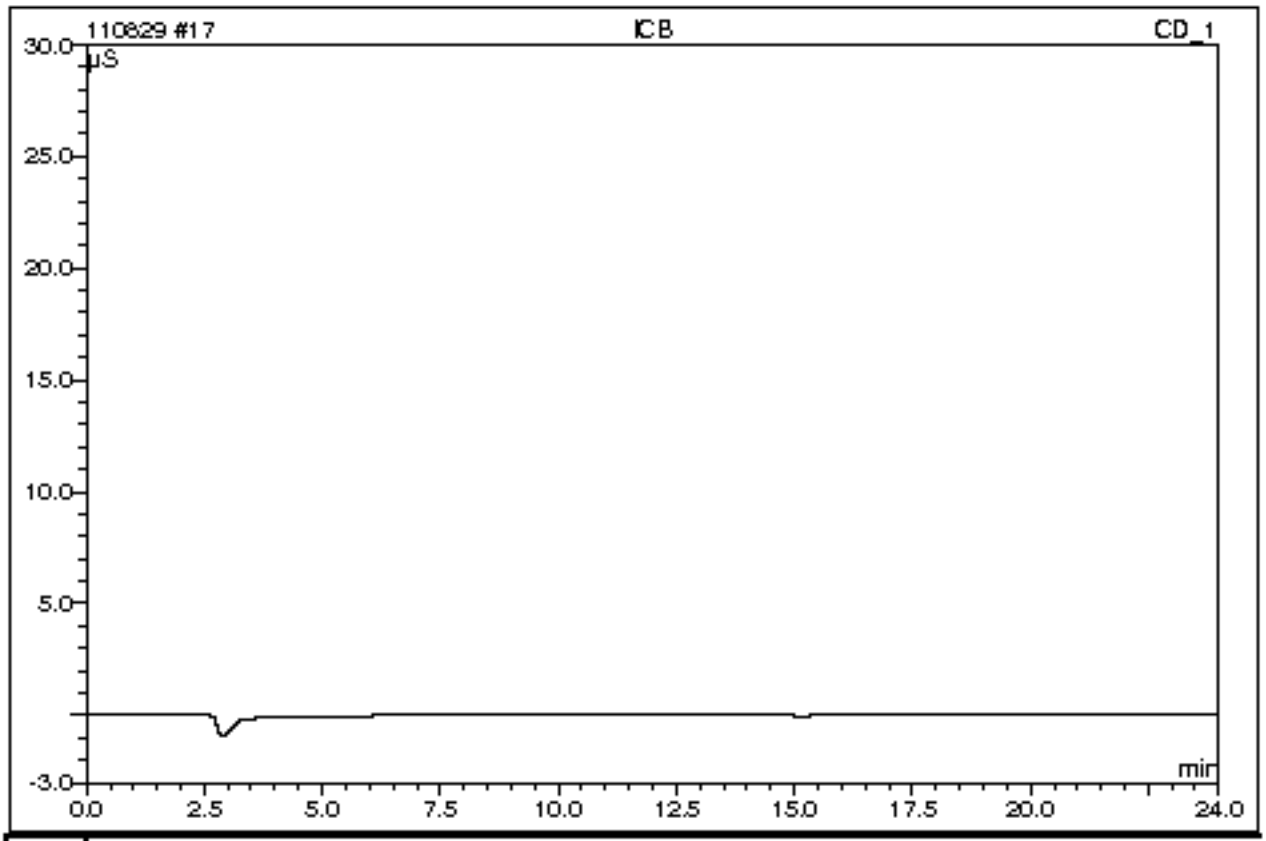
Sample Name:	WIC110829-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 11:54	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	4.8758		2.75481	11.79
2	6.91	Chloride	n.a.	9.7261		4.12560	17.65
3	8.70	Nitrite-N	n.a.	4.9475		4.09457	17.52
4	10.73	Bromide	n.a.	2.6241		0.41030	1.76
5	12.45	Nitrate-N	n.a.	4.9252		5.00073	21.40
6	16.99	O-Phosphate-P	n.a.	2.7876		0.81622	3.49
7	18.96	Sulfate	n.a.	19.7621		6.16640	26.39
Total:				49.6483	0.000	23.369	100.00

17 ICB

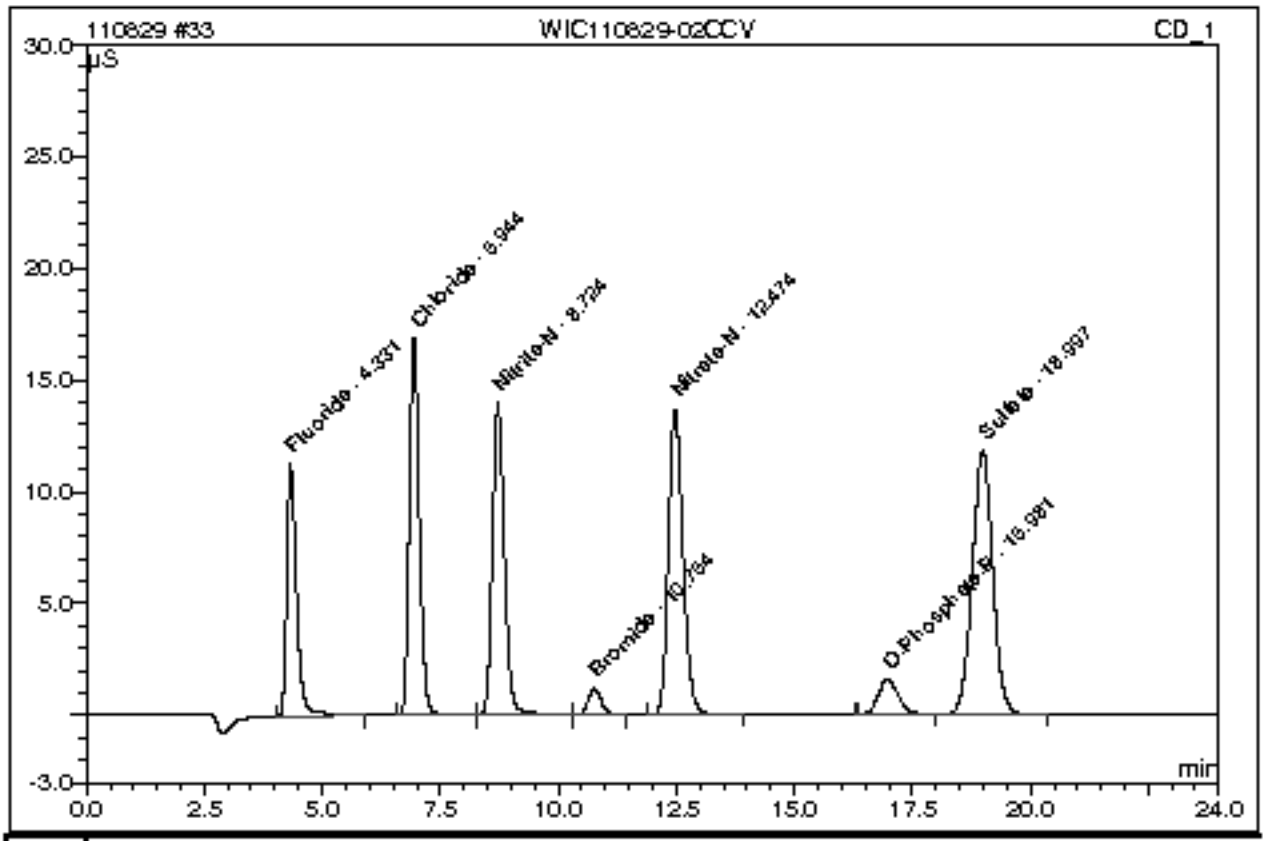
Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 12:21	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

33 WIC110829-02CCV

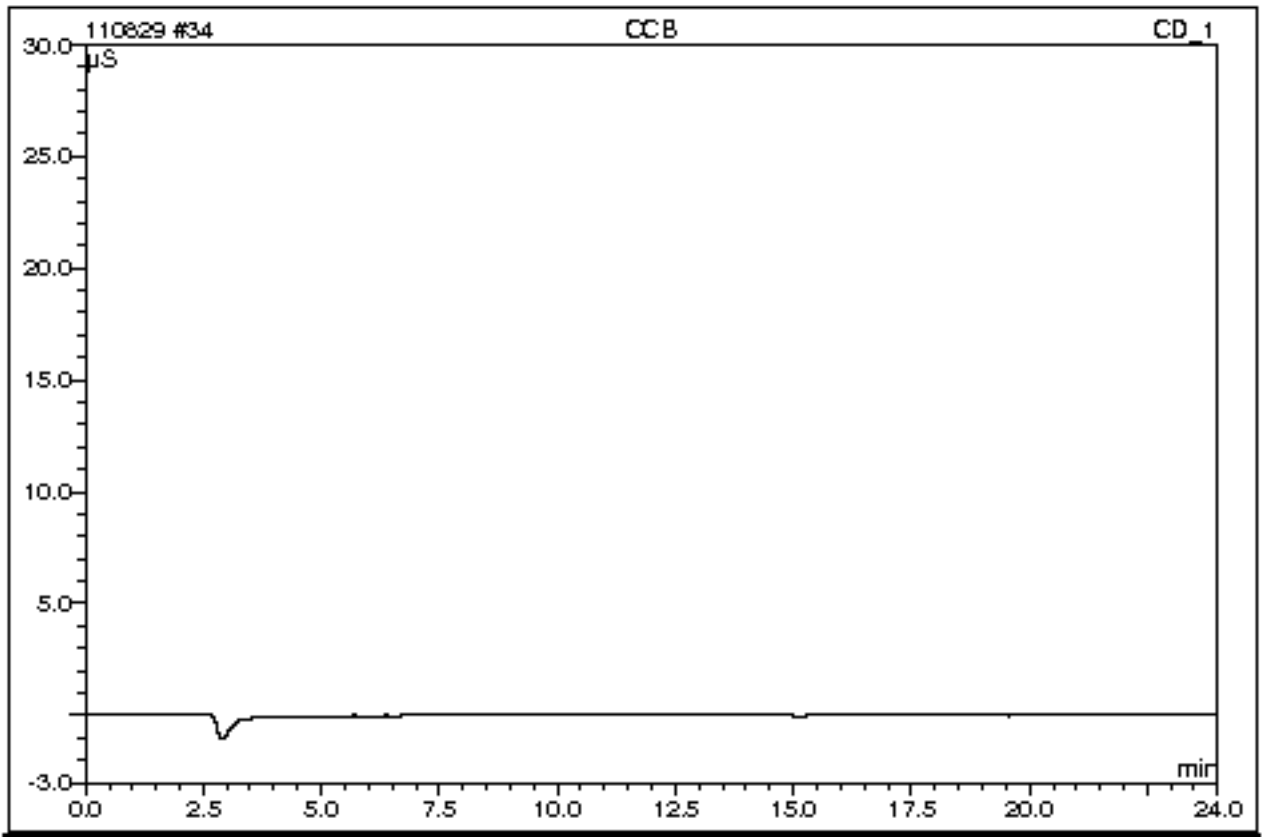
Sample Name:	WIC110829-02CCV	*Injection Volume:*	1.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 19:32	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	4.8485		2.73925	11.89
2	6.94	Chloride	n.a.	9.7283		4.12654	17.92
3	8.72	Nitrite-N	n.a.	4.9733		4.11617	17.87
4	10.76	Bromide	n.a.	2.4534		0.38338	1.66
5	12.47	Nitrate-N	n.a.	4.8396		4.91215	21.33
6	16.98	O-Phosphate-P	n.a.	2.7121		0.79345	3.45
7	19.00	Sulfate	n.a.	19.1085		5.95955	25.88
Total:				48.6637	0.000	23.030	100.00

34 CCB

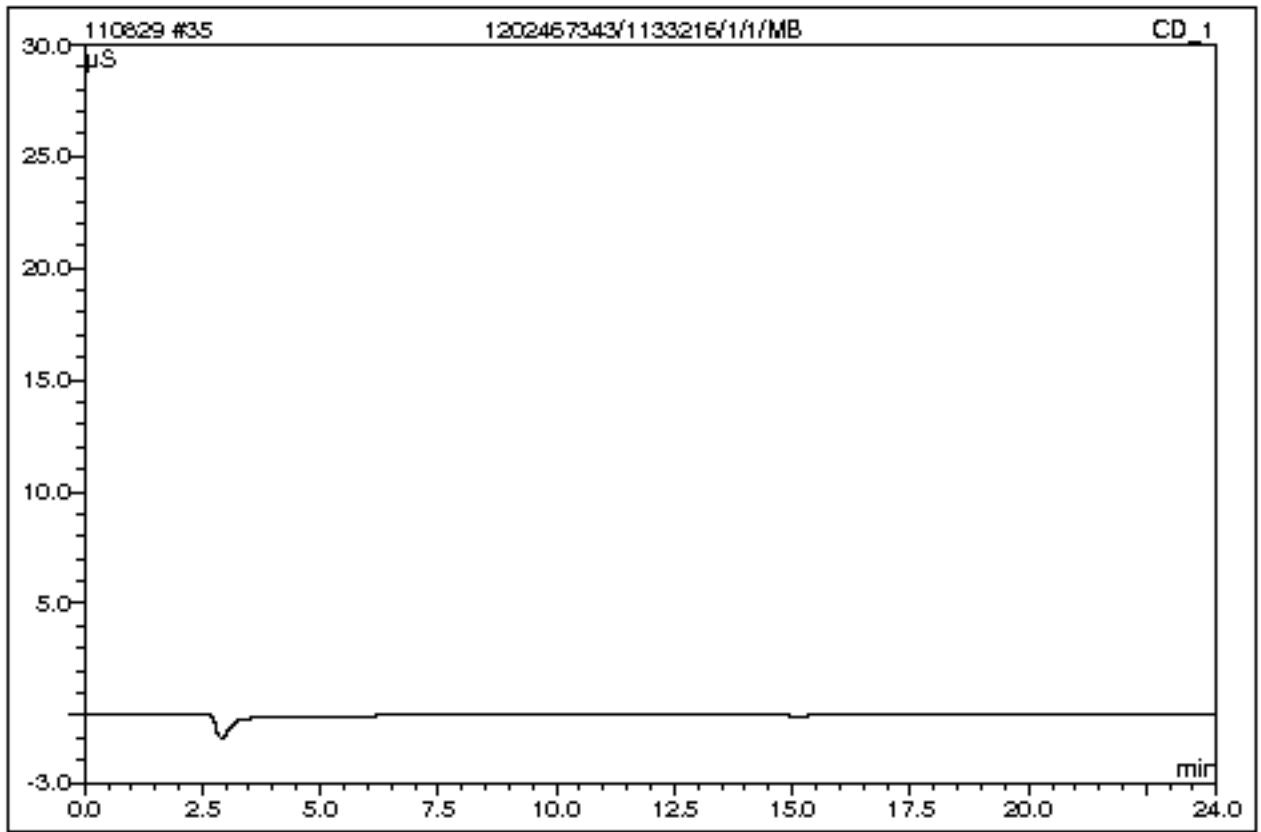
Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 19:59	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 1202467343/1133216/1/1/MB

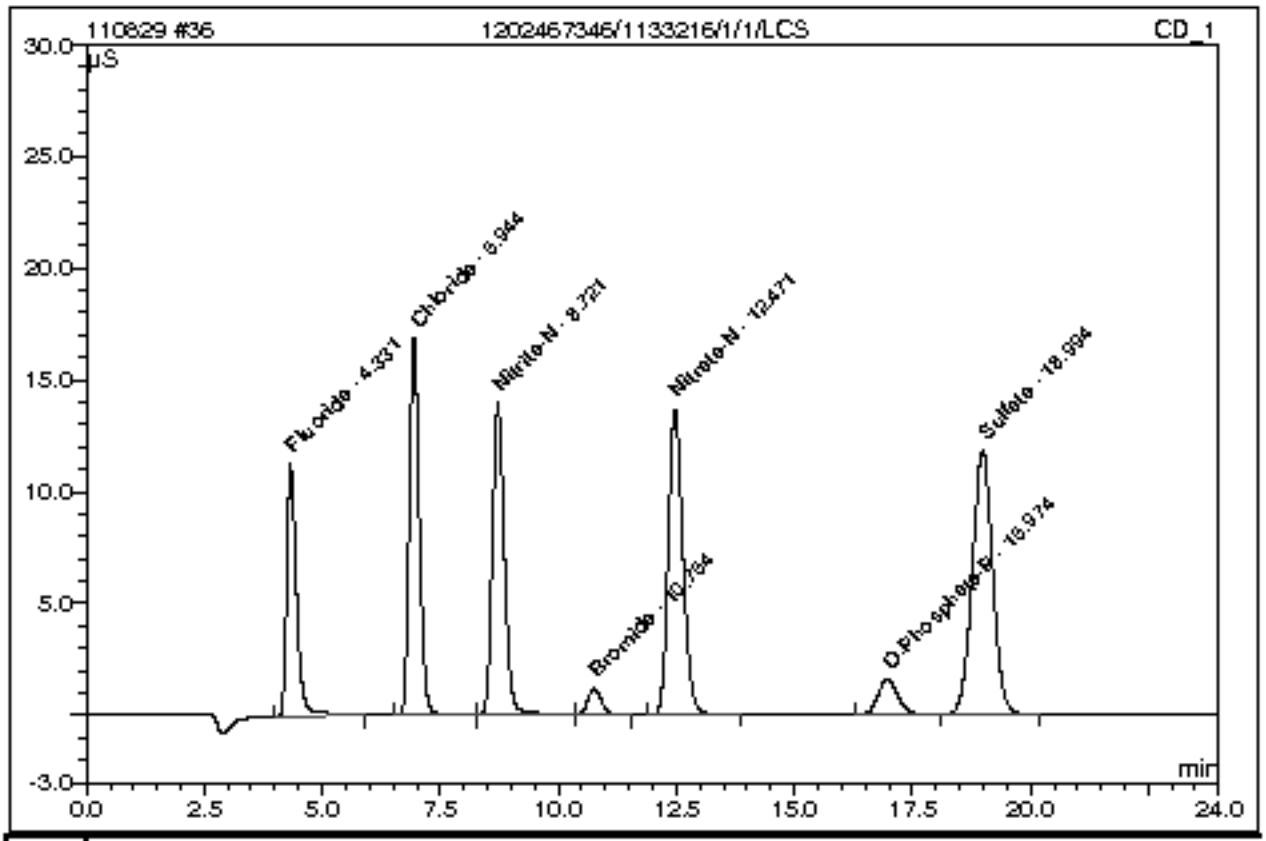
Sample Name:	1202467343/1133216/1/1/MB	*Injection Volume:*	1.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 20:26	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

36 1202467346/1133216/1/1/LCS

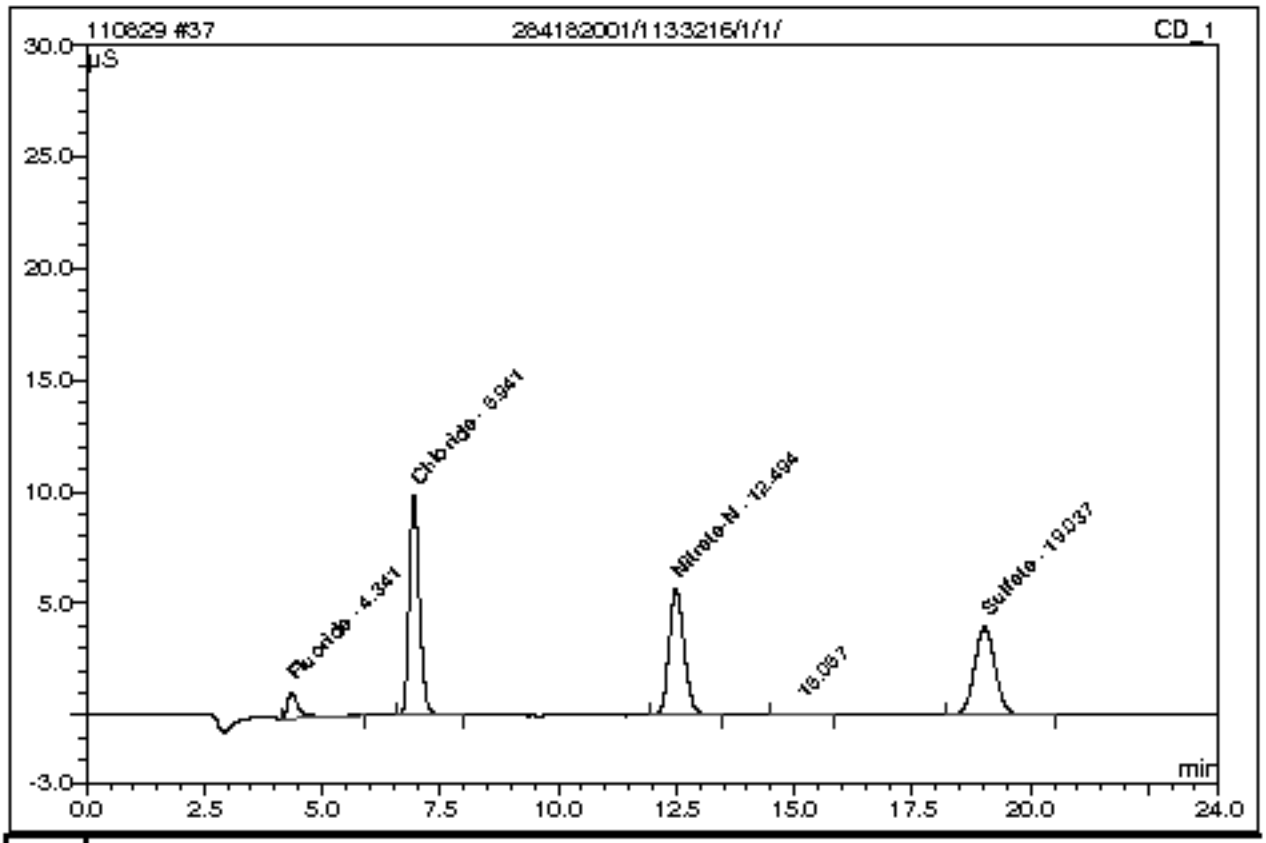
Sample Name:	1202467346/1133216/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 20:52	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	4.8705		2.75183	11.96
2	6.94	Chloride	n.a.	9.7013		4.11488	17.89
3	8.72	Nitrite-N	n.a.	4.9763		4.11868	17.90
4	10.76	Bromide	n.a.	2.5009		0.39087	1.70
5	12.47	Nitrate-N	n.a.	4.8334		4.90570	21.33
6	16.97	O-Phosphate-P	n.a.	2.7473		0.80406	3.50
7	18.99	Sulfate	n.a.	18.9742		5.91702	25.72
Total:				48.6038	0.000	23.003	100.00

37 284182001/1133216/1/1/

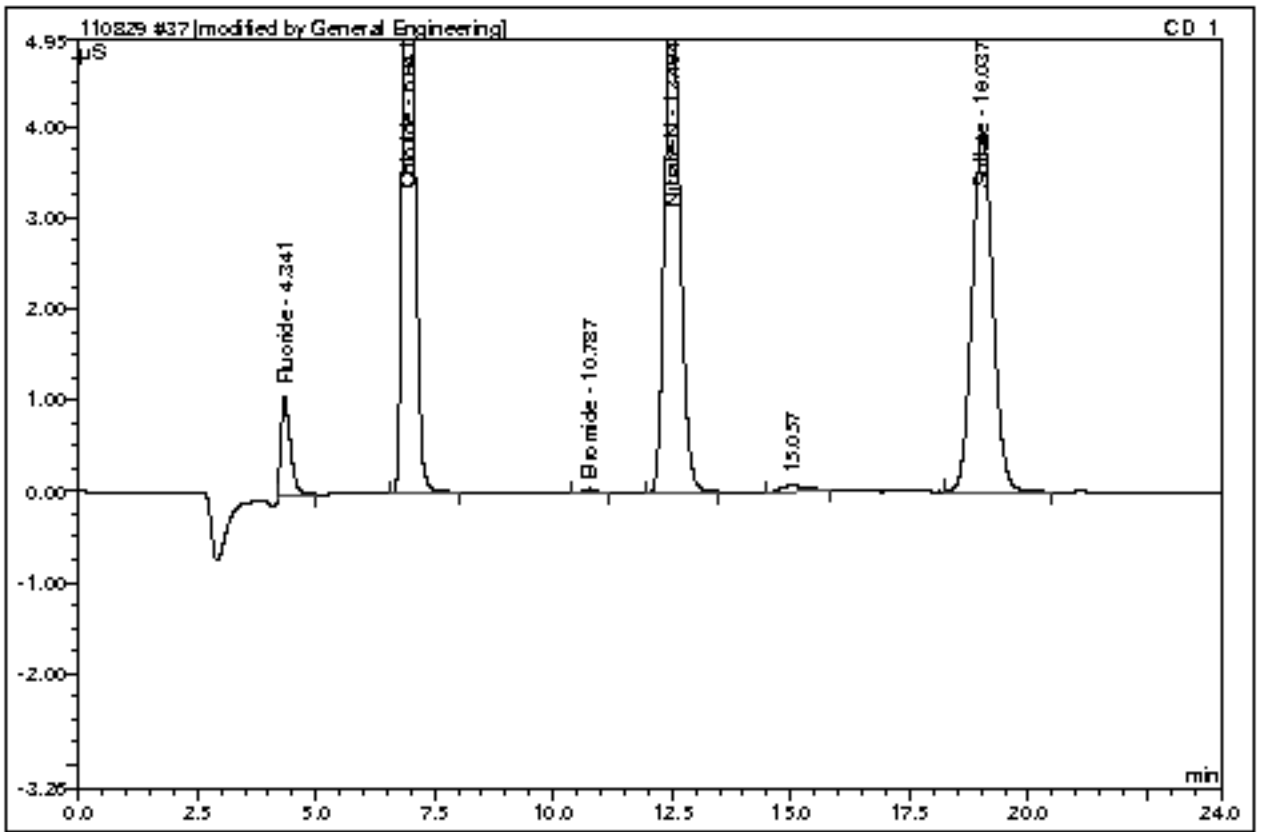
Sample Name:	284182001/1133216/1/1/	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 21:19	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.6730		0.35630	5.11
2	6.94	Chloride	n.a.	5.8507		2.45232	35.18
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	12.49	Nitrate-N	n.a.	2.1225		2.09946	30.12
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	19.04	Sulfate	n.a.	6.6522		2.01674	28.93
Total:				15.2985	0.000	6.925	99.35

37 284182001/1133216/1/1/

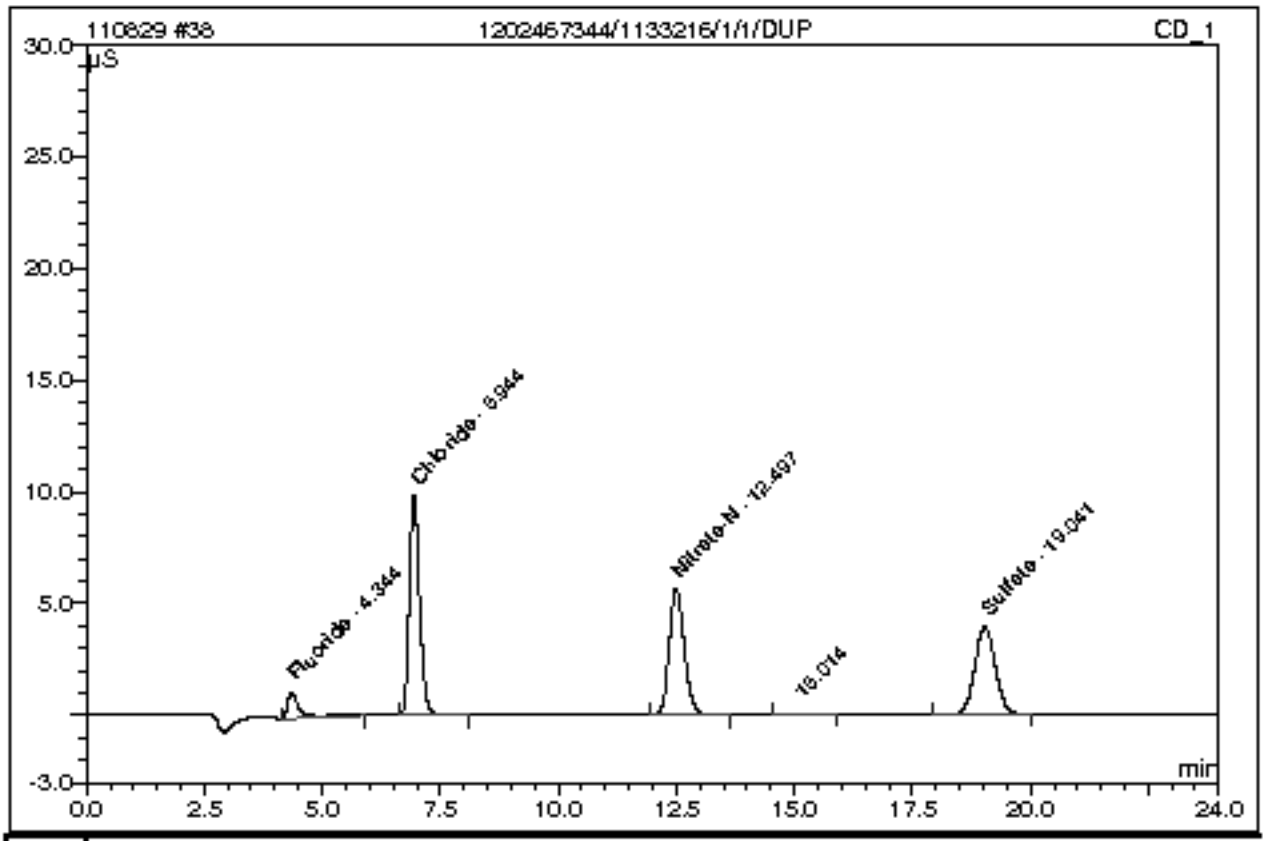
Sample Name:	284182001/1133216/1/1/	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 21:19	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.4962	*	0.25540	3.71
2	6.94	Chloride	n.a.	5.8507		2.45232	35.63
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.79	Bromide	n.a.	0.1068	*	0.01343	0.20
4	12.49	Nitrate-N	n.a.	2.1225		2.09946	30.50
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
6	19.04	Sulfate	n.a.	6.6522		2.01674	29.30
Total:				15.2285	0.000	6.837	99.34

38 1202467344/1133216/1/1/DUP

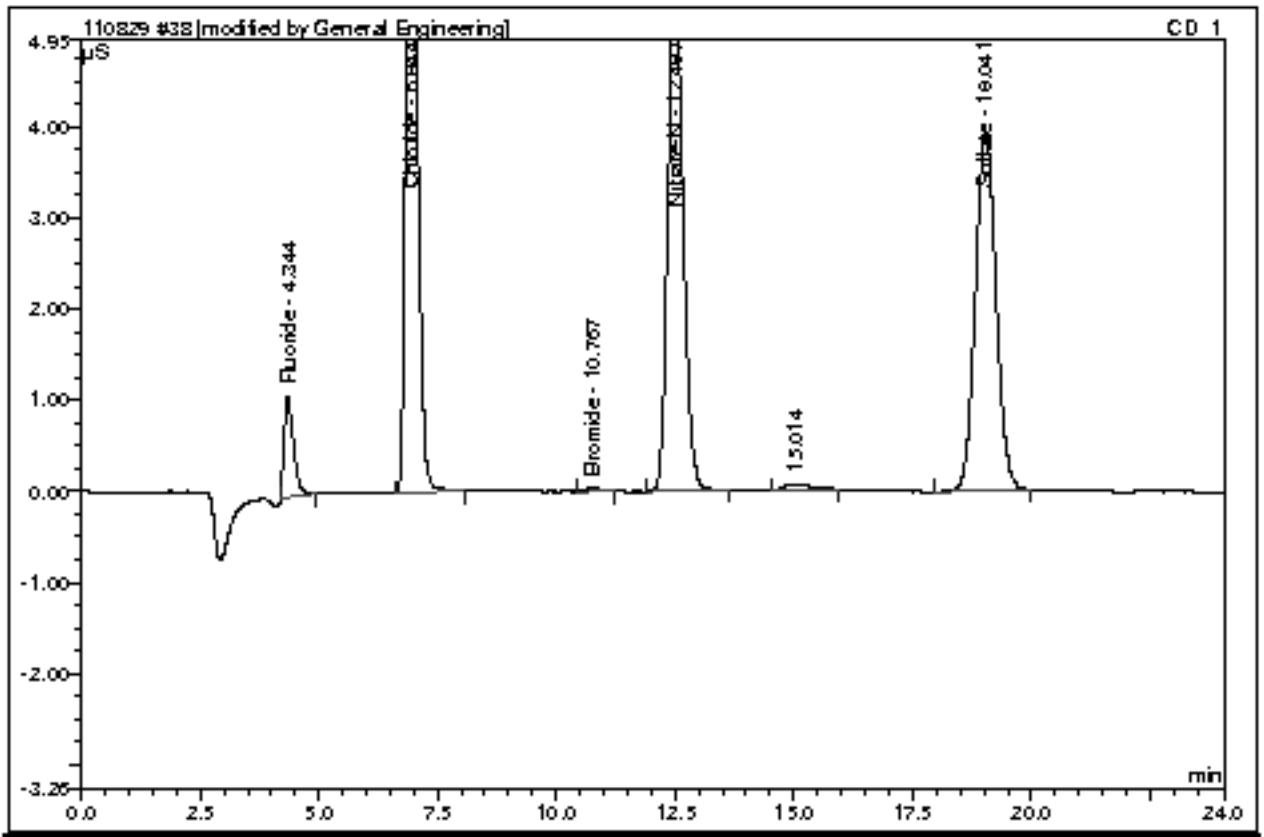
Sample Name:	1202467344/1133216/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 21:46	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.6859		0.36363	5.22
2	6.94	Chloride	n.a.	5.8741		2.46241	35.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	12.50	Nitrate-N	n.a.	2.1239		2.10093	30.13
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	19.04	Sulfate	n.a.	6.5857		1.99569	28.62
Total:				15.2696	0.000	6.923	99.29

38 1202467344/1133216/1/1/DUP

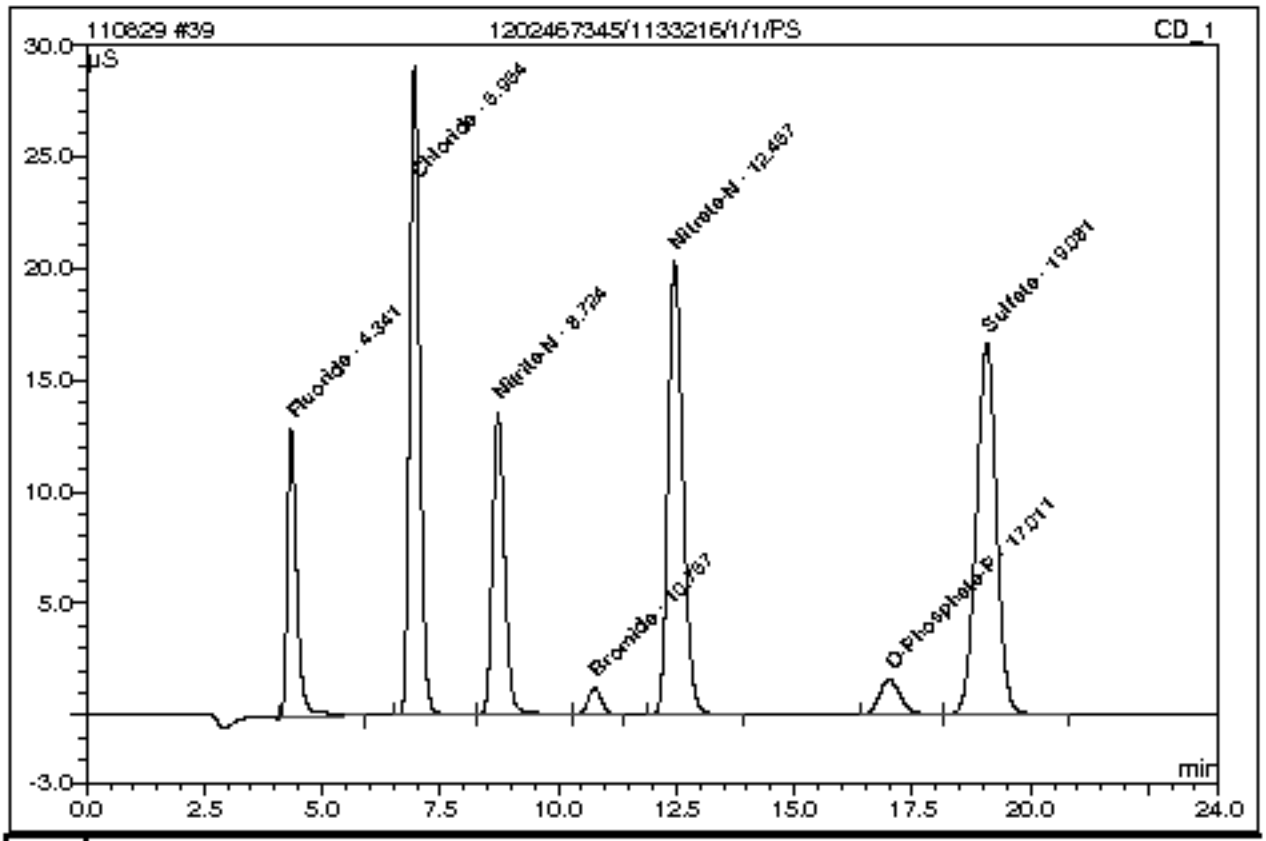
Sample Name:	1202467344/1133216/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 21:46	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.4958	*	0.25515	3.71
2	6.94	Chloride	n.a.	5.8741		2.46241	35.81
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.77	Bromide	n.a.	0.1083	*	0.01367	0.20
4	12.50	Nitrate-N	n.a.	2.1239		2.10093	30.55
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
6	19.04	Sulfate	n.a.	6.5857		1.99569	29.02
Total:				15.1879	0.000	6.828	99.28

39 1202467345/1133216/1/1/PS

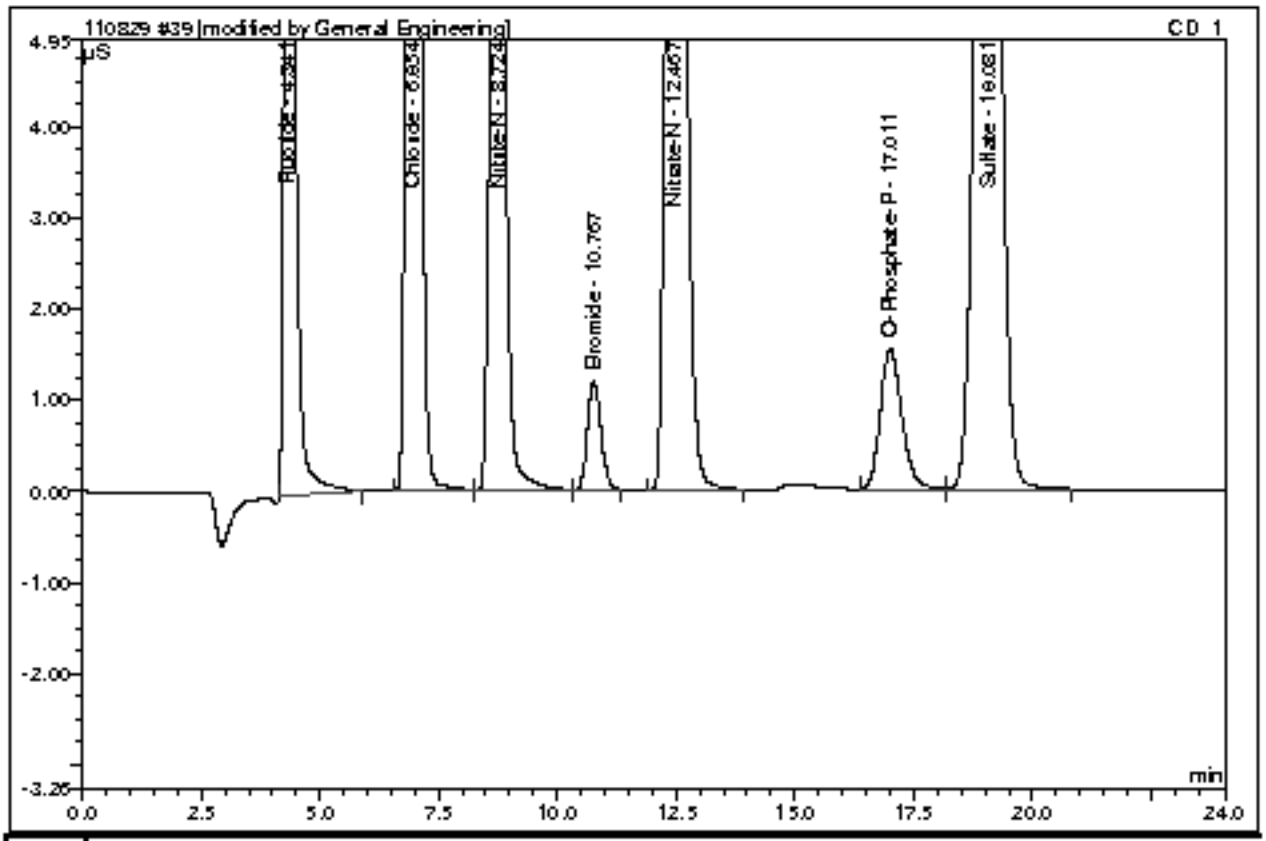
Sample Name:	1202467345/1133216/1/1/PS	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 22:13	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	5.4234		3.06737	9.90
2	6.95	Chloride	n.a.	16.4945		7.04801	22.75
3	8.72	Nitrite-N	n.a.	4.8859		4.04289	13.05
4	10.77	Bromide	n.a.	2.5072		0.39187	1.26
5	12.47	Nitrate-N	n.a.	7.2234		7.37974	23.82
6	17.01	O-Phosphate-P	n.a.	2.7814		0.81436	2.63
7	19.08	Sulfate	n.a.	26.3139		8.24026	26.59
Total:				65.6297	0.000	30.985	100.00

39 1202467345/1133216/1/1/PS

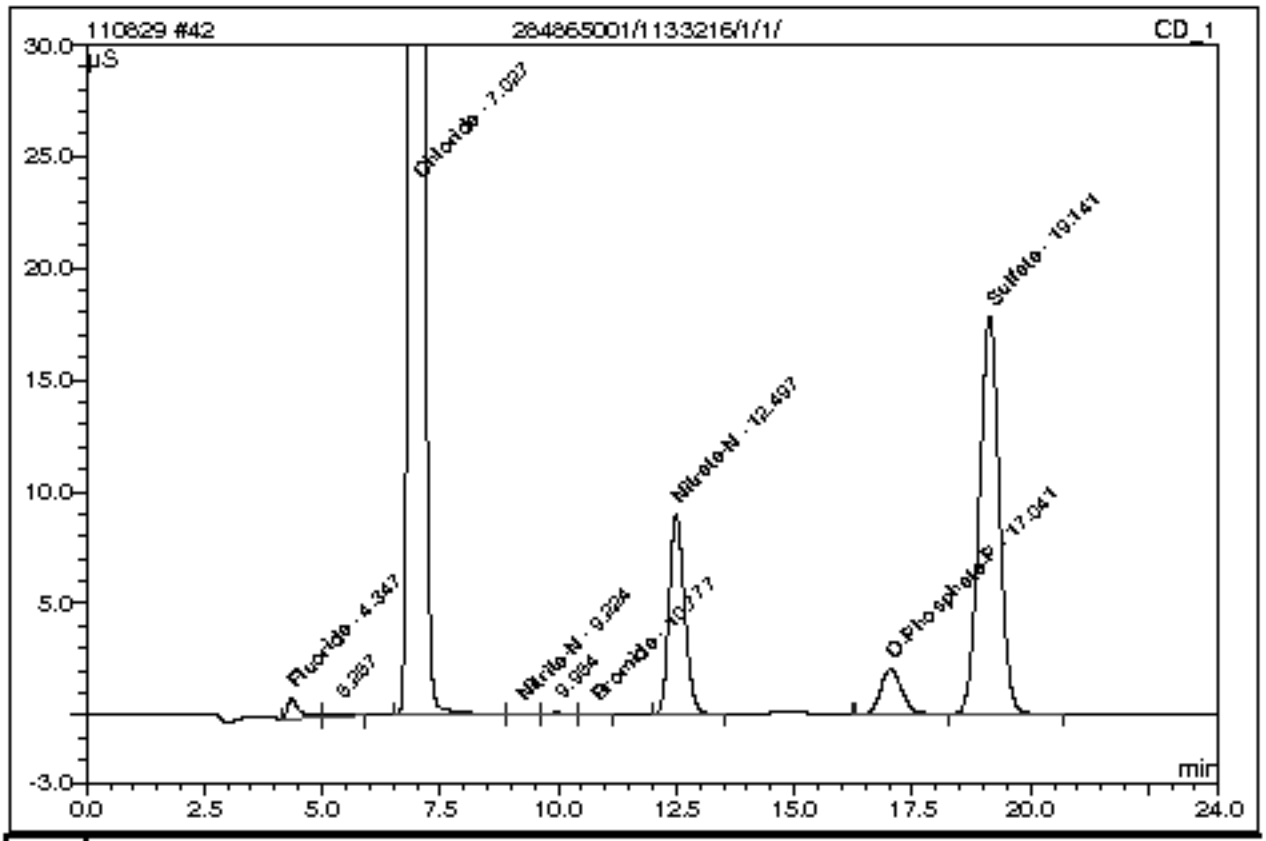
Sample Name:	1202467345/1133216/1/1/PS	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 22:13	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	5.2800		2.98553	9.66
2	6.95	Chloride	n.a.	16.4945		7.04801	22.81
3	8.72	Nitrite-N	n.a.	4.8859		4.04289	13.08
4	10.77	Bromide	n.a.	2.5072		0.39187	1.27
5	12.47	Nitrate-N	n.a.	7.2234		7.37974	23.88
6	17.01	O-Phosphate-P	n.a.	2.7814		0.81436	2.64
7	19.08	Sulfate	n.a.	26.3139		8.24026	26.67
Total:				65.4863	0.000	30.903	100.00

42 284865001/1133216/1/1/

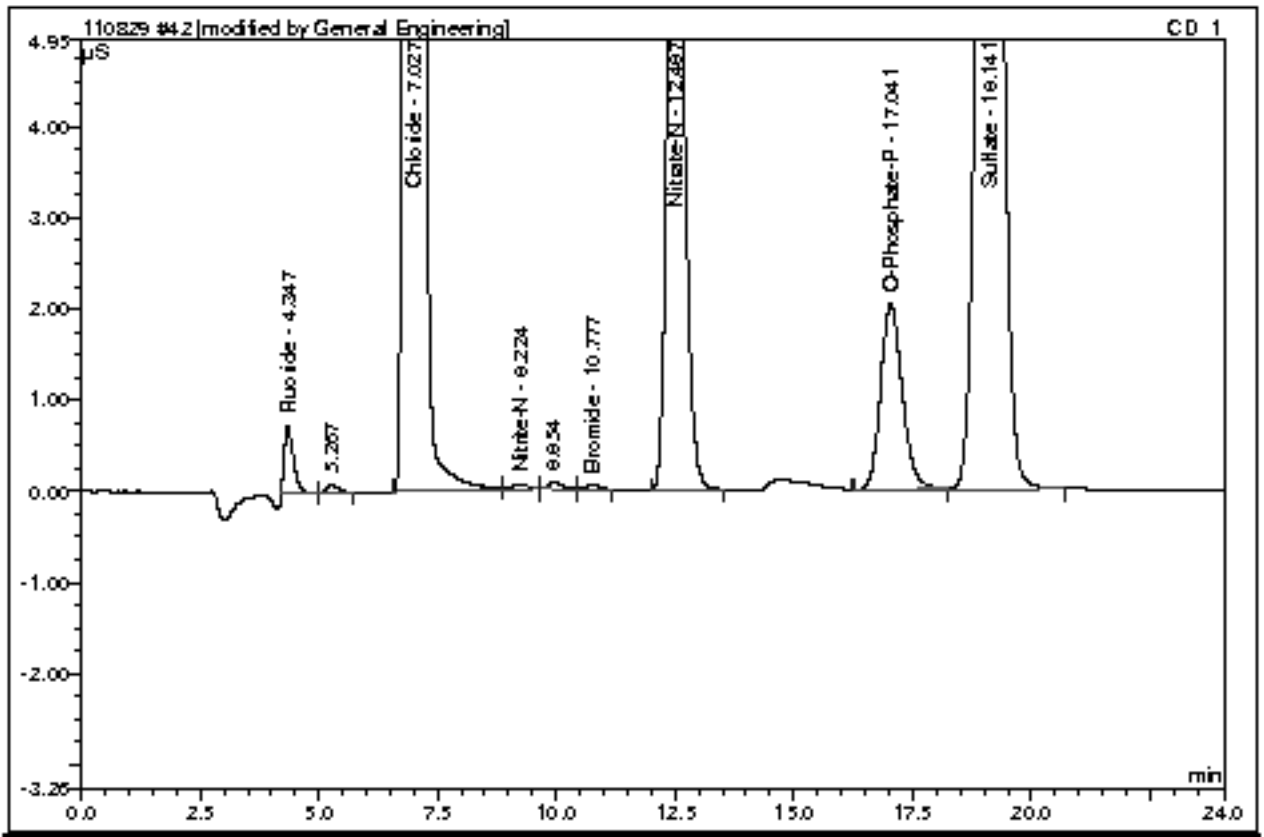
Sample Name:	284865001/1133216/1/1/	*Injection Volume:*	1.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 23:34	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.5126		0.26472	0.55
3	7.03	Chloride	n.a.	80.6405		34.74456	71.83
4	9.22	Nitrite-N	n.a.	0.0929		0.02425	0.05
6	10.78	Bromide	n.a.	0.1356		0.01797	0.04
7	12.50	Nitrate-N	n.a.	3.3851		3.40650	7.04
8	17.04	O-Phosphate-P	n.a.	3.6213		1.06787	2.21
9	19.14	Sulfate	n.a.	27.9577		8.76057	18.11
Total:				116.3458	0.000	48.286	99.82

42 284865001/1133216/1/1/

Sample Name:	284865001/1133216/1/1/	*Injection Volume:*	1.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/29/2011 23:34	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.3420		0.16737	0.35
3	7.03	Chloride	n.a.	80.6405		34.74456	72.03
4	9.22	Nitrite-N	n.a.	0.0929		0.02425	0.05
6	10.78	Bromide	n.a.	0.1356		0.01797	0.04
7	12.50	Nitrate-N	n.a.	3.3851		3.40650	7.06
8	17.04	O-Phosphate-P	n.a.	3.6213		1.06787	2.21
9	19.14	Sulfate	n.a.	27.9577		8.76057	18.16
Total:				116.1752	0.000	48.189	99.90

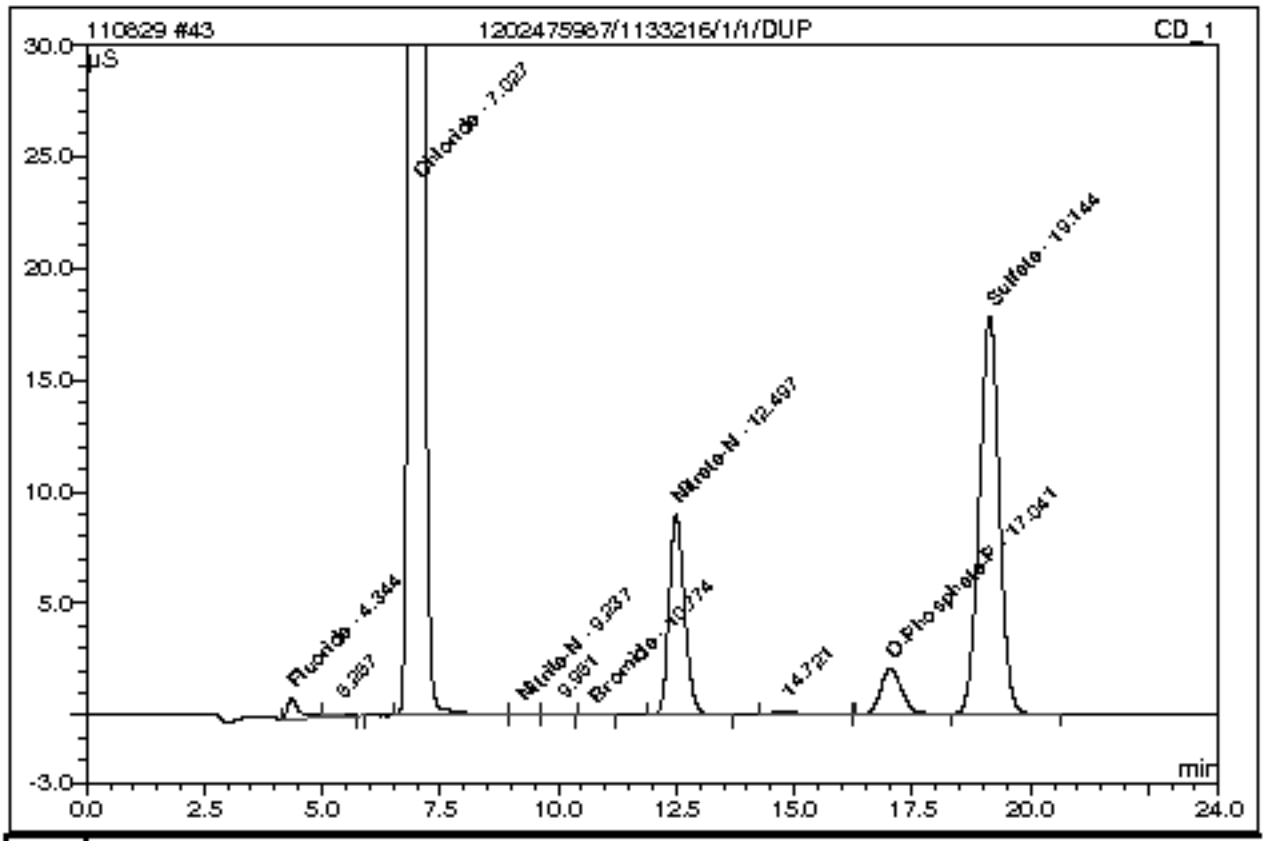
This is runlog for Sequence 110829.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202475987	08/30/11 00:01	1133216	1	110829	MAR1
1202475988	08/30/11 00:28	1133216	1	110829	MAR1
CVH	08/30/11 00:55		1	110829	MAR1
CCB	08/30/11 01:22		1	110829	MAR1
1202467339	08/30/11 01:48	1133214	1	110829	MAR1
1202467342	08/30/11 02:15	1133214	1	110829	MAR1
284063006	08/30/11 02:42	1133214	1	110829	MAR1
1202467340	08/30/11 03:09	1133214	1	110829	MAR1
1202467341	08/30/11 03:36	1133214	1	110829	MAR1
284063020	08/30/11 04:03	1133214	1	110829	MAR1
284063032	08/30/11 04:30	1133214	1	110829	MAR1
284063046	08/30/11 04:57	1133214	1	110829	MAR1
CCV	08/30/11 05:24		1	110829	MAR1
CCB	08/30/11 05:51		1	110829	MAR1
284622003	08/30/11 06:18	1133214	1	110829	MAR1
284622011	08/30/11 06:44	1133214	1	110829	MAR1
284622019	08/30/11 07:11	1133214	1	110829	MAR1
CVH	08/30/11 07:38		1	110829	MAR1
CCB	08/30/11 08:05		1	110829	MAR1
1202477137	08/30/11 08:32	1137353	1	110829	MAR1
1202477141	08/30/11 08:59	1137353	1	110829	MAR1
284896001	08/30/11 09:25	1137353	1	110829	MAR1
1202477138	08/30/11 09:52	1137353	1	110829	MAR1
1202477139	08/30/11 10:19	1137353	1	110829	MAR1
1202477140	08/30/11 10:46	1137353	1	110829	MAR1
284896002	08/30/11 11:13	1137353	1	110829	MAR1
CCV	08/30/11 11:40		1	110829	MAR1
CCB	08/30/11 12:07		1	110829	MAR1

284896001	08/30/11	12:34	1137353	20	110829	MAR1
1202477138	08/30/11	13:01	1137353	20	110829	MAR1
1202477139	08/30/11	13:28	1137353	20	110829	MAR1
1202477140	08/30/11	13:55	1137353	20	110829	MAR1
284896002	08/30/11	14:21	1137353	20	110829	MAR1
CVH	08/30/11	14:48	1		110829	MAR1
CCB	08/30/11	15:15	1		110829	MAR1
284865001	08/30/11	15:42	1133216	10	110829	MAR1
1202475987	08/30/11	16:09	1133216	10	110829	MAR1
1202475988	08/30/11	16:36	1133216	10	110829	MAR1
CCV	08/30/11	17:03	1		110829	MAR1
CCB	08/30/11	17:30	1		110829	MAR1

43 1202475987/1133216/1/1/DUP

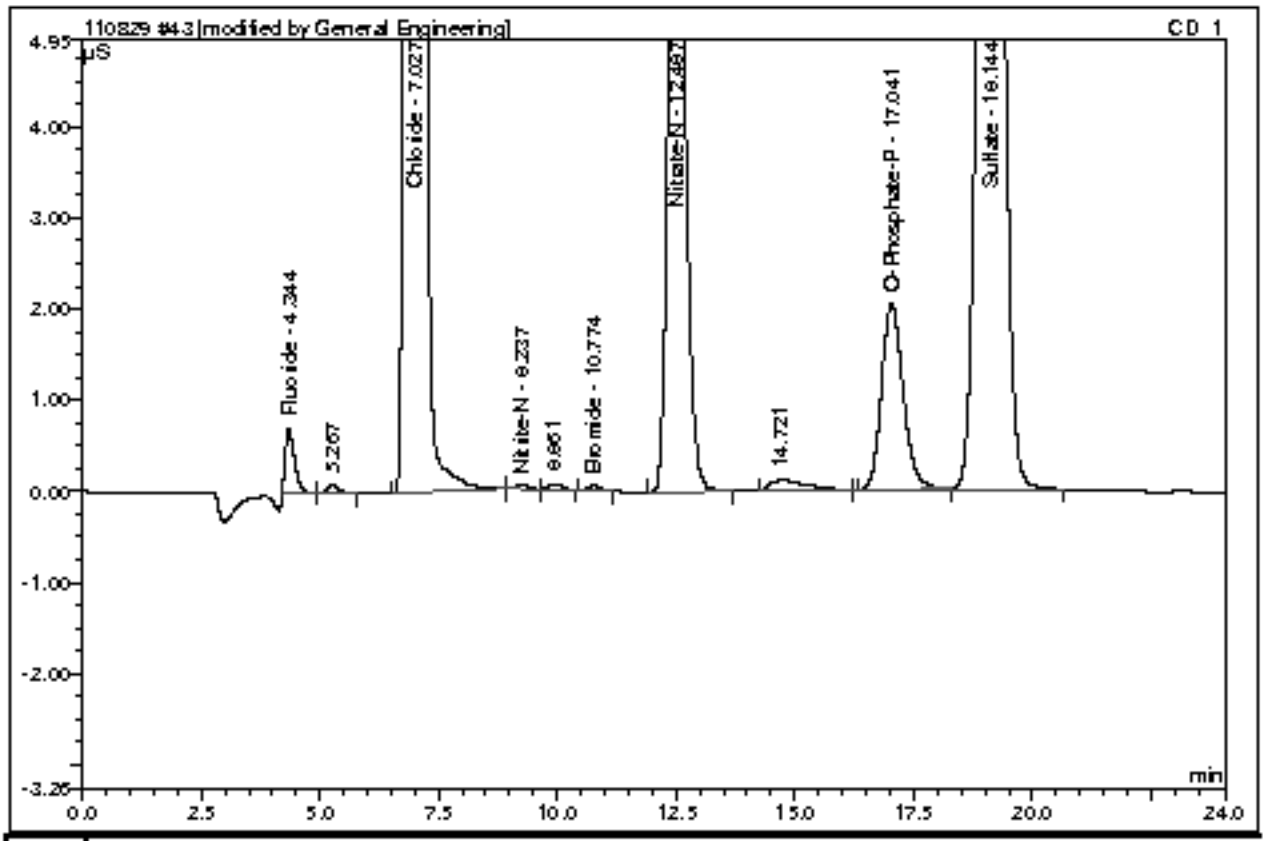
Sample Name:	1202475987/1133216/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	30	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 0:01	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.5985		0.31376	0.65
3	7.03	Chloride	n.a.	80.6201		34.73575	71.59
4	9.24	Nitrite-N	n.a.	0.0824		0.01538	0.03
6	10.77	Bromide	n.a.	0.1352		0.01791	0.04
7	12.50	Nitrate-N	n.a.	3.3970		3.41880	7.05
9	17.04	O-Phosphate-P	n.a.	3.6468		1.07557	2.22
10	19.14	Sulfate	n.a.	28.0433		8.78767	18.11
Total:				116.5233	0.000	48.365	99.67

43 1202475987/1133216/1/1/DUP

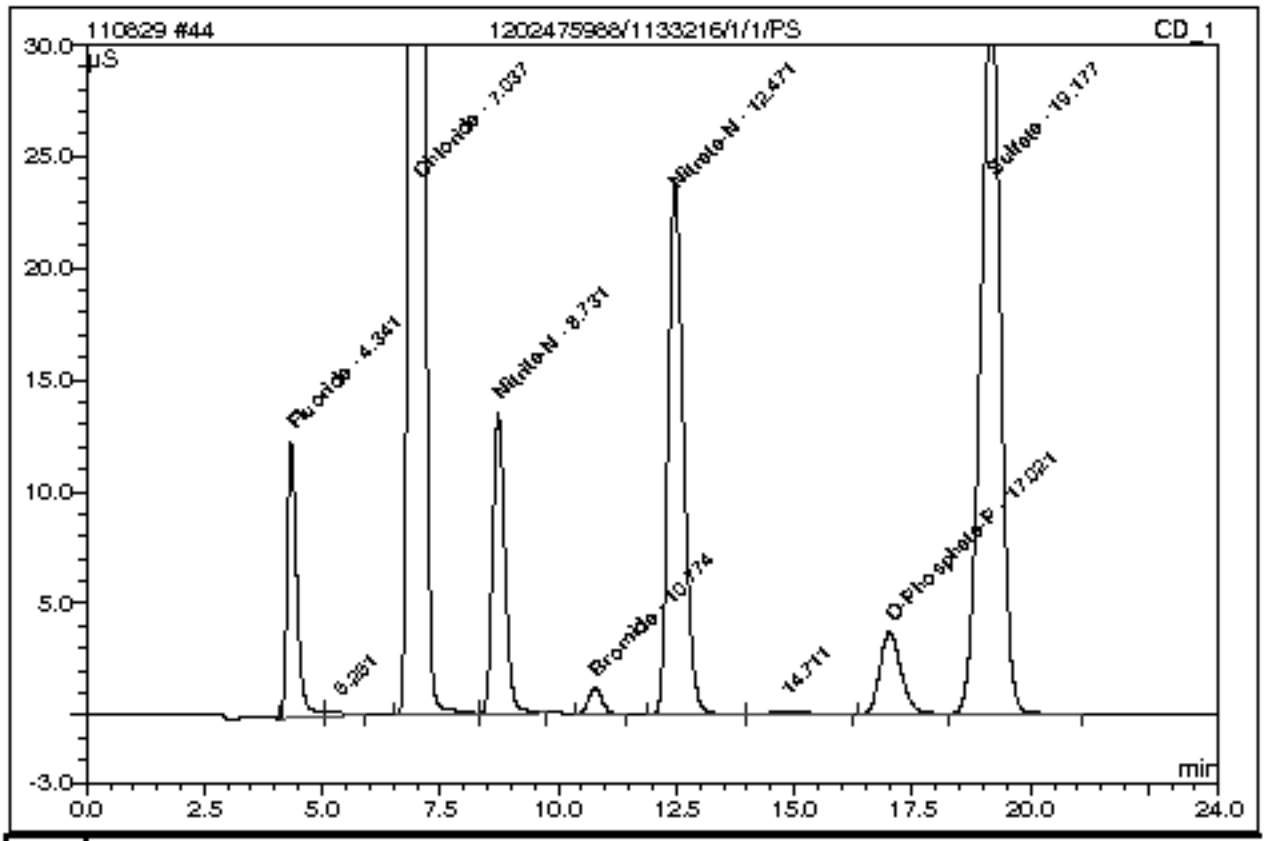
Sample Name:	1202475987/1133216/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	30	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 0:01	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.3426	*	0.16772	0.35
3	7.03	Chloride	n.a.	80.6201	*	34.73575	71.80
4	9.24	Nitrite-N	n.a.	0.0824		0.01538	0.03
6	10.77	Bromide	n.a.	0.1352		0.01791	0.04
7	12.50	Nitrate-N	n.a.	3.3970		3.41880	7.07
9	17.04	O-Phosphate-P	n.a.	3.6468		1.07557	2.22
10	19.14	Sulfate	n.a.	28.0433		8.78767	18.16
Total:				116.2674	0.000	48.219	99.66

44 1202475988/1133216/1/1/PS

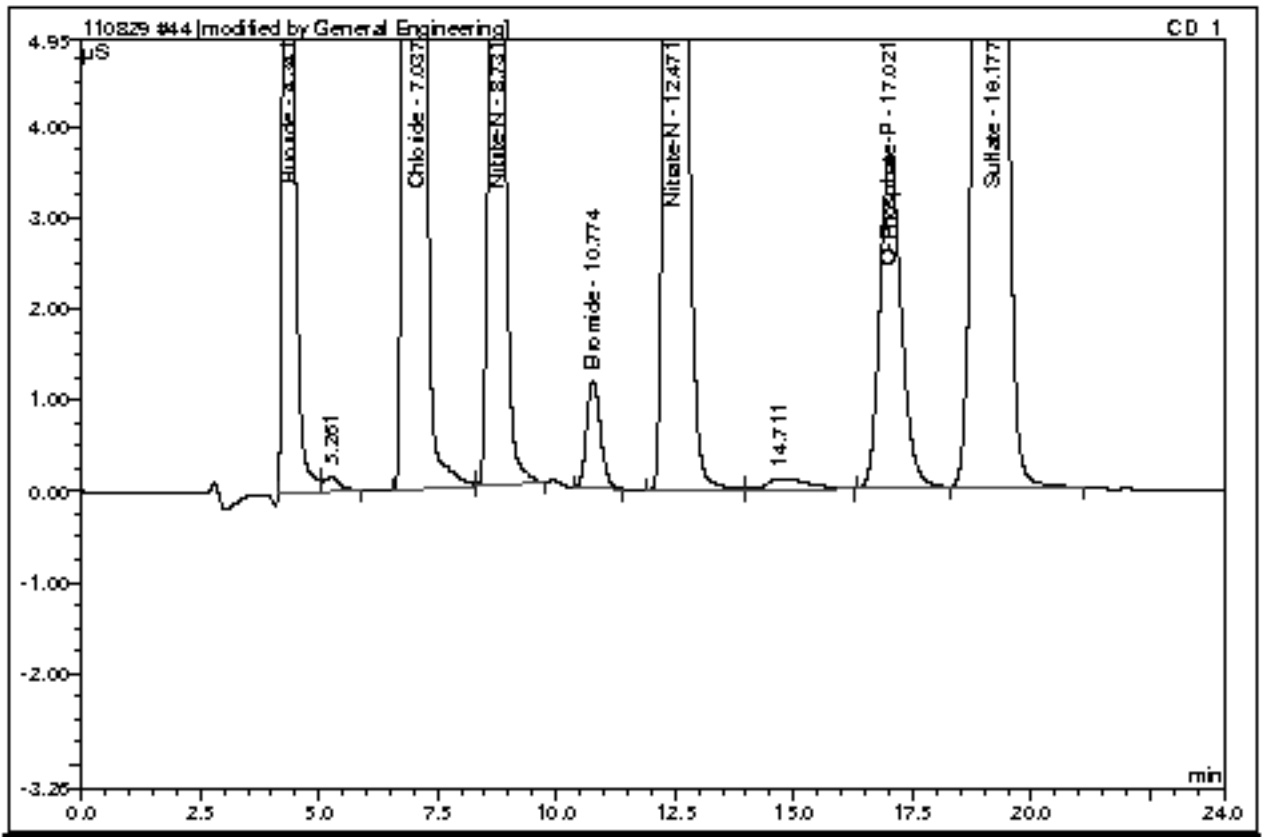
Sample Name:	1202475988/1133216/1/1/PS	*Injection Volume:*	1.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 0:28	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	5.1945		2.93672	3.96
3	7.04	Chloride	n.a.	92.5061		39.86782	53.81
4	8.73	Nitrite-N	n.a.	4.8728		4.03195	5.44
5	10.77	Bromide	n.a.	2.5794		0.40326	0.54
6	12.47	Nitrate-N	n.a.	8.7043		8.91279	12.03
8	17.02	O-Phosphate-P	n.a.	6.4366		1.91763	2.59
9	19.18	Sulfate	n.a.	50.2573		15.81906	21.35
Total:				170.5512	0.000	73.889	99.73

44 1202475988/1133216/1/1/PS

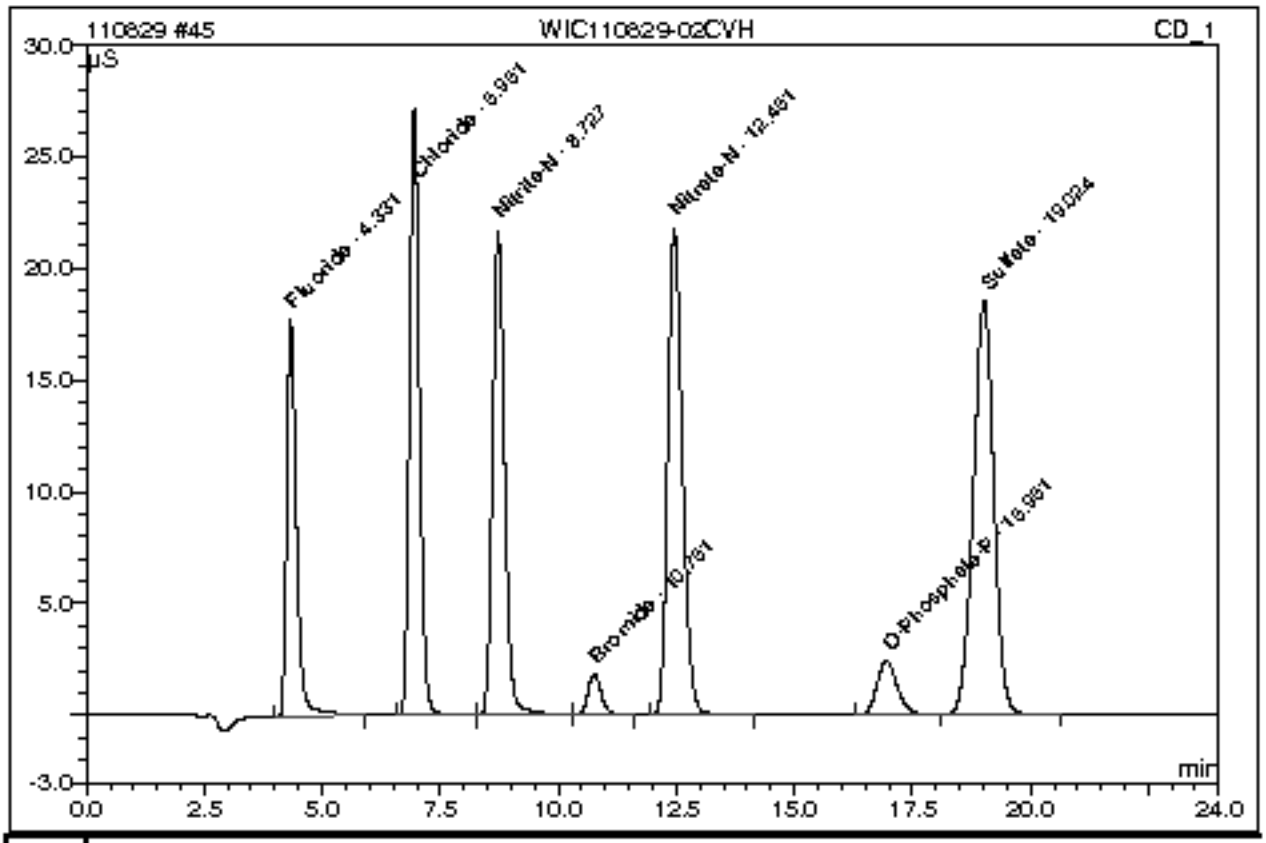
Sample Name:	1202475988/1133216/1/1/PS	*Injection Volume:*	1.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 0:28	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	5.0414		2.84934	3.85
3	7.04	Chloride	n.a.	92.5061		39.86782	53.89
4	8.73	Nitrite-N	n.a.	4.8728		4.03195	5.45
5	10.77	Bromide	n.a.	2.5794		0.40326	0.55
6	12.47	Nitrate-N	n.a.	8.7043		8.91279	12.05
8	17.02	O-Phosphate-P	n.a.	6.4366		1.91763	2.59
9	19.18	Sulfate	n.a.	50.2573		15.81906	21.38
Total:				170.3981	0.000	73.802	99.76

45 WIC110829-02CVH

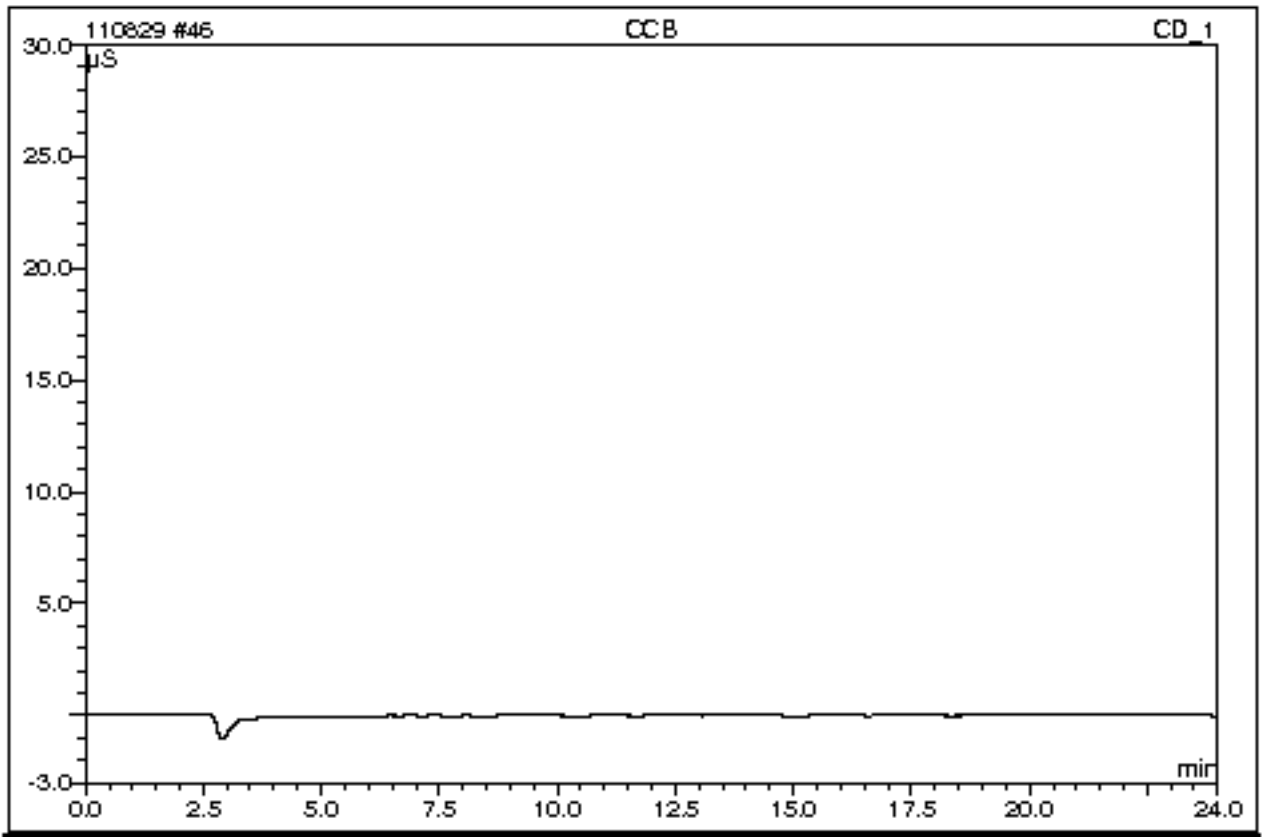
Sample Name:	WIC110829-02CVH	*Injection Volume:*	1.0
Vial Number:	32	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 0:55	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	7.4983		4.25152	11.75
2	6.95	Chloride	n.a.	15.3355		6.54756	18.09
3	8.73	Nitrite-N	n.a.	7.6939		6.39731	17.67
4	10.76	Bromide	n.a.	3.8179		0.59851	1.65
5	12.46	Nitrate-N	n.a.	7.6259		7.79645	21.54
6	16.95	O-Phosphate-P	n.a.	4.1461		1.22626	3.39
7	19.02	Sulfate	n.a.	29.9061		9.37730	25.91
Total:				76.0238	0.000	36.195	100.00

46 CCB

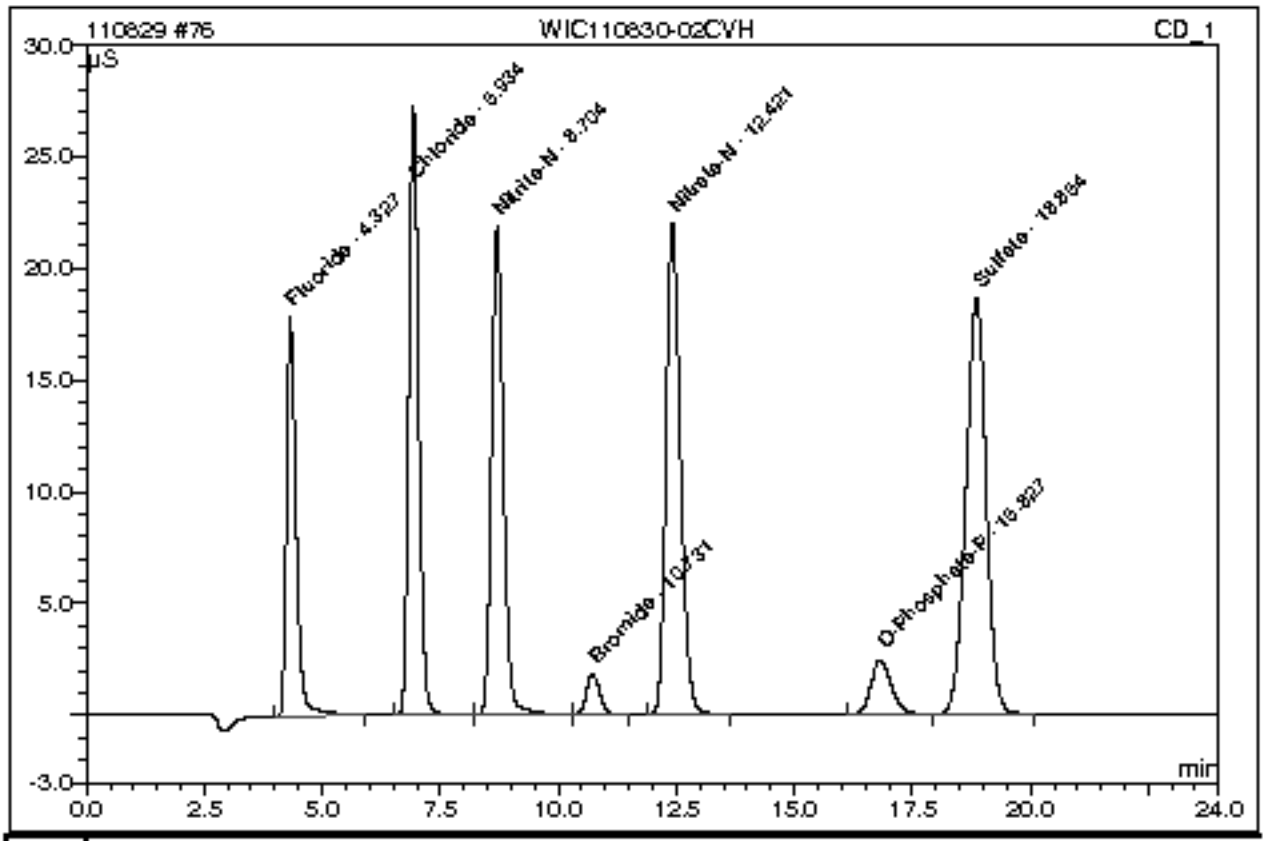
Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	33	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 1:22	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

76 WIC110830-02CVH

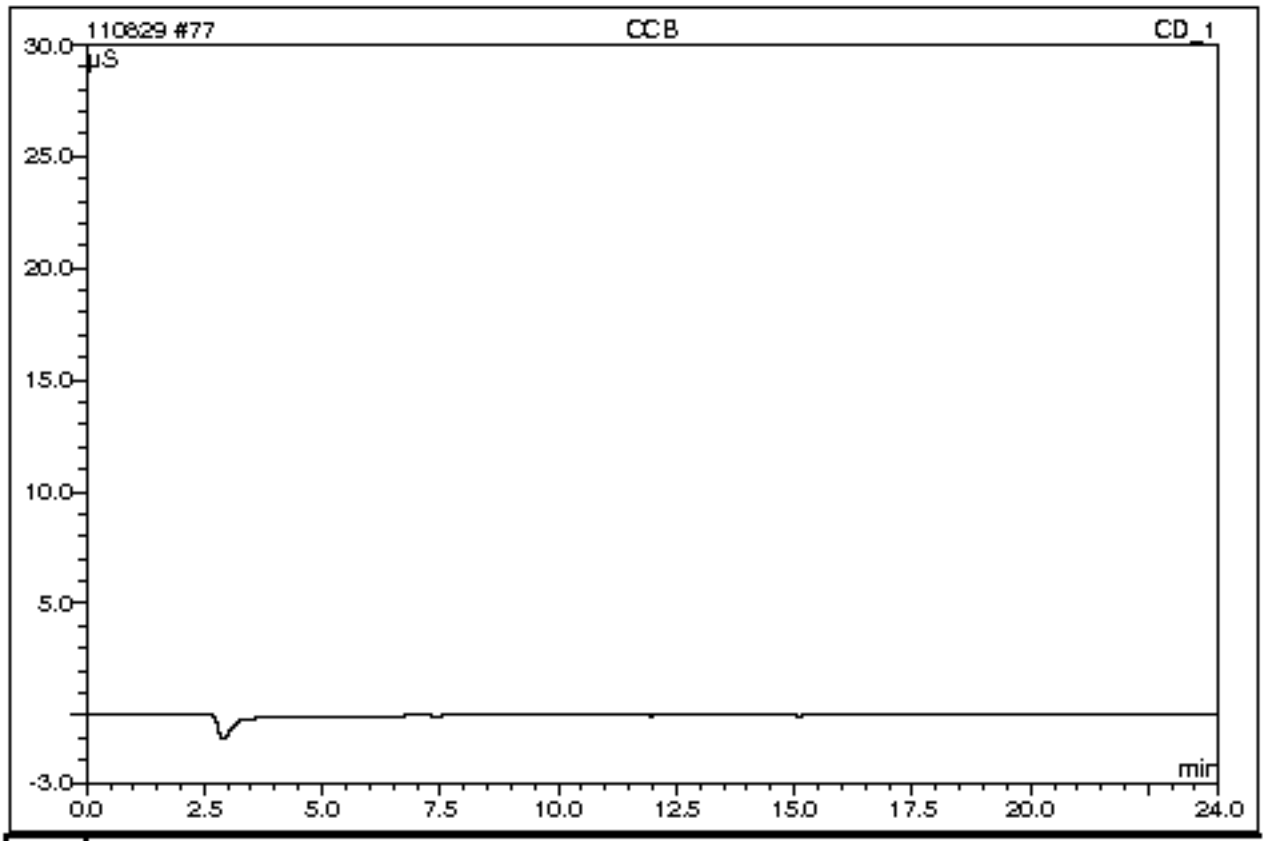
Sample Name:	WIC110830-02CVH	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 14:48	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	7.4784		4.24016	11.75
2	6.93	Chloride	n.a.	15.3296		6.54504	18.14
3	8.70	Nitrite-N	n.a.	7.6840		6.38894	17.70
4	10.73	Bromide	n.a.	3.7541		0.58845	1.63
5	12.42	Nitrate-N	n.a.	7.6044		7.77415	21.54
6	16.83	O-Phosphate-P	n.a.	4.1537		1.22857	3.40
7	18.86	Sulfate	n.a.	29.7398		9.32464	25.84
Total:				75.7440	0.000	36.090	100.00

77 CCB

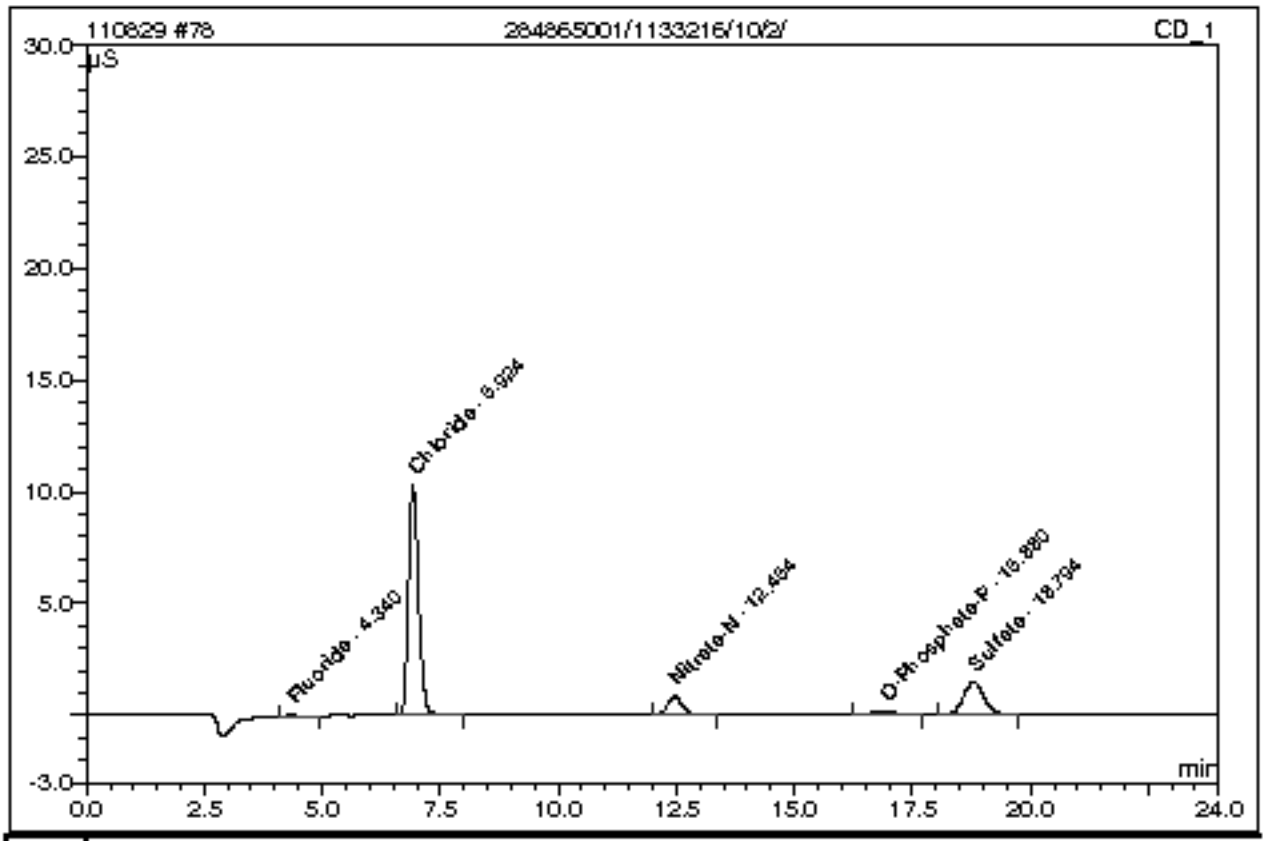
Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 15:15	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

78 284865001/1133216/10/2/

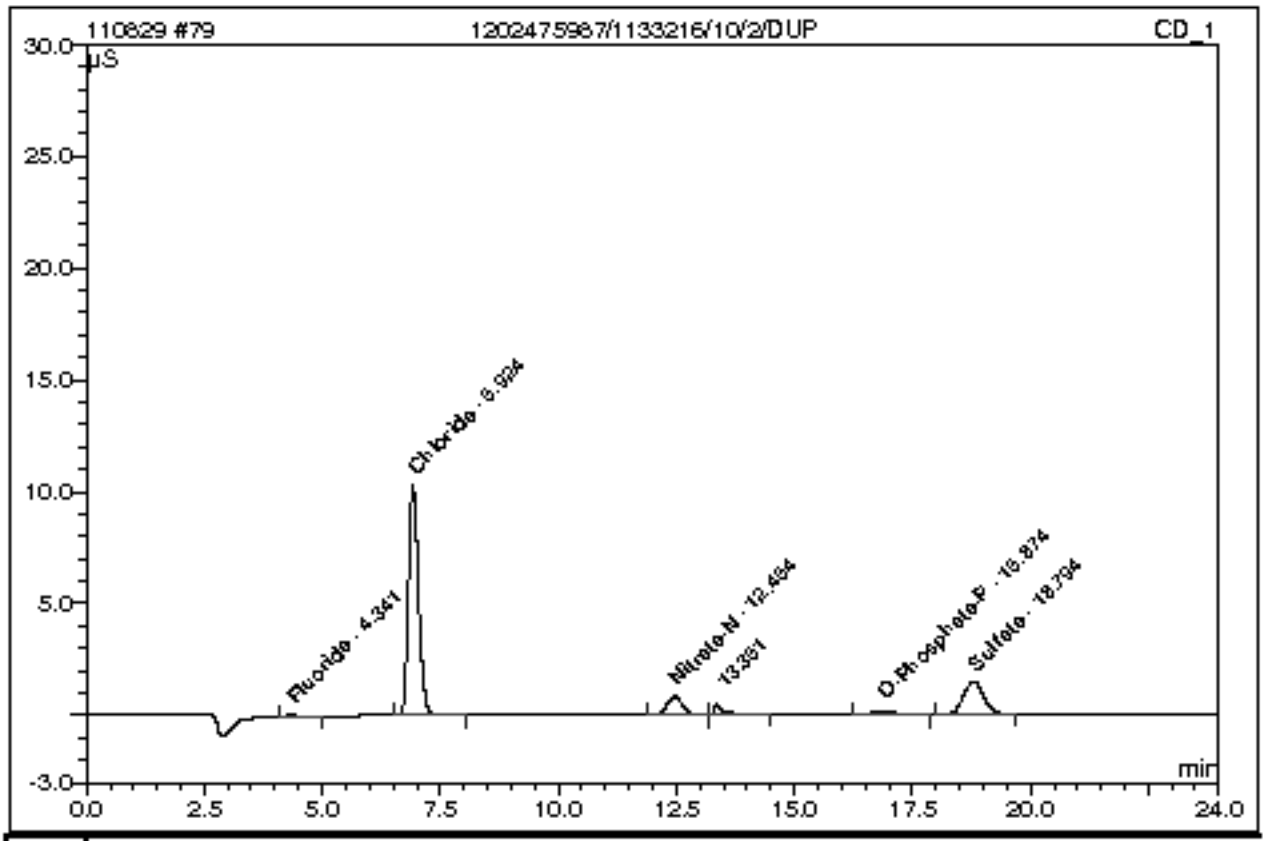
Sample Name:	284865001/1133216/10/2/	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 15:42	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.0912		0.02425	0.65
2	6.92	Chloride	n.a.	6.0461		2.53667	68.06
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	12.46	Nitrate-N	n.a.	0.3905		0.30654	8.22
4	16.88	O-Phosphate-P	n.a.	0.4354		0.10625	2.85
5	18.79	Sulfate	n.a.	2.6604		0.75320	20.21
Total:				9.6236	0.000	3.727	100.00

79 1202475987/1133216/10/2/DUP

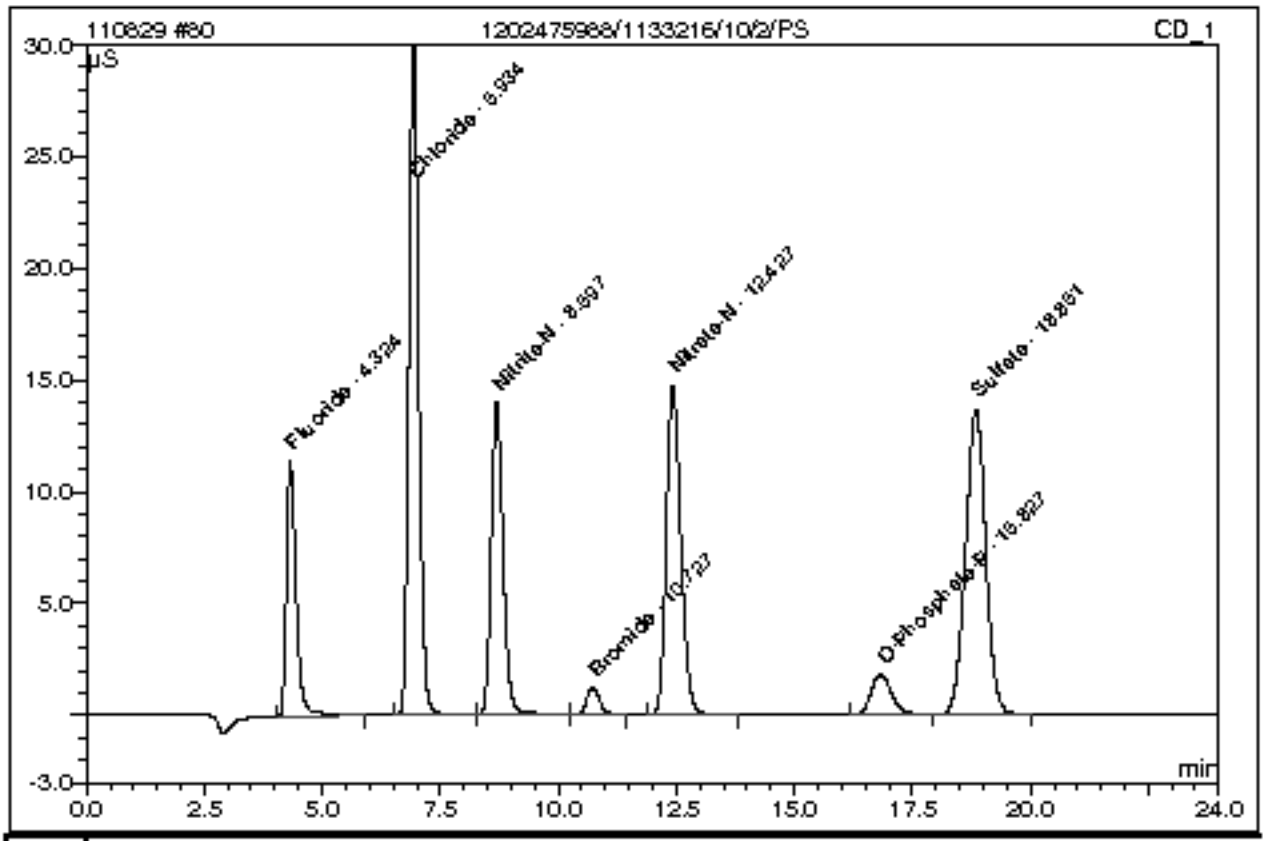
Sample Name:	1202475987/1133216/10/2/DUP	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 16:09	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	0.0946		0.02618	0.68
2	6.92	Chloride	n.a.	6.0516		2.53902	65.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	12.46	Nitrate-N	n.a.	0.3931		0.30921	8.02
5	16.87	O-Phosphate-P	n.a.	0.4574		0.11291	2.93
6	18.79	Sulfate	n.a.	2.6667		0.75523	19.58
Total:				9.6634	0.000	3.743	97.01

80 1202475988/1133216/10/2/PS

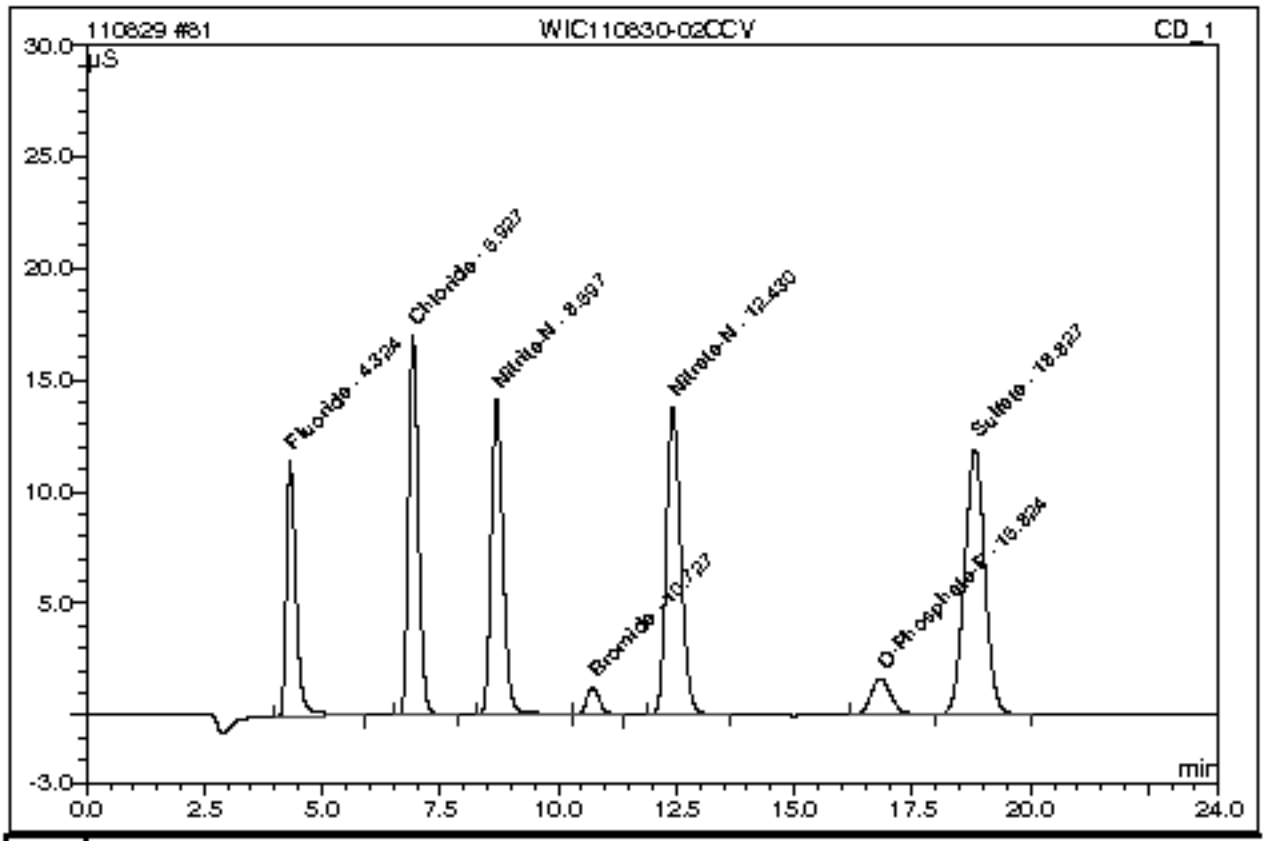
Sample Name:	1202475988/1133216/10/2/PS	*Injection Volume:*	1.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 16:36	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	n.a.	4.8406		2.73472	9.97
2	6.93	Chloride	n.a.	16.8626		7.20696	26.26
3	8.70	Nitrite-N	n.a.	4.9682		4.11195	14.98
4	10.73	Bromide	n.a.	2.5145		0.39302	1.43
5	12.43	Nitrate-N	n.a.	5.1820		5.26657	19.19
6	16.83	O-Phosphate-P	n.a.	3.1586		0.92820	3.38
7	18.85	Sulfate	n.a.	21.7659		6.80069	24.78
Total:				59.2925	0.000	27.442	100.00

81 WIC110830-02CCV

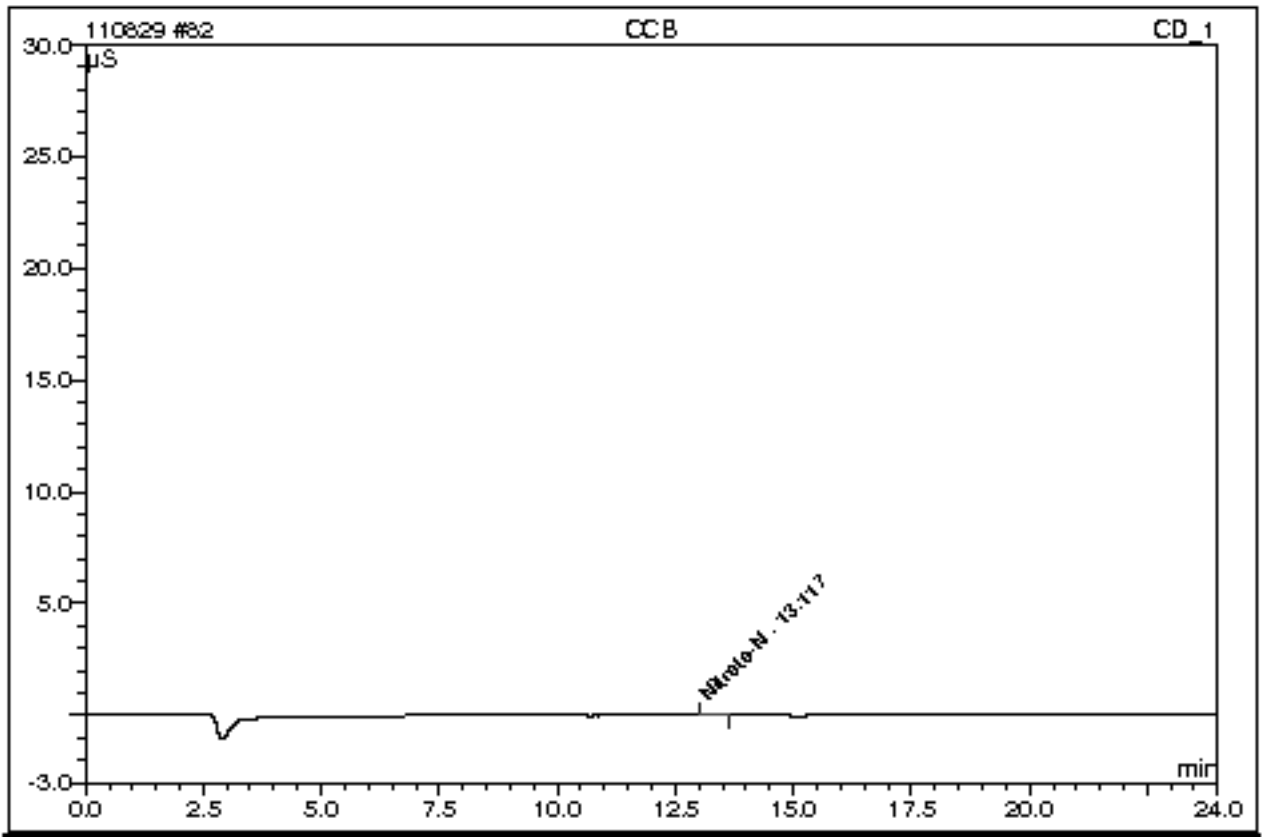
Sample Name:	WIC110830-02CCV	*Injection Volume:*	1.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 17:03	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	n.a.	4.8405		2.73467	11.90
2	6.93	Chloride	n.a.	9.6542		4.09454	17.82
3	8.70	Nitrite-N	n.a.	4.9757		4.11820	17.92
4	10.73	Bromide	n.a.	2.4818		0.38787	1.69
5	12.43	Nitrate-N	n.a.	4.8218		4.89365	21.30
6	16.82	O-Phosphate-P	n.a.	2.7708		0.81115	3.53
7	18.83	Sulfate	n.a.	19.0400		5.93784	25.84
Total:				48.5847	0.000	22.978	100.00

82 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110622an	*Sample Amount:*	1.0000
Recording Time:	8/30/2011 17:30	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.12	Nitrate-N	n.a.	0.1090		0.01512	100.00
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1090	0.000	0.015	100.00

Nitrate Nitrite by Cadmium Reduction Raw Data

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	KLP1	8/29/2011 10:18:17	OM_8-29-2011_10-17-16
1.0 PPM		1	KLP1	8/29/2011 10:19:28	OM_8-29-2011_10-17-16
0.5 ppm		1	KLP1	8/29/2011 10:20:40	OM_8-29-2011_10-17-16
0.1 ppm		1	KLP1	8/29/2011 10:21:52	OM_8-29-2011_10-17-16
0.05 ppm		1	KLP1	8/29/2011 10:23:05	OM_8-29-2011_10-17-16
ICAL-00		1	KLP1	8/29/2011 10:24:18	OM_8-29-2011_10-17-16
1.0 ppm ICV		1	KLP1	8/29/2011 10:26:39	OM_8-29-2011_10-17-16
ICB		1	KLP1	8/29/2011 10:29:00	OM_8-29-2011_10-17-16
Nitrate 1.0 ppm		1	KLP1	8/29/2011 10:31:19	OM_8-29-2011_10-17-16
Nitrite 1.0 ppm		1	KLP1	8/29/2011 10:33:38	OM_8-29-2011_10-17-16
1202470630	1134685	1	KLP1	8/29/2011 10:35:57	OM_8-29-2011_10-17-16
1202470637	1134685	1	KLP1	8/29/2011 10:37:10	OM_8-29-2011_10-17-16
284114001	1134685	1	KLP1	8/29/2011 10:38:21	OM_8-29-2011_10-17-16
1202470631	1134685	1	KLP1	8/29/2011 10:39:33	OM_8-29-2011_10-17-16
1202470633	1134685	1	KLP1	8/29/2011 10:40:46	OM_8-29-2011_10-17-16
1202470635	1134685	1	KLP1	8/29/2011 10:41:57	OM_8-29-2011_10-17-16
284195001	1134685	1	KLP1	8/29/2011 10:43:09	OM_8-29-2011_10-17-16
284222001	1134685	1	KLP1	8/29/2011 10:44:20	OM_8-29-2011_10-17-16
1202470632	1134685	1	KLP1	8/29/2011 10:45:31	OM_8-29-2011_10-17-16
1202470634	1134685	1	KLP1	8/29/2011 10:46:42	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011 10:47:54	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011 10:50:14	OM_8-29-2011_10-17-16
1202470636	1134685	1	KLP1	8/29/2011 10:52:33	OM_8-29-2011_10-17-16
284222002	1134685	1	KLP1	8/29/2011 10:53:44	OM_8-29-2011_10-17-16
284222003	1134685	1	KLP1	8/29/2011 10:54:55	OM_8-29-2011_10-17-16
284222004	1134685	1	KLP1	8/29/2011 10:56:06	OM_8-29-2011_10-17-16
284222005	1134685	1	KLP1	8/29/2011 10:57:18	OM_8-29-2011_10-17-16
284222006	1134685	1	KLP1	8/29/2011 10:58:29	OM_8-29-2011_10-17-16
284222007	1134685	1	KLP1	8/29/2011 10:59:42	OM_8-29-2011_10-17-16
284222008	1134685	1	KLP1	8/29/2011 11:00:54	OM_8-29-2011_10-17-16
284222009	1134685	1	KLP1	8/29/2011 11:02:06	OM_8-29-2011_10-17-16
284222010	1134685	1	KLP1	8/29/2011 11:03:17	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011 11:04:29	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011 11:06:50	OM_8-29-2011_10-17-16
284222011	1134685	1	KLP1	8/29/2011 11:09:10	OM_8-29-2011_10-17-16
284222012	1134685	1	KLP1	8/29/2011 11:10:21	OM_8-29-2011_10-17-16
1202466528	1132849	1	KLP1	8/29/2011 11:11:32	OM_8-29-2011_10-17-16
1202466533	1132849	1	KLP1	8/29/2011 11:12:43	OM_8-29-2011_10-17-16
283521001	1132849	50	KLP1	8/29/2011 11:13:55	OM_8-29-2011_10-17-16
1202466529	1132849	50	KLP1	8/29/2011 11:15:05	OM_8-29-2011_10-17-16
1202466531	1132849	50	KLP1	8/29/2011 11:16:16	OM_8-29-2011_10-17-16
283521002	1132849	10	KLP1	8/29/2011 11:17:27	OM_8-29-2011_10-17-16
283521003	1132849	500	KLP1	8/29/2011 11:18:38	OM_8-29-2011_10-17-16
283521004	1132849	100	KLP1	8/29/2011 11:19:50	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011 11:21:02	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011 11:23:23	OM_8-29-2011_10-17-16
283521005	1132849	100	KLP1	8/29/2011 11:25:43	OM_8-29-2011_10-17-16
283521006	1132849	10	KLP1	8/29/2011 11:26:54	OM_8-29-2011_10-17-16
283521007	1132849	1	KLP1	8/29/2011 11:28:06	OM_8-29-2011_10-17-16
283521008	1132849	1	KLP1	8/29/2011 11:29:18	OM_8-29-2011_10-17-16
283521009	1132849	1	KLP1	8/29/2011 11:30:30	OM_8-29-2011_10-17-16
283521010	1132849	10	KLP1	8/29/2011 11:31:42	OM_8-29-2011_10-17-16
283521011	1132849	1	KLP1	8/29/2011 11:32:53	OM_8-29-2011_10-17-16
1202466530	1132849	1	KLP1	8/29/2011 11:34:05	OM_8-29-2011_10-17-16
1202466532	1132849	1	KLP1	8/29/2011 11:35:16	OM_8-29-2011_10-17-16
283521012	1132849	1	KLP1	8/29/2011 11:36:27	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011 11:37:38	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011 11:39:59	OM_8-29-2011_10-17-16

283521013	1132849	10	KLP1	8/29/2011	11:42:18	OM_8-29-2011_10-17-16
283521014	1132849	1	KLP1	8/29/2011	11:43:28	OM_8-29-2011_10-17-16
283521015	1132849	10	KLP1	8/29/2011	11:44:39	OM_8-29-2011_10-17-16
283521016	1132849	1	KLP1	8/29/2011	11:45:50	OM_8-29-2011_10-17-16
283521017	1132849	10	KLP1	8/29/2011	11:47:02	OM_8-29-2011_10-17-16
283521018	1132849	10	KLP1	8/29/2011	11:48:14	OM_8-29-2011_10-17-16
283521019	1132849	1	KLP1	8/29/2011	11:49:26	OM_8-29-2011_10-17-16
283521020	1132849	10	KLP1	8/29/2011	11:50:38	OM_8-29-2011_10-17-16
283521011	1132849	5	KLP1	8/29/2011	11:51:50	OM_8-29-2011_10-17-16
1202466530	1132849	5	KLP1	8/29/2011	11:53:01	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	11:54:13	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	11:56:33	OM_8-29-2011_10-17-16
1202466532	1132849	5	KLP1	8/29/2011	11:58:53	OM_8-29-2011_10-17-16
1202466534	1132850	1	KLP1	8/29/2011	12:00:05	OM_8-29-2011_10-17-16
1202466539	1132850	1	KLP1	8/29/2011	12:01:16	OM_8-29-2011_10-17-16
283531001	1132850	50	KLP1	8/29/2011	12:02:28	OM_8-29-2011_10-17-16
1202466535	1132850	50	KLP1	8/29/2011	12:03:40	OM_8-29-2011_10-17-16
1202466537	1132850	50	KLP1	8/29/2011	12:04:51	OM_8-29-2011_10-17-16
283531002	1132850	10	KLP1	8/29/2011	12:06:02	OM_8-29-2011_10-17-16
283531003	1132850	10	KLP1	8/29/2011	12:07:14	OM_8-29-2011_10-17-16
283531004	1132850	10	KLP1	8/29/2011	12:08:24	OM_8-29-2011_10-17-16
283531005	1132850	10	KLP1	8/29/2011	12:09:36	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	12:10:47	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	12:13:08	OM_8-29-2011_10-17-16
283622001	1132850	10	KLP1	8/29/2011	12:15:27	OM_8-29-2011_10-17-16
1202466536	1132850	10	KLP1	8/29/2011	12:16:37	OM_8-29-2011_10-17-16
1202466538	1132850	10	KLP1	8/29/2011	12:17:50	OM_8-29-2011_10-17-16
283622002	1132850	50	KLP1	8/29/2011	12:19:02	OM_8-29-2011_10-17-16
283622003	1132850	50	KLP1	8/29/2011	12:20:14	OM_8-29-2011_10-17-16
283622004	1132850	100	KLP1	8/29/2011	12:21:26	OM_8-29-2011_10-17-16
283622005	1132850	10	KLP1	8/29/2011	12:22:38	OM_8-29-2011_10-17-16
283622006	1132850	10	KLP1	8/29/2011	12:23:50	OM_8-29-2011_10-17-16
283622007	1132850	10	KLP1	8/29/2011	12:25:02	OM_8-29-2011_10-17-16
283622008	1132850	100	KLP1	8/29/2011	12:26:13	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	12:27:24	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	12:29:45	OM_8-29-2011_10-17-16
283622009	1132850	50	KLP1	8/29/2011	12:32:05	OM_8-29-2011_10-17-16
283622010	1132850	50	KLP1	8/29/2011	12:33:16	OM_8-29-2011_10-17-16
283622011	1132850	10	KLP1	8/29/2011	12:34:27	OM_8-29-2011_10-17-16
283622012	1132850	1	KLP1	8/29/2011	12:35:38	OM_8-29-2011_10-17-16
283622013	1132850	10	KLP1	8/29/2011	12:36:49	OM_8-29-2011_10-17-16
283622014	1132850	50	KLP1	8/29/2011	12:38:00	OM_8-29-2011_10-17-16
283622015	1132850	10	KLP1	8/29/2011	12:39:11	OM_8-29-2011_10-17-16
1202466565	1132859	1	KLP1	8/29/2011	12:40:23	OM_8-29-2011_10-17-16
1202466570	1132859	1	KLP1	8/29/2011	12:41:35	OM_8-29-2011_10-17-16
283626001	1132859	50	KLP1	8/29/2011	12:42:47	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	12:43:59	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	12:46:20	OM_8-29-2011_10-17-16
283626002	1132859	1	KLP1	8/29/2011	12:48:40	OM_8-29-2011_10-17-16
283626003	1132859	1	KLP1	8/29/2011	12:49:52	OM_8-29-2011_10-17-16
283626004	1132859	10	KLP1	8/29/2011	12:51:03	OM_8-29-2011_10-17-16
283626006	1132859	10	KLP1	8/29/2011	12:52:15	OM_8-29-2011_10-17-16
283626007	1132859	10	KLP1	8/29/2011	12:53:27	OM_8-29-2011_10-17-16
283626008	1132859	10	KLP1	8/29/2011	12:54:38	OM_8-29-2011_10-17-16
1202466566	1132859	10	KLP1	8/29/2011	12:55:49	OM_8-29-2011_10-17-16
1202466568	1132859	10	KLP1	8/29/2011	12:57:00	OM_8-29-2011_10-17-16
283626009	1132859	10	KLP1	8/29/2011	12:58:11	OM_8-29-2011_10-17-16
283626010	1132859	1	KLP1	8/29/2011	12:59:23	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	13:00:34	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	13:02:55	OM_8-29-2011_10-17-16

283626011	1132859	10	KLP1	8/29/2011	13:05:15	OM_8-29-2011_10-17-16
283626012	1132859	10	KLP1	8/29/2011	13:06:25	OM_8-29-2011_10-17-16
283626013	1132859	10	KLP1	8/29/2011	13:07:38	OM_8-29-2011_10-17-16
283626015	1132859	10	KLP1	8/29/2011	13:08:50	OM_8-29-2011_10-17-16
283914003	1132859	10	KLP1	8/29/2011	13:10:02	OM_8-29-2011_10-17-16
1202466567	1132859	10	KLP1	8/29/2011	13:11:13	OM_8-29-2011_10-17-16
1202466569	1132859	10	KLP1	8/29/2011	13:12:26	OM_8-29-2011_10-17-16
284015001	1132859	1	KLP1	8/29/2011	13:13:37	OM_8-29-2011_10-17-16
283626008	1132859	100	KLP1	8/29/2011	13:14:49	OM_8-29-2011_10-17-16
1202466566	1132859	100	KLP1	8/29/2011	13:16:00	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	13:17:11	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	13:19:33	OM_8-29-2011_10-17-16
1202466568	1132859	100	KLP1	8/29/2011	13:21:52	OM_8-29-2011_10-17-16
1202473630	1135957	1	KLP1	8/29/2011	13:23:03	OM_8-29-2011_10-17-16
1202473633	1135957	1	KLP1	8/29/2011	13:24:14	OM_8-29-2011_10-17-16
284580001	1135957	1	KLP1	8/29/2011	13:25:26	OM_8-29-2011_10-17-16
284653001	1135957	50	KLP1	8/29/2011	13:26:37	OM_8-29-2011_10-17-16
1202473631	1135957	50	KLP1	8/29/2011	13:27:49	OM_8-29-2011_10-17-16
1202473632	1135957	50	KLP1	8/29/2011	13:29:00	OM_8-29-2011_10-17-16
284653002	1135957	100	KLP1	8/29/2011	13:30:12	OM_8-29-2011_10-17-16
284653003	1135957	10	KLP1	8/29/2011	13:31:23	OM_8-29-2011_10-17-16
284688001	1135957	10	KLP1	8/29/2011	13:32:34	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	13:33:45	OM_8-29-2011_10-17-16
CCB		1	KLP1	8/29/2011	13:36:06	OM_8-29-2011_10-17-16
284580001*	1135957	10	KLP1	8/29/2011	13:38:25	OM_8-29-2011_10-17-16
1202476265*	1137011	1	KLP1	8/29/2011	13:39:38	OM_8-29-2011_10-17-16
1202476268*	1137011	1	KLP1	8/29/2011	13:40:50	OM_8-29-2011_10-17-16
284804004*	1137011	1	KLP1	8/29/2011	13:42:02	OM_8-29-2011_10-17-16
284804005*	1137011	1	KLP1	8/29/2011	13:43:13	OM_8-29-2011_10-17-16
284804006*	1137011	1	KLP1	8/29/2011	13:44:26	OM_8-29-2011_10-17-16
284804007*	1137011	1	KLP1	8/29/2011	13:45:37	OM_8-29-2011_10-17-16
284804008*	1137011	1	KLP1	8/29/2011	13:46:49	OM_8-29-2011_10-17-16
284804009*	1137011	1	KLP1	8/29/2011	13:48:01	OM_8-29-2011_10-17-16
284865001*	1137011	10	KLP1	8/29/2011	13:49:12	OM_8-29-2011_10-17-16
1.0 ppm CCV		1	KLP1	8/29/2011	13:50:23	OM_8-29-2011_10-17-16

Author: lachat Date : 8/29/2011

Original Run Filename: OM_8-29-2011_10-17-16.OMN created 8/29/2011 10:17:16
Original Run Author's Signature: [lachat]
Current Run Filename: OM_8-29-2011_10-17-16.OMN last modified 8/29/2011 13:51:45
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 0354AF
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110829-26	1	S9	1.50	15.7	8/29/2011@10:18:17			1.5 PPM
WTR110829-25	1	S10	1.00	10.7	8/29/2011@10:19:28			1.0 PPM
WTR110829-24	1	S11	0.500	5.30	8/29/2011@10:20:40			0.5 ppm
WTR110829-23	1	S12	0.100	1.06	8/29/2011@10:21:52			0.1 ppm
WTR110829-21	1	S13	0.0500	0.559	8/29/2011@10:23:05			0.05 ppm
0.0ppm	1	S15	0.00	0.0281	8/29/2011@10:24:18			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99993 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR110829-27 ICV	1	S16	1.04	11.0	8/29/2011@10:26:39			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.04 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.04 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	3.36e-4	0.0412	8/29/2011@10:29:00			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	3.36e-4 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	3.36e-4 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR110829-22	1	S1	0.973	10.3	8/29/2011@10:31:19			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.973 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.973 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR110829-28	1	S2	1.06	11.2	8/29/2011@10:33:38			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.06 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.06 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202470630|1134685|MB	1	1	0.00324	0.0717	8/29/2011@10:35:57			
1202470637||LCS	1	2	1.02	10.8	8/29/2011@10:37:10			
284114001	1	3	0.0180	0.227	8/29/2011@10:38:21			
1202470631||DUP	1	4	0.0103	0.146	8/29/2011@10:39:33			
1202470633||MS	1	5	0.890	9.41	8/29/2011@10:40:46			

1202470635||MSD	1	6	0.922	9.74	8/29/2011@10:41:57			
284195001	1	8	1.83	19.3	8/29/2011@10:43:09			
284222001	1	9	0.0102	0.145	8/29/2011@10:44:20			
1202470632||DUP	1	10	0.00867	0.129	8/29/2011@10:45:31			
1202470634||MS	1	11	0.969	10.2	8/29/2011@10:46:42			
WTR110829-25 CCV	1	S10	1.01	10.7	8/29/2011@10:47:54			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00154	0.0214	8/29/2011@10:50:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00154 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00154 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202470636||MSD	1	12	0.974	10.3	8/29/2011@10:52:33			
284222002	1	13	0.0367	0.424	8/29/2011@10:53:44			
284222003	1	14	0.0114	0.157	8/29/2011@10:54:55			
284222004	1	15	0.0158	0.204	8/29/2011@10:56:06			
284222005	1	16	0.0221	0.270	8/29/2011@10:57:18			
284222006	1	17	0.0130	0.175	8/29/2011@10:58:29			
284222007	1	18	0.0132	0.177	8/29/2011@10:59:42			
284222008	1	19	0.0199	0.247	8/29/2011@11:00:54			
284222009	1	20	0.0492	0.556	8/29/2011@11:02:06			
284222010	1	21	0.0106	0.149	8/29/2011@11:03:17			
WTR110829-25 CCV	1	S10	1.00	10.6	8/29/2011@11:04:29			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00109	0.0263	8/29/2011@11:06:50			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00109 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00109 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284222011	1	22	0.0130	0.174	8/29/2011@11:09:10			
284222012	1	23	0.0212	0.261	8/29/2011@11:10:21			
1202466528|1132849|MB	1	24	0.00753	0.117	8/29/2011@11:11:32			
1202466533||LCS	1	25	1.03	10.9	8/29/2011@11:12:43			
283521001	1	26	0.362	3.85	8/29/2011@11:13:55		50.00	
1202466529||DUP	1	27	0.362	3.85	8/29/2011@11:15:05		50.00	
1202466531||PS	1	28	1.33	14.1	8/29/2011@11:16:16		50.00	
283521002	1	29	0.221	2.36	8/29/2011@11:17:27		10.00	
283521003	1	30	0.151	1.63	8/29/2011@11:18:38		500.00	
283521004	1	31	0.252	2.69	8/29/2011@11:19:50		100.00	
WTR110829-25 CCV	1	S10	1.00	10.6	8/29/2011@11:21:02			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-9.98e-4	0.0272	8/29/2011@11:23:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-9.98e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-9.98e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283521005	1	32	0.561	5.94	8/29/2011@11:25:43		100.00	
283521006	1	33	0.372	3.96	8/29/2011@11:26:54		10.00	
283521007	1	34	-0.0201	-0.174	8/29/2011@11:28:06			
283521008	1	35	0.361	3.84	8/29/2011@11:29:18			
283521009	1	36	0.297	3.16	8/29/2011@11:30:30			
283521010	1	37	0.964	10.2	8/29/2011@11:31:42		10.00	
283521011	1	38	-0.0332	-0.312	8/29/2011@11:32:53			
1202466530||DUP	1	39	-0.0362	-0.343	8/29/2011@11:34:05			
1202466532||PS	1	40	0.410	4.35	8/29/2011@11:35:16			
283521012	1	41	-0.0429	-0.414	8/29/2011@11:36:27			
WTR110829-25 CCV	1	S10	1.08	11.4	8/29/2011@11:37:38			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.08 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.08 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00102	0.0269	8/29/2011@11:39:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00102 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00102 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283521013	1	42	0.264	2.82	8/29/2011@11:42:18		10.00	
283521014	1	43	-0.0440	-0.426	8/29/2011@11:43:28			
283521015	1	44	0.908	9.60	8/29/2011@11:44:39		10.00	
283521016	1	45	-0.0393	-0.376	8/29/2011@11:45:50			
283521017	1	46	1.42	15.0	8/29/2011@11:47:02		10.00	
283521018	1	47	1.04	11.0	8/29/2011@11:48:14		10.00	
283521019	1	48	0.0702	0.776	8/29/2011@11:49:26			
283521020	1	49	0.704	7.45	8/29/2011@11:50:38		10.00	
283521011	1	117	0.0108	0.151	8/29/2011@11:51:50		5.00	
1202466530||DUP	1	118	0.00820	0.124	8/29/2011@11:53:01		5.00	
WTR110829-25 CCV	1	S10	1.06	11.2	8/29/2011@11:54:13			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.06 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.06 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-9.36e-4	0.0278	8/29/2011@11:56:33			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-9.36e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-9.36e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202466532||PS	1	119	1.04	11.0	8/29/2011@11:58:53		5.00	
1202466534|1132850|MB	1	50	0.00938	0.136	8/29/2011@12:00:05			
1202466539||LCS	1	51	1.08	11.4	8/29/2011@12:01:16			
283531001	1	52	0.317	3.37	8/29/2011@12:02:28		50.00	
1202466535||DUP	1	53	0.317	3.37	8/29/2011@12:03:40		50.00	
1202466537||PS	1	54	1.32	13.9	8/29/2011@12:04:51		50.00	
283531002	1	55	0.196	2.10	8/29/2011@12:06:02		10.00	
283531003	1	56	0.715	7.56	8/29/2011@12:07:14		10.00	
283531004	1	57	0.108	1.17	8/29/2011@12:08:24		10.00	
283531005	1	58	0.415	4.40	8/29/2011@12:09:36		10.00	
WTR110829-25 CCV	1	S10	1.04	10.9	8/29/2011@12:10:47			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.04 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.04 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-5.11e-4	0.0323	8/29/2011@12:13:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-5.11e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-5.11e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283622001	1	59	0.217	2.32	8/29/2011@12:15:27		10.00	
1202466536||DUP	1	60	0.216	2.31	8/29/2011@12:16:37		10.00	
1202466538||PS	1	61	1.23	12.9	8/29/2011@12:17:50		10.00	
283622002	1	62	0.667	7.06	8/29/2011@12:19:02		50.00	
283622003	1	63	0.604	6.40	8/29/2011@12:20:14		50.00	
283622004	1	64	1.27	13.4	8/29/2011@12:21:26		100.00	
283622005	1	65	0.197	2.11	8/29/2011@12:22:38		10.00	
283622006	1	66	1.28	13.5	8/29/2011@12:23:50		10.00	
283622007	1	67	0.403	4.28	8/29/2011@12:25:02		10.00	
283622008	1	68	0.553	5.86	8/29/2011@12:26:13		100.00	
WTR110829-25 CCV	1	S10	1.02	10.8	8/29/2011@12:27:24			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-7.05e-4	0.0303	8/29/2011@12:29:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-7.05e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-7.05e-4 > -0.0500					
		Message	CCB Passed					

		Action	Continue					
283622009	1	69	0.622	6.58	8/29/2011@12:32:05		50.00	
283622010	1	70	0.361	3.84	8/29/2011@12:33:16		50.00	
283622011	1	71	0.402	4.27	8/29/2011@12:34:27		10.00	
283622012	1	72	0.662	7.00	8/29/2011@12:35:38			
283622013	1	73	0.522	5.53	8/29/2011@12:36:49		10.00	
283622014	1	74	1.52	16.0	8/29/2011@12:38:00		50.00	
283622015	1	75	0.338	3.60	8/29/2011@12:39:11		10.00	
1202466565|1132859|MB	1	76	0.00913	0.134	8/29/2011@12:40:23			
1202466570||LCS	1	77	1.08	11.5	8/29/2011@12:41:35			
283626001	1	78	0.851	8.99	8/29/2011@12:42:47		50.00	
WTR110829-25 CCV	1	S10	1.05	11.1	8/29/2011@12:43:59			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.05 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.05 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-8.76e-4	0.0285	8/29/2011@12:46:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-8.76e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-8.76e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283626002	1	79	0.177	1.90	8/29/2011@12:48:40			
283626003	1	80	0.0310	0.364	8/29/2011@12:49:52			
283626004	1	81	0.214	2.29	8/29/2011@12:51:03		10.00	
283626006	1	82	0.282	3.00	8/29/2011@12:52:15		10.00	
283626007	1	83	0.446	4.74	8/29/2011@12:53:27		10.00	
283626008	1	84	3.66	38.5	8/29/2011@12:54:38		10.00	
1202466566||DUP	1	85	3.65	38.4	8/29/2011@12:55:49		10.00	
1202466568||PS	1	86	4.59	48.4	8/29/2011@12:57:00		10.00	
283626009	1	87	0.228	2.44	8/29/2011@12:58:11		10.00	
283626010	1	88	0.375	3.99	8/29/2011@12:59:23			
WTR110829-25 CCV	1	S10	1.10	11.6	8/29/2011@13:00:34			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.10 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.10 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-8.21e-4	0.0291	8/29/2011@13:02:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-8.21e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-8.21e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283626011	1	89	0.169	1.81	8/29/2011@13:05:15		10.00	
283626012	1	90	0.361	3.83	8/29/2011@13:06:25		10.00	
283626013	1	91	0.243	2.59	8/29/2011@13:07:38		10.00	
283626015	1	92	0.130	1.41	8/29/2011@13:08:50		10.00	
283914003	1	93	0.940	9.93	8/29/2011@13:10:02		10.00	
1202466567||DUP	1	94	0.931	9.84	8/29/2011@13:11:13		10.00	
1202466569||PS	1	95	1.96	20.7	8/29/2011@13:12:26		10.00	

284015001	1	96	-0.0399	-0.382	8/29/2011@13:13:37			
283626008	1	84	0.380	4.04	8/29/2011@13:14:49		100.00	
1202466566||DUP	1	85	0.374	3.98	8/29/2011@13:16:00		100.00	
WTR110829-25 CCV	1	S10	1.09	11.5	8/29/2011@13:17:11			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.09 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.09 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-8.36e-4	0.0289	8/29/2011@13:19:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-8.36e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-8.36e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202466568||PS	1	86	1.39	14.7	8/29/2011@13:21:52		100.00	
1202473630|1135957|MB	1	97	0.00221	0.0610	8/29/2011@13:23:03			
1202473633||LCS	1	98	1.08	11.4	8/29/2011@13:24:14			
284580001	1	99	-0.107	-1.08	8/29/2011@13:25:26			
284653001	1	100	0.369	3.92	8/29/2011@13:26:37		50.00	
1202473631||DUP	1	101	0.358	3.80	8/29/2011@13:27:49		50.00	
1202473632||PS	1	102	1.44	15.2	8/29/2011@13:29:00		50.00	
284653002	1	103	0.377	4.01	8/29/2011@13:30:12		100.00	
284653003	1	104	0.0930	1.02	8/29/2011@13:31:23		10.00	
284688001	1	105	0.122	1.33	8/29/2011@13:32:34		10.00	
WTR110829-25 CCV	1	S10	1.09	11.5	8/29/2011@13:33:45			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.09 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.09 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-9.91e-4	0.0273	8/29/2011@13:36:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-9.91e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-9.91e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284580001	1	99	0.00324	0.0718	8/29/2011@13:38:25		10.00	
1202476265|1137011|MB	1	106	0.00715	0.113	8/29/2011@13:39:38			
1202476268||LCS	1	107	1.08	11.4	8/29/2011@13:40:50			
284804004	1	108	-0.0706	-0.705	8/29/2011@13:42:02			
284804005	1	109	-0.0951	-0.963	8/29/2011@13:43:13			
284804006	1	110	-0.129	-1.32	8/29/2011@13:44:26			
284804007	1	111	-0.122	-1.25	8/29/2011@13:45:37			
284804008	1	112	-0.122	-1.24	8/29/2011@13:46:49			
284804009	1	113	-0.117	-1.19	8/29/2011@13:48:01			
284865001	1	114	0.397	4.22	8/29/2011@13:49:12		10.00	
WTR110829-25 CCV	1	S10	1.12	11.9	8/29/2011@13:50:23			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.12 > 1.10					
		Message	CCV Failed					

Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	1.12 > 0.894					
Message	CCV Passed					
Action	Continue					

Channel 1 (NO3 + NO2) : Current View

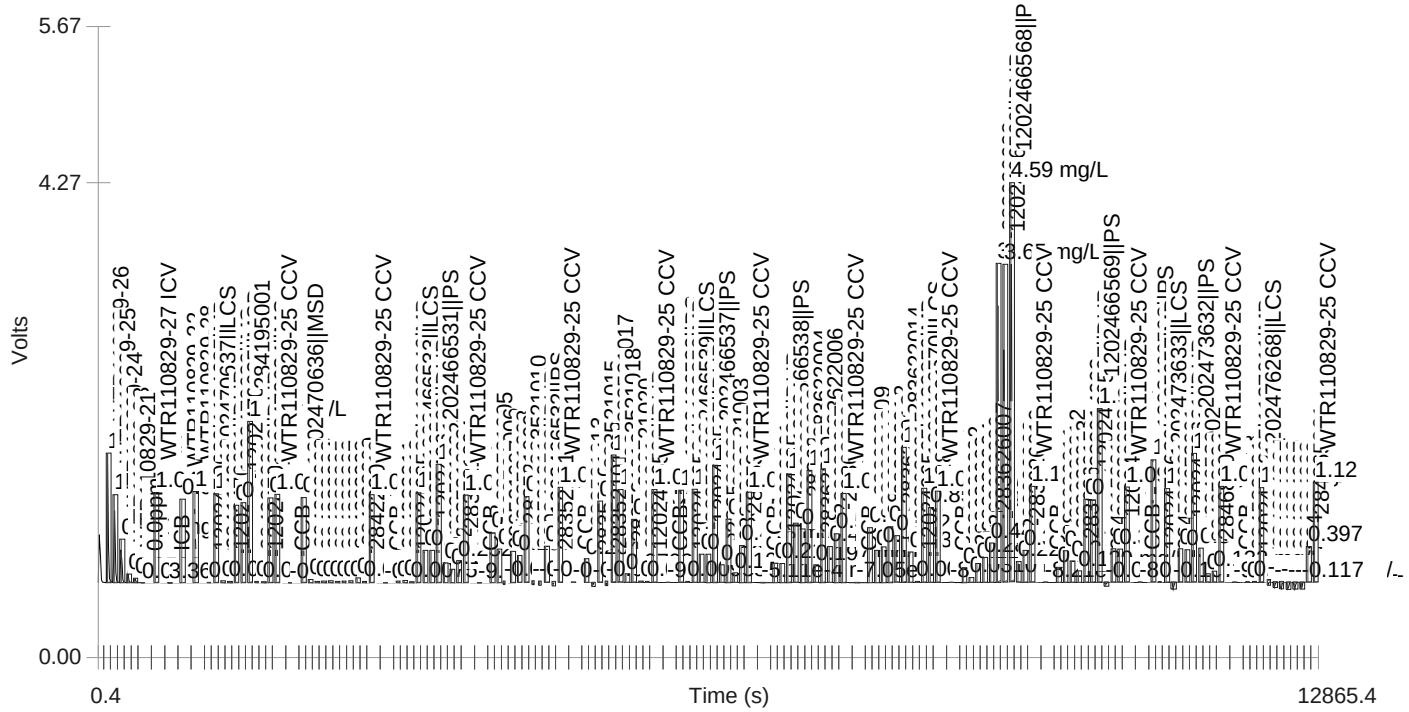


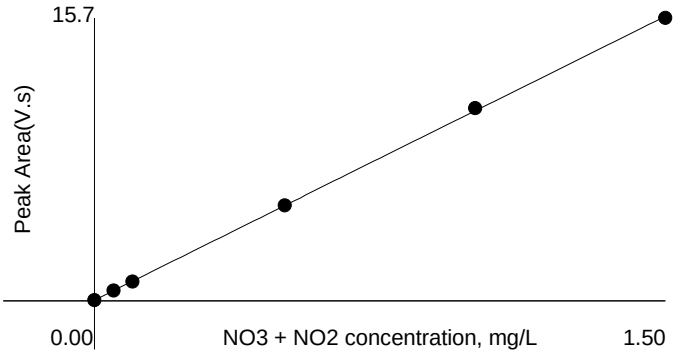
Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.17	0.6	8/29/2011	10:19:37
2	1.00	1	10.7	0.791	-1.3	8/29/2011	10:20:48
3	0.500	1	5.30	0.390	-0.1	8/29/2011	10:22:00
4	0.100	1	1.06	0.0777	3.2	8/29/2011	10:23:12
5	0.0500	1	0.559	0.0407	1.0	8/29/2011	10:24:24
6	0.00	1	0.0281	0.00178		8/29/2011	10:25:37

Author: lachat

Date : 8/29/2011

Figure 1: NO3 + NO2



Area = 10.5 * Conc + 0.0385
Conc = 0.0950 * Area - 0.00358
Correlation Coefficient (r) = 0.99993

No Weighting

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.0 ppm CCV		1	klp1	8/29/2011 14:00:46	OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011 14:03:07	OM_8-29-2011_13-59-44
284580001	1135957	10	klp1	8/29/2011 14:05:26	OM_8-29-2011_13-59-44
1202476265	1137011	1	klp1	8/29/2011 14:06:39	OM_8-29-2011_13-59-44
1202476268*	1137011	1	klp1	8/29/2011 14:07:51	OM_8-29-2011_13-59-44
284804004	1137011	10	klp1	8/29/2011 14:09:03	OM_8-29-2011_13-59-44
284804005	1137011	10	klp1	8/29/2011 14:10:15	OM_8-29-2011_13-59-44
284804006	1137011	10	klp1	8/29/2011 14:11:26	OM_8-29-2011_13-59-44
1202476268	1137011	1	klp1	8/29/2011 14:12:39	OM_8-29-2011_13-59-44
284804007	1137011	10	klp1	8/29/2011 14:13:51	OM_8-29-2011_13-59-44
284804008	1137011	10	klp1	8/29/2011 14:15:02	OM_8-29-2011_13-59-44
284804009	1137011	10	klp1	8/29/2011 14:16:14	OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011 14:17:25	OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011 14:19:46	OM_8-29-2011_13-59-44
284865001	1137011	10	klp1	8/29/2011 14:22:06	OM_8-29-2011_13-59-44
1202476266	1137011	10	klp1	8/29/2011 14:23:17	OM_8-29-2011_13-59-44
1202476267	1137011	10	klp1	8/29/2011 14:24:29	OM_8-29-2011_13-59-44
1202470547	1134657	1	klp1	8/29/2011 14:25:40	OM_8-29-2011_13-59-44
1202470554	1134657	1	klp1	8/29/2011 14:26:53	OM_8-29-2011_13-59-44
284393001	1134657	10	klp1	8/29/2011 14:28:05	OM_8-29-2011_13-59-44
1202470548	1134657	10	klp1	8/29/2011 14:29:17	OM_8-29-2011_13-59-44
1202470550	1134657	10	klp1	8/29/2011 14:30:28	OM_8-29-2011_13-59-44
1202470552	1134657	10	klp1	8/29/2011 14:31:41	OM_8-29-2011_13-59-44
284393002	1134657	100	klp1	8/29/2011 14:32:52	OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011 14:34:04	OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011 14:36:25	OM_8-29-2011_13-59-44
284393003	1134657	10	klp1	8/29/2011 14:38:44	OM_8-29-2011_13-59-44
284393004	1134657	50	klp1	8/29/2011 14:39:56	OM_8-29-2011_13-59-44
284393005	1134657	10	klp1	8/29/2011 14:41:08	OM_8-29-2011_13-59-44
284393006	1134657	10	klp1	8/29/2011 14:42:20	OM_8-29-2011_13-59-44
284393007	1134657	10	klp1	8/29/2011 14:43:32	OM_8-29-2011_13-59-44
284393008	1134657	1	klp1	8/29/2011 14:44:44	OM_8-29-2011_13-59-44
284393009	1134657	10	klp1	8/29/2011 14:45:56	OM_8-29-2011_13-59-44
284393010	1134657	10	klp1	8/29/2011 14:47:07	OM_8-29-2011_13-59-44
284393011	1134657	100	klp1	8/29/2011 14:48:19	OM_8-29-2011_13-59-44
1202470549	1134657	100	klp1	8/29/2011 14:49:31	OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011 14:50:43	OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011 14:53:04	OM_8-29-2011_13-59-44
1202470551	1134657	100	klp1	8/29/2011 14:55:24	OM_8-29-2011_13-59-44
1202470553	1134657	100	klp1	8/29/2011 14:56:36	OM_8-29-2011_13-59-44
284393012	1134657	10	klp1	8/29/2011 14:57:48	OM_8-29-2011_13-59-44
284393013	1134657	100	klp1	8/29/2011 14:59:00	OM_8-29-2011_13-59-44
284393014	1134657	10	klp1	8/29/2011 15:00:12	OM_8-29-2011_13-59-44
284393015	1134657	10	klp1	8/29/2011 15:01:24	OM_8-29-2011_13-59-44
284393016	1134657	1	klp1	8/29/2011 15:02:36	OM_8-29-2011_13-59-44
284393017	1134657	1	klp1	8/29/2011 15:03:48	OM_8-29-2011_13-59-44
284393018	1134657	1	klp1	8/29/2011 15:05:00	OM_8-29-2011_13-59-44
284393019	1134657	1	klp1	8/29/2011 15:06:11	OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011 15:07:23	OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011 15:09:44	OM_8-29-2011_13-59-44
284393020	1134657	1	klp1	8/29/2011 15:12:04	OM_8-29-2011_13-59-44
284393004	1134657	500	klp1	8/29/2011 15:13:16	OM_8-29-2011_13-59-44
284393009	1134657	100	klp1	8/29/2011 15:14:28	OM_8-29-2011_13-59-44
284393010	1134657	100	klp1	8/29/2011 15:15:39	OM_8-29-2011_13-59-44
284393016	1134657	10	klp1	8/29/2011 15:16:51	OM_8-29-2011_13-59-44
284393017	1134657	10	klp1	8/29/2011 15:18:03	OM_8-29-2011_13-59-44
284393018	1134657	10	klp1	8/29/2011 15:19:15	OM_8-29-2011_13-59-44
284393019	1134657	10	klp1	8/29/2011 15:20:27	OM_8-29-2011_13-59-44

284393020	1134657	10	klp1	8/29/2011	15:21:39 OM_8-29-2011_13-59-44
1202470558	1134664	1	klp1	8/29/2011	15:22:51 OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011	15:24:02 OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011	15:26:23 OM_8-29-2011_13-59-44
1202470565*	1134664	1	klp1	8/29/2011	15:28:43 OM_8-29-2011_13-59-44
284393021	1134664	1	klp1	8/29/2011	15:29:54 OM_8-29-2011_13-59-44
1202470559	1134664	1	klp1	8/29/2011	15:31:06 OM_8-29-2011_13-59-44
1202470561	1134664	1	klp1	8/29/2011	15:32:19 OM_8-29-2011_13-59-44
1202470563	1134664	1	klp1	8/29/2011	15:33:31 OM_8-29-2011_13-59-44
1202470565	1134664	1	klp1	8/29/2011	15:34:43 OM_8-29-2011_13-59-44
284393022	1134664	1	klp1	8/29/2011	15:35:55 OM_8-29-2011_13-59-44
284393023	1134664	1	klp1	8/29/2011	15:37:06 OM_8-29-2011_13-59-44
284393024	1134664	1	klp1	8/29/2011	15:38:19 OM_8-29-2011_13-59-44
284393025	1134664	1	klp1	8/29/2011	15:39:30 OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011	15:40:42 OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011	15:43:03 OM_8-29-2011_13-59-44
284393026	1134664	1	klp1	8/29/2011	15:45:23 OM_8-29-2011_13-59-44
284393027	1134664	1	klp1	8/29/2011	15:46:34 OM_8-29-2011_13-59-44
284393028	1134664	1	klp1	8/29/2011	15:47:46 OM_8-29-2011_13-59-44
284393029	1134664	1	klp1	8/29/2011	15:48:58 OM_8-29-2011_13-59-44
284393030	1134664	1	klp1	8/29/2011	15:50:10 OM_8-29-2011_13-59-44
284393031	1134664	1	klp1	8/29/2011	15:51:22 OM_8-29-2011_13-59-44
1202470560	1134664	1	klp1	8/29/2011	15:52:34 OM_8-29-2011_13-59-44
1202470562	1134664	1	klp1	8/29/2011	15:53:46 OM_8-29-2011_13-59-44
1202470564	1134664	1	klp1	8/29/2011	15:54:58 OM_8-29-2011_13-59-44
284393032	1134664	10	klp1	8/29/2011	15:56:10 OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011	15:57:22 OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011	15:59:42 OM_8-29-2011_13-59-44
284393033	1134664	10	klp1	8/29/2011	16:02:03 OM_8-29-2011_13-59-44
284393021	1134664	10	klp1	8/29/2011	16:03:15 OM_8-29-2011_13-59-44
1202470559	1134664	10	klp1	8/29/2011	16:04:27 OM_8-29-2011_13-59-44
1202470561	1134664	10	klp1	8/29/2011	16:05:39 OM_8-29-2011_13-59-44
1202470563	1134664	10	klp1	8/29/2011	16:06:51 OM_8-29-2011_13-59-44
284393022	1134664	10	klp1	8/29/2011	16:08:03 OM_8-29-2011_13-59-44
284393023	1134664	10	klp1	8/29/2011	16:09:15 OM_8-29-2011_13-59-44
284393024	1134664	10	klp1	8/29/2011	16:10:27 OM_8-29-2011_13-59-44
284393025	1134664	10	klp1	8/29/2011	16:11:39 OM_8-29-2011_13-59-44
284393026	1134664	10	klp1	8/29/2011	16:12:51 OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011	16:14:02 OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011	16:16:23 OM_8-29-2011_13-59-44
284393027	1134664	10	klp1	8/29/2011	16:18:43 OM_8-29-2011_13-59-44
284393028	1134664	10	klp1	8/29/2011	16:19:54 OM_8-29-2011_13-59-44
284393029	1134664	10	klp1	8/29/2011	16:21:07 OM_8-29-2011_13-59-44
284393030	1134664	10	klp1	8/29/2011	16:22:19 OM_8-29-2011_13-59-44
284393031	1134664	10	klp1	8/29/2011	16:23:30 OM_8-29-2011_13-59-44
1202470560	1134664	10	klp1	8/29/2011	16:24:42 OM_8-29-2011_13-59-44
1202470562	1134664	10	klp1	8/29/2011	16:25:54 OM_8-29-2011_13-59-44
1202470564	1134664	10	klp1	8/29/2011	16:27:07 OM_8-29-2011_13-59-44
283622014	1132850	100	klp1	8/29/2011	16:28:17 OM_8-29-2011_13-59-44
1.0 ppm CCV		1	klp1	8/29/2011	16:30:37 OM_8-29-2011_13-59-44
CCB		1	klp1	8/29/2011	16:32:58 OM_8-29-2011_13-59-44

Author: lachat Date : 8/29/2011

Original Run Filename: OM_8-29-2011_13-59-44.OMN created 8/29/2011 13:59:44
Original Run Author's Signature: [lachat]
Current Run Filename: OM_8-29-2011_13-59-44.OMN last modified 8/29/2011 16:34:20
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 0354AF
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110829-25 CCV	1	S10	1.03	10.9	8/29/2011@14:00:46			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.894					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
CCB	1	S15	-0.00155	0.0214	8/29/2011@14:03:07			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00155 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00155 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284580001|1135957|	1	99	0.00391	0.0788	8/29/2011@14:05:26		10.00	
1202476265|1137011|MB	1	106	0.00732	0.115	8/29/2011@14:06:39			
1202476268||LCS	1	107	1.11	11.7	8/29/2011@14:07:51			
284804004	1	108	0.0685	0.758	8/29/2011@14:09:03		10.00	
284804005	1	109	0.0193	0.241	8/29/2011@14:10:15		10.00	
284804006	1	110	-0.0147	-0.116	8/29/2011@14:11:26		10.00	
1202476268||LCS	1	107	1.09	11.5	8/29/2011@14:12:39			
284804007	1	111	-0.00147	0.0222	8/29/2011@14:13:51		10.00	
284804008	1	112	0.00128	0.0512	8/29/2011@14:15:02		10.00	
284804009	1	113	0.00587	0.0995	8/29/2011@14:16:14		10.00	
WTR110829-25 CCV	1	S10	1.01	10.7	8/29/2011@14:17:25			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00182	0.0185	8/29/2011@14:19:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00182 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00182 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284865001	1	114	0.386	4.10	8/29/2011@14:22:06		10.00	
1202476266||DUP	1	115	0.374	3.97	8/29/2011@14:23:17		10.00	
1202476267||PS	1	116	1.44	15.2	8/29/2011@14:24:29		10.00	
1202470547|1134657|MB	1	120	4.01e-4	0.0419	8/29/2011@14:25:40			
1202470554||LCS	1	121	1.07	11.3	8/29/2011@14:26:53			

284393001	1	122	1.38	14.6	8/29/2011@14:28:05		10.00	
1202470548||DUP	1	123	1.35	14.3	8/29/2011@14:29:17		10.00	
1202470550||PS	1	124	2.38	25.1	8/29/2011@14:30:28		10.00	
1202470552||PSD	1	125	2.38	25.0	8/29/2011@14:31:41		10.00	
284393002	1	126	1.15	12.2	8/29/2011@14:32:52		100.00	
WTR110829-25 CCV	1	S10	1.00	10.6	8/29/2011@14:34:04			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00181	0.0186	8/29/2011@14:36:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00181 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00181 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284393003	1	127	0.692	7.32	8/29/2011@14:38:44		10.00	
284393004	1	128	8.47	89.2	8/29/2011@14:39:56		50.00	
284393005	1	129	0.497	5.27	8/29/2011@14:41:08		10.00	
284393006	1	130	0.289	3.08	8/29/2011@14:42:20		10.00	
284393007	1	131	0.287	3.06	8/29/2011@14:43:32		10.00	
284393008	1	132	0.0357	0.414	8/29/2011@14:44:44			
284393009	1	133	4.28	45.1	8/29/2011@14:45:56		10.00	
284393010	1	134	5.84	61.5	8/29/2011@14:47:07		10.00	
284393011	1	135	0.615	6.51	8/29/2011@14:48:19		100.00	
1202470549||DUP	1	136	0.603	6.38	8/29/2011@14:49:31		100.00	
WTR110829-25 CCV	1	S10	1.02	10.8	8/29/2011@14:50:43			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00195	0.0172	8/29/2011@14:53:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00195 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00195 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202470551||PS	1	137	1.67	17.6	8/29/2011@14:55:24		100.00	
1202470553||PSD	1	138	1.66	17.5	8/29/2011@14:56:36		100.00	
284393012	1	139	0.715	7.57	8/29/2011@14:57:48		10.00	
284393013	1	140	1.44	15.2	8/29/2011@14:59:00		100.00	
284393014	1	141	0.204	2.19	8/29/2011@15:00:12		10.00	
284393015	1	142	0.257	2.74	8/29/2011@15:01:24		10.00	
284393016	1	143	-0.0732	-0.732	8/29/2011@15:02:36			
284393017	1	144	-0.0755	-0.757	8/29/2011@15:03:48			
284393018	1	145	-0.0728	-0.729	8/29/2011@15:05:00			
284393019	1	146	-0.0698	-0.697	8/29/2011@15:06:11			
WTR110829-25 CCV	1	S10	1.04	10.9	8/29/2011@15:07:23			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.04 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.04 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00159	0.0210	8/29/2011@15:09:44			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00159 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00159 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284393020	1	147	-0.0715	-0.714	8/29/2011@15:12:04			
284393004	1	128	0.954	10.1	8/29/2011@15:13:16		500.00	
284393009	1	133	0.440	4.67	8/29/2011@15:14:28		100.00	
284393010	1	134	0.602	6.38	8/29/2011@15:15:39		100.00	
284393016	1	143	0.00623	0.103	8/29/2011@15:16:51		10.00	
284393017	1	144	0.00445	0.0846	8/29/2011@15:18:03		10.00	
284393018	1	145	0.00548	0.0954	8/29/2011@15:19:15		10.00	
284393019	1	146	0.0197	0.245	8/29/2011@15:20:27		10.00	
284393020	1	147	0.00732	0.115	8/29/2011@15:21:39		10.00	
1202470558|1134664|MB	1	148	0.00963	0.139	8/29/2011@15:22:51			
WTR110829-25 CCV	1	S10	1.02	10.8	8/29/2011@15:24:02			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00154	0.0215	8/29/2011@15:26:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00154 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00154 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202470565||LCS	1	149	1.13	11.9	8/29/2011@15:28:43			
284393021	1	150	-0.0769	-0.772	8/29/2011@15:29:54			
1202470559||DUP	1	151	-0.0785	-0.788	8/29/2011@15:31:06			
1202470561||PS	1	152	0.179	1.92	8/29/2011@15:32:19			
1202470563||PSD	1	153	0.174	1.87	8/29/2011@15:33:31			
1202470565||LCS	1	149	1.08	11.4	8/29/2011@15:34:43			
284393022	1	154	-0.0820	-0.826	8/29/2011@15:35:55			
284393023	1	155	-0.0748	-0.749	8/29/2011@15:37:06			
284393024	1	156	-0.0736	-0.736	8/29/2011@15:38:19			
284393025	1	157	-0.0734	-0.735	8/29/2011@15:39:30			
WTR110829-25 CCV	1	S10	1.03	10.9	8/29/2011@15:40:42			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00195	0.0172	8/29/2011@15:43:03			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00195 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00195 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284393026	1	158	-0.0807	-0.811	8/29/2011@15:45:23			
284393027	1	159	-0.106	-1.07	8/29/2011@15:46:34			
284393028	1	160	-0.0787	-0.791	8/29/2011@15:47:46			
284393029	1	161	-0.0720	-0.720	8/29/2011@15:48:58			
284393030	1	162	-0.0795	-0.799	8/29/2011@15:50:10			
284393031	1	163	-0.0499	-0.488	8/29/2011@15:51:22			
1202470560||DUP	1	164	-0.0514	-0.503	8/29/2011@15:52:34			
1202470562||PS	1	165	0.426	4.52	8/29/2011@15:53:46			
1202470564||PSD	1	166	0.414	4.39	8/29/2011@15:54:58			
284393032	1	167	0.161	1.73	8/29/2011@15:56:10		10.00	
WTR110829-25 CCV	1	S10	1.03	10.9	8/29/2011@15:57:22			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00132	0.0238	8/29/2011@15:59:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00132 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00132 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284393033	1	168	0.338	3.59	8/29/2011@16:02:03		10.00	
284393021	1	150	0.00473	0.0875	8/29/2011@16:03:15		10.00	
1202470559||DUP	1	151	0.00516	0.0920	8/29/2011@16:04:27		10.00	
1202470561||PS	1	152	1.10	11.6	8/29/2011@16:05:39		10.00	
1202470563||PSD	1	153	1.11	11.7	8/29/2011@16:06:51		10.00	
284393022	1	154	0.00515	0.0919	8/29/2011@16:08:03		10.00	
284393023	1	155	0.0182	0.229	8/29/2011@16:09:15		10.00	
284393024	1	156	0.0123	0.167	8/29/2011@16:10:27		10.00	
284393025	1	157	0.0202	0.251	8/29/2011@16:11:39		10.00	
284393026	1	158	0.00362	0.0758	8/29/2011@16:12:51		10.00	
WTR110829-25 CCV	1	S10	1.01	10.7	8/29/2011@16:14:02			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00148	0.0222	8/29/2011@16:16:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00148 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00148 > -0.0500					
		Message	CCB Passed					

		Action	Continue					
284393027	1	159	0.00255	0.0646	8/29/2011@16:18:43		10.00	
284393028	1	160	0.00403	0.0801	8/29/2011@16:19:54		10.00	
284393029	1	161	0.00583	0.0990	8/29/2011@16:21:07		10.00	
284393030	1	162	0.00508	0.0911	8/29/2011@16:22:19		10.00	
284393031	1	163	0.00683	0.110	8/29/2011@16:23:30		10.00	
1202470560||DUP	1	164	0.00655	0.107	8/29/2011@16:24:42		10.00	
1202470562||PS	1	165	1.10	11.7	8/29/2011@16:25:54		10.00	
1202470564||PSD	1	166	1.07	11.3	8/29/2011@16:27:07		10.00	
283622014|1132850|	1	74	0.774	8.18	8/29/2011@16:28:17		100.00	
WTR110829-25 CCV	1	S10	1.00	10.6	8/29/2011@16:30:37			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00119	0.0252	8/29/2011@16:32:58			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00119 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00119 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NO3 + NO2) : Current View

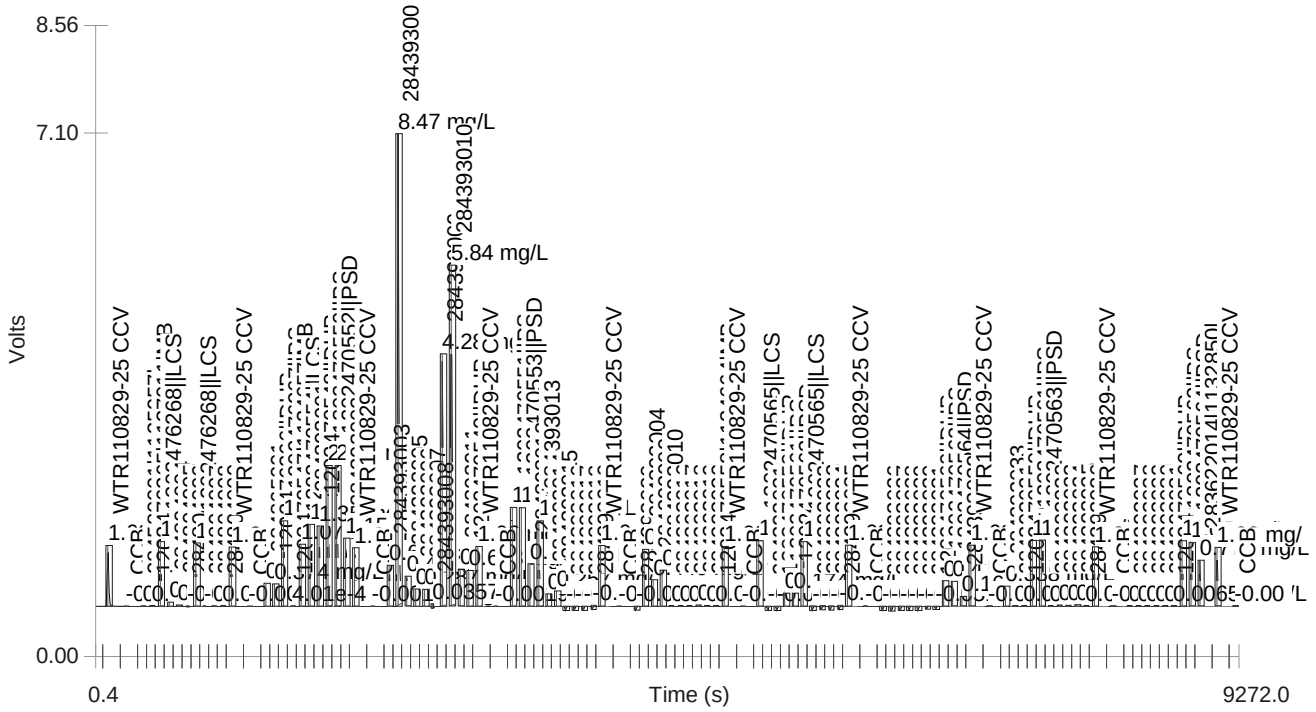
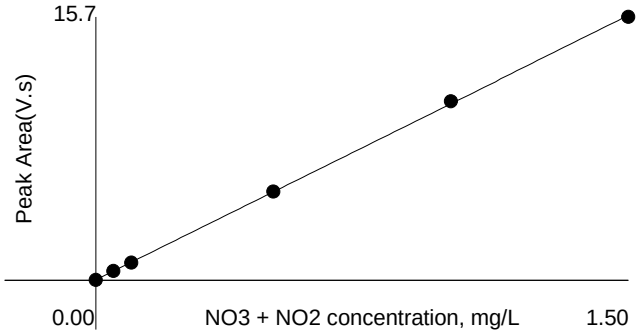


Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.17	0.6	8/29/2011	10:19:37
2	1.00	1	10.7	0.791	-1.3	8/29/2011	10:20:48
3	0.500	1	5.30	0.390	-0.1	8/29/2011	10:22:00
4	0.100	1	1.06	0.0777	3.2	8/29/2011	10:23:12
5	0.0500	1	0.559	0.0407	1.0	8/29/2011	10:24:24
6	0.00	1	0.0281	0.00178		8/29/2011	10:25:37

Figure 1: NO3 + NO2



Area = 10.5 * Conc + 0.0385
Conc = 0.0950 * Area - 0.00358
Correlation Coefficient (r) = 0.99993

No Weighting

Sulfide, Total Raw Data

Analytical Logbook

Sulfide (Methylene Blue Method)

Batch ID: **1137272.0**
Analyst: **Lindsey Jensen**
Method: **SM 4500-S (2-) D**
Lab SOP: **GL-GC-E-052 REV# 4**
Instrument: **Spectronic 20D + Digital Spectrophotometer**

Type	Sample Id	Description	Serial Number	Amount	Nominal	Recovery	Rpd %
	All	SULFIDE REAGENT 1	110412-1	1000 uL			
	All	SULFIDE REAGENT 2	110412-E2	1000 uL			
CCV	17:17:02	Sulfide Spike 100 mg/L	SHS110829-01A1	.1 mL		102	
DUP	1202476943						0
ICV	17:16:54	Sulfide LCS 100 mg/L	SHS110829B1	.1 mL		98.9	
LCS	1202476942	Sulfide LCS 100 mg/L	SHS110829B1	.1 mL	0.400 mg/L	98.9	
PS	1202476944	Sulfide Spike 100 mg/L	SHS110829-01A1	.1 mL	0.400 mg/L	97.2	

Sample ID	Run Date	Aliquot (mL)	Dilution	Total Sulfide Absorbance (mg/L)	Total Sulfide Backgroud (mg/L)	Total Sulfide Initial Result (mg/L)	Total Sulfide Result (mg/L)
ICV	29-AUG-2011 17:16:54	25	1	0.359	0	0.39575	0.39575
ICB	29-AUG-2011 17:16:55	25	1	0.004	0	-0.00917	-0.00917
1202476941 MB	29-AUG-2011 17:16:56	25	1	0.004	0	-0.00917	-0.00917
1202476942 LCS	29-AUG-2011 17:16:57	25	1	0.359	0	0.39575	0.39575
284865001	29-AUG-2011 17:16:59	25	1	0.007	0.009	-0.01601	-0.01601
1202476943 DUP (284865001)	29-AUG-2011 17:16:59	25	1	0.007	0.009	-0.01601	-0.01601
1202476944 PS (284865001)	29-AUG-2011 17:17:01	25	1	0.362	0.009	0.38891	0.38891
CCV	29-AUG-2011 17:17:02	25	1	0.37	0	0.4083	0.4083
CCB	29-AUG-2011 17:17:03	25	1	0.004	0	-0.00917	-0.00917

Calibration Information:

Run Date:	29-AUG-11 10
Instrument:	SPC611
Analyst:	LXA1
Corr. Coefficient :	0.99917
Y-Intercept :	0.01204
Slope:	0.87671

Standard	Absorbance	True Value	Result	Units
WHS110829-0a	.004	0	-.0092	mg/L
WHS110829-1a	.099	.1	.09919	mg/L
WHS110829-2a	.191	.2	.20413	mg/L
WHS110829-3a	.282	.3	.30792	mg/L
WHS110829-4a	.371	.4	.40944	mg/L
WHS110829-5a	.528	.6	.58852	mg/L

Comments:

Calculation: {[(Corrected Absorbance - Y intercept) / Slope] * Dilution} / (1 - moisture)

Surfactants (MBAS)
Raw Data

Analytical Logbook

Methylene Blue Active Substance

Batch ID: **1136759.0**
Analyst: **Travis Tola**
Method: **SM 5540 C**
Lab SOP: **GL-GC-E-047 REV# 12**
Instrument: **Spectronic 20D+ Digital Spectrophotometer**

Type	Sample Id	Description	Serial Number	Amount	Nominal	Recovery	Rpd %
	All	1N NAOH FOR MBAS	110309-A	1 mL			
	All	Isopropyl alcohol for MBAS	110428b	1 mL			
	All	1N H2SO4 FOR MBAS	110531-C	1 mL			
	All	METHYLENE BLUE REAGENT	IMM110826-MBA	25 mL			
	All	WASH SOLUTION FOR MBAS	IMM110826A-Ca	50 mL			
CCV	13:25:53	1000 mg/L MBAS Calibration Source Standard	UMB110401-02	.1 mL		101	
CVL	13:25:46	1000 mg/L MBAS Calibration Source Standard	UMB110401-02	.005 mL		111	
DUP	1202475625						31.546
ICV	13:21:03	1000 mg/L MBAS Calibration Source Standard	UMB110401-02	.15 mL		96.7	
LCS	1202475624	SOURCE FOR MBAS LCS	UMB110401-01	.05 mL	0.500 mg/L	103	
PS	1202475626	1000 mg/L MBAS Calibration Source Standard	UMB110401-02	.1 mL	1.00 mg/L	103	

Sample ID	Run Date	Aliquot (mL)	Dilution	MBAS Absorbance (mg/L)	MBAS Backgroud (mg/L)	MBAS Initial Result (mg/L)	MBAS Result (mg/L)
ICV	27-AUG-2011 13:21:03	100	1	0.343	0	1.45068	1.45068
ICB	27-AUG-2011 13:21:19	100	1	0.011	0	0.00292	0.00292
1202475623 MB	27-AUG-2011 13:21:24	100	1	0.011	0	0.00292	0.00292
1202475624 LCS	27-AUG-2011 13:21:29	100	1	0.128	0	0.51313	0.51313
284865001	27-AUG-2011 13:25:29	100	1	0.013	0	0.01164	0.01164
1202475625 DUP (284865001)	27-AUG-2011 13:25:34	100	1	0.014	0	0.016	0.016
1202475626 PS (284865001)	27-AUG-2011 13:25:39	100	1	0.249	0	1.04077	1.04077
CVL	27-AUG-2011 13:25:46	100	1	0.023	0	0.05525	0.05525
CCV	27-AUG-2011 13:25:53	100	1	0.242	0	1.01025	1.01025
CCB	27-AUG-2011 13:25:58	100	1	0.011	0	0.00292	0.00292

Calibration Information:

Run Date:	10-MAY-11 1
Instrument:	SPC347
Analyst:	LXA1
Corr. Coefficient :	0.99996
Y-Intercept :	0.01033
Slope:	0.22932

Standard	Absorbance	True Value	Result	Units
WMB110510b	.009	0	-.0058	mg/L
WMB110510a	.02	.05	.04217	mg/L
WMB110510c	.035	.1	.10758	mg/L
WMB110510d	.126	.5	.50440	mg/L
WMB110510e	.241	1	1.0059	mg/L
WMB110510f	.468	2	1.9958	mg/L

Comments:

Calculation: {[(Corrected Absorbance - Y intercept) / Slope] * Dilution} / (1 - moisture)

Total Kjeldahl Nitrogen Raw Data

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **1135944.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202473603	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202473599	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202473600	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202476263	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202473601	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202473602	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202476264	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202473596 MB	29-AUG-2011 16:54:00	Water	20	20	1	<2
1202473603 LCS	29-AUG-2011 16:54:00	Water	20	20	1	<2
284515004	29-AUG-2011 16:54:00	Water	20	20	1	<2
1202473597 DUP (284515004)	29-AUG-2011 16:54:00	Water	20	20	1	<2
1202473599 MS (284515004)	29-AUG-2011 16:54:00	Water	20	20	1	<2
1202473601 MSD (284515004)	29-AUG-2011 16:54:00	Water	20	20	1	<2
284525006	29-AUG-2011 16:54:00	Waste Water	20	20	1	<2
1202473598 DUP (284525006)	29-AUG-2011 16:54:00	Waste Water	20	20	1	<2
1202473600 MS (284525006)	29-AUG-2011 16:54:00	Waste Water	20	20	1	<2
1202473602 MSD (284525006)	29-AUG-2011 16:54:00	Waste Water	20	20	1	<2
284865001	29-AUG-2011 16:54:00	Storm Water	20	20	1	<2
1202476262 DUP (284865001)	29-AUG-2011 16:54:00	Storm Water	20	20	1	<2
1202476263 MS (284865001)	29-AUG-2011 16:54:00	Storm Water	20	20	1	<2
1202476264 MSD (284865001)	29-AUG-2011 16:54:00	Storm Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1589866-C	TKN/PO4 Digestion Solution	4 mL
WTR110829-12	TKN,TP Working Standard 5ppm	20 mL
WTR110829-13	TKN, TP Working Standard 3ppm	20 mL
WTR110829-14	TKN,TP Working Standard 1ppm CCV	20 mL
WTR110829-15	TKN, TP Working Standard 0.5ppm	20 mL

Comments:

Digestion Start Date: 29-AUG-11 10:45:15

Digestion Stop Date: 29-AUG-11 16:45:15

Prep Logbook

Batch ID: **1135944.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202473603	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202473599	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202473600	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202476263	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202473601	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202473602	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202476264	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check

Reagent/Solvent Lot ID	Description	Amount
WTR110829-16	TKN, TP Working Standard 0.1ppm	20 mL
WTR110829-17	TKN, TP Working Standard 0.05ppm	20 mL
WTR110829-18	TKN, TP Standard 1ppm ICV	20 mL
WTR110829-19	TKN, TP Working Standard 0ppm	20 mL

Comments:

Digestion Start Date: 29-AUG-11 10:45:15

Digestion Stop Date: 29-AUG-11 16:45:15

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	klp1	8/31/2011 10:51:13	OM_8-31-2011_10-50-28
3.0 ppm Std.		1	klp1	8/31/2011 10:52:01	OM_8-31-2011_10-50-28
1.0 ppm Std.		1	klp1	8/31/2011 10:52:49	OM_8-31-2011_10-50-28
0.5 ppm Std		1	klp1	8/31/2011 10:53:39	OM_8-31-2011_10-50-28
0.1 ppm Std		1	klp1	8/31/2011 10:54:29	OM_8-31-2011_10-50-28
ICAL-00		1	klp1	8/31/2011 10:55:20	OM_8-31-2011_10-50-28
ICV		1	klp1	8/31/2011 10:57:10	OM_8-31-2011_10-50-28
ICB		1	klp1	8/31/2011 10:58:59	OM_8-31-2011_10-50-28
1202464084	1131897	1	klp1	8/31/2011 11:00:47	OM_8-31-2011_10-50-28
1202464091	1131897	1	klp1	8/31/2011 11:01:38	OM_8-31-2011_10-50-28
283568002*	1131897	1	klp1	8/31/2011 11:02:29	OM_8-31-2011_10-50-28
1202464085	1131897	1	klp1	8/31/2011 11:03:20	OM_8-31-2011_10-50-28
1202464087	1131897	1	klp1	8/31/2011 11:04:10	OM_8-31-2011_10-50-28
1202464089	1131897	1	klp1	8/31/2011 11:05:00	OM_8-31-2011_10-50-28
283568003	1131897	1	klp1	8/31/2011 11:05:49	OM_8-31-2011_10-50-28
283568005	1131897	1	klp1	8/31/2011 11:06:38	OM_8-31-2011_10-50-28
283570003	1131897	1	klp1	8/31/2011 11:07:28	OM_8-31-2011_10-50-28
283570004	1131897	1	klp1	8/31/2011 11:08:16	OM_8-31-2011_10-50-28
CCV		1	klp1	8/31/2011 11:09:05	OM_8-31-2011_10-50-28
CCB		1	klp1	8/31/2011 11:10:54	OM_8-31-2011_10-50-28
283568002	1131897	1	klp1	8/31/2011 11:12:42	OM_8-31-2011_10-50-28
283570007	1131897	1	klp1	8/31/2011 11:13:32	OM_8-31-2011_10-50-28
283629001	1131897	1	klp1	8/31/2011 11:14:21	OM_8-31-2011_10-50-28
283629004	1131897	1	klp1	8/31/2011 11:15:09	OM_8-31-2011_10-50-28
283717001	1131897	1	klp1	8/31/2011 11:15:56	OM_8-31-2011_10-50-28
CCV		1	klp1	8/31/2011 11:17:43	OM_8-31-2011_10-50-28
CCB		1	klp1	8/31/2011 11:19:33	OM_8-31-2011_10-50-28

Author: klp1 Date : 8/31/2011

Original Run Filename: OM_8-31-2011_10-50-28.OMN created 8/31/2011 10:50:28
Original Run Author's Signature: [klp1]
Current Run Filename: OM_8-31-2011_10-50-28.OMN last modified 8/31/2011 11:20:35
Current Run Author's Signature: [klp1]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110831-12	1	S1	5.00	6.29	8/31/2011@10:51:13			5.0 ppm Std.
WTR110831-13	1	S2	3.00	3.60	8/31/2011@10:52:01			3.0 ppm Std.
WTR110831-14	1	S3	1.00	1.28	8/31/2011@10:52:49			1.0 ppm Std.
WTR110831-15	1	S4	0.500	0.573	8/31/2011@10:53:39			0.5 ppm Std
WTR110831-16	1	S5	0.100	0.0693	8/31/2011@10:54:29			0.1 ppm Std
WTR110831-19 0.0 ppm	1	S7	0.00	-0.108	8/31/2011@10:55:20			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99959 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR110831-18 ICV	1	S8	1.07	1.28	8/31/2011@10:57:10			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR110831-19 ICB	1	S7	-0.0351	-0.112	8/31/2011@10:58:59			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0351 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0351 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202464084|1131897|MB	1	1	-5.69e-4	-0.0689	8/31/2011@11:00:47			
1202464091||LCS	1	2	0.982	1.17	8/31/2011@11:01:38			
283568002	1	3	-0.103	-0.198	8/31/2011@11:02:29			
1202464085||DUP	1	4	-0.0847	-0.175	8/31/2011@11:03:20			
1202464087||MS	1	5	0.972	1.16	8/31/2011@11:04:10			
1202464089||MSD	1	6	1.15	1.38	8/31/2011@11:05:00			
283568003	1	7	0.225	0.216	8/31/2011@11:05:49			
283568005	1	8	0.0585	0.00567	8/31/2011@11:06:38			
283570003	1	9	-0.0684	-0.154	8/31/2011@11:07:28			
283570004	1	10	-0.0722	-0.159	8/31/2011@11:08:16			
WTR110831-14 CCV	1	S3	1.07	1.28	8/31/2011@11:09:05			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110831-19 CCB	1	S7	-0.0325	-0.109	8/31/2011@11:10:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0325 < 0.0990					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0325 > -0.100					
		Message	CCB Passed					
		Action	Continue					
283568002	1	3	0.0417	-0.0155	8/31/2011@11:12:42			
283570007	1	11	0.0540	0.00	8/31/2011@11:13:32			
283629001	1	12	0.00367	-0.0635	8/31/2011@11:14:21			
283629004	1	13	-0.00479	-0.0742	8/31/2011@11:15:09			
283717001	1	14	0.0787	0.0312	8/31/2011@11:15:56			
WTR110831-14 CCV	1	S3	1.07	1.29	8/31/2011@11:17:43			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR110831-19 CCB	1	S7	-0.0402	-0.119	8/31/2011@11:19:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0402 < 0.0990					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0402 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TKN) : Current View

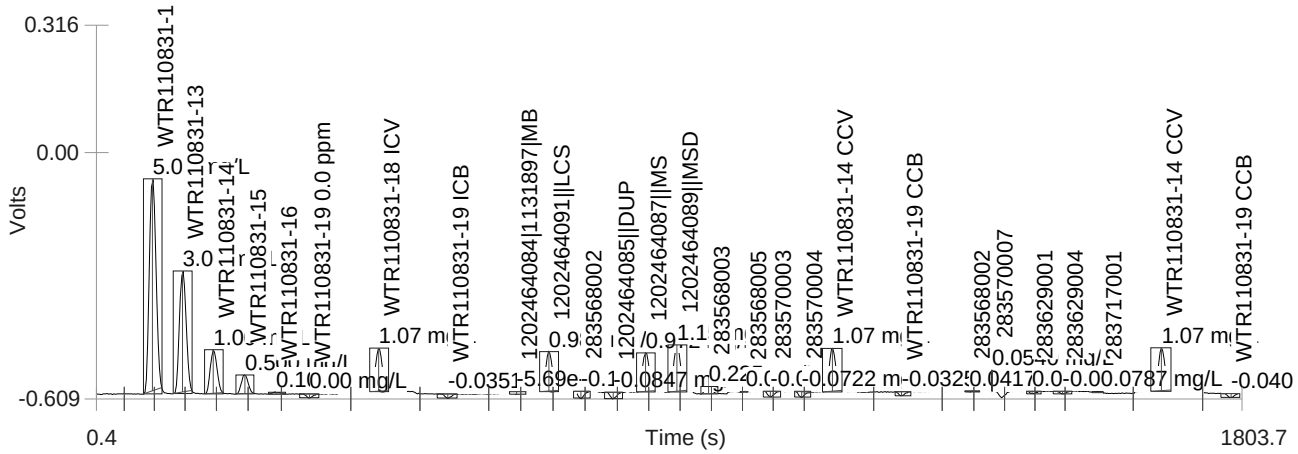
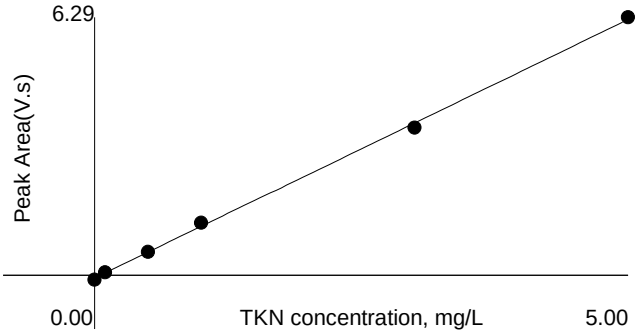


Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.00	1	6.29	0.524	-0.8	8/31/2011	10:52:15
2	3.00	1	3.60	0.299	3.2	8/31/2011	10:53:02
3	1.00	1	1.28	0.108	-7.4	8/31/2011	10:53:51
4	0.500	1	0.573	0.0462	-1.7	8/31/2011	10:54:40
5	0.100	1	0.0693	0.00467	-16.2	8/31/2011	10:55:30
6	0.00	1	-0.108	-0.00895		8/31/2011	10:56:22

Author: klp1 Date : 8/31/2011

Figure 1: TKN



Area = 1.26 * Conc - 0.0665
Conc = 0.792 * Area + 0.0540
Correlation Coefficient (r) = 0.99959

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	klp1	8/31/2011 15:15:01	OM_8-31-2011_15-13-29
CCB		1	klp1	8/31/2011 15:16:50	OM_8-31-2011_15-13-29
1202473596	1135945	1	klp1	8/31/2011 15:18:38	OM_8-31-2011_15-13-29
1202473603	1135945	1	klp1	8/31/2011 15:19:29	OM_8-31-2011_15-13-29
284515004	1135945	1	klp1	8/31/2011 15:20:20	OM_8-31-2011_15-13-29
1202473597	1135945	1	klp1	8/31/2011 15:21:10	OM_8-31-2011_15-13-29
1202473599	1135945	1	klp1	8/31/2011 15:22:01	OM_8-31-2011_15-13-29
1202473601	1135945	1	klp1	8/31/2011 15:22:51	OM_8-31-2011_15-13-29
284525006	1135945	1	klp1	8/31/2011 15:23:41	OM_8-31-2011_15-13-29
1202473598	1135945	1	klp1	8/31/2011 15:24:30	OM_8-31-2011_15-13-29
1202473600	1135945	1	klp1	8/31/2011 15:25:19	OM_8-31-2011_15-13-29
1202473602	1135945	1	klp1	8/31/2011 15:26:08	OM_8-31-2011_15-13-29
CCV		1	klp1	8/31/2011 15:26:56	OM_8-31-2011_15-13-29
CCB		1	klp1	8/31/2011 15:28:46	OM_8-31-2011_15-13-29
284865001	1135945	1	klp1	8/31/2011 15:30:32	OM_8-31-2011_15-13-29
1202476262	1135945	1	klp1	8/31/2011 15:31:21	OM_8-31-2011_15-13-29
1202476263	1135945	1	klp1	8/31/2011 15:32:09	OM_8-31-2011_15-13-29
1202476264	1135945	1	klp1	8/31/2011 15:32:57	OM_8-31-2011_15-13-29
CCV		1	klp1	8/31/2011 15:34:44	OM_8-31-2011_15-13-29
CCB		1	klp1	8/31/2011 15:36:33	OM_8-31-2011_15-13-29

Author: klp1 Date : 8/31/2011

Original Run Filename: OM_8-31-2011_15-13-29.OMN created 8/31/2011 15:13:29
Original Run Author's Signature: [klp1]
Current Run Filename: OM_8-31-2011_15-13-29.OMN last modified 8/31/2011 15:37:36
Current Run Author's Signature: [klp1]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110831-14 CCV	1	S3	0.976	1.16	8/31/2011@15:15:01			CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.976 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.976 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR110831-19 CCB	1	S7	0.0206	-0.0421	8/31/2011@15:16:50			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.0206 < 0.0990					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.0206 > -0.100					
Message			CCB Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
1202473596|1135945|MB	1	1	0.0410	-0.0164	8/31/2011@15:18:38			
1202473603||LCS	1	2	1.02	1.22	8/31/2011@15:19:29			
284515004	1	3	0.170	0.146	8/31/2011@15:20:20			
1202473597||DUP	1	4	0.126	0.0909	8/31/2011@15:21:10			
1202473599||MS	1	5	1.12	1.35	8/31/2011@15:22:01			
1202473601||MSD	1	6	1.17	1.41	8/31/2011@15:22:51			
284525006	1	7	1.06	1.27	8/31/2011@15:23:41			
1202473598||DUP	1	8	1.07	1.28	8/31/2011@15:24:30			
1202473600||MS	1	9	1.91	2.35	8/31/2011@15:25:19			
1202473602||MSD	1	10	1.98	2.43	8/31/2011@15:26:08			
WTR110831-14 CCV	1	S3	0.983	1.17	8/31/2011@15:26:56			CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.983 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.983 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR110831-19 CCB	1	S7	0.0276	-0.0333	8/31/2011@15:28:46			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.0276 < 0.0990					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.0276 > -0.100					
Message			CCB Passed					
Action			Continue					
284865001	1	11	0.0177	-0.0458	8/31/2011@15:30:32			
1202476262||DUP	1	12	-0.0435	-0.123	8/31/2011@15:31:21			
1202476263||MS	1	13	0.198	0.181	8/31/2011@15:32:09			
1202476264||MSD	1	14	0.424	0.467	8/31/2011@15:32:57			

WTR110831-14 CCV	1	S3	0.994	1.19	8/31/2011@15:34:44			CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.994 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.994 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR110831-19 CCB	1	S7	0.0300	-0.0303	8/31/2011@15:36:33			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.0300 < 0.0990					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.0300 > -0.100					
Message			CCB Passed					
Action			Continue					

Channel 1 (TKN) : Current View

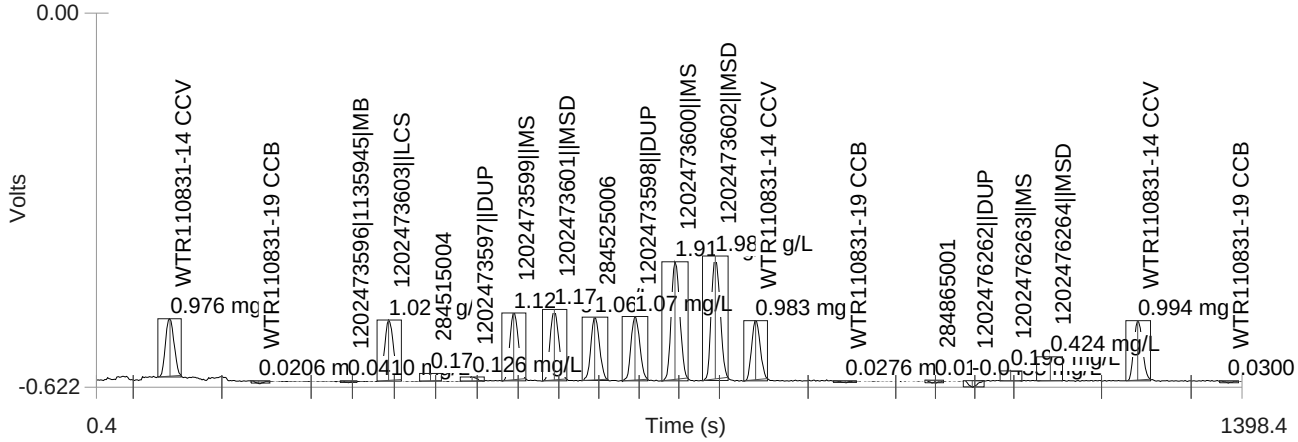
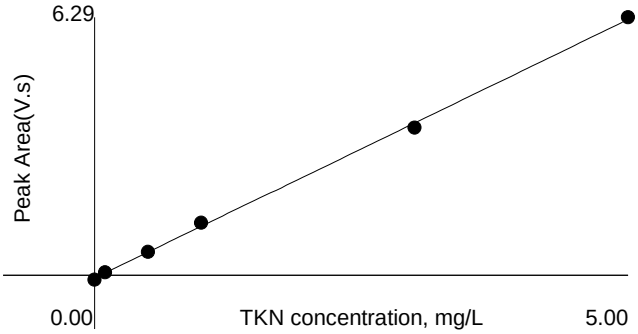


Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.00	1	6.29	0.524	-0.8	8/31/2011	10:52:15
2	3.00	1	3.60	0.299	3.2	8/31/2011	10:53:02
3	1.00	1	1.28	0.108	-7.4	8/31/2011	10:53:51
4	0.500	1	0.573	0.0462	-1.7	8/31/2011	10:54:40
5	0.100	1	0.0693	0.00467	-16.2	8/31/2011	10:55:30
6	0.00	1	-0.108	-0.00895		8/31/2011	10:56:22

Author: klp1 Date : 8/31/2011

Figure 1: TKN



Area = 1.26 * Conc - 0.0665
Conc = 0.792 * Area + 0.0540
Correlation Coefficient (r) = 0.99959

No Weighting

Total Phosphorus Raw Data

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **1133753.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202468504	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202468500	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202468501	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202476252	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202468502	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202468503	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202476253	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202468497 MB	29-AUG-2011 16:51:00	Water	20	20	1	<2
1202468504 LCS	29-AUG-2011 16:51:00	Water	20	20	1	<2
283629002	29-AUG-2011 16:51:00	Water	20	20	1	<2
1202468498 DUP (283629002)	29-AUG-2011 16:51:00	Water	20	20	1	<2
1202468500 MS (283629002)	29-AUG-2011 16:51:00	Water	20	20	1	<2
1202468502 MSD (283629002)	29-AUG-2011 16:51:00	Water	20	20	1	<2
283629003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283716003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283717003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283810002	29-AUG-2011 16:51:00	Water	20	20	1	<2
283810003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283828002	29-AUG-2011 16:51:00	Water	20	20	1	<2
283909003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283914003	29-AUG-2011 16:51:00	Water	20	20	1	<2
283916002	29-AUG-2011 16:51:00	Water	20	20	1	<2
284000001	29-AUG-2011 16:51:00	Water	20	20	1	<2
284003003	29-AUG-2011 16:51:00	Water	20	20	1	<2
284005002	29-AUG-2011 16:51:00	Water	20	20	1	<2
284005004	29-AUG-2011 16:51:00	Water	20	20	1	<2
284062002	29-AUG-2011 16:51:00	Water	20	20	1	<2
284062003	29-AUG-2011 16:51:00	Water	20	20	1	<2
284182001	29-AUG-2011 16:51:00	Ground Water	20	20	1	<2

Prep Logbook

Batch ID: **1133753.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202468504	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202468500	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202468501	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202476252	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202468502	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202468503	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202476253	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202468499 DUP (284182001)	29-AUG-2011 16:51:00	Ground Water	20	20	1	<2
1202468501 MS (284182001)	29-AUG-2011 16:51:00	Ground Water	20	20	1	<2
1202468503 MSD (284182001)	29-AUG-2011 16:51:00	Ground Water	20	20	1	<2
284183001	29-AUG-2011 16:51:00	Ground Water	20	20	1	<2
284865001	29-AUG-2011 16:51:00	Storm Water	20	20	1	<2
1202476251 DUP (284865001)	29-AUG-2011 16:51:00	Storm Water	20	20	1	<2
1202476252 MS (284865001)	29-AUG-2011 16:51:00	Storm Water	20	20	1	<2
1202476253 MSD (284865001)	29-AUG-2011 16:51:00	Storm Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1589866-C	TKN/PO4 Digestion Solution	4 mL
WTR110829-12	TKN,TP Working Standard 5ppm	20 mL
WTR110829-13	TKN, TP Working Standard 3ppm	20 mL
WTR110829-14	TKN,TP Working Standard 1ppm CCV	20 mL
WTR110829-15	TKN, TP Working Standard 0.5ppm	20 mL
WTR110829-16	TKN, TP Working Standard 0.1ppm	20 mL
WTR110829-17	TKN, TP Working Standard 0.05ppm	20 mL
WTR110829-18	TKN, TP Standard 1ppm ICV	20 mL
WTR110829-19	TKN, TP Working Standard 0ppm	20 mL

Comments:

Digestion Start Time: 29-AUG-11 10:45:15

Digestion Stop Time: 29-AUG-11 16:45:15

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	klp1	8/30/2011 14:51:34	OM_8-30-2011_14-50-51
1.0 ppm Std.		1	klp1	8/30/2011 14:52:23	OM_8-30-2011_14-50-51
0.5 ppm Std		1	klp1	8/30/2011 14:53:12	OM_8-30-2011_14-50-51
0.1 ppm Std		1	klp1	8/30/2011 14:54:02	OM_8-30-2011_14-50-51
0.05 ppm Std		1	klp1	8/30/2011 14:54:53	OM_8-30-2011_14-50-51
ICAL-00		1	klp1	8/30/2011 14:55:45	OM_8-30-2011_14-50-51
ICV		1	klp1	8/30/2011 14:57:50	OM_8-30-2011_14-50-51
ICB		1	klp1	8/30/2011 14:59:54	OM_8-30-2011_14-50-51
1202468497	1133754	1	klp1	8/30/2011 15:01:58	OM_8-30-2011_14-50-51
1202468504	1133754	1	klp1	8/30/2011 15:02:49	OM_8-30-2011_14-50-51
283629002	1133754	1	klp1	8/30/2011 15:03:40	OM_8-30-2011_14-50-51
1202468498	1133754	1	klp1	8/30/2011 15:04:30	OM_8-30-2011_14-50-51
1202468500	1133754	1	klp1	8/30/2011 15:05:21	OM_8-30-2011_14-50-51
1202468502	1133754	1	klp1	8/30/2011 15:06:10	OM_8-30-2011_14-50-51
283629003	1133754	1	klp1	8/30/2011 15:07:00	OM_8-30-2011_14-50-51
283716003	1133754	1	klp1	8/30/2011 15:07:49	OM_8-30-2011_14-50-51
283717003	1133754	1	klp1	8/30/2011 15:08:38	OM_8-30-2011_14-50-51
283810002	1133754	1	klp1	8/30/2011 15:09:27	OM_8-30-2011_14-50-51
CCV		1	klp1	8/30/2011 15:10:16	OM_8-30-2011_14-50-51
CCB		1	klp1	8/30/2011 15:12:20	OM_8-30-2011_14-50-51
283810003	1133754	1	klp1	8/30/2011 15:14:22	OM_8-30-2011_14-50-51
283828002	1133754	1	klp1	8/30/2011 15:15:10	OM_8-30-2011_14-50-51
283909003	1133754	1	klp1	8/30/2011 15:15:58	OM_8-30-2011_14-50-51
283914003	1133754	1	klp1	8/30/2011 15:16:46	OM_8-30-2011_14-50-51
283916002	1133754	1	klp1	8/30/2011 15:17:33	OM_8-30-2011_14-50-51
284000001	1133754	1	klp1	8/30/2011 15:18:22	OM_8-30-2011_14-50-51
284003003	1133754	1	klp1	8/30/2011 15:19:13	OM_8-30-2011_14-50-51
284005002	1133754	1	klp1	8/30/2011 15:20:04	OM_8-30-2011_14-50-51
284005004	1133754	1	klp1	8/30/2011 15:20:55	OM_8-30-2011_14-50-51
284062002	1133754	1	klp1	8/30/2011 15:21:45	OM_8-30-2011_14-50-51
CCV		1	klp1	8/30/2011 15:22:35	OM_8-30-2011_14-50-51
CCB		1	klp1	8/30/2011 15:24:39	OM_8-30-2011_14-50-51
284062003	1133754	1	klp1	8/30/2011 15:26:42	OM_8-30-2011_14-50-51
284182001	1133754	1	klp1	8/30/2011 15:27:32	OM_8-30-2011_14-50-51
1202468499	1133754	1	klp1	8/30/2011 15:28:22	OM_8-30-2011_14-50-51
1202468501	1133754	1	klp1	8/30/2011 15:29:11	OM_8-30-2011_14-50-51
1202468503	1133754	1	klp1	8/30/2011 15:30:01	OM_8-30-2011_14-50-51
284183001	1133754	1	klp1	8/30/2011 15:30:49	OM_8-30-2011_14-50-51
284865001	1133754	1	klp1	8/30/2011 15:31:38	OM_8-30-2011_14-50-51
1202476251	1133754	1	klp1	8/30/2011 15:32:27	OM_8-30-2011_14-50-51
1202476252	1133754	1	klp1	8/30/2011 15:33:15	OM_8-30-2011_14-50-51
1202476253	1133754	1	klp1	8/30/2011 15:34:02	OM_8-30-2011_14-50-51
CCV		1	klp1	8/30/2011 15:36:05	OM_8-30-2011_14-50-51
CCB		1	klp1	8/30/2011 15:38:09	OM_8-30-2011_14-50-51

Author: klp1 Date : 8/30/2011

Original Run Filename: OM_8-30-2011_14-50-51.OMN created 8/30/2011 14:50:51
Original Run Author's Signature: [klp1]
Current Run Filename: OM_8-30-2011_14-50-51.OMN last modified 8/30/2011 15:39:30
Current Run Author's Signature: [klp1]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR110830-13	1	S2	3.00	14.3	8/30/2011@14:51:34			3.0 ppm Std.
WTR110830-14	1	S3	1.00	4.93	8/30/2011@14:52:23			1.0 ppm Std.
WTR110830-15	1	S4	0.500	2.36	8/30/2011@14:53:12			0.5 ppm Std
WTR110830-16	1	S5	0.100	0.381	8/30/2011@14:54:02			0.1 ppm Std
WTR110830-17	1	S6	0.0500	0.168	8/30/2011@14:54:53			0.05 ppm Std
WTR110830-19 0.0	1	S7	0.00	-0.126	8/30/2011@14:55:45			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99986 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR110830-18 ICV	1	S8	1.03	4.90	8/30/2011@14:57:50			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR110830-19 ICB	1	S7	-0.0223	-0.163	8/30/2011@14:59:54			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0223 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0223 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
1202468497|1133754|MB	1	1	-0.0322	-0.211	8/30/2011@15:01:58			
1202468504||LCS	1	2	1.02	4.83	8/30/2011@15:02:49			
283629002	1	3	0.111	0.478	8/30/2011@15:03:40			
1202468498||DUP	1	4	0.110	0.474	8/30/2011@15:04:30			
1202468500||MS	1	5	0.948	4.50	8/30/2011@15:05:21			
1202468502||MSD	1	6	1.02	4.83	8/30/2011@15:06:10			
283629003	1	7	0.111	0.478	8/30/2011@15:07:00			
283716003	1	8	0.129	0.562	8/30/2011@15:07:49			
283717003	1	9	0.382	1.78	8/30/2011@15:08:38			
283810002	1	10	0.0808	0.332	8/30/2011@15:09:27			
WTR110830-14 CCV	1	S3	1.04	4.92	8/30/2011@15:10:16			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.04 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.04 > 0.900					
		Message	CCV Passed					
		Action	Continue					
WTR110830-19 CCB	1	S7	-0.0217	-0.160	8/30/2011@15:12:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								

		Result:	-0.0217 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.0217 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
283810003	1	11	0.104	0.445	8/30/2011@15:14:22			
283828002	1	12	0.137	0.601	8/30/2011@15:15:10			
283909003	1	13	0.136	0.600	8/30/2011@15:15:58			
283914003	1	14	0.139	0.613	8/30/2011@15:16:46			
283916002	1	15	0.0912	0.382	8/30/2011@15:17:33			
284000001	1	16	0.605	2.85	8/30/2011@15:18:22			
284003003	1	17	0.149	0.661	8/30/2011@15:19:13			
284005002	1	18	0.144	0.636	8/30/2011@15:20:04			
284005004	1	19	0.119	0.514	8/30/2011@15:20:55			
284062002	1	20	0.0836	0.346	8/30/2011@15:21:45			
WTR110830-14 CCV	1	S3	1.03	4.90	8/30/2011@15:22:35			CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.03 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.03 > 0.900					
		Message	CCV Passed					
		Action	Continue					
WTR110830-19 CCB	1	S7	-0.0224	-0.163	8/30/2011@15:24:39			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.0224 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.0224 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
284062003	1	21	0.0556	0.211	8/30/2011@15:26:42			
284182001	1	22	0.157	0.698	8/30/2011@15:27:32			
1202468499||DUP	1	23	0.0904	0.378	8/30/2011@15:28:22			
1202468501||MS	1	24	0.951	4.51	8/30/2011@15:29:11			
1202468503||MSD	1	25	0.990	4.70	8/30/2011@15:30:01			
284183001	1	26	0.119	0.514	8/30/2011@15:30:49			
284865001	1	27	1.84	8.79	8/30/2011@15:31:38			
1202476251||DUP	1	28	1.96	9.37	8/30/2011@15:32:27			
1202476252||MS	1	29	2.58	12.3	8/30/2011@15:33:15			
1202476253||MSD	1	30	2.35	11.3	8/30/2011@15:34:02			
WTR110830-14 CCV	1	S3	1.04	4.92	8/30/2011@15:36:05			CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.04 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.04 > 0.900					
		Message	CCV Passed					
		Action	Continue					
WTR110830-19 CCB	1	S7	-0.0222	-0.162	8/30/2011@15:38:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.0222 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.0222 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

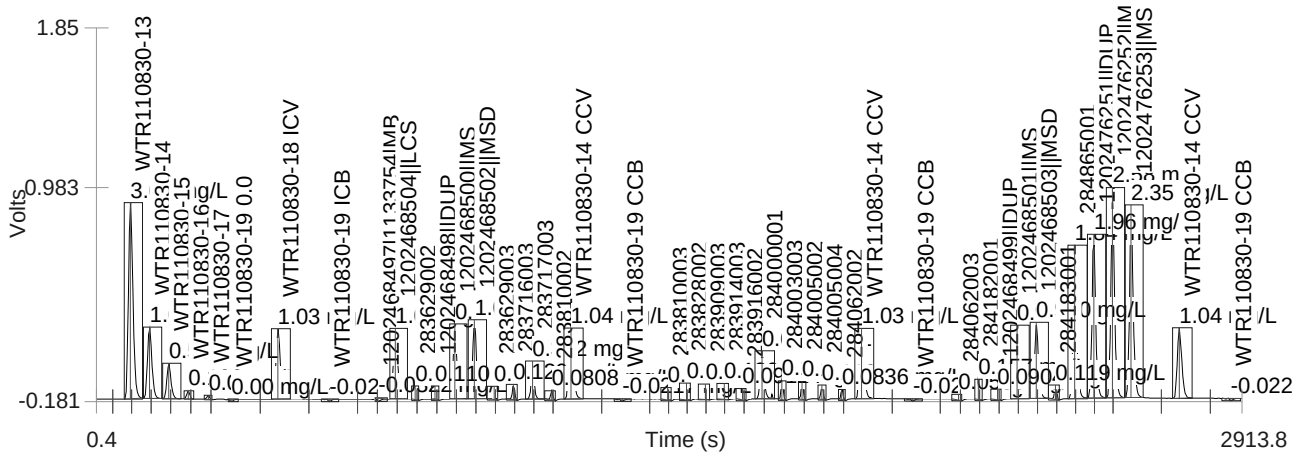
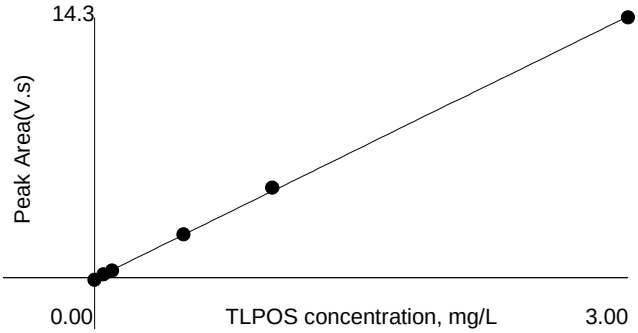


Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.00	1	14.3	1.07	0.4	8/30/2011	14:52:54
2	1.00	1	4.93	0.388	-3.8	8/30/2011	14:53:43
3	0.500	1	2.36	0.192	-0.5	8/30/2011	14:54:32
4	0.100	1	0.381	0.0445	10.4	8/30/2011	14:55:22
5	0.0500	1	0.168	0.0222	9.2	8/30/2011	14:56:13
6	0.00	1	-0.126	-0.0130		8/30/2011	14:57:05

Figure 1: TLPOS



Area = 4.80 * Conc - 0.0547
Conc = 0.208 * Area + 0.0116
Correlation Coefficient (r) = 0.99986

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-AUG-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 365.4	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1133754	See Below		

Potentially affected work order(s)(SDG): **283629(11-3066),283716(11-3082),283717(11-3080),283810(11-3127),283828(11-3120),283909(11-3146),283914(11-3152),283916(11-3144),284000(11-3168),284003(11-3174),284005(11-3176),284062(11-3193),284182(11-3206),284183(11-3208),284865(11-3330)**

Application Issues:

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202468499DUP	1. The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
2. Failed Recovery for MSD : QC 1202476253MSD	2. The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:
Kristen Parson 30-AUG-11

Data Validator/Group Leader:
Elzbieta Szulc 31-AUG-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-AUG-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1133216	See below.		

Potentially affected work order(s)(SDG): 284182(11-3206),284183(11-3208),284791(11-3316),284865(11-3330)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202475988PS	1. The spike recovery for Sulfate falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Mary Sherwood 31-AUG-11

Data Validator/Group Leader:

Julia Hamilton 31-AUG-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-AUG-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL, UCOR
Batch ID:	**Sample Numbers:**		
1135945	See Below		

Potentially affected work order(s)(SDG): 284515(11-3277),284525,284865(11-3330)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS: QC1202476263MS	1. The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202476263
2. Failed Recovery for MS: QC 1202473600MS,	2.The spike recovery falls outside of the established acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202473600
3. Failed RPD for MS/MSD: QC 1202476264MSD	3. The Relative Percent Difference (RPD) between the spike and spike duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
4. Failed Recovery for MSD/PSD: QC 1202476264MSD	4. The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference.

Originator's Name:

Kristen Parson 31-AUG-11

Data Validator/Group Leader:

Elzbieta Szulc 01-SEP-11

Radiological Analysis

Radiochemistry Case Narrative
ARS International (ARSL)
SDG 11-3330
Work Order 284865

Method/Analysis Information

Product:	**WSP-GrossA/B**
Analytical Method:	EPA 900.0/SW846 9310
Analytical Batch Number:	1136968

Sample ID	Client ID
284865001	NPDES13S-11-13861
1202476153	Method Blank (MB)
1202476154	284865001(NPDES13S-11-13861) Sample Duplicate (DUP)
1202476157	284865001(NPDES13S-11-13861) Matrix Spike (MS)
1202476158	284865001(NPDES13S-11-13861) Matrix Spike Duplicate (MSD)
1202476159	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2010. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202476153 (MB) and 1202476159 (LCS) were changed to 1.0 per client request.

Designated QC

The following sample was used for QC: 284865001 (NPDES13S-11-13861). The QC was from ARSL work order 284865.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202476153 (MB) beta result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202476153 (MB) was recounted due to a suspected blank false positive. The recount is reported. Samples 1202476154 (NPDES13S-11-13861) and 284865001 (NPDES13S-11-13861) were recounted due to high relative percent difference/relative error ratio. The recounts are reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The matrix spike and matrix spike duplicate, 1202476157 (NPDES13S-11-13861) and 1202476158 (NPDES13S-11-13861), aliquots were reduced to conserve sample volume.

Blank Decision Level
The blank 1202476153 (MB) beta result is greater than the decision level but less than the MDC.

Qualifier Information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 11-3330 GEL Work Order: 284865

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Heather M. McCarty **Name:** **Heather McCarty**

Date: **02 SEP 2011** **Title:** **Analyst II**

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : TA-03, SM271, Drop Pt. 02U, Rm111

Los Alamos, New Mexico 87545

Report Date: September 2, 2011

Contact: Ms. Joylene Valdez
Project: LANL-WQH NPDES 13S

Client Sample ID: NPDES13S-11-13861
Sample ID: 284865001
Matrix: Storm Water
Collect Date: 25-AUG-11
Receive Date: 27-AUG-11
Collector: Client

Project: ESHL00610
Client ID: ARSL001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
WSP-GrossA/B "As Received"													
Beta		18.8	+/-3.67	9.63	+/-4.00	3.00	pCi/L		DXF3	08/31/11	1922	1136968	1
Alpha		3.74	+/-1.15	2.76	+/-1.20	3.00	pCi/L		DXF3	09/01/11	1233	1136968	2

The following Analytical Methods were performed

Method	Description
1	EPA 900.0/SW846 9310
2	EPA 900.0/SW846 9310

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
TPU and Uncertainty are calculated at the 67% confidence level (1-sigma).

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 2, 2011

Client : **Los Alamos National Laboratory**
TA-03, SM271, Drop Pt. 02U, Rm

Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **284865**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1136968										
QC1202476154 284865001 DUP										
Alpha		3.74	U	1.36	pCi/L	0.563		(0-1)	DXF3	09/02/1109:06
	Uncert:	+/-1.15		+/-0.901						
	TPU:	+/-1.20		+/-0.913						
Beta		18.8		20.6	pCi/L	0.113		(0-1)		08/31/1119:22
	Uncert:	+/-3.67		+/-3.40						
	TPU:	+/-4.00		+/-3.81						
QC1202476159 LCS										
Alpha	12.7			14.3	pCi/L		113	(80%-120%)		09/01/1113:02
	Uncert:			+/-0.684						
	TPU:			+/-1.52						
Beta	49.8			53.5	pCi/L		107	(80%-120%)		08/31/1107:16
	Uncert:			+/-0.926						
	TPU:			+/-4.56						
QC1202476153 MB										
Alpha			U	0.0454	pCi/L					09/01/1112:33
	Uncert:			+/-0.0449						
	TPU:			+/-0.0451						
Beta			U	0.208	pCi/L					08/31/1119:22
	Uncert:			+/-0.0971						
	TPU:			+/-0.0987						
QC1202476157 284865001 MS										
Alpha	508	3.74		514	pCi/L		100	(75%-125%)		09/01/1113:02
	Uncert:	+/-1.15		+/-25.0						
	TPU:	+/-1.20		+/-54.7						
Beta	1990	18.8		2230	pCi/L		111	(75%-125%)		08/31/1107:16
	Uncert:	+/-3.67		+/-39.2						
	TPU:	+/-4.00		+/-191						
QC1202476158 284865001 MSD										
Alpha	508	3.74		571	pCi/L	0.251	112	(0-1)		09/01/1113:02
	Uncert:	+/-1.15		+/-28.0						
	TPU:	+/-1.20		+/-56.9						
Beta	1990	18.8		2060	pCi/L	0.229	103	(0-1)		08/31/1107:16
	Uncert:	+/-3.67		+/-38.2						
	TPU:	+/-4.00		+/-176						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported

QC Summary

Workorder: **284865**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F	Estimated Value
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
H	Analytical holding time was exceeded
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Metals--The Matrix spike sample recovery is not within specified control limits
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Gas Flow Raw Data

Radiochemistry Batch Checklist

01-Sep-2011

Batch# 1136968 Product: GAB Date: 9/2/11

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to 100 mg for GAB.	✓		
Samples have been blank corrected (if required). Blank correction reported included (if required).			NA
If activity less than 10x MDA/MDC, error is less than or equal to 150% of sample activity. If greater than 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are: Less than 5* MDA/ MDC, then RPD is 100% or less, If greater 5* MDA/ MDC, then RPD 20% or less, If below the MDA/ MDC, the RPD is 0%, Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. (Or meets the client's contract acceptance criteria).			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% (or meets the client's contract acceptance criteria).	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
MS, LCS, and Duplicate RPD/RER values uploaded to LIMS and values verified	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed. Disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

Primary Review Performed By: [signature] FAX 9/2 ARS

Secondary Review Performed By: Amanda L. Leh

Blank Correction Report

Batch ID 1136968

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202476154	DUP	ALPHA	0.050 L	1.36	0.913	2.98	.908	pCi/L	YES
		BETA	0.050 L	20.6	3.81	7.85	4.16	pCi/L	YES
1202476159	LCS	ALPHA	1.00 L	14.3	1.52	0.137	.0454	pCi/L	NO
		BETA	1.00 L	53.5	4.56	0.313	.208	pCi/L	NO
1202476153	MB	ALPHA	1.00 L	0.0454	0.0451	0.160	.0454	pCi/L	YES
		BETA	1.00 L	0.208	0.0987	0.302	.208	pCi/L	YES
1202476157	MS	ALPHA	0.025 L	514	54.7	8.01	1.816	pCi/L	NO
		BETA	0.025 L	2230	191	13.2	8.32	pCi/L	NO
1202476158	MSD	ALPHA	0.025 L	571	56.9	10.6	1.816	pCi/L	NO
		BETA	0.025 L	2060	176	16.2	8.32	pCi/L	NO
284795007	WTESR-11-23476	ALPHA	0.0005 L	5510	562	390	90.8	pCi/L	NO
284861004	WTLAP-11-15757	ALPHA	0.050 L	63.3	7.46	2.97	.908	pCi/L	NO
		BETA	0.050 L	108	9.40	2.98	4.16	pCi/L	NO
284864002	WTLAP-11-26568	ALPHA	0.0005 L	1100	153	217	90.8	pCi/L	NO
		BETA	0.0005 L	2170	220	263	416	pCi/L	NO
284865001	NPDES13S-11-13861	ALPHA	0.050 L	3.74	1.20	2.76	.908	pCi/L	YES
		BETA	0.050 L	18.8	4.00	9.63	4.16	pCi/L	YES

Gross Alpha Beta Queue Sheet

Fax 9-2

08/29/2011 09:28:04

Batch #: 1136968 Analyst: DXF3 First Client DueDate 09/06/2011 Internal Due Date 08/30/2011

Alpha Spike Isotope: Th-230 Spike Code: 1242-C Vol: 0.1 Balance #: 40309539
Beta Spike Isotope: Sr-90 Spike Code: 1243-F Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-C Vol: 0.1 Prep Date: 08/29/11
Beta LCS Isotope: Sr-90 LCS Code: 1243-F Vol: 0.1 Initials: DKF

Analytical Scale #: 1113092273
Witness: LEE 08/29/11

10% HNO3: 1600225
Conc HNO3: 1602309.2
Conc HCl: 1587639.9
Conc HF: 1578634.3
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)	
284795007-1	WTESR-11-23476	SAMPLE		3 pCi/L	ARSL001	STORM WATER	1	0.5	~~C1~~ FL	7.6063	7.6427	36.4	G1
284861004-1	WTLAP-11-15757	SAMPLE		3 pCi/L	ARSL001	STORM WATER	2	50	~~B4~~	7.5910	7.6238	32.8	
284864002-1	WTLAP-11-26568	SAMPLE		3 pCi/L	ARSL001	STORM WATER	3	0.5	~~C2~~ FL	7.6167	7.6228	6.1	G2
284865001-1	NPDES13S-11-13861	SAMPLE		3 pCi/L	ARSL001	STORM WATER	4	50	~~B3~~	7.5749	7.5950	20.1	
1202476153-1	MB	MB		3 pCi/L	QC ACCOUNT	STORM WATER	5	1000	~~B2~~	7.5831	7.5829	0.0	
1202476154-1	DUP NPDES13S-11-13861(284865001)	DUP		3 pCi/L	QC ACCOUNT	STORM WATER	6	50 *	~~B1~~ VOC	7.5842	7.6037	19.5	
1202476157-1	MS NPDES13S-11-13861(284865001)	MS		3 pCi/L	QC ACCOUNT	STORM WATER	7	25	C1	7.5747	7.5846	9.9	
1202476158-1	MSD NPDES13S-11-13861(284865001)	MSD		3 pCi/L	QC ACCOUNT	STORM WATER	8	25	C3	7.5873	7.5972	9.9	
1202476159-1	LCS	LCS		3 pCi/L	QC ACCOUNT	STORM WATER	9	1000	C4	7.6066	7.6060	0.0	

*NL 9/2/11

Have the planchets been flamed? Yes No

Data Reviewed By: [signature]

20

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3.7

Batch : 1136968
Analyst : DXF3
Prep Date : 8/29/2011

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-C
Spike Exp Date : 7/28/2012
Spike Activity (dpm/ml): 282.06
Spike Volume Added: 0.10
Spike Nuclide: Th-230

LCS S/N : 1242-C
LCS Exp Date : 7/28/2012
LCS Activity (dpm/ml): 282.06
LCS Volume Added: 0.10
LCS Nuclide: Th-230

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	284795007.2	5.000E-04	36.4	2.1563E-06	8/21/2011 12:00	G1	500	473	3958	9/1/2011 12:26
2	284861004.2	0.0500	32.8	7.8337E-06	8/21/2011 12:00	B4	190	201	1118	9/1/2011 12:33
3	284864002.2	5.000E-04	6.1	2.1563E-06	8/22/2011 12:00	G2	500	134	927	9/1/2011 12:26
4	284865001.2	0.0500	20.1	7.8337E-06	8/25/2011 12:00	B3	190	19	481	9/1/2011 12:33
5	1202476153.2	1.0000	0.0	2.0399E-05	8/29/2011 0:00	B2	190	16	228	9/1/2011 12:33
6	1202476154.2	0.0500	19.5	7.8337E-06	8/25/2011 12:00	10C	300	22	646	9/2/2011 9:06
7	1202476157.2	0.0250	9.9	5.6752E-06	8/25/2011 12:00	C1	60	427	3571	9/1/2011 13:02
8	1202476158.2	0.0250	9.9	5.6752E-06	8/25/2011 12:00	C3	60	422	3756	9/1/2011 13:02
9	1202476159.2	1.0000	0.0	2.0399E-05	8/29/2011 0:00	C4	60	441	3519	9/1/2011 13:02

Analytical SOP: GL-RAD-A-001
Instrument SOP: GL-RAD-I-006, GL-RAD-I-016

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	CPM	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	LB4100	8/1/2010	9/15/2011	Th230	0.1428	0.02916	0.00012	0.072	8/28/2011 16:49	500
2	LB4100	8/1/2010	9/15/2011	Th230	0.1484	0.04316	0.00017	0.014	8/28/2011 16:49	500
3	LB4100	8/1/2010	9/15/2011	Th230	0.1889	0.03134	0.00017	0.036	8/28/2011 16:49	500
4	LB4100	8/1/2010	9/15/2011	Th230	0.1870	0.04273	0.00013	0.022	8/28/2011 16:49	500
5	LB4100	8/1/2010	9/15/2011	Th230	0.2382	0.05071	0.00019	0.060	8/28/2011 16:49	500
6	PIC	8/1/2010	9/15/2011	Th230	0.1824	0.06392	0.00083	0.044	8/28/2011 16:39	500
7	LB4100	8/1/2010	9/15/2011	Th230	0.2482	0.04512	0.00019	0.018	8/28/2011 18:26	500
8	LB4100	8/1/2010	9/15/2011	Th230	0.2207	0.02544	0.00021	0.032	8/28/2011 18:26	500
9	LB4100	8/1/2010	9/15/2011	Th230	0.2306	0.04529	0.00016	0.002	8/28/2011 18:26	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Alpha Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	249.3961	176.0758	3	389.9949	**5506.4243**	0.0594	0.8740	0.0451	284.5944	562.3448		SAMPLE				
2	1.4261	1.0068	3	2.9720	**63.2992**	0.0837	1.0439	0.0748	4.5405	7.4621		SAMPLE				
3	133.3168	94.1228	3	216.8544	**1104.6729**	0.1109	0.2320	0.0247	117.5708	153.1583		SAMPLE				
4	1.4189	1.0018	3	2.7642	**3.7425**	0.3091	0.0780	0.0239	1.1505	1.2027		SAMPLE				
5	0.0920	0.0649	3	0.1597	**0.0454**	0.9816	0.0242	0.0237	0.0449	0.0451		MB				
6	1.7631	1.2448	3	2.9835	**1.3608**	0.6249	0.0293	0.0182	0.9007	0.9133	284865001.1	DUP	93.3%	0.5628		
7	3.0999	2.1886	3	8.0062	**514.4301**	0.0663	7.0987	0.3445	25.0009	54.6805	284865001.1	MS			508.2076	100.5%
8	4.6493	3.2824	3	10.6470	**570.5400**	0.0551	7.0013	0.3425	27.9605	56.9098	284865001.1	MSD	10.3%	0.2514	508.2076	111.5%
9	0.0278	0.0196	3	0.1369	**14.3357**	0.0657	7.3480	0.3500	0.6837	1.5185		LCS			12.7052	112.8%

1136968a1.xls

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
284795007	G1	500	473	3958	9/1/2011 12:26	9/1/2011 20:46	LB4100	1136968
284861004	B4	190	201	1118	9/1/2011 12:33	9/1/2011 15:43	LB4100	1136968
284864002	G2	500	134	927	9/1/2011 12:26	9/1/2011 20:46	LB4100	1136968
284865001	B3	190	19	481	9/1/2011 12:33	9/1/2011 15:43	LB4100	1136968
1202476153	B2	190	16	228	9/1/2011 12:33	9/1/2011 15:43	LB4100	1136968
1202476154	10C	300	22	646	9/2/2011 9:06	9/2/2011 14:06	PIC	1136968
1202476157	C1	60	427	3571	9/1/2011 13:02	9/1/2011 14:02	LB4100	1136968
1202476158	C3	60	422	3756	9/1/2011 13:02	9/1/2011 14:02	LB4100	1136968
1202476159	C4	60	441	3519	9/1/2011 13:02	9/1/2011 14:02	LB4100	1136968

Gross Alpha Beta Queue Sheet

Fax 9-2 08/29/2011 09:28:04

Batch #:1136968 Analyst:DXF3 First Client DueDate 09/06/2011 Internal Due Date 08/30/2011

Alpha Spike Isotope: Th-230 Spike Code: 1242-C Vol: 0.1 Balance #: 40309539
Beta Spike Isotope: Sr-90 Spike Code: 1243-F Vol: 0.1 Pipette #: 44470063
Alpha LCS Isotope: Th-230 LCS Code: 1242-C Vol: 0.1 Prep Date: 8/29/11
Beta LCS Isotope: Sr-90 LCS Code: 1243-F Vol: 0.1 Initials: DHF

Analytical Scale #113092273
Witness: 22 8-29-11

10% HNO3: 1600225
Conc HNO3: 1602309.2
Conc HCl: 1587639.9
Conc HF: 1578634.3
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
284795007-1	WTESR-11-23476	SAMPLE		3 pCi/L	ARSL001	STORM WATER	1	0.5	8A	7.6063	7.6743	68.0
284861004-1	WTLAP-11-15757	SAMPLE		3 pCi/L	ARSL001	STORM WATER	2	50	8D	7.5910	7.6482	57.2
284864002-1	WTLAP-11-26568	SAMPLE		3 pCi/L	ARSL001	STORM WATER	3	0.5	7C	7.6167	7.6296	12.9
284865001-1	NPDES13S-11-13861	SAMPLE		3 pCi/L	ARSL001	STORM WATER	4	50	8C 6D	7.5749	7.6008	25.9
1202476153-1	MB	MB		3 pCi/L	QC ACCOUNT	STORM WATER	5	1000 ~~50~~	7D 7C	7.5831	7.5830	0
1202476154-1	DUP NPDES13S-11-13861(284865001)	DUP		3 pCi/L	QC ACCOUNT	STORM WATER	6	* 50 *	7B 7D	7.5842	7.6119	Ø 27.7 DHF 8/30/11
1202476157-1	MS NPDES13S-11-13861(284865001)	MS		3 pCi/L	QC ACCOUNT	STORM WATER	7	25	9A	7.5747	7.5884	13.7
1202476158-1	MSD NPDES13S-11-13861(284865001)	MSD		3 pCi/L	QC ACCOUNT	STORM WATER	8	25	9D	7.5473	7.5610	13.7
1202476159-1	LCS	LCS		3 pCi/L	QC ACCOUNT	STORM WATER	9	1000 * ~~50~~	10A	7.6066	7.6057	0

WH ✓ J Dailes

*NL 9/2/11

Have the planchets been flamed? Yes / No

Data Reviewed By: [signature] 8/9/11

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3.7

Batch : 1136968
Analyst : DXF3
Prep Date : 8/29/2011

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1243-F
Spike Exp Date : 7/5/2012
Spike Activity (dpm/ml): 552.32
Spike Volume Added: 0.10
Spike Nuclide: Sr-90

LCS S/N : 1243-F
LCS Exp Date : 7/5/2012
LCS Activity (dpm/ml): 552.32
LCS Volume Added: 0.10
LCS Nuclide: Sr-90

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	284795007.1	5.000E-04	68	2.1563E-06	8/21/2011 12:00	8A	500	425	3193	8/31/2011 7:12
2	284861004.1	0.0500	57.2	7.8337E-06	8/21/2011 12:00	8D	360	421	2044	8/31/2011 7:13
3	284864002.1	5.000E-04	12.9	2.1563E-06	8/22/2011 12:00	7C	500	184	723	8/31/2011 7:13
4	284865001.1	0.0500	25.9	7.8337E-06	8/25/2011 12:00	6D	60	20	105	8/31/2011 19:22
5	1202476153.1	1.0000	0	2.0399E-05	8/29/2011 0:00	7C	60	11	35	8/31/2011 19:22
6	1202476154.1	0.0500	27.7	7.8337E-06	8/25/2011 12:00	7D	60	11	90	8/31/2011 19:22
7	1202476157.1	0.0250	13.7	5.6752E-06	8/25/2011 12:00	9A	60	379	3373	8/31/2011 7:16
8	1202476158.1	0.0250	13.7	5.6752E-06	8/25/2011 12:00	9D	60	337	3044	8/31/2011 7:16
9	1202476159.1	1.0000	0	2.0399E-05	8/29/2011 0:00	10A	60	456	3470	8/31/2011 7:16

Analytical SOP: GL-RAD-A-001
Instrument SOP: GL-RAD-I-016

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Weekly Bkg Count Start Date/Time	Count Time (min.)
1	PIC	8/1/2010	8/31/2011	Sr90	0.4367	0.00816	0.06340	0.562	8/28/2011 16:38	500
2	PIC	8/1/2010	8/31/2011	Sr90	0.4380	0.00816	0.05720	0.360	8/28/2011 16:38	500
3	PIC	8/1/2010	8/31/2011	Sr90	0.4439	0.00816	0.06840	0.354	8/28/2011 16:38	500
4	PIC	8/1/2010	8/31/2011	Sr90	0.4306	0.00816	0.04953	0.834	8/29/2011 2:04	500
5	PIC	8/1/2010	8/31/2011	Sr90	0.4740	0.00816	0.05687	0.354	8/28/2011 16:38	500
6	PIC	8/1/2010	8/31/2011	Sr90	0.4271	0.00816	0.05664	0.514	8/28/2011 16:38	500
7	PIC	8/1/2010	8/31/2011	Sr90	0.4451	0.00816	0.12813	0.374	8/28/2011 16:38	500
8	PIC	8/1/2010	8/31/2011	Sr90	0.4342	0.00816	0.09086	0.574	8/28/2011 16:39	500
9	PIC	8/1/2010	8/31/2011	Sr90	0.4776	0.00816	0.09972	0.394	8/28/2011 16:39	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	227.9001	160.8995	3	334.1767	**11903.4953**	0.0222	5.8240	0.1179	243.1842	1021.9707		SAMPLE				
2	1.9875	1.4032	3	2.9778	**107.9995**	0.0255	5.3178	0.1284	2.6413	9.4026		SAMPLE				
3	177.9407	125.6277	3	263.4323	**2165.1237**	0.0557	1.0920	0.0600	121.7696	219.8911		SAMPLE				
4	6.0826	4.2944	3	9.6349	**18.8198**	0.1919	0.9160	0.1756	3.6740	3.9998		SAMPLE				
5	0.1800	0.1271	3	0.3017	**0.2080**	0.4454	0.2293	0.1021	0.0971	0.0987		MB				
6	4.8146	3.3991	3	7.8530	**20.5810**	0.1638	0.9860	0.1613	3.4034	3.8115	284865001.1	DUP	8.9%	0.1127		
7	7.8815	5.5644	3	13.1530	**2227.9622**	0.0192	55.8427	0.9683	39.2024	190.5958	284865001.1	MS			1990.3551	111.0%
8	10.0090	7.0665	3	16.2079	**2060.4288**	0.0201	50.1593	0.9202	38.1868	175.9364	284865001.1	MSD	7.8%	0.2285	1990.3551	102.6%
9	0.1885	0.1330	3	0.3133	**53.4571**	0.0189	57.4393	0.9822	0.9263	4.5644		LCS			49.7589	107.4%

1136968b2

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine	Batch ID
284795007	8A	500	425	3193	8/31/2011 7:12	8/31/2011 15:32	PIC	1136968
284861004	8D	360	421	2044	8/31/2011 7:13	8/31/2011 13:13	PIC	1136968
284864002	7C	500	184	723	8/31/2011 7:13	8/31/2011 15:33	PIC	1136968
284865001	6D	60	20	105	8/31/2011 19:22	8/31/2011 20:22	PIC	1136968
1202476153	7C	60	11	35	8/31/2011 19:22	8/31/2011 20:22	PIC	1136968
1202476154	7D	60	11	90	8/31/2011 19:22	8/31/2011 20:22	PIC	1136968
1202476157	9A	60	379	3373	8/31/2011 7:16	8/31/2011 8:16	PIC	1136968
1202476158	9D	60	337	3044	8/31/2011 7:16	8/31/2011 8:16	PIC	1136968
1202476159	10A	60	456	3470	8/31/2011 7:16	8/31/2011 8:16	PIC	1136968

Continuing Calibration Data

Gas Flow Proportional Counter Checks for 31-Aug-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100D4	Above	Beta bkg	06:08	60	2.017	0.693	2.201	+2.27
LB4100G3	Above	Beta eff	07:41	5	24298	20310	22930	+6.13
LB4100I1	need 2nd	Alpha eff	06:15	5	11041	10760	11070	+2.43
LB4100I2	need 2nd	Alpha eff	06:15	5	15321	15040	15410	+1.55
LB4100I2	Above	Beta bkg	05:50	60	3.850	0.500	2.000	+10.40
LB4100I3	Above	Alpha XTalk	06:15	5	0.139	0.119	0.137	+4.02
LB4100I4	Above	Alpha bkg	05:50	60	0.583	0.225	0.847	+0.46
LB4100I4	Below	Alpha eff	06:15	5	11885	11930	12280	-3.77
LB4100J1	Above	Alpha bkg	05:50	60	0.300	-1.27E-1	0.256	+3.69
PIC1C	Below	Alpha eff	05:24	5	0.00E+0	11090	11450	-187.83
PIC1C	Above	Alpha XTalk	05:24	5	36.000	0.251	0.277	+8,343.02
PIC1C	Below	Beta bkg	06:30	60	0.00E+0	0.155	1.501	-3.69
PIC1C	Below	Beta eff	05:11	5	0.00E+0	22200	22750	-245.18
PIC1D	Below	Alpha eff	08:59	5	11118	11120	11750	-3.02
PIC2D	Below	Alpha XTalk	09:00	5	0.253	0.253	0.269	-3.04
PIC2D	need 2nd	Beta eff	05:11	5	45982	45640	46620	-0.91
PIC4A	need 2nd	Alpha eff	09:02	5	10478	10250	10570	+1.28
PIC4A	Above	Beta eff	05:24	5	58030	55910	57720	+4.03
PIC4D	Above	Alpha eff	05:32	5	18206	17680	18070	+5.10
PIC4D	Below	Alpha XTalk	05:32	5	0.248	0.253	0.267	-5.38
PIC4D	Above	Beta bkg	06:39	60	2.183	0.616	1.910	+4.27
PIC5A	Above	Alpha XTalk	05:39	5	0.272	0.249	0.269	+3.81
PIC5A	Above	Beta bkg	06:45	60	23.450	-4.00E-2	1.420	+93.53
PIC5A	Below	Beta eff	05:31	5	19360	19490	20460	-3.80
PIC5C	Above	Beta bkg	06:45	60	1.800	0.024	1.083	+7.06
PIC6A	Above	Beta bkg	06:45	60	5.150	0.112	0.881	+36.30
PIC6A	Below	Beta XTalk	05:32	5	6.62E-4	0.002	0.009	-3.74
PIC6C	Below	Alpha XTalk	09:03	5	0.244	0.253	0.272	-5.60
PIC8B	Below	Alpha eff	05:51	5	0.00E+0	9653	10140	-121.93

PIC8B	Below	Alpha XTalk	05:51	5	0.00E+0	0.265	0.307	-40.71
PIC8B	Below	Beta bkg	06:59	60	0.00E+0	0.230	1.433	-4.15
PIC8B	Below	Beta eff	05:39	5	0.00E+0	23210	24620	-101.77
PIC8B	Below	Beta XTalk	05:39	5	0.00E+0	5.80E-5	4.99E-4	-3.79
PIC11C	Above	Alpha bkg	07:20	60	0.567	-5.59E-1	1.284	+0.66
PIC11C	Above	Alpha eff	06:15	5	11749	11050	11370	+10.10
PIC11C	Below	Alpha XTalk	06:15	5	0.261	0.277	0.305	-6.32
PIC11C	need 2nd	Beta bkg	07:20	60	1.650	-1.05E+0	3.580	+0.50
PIC11D	Above	Beta bkg	07:20	60	2.367	0.015	2.172	+3.54
PIC11D	Below	Beta eff	06:07	5	25282	25760	26630	-6.29
PIC12A	Above	Beta bkg	07:20	60	21.267	-2.26E-1	1.297	+81.69

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk

Reviewed by _____

Date 8/31/11

GEL Laboratories LLC

Gas Flow Proportional Counter Checks for 01-Sep-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100C2	Below	Beta eff	07:54	5	22692	22800	24850	-3.32
LB4100C2	need 2nd	Beta XTalk	07:54	5	1.59E-4	7.41E-5	3.35E-4	-1.05
LB4100G3	Below	Beta eff	08:02	5	1.799	20310	22930	-49.51
LB4100G3	Above	Beta XTalk	08:02	5	0.125	2.39E-5	2.28E-4	+3,674.21
LB4100I1	Above	Beta bkg	05:36	60	1.383	0.441	1.366	+3.11
LB4100I2	need 2nd	Beta bkg	05:36	60	1.400	0.500	2.000	+0.60
LB4100I3	Above	Alpha XTalk	06:02	5	0.141	0.119	0.137	+4.44
LB4100I4	Above	Alpha bkg	05:37	60	0.767	0.225	0.847	+2.23
LB4100I4	Below	Alpha eff	06:02	5	11869	11930	12280	-4.04
LB4100I4	Above	Alpha XTalk	06:02	5	0.159	0.138	0.158	+3.27
LB4100J1	need 2nd	Alpha bkg	05:37	60	0.183	-1.27E-1	0.256	+1.86
PIC1C	Below	Alpha eff	05:10	5	0.00E+0	11090	11450	-187.83
PIC1C	Above	Alpha XTalk	05:10	5	46.000	0.251	0.277	+10,677.65
PIC1C	Below	Beta bkg	06:17	60	0.00E+0	0.155	1.501	-3.69
PIC1C	Below	Beta eff	05:02	5	0.00E+0	22200	22750	-245.18
PIC2D	Below	Alpha XTalk	07:11	5	0.249	0.253	0.269	-4.63
PIC4A	Above	Alpha eff	07:12	5	10603	10250	10570	+3.62
PIC4A	Above	Beta eff	05:10	5	58121	55910	57720	+4.33
PIC4D	Above	Alpha bkg	06:25	60	0.317	-2.14E-2	0.261	+4.18
PIC4D	Above	Alpha eff	05:20	5	18252	17680	18070	+5.80
PIC4D	Below	Alpha XTalk	05:20	5	0.250	0.253	0.267	-4.61
PIC4D	Above	Beta bkg	06:25	60	2.367	0.616	1.910	+5.12
PIC5A	Above	Alpha XTalk	05:26	5	0.278	0.249	0.269	+5.51
PIC5A	Above	Beta bkg	06:31	60	42.183	-4.00E-2	1.420	+170.52
PIC5A	Below	Beta eff	05:18	5	19174	19490	20460	-4.96
PIC5C	Above	Alpha bkg	06:31	60	0.600	-1.97E-1	0.390	+5.14
PIC5C	Above	Beta bkg	06:31	60	3.033	0.024	1.083	+14.05
PIC6A	Above	Beta bkg	06:31	60	3.333	0.112	0.881	+22.13
PIC6A	Below	Beta XTalk	05:19	5	8.05E-4	0.002	0.009	-3.62
PIC6C	Below	Alpha XTalk	07:12	5	0.243	0.253	0.272	-5.83

PIC8B	Below	Alpha eff	05:32	5	0.00E+0	9653	10140	-121.93
PIC8B	Below	Alpha XTalk	05:32	5	0.00E+0	0.265	0.307	-40.71
PIC8B	Below	Beta bkg	06:38	60	0.00E+0	0.230	1.433	-4.15
PIC8B	Below	Beta eff	05:25	5	0.00E+0	23210	24620	-101.77
PIC8B	Below	Beta XTalk	05:25	5	0.00E+0	5.80E-5	4.99E-4	-3.79
PIC9A	Above	Alpha bkg	06:44	60	0.283	-6.68E-2	0.197	+4.97
PIC10B	Above	Alpha bkg	06:45	60	0.183	-4.46E-2	0.137	+4.53
PIC10B	Above	Beta bkg	06:45	60	0.833	0.134	0.831	+3.02
PIC10B	Above	Beta eff	07:21	5	24160	19670	24150	+3.01
PIC11C	Above	Alpha bkg	07:00	60	0.483	-5.59E-1	1.284	+0.39
PIC11C	Above	Alpha eff	05:56	5	11842	11050	11370	+11.85
PIC11C	Below	Alpha XTalk	05:56	5	0.259	0.277	0.305	-6.80
PIC11D	Above	Beta bkg	07:00	60	2.450	0.015	2.172	+3.77
PIC11D	Below	Beta eff	05:46	5	25538	25760	26630	-4.53
PIC12A	Above	Beta bkg	07:00	60	14.167	-2.26E-1	1.297	+53.71

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk

Reviewed by _____

Date 9/1/11

GEL Laboratories LLC

Gas Flow Proportional Counter Checks for 02-Sep-2011

Detectors LB4100 A1 through J4 and PIC 1A through 14D

Short Name	Status	Parmname	Run Time	Count Time	CPM or dec	Low Limit	High Limit	Stdev
LB4100B1	Below	Alpha XTalk	06:36	5	0.196	0.197	0.257	-3.13
LB4100B4	Above	Alpha bkg	06:27	60	0.150	-4.58E-2	0.124	+3.91
LB4100C2	Below	Beta eff	07:48	5	22704	22800	24850	-3.28
LB4100D2	Above	Alpha bkg	06:45	60	0.200	-4.20E-2	0.180	+3.53
LB4100E1	Above	Alpha bkg	06:27	60	0.250	-7.53E-2	0.187	+4.44
LB4100E3	Above	Alpha bkg	06:27	60	0.217	-3.68E-2	0.183	+3.92
LB4100F2	Above	Beta bkg	06:27	60	1.617	0.620	1.611	+3.03
LB4100G1	Above	Alpha bkg	06:27	60	0.300	-3.63E-2	0.181	+6.28
LB4100G1	Above	Beta bkg	06:27	60	1.717	0.752	1.629	+3.60
LB4100G3	Above	Beta eff	07:29	5	24065	20310	22930	+5.60
LB4100G3	need 2nd	Beta XTalk	07:29	5	1.40E-4	2.39E-5	2.28E-4	+0.42
LB4100H4	Below	Beta eff	07:29	5	41134	41240	42800	-3.41
LB4100I1	Above	Beta bkg	06:27	60	1.567	0.441	1.366	+4.30
LB4100I3	Above	Alpha XTalk	06:43	5	0.140	0.119	0.137	+4.30
LB4100I4	Above	Alpha bkg	06:27	60	0.683	0.225	0.847	+1.42
LB4100I4	Below	Alpha eff	06:43	5	11831	11930	12280	-4.69
LB4100I4	need 2nd	Alpha XTalk	06:43	5	0.154	0.138	0.158	+1.88
LB4100J1	Above	Alpha eff	06:43	5	11502	11120	11470	+3.56
LB4100J2	Above	Alpha eff	06:43	5	10882	10320	10750	+4.84
PIC1A	Above	Alpha bkg	08:31	60	0.317	-9.10E-2	0.255	+4.07
PIC1A	Above	Beta bkg	08:31	60	0.933	0.113	0.837	+3.80
PIC1C	Below	Alpha eff	05:18	5	0.00E+0	11090	11450	-187.83
PIC1C	Below	Alpha XTalk	05:18	5	0.00E+0	0.251	0.277	-61.65
PIC1C	Below	Beta bkg	06:43	60	0.00E+0	0.155	1.501	-3.69
PIC1C	Below	Beta eff	05:31	5	0.00E+0	22200	22750	-245.18
PIC2C	need 2nd	Alpha bkg	08:32	60	0.167	-7.92E-2	0.285	+1.05
PIC2C	need 2nd	Beta bkg	08:32	60	0.583	-3.61E-3	0.983	+0.57

PIC3A	Above	Beta bkg	09:57	60	12.883	-1.67E+0	3.633	+13.46
PIC4A	need 2nd	Alpha eff	08:33	5	10544	10250	10570	+2.51
PIC4A	Above	Beta eff	08:39	5	58181	55910	57720	+4.53
PIC4D	need 2nd	Alpha bkg	06:43	60	0.083	-2.14E-2	0.261	-0.77
PIC4D	Above	Alpha eff	05:32	5	18339	17680	18070	+7.13
PIC4D	Below	Alpha XTalk	05:32	5	0.247	0.253	0.267	-5.51
PIC4D	Above	Beta bkg	06:43	60	2.283	0.616	1.910	+4.73
PIC5A	Above	Alpha bkg	06:59	60	0.350	-1.10E-1	0.371	+2.74
PIC5A	need 2nd	Alpha XTalk	05:39	5	0.266	0.249	0.269	+2.16
PIC5A	Above	Beta bkg	06:59	60	27.850	-4.00E-2	1.420	+111.61
PIC5A	Below	Beta eff	05:48	5	19412	19490	20460	-3.48
PIC5C	need 2nd	Alpha bkg	06:59	60	0.250	-1.97E-1	0.390	+1.57
PIC5C	Above	Beta bkg	06:59	60	1.233	0.024	1.083	+3.85
PIC6A	Above	Beta bkg	06:59	60	3.567	0.112	0.881	+23.95
PIC6A	Below	Beta XTalk	05:49	5	9.59E-4	0.002	0.009	-3.49
PIC6B	Above	Alpha eff	09:03	5	10372	9709	10320	+3.51
PIC6B	need 2nd	Alpha XTalk	09:03	5	0.250	0.249	0.270	-2.85
PIC6B	Above	Beta XTalk	05:49	5	0.012	9.79E-4	0.011	+3.16
PIC6C	Below	Alpha XTalk	09:03	5	0.248	0.253	0.272	-4.54
PIC6D	Above	Alpha bkg	09:32	60	0.233	-4.29E-2	0.202	+3.77
PIC8B	Below	Alpha eff	05:49	5	0.00E+0	9653	10140	-121.93
PIC8B	Below	Alpha XTalk	05:49	5	0.00E+0	0.265	0.307	-40.71
PIC8B	Below	Beta bkg	06:59	60	0.00E+0	0.230	1.433	-4.15
PIC8B	Below	Beta eff	05:41	5	0.00E+0	23210	24620	-101.77
PIC8B	Below	Beta XTalk	05:41	5	0.00E+0	5.80E-5	4.99E-4	-3.79
PIC10B	need 2nd	Beta eff	06:11	5	23861	19670	24150	+2.61
PIC11C	Above	Alpha bkg	07:38	60	0.700	-5.59E-1	1.284	+1.10
PIC11C	Above	Alpha eff	06:26	5	11762	11050	11370	+10.35
PIC11C	Below	Alpha XTalk	06:26	5	0.257	0.277	0.305	-7.11
PIC11D	Above	Alpha bkg	07:38	60	0.583	-1.50E-1	0.515	+3.62
PIC11D	Above	Beta bkg	07:38	60	2.717	0.015	2.172	+4.51
PIC11D	need 2nd	Beta eff	06:35	5	25839	25760	26630	-2.46
PIC12A	Above	Alpha bkg	07:38	60	0.350	-1.92E-1	0.418	+2.34
PIC12A	Above	Beta bkg	07:38	60	14.300	-2.26E-1	1.297	+54.24
PIC12C	Above	Alpha eff	06:26	5	25681	20240	23080	+8.50

INSTRUMENTS NOT LISTED HAVE PASSED ALL QUALITY ASSURANCE PARAMETERS

The following detectors may not have properly transferred to the LIMS system

PIC9B Alpha bkg, Alpha eff, Alpha XTalk, Beta bkg, Beta eff, Beta XTalk

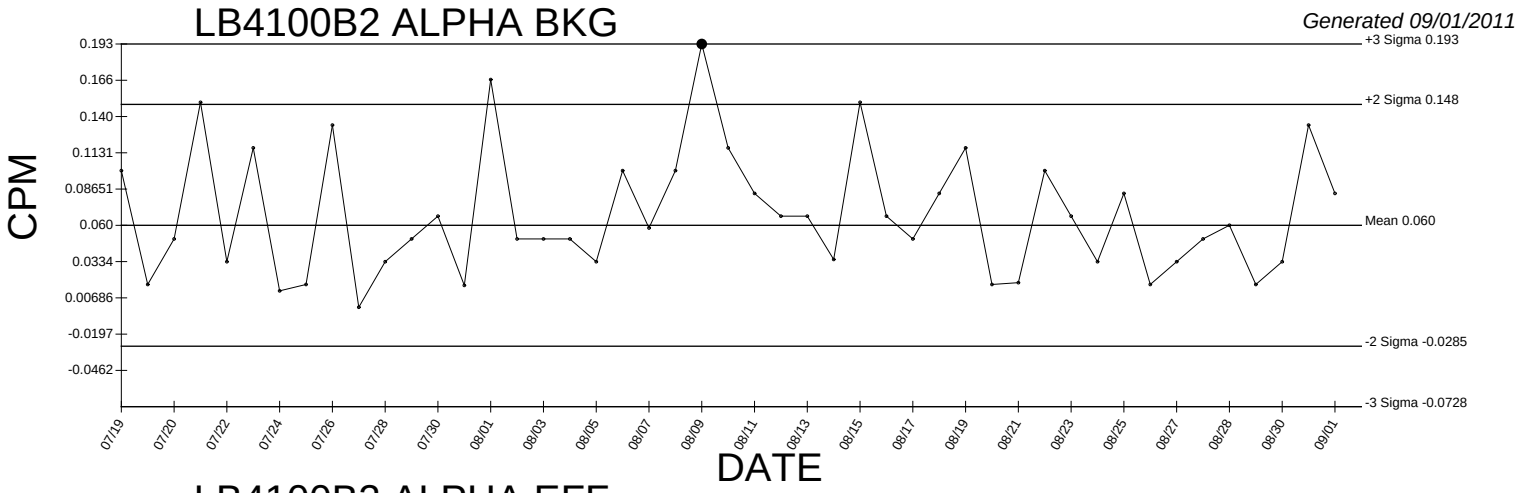
Reviewed by Charles Sayl

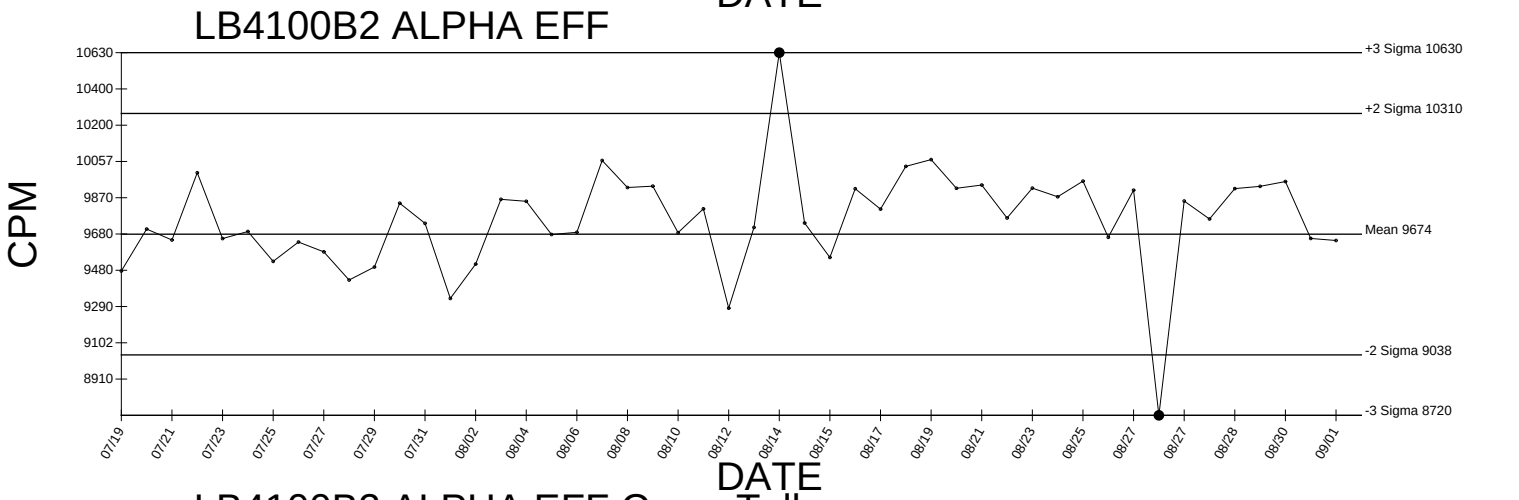
Date 9/2/11 11:55

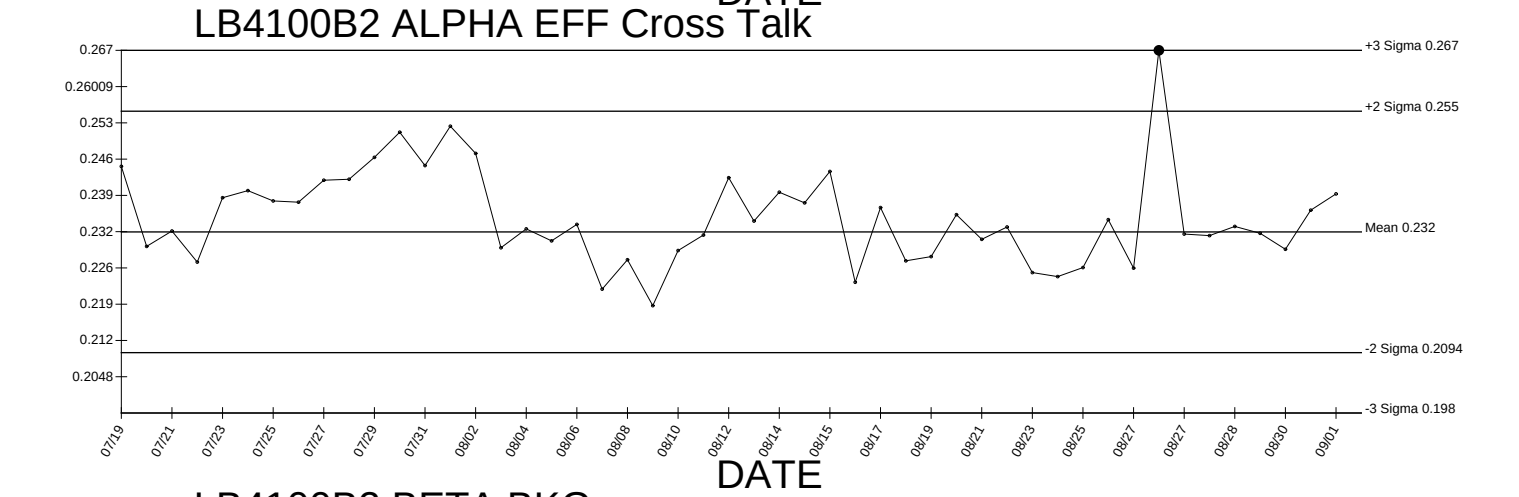
GEL Laboratories LLC

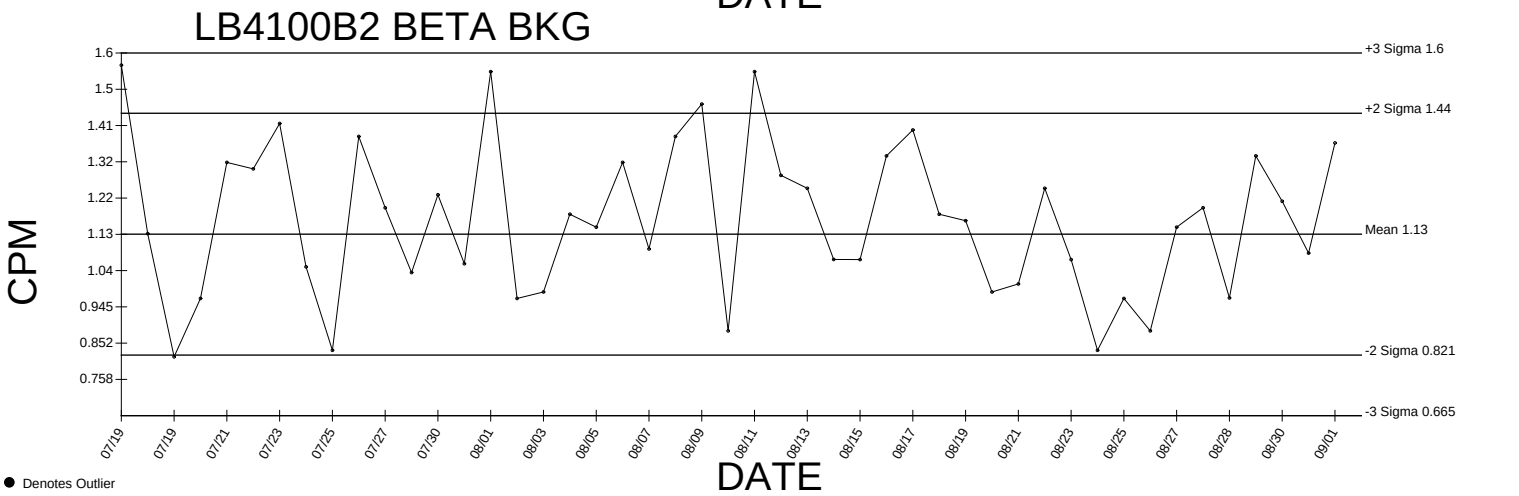
Background and Efficiency Data

Generated 09/01/2011

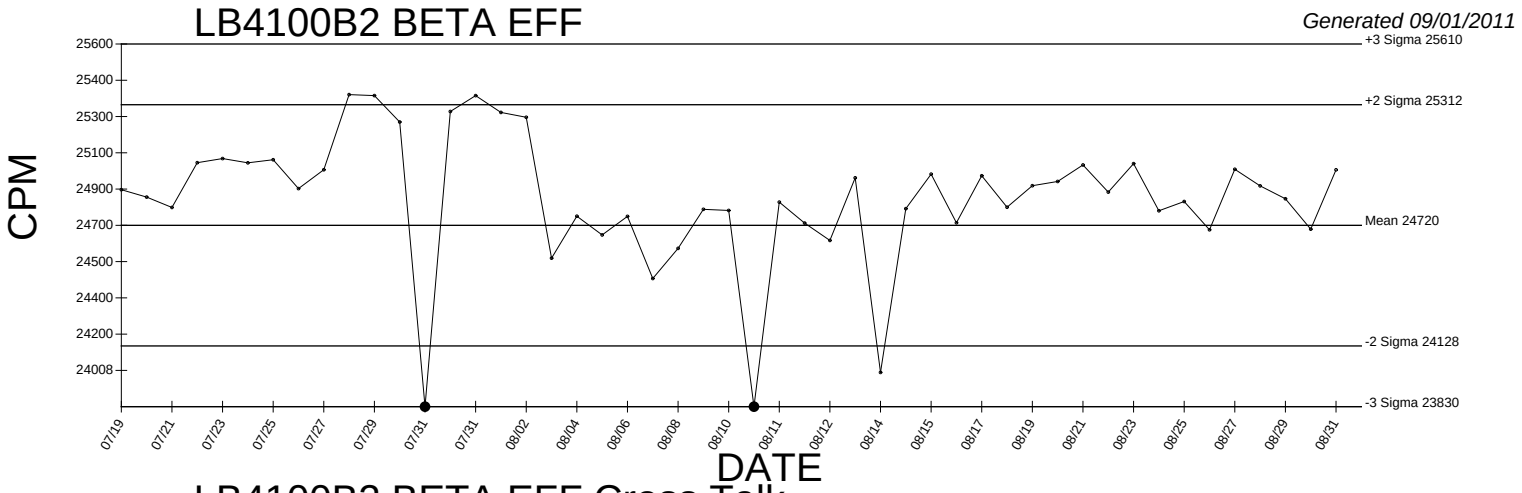


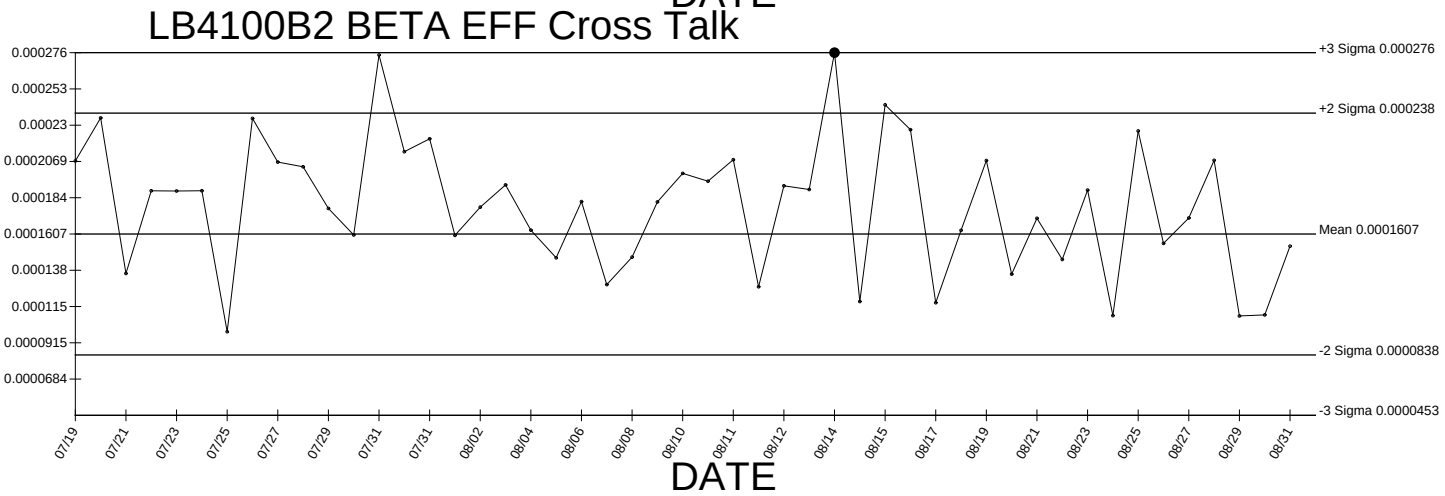






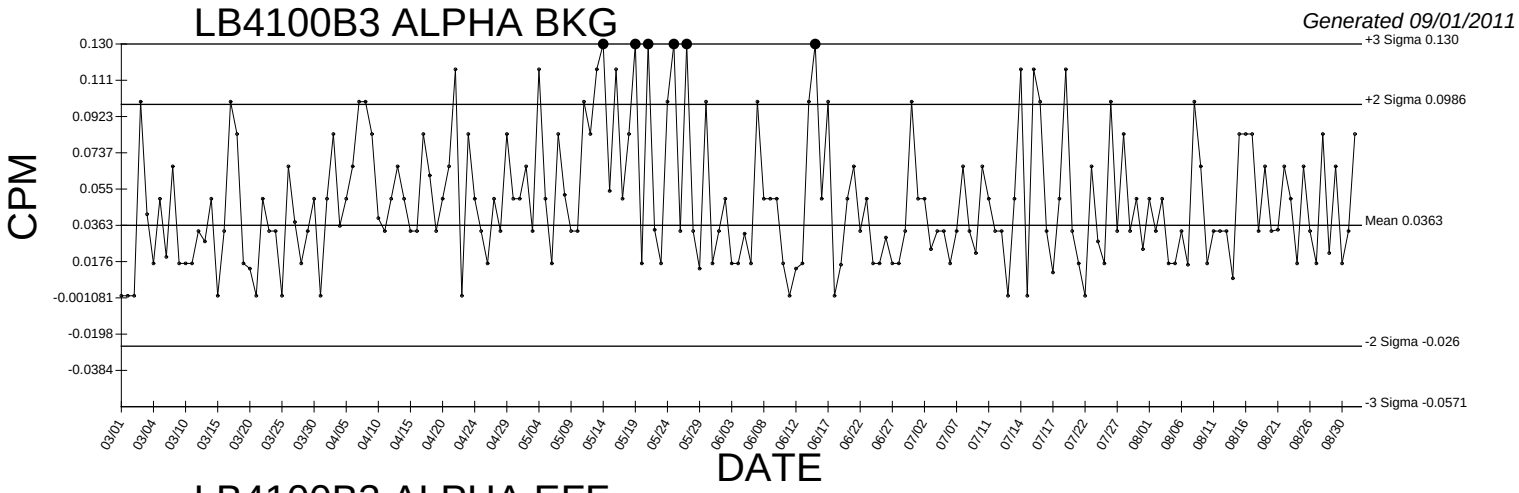
● Denotes Outlier

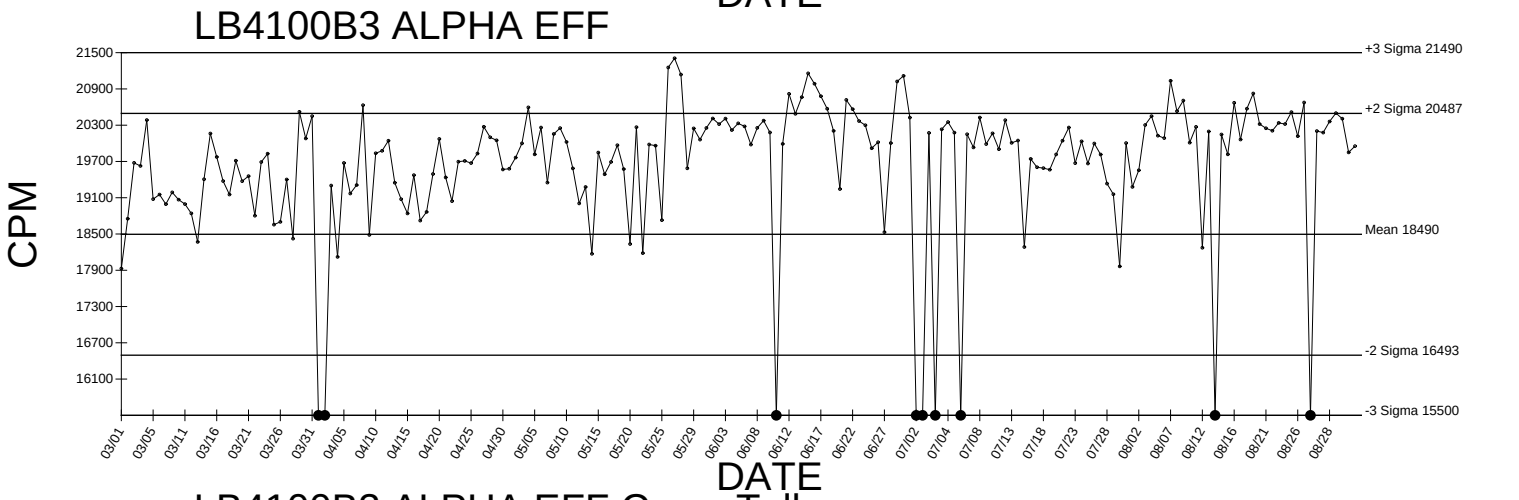


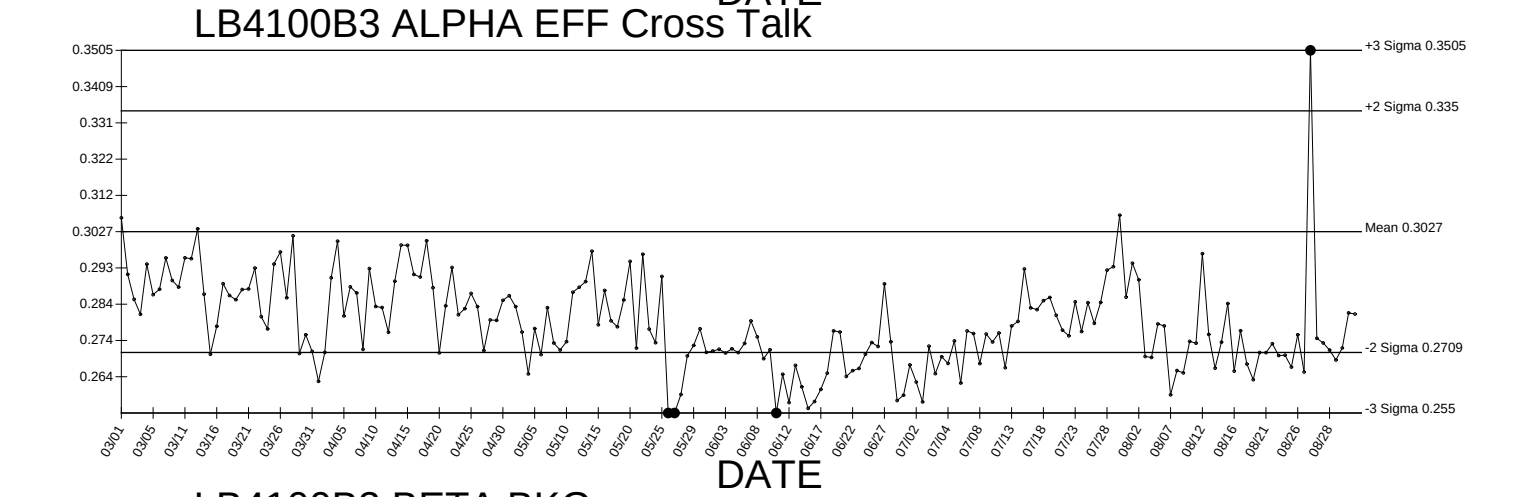


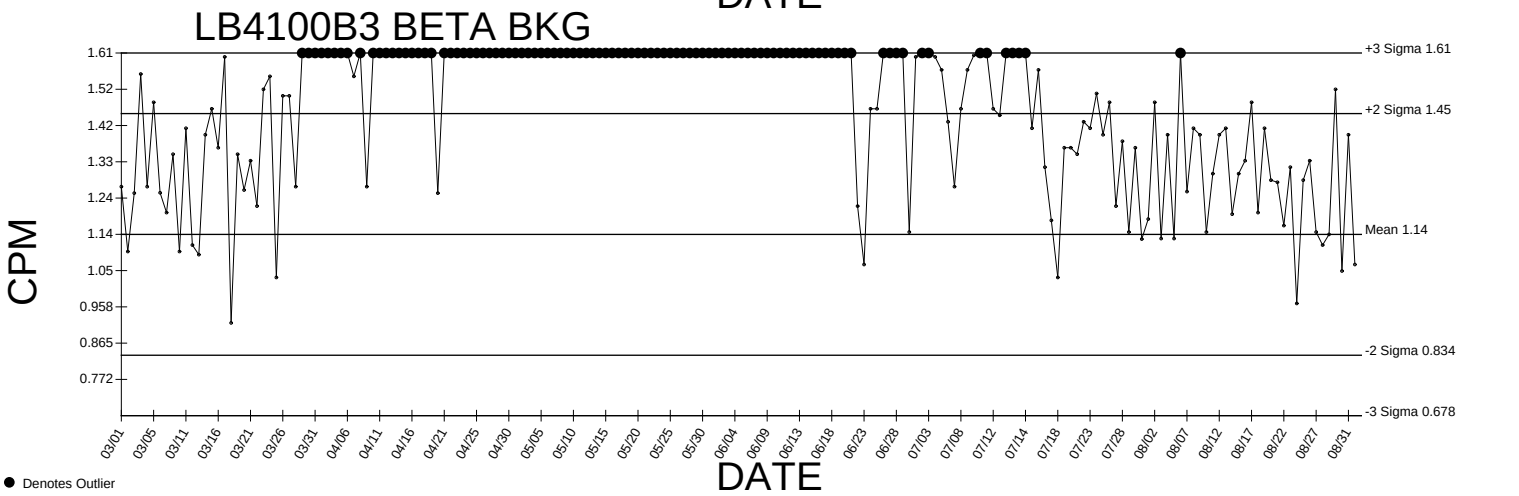
● Denotes Outlier

Generated 09/01/2011

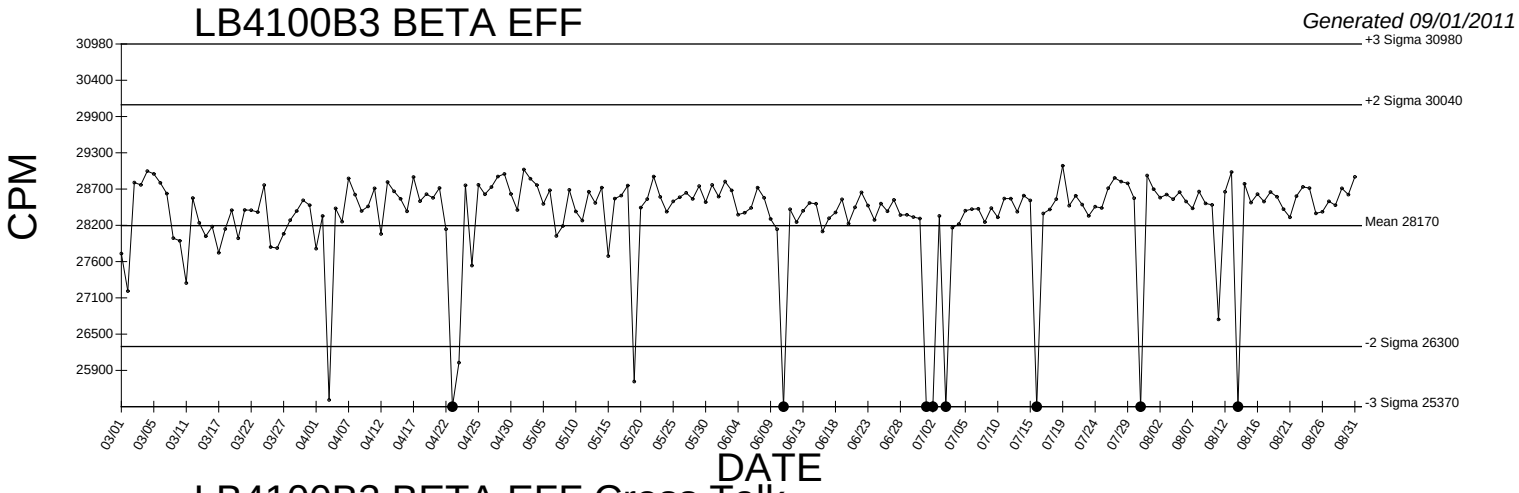


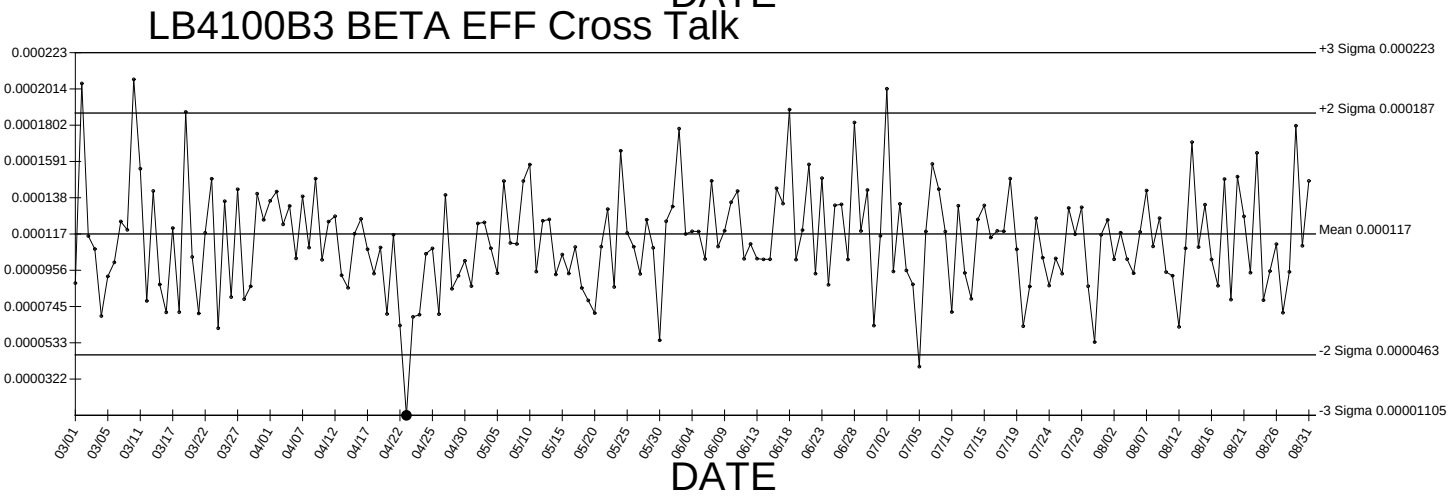






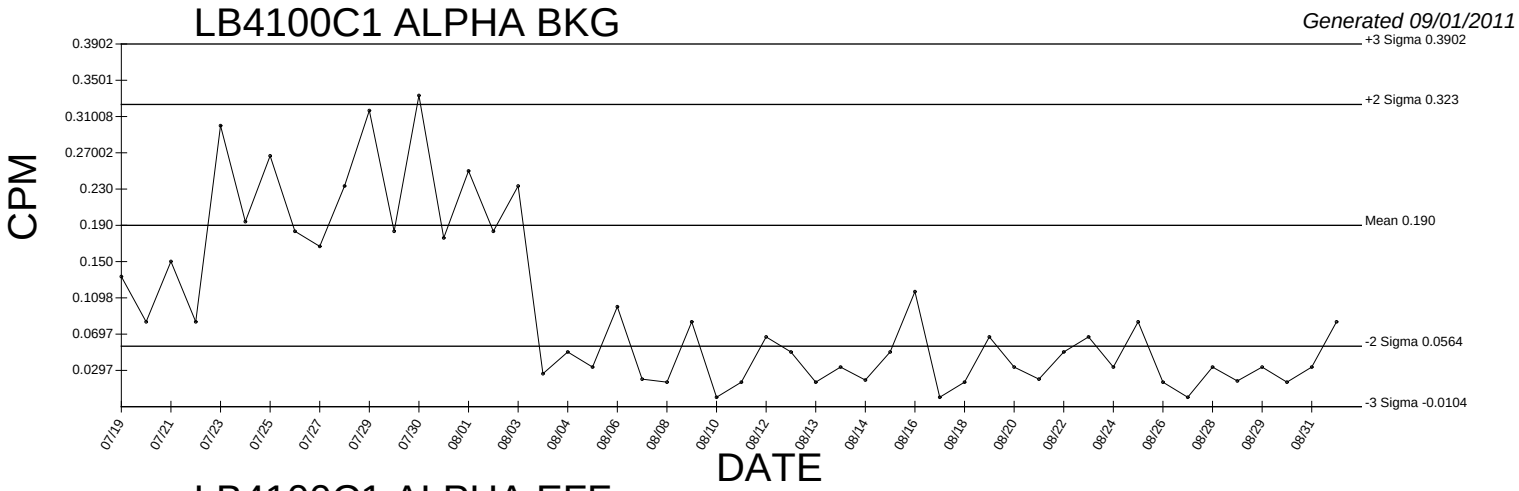
● Denotes Outlier

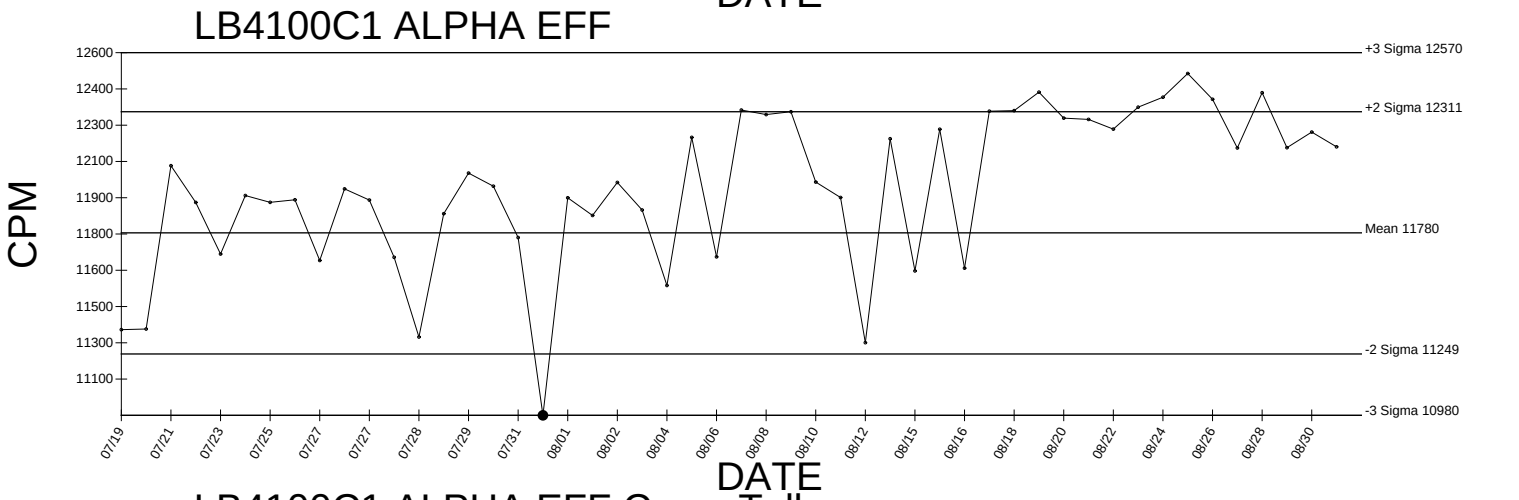


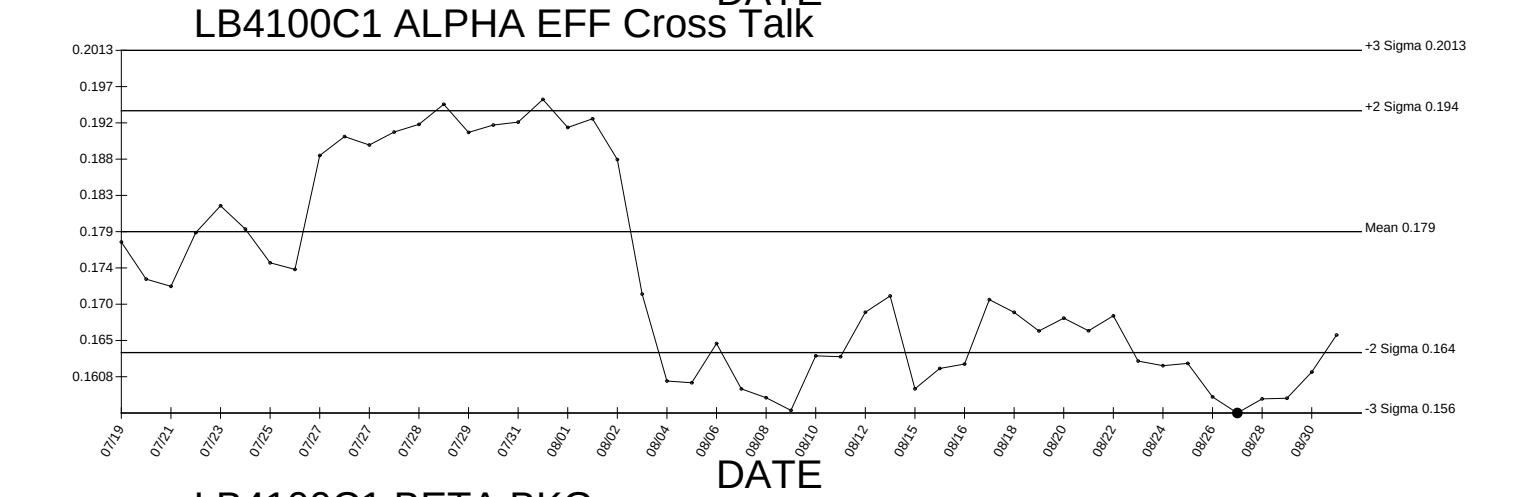


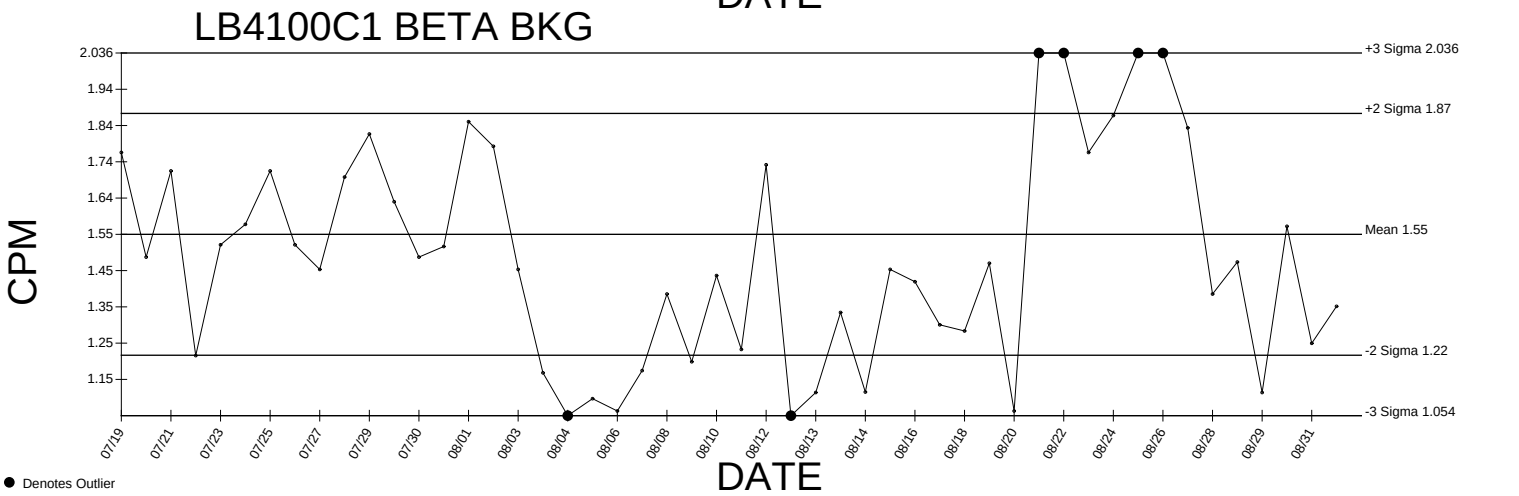
● Denotes Outlier

Generated 09/01/2011

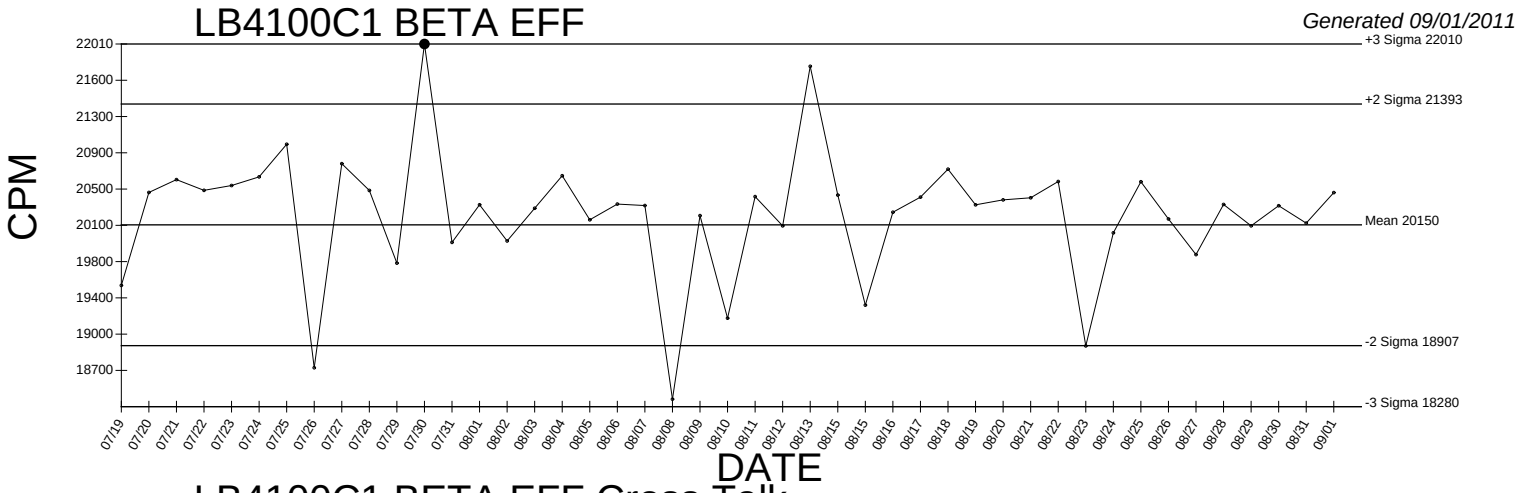


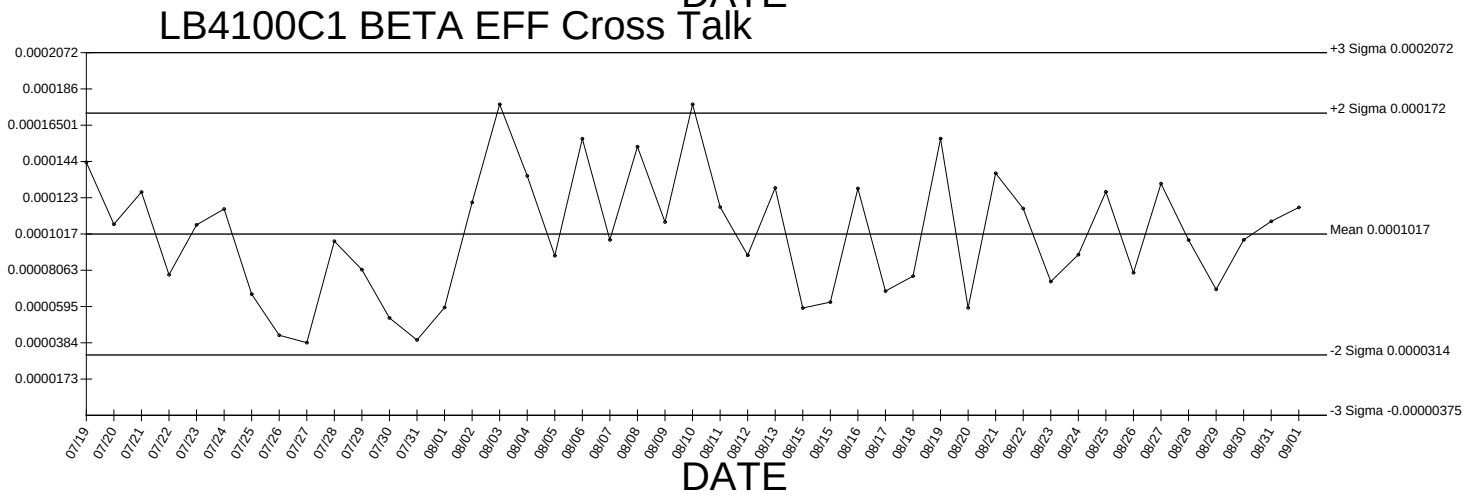




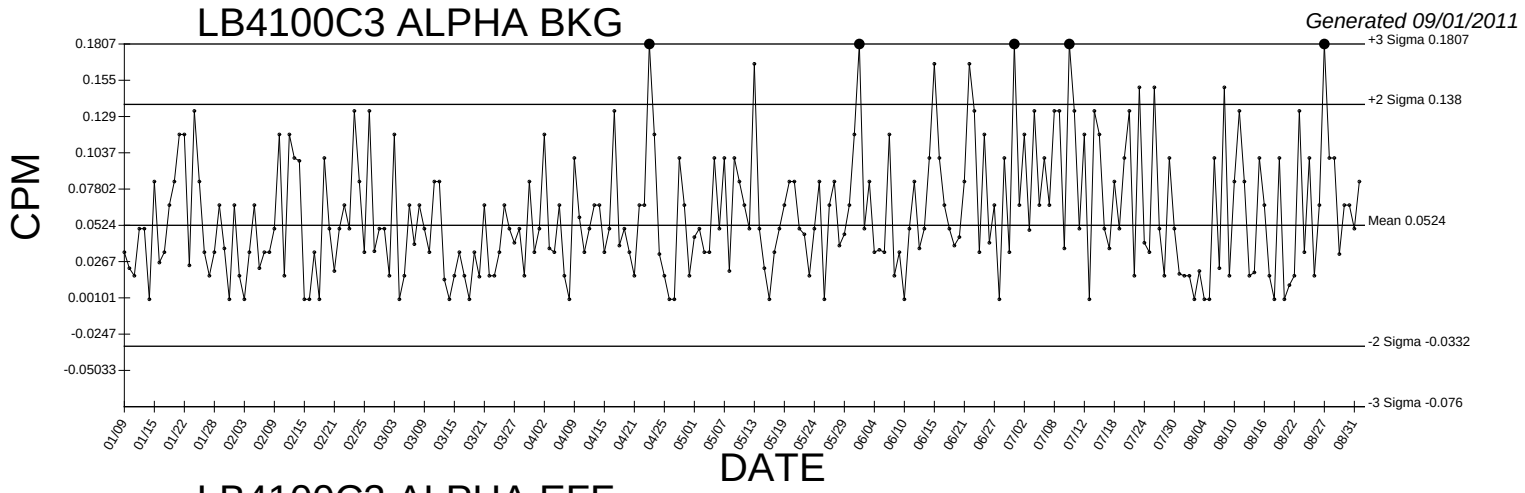


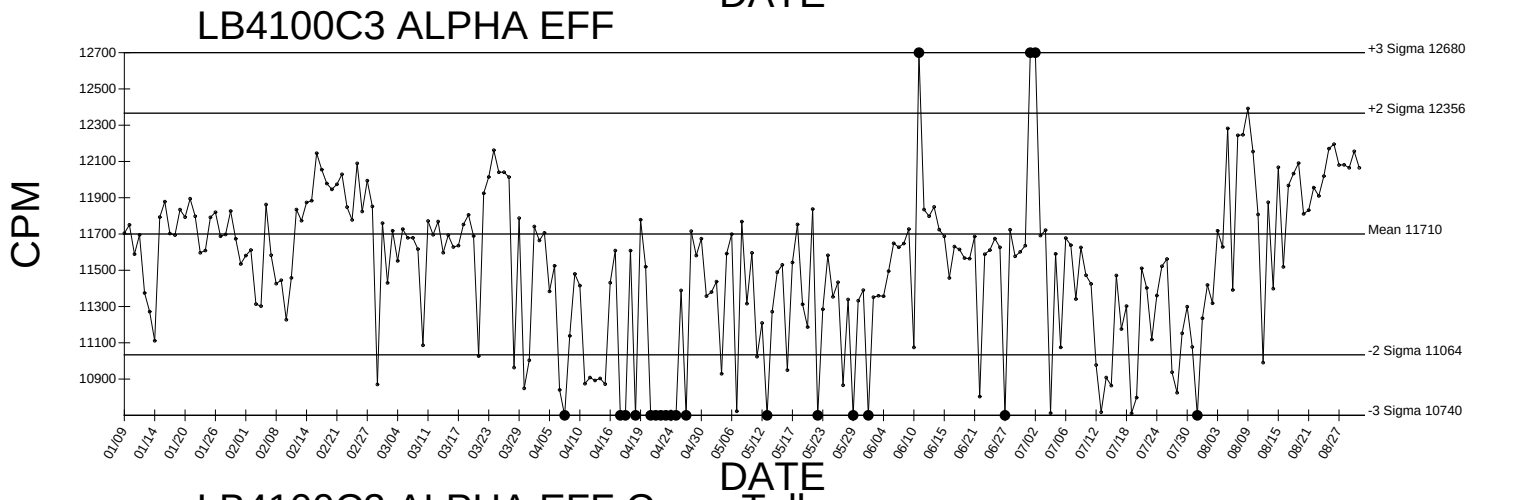
● Denotes Outlier

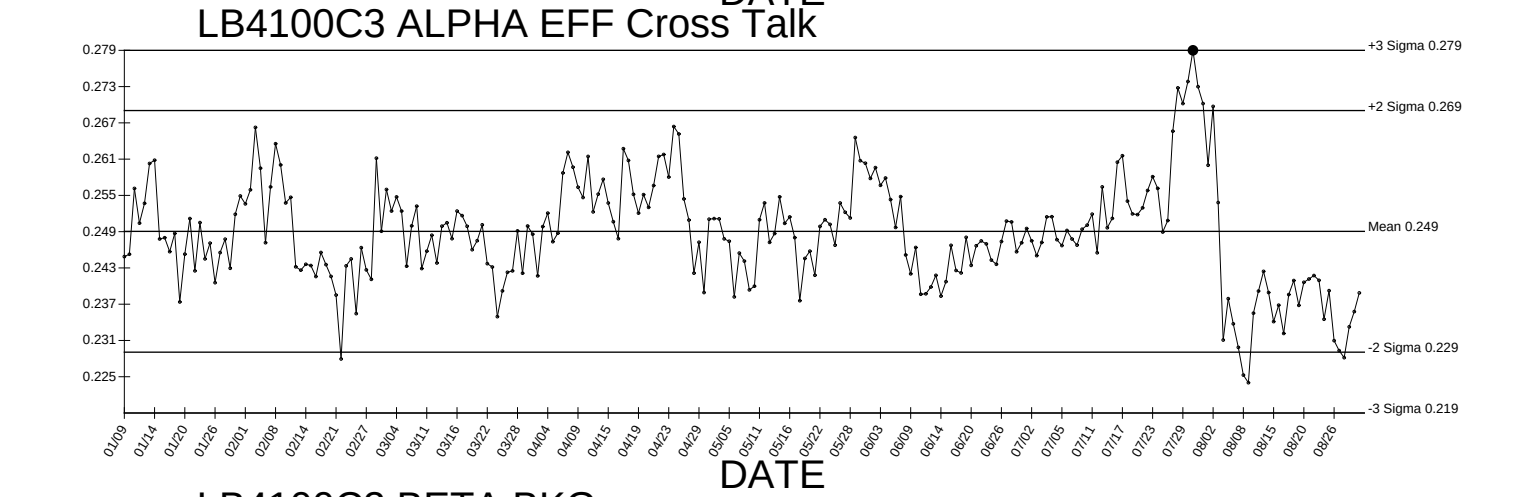


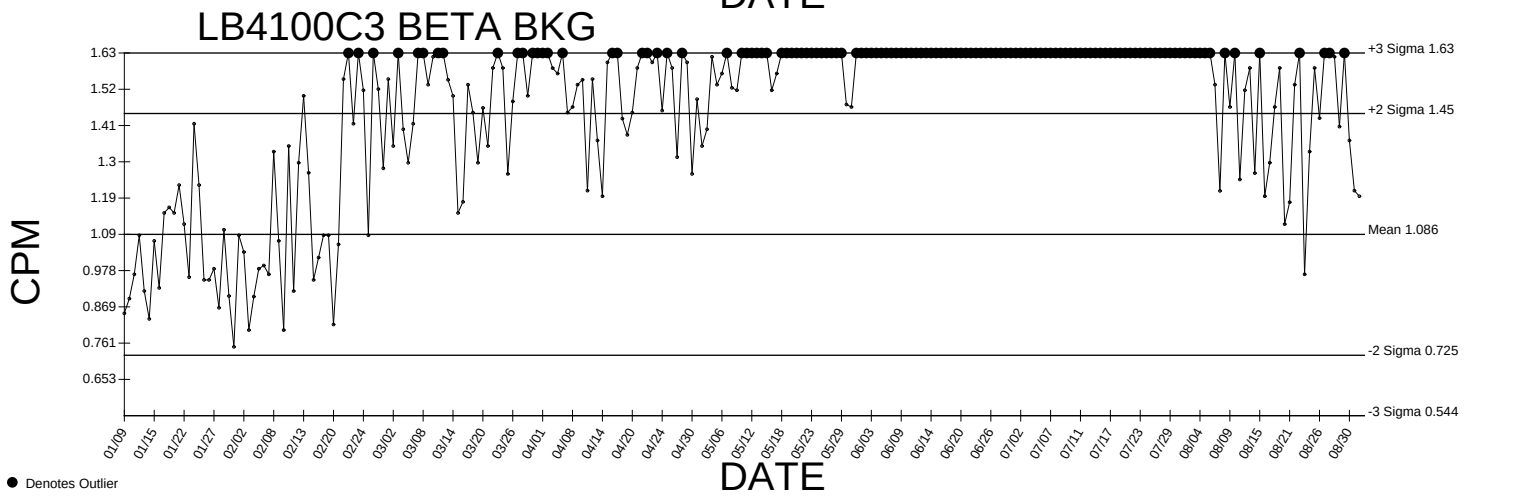


● Denotes Outlier

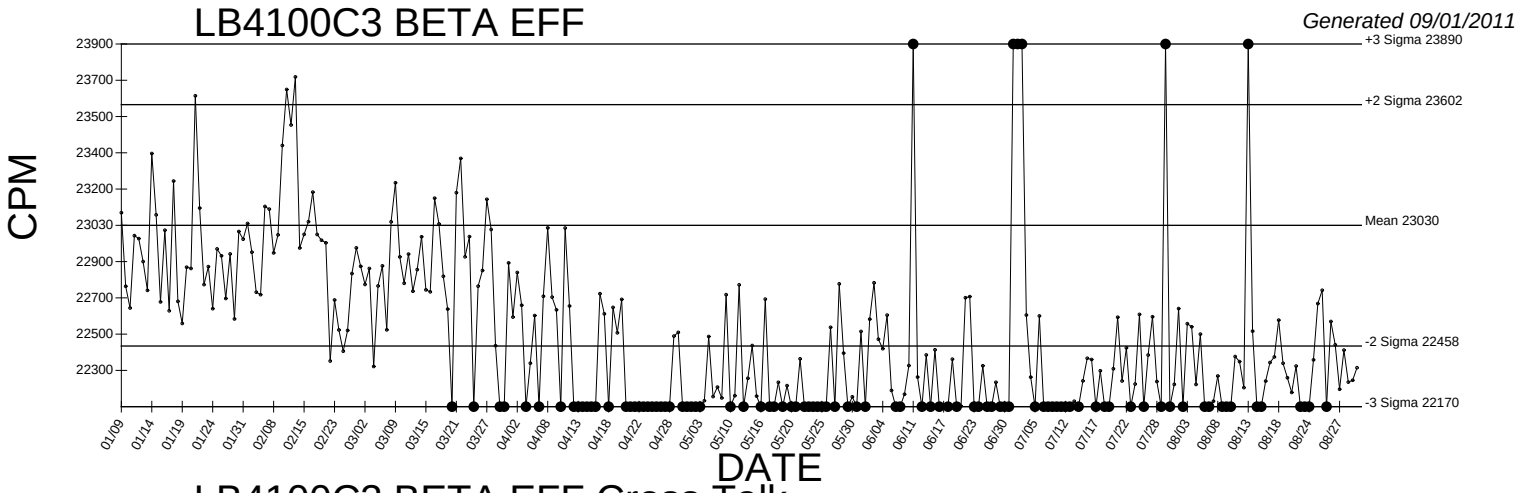


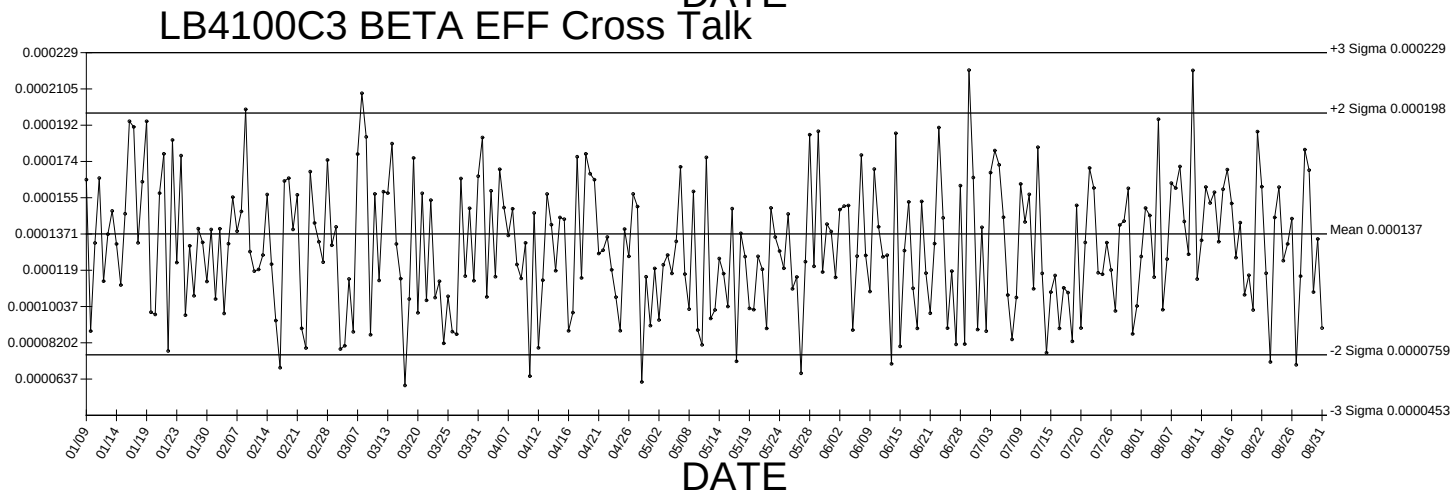




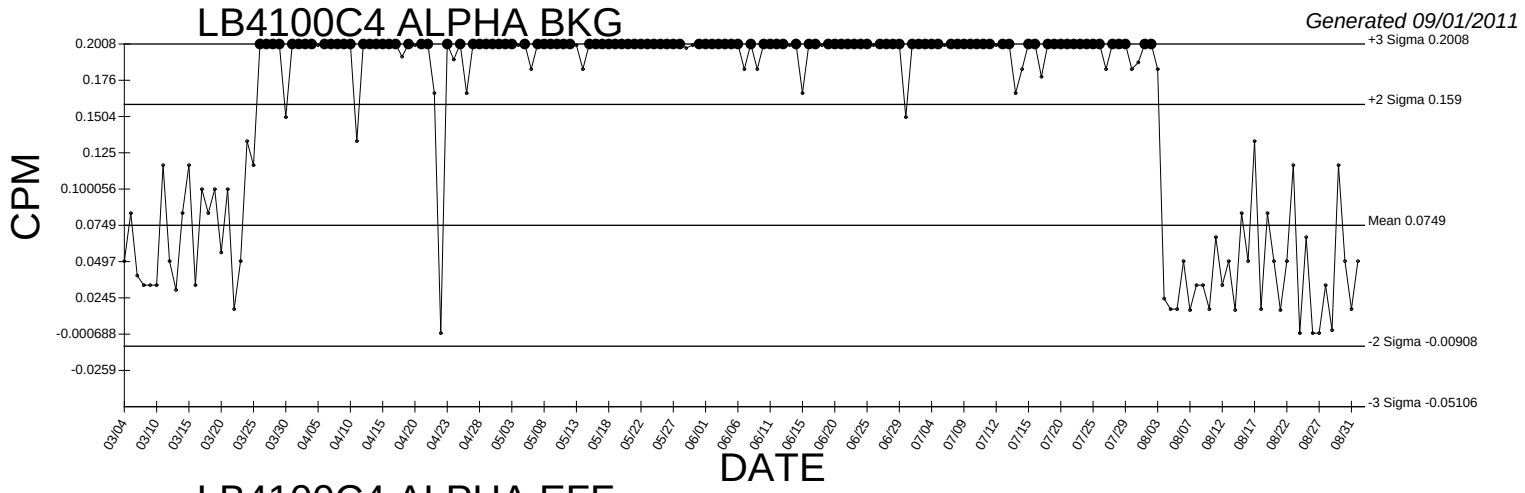


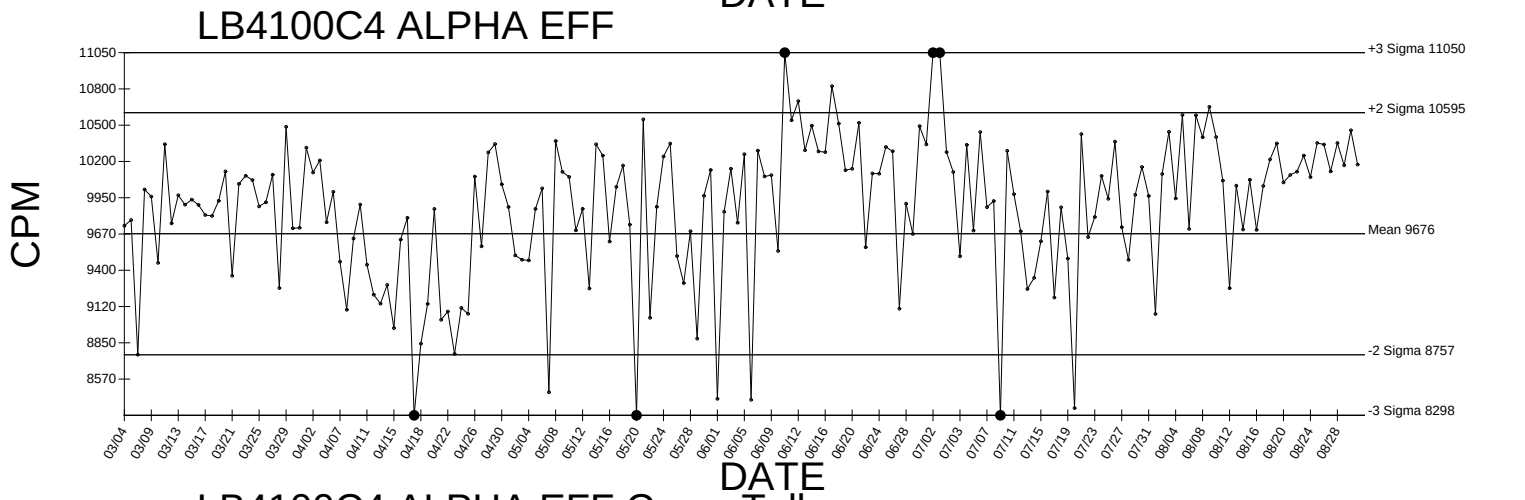
● Denotes Outlier

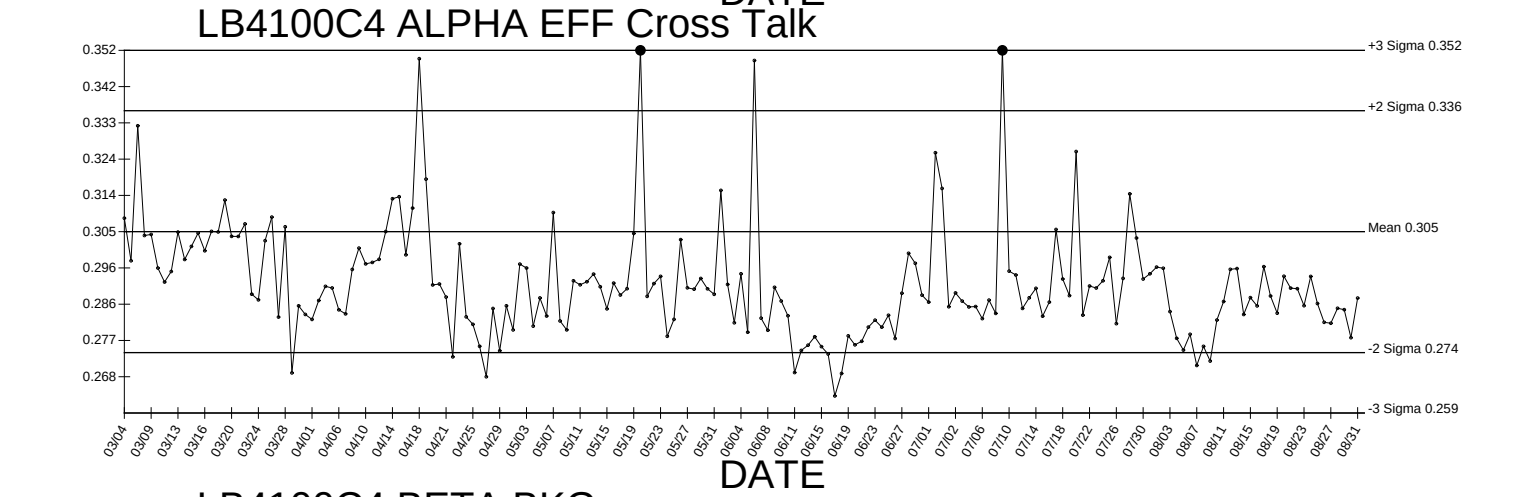


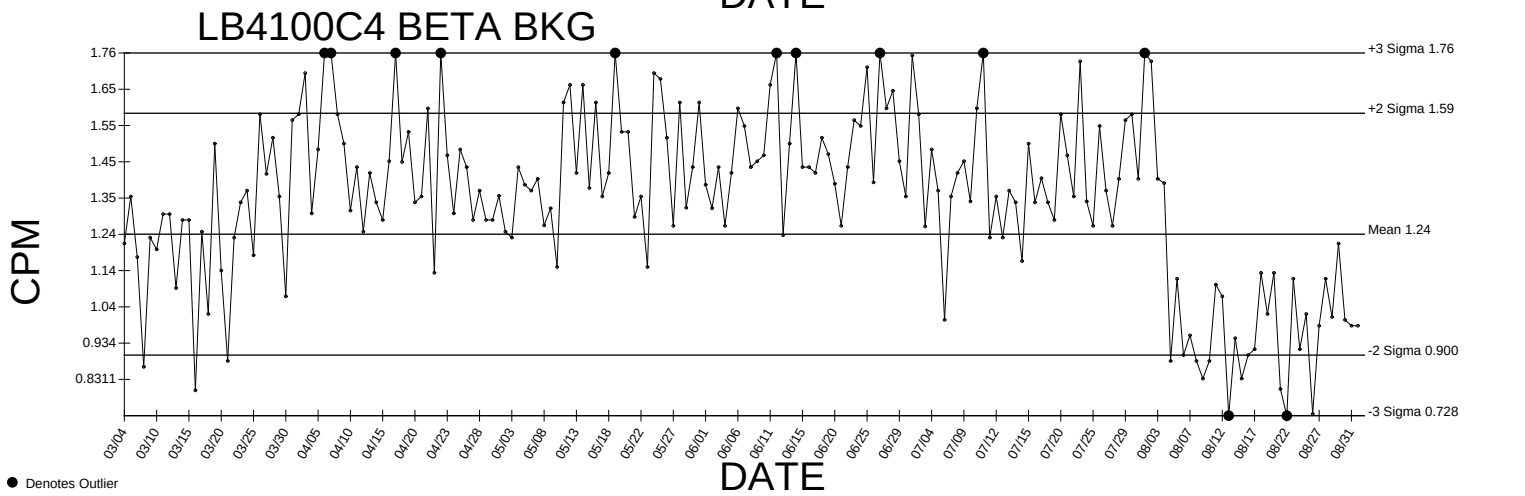


● Denotes Outlier

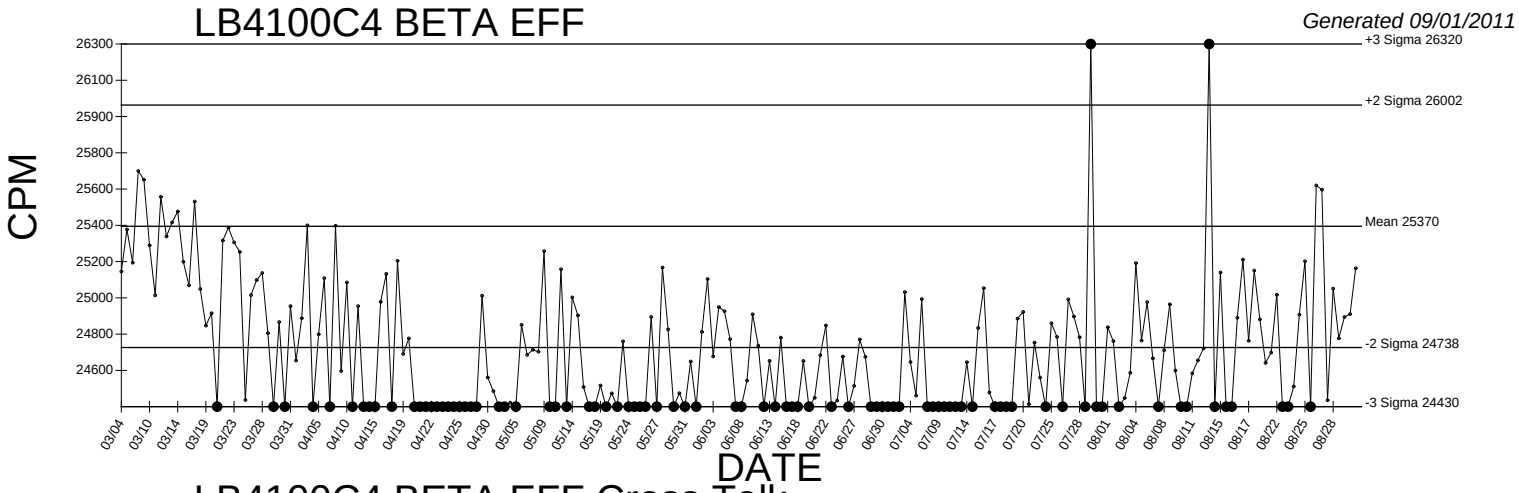


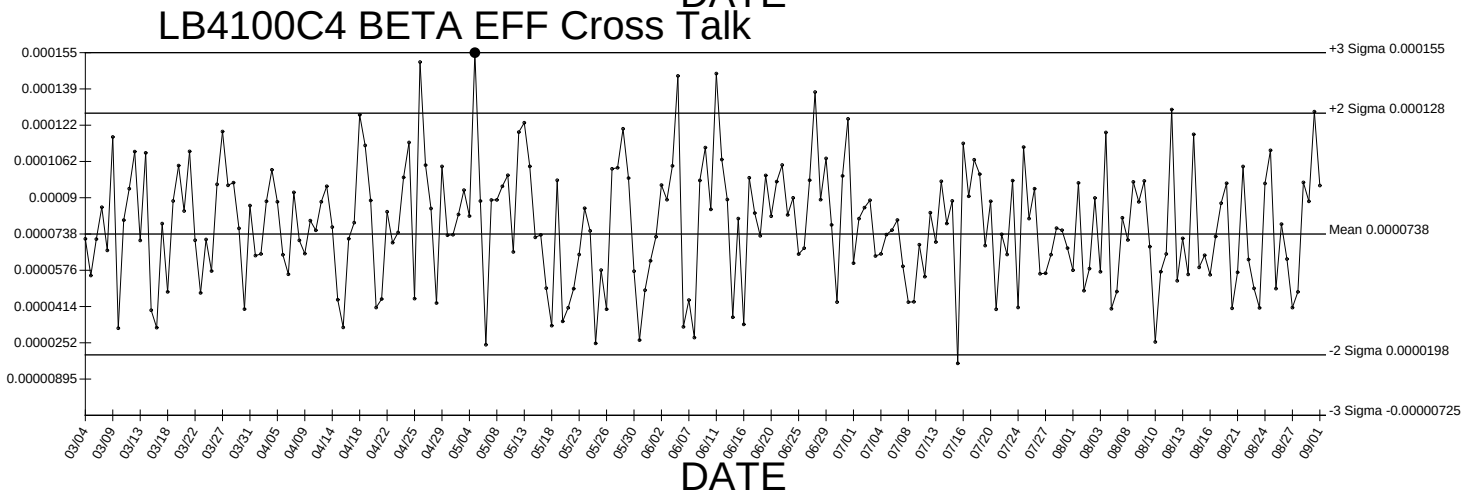




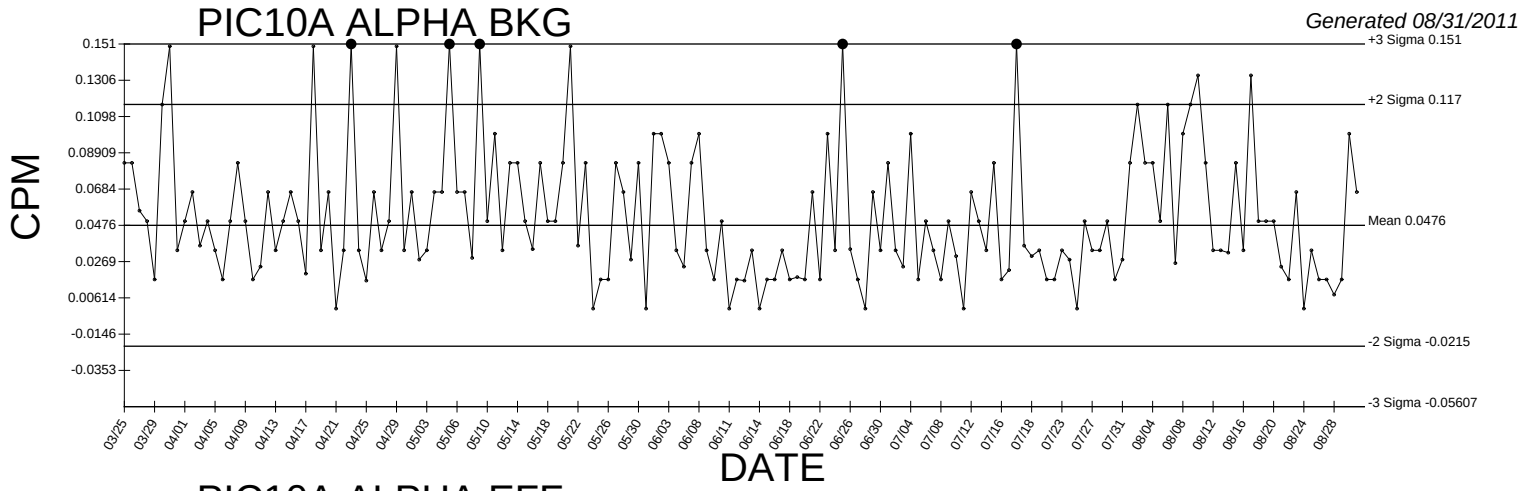


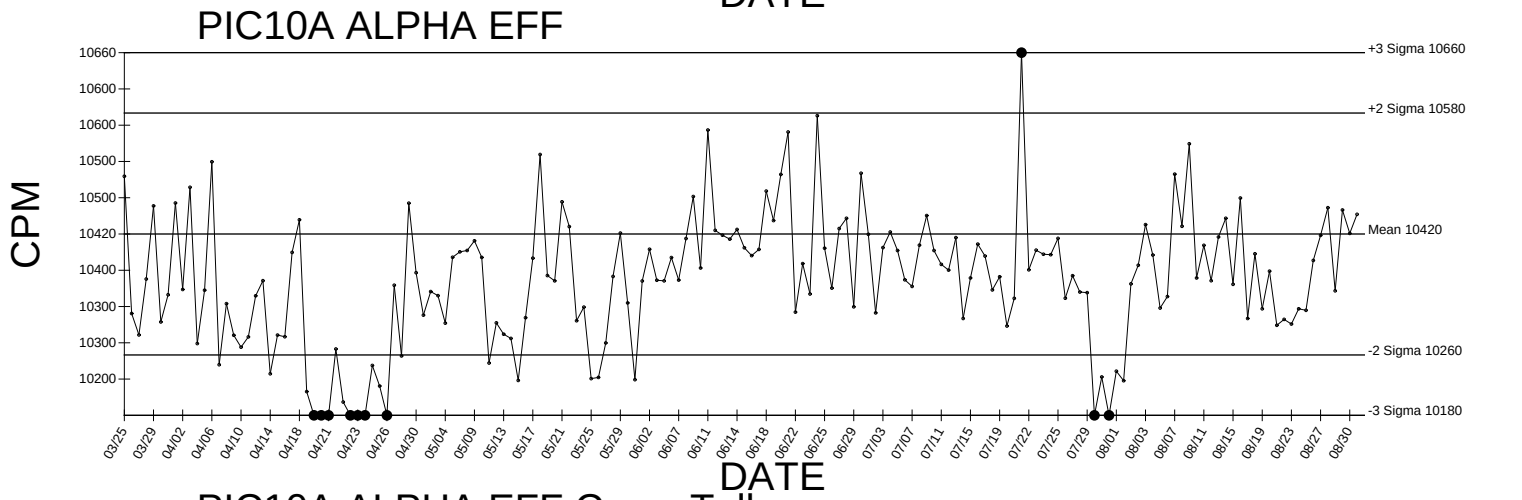
● Denotes Outlier

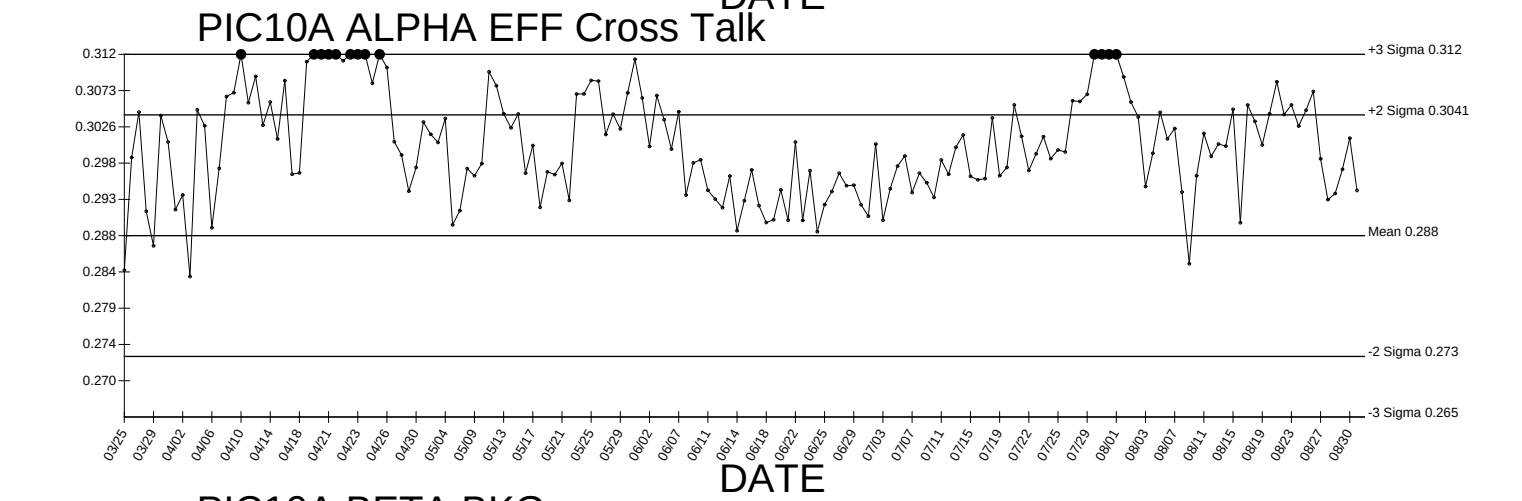


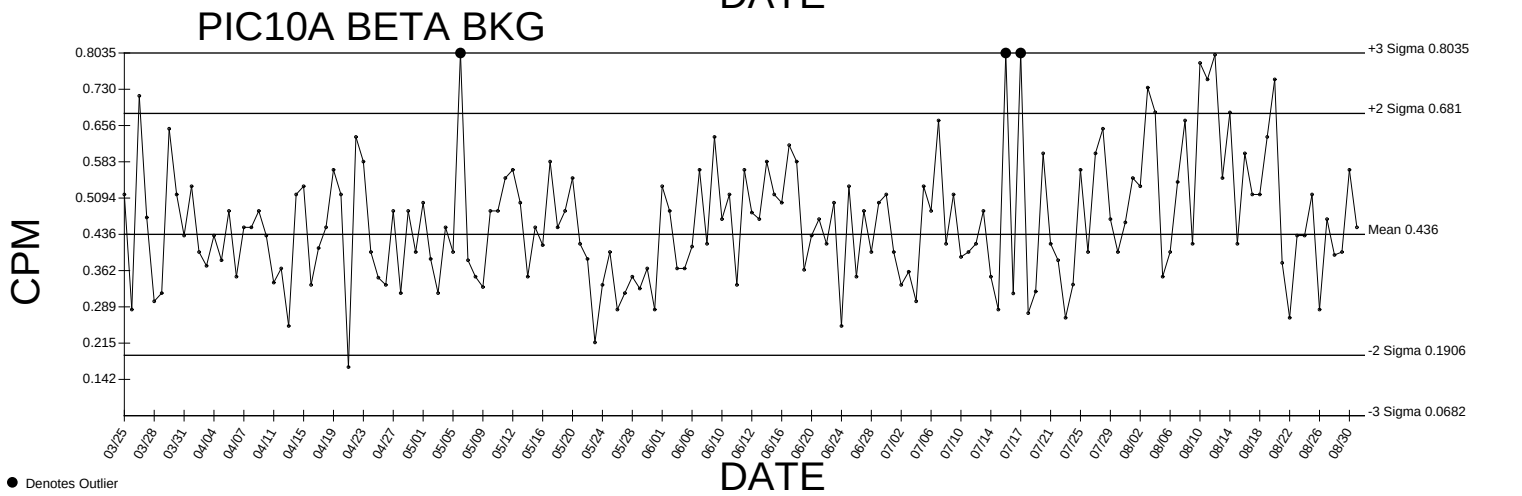


● Denotes Outlier

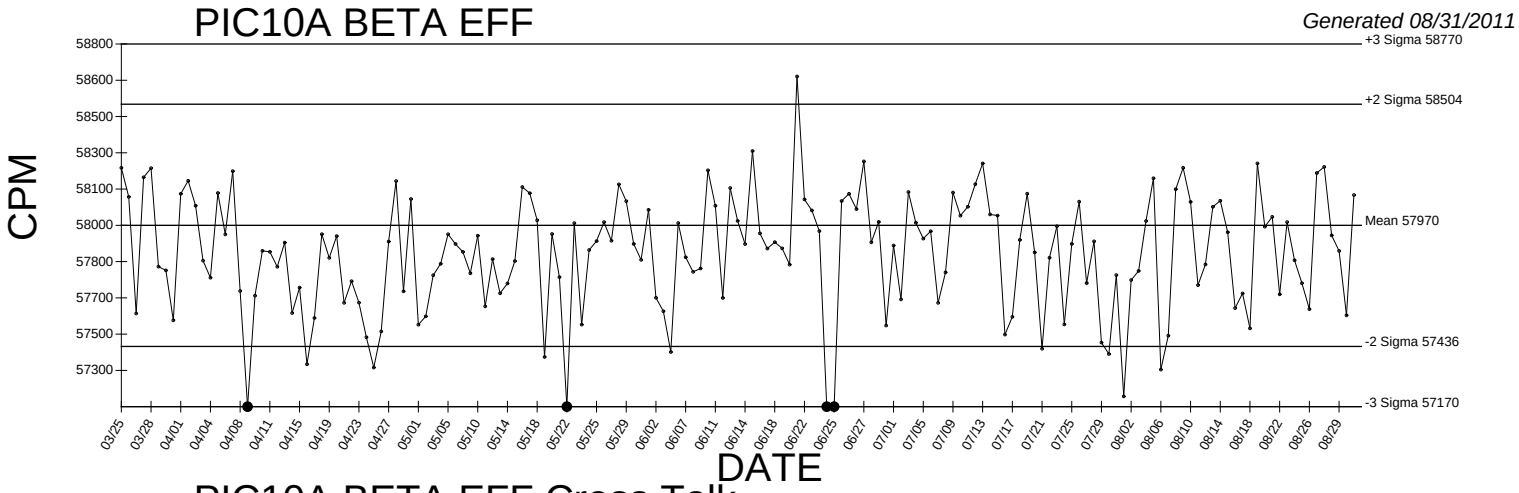


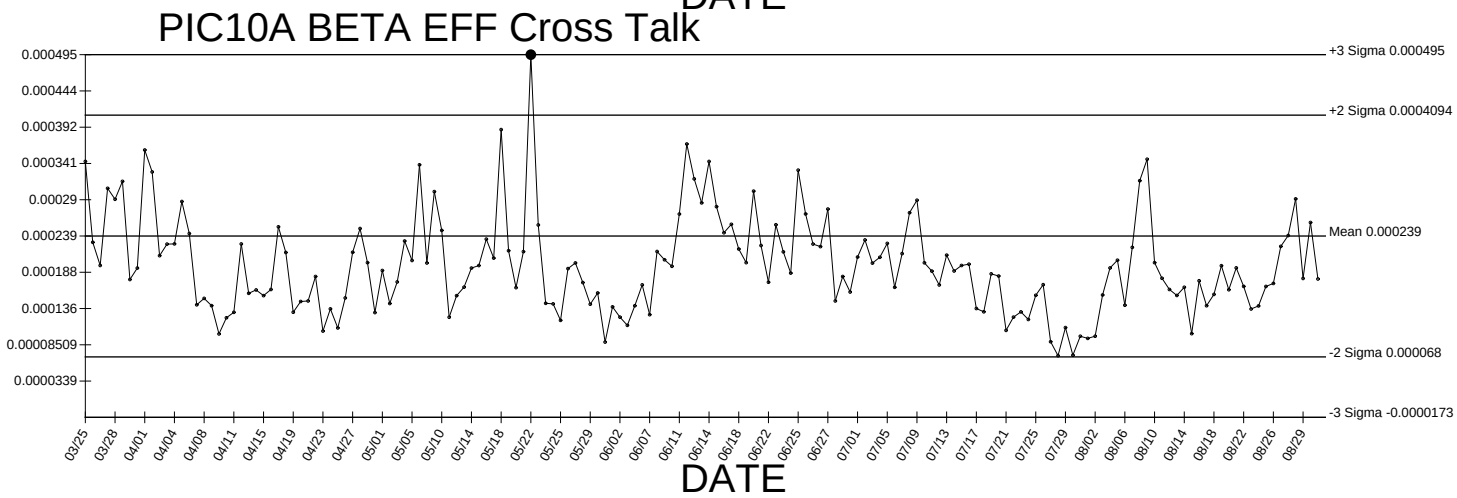






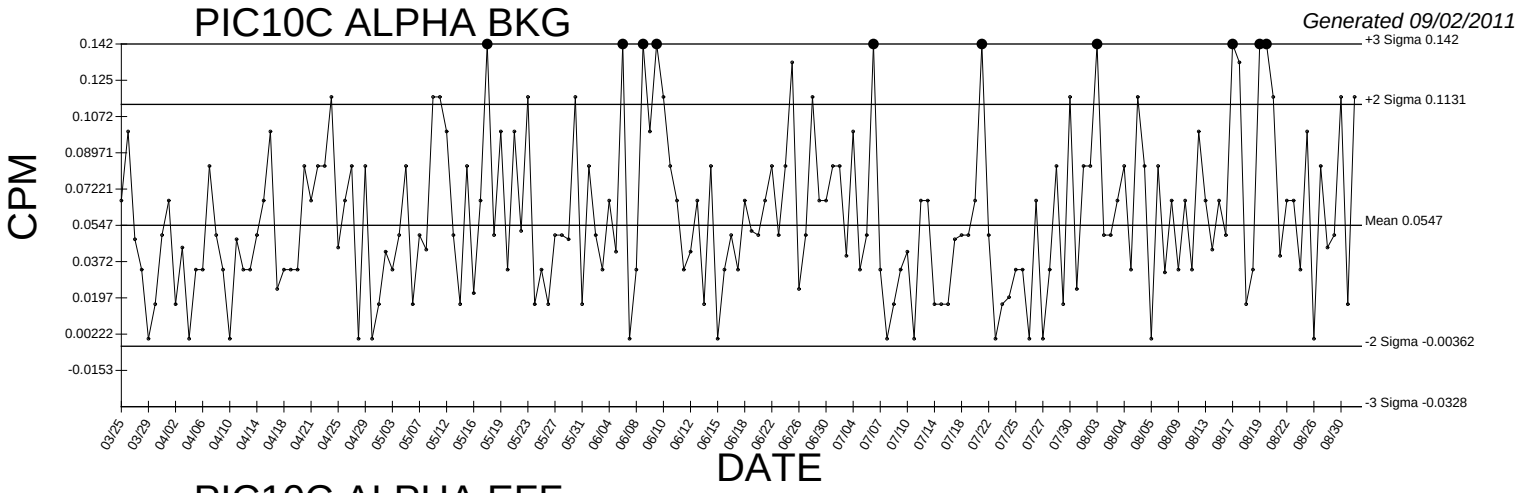
● Denotes Outlier

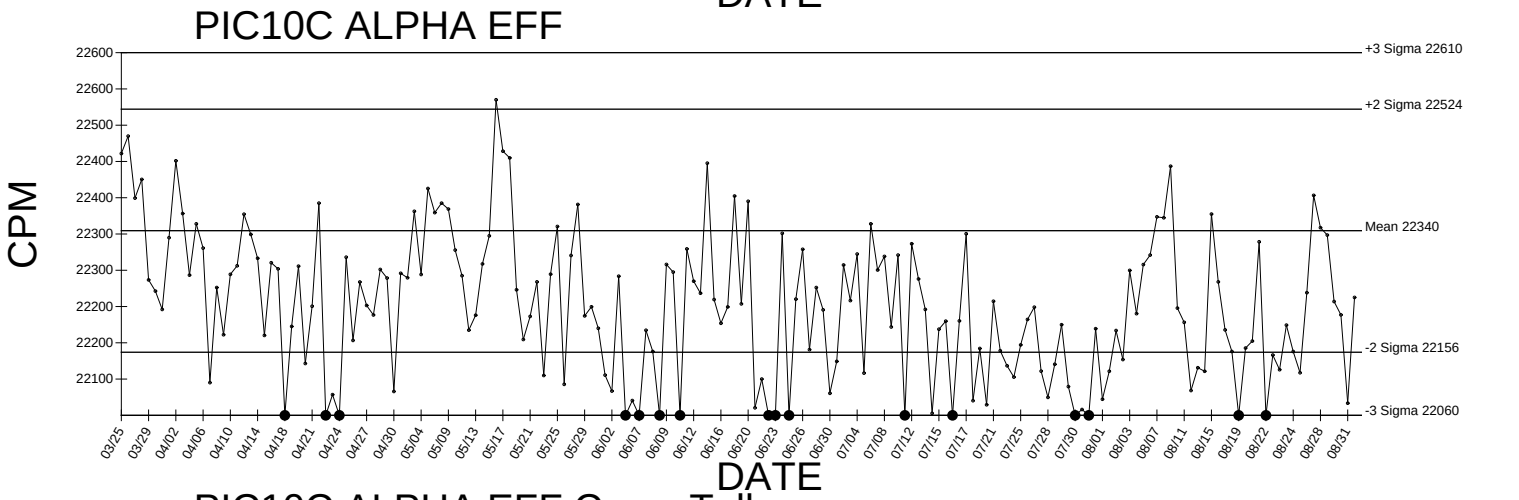


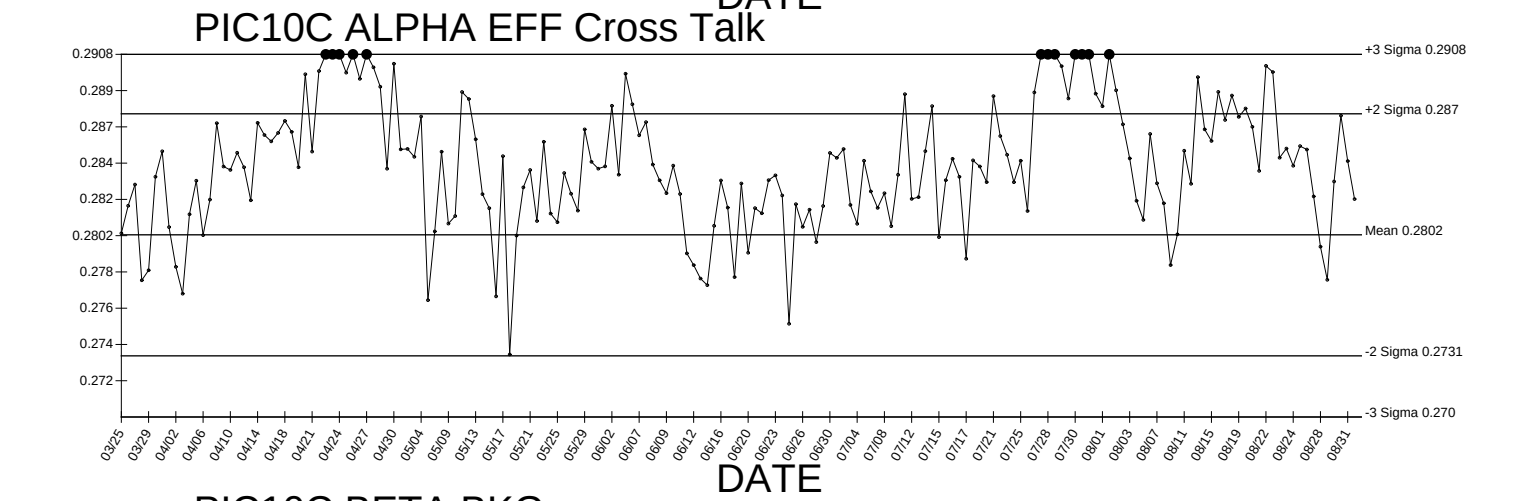


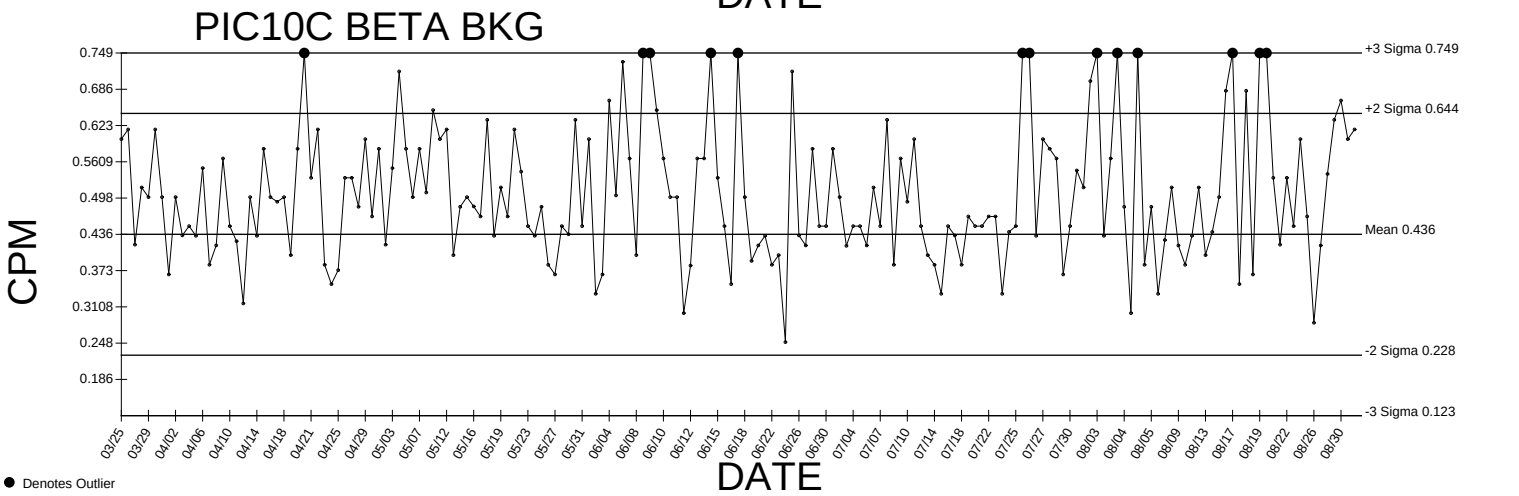
● Denotes Outlier

Generated 09/02/2011

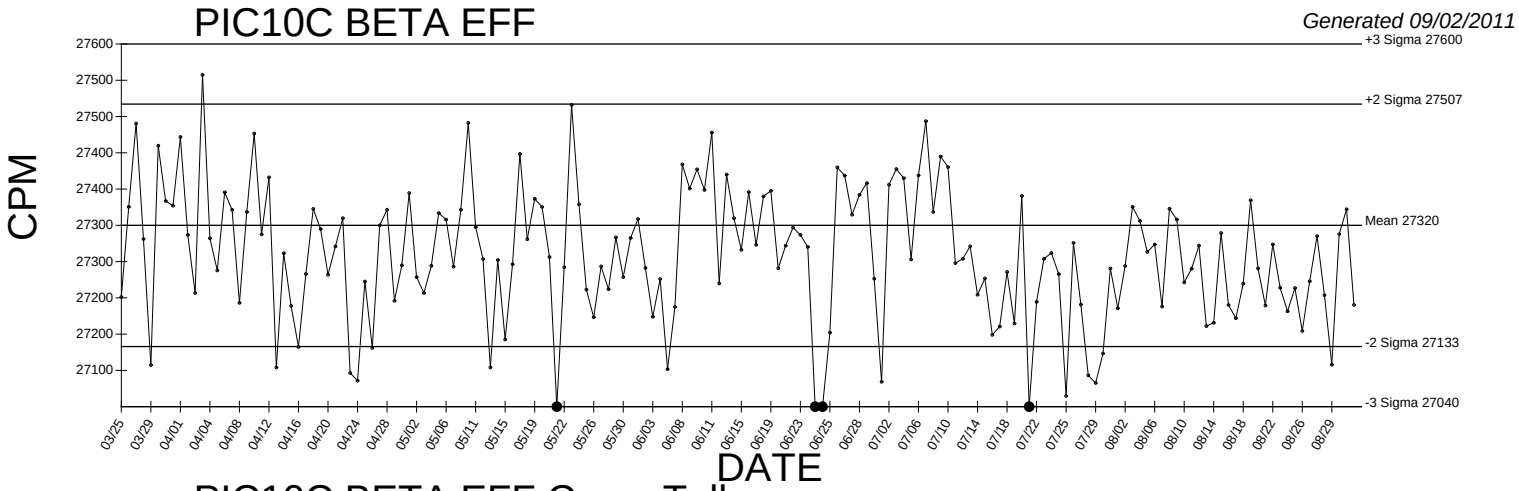


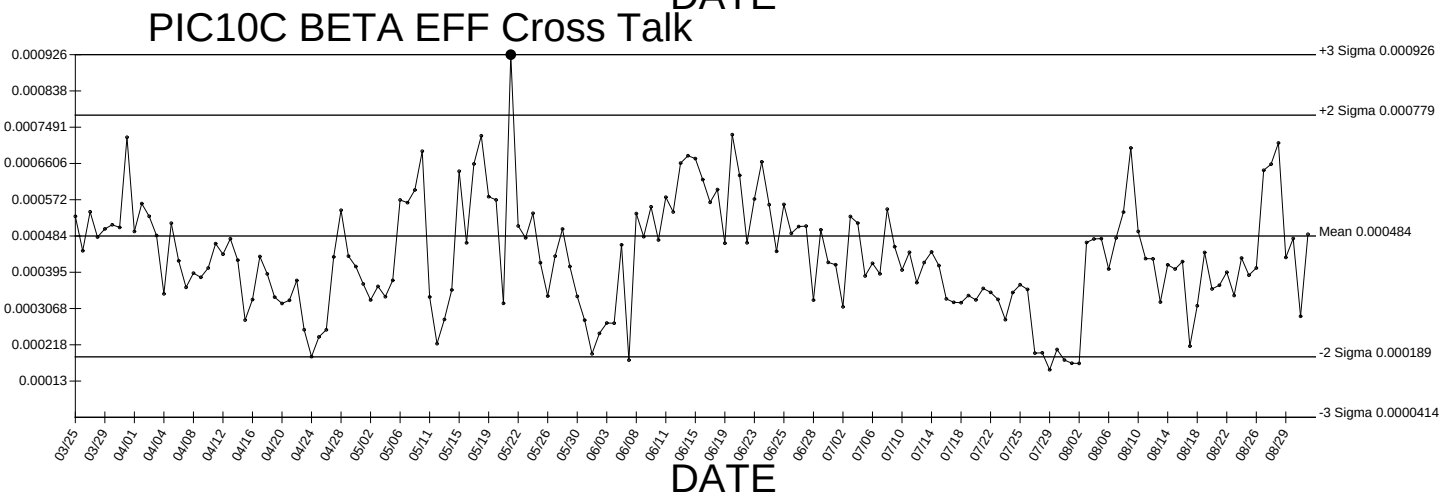




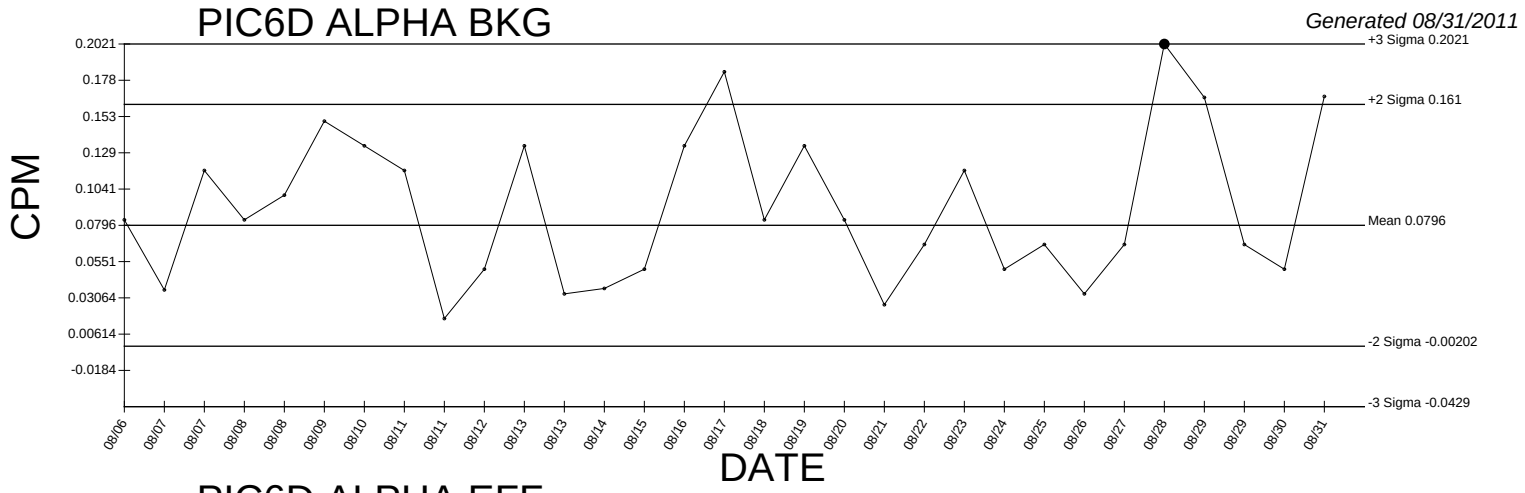


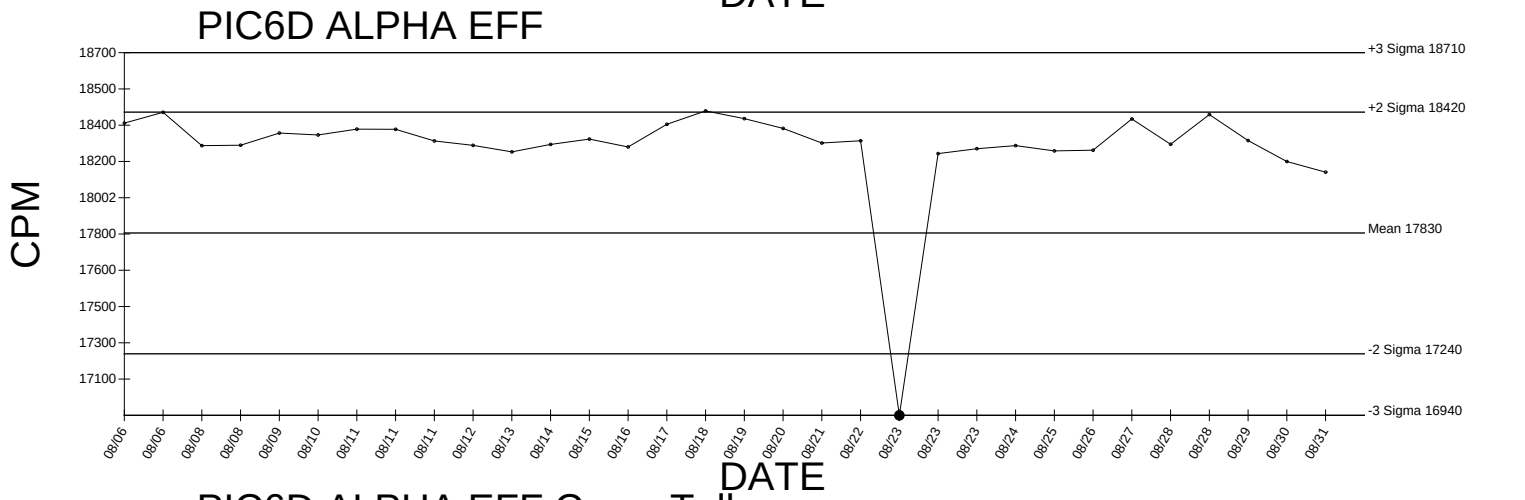
● Denotes Outlier

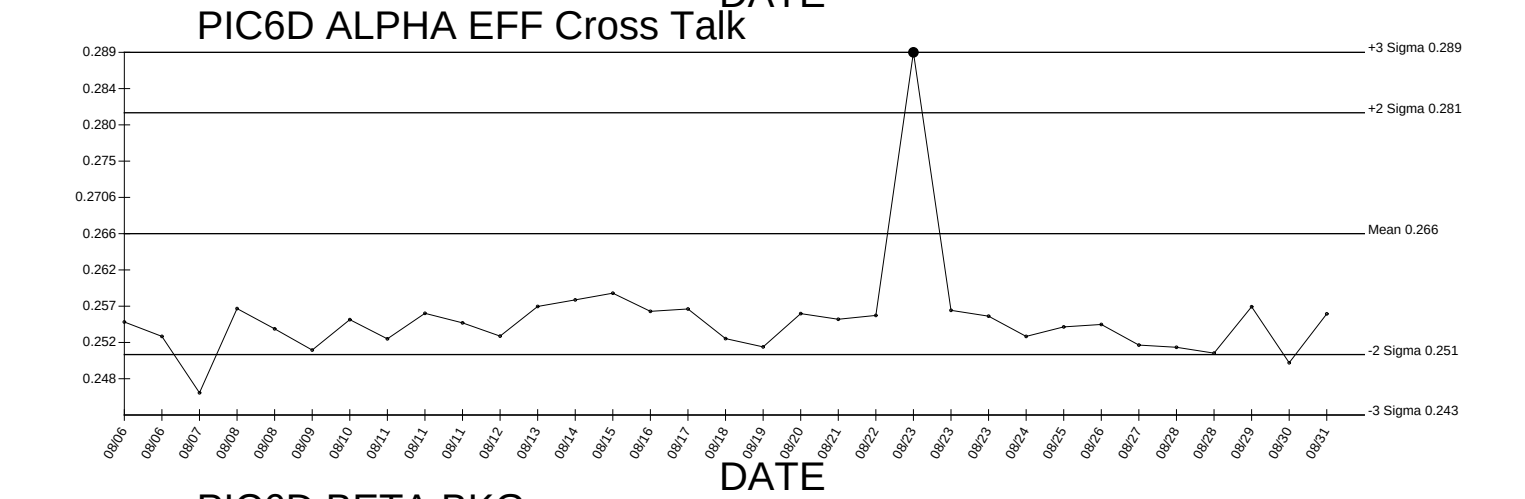


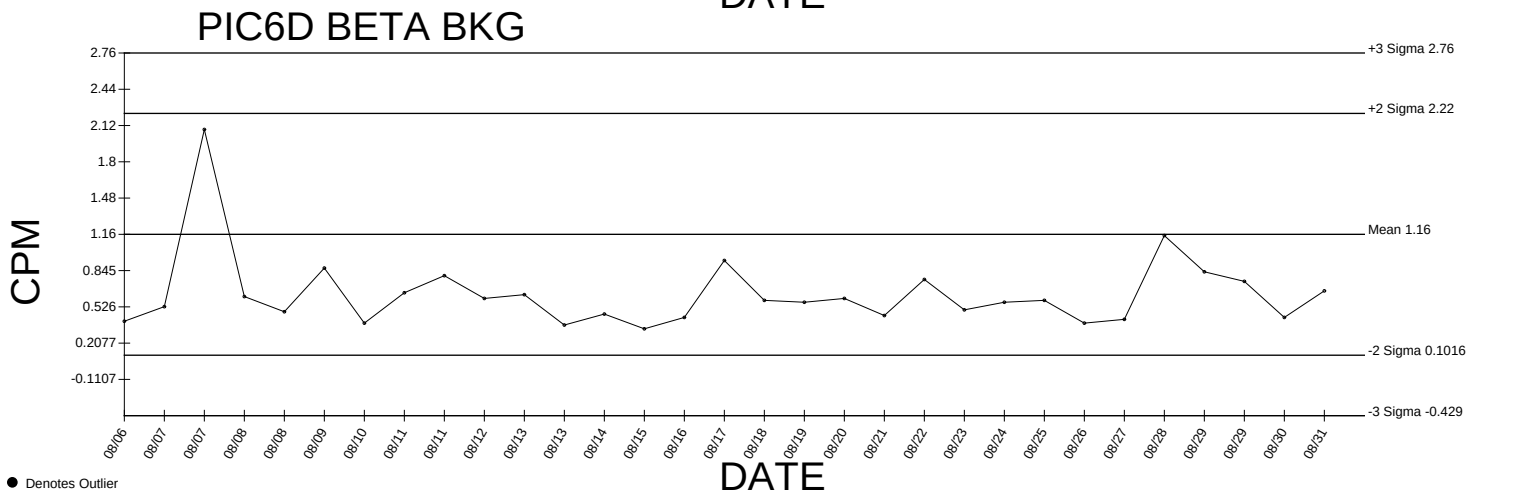


● Denotes Outlier

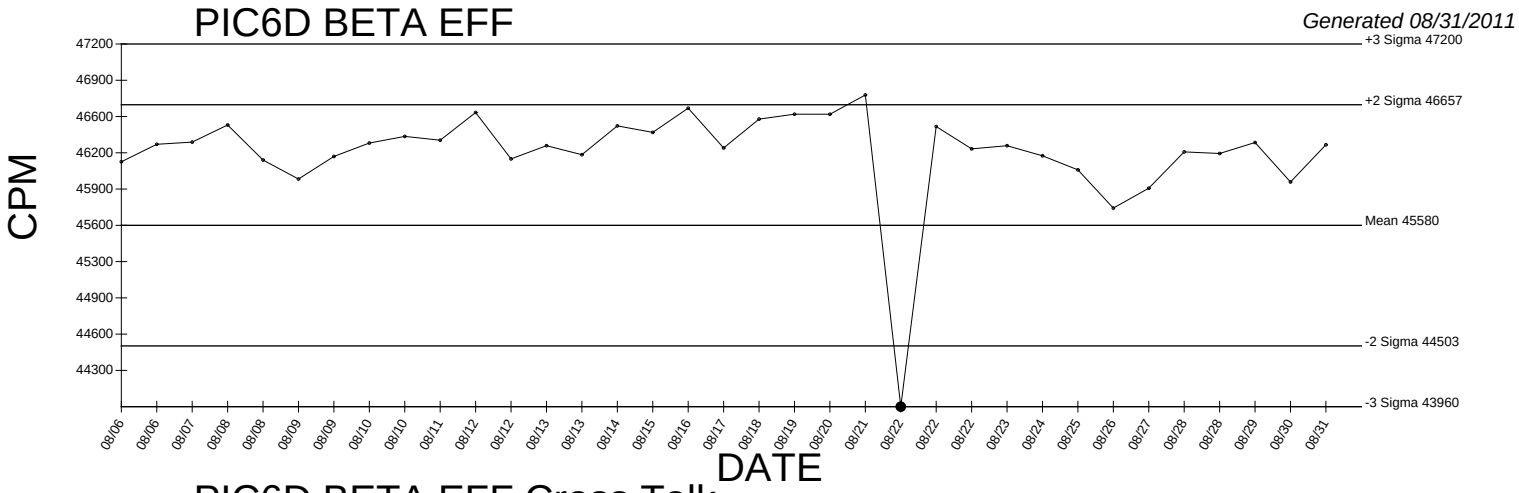


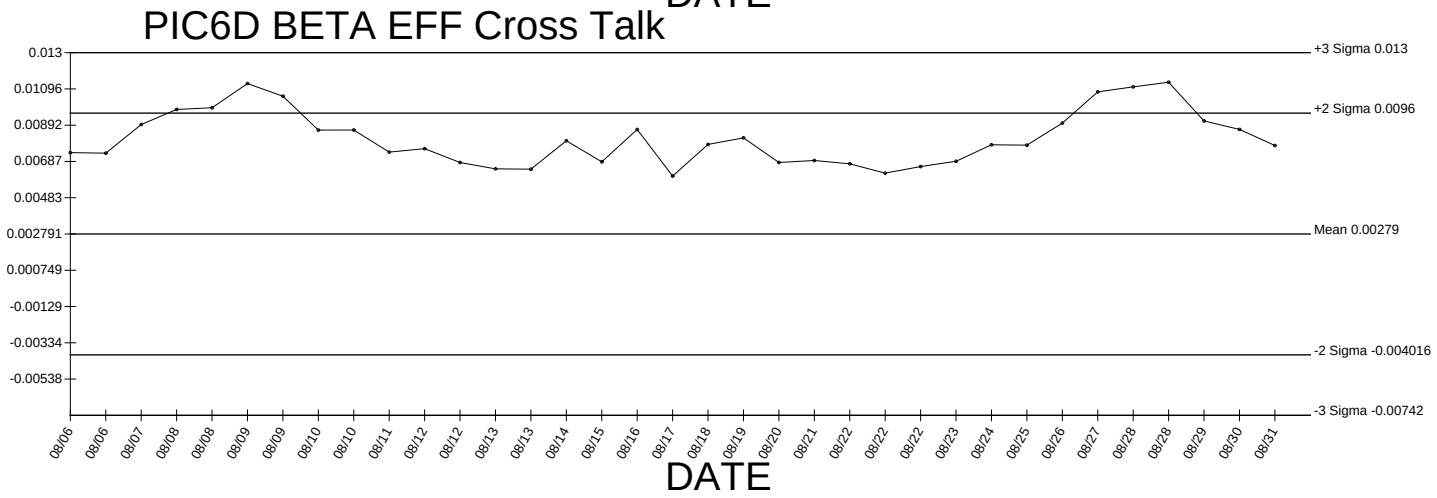




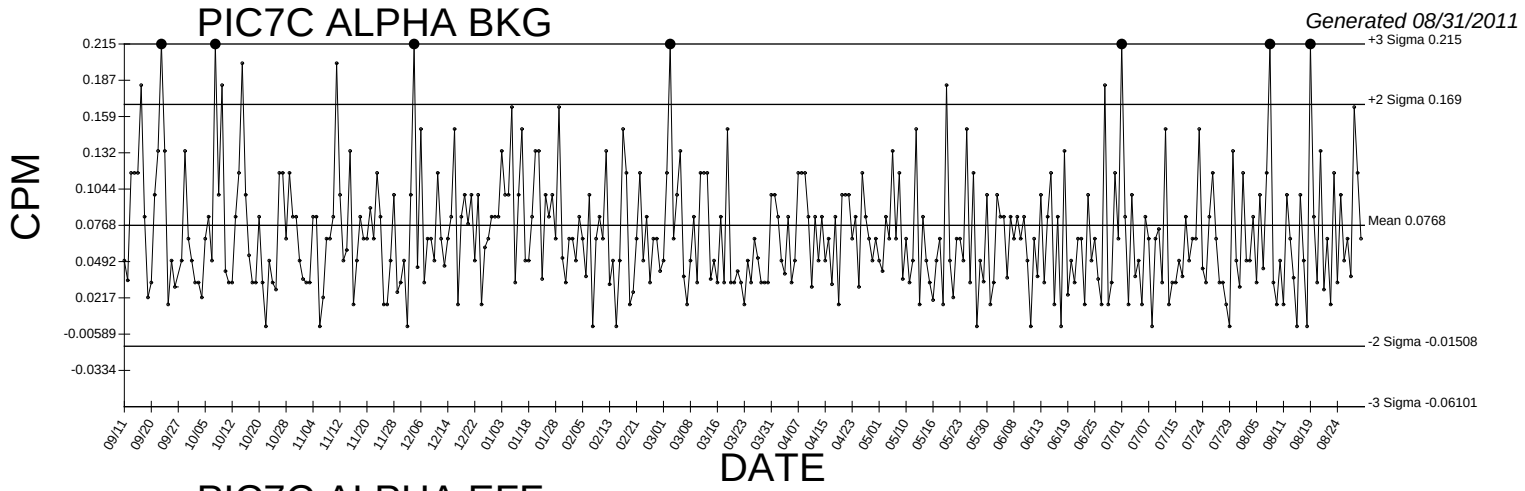


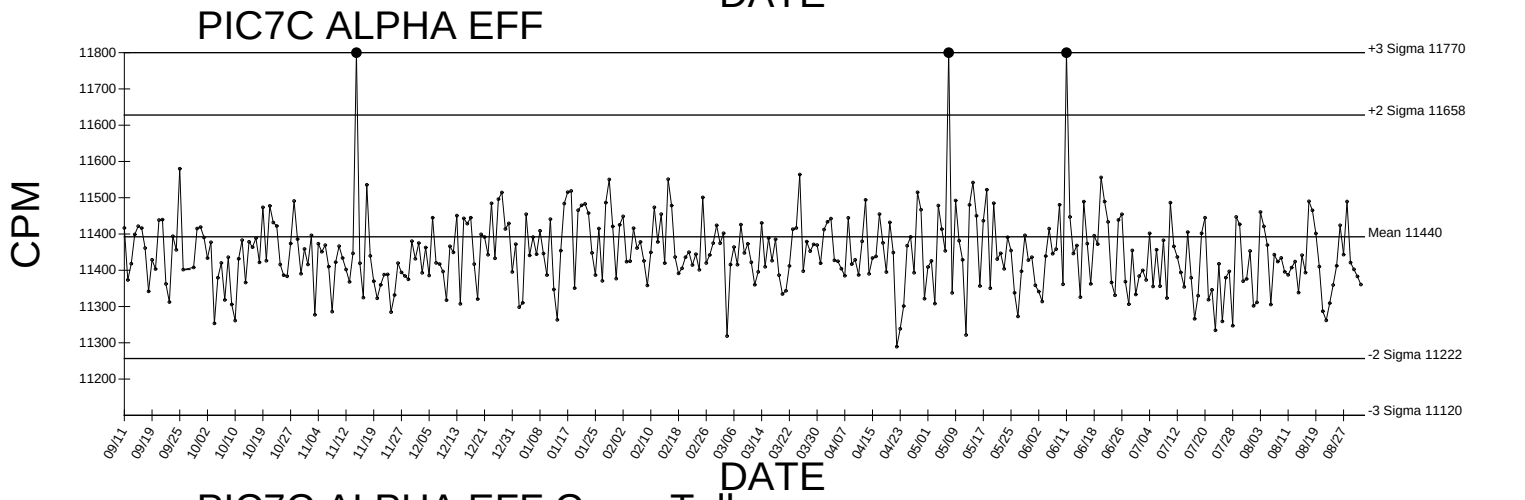
● Denotes Outlier

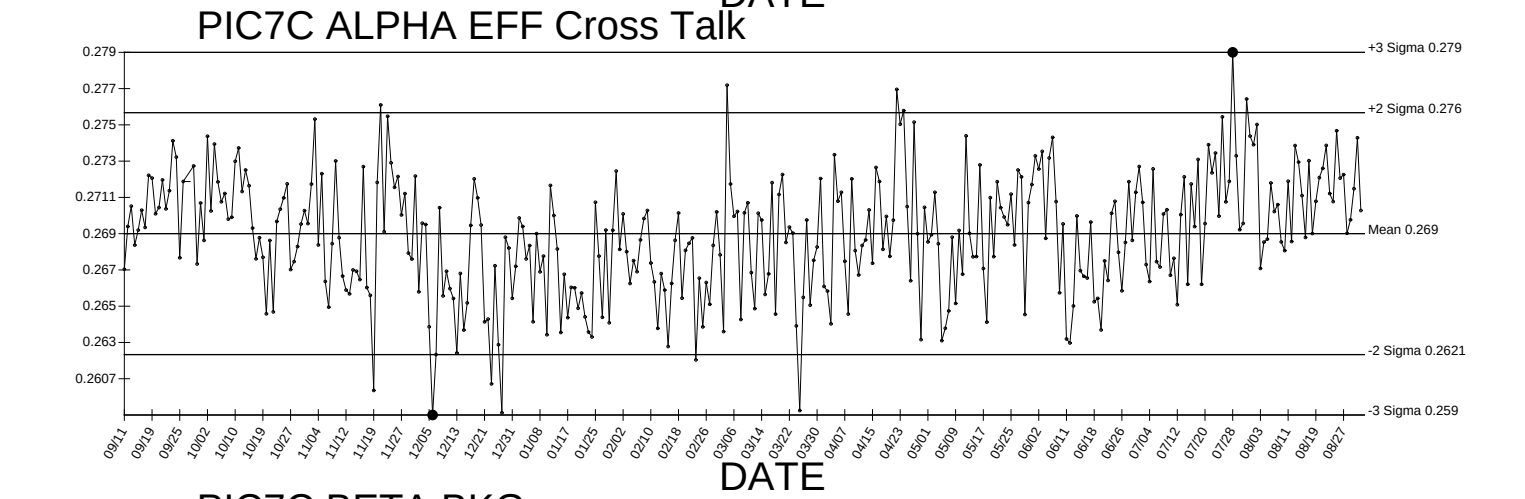


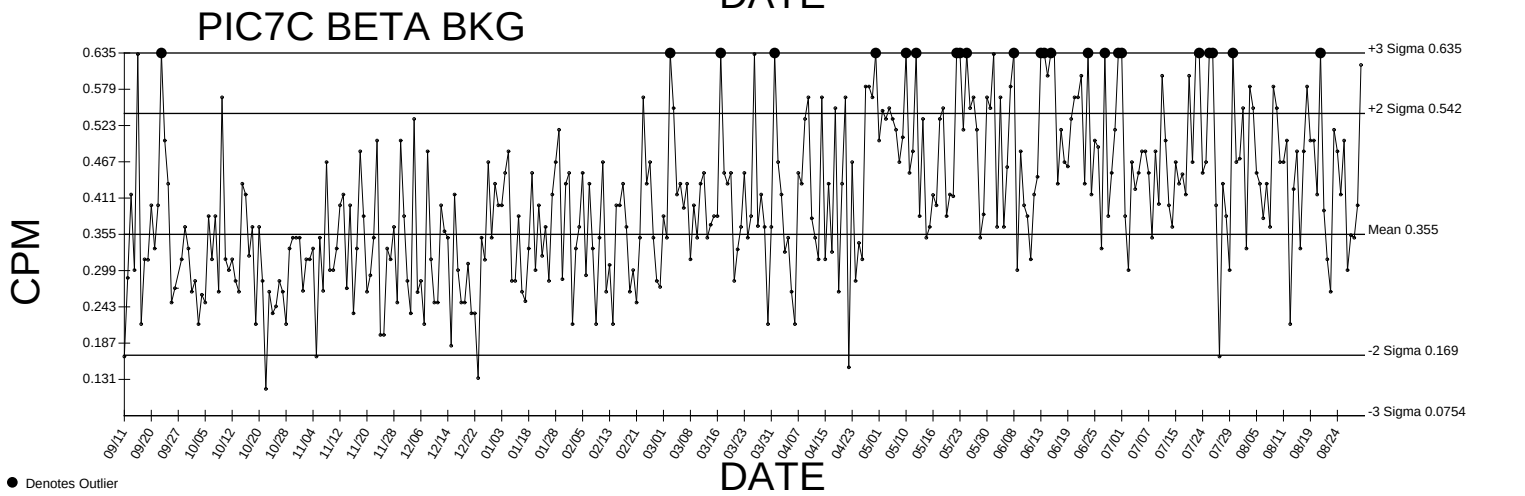


● Denotes Outlier

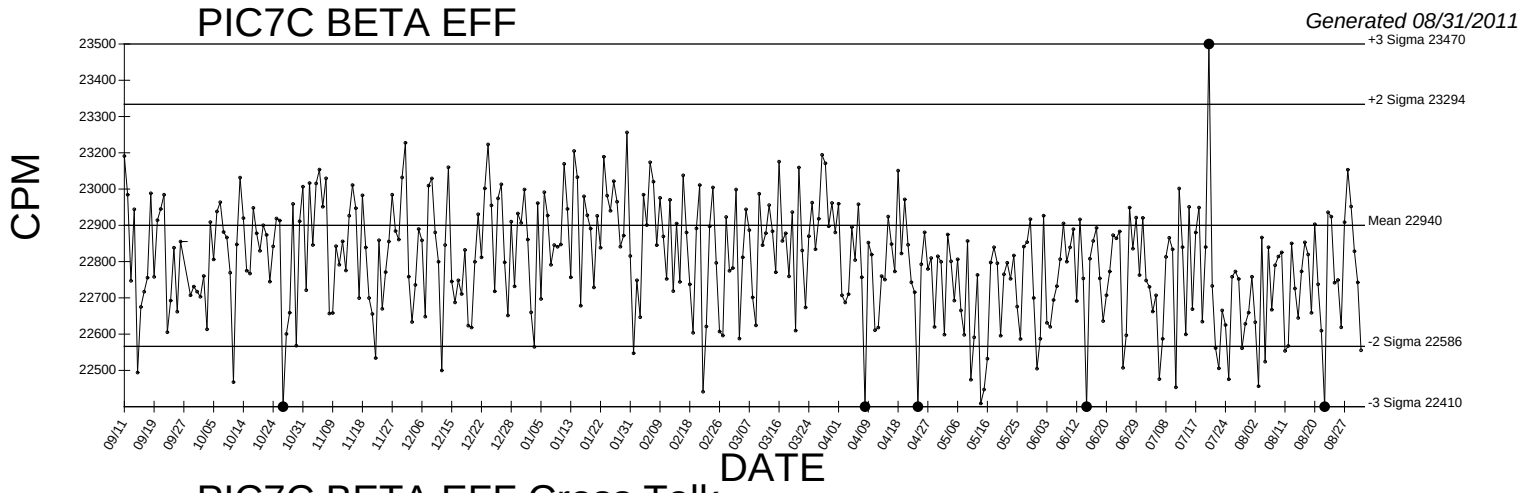


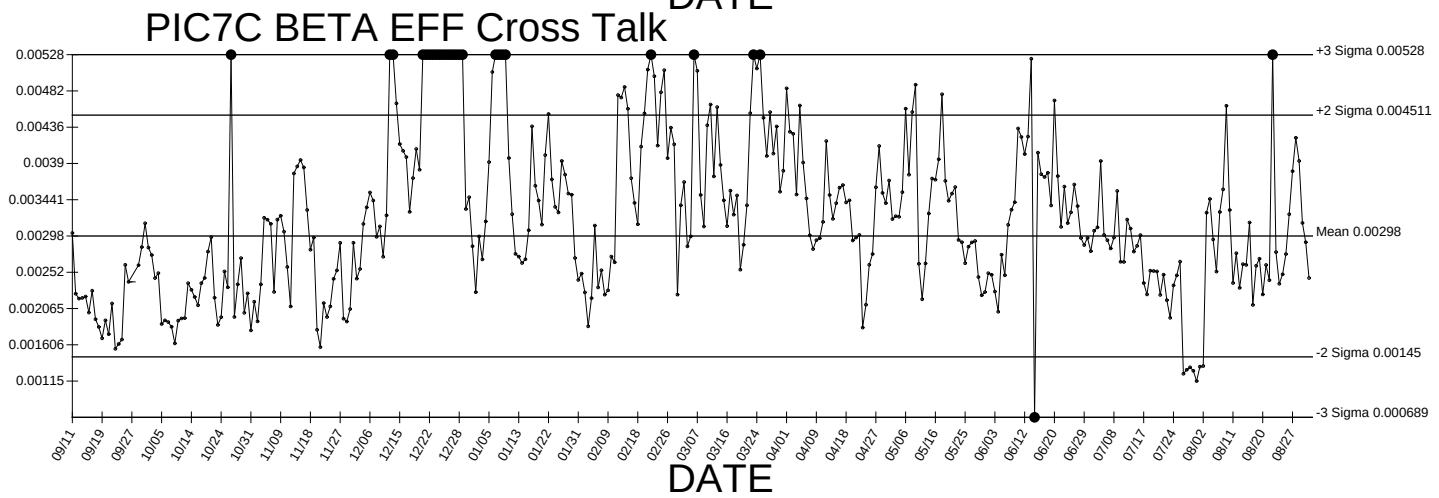






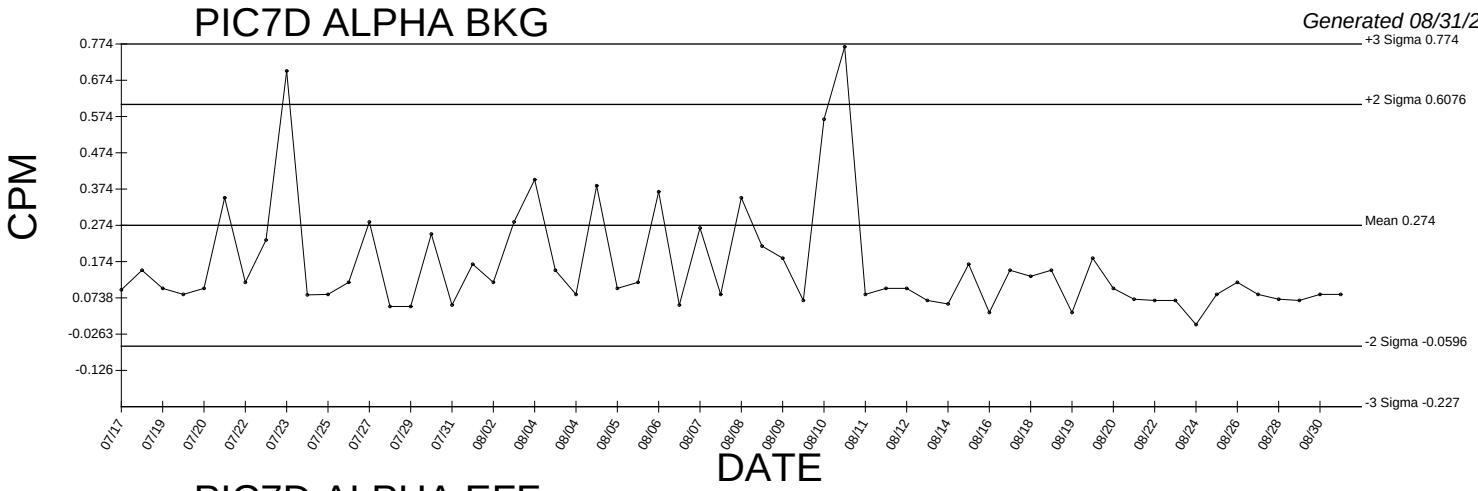
● Denotes Outlier

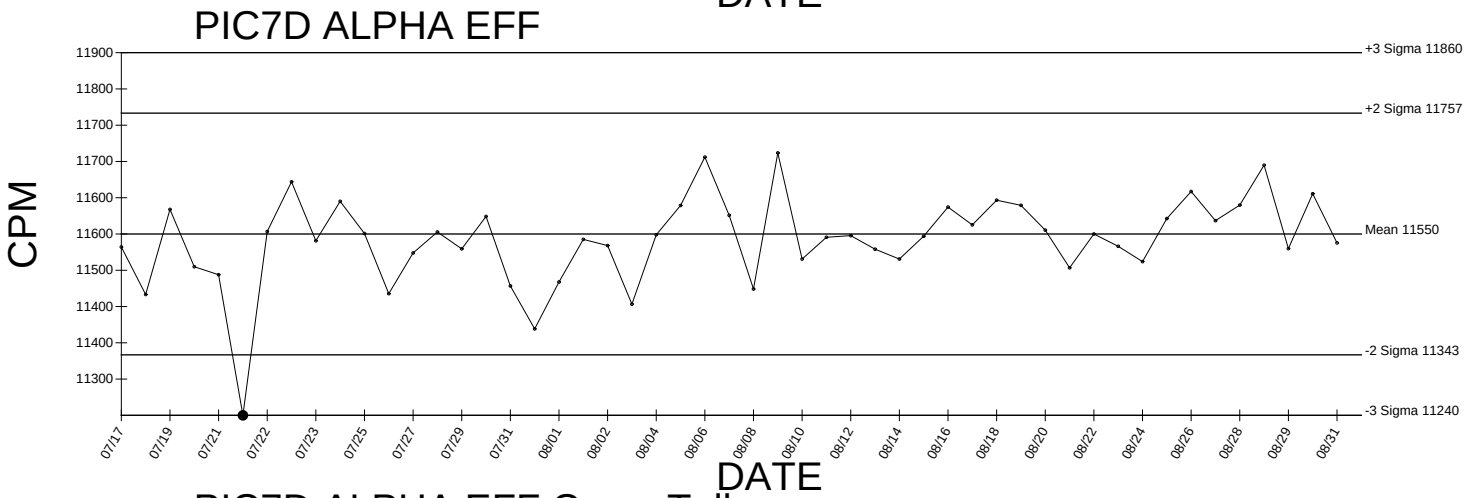


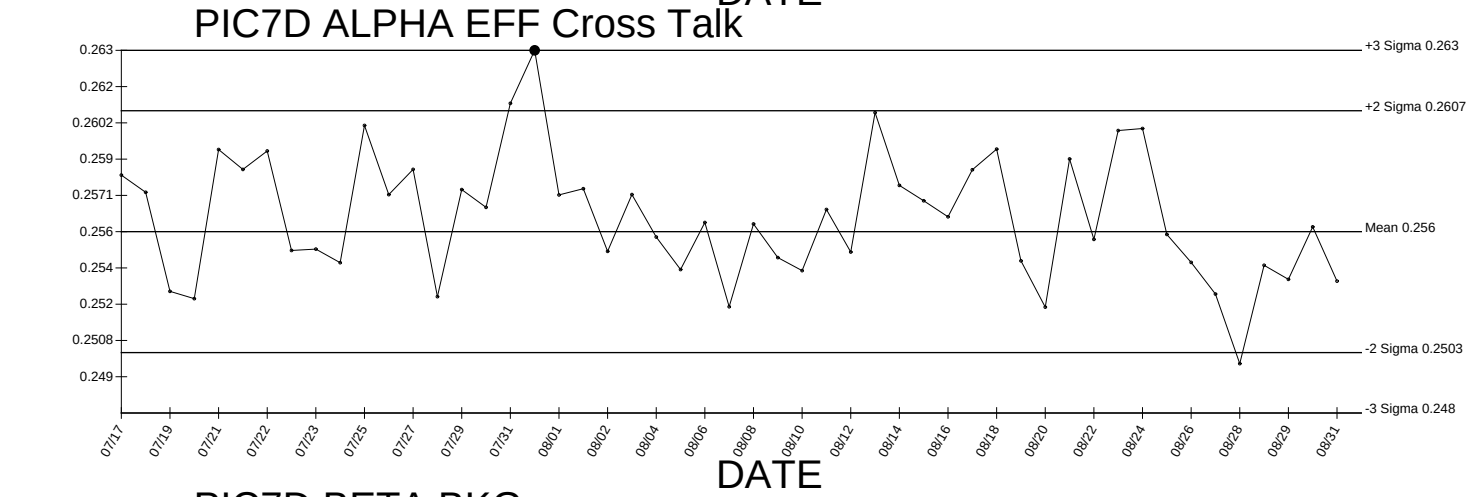


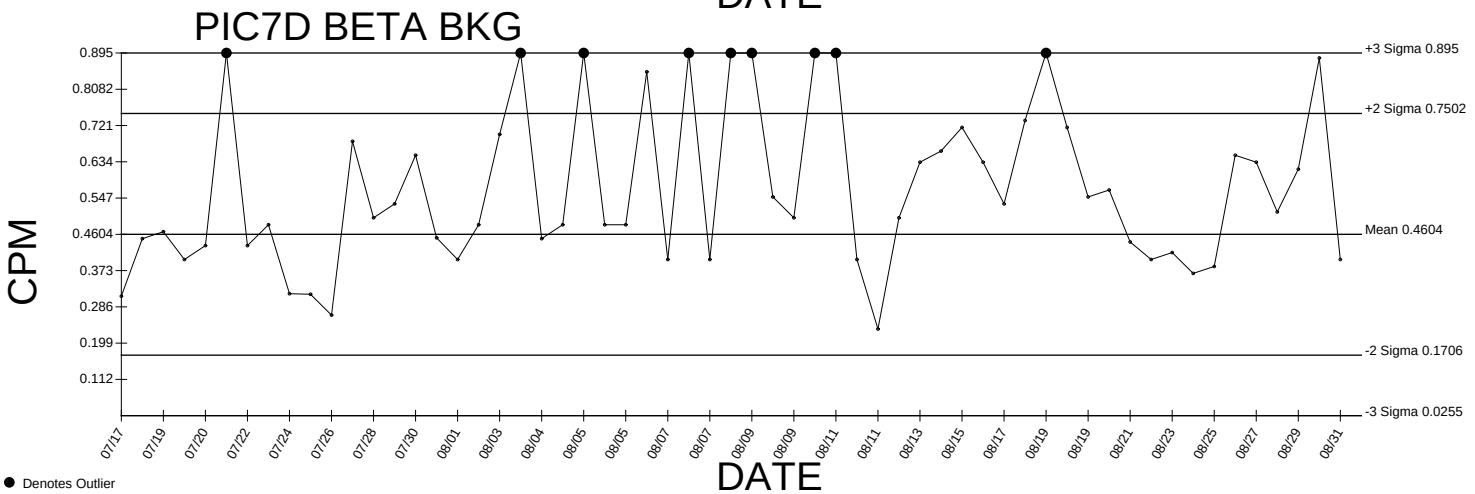
● Denotes Outlier

Generated 08/31/2011

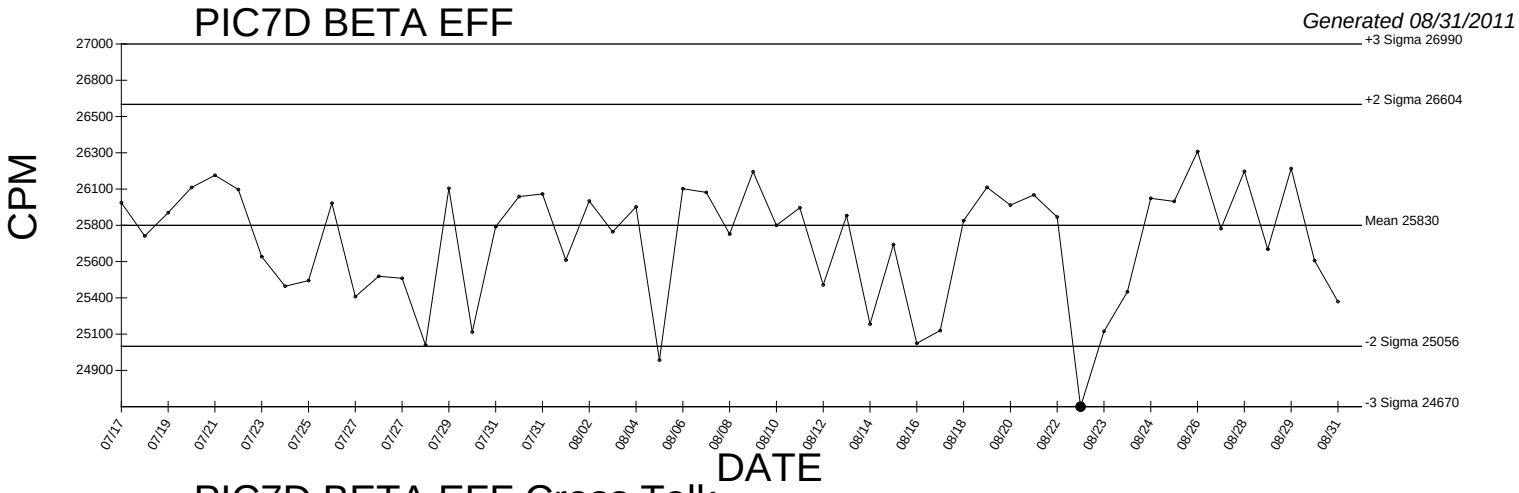


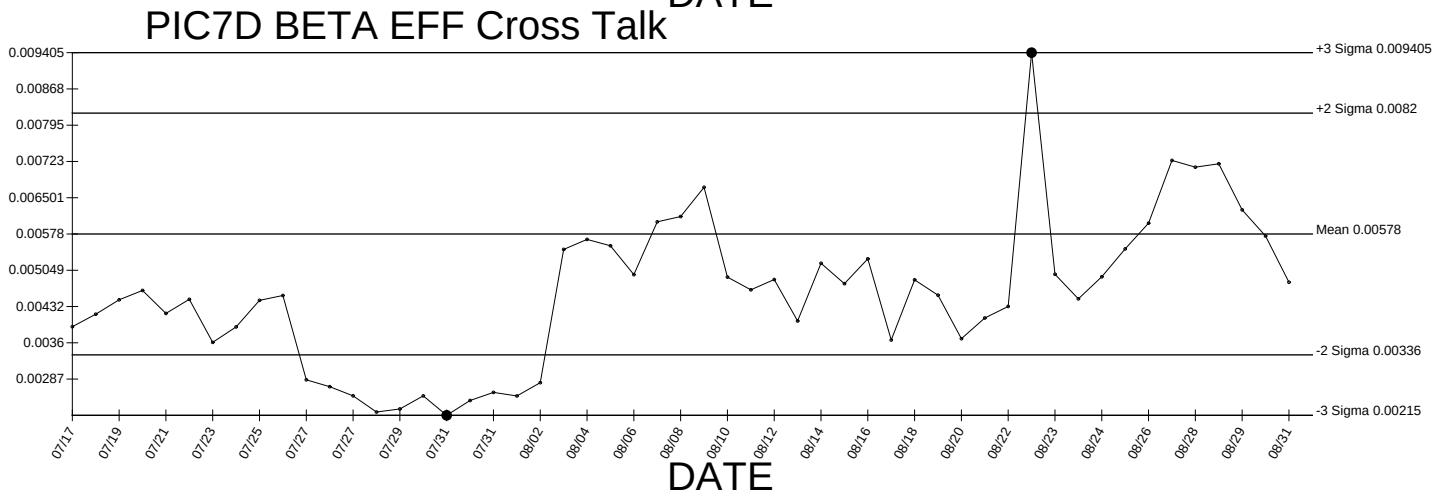




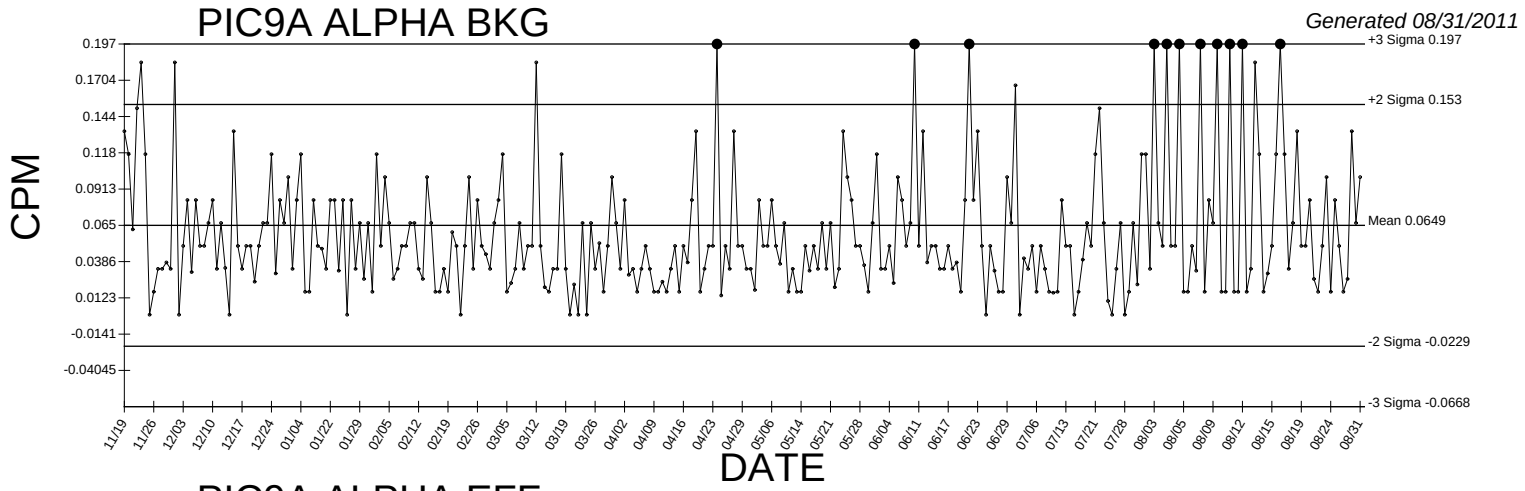


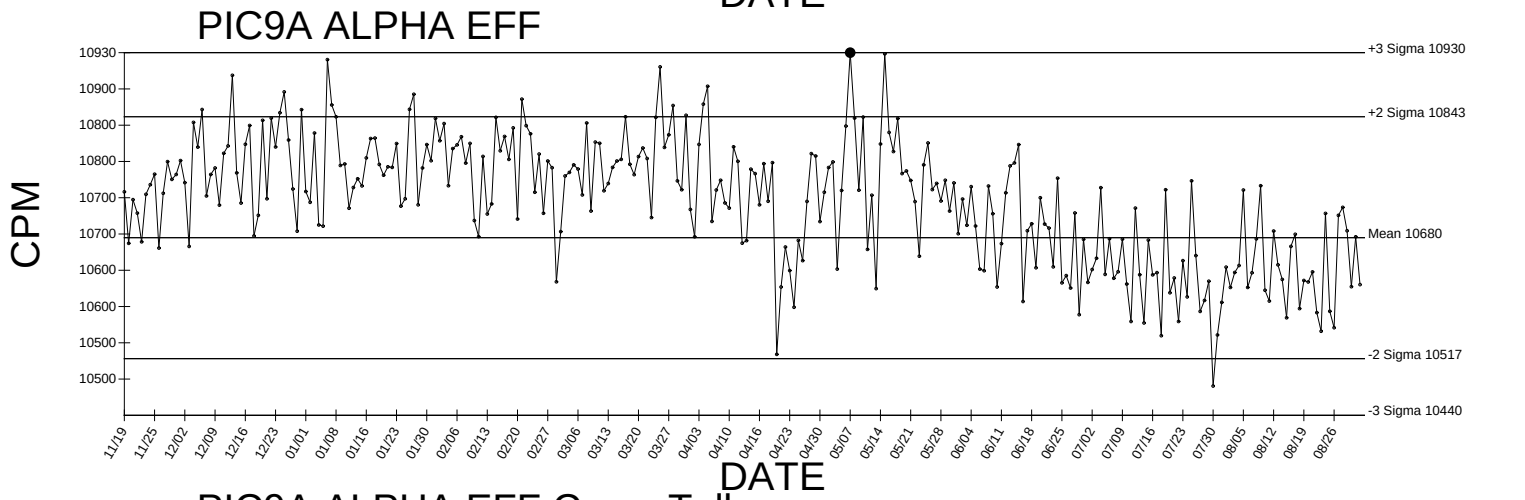
● Denotes Outlier

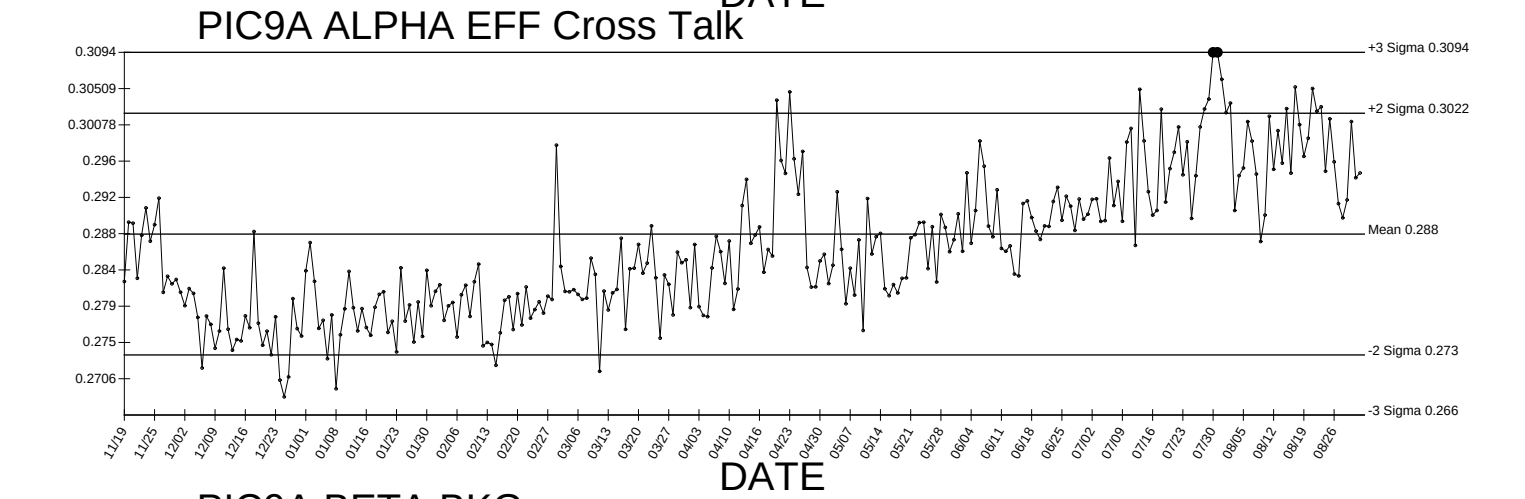


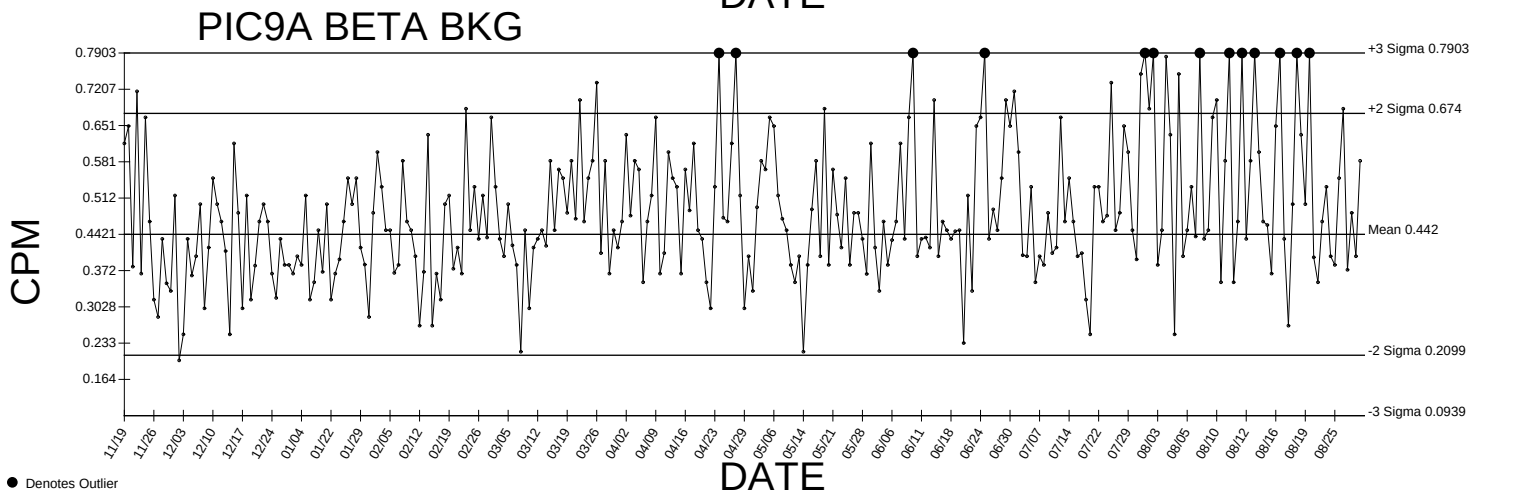


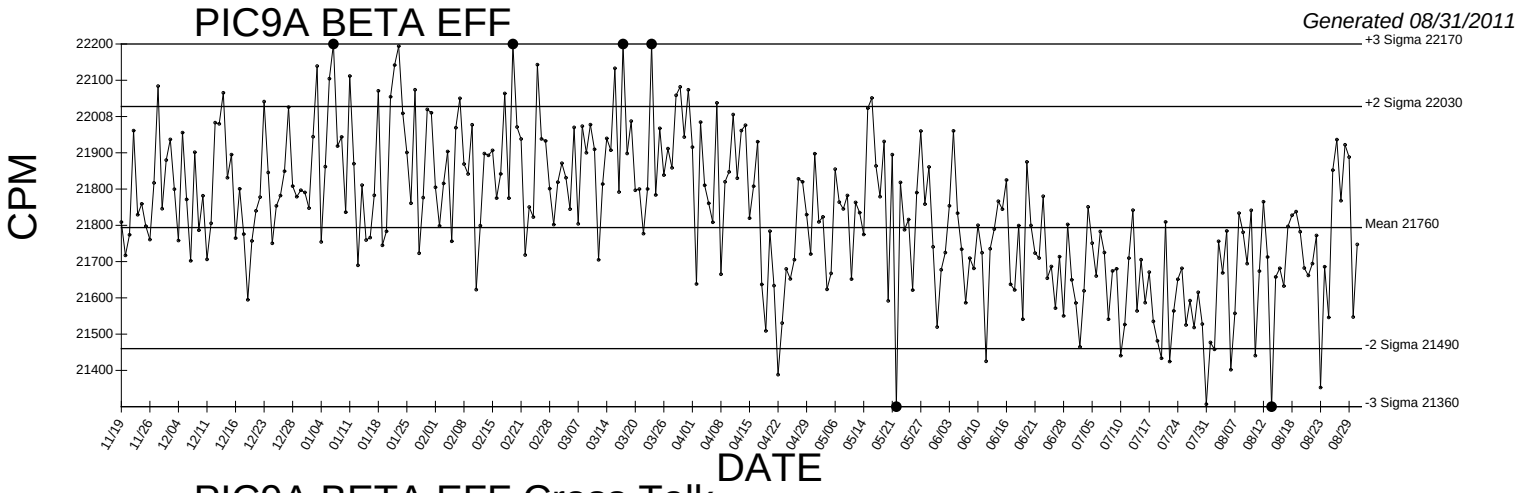
● Denotes Outlier

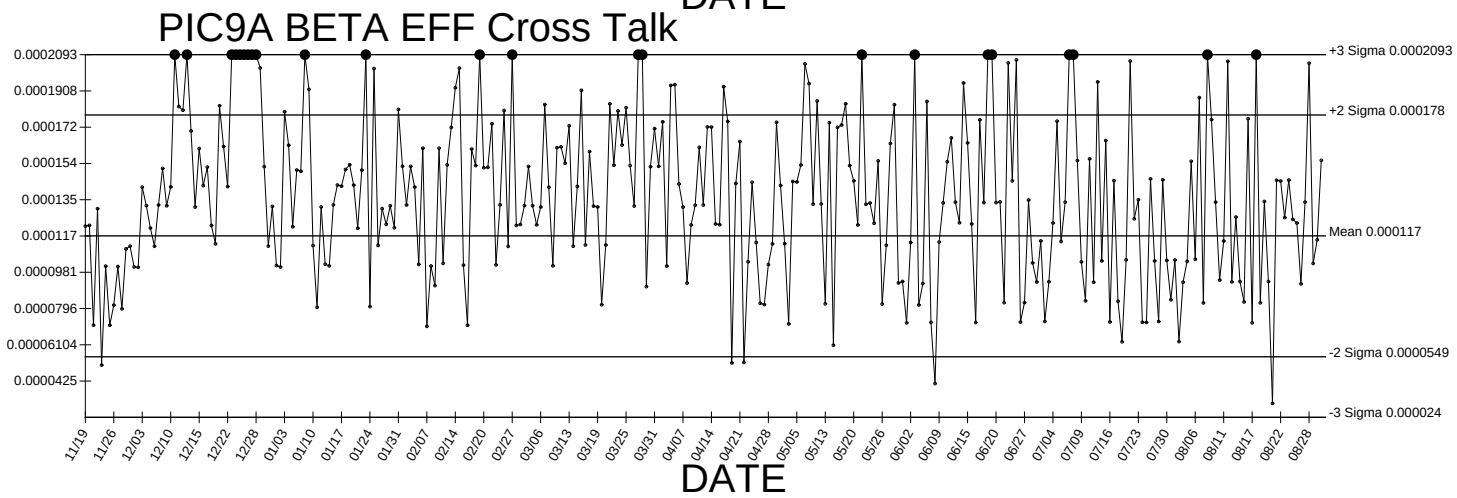

PIC9A ALPHA BKG
Generated 08/31/2011
CPM
DATE
+3 Sigma 0.197
+2 Sigma 0.153
Mean 0.0649
-2 Sigma -0.0229
-3 Sigma -0.0668


PIC9A ALPHA EFF
CPM
DATE
+3 Sigma 10930
+2 Sigma 10843
Mean 10680
-2 Sigma 10517
-3 Sigma 10440

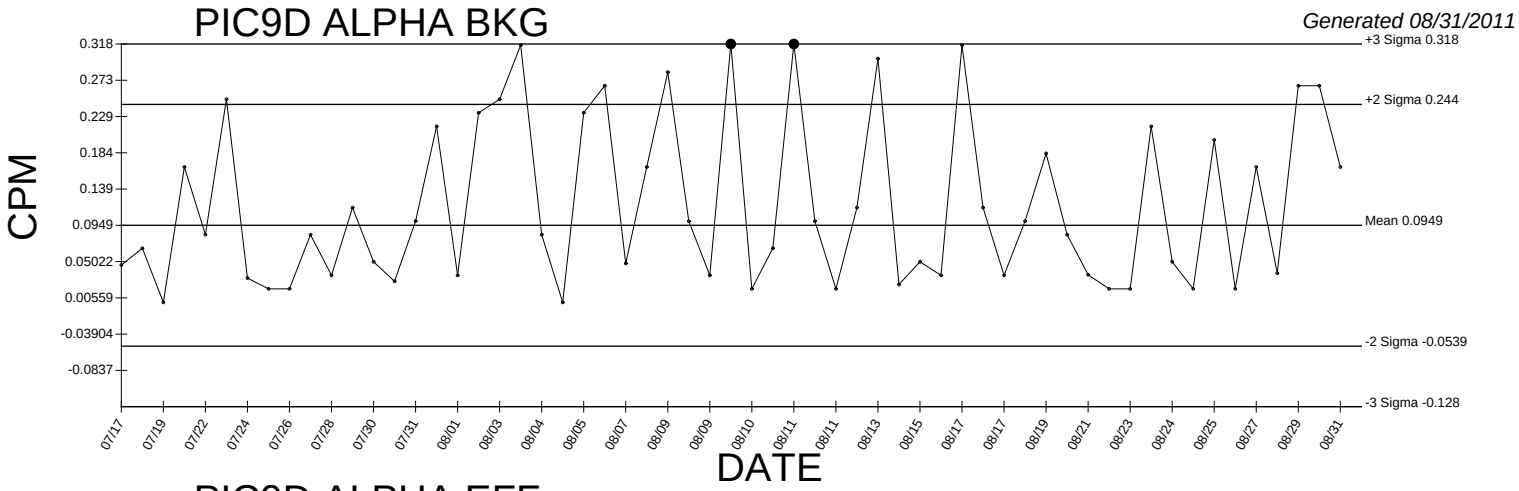

PIC9A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.3094
+2 Sigma 0.3022
Mean 0.288
-2 Sigma 0.273
-3 Sigma 0.266

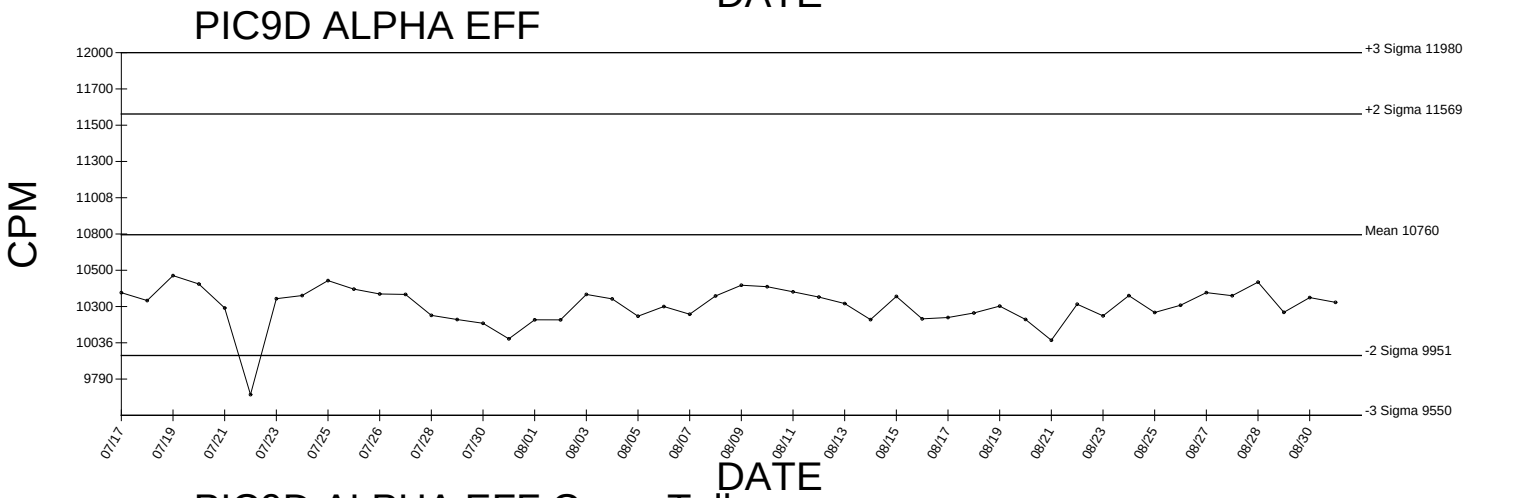

PIC9A BETA BKG
CPM
DATE
+3 Sigma 0.7903
+2 Sigma 0.674
Mean 0.442
-2 Sigma 0.2099
-3 Sigma 0.0939
Denotes Outlier

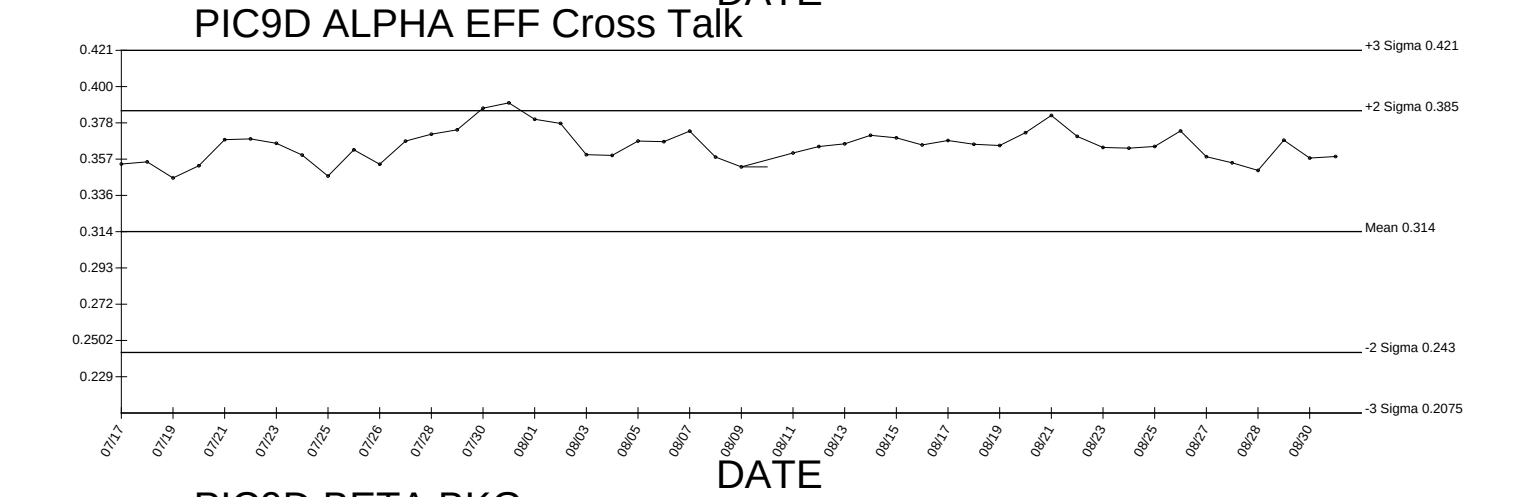


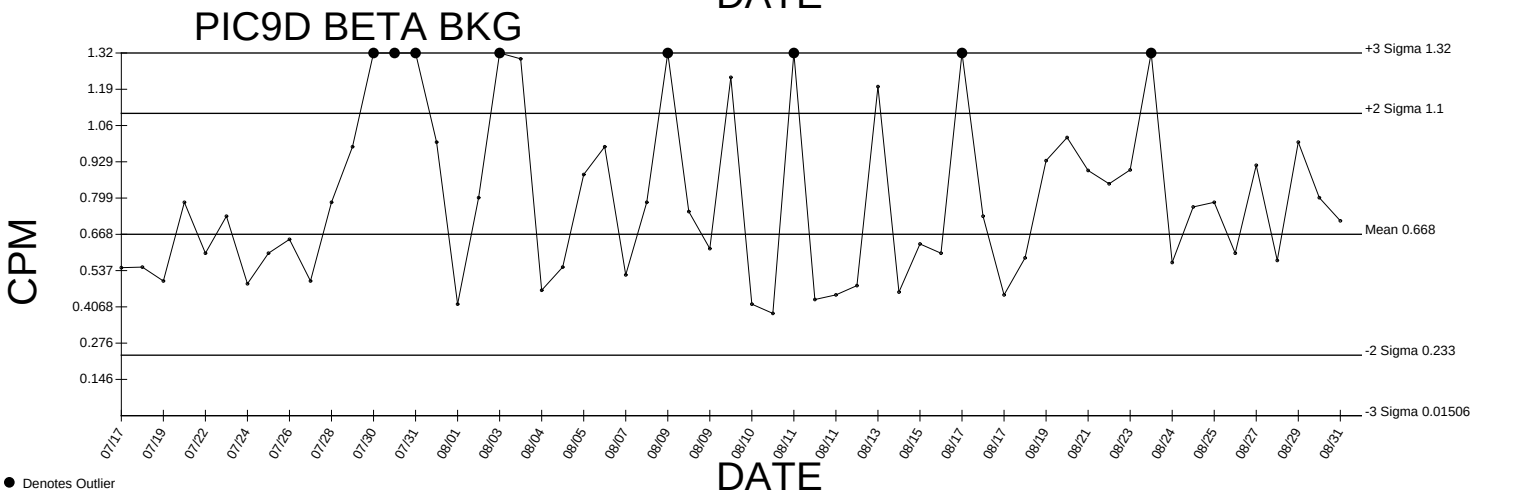


● Denotes Outlier

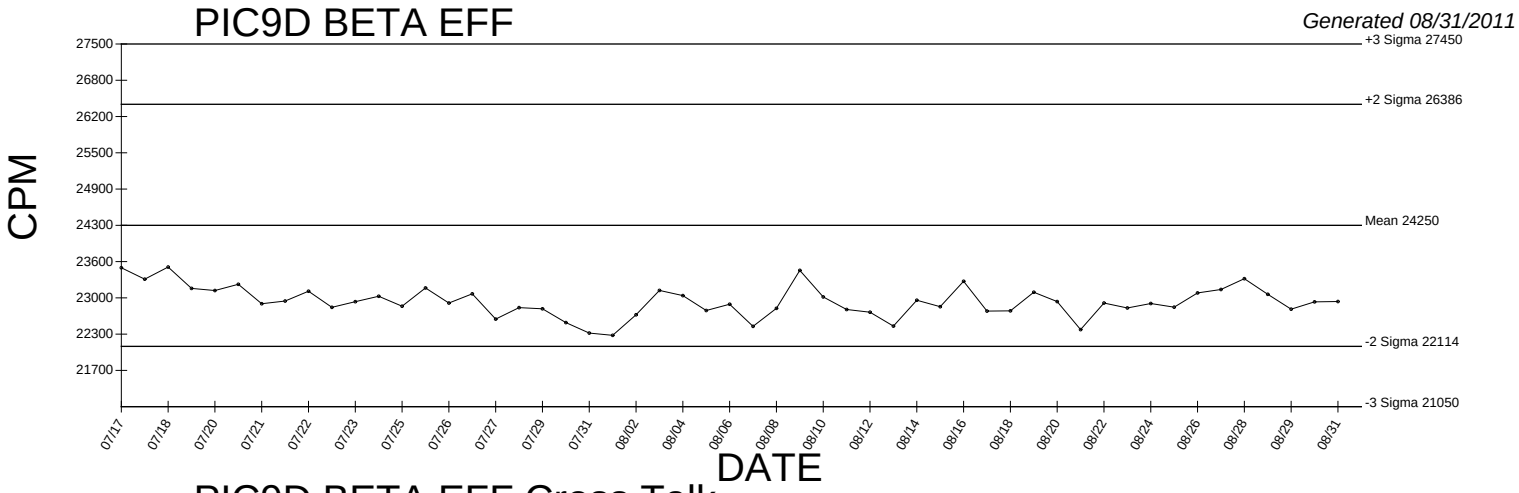


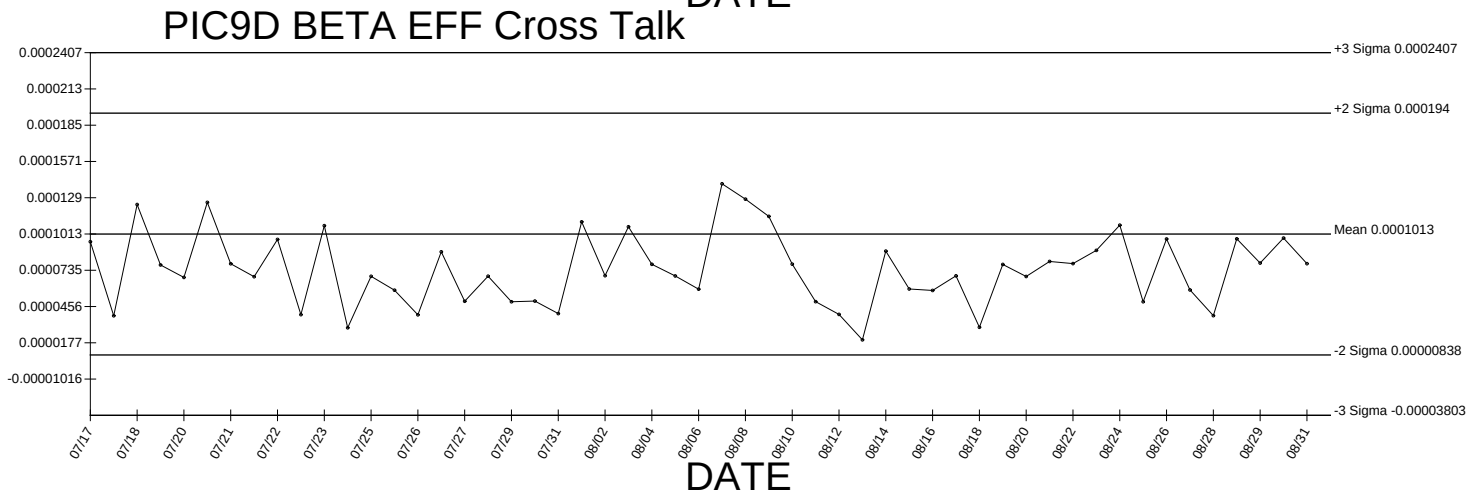






● Denotes Outlier





● Denotes Outlier

Standards Data

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

RECEIVED

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info			
Isotope:	Strontium-90		
Prepared By:	Daniel Roy		
Prep Date:	12/19/2008		
Verification Date:	07/05/2011		
Expiration Date:	07/05/2012		
Primary Code:	1243-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	10.2164 g		
Density(g/mL):	0.9991	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011
08/03/2010	Bethany Fiem	2.5604	1000	1243-C	581.5851 dpm/mL	08/03/2010	08/03/2011
01/12/2011	Bethany Fiem	2.4946	1000	1243-D	566.6389 dpm/mL	01/12/2011	01/12/2012
08/12/2011	Tim Chandler	3.3115	100	1243-G	18.7877 dpm/mL	08/11/2011	08/11/2012
08/17/2011	Tim Chandler	2.5541	100	1243-H	14.49064 dpm/mL	08/18/2011	08/16/2012
06/21/2011	Tim Chandler	.0235	100	1243-E	53.37936 dpm/mL	06/22/2011	06/20/2012
07/05/2011	Bethany Fiem	2.6072	1000	1243-F	592.2156 dpm/mL	07/05/2011	07/05/2012

Verification for Sr-90 Standard 1243-F

B. Fiem	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
7/5/2011	1243-F N1	1174.3900	49.0000	1125.3900	2.076121	1.0000	542.0639035
	1243-F N2	1169.7100	49.0000	1120.7100	2.076121	1.0000	539.8096991
	1243-F N3	1192.8600	49.0000	1143.8600	2.076121	1.0000	550.96030
						Average =	544.2779689

Mean Value (Counting) =	544.2779689	dpm/mL	**98.3763484**	**Pass**
Stdev =	5.89580887	dpm/mL	0.01083235	**Rule 3 (Pass/Fail)**

Certificate Value =	553.261	dpm/mL
Lower Limit =	532.4863512	dpm/mL
Upper Limit =	556.0695866	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	11.79161774	
10 % of Mean =	54.42779689	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-F by transferring 1 mL portions of the standard into glass liquid scintillation vials. Ten mL Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1ml DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted and counted on LSC Silver for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 8-3-11 using source 0133-A (Sr-90). Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
Reference RAD SOP M-001

8-16-11
8/18/11

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info			
Isotope:	Thorium-230		
Prepared By:	Ashley Drochter		
Prep Date:	11/10/2009		
Verification Date:	07/05/2011		
Expiration Date:	07/05/2012		
Primary Code:	1242-A		
Dilution(mL):	100 mL		
Mass of Parent(g):	4.8836 g		
Density(g/mL):	1.0597	Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010
08/03/2010	Gregory Ramsay	12.8745	1000	1242-C	282.063 dpm/mL	07/28/2011	07/28/2012
07/05/2011	Bethany Fiem	12.1975	1000	1242-D	267.2309 dpm/mL	07/06/2011	07/05/2012

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-C

Analyst:B. Fiem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 7-28-2011	1242-C #1	334.2000	40.0000	294.2000	1.01825897	1.0000	288.925
	1242-C #2	336.6000	40.0000	296.6000	1.01825897	1.0000	291.281
	1242-C #3	330.2000	40.0000	290.2000	1.01825897	1.0000	284.996

Mean Value (Counting) =	288.4007647	102.249832	**Pass**
Stdev =	3.175185872		**Rule 3 (Pass/Fail)**

Certificate Value =	282.055
Lower Limit =	282.050393
Upper Limit =	294.7511365
Rule 1 Pass/Fail	**Pass**
Two sigma =	6.350371745
10 % of Mean =	28.84007647
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Th-230 source 1242-C by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC RED for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on ~~7-28-11~~ 8/1/11 using NIST source 1105-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

8-1-11

Amanda L. [illegible] 8/1/11

Runlogs

Instrument Run Log

Instrument Type: GFPC **Batch ID: 1136968**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
284795007	SAMPLE	DXF3	PIC8A	AUG-31-11 07:12:53	DUSE	2 inch Planchett	01-AUG-10 00:00
284861004	SAMPLE	DXF3	PIC8D	AUG-31-11 07:13:03	DONE	2 inch Planchett	01-AUG-10 00:00
284864002	SAMPLE	DXF3	PIC7C	AUG-31-11 07:13:20	DONE	2 inch Planchett	01-AUG-10 00:00
1202476157	MS	DXF3	PIC9A	AUG-31-11 07:16:21	DONE	2 inch Planchett	01-AUG-10 00:00
1202476158	MSD	DXF3	PIC9D	AUG-31-11 07:16:30	DONE	2 inch Planchett	01-AUG-10 00:00
1202476159	LCS	DXF3	PIC10A	AUG-31-11 07:16:35	DONE	2 inch Planchett	01-AUG-10 00:00
1202476153	MB	DXF3	PIC7C	AUG-31-11 19:22:23	DONE	2 inch Planchett	01-AUG-10 00:00
1202476154	DUP	DXF3	PIC7D	AUG-31-11 19:22:24	DONE	2 inch Planchett	01-AUG-10 00:00
284865001	SAMPLE	DXF3	PIC6D	AUG-31-11 19:22:30	DONE	2 inch Planchett	01-AUG-10 00:00
284795007	SAMPLE	DXF3	LB4100G1	SEP-01-11 12:26:35	DONE	2 inch Planchett	01-AUG-10 00:00
284864002	SAMPLE	DXF3	LB4100G2	SEP-01-11 12:26:35	DONE	2 inch Planchett	01-AUG-10 00:00
1202476153	MB	DXF3	LB4100B2	SEP-01-11 12:33:21	DONE	2 inch Planchett	01-AUG-10 00:00
284865001	SAMPLE	DXF3	LB4100B3	SEP-01-11 12:33:21	DONE	2 inch Planchett	01-AUG-10 00:00
284861004	SAMPLE	DXF3	LB4100B4	SEP-01-11 12:33:22	DONE	2 inch Planchett	01-AUG-10 00:00
1202476157	MS	DXF3	LB4100C1	SEP-01-11 13:02:40	DONE	2 inch Planchett	01-AUG-10 00:00
1202476158	MSD	DXF3	LB4100C3	SEP-01-11 13:02:41	DONE	2 inch Planchett	01-AUG-10 00:00
1202476159	LCS	DXF3	LB4100C4	SEP-01-11 13:02:41	DONE	2 inch Planchett	01-AUG-10 00:00
1202476154	DUP	DXF3	PIC10C	SEP-02-11 09:06:29	DONE	2 inch Planchett	01-AUG-10 00:00

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

December 14, 2011

Ms. Joylene Valdez
Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL WQH WQCC Regs
Work Order: 291687
SDG: 12-485

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 09, 2011, and analyzed for General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Hope Taylor for
Valerie Davis
Project Manager

Purchase Order: 63641-10
Chain of Custody: 12-485
Enclosures

ARS International (63641-10)
LANL WQH WQCC Regs
Workorder #: 291687
SDG # : 12-485

Table of Contents

Case Narrative.....1

Chain of Custody and Supporting Documentation.....3

Data Review Qualifier Flag Definition Sheet.....9

General Chem Analysis.....11

Case Narrative.....12

Sample Data Summary.....28

Quality Control Summary.....31

Instrument QC Data Summary.....35

Ammonia Nitrogen Raw Data.....40

Ion Chromatography Raw Data.....47

Nitrate Nitrite by Cadmium Reduction Raw Data.....87

Solids, Total Dissolved Raw Data.....95

Total Kjeldahl Nitrogen Raw Data.....97

Miscellaneous.....104

Case Narrative

Case Narrative for
ARS International (63641-10)
LANL WQH WQCC Regs
Workorder #: 291687
SDG # : 12-485

December 14, 2011

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on December 09, 2011 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
291687001	SWWS46-12-1815

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Hope Taylor for
Valerie Davis
Project Manager

Chain of Custody and Supporting Documentation

Thursday, December 08, 2011

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 12-485C

REQUEST NUMBER: 12-485

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/7/2012

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 291687 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
SWWS46-12-1815	1	POLY	NPDES-NH3/NO3/NO2/ TKN	Sulfuric Acid (H2SO4)	WOE
SWWS46-12-1815	1	POLY	NPDES-TDS+Cl	Ice	WOE

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
[illegible]	12/8/11	1400	P. Dent	12/9/11	09:05
Signature			Signature		
Signature			Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Signature			

Thursday, December 08, 2011

REQUEST NUMBER: 12-485

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:12-485
Per Agreement Number:126310011
Project Cost Code: WE6L11570000

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/8/2011
TURNAROUND/REPORT DUE: 1/7/2012
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:160.1	1	SWWS46-12-1815	WOE	12/8/2011	
	EPA:300.0	1	SWWS46-12-1815	WOE	12/8/2011	
	EPA:350.1	1	SWWS46-12-1815	WOE	12/8/2011	
	EPA:351.2	1	SWWS46-12-1815	WOE	12/8/2011	
	EPA:353.2	1	SWWS46-12-1815	WOE	12/8/2011	

Final Page of REQUEST NUMBER 12-485

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/AR/COC/Work Order: 12-485**
Received By:Patricia Dent	**Date Received:December 09, 2011**

Suspected Hazard Information	**Yes**	**No**	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?		X	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): **0CPM**
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	X			Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius 2-4,13,15C
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: Secondary Temperature Device Serial # (If Applicable):**61524646**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			**Sample ID's and containers affected:**
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected:**Time not notated on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			X	**CLIENTS**
13	COC form is properly signed in relinquished/received sections?	X			
14	Carrier and tracking number.	X			**Circle Applicable:** **FedEx Air FedEx Ground UPS Field Services Courier Other** **7209 7856 1318 2c 7209 7856 1329 2c** **7209 7856 1307 3c 7209 7856 1270 4c** **7209 7856 1281 13c 7209 7856 1292 15c**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials BLD Date 12-12-11 Page 1 of 1

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

2c

FedEx Express

J111311106060125

2 of 3
MPS# 0263 7209 7856 1318
Mstr# 7209 7856 1307

FRI - 09 DEC A1
PRIORITY OVERNIGHT
0201

XX CHSA

29407
SC-US CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

2c

FedEx Express

J111311106060125

3 of 3
MPS# 0263 7209 7856 1329
Mstr# 7209 7856 1307

FRI - 09 DEC A1
PRIORITY OVERNIGHT
0201

XX CHSA

29407
SC-US CHS

Part # 156148-434 AIT2 08/10

NPOEX *

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

3c

FedEx Express

J111311106060125

1 of 3
TRK# 0201 7209 7856 1307
MASTER

FRI - 09 DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US CHS

AIT2 08/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR3A02244M00

4c

FedEx Express

J111311106060125

TRK# 0201 7209 7856 1270

FRI - 09 DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US CHS

AIT2 08/10

JOYLENE VALDEZ (505) 665-9968
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

13c

58DC1/859F/18BC

FedEx Express

J111131106060125

1 of 2

TRK# 0201 7209 7856 1281

FRI - 09 DEC A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US CHS

Part # 156148-434 RIT2 08/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 08DEC11
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2509

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR1A015AGWF0

15c

58DC1/859F/18BC

FedEx Express

J111131106060125

2 of 2

MPS# 0263 7209 7856 1292

Mstr# 7209 7856 1281

FRI - 09 DEC A1
PRIORITY OVERNIGHT

0201

XX CHSA

29407
SC-US CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

General Chem Analysis

Case Narrative

General Chemistry Narrative
ARS International (ARSL)
SDG 12-485

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	1169336	**Method:**	EPA 300.0 Chloride in Liquid

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
291687001	SWWS46-12-1815
1202555250	Method Blank (MB)
1202555251	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555252	291689001(SWWS46-12-1813) Post Spike (PS)
1202555253	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 20.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291689001 (SWWS46-12-1813).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555252 (SWWS46-12-1813).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202555251 (SWWS46-12-1813), 1202555252 (SWWS46-12-1813) and 291687001 (SWWS46-12-1815).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1030631 1202555252 (SWWS46-12-1813).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	1169314	**Method:**	Nitrogen as Ammonia
Prep Batch :	1169312	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
291687001	SWWS46-12-1815
1202555175	Method Blank (MB)
1202555176	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555177	291796002(CALA-12-1767) Sample Duplicate (DUP)
1202555178	291689001(SWWS46-12-1813) Matrix Spike (MS)
1202555179	291796002(CALA-12-1767) Matrix Spike (MS)
1202555180	291689001(SWWS46-12-1813) Matrix Spike Duplicate (MSD)
1202555181	291796002(CALA-12-1767) Matrix Spike Duplicate (MSD)
1202555182	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 291689001 (SWWS46-12-1813) and 291796002 (CALA-12-1767).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555181 (CALA-12-1767).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202555177 (CALA-12-1767).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1029616 1202555181 (CALA-12-1767).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	1169324	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	1169323	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
291687001	SWWS46-12-1815
1202555215	Method Blank (MB)
1202555217	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555219	291689001(SWWS46-12-1813) Matrix Spike (MS)
1202555221	291689001(SWWS46-12-1813) Matrix Spike Duplicate (MSD)
1202555222	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within

acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291689001 (SWWS46-12-1813).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555219 (SWWS46-12-1813).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202555221 (SWWS46-12-1813).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample: 1202555217 (SWWS46-12-1813).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202555215 (MB). The following samples were re-analyzed to verify the results: 1202555215 (MB) and 1202555222 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 1030062 1202555217 (SWWS46-12-1813), 1202555219 (SWWS46-12-1813) and 1202555221 (SWWS46-12-1813).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	1169319	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
291687001	SWWS46-12-1815
1202555191	Method Blank (MB)
1202555193	291703001(Buckman1-12-1727) Sample Duplicate (DUP)
1202555195	291689001(SWWS46-12-1813) Sample Duplicate (DUP)
1202555198	291703001(Buckman1-12-1727) Post Spike (PS)
1202555200	291689001(SWWS46-12-1813) Post Spike (PS)
1202555202	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 291689001 (SWWS46-12-1813) and 291703001 (Buckman1-12-1727).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202555193 (Buckman1-12-1727).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 291687001 (SWWS46-12-1815). The following samples in this sample group were diluted due to matrix interference: 1202555193 (Buckman1-12-1727), 1202555195 (SWWS46-12-1813), 1202555198 (Buckman1-12-1727) and 1202555200 (SWWS46-12-1813).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Solids, Total Dissolved**		
Analytical Batch:	1169725	**Method:**	EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
291687001	SWWS46-12-1815
1202556227	Method Blank (MB)
1202556228	291687001(SWWS46-12-1815) Sample Duplicate (DUP)
1202556229	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration
All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 291687001 (SWWS46-12-1815).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 19Dec11

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

ARSL001 ARS International (63641-10)

Client SDG: 12-485 GEL Work Order: 291687

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

H Analytical holding time was exceeded

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the RL or LOQ.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed By:

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: December 16, 2011

Company :	Los Alamos National Laboratory
Address :	TA-03, SM271, Drop Pt. 02U, Rm111
	Los Alamos, New Mexico 87545
Contact:	Ms. Joylene Valdez
Project:	LANL WQH WQCC Regs

Client SDG: 12-485

Client Sample ID:	SWWS46-12-1815	Project:	ESHL00110
Sample ID:	291687001	Client ID:	ARSL001
Matrix:	Waste Water		
Collect Date:	08-DEC-11 12:00		
Receive Date:	09-DEC-11		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA 300.0 Chloride in Liquid "As Received"											
Chloride		144	1.32	4.00	mg/L	20	MAR1	12/14/11	1153	1169336	1
Nutrient Analysis											
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		2.03	0.050	0.250	mg/L	5	KLP1	12/15/11	1037	1169319	2
Nitrogen as Ammonia "As Received"											
Nitrogen, Ammonia		0.108	0.016	0.050	mg/L	1	KLP1	12/13/11	1050	1169314	3
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl		1.26	0.035	0.100	mg/L	1	KLP1	12/14/11	1421	1169324	4
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		539	3.40	14.3	mg/L		LYG1	12/13/11	1023	1169725	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	AXS5	12/12/11	1541	1169312
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	AXS5	12/13/11	1700	1169323

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 353.2	
3	EPA 350.1	
4	EPA 351.2	
5	EPA 160.1	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 16, 2011

Los Alamos National Laboratory
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **291687**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 1169336											
QC1202555251 291689001 DUP											
Chloride			135		135	mg/L	0.119		(0%-20%)	MAR1	12/14/11 12:51
QC1202555253 LCS											
Chloride	10.0				9.66	mg/L		96.6	(90%-110%)		12/12/11 15:45
QC1202555250 MB											
Chloride				U	ND	mg/L					12/12/11 15:16
QC1202555252 291689001 PS											
Chloride	10.0		13.5		24.9	mg/L		115*	(90%-110%)		12/14/11 13:20
Nutrient Analysis											
Batch 1169314											
QC1202555176 291689001 DUP											
Nitrogen, Ammonia			0.113		0.118	mg/L	4.33 ^		(+/-0.050)	KLP1	12/13/11 10:52
QC1202555177 291796002 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A				12/13/11 11:03
QC1202555182 LCS											
Nitrogen, Ammonia	1.00			J	1.06	mg/L		106	(90%-110%)		12/13/11 10:47
QC1202555175 MB											
Nitrogen, Ammonia				U	ND	mg/L					12/13/11 10:46
QC1202555178 291689001 MS											
Nitrogen, Ammonia	1.00		0.113		1.17	mg/L		106	(90%-110%)		12/13/11 10:53
QC1202555179 291796002 MS											
Nitrogen, Ammonia	1.00	U	ND		1.07	mg/L		107	(90%-110%)		12/13/11 11:03
QC1202555180 291689001 MSD											
Nitrogen, Ammonia	1.00		0.113		1.21	mg/L	3.36	110	(0%-15%)		12/13/11 10:53
QC1202555181 291796002 MSD											
Nitrogen, Ammonia	1.00	U	ND		1.12	mg/L	4.57	112*	(0%-15%)		12/13/11 11:04
Batch 1169319											
QC1202555193 291703001 DUP											
Nitrogen, Nitrate/Nitrite			0.895		1.11	mg/L	21.4 ^		(+/-0.250)	KLP1	12/15/11 11:37
QC1202555195 291689001 DUP											
Nitrogen, Nitrate/Nitrite			1.16		1.16	mg/L	0.00 ^		(+/-0.250)		12/15/11 10:40
QC1202555202 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.913	mg/L		91.3	(90%-110%)		12/15/11 10:30
QC1202555191 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/15/11 10:29
QC1202555198 291703001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.179		1.13	mg/L		95.1	(90%-110%)		12/15/11 11:38
QC1202555200 291689001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.231		1.18	mg/L		94.9	(90%-110%)		12/15/11 10:41
Batch 1169324											
QC1202555217 291689001 DUP											
Nitrogen, Total Kjeldahl			0.852		0.606	mg/L	33.7*		(0%-20%)	KLP1	12/14/11 14:22
QC1202555222 LCS											

QC Summary

Workorder: 291687

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis										
Batch 1169324										
Nitrogen, Total Kjeldahl	1.00			1.07	mg/L		107	(90%-110%)		12/14/11 13:58
QC1202555215 MB										
Nitrogen, Total Kjeldahl			J	0.0625	mg/L				KLP1	12/14/11 14:06
QC1202555219 291689001 MS										
Nitrogen, Total Kjeldahl	1.00	0.852		1.74	mg/L		88.8 *	(90%-110%)		12/14/11 14:23
QC1202555221 291689001 MSD										
Nitrogen, Total Kjeldahl	1.00	0.852		1.74	mg/L	0.00	88.8 *	(0%-20%)		12/14/11 14:24
Solids Analysis										
Batch 1169725										
QC1202556228 291687001 DUP										
Total Dissolved Solids		539		533	mg/L	1.07		(0%-10%)	LYG1	12/13/11 10:23
QC1202556229 LCS										
Total Dissolved Solids	300			291	mg/L		97.1	(95%-105%)		12/13/11 10:23
QC1202556227 MB										
Total Dissolved Solids			U	ND	mg/L					12/13/11 10:23

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound

QC Summary

Workorder: 291687

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-485

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-DEC-2011 09:29:00**	**111212**	**9.6508**	**10**	**96.5**	**(90%-110%)**	**Yes**
CCV	12-DEC-2011 14:18:00	111212	9.6946	10	96.9	(90%-110%)	Yes
CCV	12-DEC-2011 18:38:00	111212	14.9036	15	99.4	(90%-110%)	Yes
ICV	**14-DEC-2011 10:55:00**	**111214**	**9.6495**	**10**	**96.5**	**(90%-110%)**	**Yes**
CCV	14-DEC-2011 16:13:00	111214	14.8483	15	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-DEC-2011 09:58:00**	**111212**	**0**	**0.2**	**Yes**
CCB	12-DEC-2011 14:47:00	111212	0	0.2	Yes
CCB	12-DEC-2011 19:07:00	111212	0	0.2	Yes
ICB	**14-DEC-2011 11:24:00**	**111214**	**0**	**0.2**	**Yes**
CCB	14-DEC-2011 16:42:00	111214	0	0.2	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-485

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**13-DEC-2011 10:42:41**	**OM_12-13-2011_10-35-37**	**0.96**	**1**	**96**	**(90%-110%)**	**Yes**
CCV	13-DEC-2011 10:54:39	OM_12-13-2011_10-35-37	1	1	100	(90%-110%)	Yes
CCV	13-DEC-2011 11:06:31	OM_12-13-2011_10-35-37	1.01	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**13-DEC-2011 10:44:32**	**OM_12-13-2011_10-35-37**	**-0.0268**	**0.05**	**Yes**
CCB	13-DEC-2011 10:56:29	OM_12-13-2011_10-35-37	-0.0234	0.05	Yes
CCB	13-DEC-2011 11:08:21	OM_12-13-2011_10-35-37	-0.0212	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-485

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**14-DEC-2011 13:50:51**	**OM_12-14-2011_13-44-06**	**1.02**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	14-DEC-2011 14:02:58	OM_12-14-2011_13-44-06	0.981	1	98.1	(90%-110%)	Yes
CCV	14-DEC-2011 14:14:46	OM_12-14-2011_13-44-06	0.941	1	94.1	(90%-110%)	Yes
CCV	14-DEC-2011 14:27:03	OM_12-14-2011_13-44-06	0.951	1	95.1	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**14-DEC-2011 13:52:42**	**OM_12-14-2011_13-44-06**	**0.0509**	**0.1**	**Yes**
CCB	14-DEC-2011 14:04:49	OM_12-14-2011_13-44-06	0.0616	0.1	Yes
CCB	14-DEC-2011 14:16:38	OM_12-14-2011_13-44-06	0.0553	0.1	Yes
CCB	14-DEC-2011 14:28:55	OM_12-14-2011_13-44-06	0.0293	0.1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 16-DEC-2011 14:44

GEL Laboratories LLC

Contract: ESHL00110

SDG #: 12-485

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2011 10:12:00**	**OM_12-15-2011_10-02-37**	**0.957**	**1**	**95.7**	**(90%-110%)**	**Yes**
CCV	15-DEC-2011 10:33:16	OM_12-15-2011_10-02-37	1.05	1	105	(90%-110%)	Yes
CCV	15-DEC-2011 10:49:50	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes
CCV	15-DEC-2011 11:23:00	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes
CCV	15-DEC-2011 11:39:34	OM_12-15-2011_10-02-37	1.07	1	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2011 10:14:21**	**OM_12-15-2011_10-02-37**	**-0.00171**	**0.05**	**Yes**
CCB	15-DEC-2011 10:35:37	OM_12-15-2011_10-02-37	-0.00158	0.05	Yes
CCB	15-DEC-2011 10:52:11	OM_12-15-2011_10-02-37	-0.00153	0.05	Yes
CCB	15-DEC-2011 11:25:21	OM_12-15-2011_10-02-37	-0.00137	0.05	Yes
CCB	15-DEC-2011 11:41:55	OM_12-15-2011_10-02-37	-0.00105	0.05	Yes

Ammonia Nitrogen Raw Data

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **1169312.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 15

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555182	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555178	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555179	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555180	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555181	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202555175 MB	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555182 LCS	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291296001	12-DEC-2011 15:41:00	Surface Water	25	25	1	9.5
291534001	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291535001	12-DEC-2011 15:41:00	Surface Water	25	25	1	9.5
291687001	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291689001	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555176 DUP (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555178 MS (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
1202555180 MSD (291689001)	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291689002	12-DEC-2011 15:41:00	Waste Water	25	25	1	9.5
291703001	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703003	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703005	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291703007	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796002	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555177 DUP (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555179 MS (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
1202555181 MSD (291796002)	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796003	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291796005	12-DEC-2011 15:41:00	Water	25	25	1	9.5
291797002	12-DEC-2011 15:41:00	Water	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **1169312.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 15

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555182	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555178	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MS	1202555179	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555180	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL
MSD	1202555181	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check

Reagent/Solvent Lot ID	Description	Amount
110629-C	Borate Buffer	1.25 mL
1609355-C	50% NaOH Solution	1 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	klp1	12/13/2011 10:36:35	OM_12-13-2011_10-35-37
1.0 ppm Std.		1	klp1	12/13/2011 10:37:25	OM_12-13-2011_10-35-37
0.5 ppm Std		1	klp1	12/13/2011 10:38:15	OM_12-13-2011_10-35-37
0.1 ppm Std		1	klp1	12/13/2011 10:39:06	OM_12-13-2011_10-35-37
0.05 ppm Std		1	klp1	12/13/2011 10:39:58	OM_12-13-2011_10-35-37
ICAL-00		1	klp1	12/13/2011 10:40:51	OM_12-13-2011_10-35-37
ICV		1	klp1	12/13/2011 10:42:41	OM_12-13-2011_10-35-37
ICB		1	klp1	12/13/2011 10:44:32	OM_12-13-2011_10-35-37
1202555175	1169314	1	klp1	12/13/2011 10:46:21	OM_12-13-2011_10-35-37
1202555182	1169314	1	klp1	12/13/2011 10:47:12	OM_12-13-2011_10-35-37
291296001	1169314	1	klp1	12/13/2011 10:48:03	OM_12-13-2011_10-35-37
291534001	1169314	1	klp1	12/13/2011 10:48:53	OM_12-13-2011_10-35-37
291535001	1169314	1	klp1	12/13/2011 10:49:44	OM_12-13-2011_10-35-37
291687001	1169314	1	klp1	12/13/2011 10:50:34	OM_12-13-2011_10-35-37
291689001	1169314	1	klp1	12/13/2011 10:51:23	OM_12-13-2011_10-35-37
1202555176	1169314	1	klp1	12/13/2011 10:52:12	OM_12-13-2011_10-35-37
1202555178	1169314	1	klp1	12/13/2011 10:53:01	OM_12-13-2011_10-35-37
1202555180	1169314	1	klp1	12/13/2011 10:53:50	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 10:54:39	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 10:56:29	OM_12-13-2011_10-35-37
291689002	1169314	1	klp1	12/13/2011 10:58:17	OM_12-13-2011_10-35-37
291703001	1169314	1	klp1	12/13/2011 10:59:05	OM_12-13-2011_10-35-37
291703003	1169314	1	klp1	12/13/2011 10:59:53	OM_12-13-2011_10-35-37
291703005	1169314	1	klp1	12/13/2011 11:00:40	OM_12-13-2011_10-35-37
291703007	1169314	1	klp1	12/13/2011 11:01:28	OM_12-13-2011_10-35-37
291796002	1169314	1	klp1	12/13/2011 11:02:17	OM_12-13-2011_10-35-37
1202555177	1169314	1	klp1	12/13/2011 11:03:08	OM_12-13-2011_10-35-37
1202555179	1169314	1	klp1	12/13/2011 11:03:59	OM_12-13-2011_10-35-37
1202555181	1169314	1	klp1	12/13/2011 11:04:50	OM_12-13-2011_10-35-37
291796003	1169314	1	klp1	12/13/2011 11:05:40	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 11:06:31	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 11:08:21	OM_12-13-2011_10-35-37
291796005*	1169314	1	klp1	12/13/2011 11:10:10	OM_12-13-2011_10-35-37
291797002*	1169314	1	klp1	12/13/2011 11:11:00	OM_12-13-2011_10-35-37
1202555207*	1169322	1	klp1	12/13/2011 11:11:49	OM_12-13-2011_10-35-37
1202555214*	1169322	1	klp1	12/13/2011 11:12:39	OM_12-13-2011_10-35-37
291506001*	1169322	1	klp1	12/13/2011 11:13:28	OM_12-13-2011_10-35-37
1202555208*	1169322	1	klp1	12/13/2011 11:14:17	OM_12-13-2011_10-35-37
1202555210*	1169322	1	klp1	12/13/2011 11:15:06	OM_12-13-2011_10-35-37
1202555212*	1169322	1	klp1	12/13/2011 11:15:54	OM_12-13-2011_10-35-37
291537001*	1169322	1	klp1	12/13/2011 11:16:42	OM_12-13-2011_10-35-37
1202555209*	1169322	1	klp1	12/13/2011 11:17:30	OM_12-13-2011_10-35-37
CCV		1	klp1	12/13/2011 11:18:19	OM_12-13-2011_10-35-37
CCB		1	klp1	12/13/2011 11:20:09	OM_12-13-2011_10-35-37

Author: klp1 Date : 12/13/2011

Original Run Filename: OM_12-13-2011_10-35-37.OMN created 12/13/2011 10:35:37
Original Run Author's Signature: [klp1]
Current Run Filename: OM_12-13-2011_10-35-37.OMN last modified 12/13/2011 11:21:13
Current Run Author's Signature: [klp1]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111213-03	1	S10	2.00	16.6	12/13/2011@10:36:35			2.0 ppm Std.
WTR111213-04	1	S11	1.00	8.53	12/13/2011@10:37:25			1.0 ppm Std.
WTR111213-05	1	S12	0.500	4.56	12/13/2011@10:38:15			0.5 ppm Std
WTR111213-06	1	S13	0.100	1.45	12/13/2011@10:39:06			0.1 ppm Std
WTR111213-07	1	S14	0.0500	0.651	12/13/2011@10:39:58			0.05 ppm Std
WTR111213-10 0.0 ppm	1	S15	0.00	0.139	12/13/2011@10:40:51			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99962 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111213-08 ICV	1	S16	0.960	8.20	12/13/2011@10:42:41			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.960 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.960 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR111213-10 ICB	1	S15	-0.0268	0.143	12/13/2011@10:44:32			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0268 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0268 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
1202555175|1169314|MB	1	1	-0.0195	0.202	12/13/2011@10:46:21			
1202555182||LCS	1	2	1.06	9.00	12/13/2011@10:47:12			
291296001	1	3	0.112	1.28	12/13/2011@10:48:03			
291534001	1	4	0.124	1.37	12/13/2011@10:48:53			
291535001	1	5	0.0229	0.548	12/13/2011@10:49:44			
291687001	1	6	0.108	1.24	12/13/2011@10:50:34			
291689001	1	7	0.113	1.29	12/13/2011@10:51:23			
1202555176||DUP	1	8	0.118	1.32	12/13/2011@10:52:12			
1202555178||MS	1	9	1.17	9.94	12/13/2011@10:53:01			
1202555180||MSD	1	10	1.21	10.2	12/13/2011@10:53:50			
WTR111213-04 CCV	1	S11	1.00	8.53	12/13/2011@10:54:39			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.0234	0.171	12/13/2011@10:56:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0234 < 0.0490					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0234 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291689002	1	11	0.216	2.12	12/13/2011@10:58:17			
291703001	1	12	0.0117	0.457	12/13/2011@10:59:05			
291703003	1	13	-0.0154	0.236	12/13/2011@10:59:53			
291703005	1	14	0.0206	0.529	12/13/2011@11:00:40			
291703007	1	15	1.72e-4	0.363	12/13/2011@11:01:28			
291796002	1	16	-0.0295	0.121	12/13/2011@11:02:17			
1202555177||DUP	1	17	-0.0121	0.263	12/13/2011@11:03:08			
1202555179||MS	1	18	1.07	9.12	12/13/2011@11:03:59			
1202555181||MSD	1	19	1.12	9.48	12/13/2011@11:04:50			
291796003	1	20	0.0159	0.491	12/13/2011@11:05:40			
WTR111213-04 CCV	1	S11	1.01	8.60	12/13/2011@11:06:31			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.0212	0.189	12/13/2011@11:08:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0212 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0212 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291796005	1	21	0.00928	0.437	12/13/2011@11:10:10			
291797002	1	22	6.54e-4	0.367	12/13/2011@11:11:00			
1202555207|1169322|MB	1	23	-0.00786	0.297	12/13/2011@11:11:49			
1202555214||LCS	1	24	1.07	9.13	12/13/2011@11:12:39			
291506001	1	25	-0.0244	0.162	12/13/2011@11:13:28			
1202555208||DUP	1	26	-0.0348	0.0773	12/13/2011@11:14:17			
1202555210||MS	1	27	-0.0362	0.0660	12/13/2011@11:15:06			
1202555212||MSD	1	28	-0.0314	0.105	12/13/2011@11:15:54			
291537001	1	29	0.147	1.56	12/13/2011@11:16:42			
1202555209||DUP	1	30	0.132	1.44	12/13/2011@11:17:30			
WTR111213-04 CCV	1	S11	1.00	8.53	12/13/2011@11:18:19			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111213-10 CCB	1	S15	-0.142	-0.797	12/13/2011@11:20:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.142 < 0.0490					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.142 < -0.0500					
		Message	CCB Failed					
		Action	Stop Run					

Channel 1 (NH3) : Current View

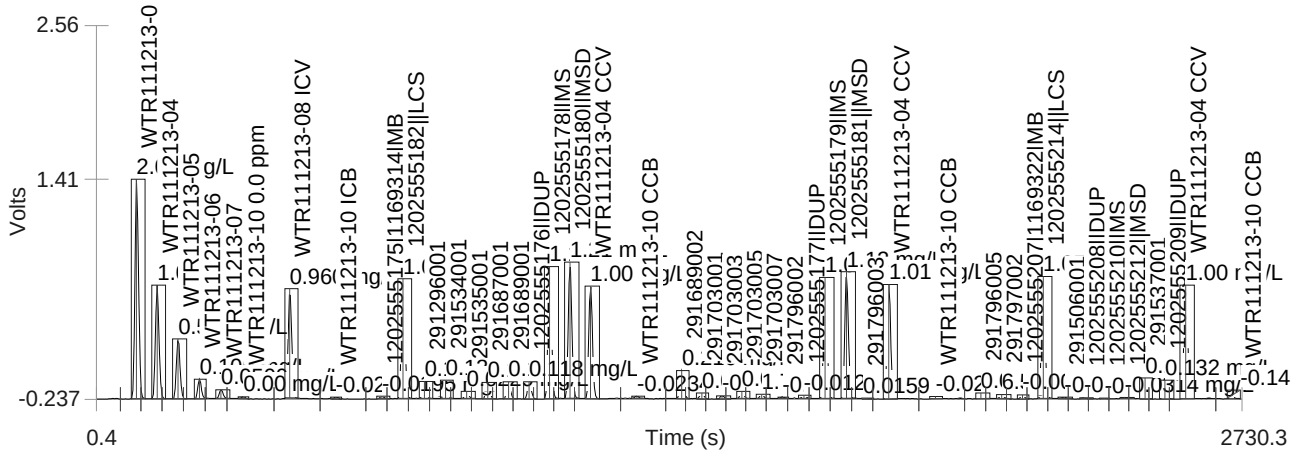
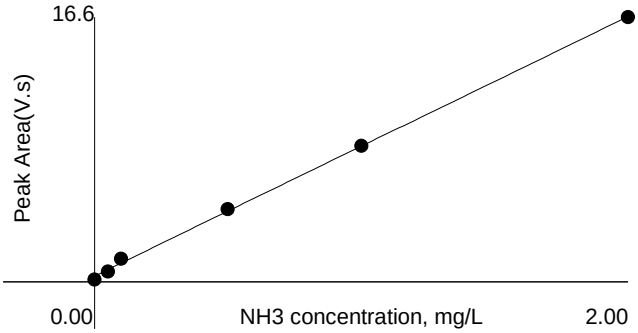


Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.00	1	16.6	1.64	0.3	12/13/2011	10:37:38
2	1.00	1	8.53	0.850	-0.1	12/13/2011	10:38:28
3	0.500	1	4.56	0.447	-2.6	12/13/2011	10:39:18
4	0.100	1	1.45	0.145	-22.7	12/13/2011	10:40:09
5	0.0500	1	0.651	0.0634	15.8	12/13/2011	10:41:01
6	0.00	1	0.139	0.0128		12/13/2011	10:41:53

Figure 1: NH3



Area = 8.15 * Conc + 0.365
Conc = 0.123 * Area - 0.0443
Correlation Coefficient (r) = 0.99962

No Weighting

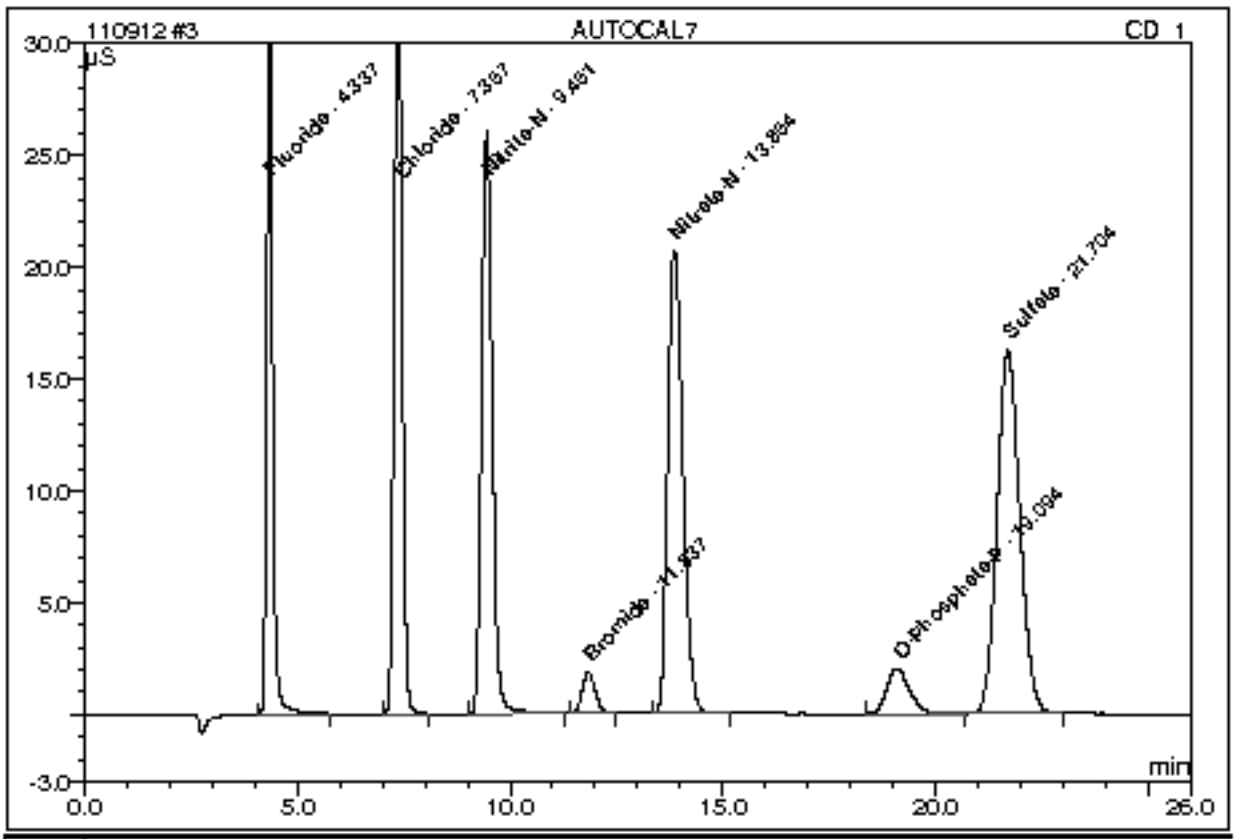
Ion Chromatography
Raw Data

This is runlog for Sequence 111001.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	09/12/11 13:42		1	111001	MAR1
ICAL-06	09/12/11 14:11		1	111001	MAR1
ICAL-05	09/12/11 14:40		1	111001	MAR1
ICAL-04	09/12/11 15:09		1	111001	MAR1
ICAL-03	09/12/11 15:38		1	111001	MAR1
ICAL-02	09/12/11 16:07		1	111001	MAR1
ICAL-01	09/12/11 16:36		1	111001	MAR1
ICAL-07	09/12/11 13:42		1	111001	MAR1
ICAL-06	09/12/11 14:11		1	111001	MAR1
ICAL-05	09/12/11 14:40		1	111001	MAR1
ICAL-04	09/12/11 15:09		1	111001	MAR1
ICAL-03	09/12/11 15:38		1	111001	MAR1
ICAL-02	09/12/11 16:07		1	111001	MAR1
ICAL-01	09/12/11 16:36		1	111001	MAR1

3 AUTOCAL7

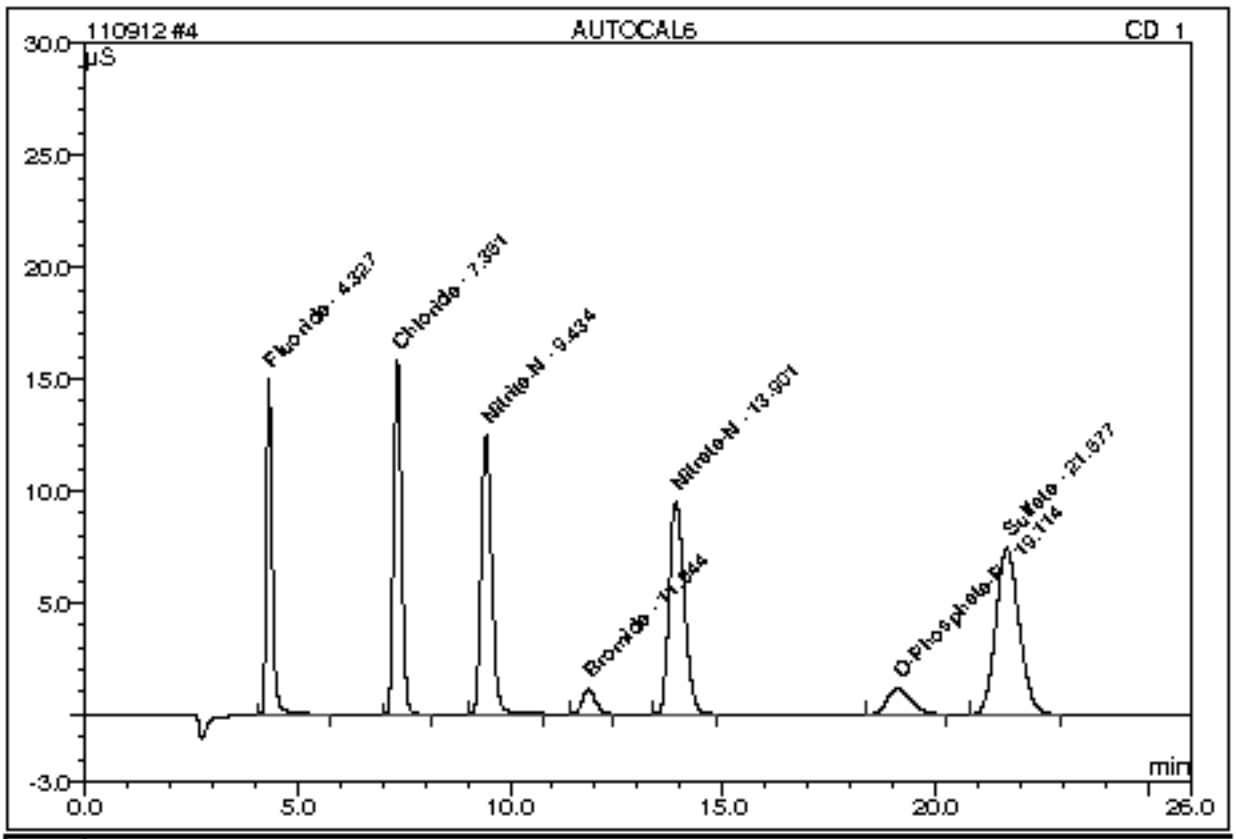
Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 13:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	10.0000	9.7365		5.12809	12.59
2	7.37	Chloride	20.0000	19.5160		7.47308	18.35
3	9.45	Nitrite-N	10.0000	9.7415		7.58982	18.63
4	11.84	Bromide	5.0000	5.7824		0.63781	1.57
5	13.86	Nitrate-N	10.0000	9.7535		8.54007	20.97
6	19.09	O-Phosphate-P	5.0000	5.8096		1.26200	3.10
7	21.70	Sulfate	40.0000	38.9896		10.10357	24.80
Total:				99.3290	0.000	40.734	100.00

4 AUTOCAL6

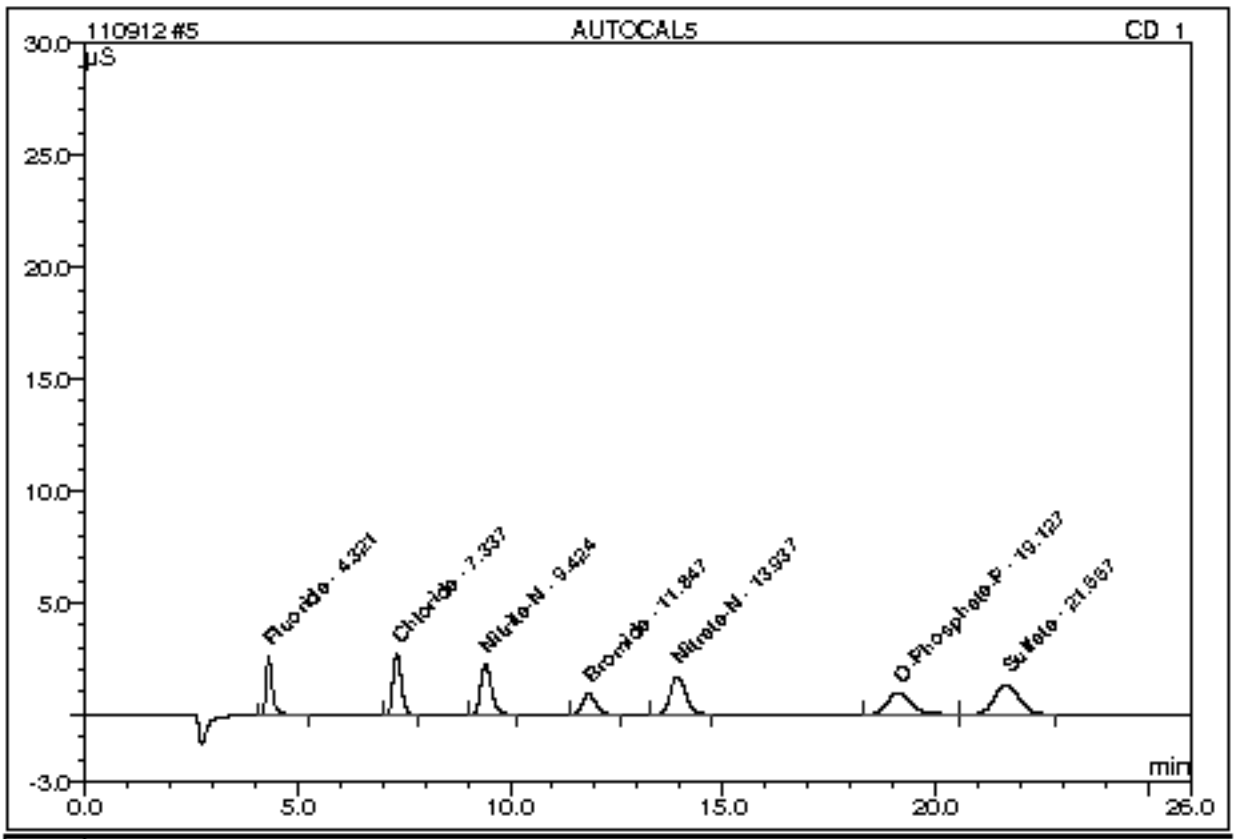
Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 14:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	5.0000	4.8790		2.47571	12.87
2	7.35	Chloride	10.0000	9.3264		3.39321	17.64
3	9.43	Nitrite-N	5.0000	4.8192		3.60367	18.74
4	11.84	Bromide	3.0000	3.0088		0.38295	1.99
5	13.90	Nitrate-N	5.0000	4.6983		3.91854	20.37
6	19.11	O-Phosphate-P	3.0000	2.9469		0.72995	3.80
7	21.68	Sulfate	20.0000	19.0612		4.72813	24.58
Total:				48.7398	0.000	19.232	100.00

5 AUTOCAL5

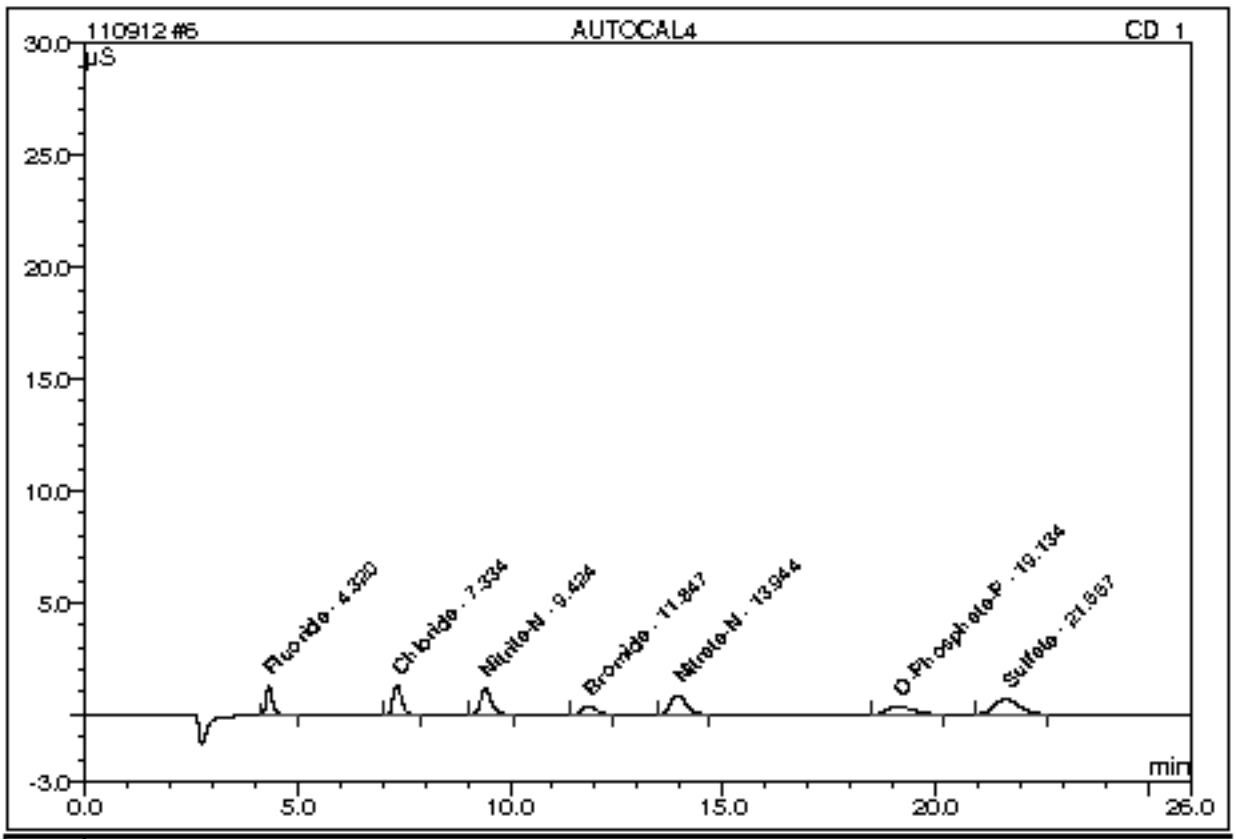
Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 14:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	1.0000	0.9357		0.45233	10.67
2	7.34	Chloride	2.0000	1.8409		0.60849	14.36
3	9.42	Nitrite-N	1.0000	0.9269		0.64979	15.33
4	11.85	Bromide	2.5000	2.5247		0.32216	7.60
5	13.94	Nitrate-N	1.0000	0.9204		0.70204	16.57
6	19.13	O-Phosphate-P	2.5000	2.5145		0.62281	14.70
7	21.66	Sulfate	4.0000	3.7829		0.88026	20.77
Total:				13.4462	0.000	4.238	100.00

6 AUTOCAL4

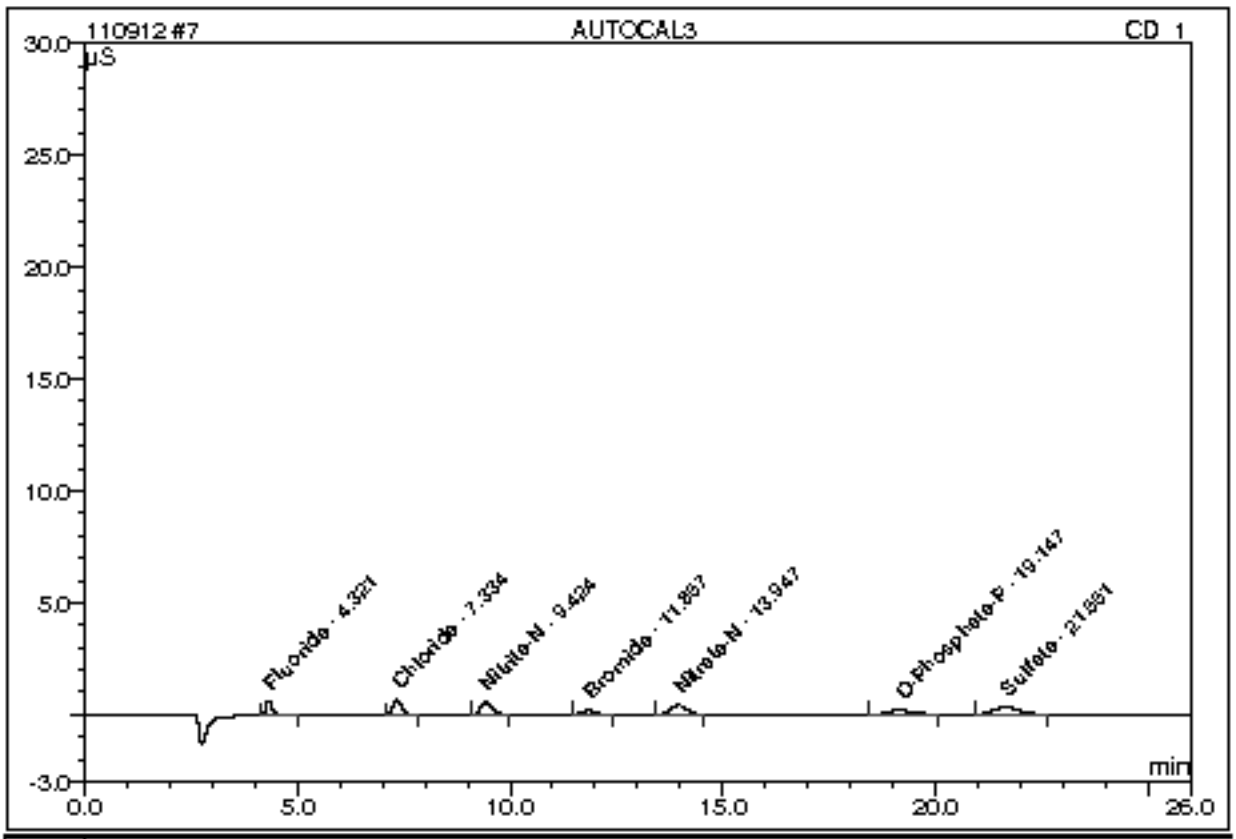
Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.5000	0.4900		0.21992	11.15
2	7.33	Chloride	1.0000	1.0193		0.29484	14.95
3	9.42	Nitrite-N	0.5000	0.5043		0.32403	16.43
4	11.85	Bromide	1.0000	0.9908		0.12636	6.41
5	13.94	Nitrate-N	0.5000	0.5166		0.35086	17.79
6	19.13	O-Phosphate-P	1.0000	0.9515		0.22473	11.39
7	21.66	Sulfate	2.0000	2.0308		0.43176	21.89
Total:				6.5033	0.000	1.972	100.00

7 AUTOCAL3

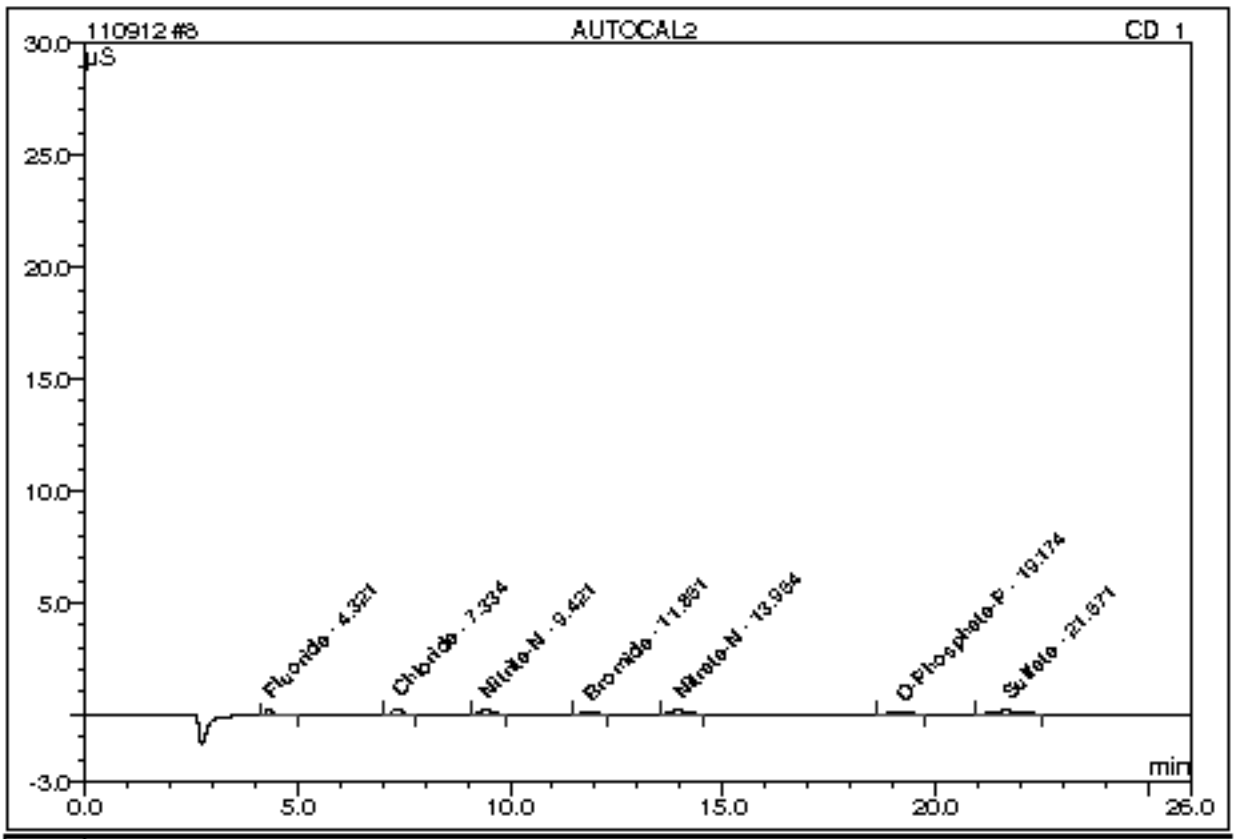
Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 15:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.2500	0.2892		0.11405	11.72
2	7.33	Chloride	0.5000	0.6441		0.14782	15.19
3	9.42	Nitrite-N	0.2500	0.2938		0.15930	16.37
4	11.86	Bromide	0.5000	0.4827		0.06081	6.25
5	13.95	Nitrate-N	0.2500	0.3149		0.17247	17.72
6	19.15	O-Phosphate-P	0.5000	0.4808		0.10482	10.77
7	21.65	Sulfate	1.0000	1.1938		0.21398	21.99
Total:				3.6993	0.000	0.973	100.00

8 AUTOCAL2

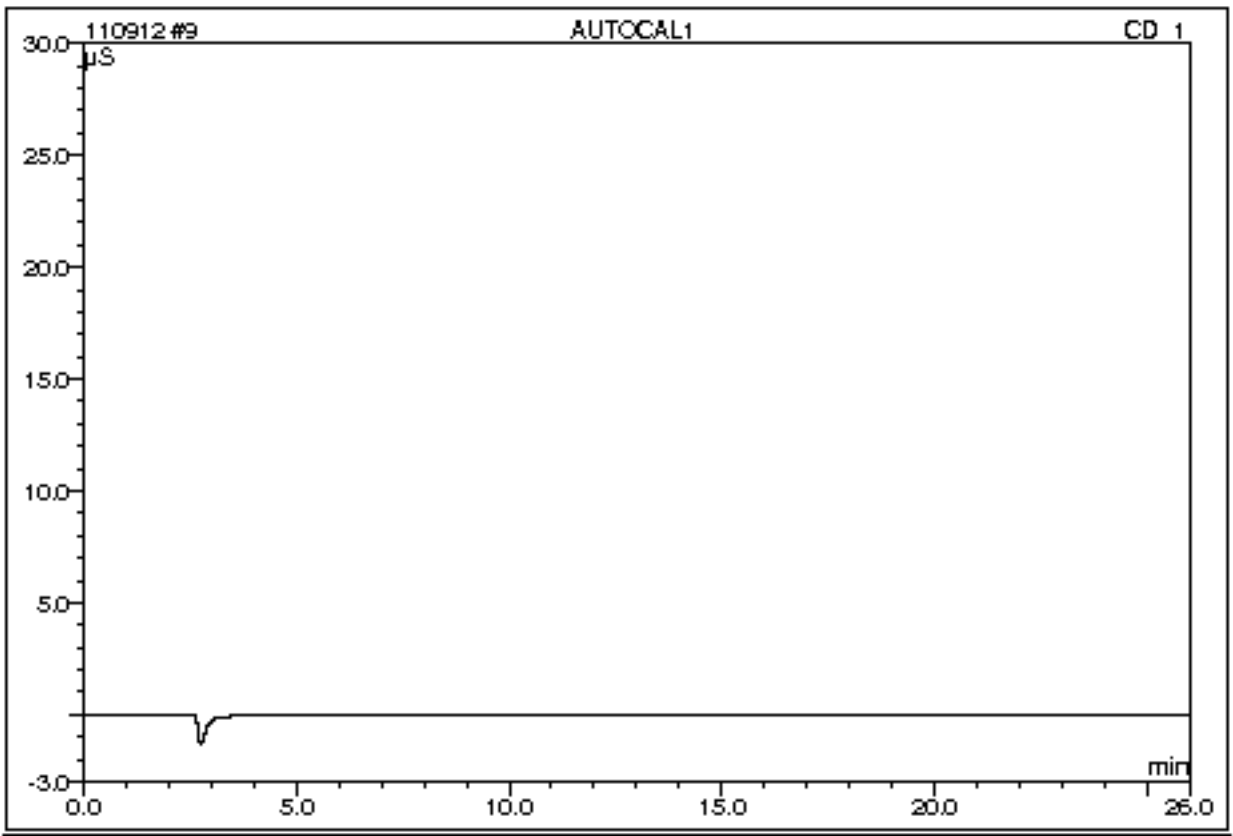
Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	0.1000	0.1501		0.04924	12.71
2	7.33	Chloride	0.2000	0.3674		0.06064	15.65
3	9.42	Nitrite-N	0.1000	0.1546		0.06431	16.60
4	11.85	Bromide	0.2000	0.1997		0.02457	6.34
5	13.95	Nitrate-N	0.1000	0.1748		0.06946	17.93
6	19.17	O-Phosphate-P	0.2000	0.1846		0.02820	7.28
7	21.67	Sulfate	0.4000	0.6434		0.09100	23.49
Total:				1.8748	0.000	0.387	100.00

9 AUTOCAL1

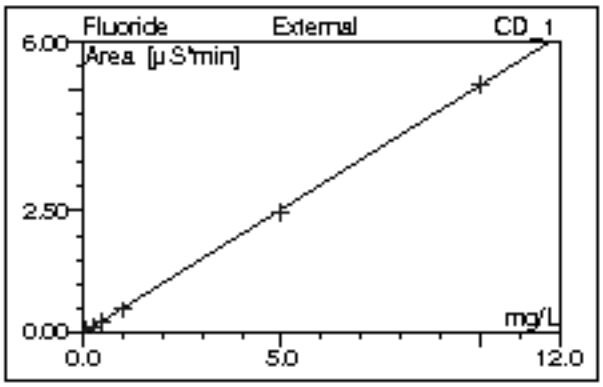
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056

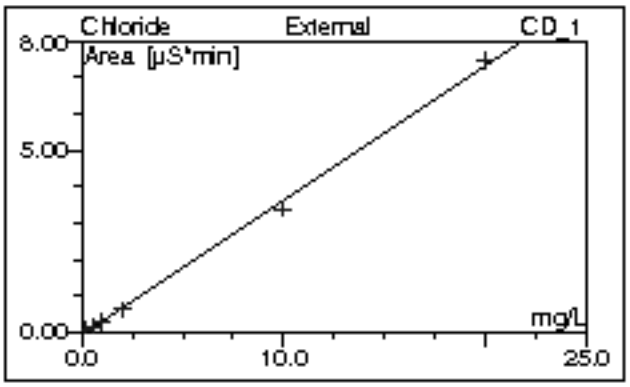


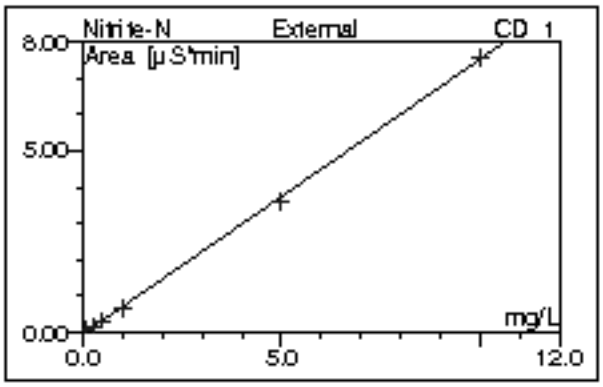
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

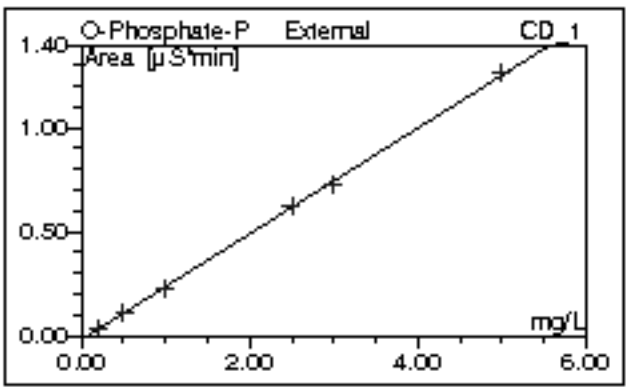
9 AUTOCAL1

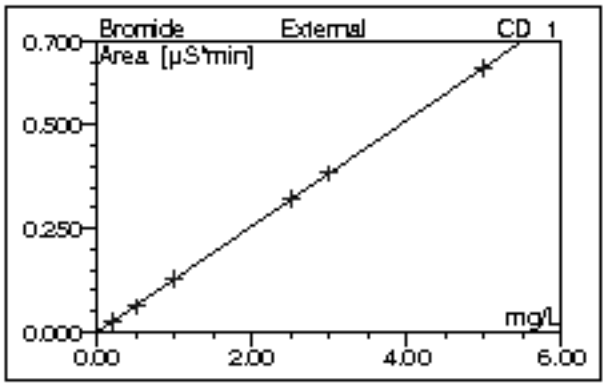
Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056

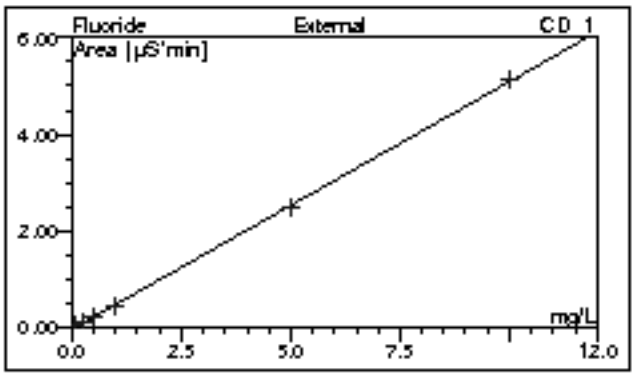


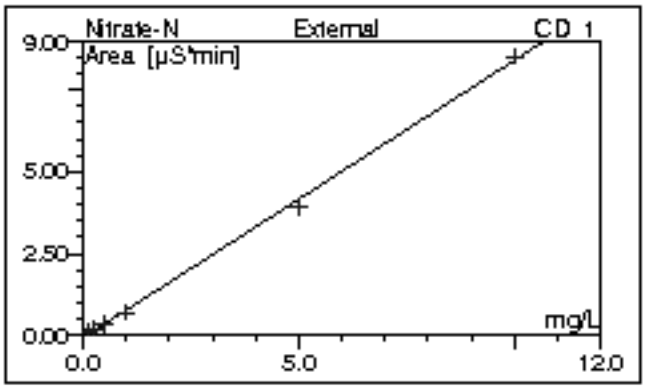


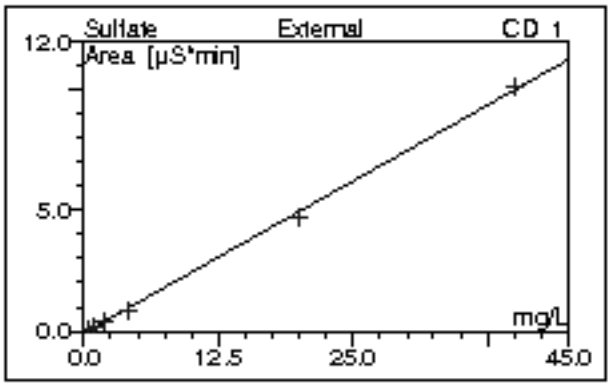












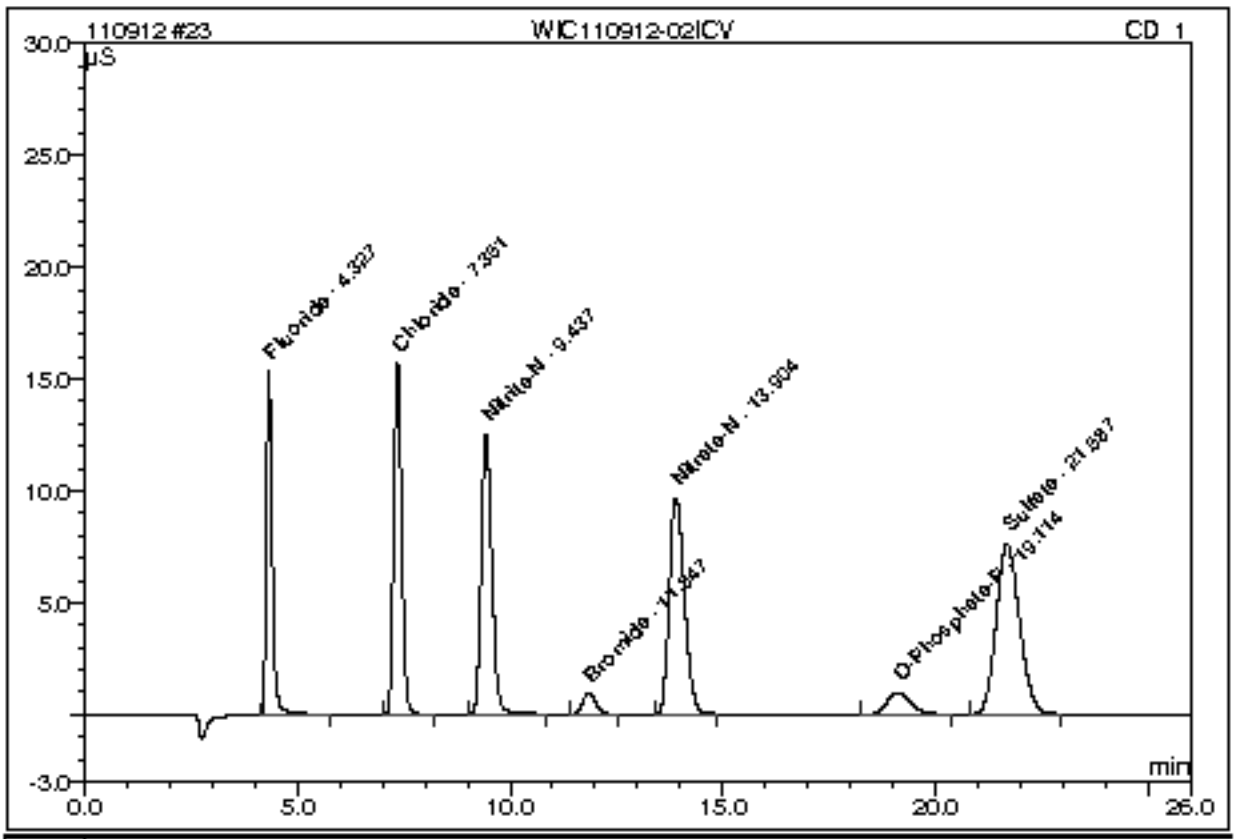
No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9692	-0.0277	0.5124	0.0000
n.a.	n.a.	Chloride	0LO11	99.8103	-0.0757	0.3712	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9408	-0.0528	0.7573	0.0000
n.a.	n.a.	Bromide	0LO11	99.9939	-0.0010	0.1280	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8465	-0.0790	0.8490	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9579	-0.0188	0.2544	0.0000
n.a.	n.a.	Sulfate	0LO11	99.9075	-0.0708	0.2514	0.0000
Average:				99.9180	-0.0465	0.4462	0.0000

This is runlog for Sequence 110912.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	09/12/11 12:45	1		110912	MAR1
BLK	09/12/11 13:13	1		110912	MAR1
ICAL-07	09/12/11 13:42	1		110912	MAR1
ICAL-06	09/12/11 14:11	1		110912	MAR1
ICAL-05	09/12/11 14:40	1		110912	MAR1
ICAL-04	09/12/11 15:09	1		110912	MAR1
ICAL-03	09/12/11 15:38	1		110912	MAR1
ICAL-02	09/12/11 16:07	1		110912	MAR1
ICAL-01	09/12/11 16:36	1		110912	MAR1
ICV	09/12/11 17:05	1		110912	MAR1
ICB	09/12/11 17:33	1		110912	MAR1

23 WIC110912-02ICV

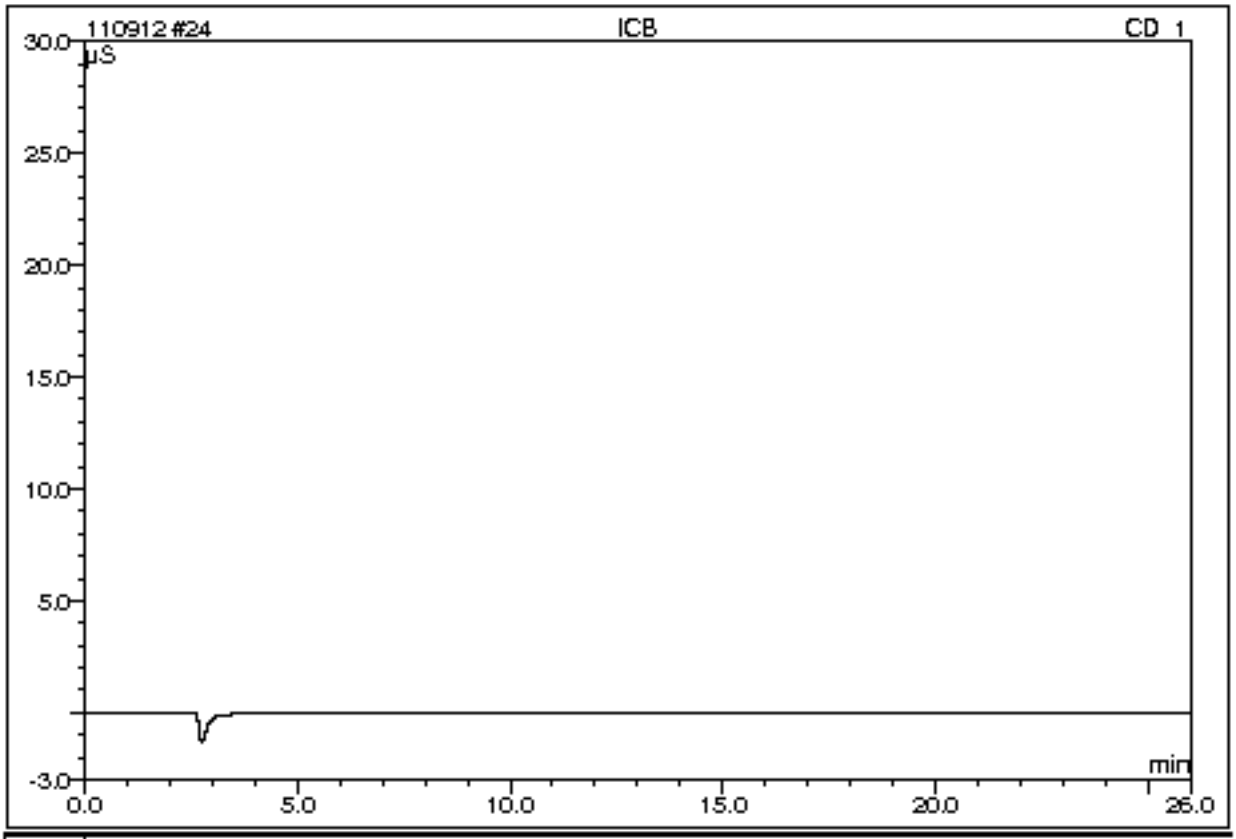
Sample Name:	WIC110912-02ICV	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 17:05	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.33	Fluoride	n.a.	4.9780		2.52279	13.02
2	7.35	Chloride	n.a.	9.3703		3.40217	17.56
3	9.44	Nitrite-N	n.a.	4.8571		3.62546	18.71
4	11.85	Bromide	n.a.	2.5399		0.32411	1.67
5	13.90	Nitrate-N	n.a.	4.8129		4.00734	20.68
6	19.11	O-Phosphate-P	n.a.	2.5278		0.62436	3.22
7	21.69	Sulfate	n.a.	19.6566		4.87081	25.14
Total:				48.7426	0.000	19.377	100.00

24 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	110912an	*Sample Amount:*	1.0000
Recording Time:	9/12/2011 17:33	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

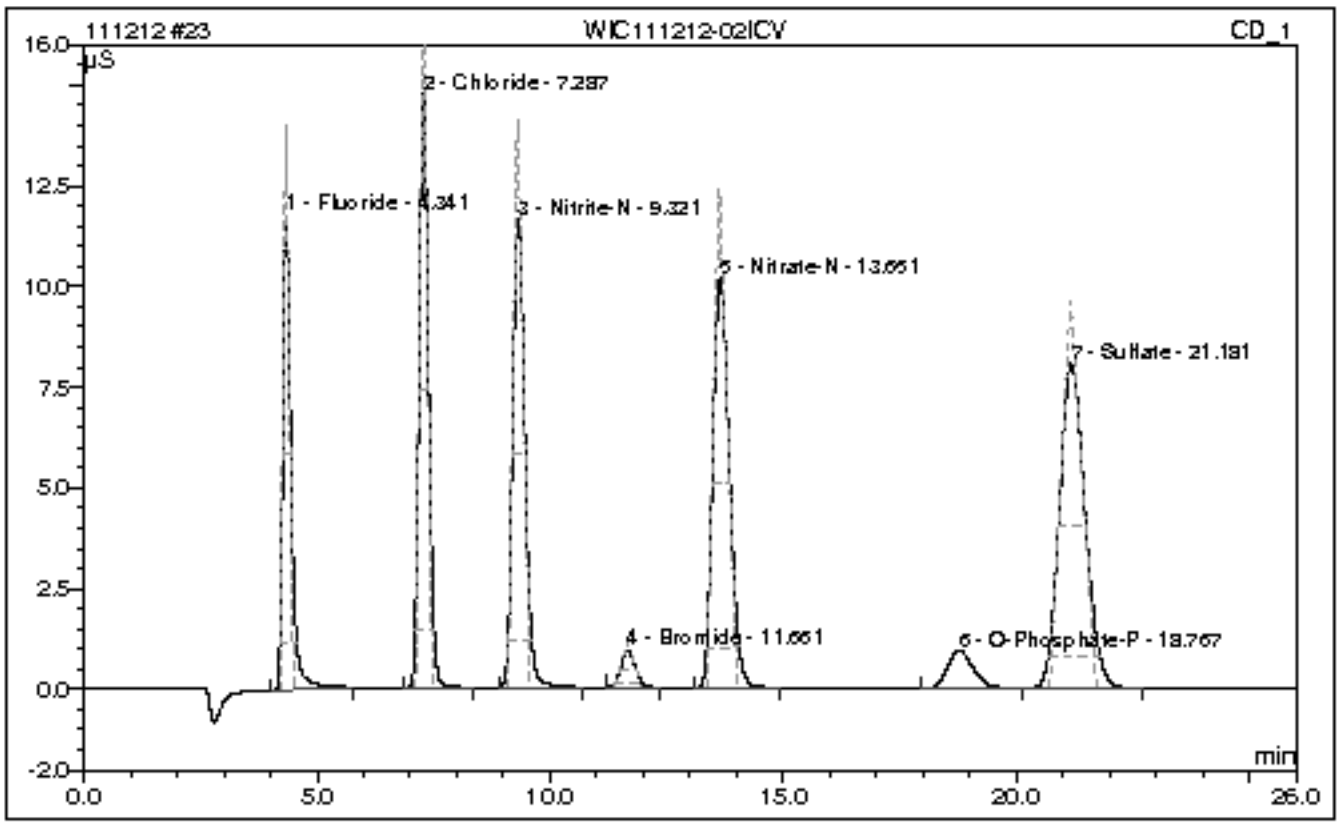
This is runlog for Sequence 111212.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/12/11 08:32		1	111212	MAR1
BLK	12/12/11 09:00		1	111212	MAR1
ICV	12/12/11 09:29		1	111212	MAR1
ICB	12/12/11 09:58		1	111212	MAR1
291441006	12/12/11 10:27	1167411	20	111212	MAR1
CVH	12/12/11 10:56		1	111212	MAR1
CCB	12/12/11 11:25		1	111212	MAR1
1202553735	12/12/11 11:54	1168755	1	111212	MAR1
1202553738	12/12/11 12:23	1168755	1	111212	MAR1
291647002	12/12/11 12:51	1168755	1	111212	MAR1
1202553736	12/12/11 13:20	1168755	1	111212	MAR1
1202553737	12/12/11 13:49	1168755	1	111212	MAR1
CCV	12/12/11 14:18		1	111212	MAR1
CCB	12/12/11 14:47		1	111212	MAR1
1202555250	12/12/11 15:16	1169336	1	111212	MAR1
1202555253	12/12/11 15:45	1169336	1	111212	MAR1
291687001	12/12/11 16:14	1169336	1	111212	MAR1
291689001	12/12/11 16:43	1169336	1	111212	MAR1
1202555251	12/12/11 17:12	1169336	1	111212	MAR1
1202555252	12/12/11 17:41	1169336	1	111212	MAR1
291689002	12/12/11 18:09	1169336	1	111212	MAR1
CVH	12/12/11 18:38		1	111212	MAR1
CCB	12/12/11 19:07		1	111212	MAR1
1202553327	12/12/11 19:36	1168547	1	111212	MAR1
1202553330	12/12/11 20:05	1168547	1	111212	MAR1
291607001	12/12/11 20:34	1168547	1	111212	MAR1
1202553328	12/12/11 21:03	1168547	1	111212	MAR1
1202553329	12/12/11 21:32	1168547	1	111212	MAR1

CCV	12/12/11 22:01	1	111212	MAR1
CCB	12/12/11 22:30	1	111212	MAR1

23 WIC111212-02ICV

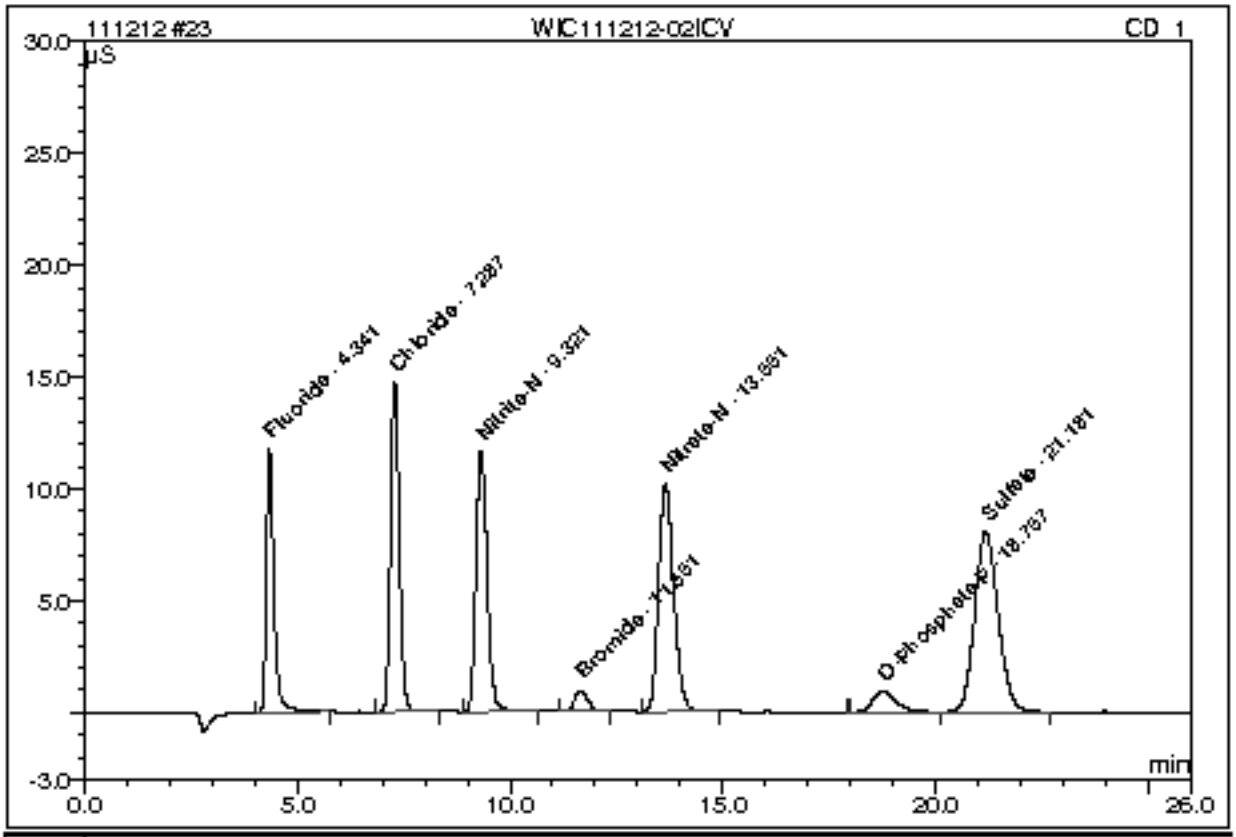
Sample Name:	WIC111212-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056



No.	Ret.Time min	Peakname min	Ret. Dev. (%) Lim: ± 10%	Type	Resol. (EP)	Asym. (EP)	Plates (EP)
1	4.341	Fluoride	0.5	BMB	8.76	1.44	3313
2	7.287	Chloride	-0.2	BMB	4.80	1.14	6115
3	9.321	Nitrite-N	-0.6	BMB	4.44	1.18	6117
4	11.661	Bromide	-1.2	BMB	3.23	1.16	6459
5	13.651	Nitrate-N	-1.6	BMB	9.09	1.23	6934
6	18.767	O-Phosphate-P	-1.1	Ru	n.a.	n.a.	n.a.
7	21.181	Sulfate	-1.3	BMB	n.a.	1.14	7092
Average:			-0.779		6.06	1.21	6005

23 WIC111212-02ICV

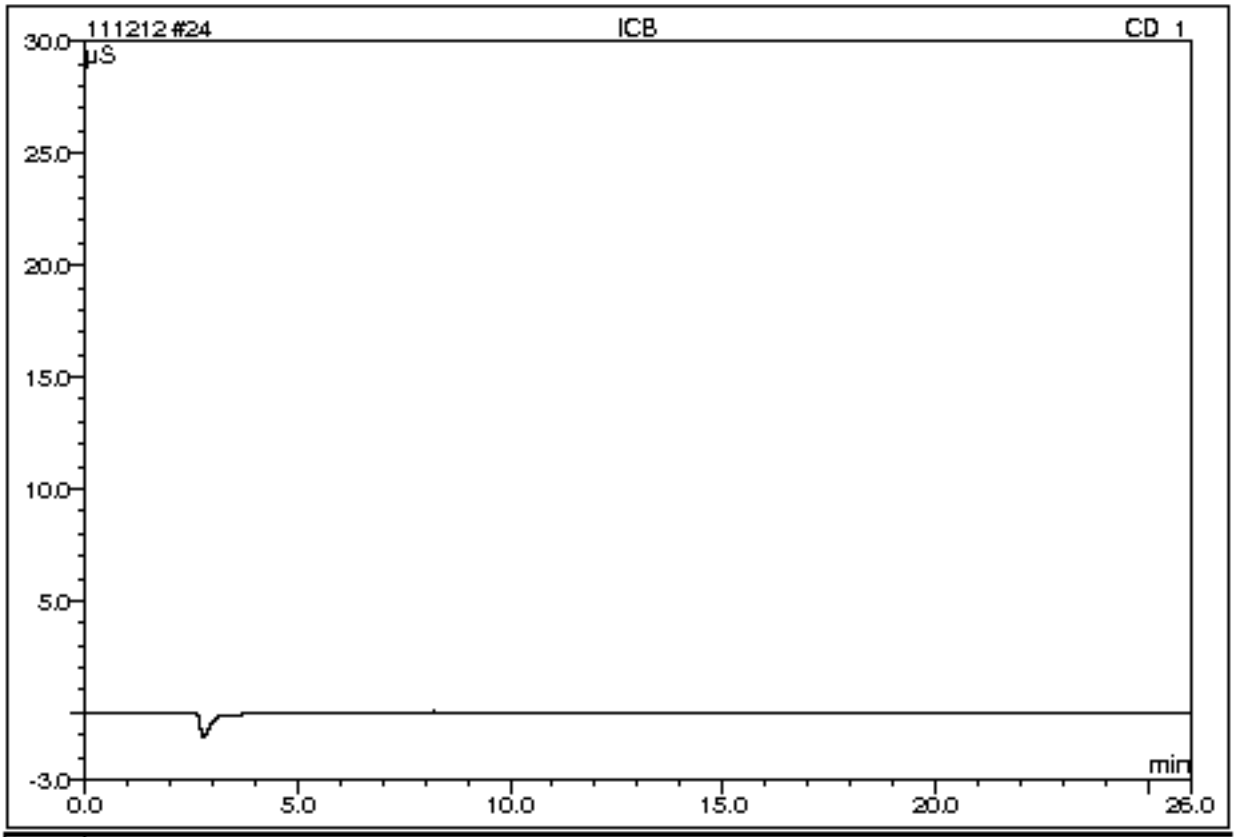
Sample Name:	WIC111212-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.7978		2.45300	12.40
2	7.29	Chloride	n.a.	9.6508		3.51614	17.77
3	9.32	Nitrite-N	n.a.	4.7743		3.56017	17.99
4	11.66	Bromide	n.a.	2.5520		0.33600	1.70
5	13.65	Nitrate-N	n.a.	5.0393		4.20211	21.23
6	18.77	O-Phosphate-P	n.a.	2.3224		0.59035	2.98
7	21.18	Sulfate	n.a.	20.5255		5.13140	25.93
Total:				49.6620	0.000	19.789	100.00

24 ICB

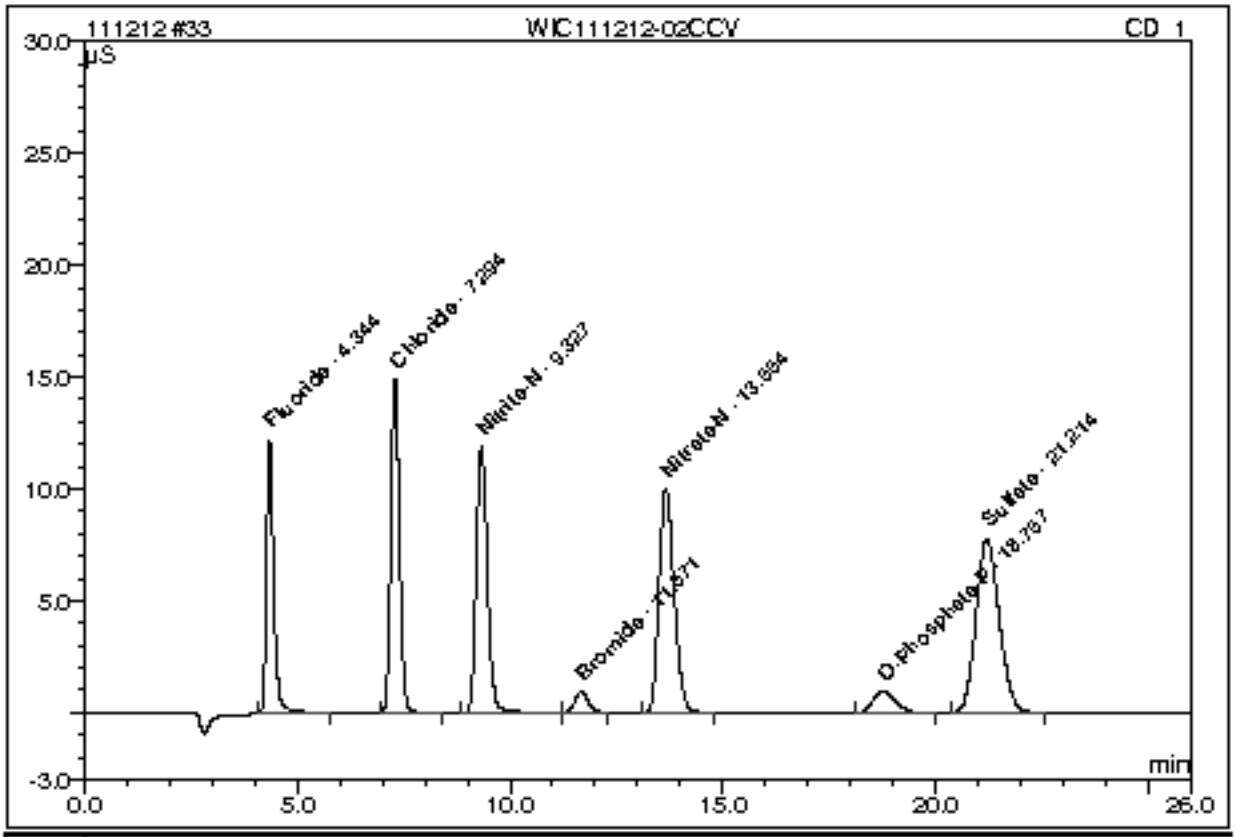
Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 9:58	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

33 WIC111212-02CCV

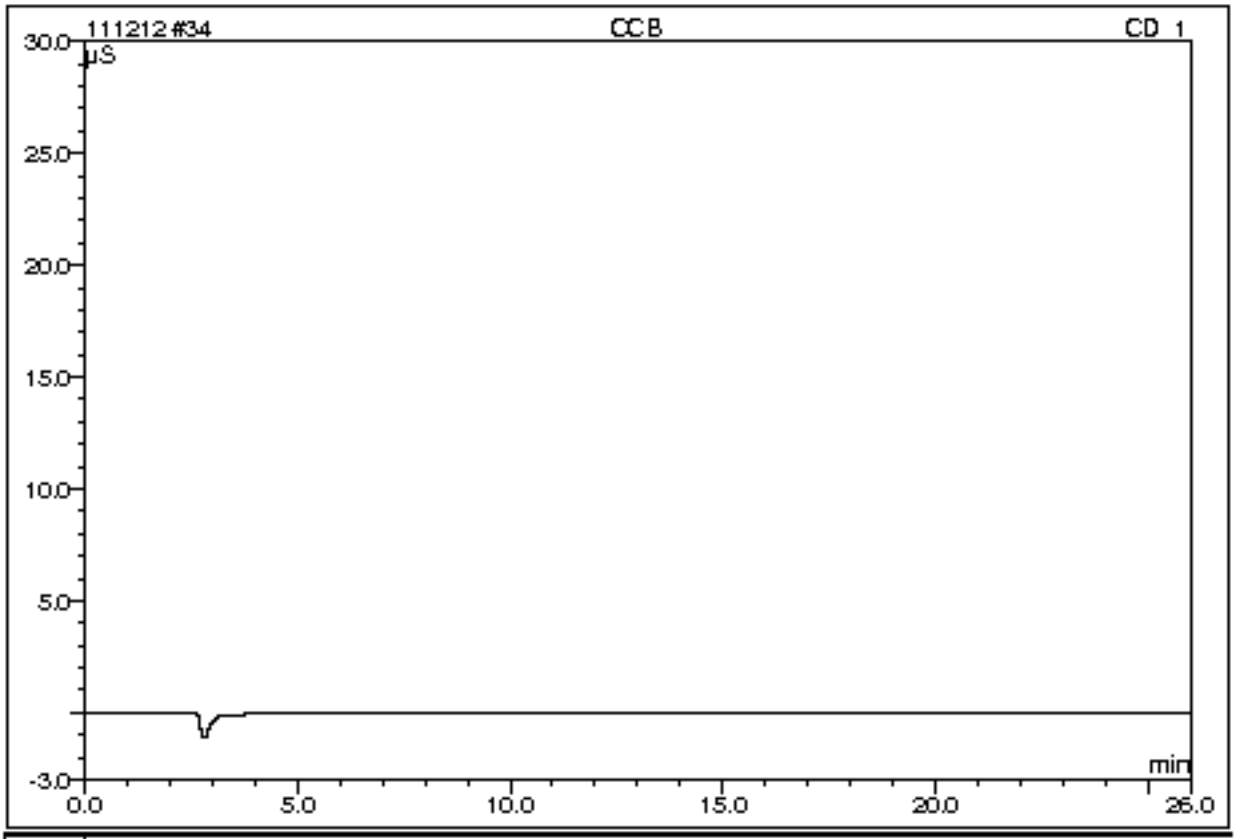
Sample Name:	WIC111212-02CCV	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 14:18	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.8109		2.45979	12.55
2	7.29	Chloride	n.a.	9.6946		3.53244	18.02
3	9.33	Nitrite-N	n.a.	4.8571		3.62281	18.48
4	11.67	Bromide	n.a.	2.5140		0.33099	1.69
5	13.66	Nitrate-N	n.a.	4.9442		4.12148	21.02
6	18.77	O-Phosphate-P	n.a.	2.3166		0.58888	3.00
7	21.21	Sulfate	n.a.	19.8029		4.94826	25.24
Total:				48.9403	0.000	19.605	100.00

34 CCB

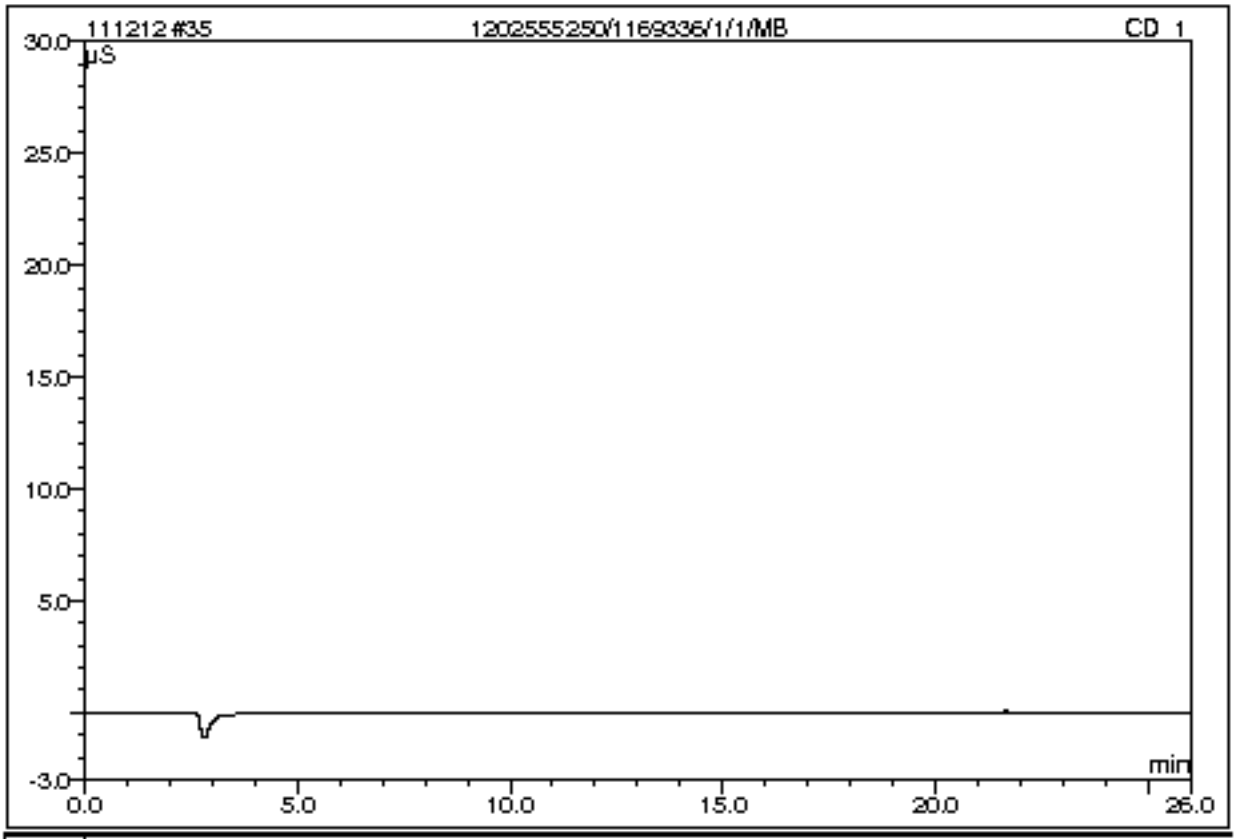
Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 14:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 1202555250/1169336/1/1/MB

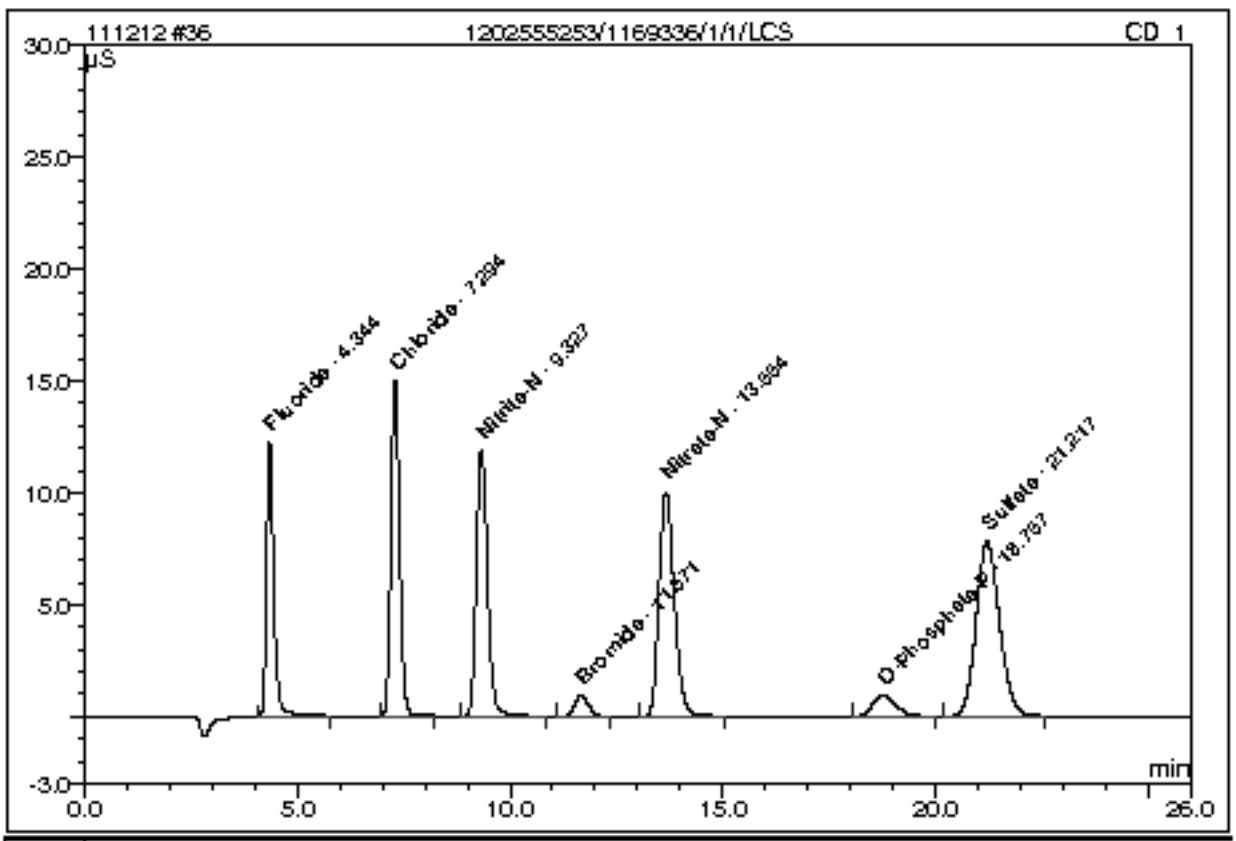
Sample Name:	1202555250/1169336/1/1/MB	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 15:16	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

36 1202555253/1169336/1/1/LCS

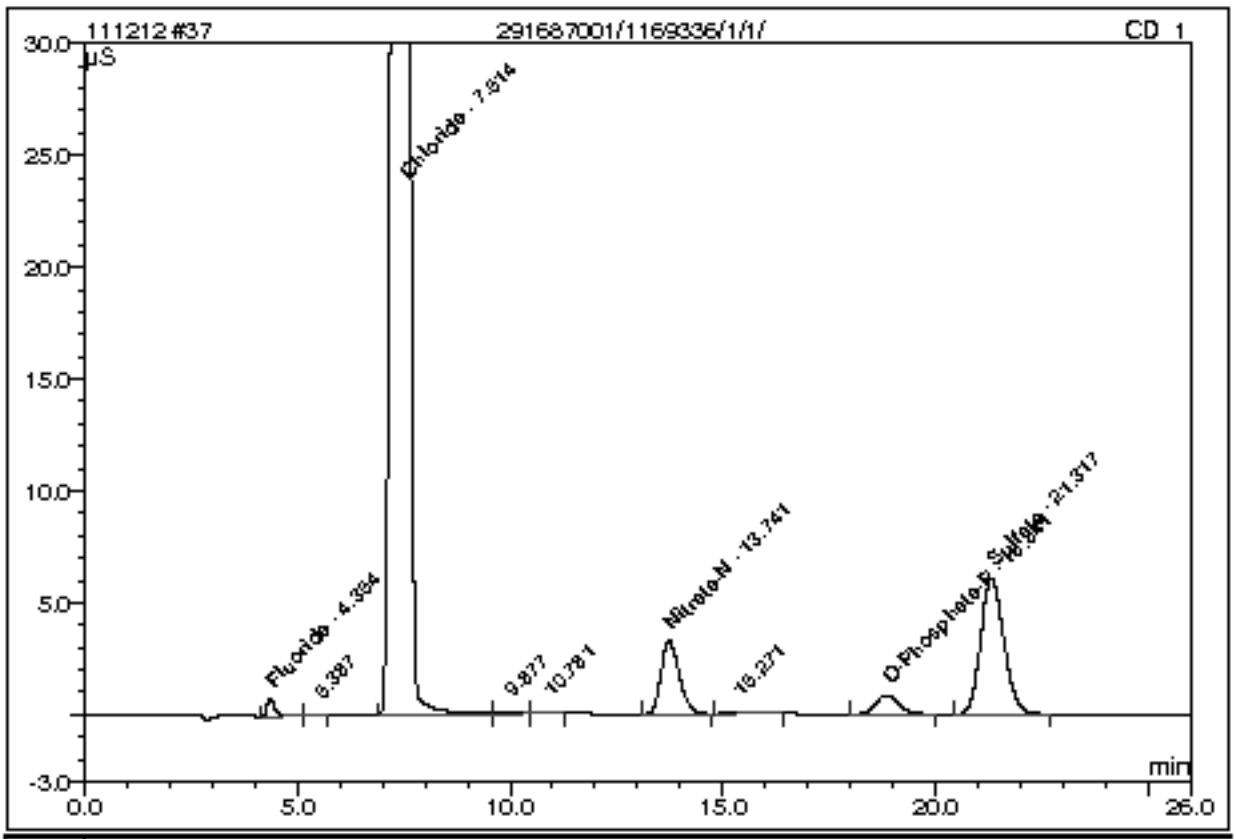
Sample Name:	1202555253/1169336/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 15:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	n.a.	4.8234		2.46625	12.57
2	7.29	Chloride	n.a.	9.6628		3.52062	17.95
3	9.33	Nitrite-N	n.a.	4.8424		3.61169	18.41
4	11.67	Bromide	n.a.	2.5442		0.33496	1.71
5	13.66	Nitrate-N	n.a.	4.9629		4.13739	21.09
6	18.77	O-Phosphate-P	n.a.	2.3153		0.58854	3.00
7	21.22	Sulfate	n.a.	19.8349		4.95638	25.27
Total:				48.9860	0.000	19.616	100.00

37 291687001/1169336/1/1/

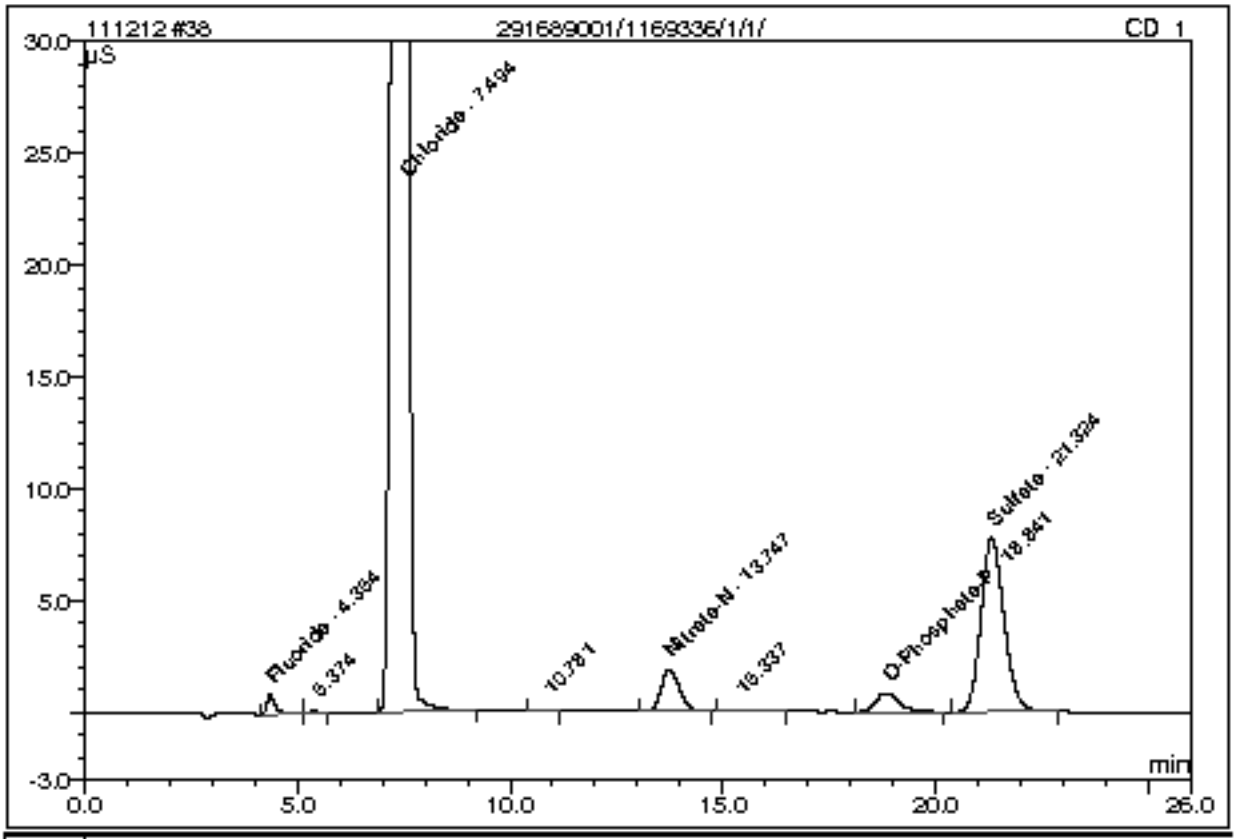
Sample Name:	291687001/1169336/1/1/	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 16:14	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.4663		0.21508	0.27
3	7.51	Chloride	n.a.	198.7720		73.81657	92.07
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
6	13.74	Nitrate-N	n.a.	1.9894		1.61673	2.02
8	18.84	O-Phosphate-P	n.a.	2.1179		0.53795	0.67
9	21.32	Sulfate	n.a.	15.4229		3.83813	4.79
Total:				218.7684	0.000	80.024	99.81

38 291689001/1169336/1/1/

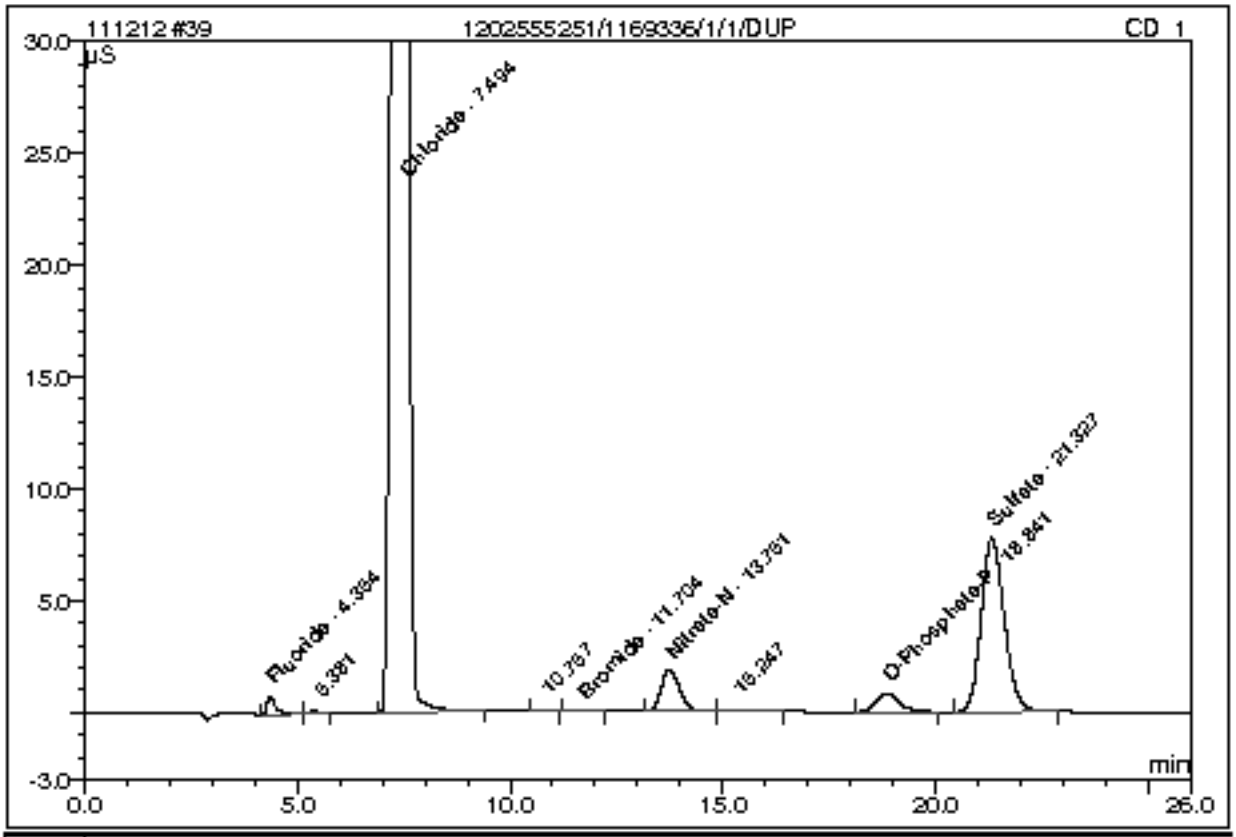
Sample Name:	291689001/1169336/1/1/	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 16:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.4745		0.21931	0.30
3	7.49	Chloride	n.a.	176.4215		65.50843	90.73
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
5	13.75	Nitrate-N	n.a.	1.1814		0.93178	1.29
7	18.84	O-Phosphate-P	n.a.	2.0681		0.52517	0.73
8	21.32	Sulfate	n.a.	19.6486		4.90916	6.80
Total:				199.7941	0.000	72.094	99.85

39 1202555251/1169336/1/1/DUP

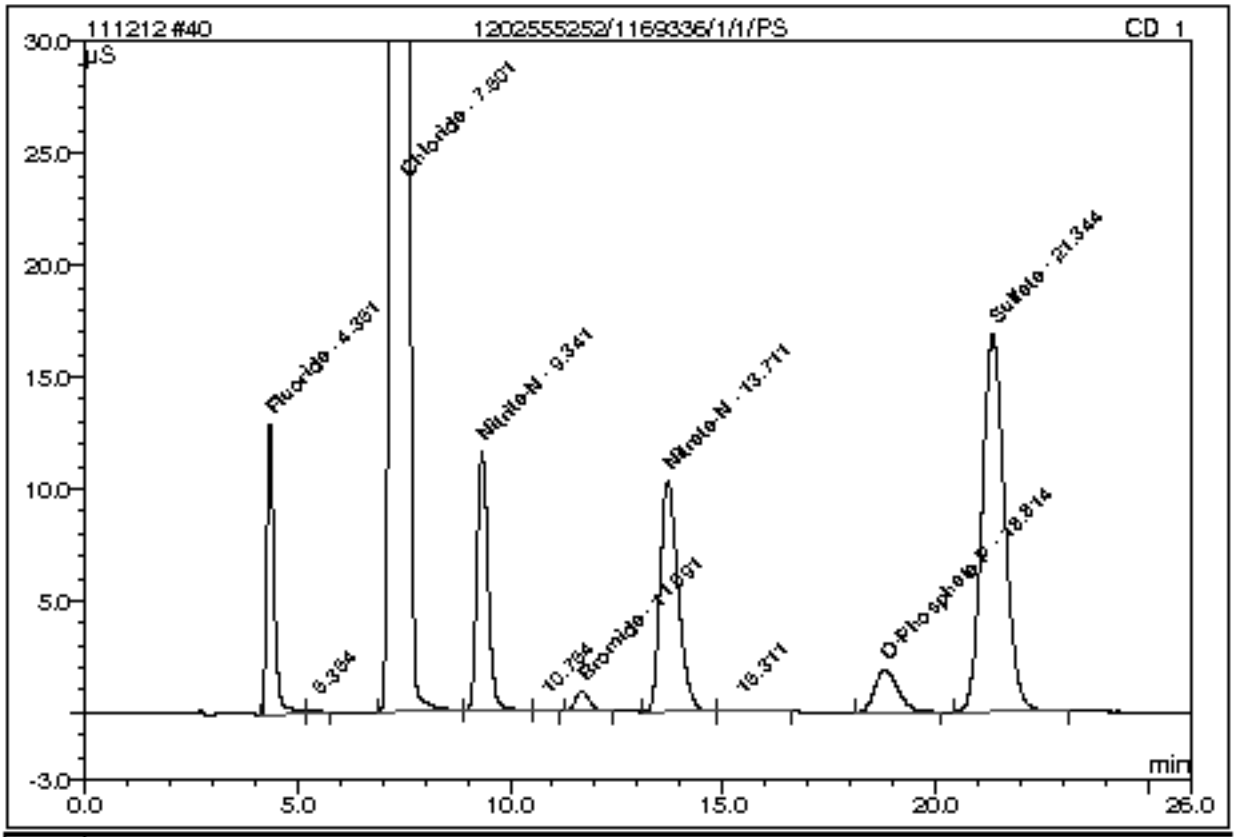
Sample Name:	1202555251/1169336/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 17:12	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	0.5212		0.24345	0.34
3	7.49	Chloride	n.a.	176.4547		65.52077	90.70
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
5	11.70	Bromide	n.a.	0.1057		0.01362	0.02
6	13.75	Nitrate-N	n.a.	1.1666		0.91923	1.27
8	18.84	O-Phosphate-P	n.a.	2.0645		0.52425	0.73
9	21.33	Sulfate	n.a.	19.6093		4.89918	6.78
Total:				199.9219	0.000	72.121	99.84

40 1202555252/1169336/1/1/PS

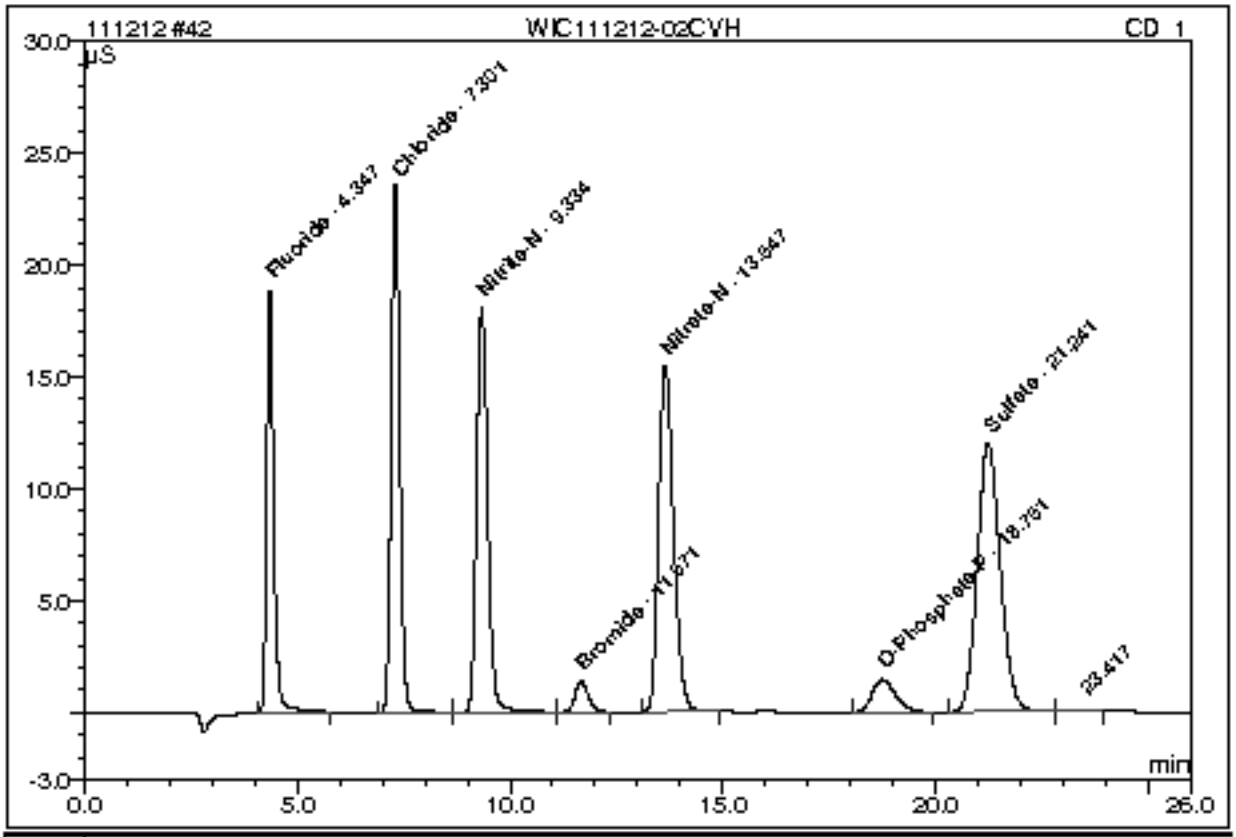
Sample Name:	1202555252/1169336/1/1/PS	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 17:41	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	5.1594		2.63983	2.86
3	7.50	Chloride	n.a.	186.3652		69.20472	74.89
4	9.34	Nitrite-N	n.a.	4.6981		3.50254	3.79
6	11.69	Bromide	n.a.	2.5326		0.33343	0.36
7	13.71	Nitrate-N	n.a.	6.0147		5.02895	5.44
9	18.81	O-Phosphate-P	n.a.	4.6678		1.19160	1.29
10	21.34	Sulfate	n.a.	41.1768		10.36555	11.22
Total:				250.6146	0.000	92.267	99.85

42 WIC111212-02CVH

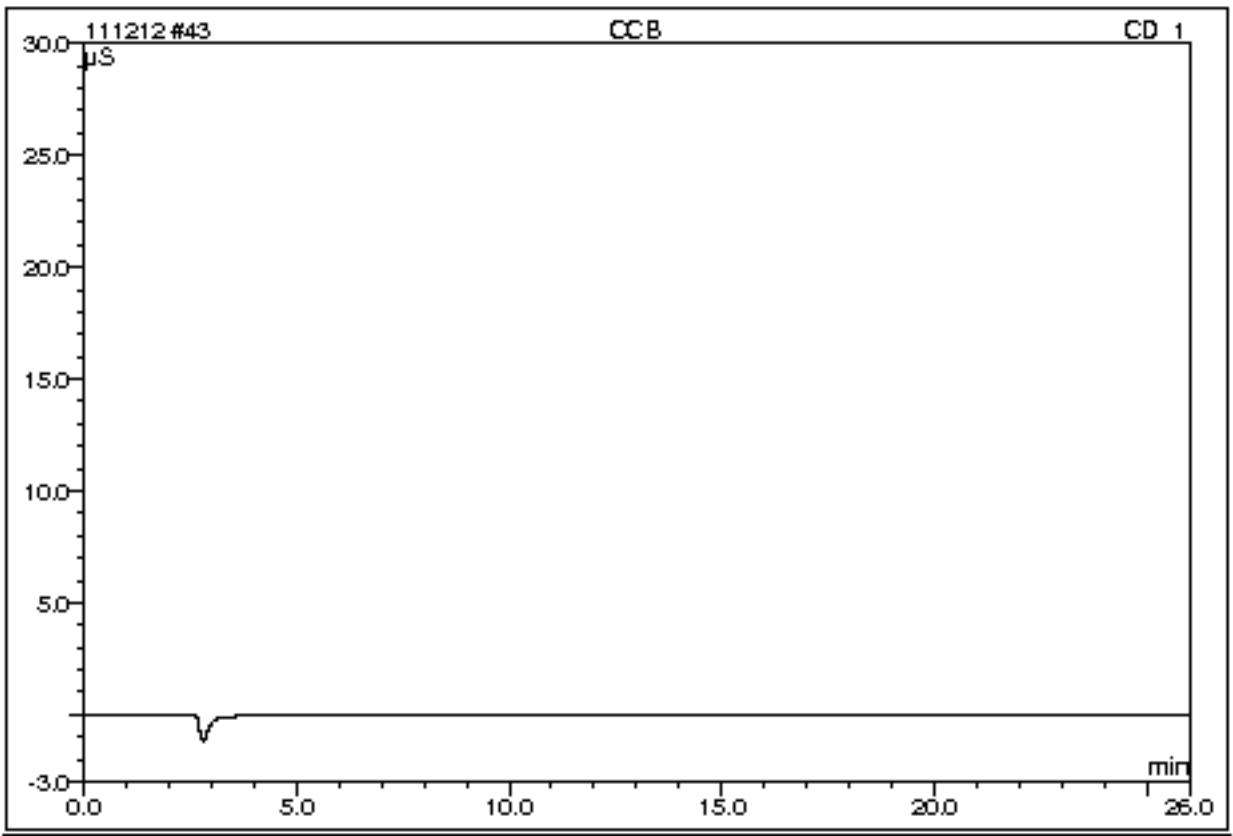
Sample Name:	WIC111212-02CVH	*Injection Volume:*	50.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 18:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	7.2479		3.71890	12.42
2	7.30	Chloride	n.a.	14.9036		5.46873	18.26
3	9.33	Nitrite-N	n.a.	7.3149		5.48178	18.30
4	11.67	Bromide	n.a.	3.6604		0.48205	1.61
5	13.65	Nitrate-N	n.a.	7.5531		6.33301	21.14
6	18.75	O-Phosphate-P	n.a.	3.5703		0.91025	3.04
7	21.24	Sulfate	n.a.	30.0441		7.54391	25.19
Total:				74.2942	0.000	29.939	99.96

43 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/12/2011 19:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

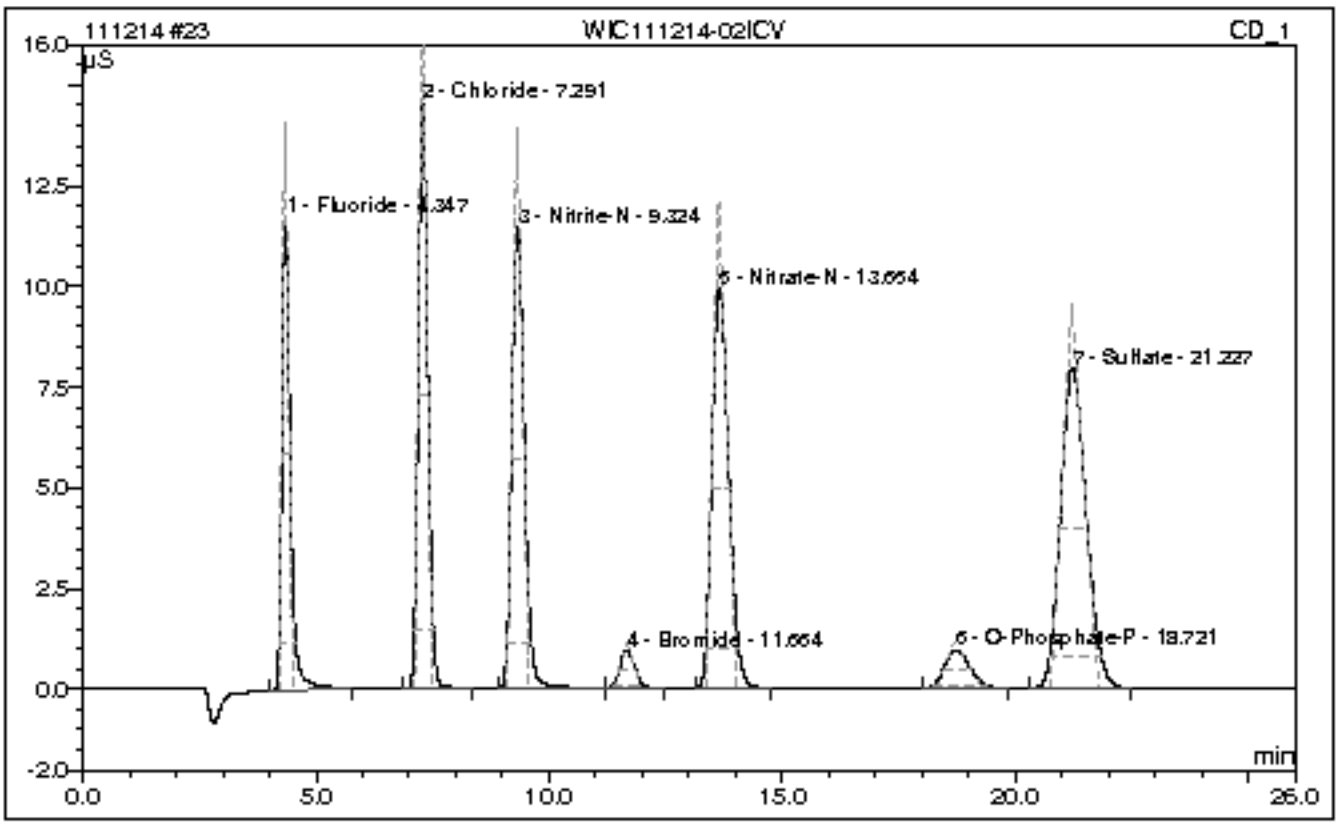
This is runlog for Sequence 111214.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/14/11 09:58		1	111214	MAR1
BLK	12/14/11 10:26		1	111214	MAR1
ICV	12/14/11 10:55		1	111214	MAR1
ICB	12/14/11 11:24		1	111214	MAR1
291687001	12/14/11 11:53	1169336	20	111214	MAR1
291689001	12/14/11 12:22	1169336	10	111214	MAR1
1202555251	12/14/11 12:51	1169336	10	111214	MAR1
1202555252	12/14/11 13:20	1169336	10	111214	MAR1
292033008	12/14/11 13:49	1170476	1	111214	MAR1
292033013	12/14/11 14:18	1170476	1	111214	MAR1
292033005	12/14/11 14:46	1170476	1	111214	MAR1
1202558169	12/14/11 15:15	1170476	1	111214	MAR1
1202558170	12/14/11 15:44	1170476	1	111214	MAR1
CVH	12/14/11 16:13		1	111214	MAR1
CCB	12/14/11 16:42		1	111214	MAR1
1202558168	12/14/11 17:11	1170476	1	111214	MAR1
1202558171	12/14/11 17:40	1170476	1	111214	MAR1
291607001	12/14/11 18:09	1168547	20	111214	MAR1
1202553328	12/14/11 18:38	1168547	20	111214	MAR1
1202553329	12/14/11 19:07	1168547	2	111214	MAR1
CCV	12/14/11 19:35		1	111214	MAR1
CCB	12/14/11 20:04		1	111214	MAR1
1202553956	12/14/11 20:33	1168853	1	111214	MAR1
1202553959	12/14/11 21:02	1168853	1	111214	MAR1
291725001	12/14/11 21:31	1168853	1	111214	MAR1
1202553957	12/14/11 22:00	1168853	1	111214	MAR1
1202553958	12/14/11 22:29	1168853	1	111214	MAR1
CVH	12/14/11 22:58		1	111214	MAR1

CCB	12/14/11 23:27		1	111214	MAR1
1202555046	12/14/11 23:56	1169252	1	111214	MAR1

23 WIC111214-02ICV

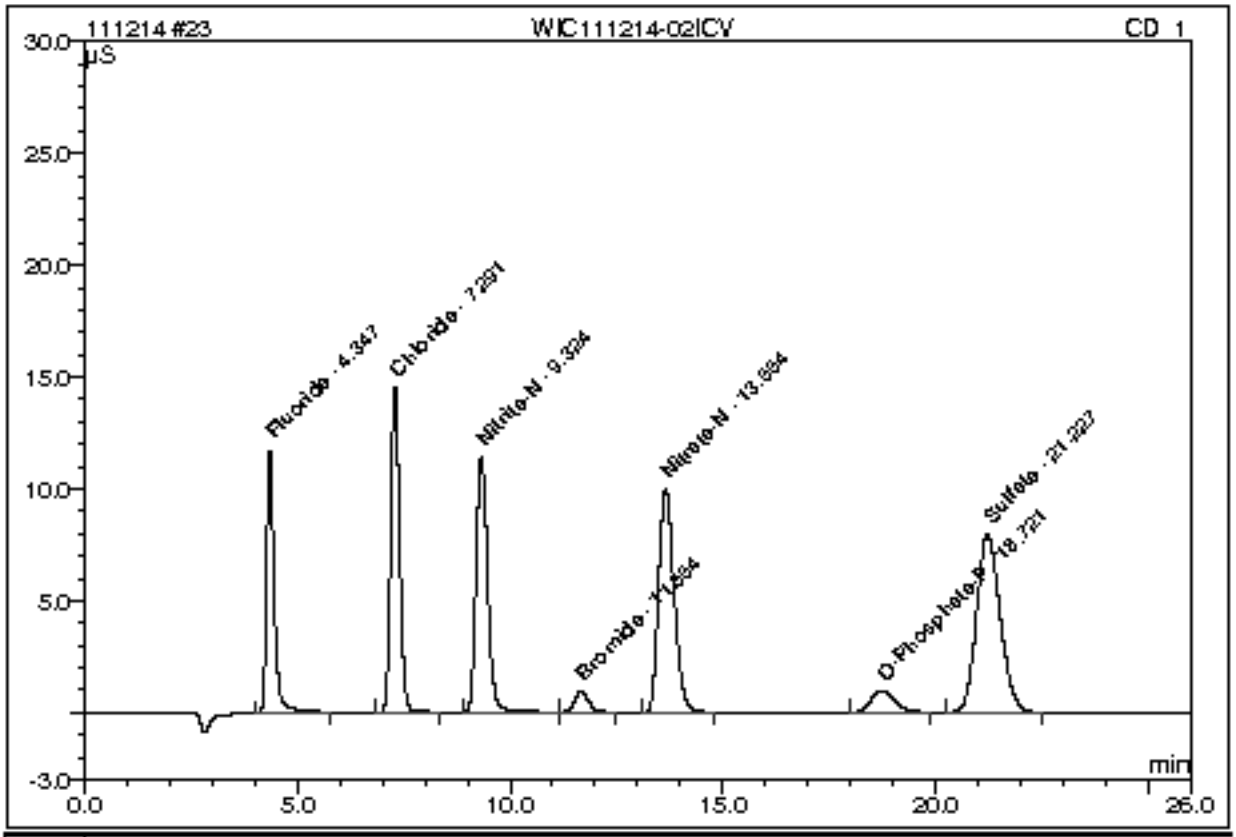
Sample Name:	WIC111214-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 10:55	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-003593;GLGCE086;300;9056



No.	Ret.Time min	Peakname min	Ret. Dev. (%) Lim: ± 10%	Type	Resol. (EP)	Asym. (EP)	Plates (EP)
1	4.347	Fluoride	0.7	BMB	8.63	1.40	3255
2	7.291	Chloride	-0.1	BMB	4.72	1.15	5921
3	9.324	Nitrite-N	-0.6	BM	4.35	1.19	5895
4	11.664	Bromide	-1.2	MB	3.16	1.17	6170
5	13.654	Nitrate-N	-1.6	BMB	6.02	1.24	6653
6	18.721	O-Phosphate-P	-1.3	BMB	2.47	1.25	5423
7	21.227	Sulfate	-1.1	BMB	n.a.	1.14	6919
Average:			-0.742		4.89	1.22	5748

23 WIC111214-02ICV

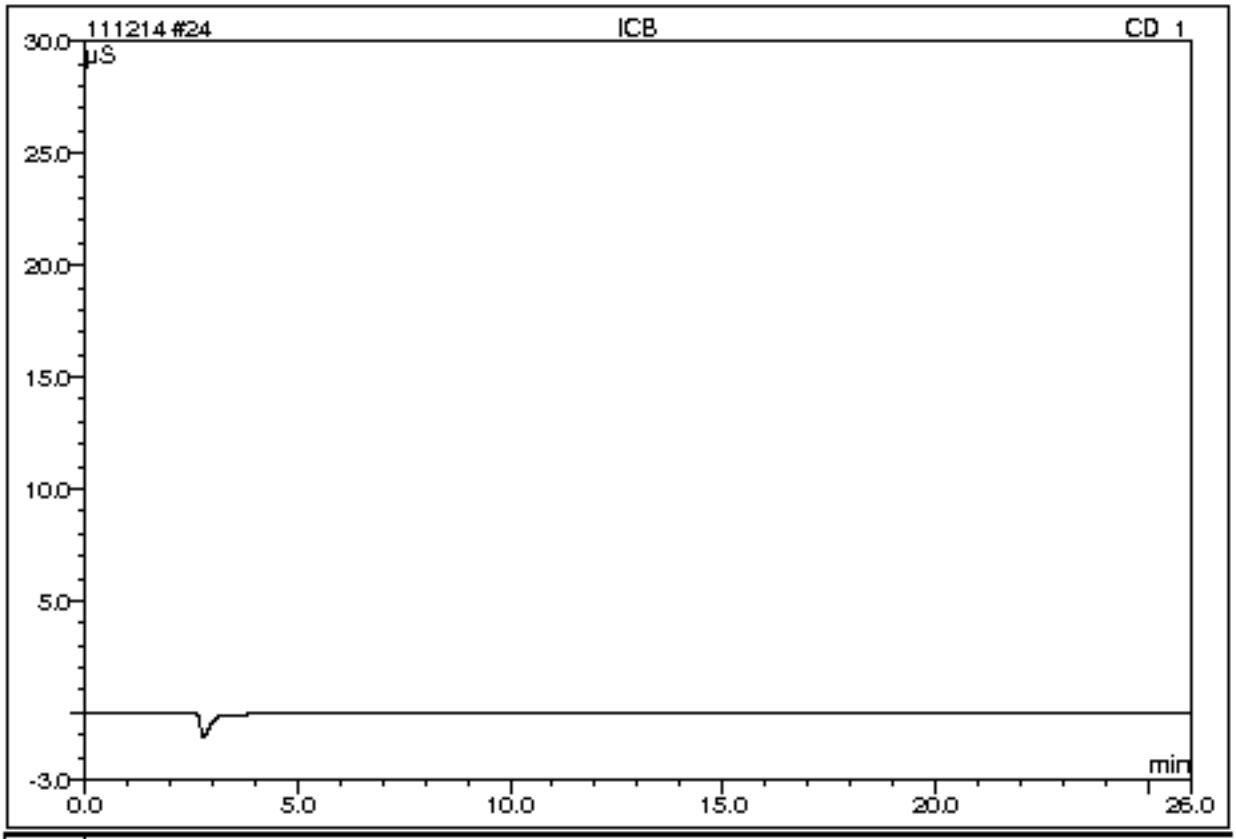
Sample Name:	WIC111214-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 10:55	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.8203		2.46466	12.43
2	7.29	Chloride	n.a.	9.6495		3.51567	17.72
3	9.32	Nitrite-N	n.a.	4.8041		3.58269	18.06
4	11.66	Bromide	n.a.	2.6485		0.34870	1.76
5	13.65	Nitrate-N	n.a.	5.0192		4.18509	21.10
6	18.72	O-Phosphate-P	n.a.	2.3989		0.60997	3.08
7	21.23	Sulfate	n.a.	20.5124		5.12809	25.85
Total:				49.8529	0.000	19.835	100.00

24 ICB

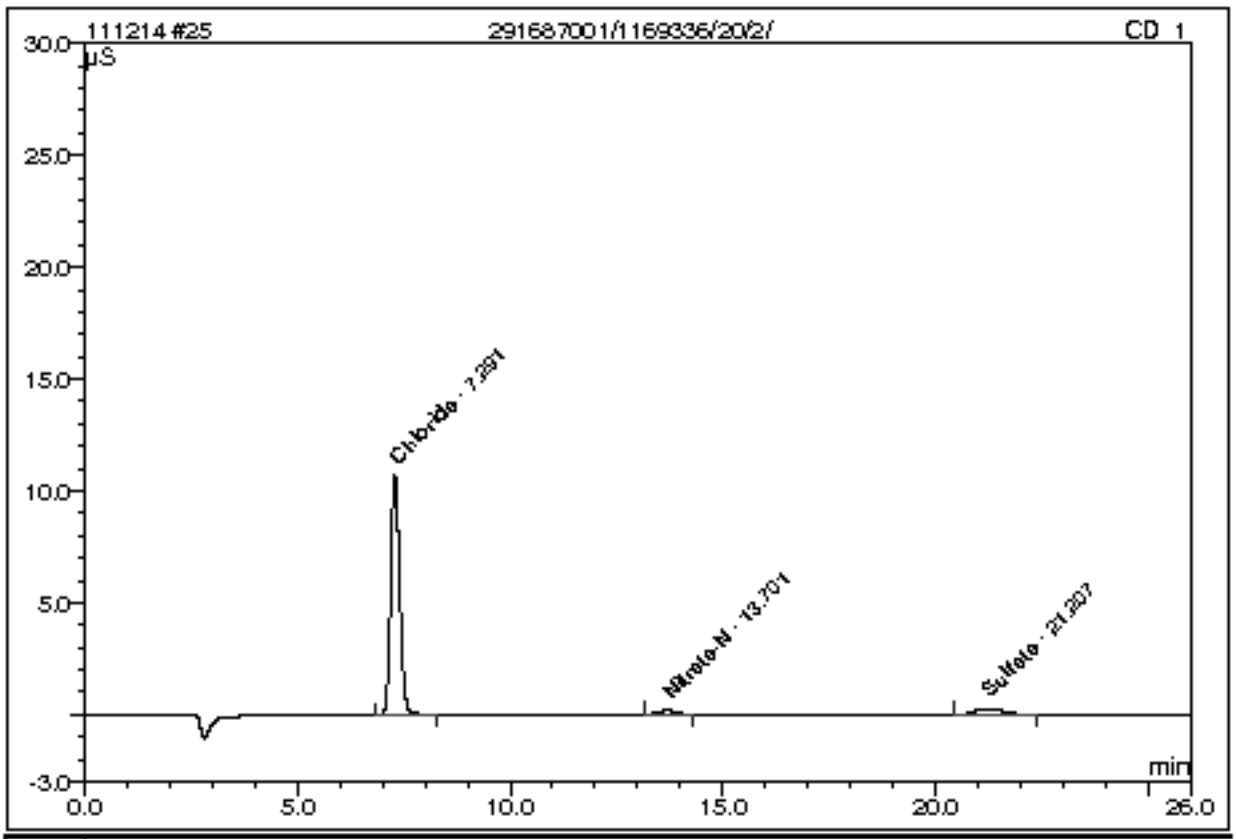
Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 11:24	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

25 291687001/1169336/20/2/

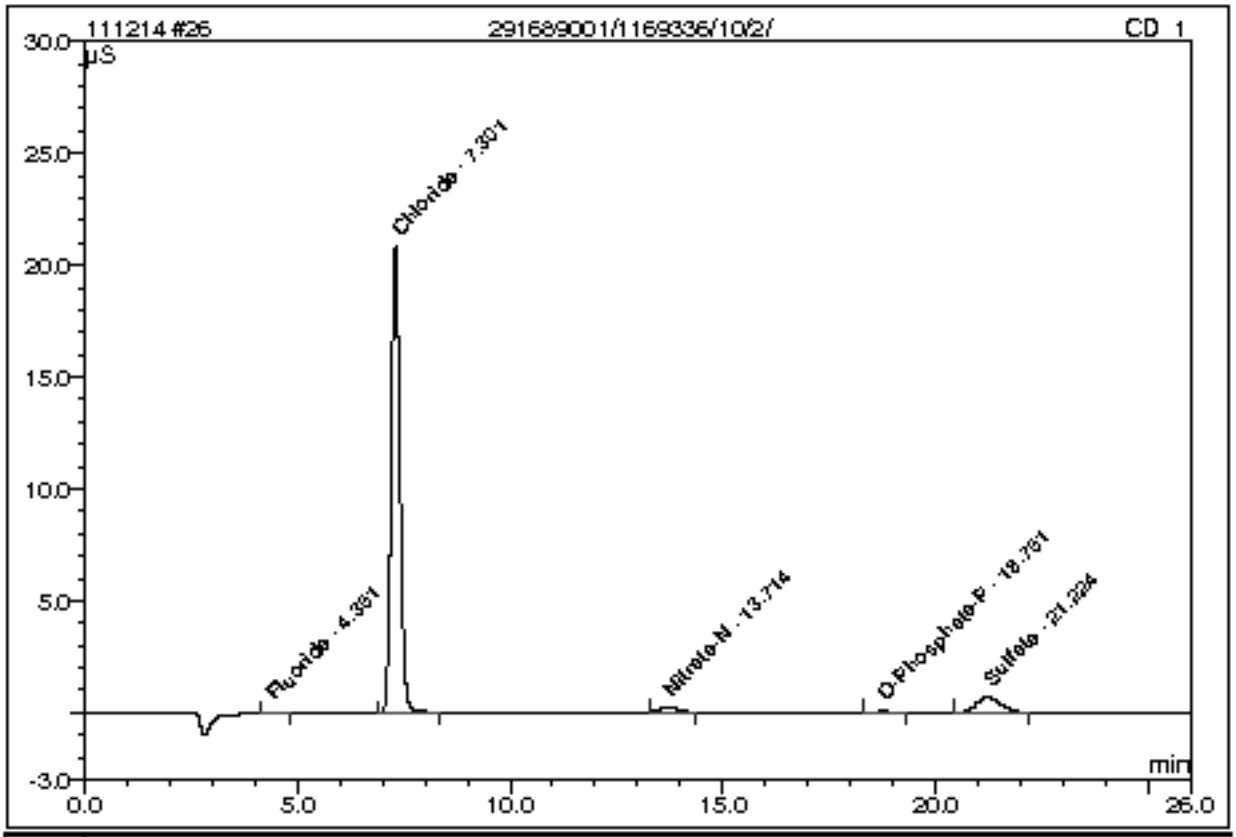
Sample Name:	291687001/1169336/20/2/	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 11:53	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.29	Chloride	n.a.	7.1908		2.60171	90.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.70	Nitrate-N	n.a.	0.1708		0.07510	2.62
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.21	Sulfate	n.a.	1.0259		0.18917	6.60
Total:				8.3874	0.000	2.866	100.00

26 291689001/1169336/10/2/

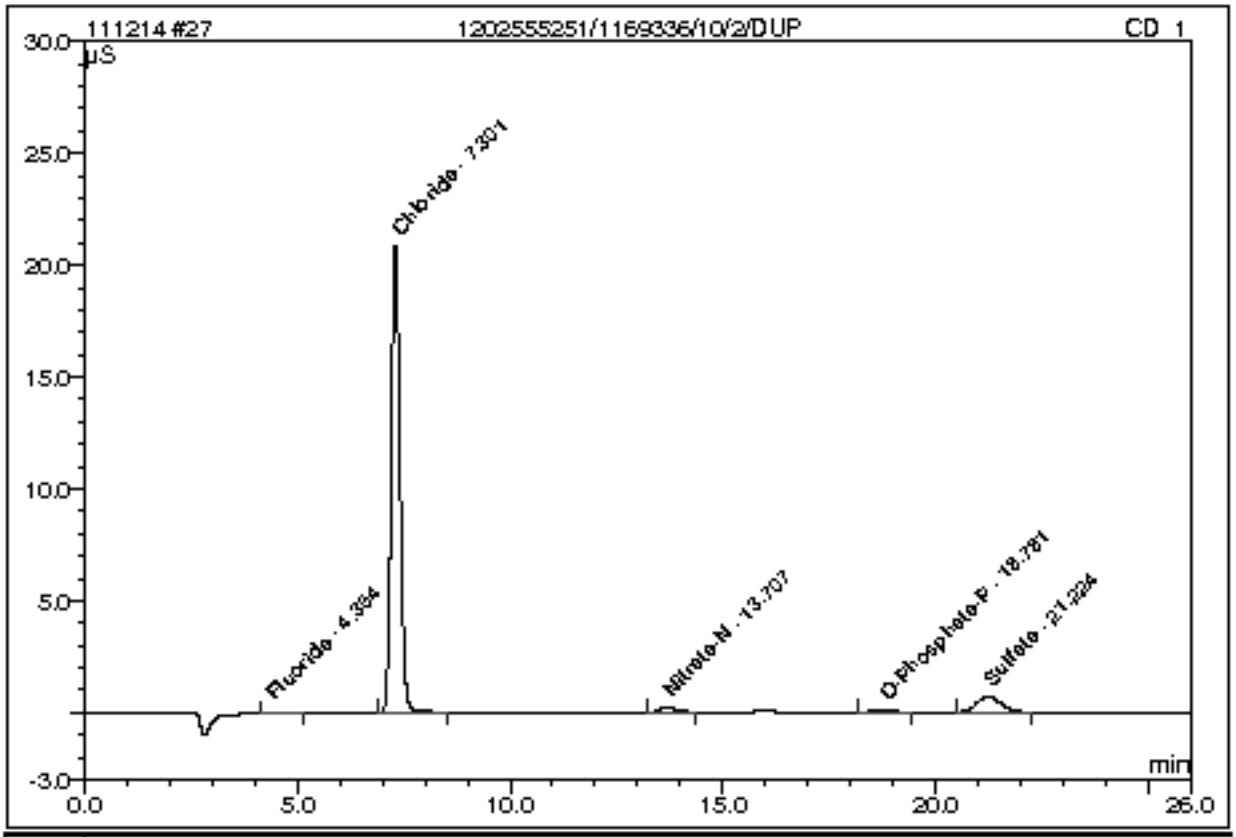
Sample Name:	291689001/1169336/10/2/	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 12:22	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	0.0896		0.02045	0.37
2	7.30	Chloride	n.a.	13.4523		4.92926	89.43
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.71	Nitrate-N	n.a.	0.1889		0.09048	1.64
4	18.75	O-Phosphate-P	n.a.	0.0943		0.01921	0.35
5	21.22	Sulfate	n.a.	2.0645		0.45241	8.21
Total:				15.8896	0.000	5.512	100.00

27 1202555251/1169336/10/2/DUP

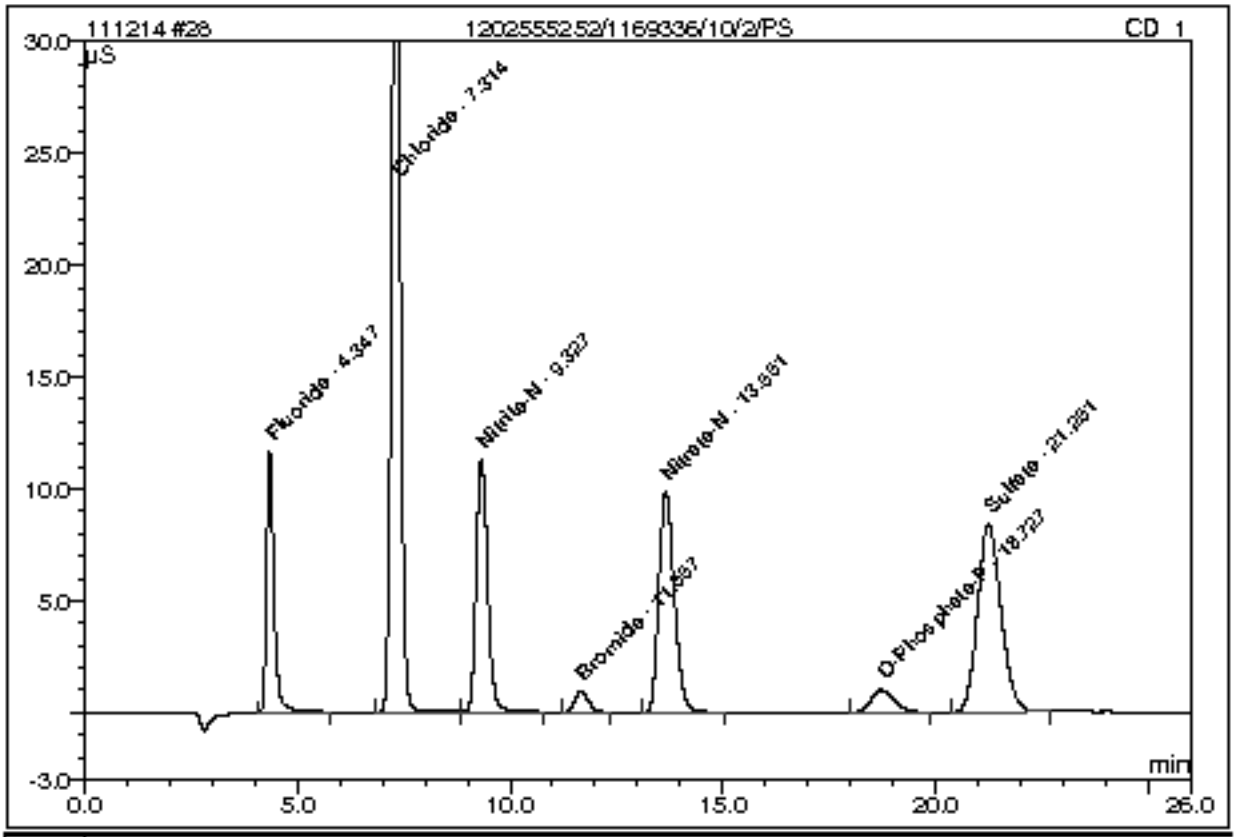
Sample Name:	1202555251/1169336/10/2/DUP	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 12:51	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	0.1023		0.02701	0.49
2	7.30	Chloride	n.a.	13.4683		4.93519	89.29
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.71	Nitrate-N	n.a.	0.1868		0.08868	1.60
4	18.78	O-Phosphate-P	n.a.	0.1154		0.02461	0.45
5	21.22	Sulfate	n.a.	2.0616		0.45168	8.17
Total:				15.9343	0.000	5.527	100.00

28 1202555252/1169336/10/2/PS

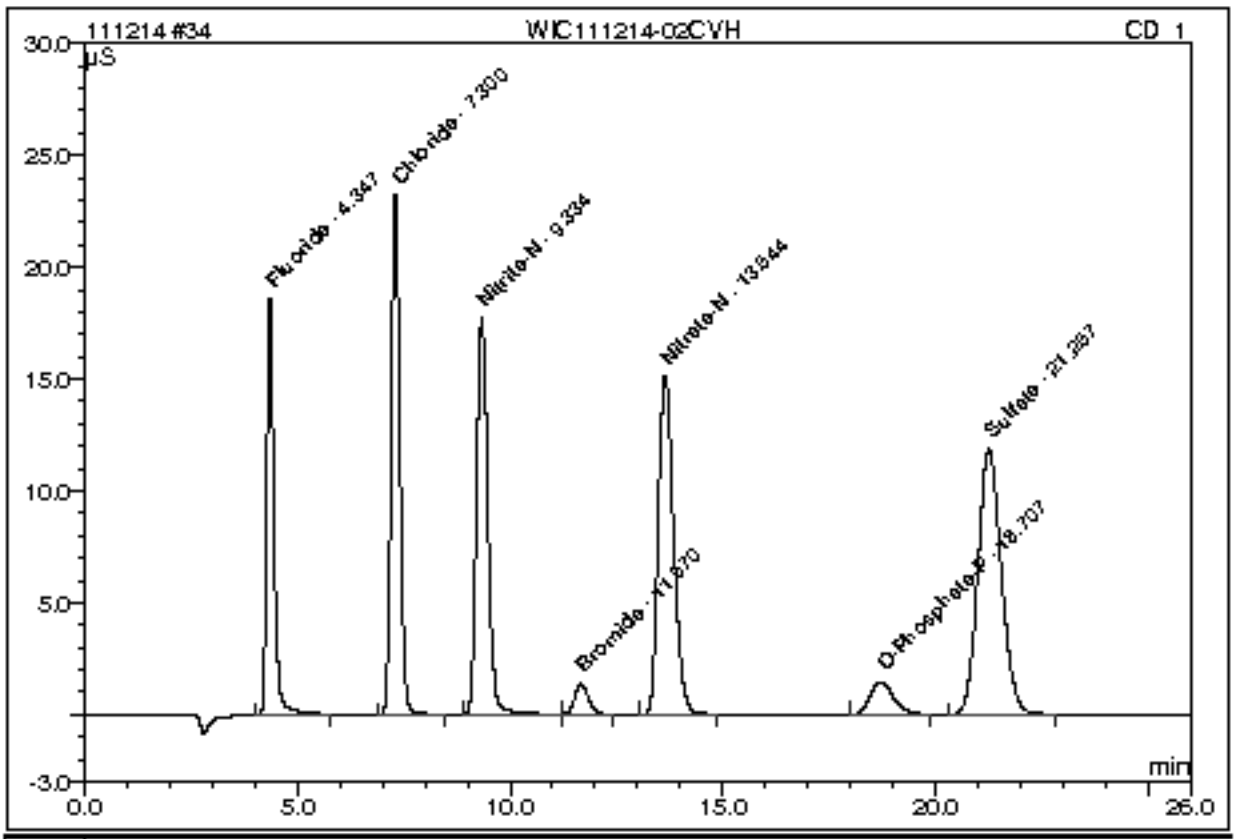
Sample Name:	1202555252/1169336/10/2/PS	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 13:20	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.7279		2.41692	9.44
2	7.31	Chloride	n.a.	24.9079		9.18753	35.89
3	9.33	Nitrite-N	n.a.	4.7104		3.51187	13.72
4	11.67	Bromide	n.a.	2.4789		0.32636	1.27
5	13.66	Nitrate-N	n.a.	4.9763		4.14874	16.21
6	18.73	O-Phosphate-P	n.a.	2.5050		0.63717	2.49
7	21.25	Sulfate	n.a.	21.4660		5.36978	20.98
Total:				65.7725	0.000	25.598	100.00

34 WIC111214-02CVH

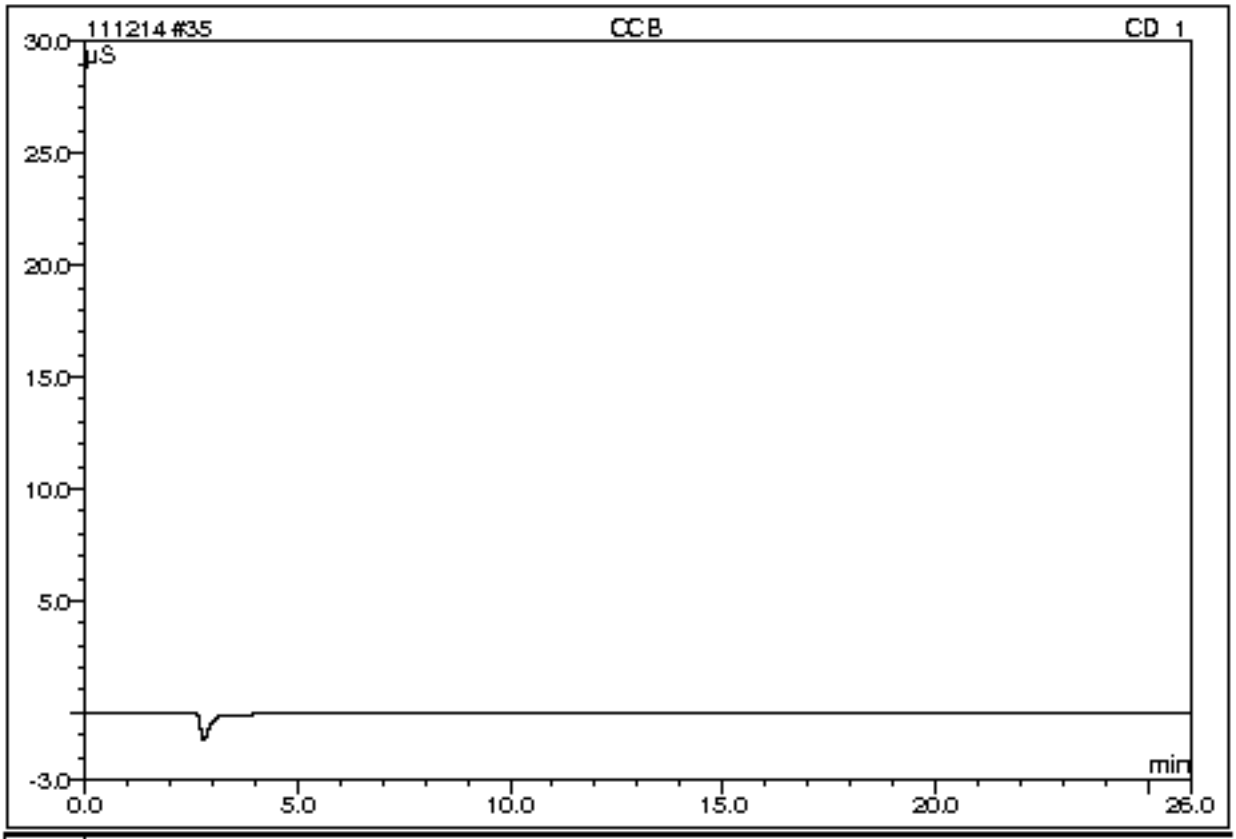
Sample Name:	WIC111214-02CVH	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 16:13	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	7.2349		3.71220	12.44
2	7.30	Chloride	n.a.	14.8483		5.44818	18.26
3	9.33	Nitrite-N	n.a.	7.2691		5.44718	18.25
4	11.67	Bromide	n.a.	3.7263		0.49074	1.64
5	13.64	Nitrate-N	n.a.	7.5239		6.30829	21.14
6	18.71	O-Phosphate-P	n.a.	3.5685		0.90980	3.05
7	21.26	Sulfate	n.a.	29.9796		7.52759	25.22
Total:				74.1507	0.000	29.844	100.00

35 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	111004an	*Sample Amount:*	1.0000
Recording Time:	12/14/2011 16:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002407; GL GCB086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction Raw Data

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	KLP1	12/15/2011 10:03:38	OM_12-15-2011_10-02-37
1.0 PPM		1	KLP1	12/15/2011 10:04:49	OM_12-15-2011_10-02-37
0.5 ppm		1	KLP1	12/15/2011 10:06:01	OM_12-15-2011_10-02-37
0.1 ppm		1	KLP1	12/15/2011 10:07:13	OM_12-15-2011_10-02-37
0.05 ppm		1	KLP1	12/15/2011 10:08:25	OM_12-15-2011_10-02-37
ICAL-00		1	KLP1	12/15/2011 10:09:38	OM_12-15-2011_10-02-37
1.0 ppm ICV		1	KLP1	12/15/2011 10:12:00	OM_12-15-2011_10-02-37
ICB		1	KLP1	12/15/2011 10:14:21	OM_12-15-2011_10-02-37
Nitrate 1.0 ppm		1	KLP1	12/15/2011 10:16:40	OM_12-15-2011_10-02-37
Nitrite 1.0 ppm		1	KLP1	12/15/2011 10:18:59	OM_12-15-2011_10-02-37
1202555203	1169320	1	KLP1	12/15/2011 10:21:19	OM_12-15-2011_10-02-37
1202555206	1169320	1	KLP1	12/15/2011 10:22:31	OM_12-15-2011_10-02-37
291586002	1169320	10	KLP1	12/15/2011 10:23:43	OM_12-15-2011_10-02-37
1202555204	1169320	10	KLP1	12/15/2011 10:24:54	OM_12-15-2011_10-02-37
1202555205	1169320	10	KLP1	12/15/2011 10:26:06	OM_12-15-2011_10-02-37
291691004	1169320	10	KLP1	12/15/2011 10:27:19	OM_12-15-2011_10-02-37
291801005	1169320	1	KLP1	12/15/2011 10:28:31	OM_12-15-2011_10-02-37
1202555191	1169319	1	KLP1	12/15/2011 10:29:42	OM_12-15-2011_10-02-37
1202555202	1169319	1	KLP1	12/15/2011 10:30:53	OM_12-15-2011_10-02-37
291670001	1169319	1	KLP1	12/15/2011 10:32:05	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 10:33:16	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 10:35:37	OM_12-15-2011_10-02-37
291687001	1169319	5	KLP1	12/15/2011 10:37:56	OM_12-15-2011_10-02-37
291689001	1169319	5	KLP1	12/15/2011 10:39:06	OM_12-15-2011_10-02-37
1202555195	1169319	5	KLP1	12/15/2011 10:40:17	OM_12-15-2011_10-02-37
1202555200	1169319	5	KLP1	12/15/2011 10:41:28	OM_12-15-2011_10-02-37
291689002	1169319	1	KLP1	12/15/2011 10:42:38	OM_12-15-2011_10-02-37
291703001	1169319	1	KLP1	12/15/2011 10:43:51	OM_12-15-2011_10-02-37
1202555193	1169319	1	KLP1	12/15/2011 10:45:03	OM_12-15-2011_10-02-37
1202555198	1169319	1	KLP1	12/15/2011 10:46:15	OM_12-15-2011_10-02-37
291703003	1169319	5	KLP1	12/15/2011 10:47:27	OM_12-15-2011_10-02-37
291703005	1169319	5	KLP1	12/15/2011 10:48:39	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 10:49:50	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 10:52:11	OM_12-15-2011_10-02-37
291703007	1169319	1	KLP1	12/15/2011 10:54:31	OM_12-15-2011_10-02-37
291730002	1169319	10	KLP1	12/15/2011 10:55:43	OM_12-15-2011_10-02-37
291741006	1169319	1	KLP1	12/15/2011 10:56:54	OM_12-15-2011_10-02-37
1202555196	1169319	1	KLP1	12/15/2011 10:58:06	OM_12-15-2011_10-02-37
1202555201	1169319	1	KLP1	12/15/2011 10:59:17	OM_12-15-2011_10-02-37
291774002	1169319	1	KLP1	12/15/2011 11:00:28	OM_12-15-2011_10-02-37
291774025	1169319	500	KLP1	12/15/2011 11:01:39	OM_12-15-2011_10-02-37
291784001	1169319	500	KLP1	12/15/2011 11:02:49	OM_12-15-2011_10-02-37
1202555192	1169319	500	KLP1	12/15/2011 11:04:00	OM_12-15-2011_10-02-37
1202555197	1169319	500	KLP1	12/15/2011 11:05:11	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 11:06:22	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 11:08:43	OM_12-15-2011_10-02-37
291784007	1169319	500	KLP1	12/15/2011 11:11:03	OM_12-15-2011_10-02-37
291784011	1169319	1	KLP1	12/15/2011 11:12:15	OM_12-15-2011_10-02-37
291796002	1169319	1	KLP1	12/15/2011 11:13:27	OM_12-15-2011_10-02-37
291796003	1169319	1	KLP1	12/15/2011 11:14:39	OM_12-15-2011_10-02-37
291796005	1169319	1	KLP1	12/15/2011 11:15:51	OM_12-15-2011_10-02-37
291797002	1169319	1	KLP1	12/15/2011 11:17:03	OM_12-15-2011_10-02-37
291809002	1169319	1	KLP1	12/15/2011 11:18:15	OM_12-15-2011_10-02-37
1202555194	1169319	1	KLP1	12/15/2011 11:19:26	OM_12-15-2011_10-02-37
1202555199	1169319	1	KLP1	12/15/2011 11:20:37	OM_12-15-2011_10-02-37
1202558724	1170734	1	KLP1	12/15/2011 11:21:49	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011 11:23:00	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011 11:25:21	OM_12-15-2011_10-02-37

1202558728	1170734	1	KLP1	12/15/2011	11:27:41	OM_12-15-2011_10-02-37
289522016	1170734	10	KLP1	12/15/2011	11:28:51	OM_12-15-2011_10-02-37
1202558725	1170734	10	KLP1	12/15/2011	11:30:02	OM_12-15-2011_10-02-37
1202558726	1170734	10	KLP1	12/15/2011	11:31:13	OM_12-15-2011_10-02-37
1202558727	1170734	10	KLP1	12/15/2011	11:32:24	OM_12-15-2011_10-02-37
291801005	1169320	5	KLP1	12/15/2011	11:33:35	OM_12-15-2011_10-02-37
291670001	1169319	5	KLP1	12/15/2011	11:34:47	OM_12-15-2011_10-02-37
291703001	1169319	5	KLP1	12/15/2011	11:35:59	OM_12-15-2011_10-02-37
1202555193	1169319	5	KLP1	12/15/2011	11:37:11	OM_12-15-2011_10-02-37
1202555198	1169319	5	KLP1	12/15/2011	11:38:23	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011	11:39:34	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011	11:41:55	OM_12-15-2011_10-02-37
291741006	1169319	5	KLP1	12/15/2011	11:44:15	OM_12-15-2011_10-02-37
1202555196	1169319	5	KLP1	12/15/2011	11:45:26	OM_12-15-2011_10-02-37
1202555201	1169319	5	KLP1	12/15/2011	11:46:38	OM_12-15-2011_10-02-37
291774002	1169319	5	KLP1	12/15/2011	11:47:49	OM_12-15-2011_10-02-37
291809002	1169319	5	KLP1	12/15/2011	11:49:00	OM_12-15-2011_10-02-37
1202555194	1169319	5	KLP1	12/15/2011	11:50:12	OM_12-15-2011_10-02-37
1202555199	1169319	5	KLP1	12/15/2011	11:51:23	OM_12-15-2011_10-02-37
1.0 ppm CCV		1	KLP1	12/15/2011	11:53:43	OM_12-15-2011_10-02-37
CCB		1	KLP1	12/15/2011	11:56:04	OM_12-15-2011_10-02-37

Author: lachat Date : 12/15/2011

Original Run Filename: OM_12-15-2011_10-02-37.OMN created 12/15/2011 10:02:37
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-15-2011_10-02-37.OMN last modified 12/15/2011 11:57:25
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum AR1111A
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111215-26	1	S9	1.50	14.4	12/15/2011@10:03:38			1.5 PPM
WTR111215-25	1	S10	1.00	10.6	12/15/2011@10:04:49			1.0 PPM
WTR111215-24	1	S11	0.500	4.92	12/15/2011@10:06:01			0.5 ppm
WTR111215-23	1	S12	0.100	0.961	12/15/2011@10:07:13			0.1 ppm
WTR111215-21	1	S13	0.0500	0.504	12/15/2011@10:08:25			0.05 ppm
0.0ppm	1	S15	0.00	0.0354	12/15/2011@10:09:38			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99820 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111215-27 ICV	1	S16	0.957	9.48	12/15/2011@10:12:00			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.957 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.957 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00171	0.0380	12/15/2011@10:14:21			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00171 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00171 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR111215-22	1	S1	1.00	9.92	12/15/2011@10:16:40			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.900					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR111215-28	1	S2	1.03	10.2	12/15/2011@10:18:59			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.03 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.03 > 0.900					
		Message	Pass					
		Action	None					
1202555203|1169320|MB	1	1	-4.21e-4	0.0507	12/15/2011@10:21:19			
1202555206||LCS	1	2	0.925	9.16	12/15/2011@10:22:31			
291586002	1	3	0.504	5.02	12/15/2011@10:23:43		10.00	
1202555204||DUP	1	4	0.472	4.70	12/15/2011@10:24:54		10.00	
1202555205||PS	1	5	1.40	13.9	12/15/2011@10:26:06		10.00	

291691004	1	6	0.530	5.28	12/15/2011@10:27:19		10.00	
291801005	1	7	-0.0704	-0.639	12/15/2011@10:28:31			
1202555191|1169319|MB	1	8	-0.00231	0.0321	12/15/2011@10:29:42			
1202555202||LCS	1	9	0.913	9.04	12/15/2011@10:30:53			
291670001	1	10	-0.0518	-0.455	12/15/2011@10:32:05			
WTR111215-25 CCV	1	S10	1.05	10.4	12/15/2011@10:33:16			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.05 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.05 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00158	0.0393	12/15/2011@10:35:37			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00158 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00158 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291687001	1	11	0.406	4.06	12/15/2011@10:37:56		5.00	
291689001	1	12	0.231	2.33	12/15/2011@10:39:06		5.00	
1202555195||DUP	1	13	0.231	2.33	12/15/2011@10:40:17		5.00	
1202555200||PS	1	14	1.18	11.7	12/15/2011@10:41:28		5.00	
291689002	1	15	0.423	4.22	12/15/2011@10:42:38			
291703001	1	16	0.558	5.55	12/15/2011@10:43:51			
1202555193||DUP	1	17	0.561	5.57	12/15/2011@10:45:03			
1202555198||PS	1	18	1.24	12.3	12/15/2011@10:46:15			
291703003	1	19	0.326	3.26	12/15/2011@10:47:27		5.00	
291703005	1	20	0.321	3.21	12/15/2011@10:48:39		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@10:49:50			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00153	0.0397	12/15/2011@10:52:11			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00153 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00153 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291703007	1	21	0.296	2.97	12/15/2011@10:54:31			
291730002	1	22	0.859	8.51	12/15/2011@10:55:43		10.00	
291741006	1	23	0.519	5.17	12/15/2011@10:56:54			
1202555196||DUP	1	24	0.530	5.28	12/15/2011@10:58:06			
1202555201||PS	1	25	1.15	11.4	12/15/2011@10:59:17			
291774002	1	26	-0.0877	-0.809	12/15/2011@11:00:28			
291774025	1	27	0.397	3.97	12/15/2011@11:01:39		500.00	
291784001	1	28	0.853	8.46	12/15/2011@11:02:49		500.00	
1202555192||DUP	1	29	0.831	8.24	12/15/2011@11:04:00		500.00	
1202555197||PS	1	30	1.79	17.7	12/15/2011@11:05:11		500.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:06:22			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00161	0.0390	12/15/2011@11:08:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00161 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00161 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291784007	1	31	0.850	8.42	12/15/2011@11:11:03		500.00	
291784011	1	32	1.28	12.6	12/15/2011@11:12:15			
291796002	1	33	0.152	1.56	12/15/2011@11:13:27			
291796003	1	34	0.120	1.24	12/15/2011@11:14:39			
291796005	1	35	-0.0499	-0.437	12/15/2011@11:15:51			
291797002	1	36	0.0777	0.820	12/15/2011@11:17:03			
291809002	1	37	0.117	1.20	12/15/2011@11:18:15			
1202555194||DUP	1	38	0.115	1.19	12/15/2011@11:19:26			
1202555199||PS	1	39	0.376	3.75	12/15/2011@11:20:37			
1202558724|1170734|MB	1	40	-2.48e-4	0.0524	12/15/2011@11:21:49			
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:23:00			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00137	0.0413	12/15/2011@11:25:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00137 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00137 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202558728||LCS	1	41	1.05	10.4	12/15/2011@11:27:41			
289522016	1	42	0.864	8.56	12/15/2011@11:28:51		10.00	
1202558725||DUP	1	43	0.810	8.03	12/15/2011@11:30:02		10.00	
1202558726||MS	1	44	0.903	8.95	12/15/2011@11:31:13		10.00	
1202558727||MSD	1	45	0.849	8.41	12/15/2011@11:32:24		10.00	
291801005|1169320|	1	7	-0.00698	-0.0140	12/15/2011@11:33:35		5.00	
291670001|1169319|	1	10	6.86e-4	0.0616	12/15/2011@11:34:47		5.00	
291703001	1	16	0.179	1.82	12/15/2011@11:35:59		5.00	
1202555193||DUP	1	17	0.222	2.24	12/15/2011@11:37:11		5.00	
1202555198||PS	1	18	1.13	11.1	12/15/2011@11:38:23		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:39:34			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00105	0.0445	12/15/2011@11:41:55			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00105 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00105 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
291741006	1	23	0.172	1.75	12/15/2011@11:44:15		5.00	
1202555196||DUP	1	24	0.228	2.30	12/15/2011@11:45:26		5.00	
1202555201||PS	1	25	1.26	12.5	12/15/2011@11:46:38		5.00	
291774002	1	26	0.0407	0.456	12/15/2011@11:47:49		5.00	
291809002	1	37	0.128	1.31	12/15/2011@11:49:00		5.00	
1202555194||DUP	1	38	0.126	1.29	12/15/2011@11:50:12		5.00	
1202555199||PS	1	39	1.07	10.5	12/15/2011@11:51:23		5.00	
WTR111215-25 CCV	1	S10	1.07	10.6	12/15/2011@11:53:43			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.07 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.07 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00151	0.0399	12/15/2011@11:56:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00151 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00151 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat Date : 12/15/2011

Channel 1 (NO3 + NO2) : Current View

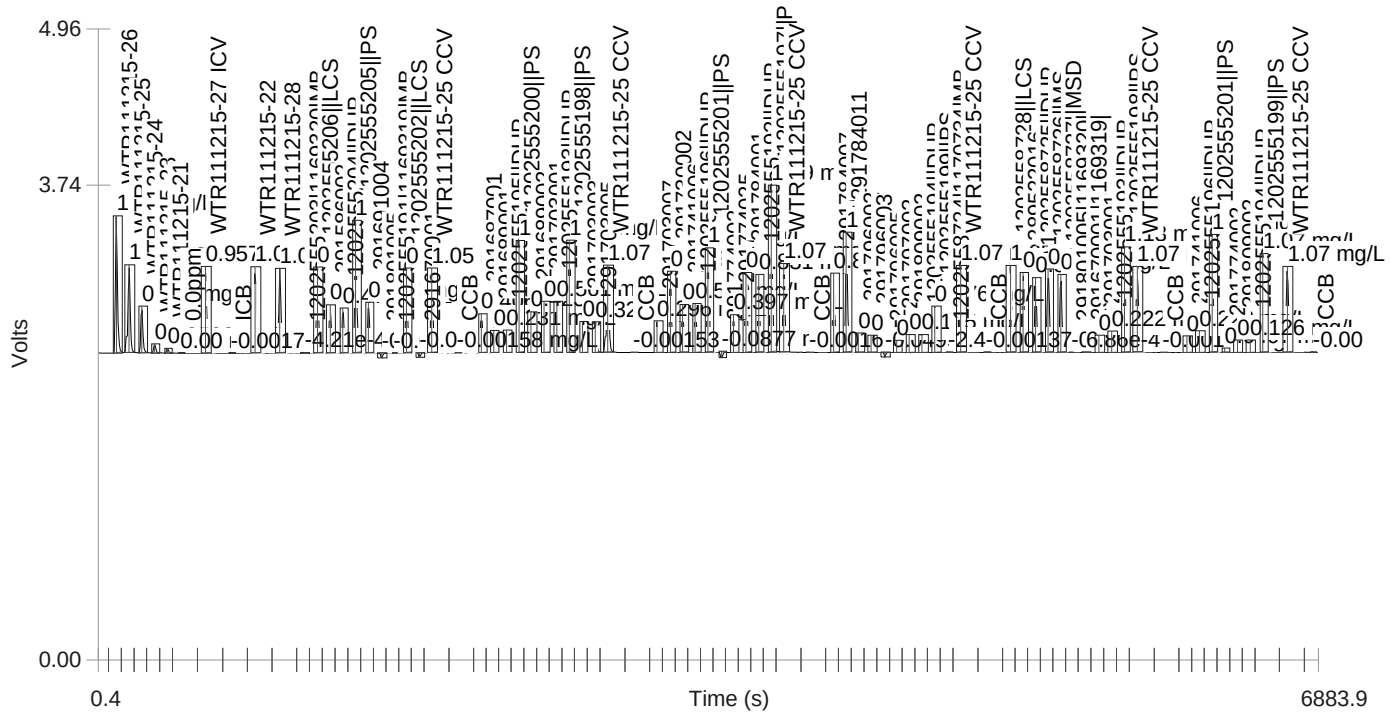
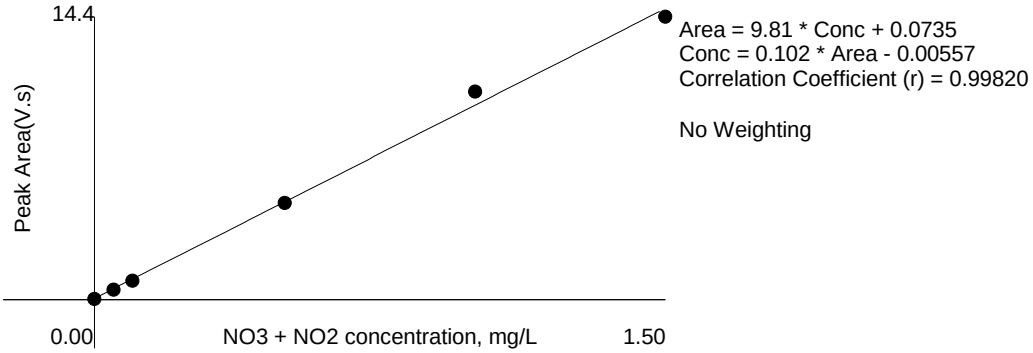


Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	14.4	1.08	2.8	12/15/2011	10:04:58
2	1.00	1	10.6	0.691	-6.8	12/15/2011	10:06:09
3	0.500	1	4.92	0.368	1.2	12/15/2011	10:07:21
4	0.100	1	0.961	0.0719	8.9	12/15/2011	10:08:33
5	0.0500	1	0.504	0.0377	10.7	12/15/2011	10:09:45
6	0.00	1	0.0354	0.00246		12/15/2011	10:10:58

Figure 1: NO3 + NO2



Solids, Total Dissolved
Raw Data

Batch: 1169725.0
Analyst: 2REV

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202556229	1700810	300	97.143

Sample Type	Sample Id	Rpd(%)
DUP	1202556228	1.0666666666667

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202556227	MB		BAL216	13-DEC-2011 10:23	F5	0.07	55.3743	55.3741	55.3742			-1.42857	mg/L
1202556229	LCS		BAL216	13-DEC-2011 10:23	AFU	0.07	67.7889	67.8091	67.8093			291.42857	mg/L
291687001	SAMPLE		BAL216	13-DEC-2011 10:23	F16	0.07	59.1539	59.1914	59.1916			538.57143	mg/L
1202556228	DUP	291687001	BAL216	13-DEC-2011 10:23	2	0.07	53.3142	53.351	53.3515			532.85714	mg/L
291689001	SAMPLE		BAL216	13-DEC-2011 10:23	ND	0.07	61.1639	61.1969	61.1971			474.28571	mg/L
291689002	SAMPLE		BAL216	13-DEC-2011 10:23	AAL	0.07	60.9093	60.9413	60.9417			462.85714	mg/L

Comments: **All Weights are in Grams**

A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Time In: 14-DEC-11 10:59:49
Time Out: 15-DEC-11 08:50:49
Time In: 15-DEC-11 10:10:49
Time Out: 15-DEC-11 11:30:49
Temperature: 182 C
Temperature: 182 C
Temperature: 182 Celsius
Temperature: 182 Celsius

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Total Kjeldahl Nitrogen Raw Data

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **1169323.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555222	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555218	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555219	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555220	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555221	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202555215 MB	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555222 LCS	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555216 DUP (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555218 MS (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
1202555220 MSD (291524001)	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524003	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524004	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524005	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524006	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524007	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291524008	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291525003	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291602001	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291602002	13-DEC-2011 17:00:00	Surface Water	20	20	1	<2
291687001	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
291689001	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555217 DUP (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555219 MS (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
1202555221 MSD (291689001)	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2
291689002	13-DEC-2011 17:00:00	Waste Water	20	20	1	<2

Prep Logbook

Batch ID: **1169323.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 12

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202555222	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555218	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MS	1202555219	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555220	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL
MSD	1202555221	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1540684-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check

Reagent/Solvent Lot ID	Description	Amount
1589866-C	TKN/PO4 Digestion Solution	4 mL
WTR111213-12	TKN,TP Working Standard 5ppm	20 mL
WTR111213-13	TKN, TP Working Standard 3ppm	20 mL
WTR111213-14	TKN,TP Working Standard 1ppm CCV	20 mL
WTR111213-15	TKN, TP Working Standard 0.5ppm	20 mL
WTR111213-16	TKN, TP Working Standard 0.1ppm	20 mL
WTR111213-17	TKN, TP Working Standard 0.05ppm	20 mL
WTR111213-18	TKN, TP Standard 1ppm ICV	20 mL
WTR111213-19	TKN, TP Working Standard 0ppm	20 mL

Comments:

Digestion Start Date: 13-DEC-11 06:00:46

Digestion Stop Date: 13-DEC-11 12:00:46

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	klp1	12/14/2011 13:44:51	OM_12-14-2011_13-44-06
3.0 ppm Std.		1	klp1	12/14/2011 13:45:39	OM_12-14-2011_13-44-06
1.0 ppm Std.		1	klp1	12/14/2011 13:46:27	OM_12-14-2011_13-44-06
0.5 ppm Std		1	klp1	12/14/2011 13:47:17	OM_12-14-2011_13-44-06
0.1 ppm Std		1	klp1	12/14/2011 13:48:07	OM_12-14-2011_13-44-06
ICAL-00		1	klp1	12/14/2011 13:48:59	OM_12-14-2011_13-44-06
ICV		1	klp1	12/14/2011 13:50:51	OM_12-14-2011_13-44-06
ICB		1	klp1	12/14/2011 13:52:42	OM_12-14-2011_13-44-06
1202555215*	1169324	1	klp1	12/14/2011 13:54:33	OM_12-14-2011_13-44-06
1202555222*	1169324	1	klp1	12/14/2011 13:55:24	OM_12-14-2011_13-44-06
291524001*	1169324	1	klp1	12/14/2011 13:56:14	OM_12-14-2011_13-44-06
1202555216*	1169324	1	klp1	12/14/2011 13:57:05	OM_12-14-2011_13-44-06
1202555215*	1169324	1	klp1	12/14/2011 13:57:56	OM_12-14-2011_13-44-06
1202555222	1169324	1	klp1	12/14/2011 13:58:47	OM_12-14-2011_13-44-06
291524001	1169324	1	klp1	12/14/2011 13:59:38	OM_12-14-2011_13-44-06
1202555216	1169324	1	klp1	12/14/2011 14:00:28	OM_12-14-2011_13-44-06
1202555218	1169324	1	klp1	12/14/2011 14:01:18	OM_12-14-2011_13-44-06
1202555220	1169324	1	klp1	12/14/2011 14:02:09	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:02:58	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:04:49	OM_12-14-2011_13-44-06
1202555215	1169324	1	klp1	12/14/2011 14:06:41	OM_12-14-2011_13-44-06
291524002	1169324	1	klp1	12/14/2011 14:07:31	OM_12-14-2011_13-44-06
291524003	1169324	1	klp1	12/14/2011 14:08:20	OM_12-14-2011_13-44-06
291524004	1169324	1	klp1	12/14/2011 14:09:10	OM_12-14-2011_13-44-06
291524005	1169324	1	klp1	12/14/2011 14:09:58	OM_12-14-2011_13-44-06
291524006	1169324	1	klp1	12/14/2011 14:10:47	OM_12-14-2011_13-44-06
291524007	1169324	1	klp1	12/14/2011 14:11:35	OM_12-14-2011_13-44-06
291524008	1169324	1	klp1	12/14/2011 14:12:23	OM_12-14-2011_13-44-06
291525001	1169324	1	klp1	12/14/2011 14:13:11	OM_12-14-2011_13-44-06
291525002	1169324	1	klp1	12/14/2011 14:13:58	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:14:46	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:16:38	OM_12-14-2011_13-44-06
291525003	1169324	1	klp1	12/14/2011 14:18:29	OM_12-14-2011_13-44-06
291602001	1169324	1	klp1	12/14/2011 14:19:20	OM_12-14-2011_13-44-06
291602002	1169324	1	klp1	12/14/2011 14:20:12	OM_12-14-2011_13-44-06
291687001	1169324	1	klp1	12/14/2011 14:21:02	OM_12-14-2011_13-44-06
291689001	1169324	1	klp1	12/14/2011 14:21:53	OM_12-14-2011_13-44-06
1202555217	1169324	1	klp1	12/14/2011 14:22:44	OM_12-14-2011_13-44-06
1202555219	1169324	1	klp1	12/14/2011 14:23:34	OM_12-14-2011_13-44-06
1202555221	1169324	1	klp1	12/14/2011 14:24:24	OM_12-14-2011_13-44-06
291689002	1169324	1	klp1	12/14/2011 14:25:13	OM_12-14-2011_13-44-06
CCV		1	klp1	12/14/2011 14:27:03	OM_12-14-2011_13-44-06
CCB		1	klp1	12/14/2011 14:28:55	OM_12-14-2011_13-44-06

Author: klp1 Date : 12/14/2011

Original Run Filename: OM_12-14-2011_13-44-06.OMN created 12/14/2011 13:44:06
Original Run Author's Signature: [klp1]
Current Run Filename: OM_12-14-2011_13-44-06.OMN last modified 12/14/2011 14:30:00
Current Run Author's Signature: [klp1]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR111214-12	1	S1	5.00	5.42	12/14/2011@13:44:51			5.0 ppm Std.
WTR111214-13	1	S2	3.00	3.06	12/14/2011@13:45:39			3.0 ppm Std.
WTR111214-14	1	S3	1.00	0.934	12/14/2011@13:46:27			1.0 ppm Std.
WTR111214-15	1	S4	0.500	0.420	12/14/2011@13:47:17			0.5 ppm Std
WTR111214-16	1	S5	0.100	0.0815	12/14/2011@13:48:07			0.1 ppm Std
WTR111214-19 0.0 ppm	1	S7	0.00	-0.0130	12/14/2011@13:48:59			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99930 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR111214-18 ICV	1	S8	1.02	1.02	12/14/2011@13:50:51			ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR111214-19 ICB	1	S7	0.0509	-0.0328	12/14/2011@13:52:42			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0509 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0509 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202555215|1169324|MB	1	1	0.131	0.0548	12/14/2011@13:54:33			
1202555222||LCS	1	2	1.22	1.24	12/14/2011@13:55:24			
291524001	1	3	0.896	0.885	12/14/2011@13:56:14			
1202555216||DUP	1	4	0.955	0.950	12/14/2011@13:57:05			
1202555215|1169324|MB	1	1	0.126	0.0488	12/14/2011@13:57:56			
1202555222||LCS	1	2	1.07	1.07	12/14/2011@13:58:47			
291524001	1	3	1.04	1.04	12/14/2011@13:59:38			
1202555216||DUP	1	4	0.962	0.957	12/14/2011@14:00:28			
1202555218||MS	1	5	2.13	2.23	12/14/2011@14:01:18			
1202555220||MSD	1	6	1.58	1.63	12/14/2011@14:02:09			
WTR111214-14 CCV	1	S3	0.981	0.978	12/14/2011@14:02:58			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.981 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.981 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0616	-0.0212	12/14/2011@14:04:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0616 < 0.100					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0616 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202555215|1169324|MB	1	1	0.0625	-0.0201	12/14/2011@14:06:41			
291524002	1	7	1.42	1.46	12/14/2011@14:07:31			
291524003	1	8	1.31	1.34	12/14/2011@14:08:20			
291524004	1	9	1.35	1.38	12/14/2011@14:09:10			
291524005	1	10	0.888	0.877	12/14/2011@14:09:58			
291524006	1	11	0.473	0.426	12/14/2011@14:10:47			
291524007	1	12	0.406	0.354	12/14/2011@14:11:35			
291524008	1	13	0.533	0.491	12/14/2011@14:12:23			
291525001	1	14	0.468	0.421	12/14/2011@14:13:11			
291525002	1	15	0.592	0.555	12/14/2011@14:13:58			
WTR111214-14 CCV	1	S3	0.941	0.934	12/14/2011@14:14:46			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.941 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.941 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0553	-0.0280	12/14/2011@14:16:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0553 < 0.100					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0553 > -0.100					
		Message	CCB Passed					
		Action	Continue					
291525003	1	16	0.490	0.445	12/14/2011@14:18:29			
291602001	1	17	0.152	0.0772	12/14/2011@14:19:20			
291602002	1	18	0.784	0.764	12/14/2011@14:20:12			
291687001	1	19	1.26	1.29	12/14/2011@14:21:02			
291689001	1	20	0.852	0.838	12/14/2011@14:21:53			
1202555217||DUP	1	21	0.606	0.570	12/14/2011@14:22:44			
1202555219||MS	1	22	1.74	1.80	12/14/2011@14:23:34			
1202555221||MSD	1	23	1.74	1.81	12/14/2011@14:24:24			
291689002	1	24	1.01	1.00	12/14/2011@14:25:13			
WTR111214-14 CCV	1	S3	0.951	0.946	12/14/2011@14:27:03			CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.951 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.951 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR111214-19 CCB	1	S7	0.0293	-0.0562	12/14/2011@14:28:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.0293 < 0.100					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.0293 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Author: klp1 Date : 12/14/2011

Channel 1 (TKN) : Current View

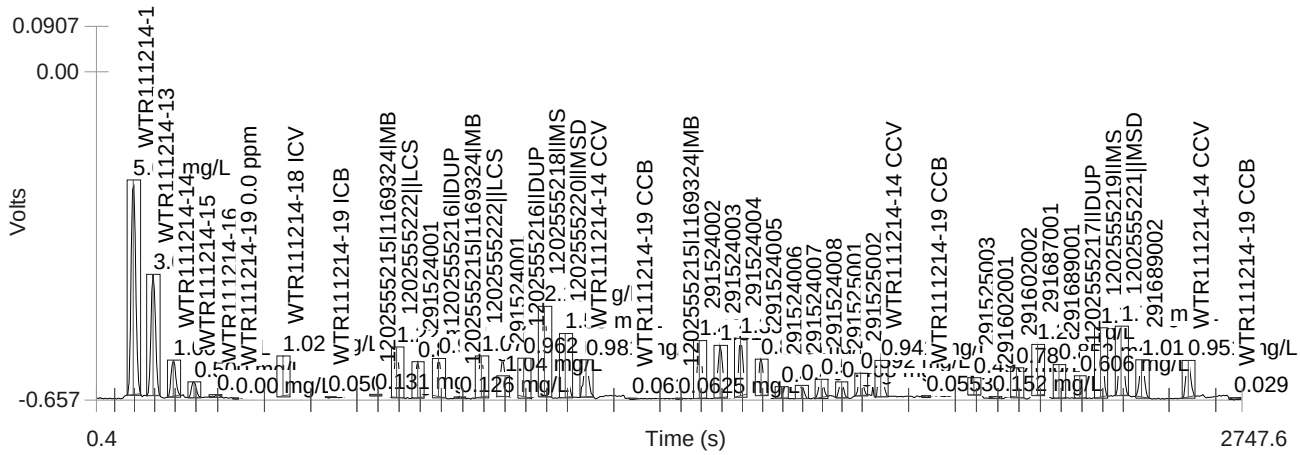
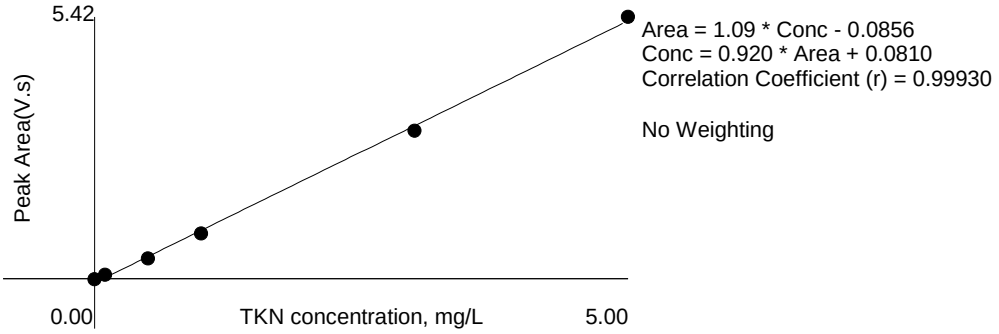


Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.00	1	5.42	0.429	-1.5	12/14/2011	13:45:55
2	3.00	1	3.06	0.242	3.4	12/14/2011	13:46:43
3	1.00	1	0.934	0.0724	6.6	12/14/2011	13:47:31
4	0.500	1	0.420	0.0315	8.2	12/14/2011	13:48:21
5	0.100	1	0.0815	0.00539	-255.8	12/14/2011	13:49:11
6	0.00	1	-0.0130	-0.00227		12/14/2011	13:50:03

Figure 1: TKN



Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, ORNL, UDSL, URSC
Batch ID:	**Sample Numbers:**		
1169314	See Below		

Potentially affected work order(s)(SDG): 291296,291534,291535,291687(12-485),291689(12-484),291703(12-482),291796(12-491),291797(12-495)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202555181MSD	1. The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Kristen Parson 13-DEC-11

Data Validator/Group Leader:

Elzbieta Szulc 13-DEC-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL, WETL
Batch ID:	**Sample Numbers:**		
1169324	See Below		

Potentially affected work order(s)(SDG): 291524,291525,291602,291687(12-485),291689(12-484)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202555219MS, 1202555221MSD	1. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.
2. Failed RPD for DUP: QC 1202555217DUP	2. The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
3. Failed RPD for MS/MSD: QC 1202555220MSD	3. The Relative Percent Difference (RPD) between the spike and spike duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample.
4. Failed Recovery for MSD: QC 1202555220MSD	4. The spike duplicate recovery falls outside of the established acceptance limits due sample non-homogenity.

Originator's Name:

Kristen Parson 14-DEC-11

Data Validator/Group Leader:

Elzbieta Szulc 15-DEC-11

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-DEC-11	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
1169336	See below.		

Potentially affected work order(s)(SDG): 291687(12-485),291689(12-484)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202555252PS	1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Mary Sherwood 15-DEC-11

Data Validator/Group Leader:

Julia Hamilton 16-DEC-11