DEPARTMENT OF THE AIR FORCE
27TH SPECIAL OPERATIONS MISSION SUPPORT GROUP (AFSOC)
CANNON AIR FORCE BASE NEW MEXICO

MAR 2 3 2016

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Commander, 27 SOMSG
110 E Alison Avenue Suite 1098
Cannon AFB NM 88103

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NMED
Hazardous Waste Bureau

Mr. John E. Kieling
Chief, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East Bldg 1
Santa Fe NM 87505-6063

Dear Mr. Kieling,

Cannon Air Force Base is pleased to submit the "*2015 Annual Groundwater Monitoring Report, Melrose Air Force Range*". If you have any questions regarding this submittal, please contact Ms. Brandy Chavez, Environmental Element Chief at (575) 904-6747.

Sincerely

DOUGLAS W. GILPIN, Colonel, USAF

Attachment:
2015 Annual Groundwater Monitoring Report MAFR, Feb 16

cc:
NMED, Dave Cobrain
NMED, Gabriel Acevedo
NMED, Neelam Dhawan

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ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

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: 2015 Annual Groundwater Monitoring
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d r r *2015 Annual Groundwater Monitoring Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico.*

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2015 ANNUAL GROUNDWATER MONITORING REPORT
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

U.S. Army Corps of Engineers
Albuquerque District

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

FEBURARY 2016
ANNUAL GROUNDWATER MONITORING REPORT
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

Prepared for:

Cannon Air Force Base
Air Force Special Operations Command (AFSOC)
27th SOCES/CEIE
Cannon Air Force Base, New Mexico 88103-5003

Prepared by:

Trinity Analysis & Development Corp.
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February 2016

CERTIFICATION PAGE

FEBRUARY 2016
ANNUAL GROUNDWATER
MONITORING REPORT
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

Prepared for:
Air Force Special Operations Command
and
27th Special Operations Wing

Prepared by:
Trinity Analysis & Development Corp.

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Albuquerque District

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LIST OF ABBREVIATIONS AND ACRONYMS

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1.0 INTRODUCTION

Position Paper: General Reporting Requirements for Routine Groundwater Monitoring Activities at RCRA Sites

1.1 Project Background

0 1 4

active bombing or test Range

…NMED will prepare a "corrective action-only" permit to be implemented once the Range is closed,

transferring, or transferred

1.2 Site Location and Access

Figures 1 and 2

1.3 Project Description

Groundwater Monitoring Field Sampling Plan

Figure 3

Section 4.0

1.4 Site Description and History

Figure 2

Figure 3

[illegible]

1.4.1 SWMU Descriptions & History

1.4.1.1 SWMU 114 – Expended Ordnance and Industrial Waste Burial Site

[illegible] 114 [illegible] 15 [illegible] 1 [illegible] 0 [illegible] **Figure 4** [illegible]

[illegible] 114 [illegible] 0 [illegible] 40 [illegible] 100 [illegible] 00 [illegible] 40 [illegible] 1 [illegible] 00 [illegible]

[illegible] 114 [illegible] 1 [illegible] 5 [illegible] 1 [illegible] 1 [illegible] 000 [illegible] 15 000 [illegible] 114 [illegible] 1 [illegible] 00 [illegible] *Phase I RCRA Facility Investigation for Melrose Air Force Range, Cannon Air Force Base, Clovis, New Mexico* [illegible] 1 [illegible] *RCRA Facility Investigation Report Addendum for Melrose Bombing Range, Cannon Air Force Base, New Mexico* [illegible] 00 [illegible] 114 [illegible] 114 [illegible]

[illegible] 150 [illegible]

1.4.1.2 SWMU 115 – Explosives-Contaminated Burial Site (Arroyo Burial Site)

1.4.1.3 SWMU 117 – Domestic Waste Burial Site (Southeast of Main Building)

1.4.1.4 SWMU 130 – World War II Cantonment Disposal Site

1.4.1.5 SWMU 131 – Domestic Waste Burial Site (East of Fire Station)

00 d r dd d r d M 1 1 r 1

50 d 1 5 r d r r d d r M r 01 r d r r d r 105

d r d r r d r d r r d r d r r

1.4.1.7 SWMU 133 – NW Munitions Disposal Site (NW Corner of Impact Area)

[illegible] **Figure 2** [illegible]

[illegible] …*NMED will prepare a “corrective action-only” permit to be implemented once the range is closed, transferring, or transferred* [illegible]

2.0 HYDROGEOLOGIC SETTING

2.1 Geology

[illegible]

[illegible]

[illegible]

[illegible]

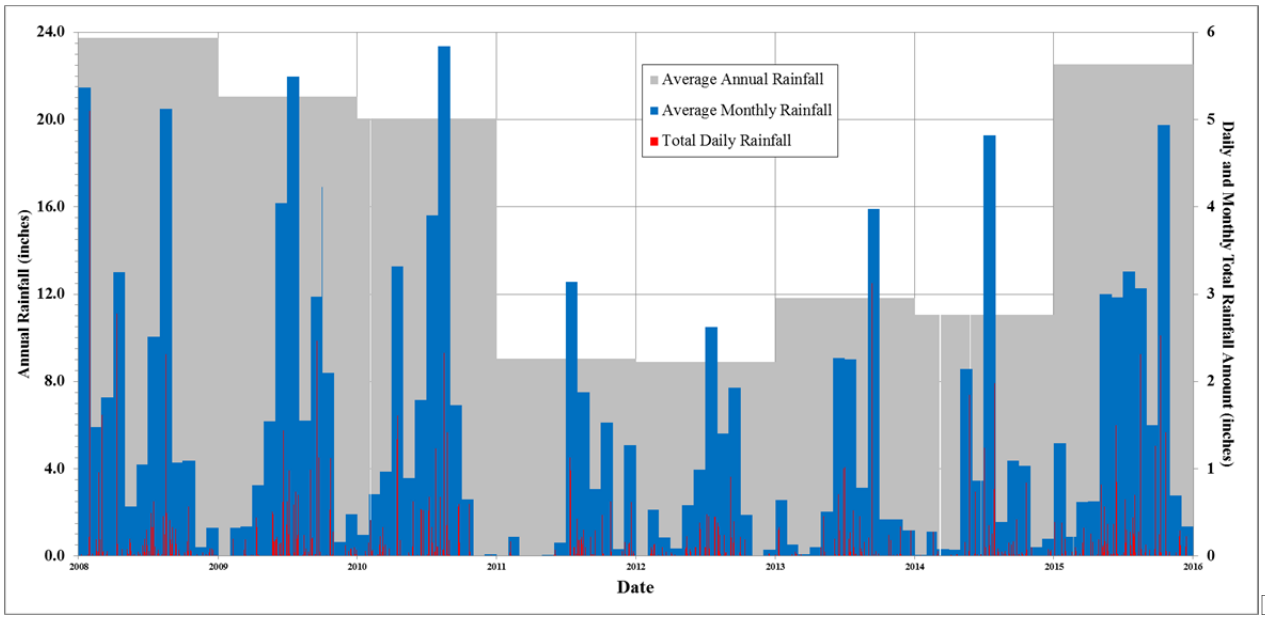
2.2 Hydrogeology

2.2.1 Topography

2.2.2 Soils

2.2.3 Surface Water Drainage Systems

2.2.4 Climate


Average Annual Rainfall
Average Monthly Rainfall
Total Daily Rainfall
Annual Rainfall (inches)
Daily and Monthly Total Rainfall Amount (inches)
Date
24.0
20.0
16.0
12.0
8.0
4.0
0.0
6
5
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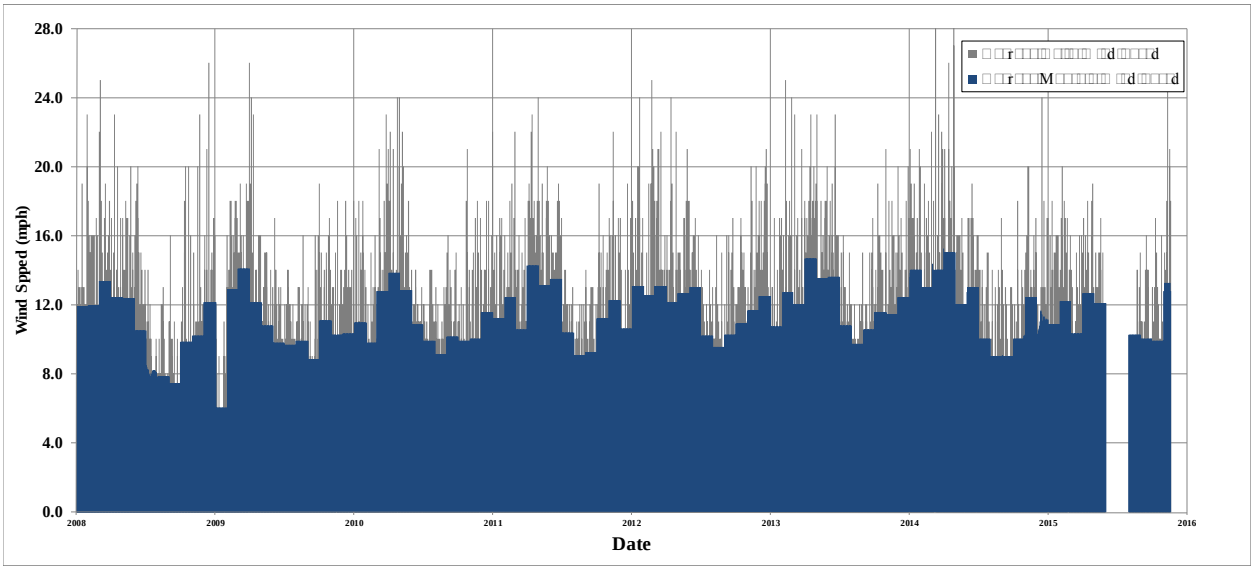
28.0
24.0
20.0
16.0
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4.0
0.0
Wind Spped (mph)
2008
2009
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2012
2013
2014
2015
2016
Date

3.0 WELL INSTALLATION HISTORY

[illegible] **Table 1** [illegible] **Table 2** [illegible]

3.1 Agricultural Wells

Well ID	Network Designation	Historical Use
M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]
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M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]
M[illegible]	[illegible]	[illegible]

3.2 Groundwater Monitoring Wells

- MW-114, MW114M-001, MW114M-002, MW114M-003, and MW114M-004;
- MW-115, MW115-M-001, MW115-M-002, MW115-M-003, and MW115-M-004;
- MW-116, MW116M-001, MW116M-002, MW116M-003, and MW116M-004;
- MW-117, MW117M-001, and MW117M-002; and
- MW-118, MW118M-001.

first available groundwater

Ground-water hydrology and water quality of the Southern High Plains aquifer, Melrose Air Force Range, Cannon Air Force Base, Curry and Roosevelt Counties, New Mexico, 2002-03: U.S. Geological Survey Scientific Investigations Report 2004-5158

Geophysical and Downhole Camera Investigation Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico

Geophysical and Downhole Camera Investigation Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico

Table 1

Background Well MWQ-24 Installation Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico

4.0 MONITORING PLAN

4.1 Semiannual – SWMU Groundwater Quality Network Monitoring Requirements

[illegible] 015 [illegible] **Figure 4** [illegible]

Semiannual - SWMU Groundwater Quality Network

Analyte	Field Parameters [1]	VOCs [2]	Explosives [3]	Metals [4] (Total & Diss.)	Chromium (VI)	Cyanide	Mercury	Nitrite, Nitrate	Chloride, Sulfate	Perchlorate [5]	Alkalinity	TDS
Method	**NA**	**8260B**	**8330**	**6020A**	**218.6**	**9012A**	**7470A**	**300.0**	**300.0**	**6860/ 6850**	**2320B**	**2540C**
M114MW001	x	x	x	x	x	x	x	x	x	x	x	x
M114MW002	x	x	x	x	x	x	x	x	x	x	x	x
M114MW003	x	x	x	x	x	x	x	x	x	x	x	x
M114MW004	x	x	x	x	x	x	x	x	x	x	x	x
MAO1MW001	x	x	x	x	x	x	x	x	x	x	x	x
MAO1MW002	x	x	x	x	x	x	x	x	x	x	x	x
MAO1MW003	x	x	x	x	x	x	x	x	x	x	x	x
MAO1MW004	x	x	x	x	x	x	x	x	x	x	x	x
MAO2MW001D	x	x	x	x	x	x	x	x	x	x	x	x
MWQ-24	x	x	x	x	x	x	x	x	x	x	x	x

[1] Field Parameters: Conductivity, Dissolved Oxygen, pH, Temperature, Turbidity
[2] VOCs: Target Compound List
[3] Explosives: 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Amino-4,6-dinitrotoluene, 2-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-dinitrotoluene, 4-Nitrotoluene, HMX, Nitrobenzene, RDX, Tetryl
[4] Metals: Target Analyte List
[5] For perchlorate 6860 is the method approved by NMED and is utilized for routine analysis. However, the split samples are analyzed utilizing 6850 as no other laboratory could be located that utilizes 6860.

4.2 Annual Groundwater Quality Network Monitoring Requirements

[illegible] 015 [illegible] **Figure 6** [illegible]

Annual - Groundwater Quality Network

Analyte	Field Parameters [1]	Metals [2] (Total & Diss.)	Chromium (VI)	Cyanide	Nitrite, Nitrate	Chloride, Sulfate	Perchlorate [3]	Alkalinity	TDS
Method	**NA**	**6020A**	**218.6**	**9012A**	**300.0**	**300.0**	**6860**	**2320B**	**2540C**
MWQ-2	x	x	x	x	x	x	x	x	x
MWQ-14	x	x	x	x	x	x	x	x	x
MWQ-18	x	x	x	x	x	x	x	x	x
MWQ-19	x	x	x	x	x	x	x	x	x
MWQ-20	x	x	x	x	x	x	x	x	x
MWQ-21	x	x	x	x	x	x	x	x	x
MWQ-22	x	x	x	x	x	x	x	x	x

[1] Field Parameters: Conductivity, Dissolved Oxygen, pH, Temperature, Turbidity, ORP
[2] Metals: Target Analyte List
[3] For perchlorate 6860 is the method approved by NMED and is utilized for routine analysis. However, the split samples are analyzed utilizing 6850 as no other laboratory could be located that utilizes 6860.

4.3 Data Summary

r r d r d r r d r r 004 r r d d r r r r r d 015 r d d M r d r d r r

Summary of Water Quality Test Events

Sampling Event			USGS January 2004 [1]	USGS July 2004 [2]	USGS July 2005 [1]	USGS June 2007 [2]	Initial Baseline Ground Water Monitoring [3,4]	2010 Spring Semiannual & Annual Sampling Event [4,5]	2010 Fall Semiannual Sampling Event [5]	2011 Spring Semiannual & Annual Sampling Event [4,5]	2011 Fall Semiannual Sampling Event [5]	2012 Fall Semiannual Sampling Event [5]	2013 Spring Annual Sampling Event [5]	2013 Fall Semiannual Sampling Event [5]	2014 Sping Annual Sampling Event	2014 Fall Semiannual Sampling Event	2015 Spring Annual Sampling Event	2015 Fall Semiannual Sampling Event
Sample Dates		Start	1/12/2004	7/19/2004	7/18/2005	7/18/2007	1/20/2009	1/26/2010	10/25/2010	5/3/2011	9/27/2011	11/2/2012	5/29/2013	12/13/2013	4/23/2014	10/21/2014	3/31/2015	10/21/2015
		End	1/15/2004	7/21/2004	7/20/2005	7/22/2007	2/3/2009	3/4/2010	10/29/2010	5/18/2011	10/3/2011	11/8/2012	6/6/2013	12/16/2013	5/1/2014	10/23/2014	4/6/2015	10/23/2015
Semiannual - SWMU Well Network	SWMU 114	M114MW001	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
		M114MW002	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
		M114MW003	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
		M114MW004	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
	SWMU 130	MAO1MW001	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
		MAO1MW002	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
		MAO1MW003	x	x	---	---	x	x	x	x	x	x	x	x	x	x	x	x
		MAO1MW004	---	---	---	---	x	x	x	x	x	x	x	x	x	x	x	x
	SWMU 131	MAO2MW001D	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	MWQ-24		---	---	---	---	---	---	---	---	---	---	---	x	x	x	x	x
Annual Well Network	MWQ-2		x	x	x	x	x	x	---	x	---	---	x	---	x	---	x	---
	MWQ-14		x	x	x	x	x	x	---	x	---	---	x	---	x	---	---	x [6]
	MWQ-18		---	---	x	x	x	x	---	x	---	---	x	---	x	---	x	---
	MWQ-19		---	---	---	---	x	x	---	x	---	---	x	---	x	---	x	---
	MWQ-20		---	---	x	x	x	x	---	x	---	---	x	---	x	---	x	---
	MWQ-21		---	---	x	x	x	x	---	x	---	---	x	---	x	---	x	---
	MWQ-22		---	---	x	x	x	x	---	x	---	---	x	---	x	---	x	---

[1] Filtered ground-water samples were analyzed for explosives, metals, nitrate plus nitrite, ammonia as nitrogen, phosphorus , anions (bromide, chloride, fluoride, and sulfate), sulfide, organic carbon, alkalinity, dissolved solids, and perchlorate.

[2] Filtered ground-water samples were analyzed for volatile organic compounds, semi-volatile organic compounds, organochlorine pesticides, organophosphorus pesticides, metals, anions (bromide, chloride, fluoride, and sulfate), alkalinity, dissolved solids, organic carbon, phosphorus, sulfide, ammonia, nitrate plus nitrite, and perchlorate.

[3] 2009 Semiannual samples were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, metals, hexavalent chromium, perchlorate, bromide, chloride, fluoride, sulfate, explosives, TOC, phosphate, and ammonia.

[4] Annual samples were collected and analyzed for metals, TDS, hexavalent chromium, alkalinity, TOC, phosphate, ammonia, and nitrate/nitrite.

[5] Semiannual samples were collected and analyzed for VOCs, explosives, metals, chloride, sulfate, nitrate, nitrite, total dissolved solids, alkalinity, cyanide, perchlorate, and hexavalent chromium.

[6] Due to access issues during the Spring 2015 Annual Sampling Event, MWQ-14 was sampled on November 13, 2015. This well will be sampled again during the Spring 2016 Annual Sampling Event.

5.0 SCOPE OF SERVICES

5.1 SUMMARY OF FIELD ACTIVITIES

[illegible]

[illegible]

[illegible]

- [illegible]
- [illegible]
- [illegible]

[illegible] **Figure 4** [illegible] **Figure 6** [illegible] **Table 1** [illegible]

5.1.1 Groundwater Sampling Procedures

[illegible]

Appendix A.

Groundwater Monitoring Field Sampling Plan

Appropriate Sample Containers, Preservatives, and Holding Times

Anlytical Parameters	Method	Container	Preservation	Maximum Holding Time
Alkalinity	2320B	500-mL plastic or glass	Cool 4°C	14 days
Chloride	300.0	500-mL plastic or glass	Cool 4°C	28 days
Chromium (VI)	218.6	250-mL plastic or glass	Cool 4°C, buffer solution 9.3<pH<9.7	14 days
Cyanide	9012A	500-mL plastic or glass	Cool, ≤4 °C9, NaOH to pH>12, reducing agent	14 days
Explosives	8330	Two 1-liter wide mouth amber glass bottle, with Teflon lined cap	Cool 4°C	7 days until extraction, 40 days after extraction
Mercury	7470A	500-mL plastic or glass	Cool 4°C, HNO3 to pH<2	28 days
Metals (Total & Diss.)	6020A	500-mL plastic or glass	Cool 4°C, HNO3 to pH<2	6 months
Metals (Total & Diss.)	6010C	500-mL plastic or glass	Cool 4°C, HNO3 to pH<2	6 months
Nitrite, Nitrate	300.0	500-mL plastic or glass	Cool 4°C	48 hours
Perchlorate	6860	125-mL plastic or glass	Cool 4°C	28 days
Perchlorate	6850	125-mL plastic or glass	Cool 4°C	28 days
Sulfate	300.0	500-mL plastic or glass	Cool 4°C	28 days
TDS	2540C	500-mL plastic or glass	Cool 4°C	7 days
VOCs	8260B	Three 40-mL glass vials	Cool 4°C, HCL to pH<2	14 days

Appendix A

Groundwater Monitoring Field Sampling Plan 015

5.1.1.1 2015 Semiannual Spring – SWMU Groundwater Quality Network

Sampling Schedule

SWMU 114	M114MW001	4/01/2015 1253
	M114MW002	4/01/2015 1145
	M114MW003	4/01/2015 1126
	M114MW004	4/01/2015 1325
SWMU 130	MAO1MW001	4/02/2015 1020
	MAO1MW002	4/02/2015 0925
	MAO1MW003	4/02/2015 1059
	MAO1MW004	4/02/2015 0940
SWMU 131	MAO2MW001D	4/02/2015 1406
Background	MWQ-24	4/02/2015 1210

Table 1. **Figure 3** **Figure 4** **Table 1.** **Table 2** **Table 6ai.**

- M114MW001
- M114MW001
- M114MW001

- [illegible]

5.1.1.2 2015 Annual Spring – Groundwater Quality Network

[illegible]

Sampling Schedule

MWQ-2	4/03/2015 1420
MWQ-14	11/13/2015 0925
MWQ-18	4/03/2015 1250
MWQ-19	4/03/2015 1210
MWQ-20	4/03/2015 1207
MWQ-21	4/13/2015 1045
MWQ-22	4/03/2015 0935

[illegible] **Figure 3** [illegible] **Figure 6** [illegible] **Table 1.** [illegible] **Table 2 through Table 6ai.**

[illegible]

[illegible]

- [illegible]
- [illegible]

2015 Semiannual Fall - SWMU Groundwater Quality Network

[illegible]

Sampling Schedule

SWMU 114	M114MW001	10/22/2015 1110
	M114MW002	10/22/2015 0917
	M114MW003	10/22/2015 1023
	M114MW004	10/22/2015 0910
SWMU 130	MAO1MW001	10/22/2015 1255
	MAO1MW002	10/22/2015 1238

	MAO1MW003	10/22/2015 1445
	MAO1MW004	10/22/2015 1348
SWMU 131	MAO2MW001D	10/23/2015 0855
Background	MWQ-24	10/23/2015 1055

Figures 3 **Figure 4** **Table 1** **Table 2** **Table 6ai**

- M M 001
- M/M M 1M 001 M M 1M 001 M
- M M 001
- 01 0 0 04 05 0 0 0 0 0 *Groundwater Monitoring Field Sampling Plan* 015

5.1.2 Investigation Derived Waste

015 5 55

5.1.3 Groundwater Elevation Measurements

M r 500 M

5.1.4 Monitoring Network Well Inspection/Maintenance

6.0 REGULATORY CRITERIA

rd *Approval with Modifications, Annual Groundwater Monitoring Report, Revision 1, Melrose Air Force Range, July 2015* d d r 1 015 M 015 d r r r d d d r d r r d r r

1 r M 0 r r r r r r d d r r r 0 10 d r *United States Environmental Protection Agency (USEPA) Maximum Contaminant Levels for Drinking Water (primary and secondary).* r r r d r

d r r r r r r r d r *2015 NMED Risk Assessment Guidance for Site Investigations and Remediation* M 015 d

7.0 GROUNDWATER MONITORING RESULTS

7.1 Field Water Quality Measurements

Position Paper: General Reporting Requirements for Routine Groundwater Monitoring Activities at RCRA Sites, *summarizing … field water quality measurements can be substituted for this section.* **Table 3**

7.2 Groundwater Elevation, Gradient, and Flow Velocity

Figure 7 **Figure 8** **Table 2**

Geophysical and Downhole Camera Investigation Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico

1. **Figure 9** [illegible] M[illegible] 1[illegible] 015[illegible]
2. **Figure 10** [illegible] M[illegible] 1[illegible] 015[illegible]
3. **Figure 11** [illegible] 1[illegible] 015[illegible]
4. **Figure 12 –** [illegible] 1[illegible] 015[illegible]

[illegible] M[illegible] 14[illegible] 015[illegible] 1[illegible] 015[illegible] M[illegible] 011[illegible]

7.3 Well Condition Inspection/Maintenance

[illegible] M[illegible]

8.0 GROUNDWATER CHEMICAL ANALYTICAL DATA

[illegible] **Table 2** [illegible] **6ai** [illegible] **Appendix B** [illegible] *Groundwater Monitoring Field Sampling Plan* [illegible] **Appendix B** [illegible]

- *Phase I RCRA Facility Investigation for Melrose Air Force Range*
- *RCRA Facility Investigation Report Addendum for Melrose Bombing Range*
- *Final Report, Initial Baseline Groundwater Monitoring, Melrose Air Force Range, New Mexico*

Appendix D

USEPA: Contract Laboratory Program, National Functional Guidelines for Organic Data Review

USEPA: Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review

8.1 Groundwater Quality

Position Paper, General Reporting Requirements for Routine Groundwater Monitoring Activities at RCRA Sites February 14, 2003

summarizing the groundwater and QA/QC chemical analytical data, applicable cleanup levels and modifications to the groundwater sampling program can be substituted for this section.

8.1.1 Spring 2015 - Annual Groundwater Quality Network

[illegible] **Table 4a – 4e** [illegible] **Table 6a – 6ai** [illegible] **Table 3a** [illegible] **Table 5a** [illegible]

[illegible] **Figure 13.** [illegible] **Table 5a** [illegible] **Appendix B** [illegible]

[illegible]

8.1.2 Spring 2015 - Semiannual SWMU Groundwater Quality Network

[illegible] **Table 4a – 4e** [illegible] **Table 6a – 6ai** [illegible] **Table 3a** [illegible] **Table 5a** [illegible] **Figure 14.** [illegible]

8.1.2.1 SWMU 114

[illegible]

8.1.2.2 SWMU 130

8.1.2.3 SWMU 131

8.1.2.4 MWQ-24 – Background Well

8.1.3 Fall 2015 - Semiannual SWMU Groundwater Quality Network

Table 3b **Table 5b** **Figure 15**

8.1.3.1 SWMU 114

Table 5b **Appendix B**

8.1.3.2 SWMU 130

Table 5b **Appendix B**

8.1.3.3 SWMU 131

Table 5b **Appendix B**

8.1.3.4 MWQ-24 (Background Well)

Table 5b **Appendix B**

9.0 SUMMARY

[illegible]

- [illegible]
- [illegible] *USEPA; Contract Laboratory Program, National Functional Guidelines for Organic Data Review* [illegible] *USEPA; Contract Laboratory Program, National Functional Guidelines for Inorganic Data Review* [illegible]
- [illegible]

10.0 WORKS CITED

Roosevelt County, History and Heritage.

Hydrogeology of Lower Cretaceous strata under the Southern High Plains of Texas and New Mexico

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1990 RCRA Facility Investigation Work Plan, CAFB, New Mexico, Prepared for 27 CSG/DEC CAFB, New Mexico. Vols. I and II.

Approval Annual Ground Water Monitoring Report, December 2011, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico.

Approval with Modifications, Annual Groundwater Monitoring Report, Revision 1, Melrose Air Force Range, July 2015.

Deferment for the Submittal of the Revised RCRA Facility Investigation Work Plan for Melrose Air Force Range.

Position Paper: General Reporting Requirements for the Routine Groundwater Monitoring at RCRA Sites.

[illegible] M[illegible]r[illegible]r[illegible]015[illegible] *Risk Assessment Guidance for Site Investigations and Remediation.*

[illegible]r[illegible]r[illegible]014[illegible] *Melrose Geophysical Logging and Downhole Camera Report, Melrose Air Force Range, NM*

[illegible]r[illegible]r[illegible]01[illegible] *December 2011, Annual Groundwater Monitoring Report, Melrose Air Force Range, Roosevelt and Curry Couties, NM*

[illegible]r[illegible]r[illegible]01[illegible] *Background Well MWQ-24 Installation Report, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico.*

[illegible]r[illegible]r[illegible]015[illegible] *Groundwater Monitoring Field Sampling Plan, Melrose Air Force Range, Roosevelt and Curry Counties, New Mexico.*

[illegible]00[illegible] *Final Report, Initial Baseline Groundwater Monitoring, Melrose Air Force Range, New Mexico.*

[illegible]010[illegible] *Web Soil Survey* [illegible]r[illegible]d[illegible]r[illegible]5[illegible]010[illegible]r[illegible]d[illegible]r[illegible]r[illegible]r[illegible]r[illegible]r[illegible]r[illegible]//[illegible]r[illegible]r[illegible]d[illegible]/[illegible]/[illegible]

[illegible] *USEPA Maximum Contaminant Levels for Drinking Water (primary and secondary).*

[illegible]004[illegible] *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* [illegible]04[illegible]0[illegible]r[illegible]d[illegible]d[illegible]d[illegible]r[illegible]r[illegible]

[illegible]1[illegible] *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* [illegible]04[illegible]0[illegible]r[illegible]d[illegible]d[illegible]r[illegible]r[illegible]

[illegible]r[illegible]r[illegible]001[illegible] *New Mexico Administrative Code, Title 20 Environmental Protection, Chapter 6 Water Quality, Part 2 Ground and Surface Water Protections, Section 20.6.2.3103, Subsections A, B, and C.*

[illegible]r[illegible]r[illegible]015[illegible]r[illegible]d[illegible]r[illegible]1[illegible]015[illegible]r[illegible]r[illegible]r[illegible]//[illegible]r[illegible]dr[illegible]d[illegible]/[illegible]/[illegible]M[illegible]5[illegible]1[illegible]

[illegible]r[illegible]d[illegible]r[illegible]r[illegible]d[illegible]015[illegible]r[illegible]d[illegible]r[illegible]1[illegible]015[illegible]r[illegible]r[illegible]d[illegible]r[illegible]r[illegible]d[illegible]//[illegible]d[illegible]r[illegible]r[illegible]d[illegible]/[illegible]r[illegible]/[illegible]r[illegible]MM[illegible]5[illegible]

TABLES

TABLE 1
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

	Well Identification	Location (State Plane)[1]		Top of Casing[1]	Well Type	Top of Screen	Bottom of Screen	Total Well Depth	Screen Length	Sump Length	Well I.D.	Well Material	Pump	Pump Intake Depth (feet bls)	Formation Monitored
		Easting (feet)	Northing (feet)	feet NAVD		feet bls	feet bls	feet bls	feet	feet	inches				
Semiannual-SWMU Groundwater Quality Well Network	M114MW001	□0□□□□□	1□0□5□□□□	4□□□□1	M□	15□□□	1□□□□	1□□□□	□0□00	0□□	4□0	□□□	□□□	1□□□□	□□□□□
	M114MW002	□0□□□0□51	1□0□5□□□□	4□□□□11	M□	1□□□11	1□□□11	1□□□44	□0□00	0□□	4□0	□□□	□□□	1□□□44	□□□□□
	M114MW003	□0□□□□□	1□0□400□5	4□□□□□	M□	15□□□	1□□□□	1□□□□5	□0□00	0□□	4□0	□□□	□□□	1□□□□5	□□□□□
	M114MW004	□0□□□□□5	1□0□5□□□□	4□□4□□	M□	1□1□4□	1□1□4□	1□1□□5	□0□00	0□□	4□0	□□□	□□□	1□□□□5	□□□□□
	MAO1MW001	□0□1□□□	1□05□□□□5	4□44□□	M□	141□5□	1□1□5□	1□1□□□	□0□00	0□□	4□0	□□□	□□□	15□□□	□□□□□
	MAO1MW002	□0□□□1□□	1□055□□4□	4□4□5□	M□	145□□1	155□□1	155□□4	10□00	0□□	4□0	□□□	□□□	15□□4	□□□□□
	MAO1MW003	□0□04□4□	1□0551□5□	4□45□□	M□	1□□□□	15□□□	15□□□	□0□00	0□□	4□0	□□□	□□□	15□□□	□□□□□
	MAO1MW004	□0□5□□□	1□05□□□□□	4□4□□□1	M□	140□0□	1□0□0□	1□0□41	□0□00	0□□	4□0	□□□	□□□	15□41	□□□□□
	MAO2MW001D	□0□5□□□	11□□□0□□□	4□55□0	M□	1□1□5	1□1□5	1□□□□	□0□00	0□□	4□0	□□□	□□□	1□□□□	□□□□□
	MWQ-24	□□□□5□4□	11□0□04□5	4□44□5	M□	4□□0	□□□0	□□1□	□0□00	0□□	4□0	□□□	□□□	□0□1□	□□□□□□
Annual Groundwater Quality Well Network	MWQ-2	□0□0□□□	11□□505□4□	4□□□□□	M□	□0□4	□0□4	□5□54	10□00	4□0	□0	□□□	□□□	□5□1	□□□□□
	MWQ-14	□0□□□1□5□	11□□0□4□5□	4□□□□11	M□	□0□0	110□0	11□□□	□0□00	□□□	□0	□□□	□□□	100□□	□□□□□
	MWQ-18	□441□5□	1□15441□□	4□0□1□	M□	11□00	1□□00	15□00	□0□00	1□00	□0	□□□	□□□	1□□15	□□□□□□
	MWQ-19	□441□5□	1□15441	4□0□1□	M□	□00□0	□1□0□	□□00	□0□00	4□0	□0	□□□	□□□	□10□1□	□□□□□
	MWQ-20	□4□□□□	1□1541□04	4□0□□	M□	□5□00	□□□00	□□□□	40□00	1□□	□0	□□□	□□□	□5□5	□□□□□
	MWQ-21	□01□5□□	1□1□□□1□1	4□0□□□	M□	40□0	□0□0	□4□40	□0□00	□□0	□0	□□□	□□□	54□14	□□□□□□
	MWQ-22	□01□5□	1□1□□□1□	4□0□1	M□	□0□0	150□0	15□□5	□0□00	□□5	□0	□□□	□□□	1□0□0	□□□□□/□□□□□
Water Level Only	MWQ-1	□0□□□4	11□501□□	4□□□0	M□	□□□	□□□	1□□50	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWQ-8	□□4□4□5	11□□□1□55	44□□□1	□□□□	□□□	□□□	11□00	□□□	□□□	4□0	□□□	□□□	□□	□□□
	MWQ-12	□1□□5□1	11□□□□0	4405□	□□□□	□□□	□□□	□□□	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWQ-13	□□□□5□	11□0□0□5	4□0□5	□□□□	□□□	□□□	□□□	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-4	□150□□1□	1□1□□□□□1	4□0□□	□□□□	□□□	□□□	5□□0	□□□	□□□	4□0	□□□	□□□	□□	□□□
	MWL-5	□145□□□1	1□4□54□4□	41□□□	□□□□	□□□	□□□	□5□00	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-6	□□□□5□5	1□1□□1□□□	4□04□	□□□□	□□□	□□□	1□□00	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-7	□0□1□1□□	1□1□4□□□1	4□5□4□	□□□□	□□□	□□□	10□□0	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-8	□□□0□□□	1□1□1□□04	4□□□0□	□□□□	□□□	□□□	114□00	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-9	□01□5□1□	1□5□□□□5	4□41□4	□□□□	□□□	□□□	4□□0	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-10	□□□0□□□	11□□1□□□	45□□5	□□□□	□□□	□□□	□□□	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-11	□□4□4□□	11□□□□□4	45□□□	□□□□	□□□	□□□	□□□	□□□	□□□	□0	□□□	□□□	□□	□□□
	MWL-12	□0□0□□□	11□□55□□1	444□□	□□□□	□□□	□□□	□□□	□□□	□□□	□0	□□□	□□□	□□	□□□

[1] [illegible]

TABLE 1
SUMMARY OF WELL CONSTRUCTION DETAILS

TABLE 2
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

Well No.	TOC [2] (ft NAVD)	Screened Interval (ft bls)	DEPTH TO WATER (ft BTOC)																
			1/1/2003 [1]	1/12/2004	7/19/2004	7/18/2005	6/18/2007	1/14/2009	1/26/2010	10/24/2010	5/3/2011	9/26/2011	11/8/2012	6/1/2013	12/14/2013	4/23/2014	10/23/2014	3/31/2015	10/21/2015
M114MW001	4,327.21	159.39-179.39	ND	ND	ND	ND	ND	150.07	150.30	150.87	151.03	151.71	151.92	151.43	150.76	151.18	151.69	151.16	150.58
M114MW002	4,328.11	162.11-182.11	ND	ND	ND	ND	ND	150.56	150.45	150.60	150.74	151.05	150.96	150.25	151.43	150.67	150.99	150.83	150.91
M114MW003	4,329.62	159.62-179.62	ND	ND	ND	ND	ND	151.70	151.60	151.95	151.77	151.99	151.82	151.41	151.81	151.78	151.94	151.90	151.89
M114MW004 (MWQ-16)	4,324.99	161.42-181.42	148.78	149.50	148.62	148.73	148.48	149.15	149.00	149.09	149.54	150.04	149.95	149.49	149.48	149.45	149.90	149.58	149.60
M117MW001	4,359.75	UNK	ND	ND	ND	ND	ND	42.71	42.65	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW002	4,357.67	UNK	ND	ND	ND	ND	ND	40.68	41.65	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW003	4,355.55	UNK	ND	ND	ND	ND	ND	42.47	42.60	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW004	4,353.88	UNK	ND	ND	ND	ND	ND	Dry	Dry	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MAO1MW001	4,344.68	141.56-161.56	ND	ND	ND	ND	ND	143.49	143.20	143.42	142.58	142.87	142.69	142.21	142.85	142.33	142.70	142.51	142.57
MAO1MW002	4,343.58	145.31-155.31	ND	ND	ND	ND	ND	142.65	142.40	142.75	142.44	142.49	142.70	142.03	142.79	142.38	142.73	142.52	142.68
MAO1MW003 (MWQ-17)	4,345.33	139.36-159.36	144.11	144.83	ND	ND	ND	144.20	143.90	144.03	143.43	143.72	143.63	143.34	143.81	143.42	143.68	143.39	143.52
MAO1MW004	4,342.91	140.08-160.08	ND	ND	ND	ND	ND	142.92	142.85	143.13	142.78	143.11	146.40	143.13	143.82	143.40	143.69	143.48	143.54
MAO2MW001D (MWQ-15)	4,355.90	161.95-181.95	105.20	105.62	105.28	100.66	103.83	105.53	105.72	106.29	104.56	105.63	105.57	104.64	105.29	105.56	105.65	105.38	105.62
MAO2MW001S	4,355.78	UNK	ND	ND	ND	ND	ND	Dry	Dry	Dry	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MAO3MW001	4,350.11	UNK	ND	ND	ND	ND	ND	42.00	ND	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MWQ-1	4,293.60	UNK	ND	ND	ND	ND	ND	Dry	ND	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MWQ-2	4,293.72	220.64-230.64	122.68	122.41	122.26	122.14	122.07	122.05	122.03	121.96	121.96	121.98	121.85	121.82	121.73	121.65	121.73	121.60	121.39
MWQ-3	4,270.78	90.70-110.70	124.04	128.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-4	4,202.69	119.00-139.00	23.10	ND	ND	ND	39.85	ND	ND	41.78	25.09	26.12	25.86	ND	ND	ND	41.38	ND	ND
MWQ-5	4,234.22	201.00-221.00	56.32	56.07	55.66	ND	56.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-6	4,273.00	256.00-296.00	84.88	ND	ND	ND	84.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-7	4,262.68	41.00-61.00	68.61	68.92	68.99	70.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-8	4,469.71	UNK	109.43	ND	ND	110.39	109.59	Dry	Dry	111.10	108.96	110.42	108.64	108.49	108.53	108.51	108.55	108.20	108.34
MWQ-9	4,490.64	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	ND	ND	ND	ND
MWQ-10	4,642.32	90.70-150.70	46.83	46.63	ND	41.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-11	4,666.10	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-12	4,405.77	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	52.08	52.72	53.02	52.81	53.16	53.23	53.37	53.66
MWQ-13	4,280.51	UNK	ND	ND	ND	ND	ND	ND	ND	ND	151.83	151.41	151.56	151.24	151.20	151.59	151.56	151.24	151.30
MWQ-14	4,382.11	90.70-110.70	65.87	66.97	66.19	65.79	65.54	65.81	65.50	ND	ND	65.66	ND	65.75	65.84	65.64	ND	ND	66.80
MWQ-18	4,290.17	119.00-139.00	ND	ND	ND	ND	100.50	101.33	124.75	101.29	101.19	101.46	101.89	102.18	102.30	102.30	102.01	102.04	101.81
MWQ-19	4,290.13	200.70-221.07	ND	ND	ND	ND	ND	101.05	100.80	102.82	99.41	ND	111.77	103.73	109.93	101.69	114.04	107.81	116.11
MWQ-20	4,290.26	256.00-296.00	ND	ND	ND	ND	83.15	83.33	106.75	83.30	83.28	83.58	83.33	81.59	83.49	84.46	83.28	83.13	83.09
MWQ-21	4,209.26	40.70-60.70	ND	ND	ND	ND	42.82	44.75	45.08	45.20	45.24	45.36	45.52	45.72	45.66	45.81	45.92	46.01	46.08
MWQ-22	4,209.12	90.70-150.70	ND	ND	ND	ND	40.02	41.90	65.88	42.34	42.41	42.49	42.63	42.70	42.47	42.60	42.78	42.72	42.72
MWQ-23	4,498.43	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-24	4,644.95	42.80-62.80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.64	48.52	45.96	47.24	47.74
MWL-1	4,226.02	UNK	112.01	110.89	110.90	110.88	112.30	114.00	ND	130.90	131.50	ND	ND	Dry	Dry	Dry	Dry	Dry	Dry
MWL-2	4,291.95	UNK	128.23	128.16	128.22	ND	128.37	ND	ND	ND	128.37	ND	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]
MWL-3	4,226.98	UNK	57.98	58.45	58.47	ND	58.77	59.90	ND	ND	ND	ND	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]
MWL-4	4,220.77	UNK	49.88	49.83	49.85	49.89	49.99	50.00	ND	50.51	50.60	50.78	51.01	51.20	51.31	51.37	51.56	51.66	51.80
MWL-5	4,196.32	UNK	12.42	ND	ND	ND	11.85	12.21	ND	13.50	12.68	14.08	13.94	13.44	12.20	12.20	13.95	12.90	14.27
MWL-6	4,304.80	UNK	116.61	116.94	117.03	117.24	117.37	118.42	118.60	118.60	118.59	118.68	118.68	118.74	118.81	118.92	118.92	119.11	119.14
MWL-7	4,258.43	UNK	74.30	74.69	74.75	74.79	74.89	74.75	ND	75.00	75.03	75.14	75.24	75.40	75.50	75.60	75.70	75.84	75.95
MWL-8	4,262.06	UNK	74.06	74.65	74.65	74.24	74.15	73.88	ND	74.10	ND	74.23	74.45	74.92	74.59	74.68	74.70	74.77	Inaccessible[4]
MWL-9	4,241.74	UNK	43.81	ND	ND	ND	ND	44.70	ND	45.10	45.19	45.29	45.55	45.84	45.91	46.05	46.28	46.42	46.62
MWL-10	4,573.45	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	silted up	silted up	silted up	silted up	silted up	silted up	silted up
MWL-11	4,579.80	UNK	ND	ND	ND	ND	ND	ND	ND	ND	58.79	58.64	58.73	58.55	58.52	58.92	58.82	58.70	58.85
MWL-12	4,446.85	UNK	ND	ND	ND	ND	ND	ND	ND	ND	51.78	37.18	39.05	41.21	41.74	41.90	42.03	41.95	41.93

[1] The January 2003 ground water flow data is the "median altitude of water table" between 2002 and 2003 (Langman, 2004).

[2] With the exception of MWQ-24 which was surveyed on September 16, 2013 all wells were surveyed or resurveyed by Lydick, Inc. between December 4, 2012 and January 2, 2013. Land surveying was completed using the New Mexico East State Plane North American Datum (NAD) 83 and North American Vertical Datum (NAVD) 88 (adjusted) in decimal feet. All horizontal coordinates were measured to the nearest fiftieth of a foot. All vertical coordinates were measured to the nearest tenth of a foot.

ND	No Data
NSD	No Survey Data
UNK	Unknown
4,165.24	Data is considered anamolous due to its departure from the norm. Data is not included in plots.
130.90	Pump running during measurement of water level.

[3] Located within Life-Fire Range (Active Bombing Range)

[4] Inaccessible/safety hazard

TABLE 2
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

Well No.	TOC (ft NAVD) [2]	Screened Interval (ft bls)	WATER LEVEL (ft NAVD)																
			1/1/2003 [1]	1/12/2004	7/19/2004	7/18/2005	6/18/2007	1/14/2009	1/26/2010	10/24/2010	5/3/2011	9/26/2011	11/8/2012	6/1/2013	12/14/2013	4/23/2014	10/23/2014	4/1/2015	10/21/2015
M114MW001	4,327.21	159.39-179.39	ND	ND	ND	ND	ND	4,177.14	4,176.91	4,176.34	4,176.18	4,175.50	4,175.29	4,175.78	4,176.45	4,176.03	4,175.52	4,176.05	4,176.63
M114MW002	4,328.11	162.11-182.11	ND	ND	ND	ND	ND	4,177.55	4,177.66	4,177.51	4,177.37	4,177.06	4,177.15	4,177.86	4,176.68	4,177.44	4,177.12	4,177.28	4,177.20
M114MW003	4,329.62	159.62-179.62	ND	ND	ND	ND	ND	4,177.92	4,178.02	4,177.67	4,177.85	4,177.63	4,177.80	4,178.21	4,177.81	4,177.84	4,177.68	4,177.72	4,177.73
M114MW004 (MWQ-16)	4,324.99	161.42-181.42	4,176.21	4,175.49	4,176.37	4,176.26	4,176.51	4,175.84	4,175.99	4,175.90	4,175.45	4,174.95	4,175.04	4,175.50	4,175.51	4,175.54	4,175.09	4,175.41	4,175.39
M117MW001	4,359.75	UNK	ND	ND	ND	ND	ND	4,317.04	4,317.10	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW002	4,357.67	UNK	ND	ND	ND	ND	ND	4,316.99	4,316.02	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW003	4,355.55	UNK	ND	ND	ND	ND	ND	4,313.08	4,312.95	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
M117MW004	4,353.88	UNK	ND	ND	ND	ND	ND	Dry	Dry	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MAO1MW001	4,344.68	141.56-161.56	ND	ND	ND	ND	ND	4,201.19	4,201.48	4,201.26	4,202.10	4,201.81	4,201.99	4,202.47	4,201.83	4,202.35	4,201.98	4,202.17	4,202.11
MAO1MW002	4,343.58	145.31-155.31	ND	ND	ND	ND	ND	4,200.93	4,201.18	4,200.83	4,201.14	4,201.09	4,200.88	4,201.55	4,200.79	4,201.20	4,200.85	4,201.06	4,200.90
MAO1MW003 (MWQ-17)	4,345.33	139.36-159.36	4,201.22	4,200.50	ND	ND	ND	4,201.13	4,201.43	4,201.30	4,201.90	4,201.61	4,201.70	4,201.99	4,201.52	4,201.91	4,201.65	4,201.94	4,201.81
MAO1MW004	4,342.91	140.08-160.08	ND	ND	ND	ND	ND	4,199.99	4,200.06	4,199.78	4,200.13	4,199.80	4,196.51	4,199.78	4,199.09	4,199.51	4,199.22	4,199.43	4,199.37
MAO2MW001D (MWQ-15)	4,355.90	161.95-181.95	4,250.70	4,250.28	4,250.62	4,255.24	4,252.07	4,250.37	4,250.18	4,249.61	4,251.34	4,250.27	4,250.33	4,251.26	4,250.61	4,250.34	4,250.25	4,250.52	4,250.28
MAO2MW001S	4,355.78	UNK	ND	ND	ND	ND	ND	Dry	Dry	Dry	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MAO3MW001	4,350.11	UNK	ND	ND	ND	ND	ND	4,308.11	ND	ND	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
MWQ-1	4,293.60	UNK	ND	ND	ND	ND	ND	Dry	ND	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MWQ-2	4,293.72	220.64-230.64	4,171.04	4,171.31	4,171.46	4,171.58	4,171.65	4,171.67	4,171.69	4,171.76	4,171.76	4,171.74	4,171.87	4,171.90	4,171.99	4,172.07	4,171.99	4,172.12	4,172.33
MWQ-3	4,270.78	90.70-110.70	4,146.74	4,142.47	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-4	4,202.69	119.00-139.00	4,179.59	ND	ND	ND	4,162.84	ND	ND	4,160.91	4,177.60	4,176.57	4,176.83	ND	ND	ND	4,161.31	ND	ND
MWQ-5	4,234.22	201.00-221.00	4,177.90	4,178.15	4,178.56	ND	4,177.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-6	4,273.00	256.00-296.00	4,188.12	ND	ND	ND	4,188.49	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-7	4,262.68	41.00-61.00	4,194.07	4,193.76	4,193.69	4,192.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-8	4,469.71	UNK	4,360.28	ND	ND	4,359.32	4,360.12	Dry	Dry	4,358.61	4,360.75	4,359.29	4,361.07	4,361.22	4,361.18	4,361.20	4,361.16	4,361.51	4,361.37
MWQ-9	4,490.64	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Dry	ND	ND	ND	ND	ND	ND
MWQ-10	4,642.32	90.70-150.70	4,595.49	4,595.69	ND	4,600.99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-11	4,666.10	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-12	4,405.77	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,353.69	4,353.05	4,352.75	4,352.96	4,352.61	4,352.54	4,352.40	4,352.11
MWQ-13	4,280.51	UNK	ND	ND	ND	ND	ND	ND	ND	ND	4,128.68	4,129.10	4,128.95	4,129.27	4,129.31	4,128.92	4,128.95	4,129.27	4,129.21
MWQ-14	4,382.11	90.70-110.70	4,316.24	4,315.14	4,315.92	4,316.32	4,316.57	4,316.30	4,316.61	ND	ND	4,316.45	ND	4,316.36	4,316.27	4,316.47	ND	ND	4,315.31
MWQ-18	4,290.17	119.00-139.00	ND	ND	ND	ND	4,189.67	4,188.84	4,165.42	4,188.88	4,188.98	4,188.71	4,188.28	4,187.99	4,187.87	4,187.87	4,188.16	4,188.13	4,188.36
MWQ-19	4,290.13	200.70-221.07	ND	ND	ND	ND	ND	4,189.08	4,189.33	4,187.31	4,190.72	ND	4,178.36	4,186.40	4,180.20	4,188.44	4,176.09	4,182.32	4,174.02
MWQ-20	4,290.26	256.00-296.00	ND	ND	ND	ND	4,207.11	4,206.93	4,183.51	4,206.96	4,206.98	4,206.68	4,206.93	4,208.67	4,206.77	4,205.80	4,206.98	4,207.13	4,207.17
MWQ-21	4,209.26	40.70-60.70	ND	ND	ND	ND	4,166.44	4,164.51	4,164.18	4,164.06	4,164.02	4,163.90	4,163.74	4,163.54	4,163.60	4,163.45	4,163.34	4,163.25	4,163.18
MWQ-22	4,209.12	90.70-150.70	ND	ND	ND	ND	4,169.10	4,167.22	4,143.24	4,166.78	4,166.71	4,166.63	4,166.49	4,166.42	4,166.65	4,166.52	4,166.34	4,166.40	4,166.40
MWQ-23	4,498.43	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MWQ-24	4,644.95	42.80-62.80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,597.31	4,596.43	4,598.99	4,597.71	4,597.21
MWL-1	4,226.02	UNK	4,114.01	4,115.13	4,115.12	4,115.14	4,113.72	4,112.02	ND	4,095.12	4,094.52	ND	ND	Dry	Dry	Dry	Dry	Dry	Dry
MWL-2	4,291.95	UNK	4,163.72	4,163.79	4,163.73	ND	4,163.58	ND	ND	ND	4,163.58	ND	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]
MWL-3	4,226.98	UNK	4,169.00	4,168.53	4,168.51	ND	4,168.21	4,167.08	ND	ND	ND	ND	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]	Inaccessible [3]
MWL-4	4,220.77	UNK	4,170.89	4,170.94	4,170.92	4,170.88	4,170.78	4,170.77	ND	4,170.26	4,170.17	4,169.99	4,169.76	4,169.57	4,169.46	4,169.40	4,169.21	4,169.11	4,168.97
MWL-5	4,196.32	UNK	4,183.90	ND	ND	ND	4,184.47	4,184.11	ND	4,182.82	4,183.64	4,182.24	4,182.38	4,182.88	4,184.12	4,184.12	4,182.37	4,183.42	4,182.05
MWL-6	4,304.80	UNK	4,188.19	4,187.86	4,187.77	4,187.56	4,187.43	4,186.38	4,186.20	4,186.20	4,186.21	4,186.12	4,186.12	4,186.06	4,185.99	4,185.88	4,185.88	4,185.69	4,185.66
MWL-7	4,258.43	UNK	4,184.13	4,183.74	4,183.68	4,183.64	4,183.54	4,183.68	ND	4,183.43	4,183.40	4,183.29	4,183.19	4,183.03	4,182.93	4,182.83	4,182.73	4,182.59	4,182.48
MWL-8	4,262.06	UNK	4,188.00	4,187.41	4,187.41	4,187.82	4,187.91	4,188.18	ND	4,187.96	ND	4,187.83	4,187.61	4,187.14	4,187.47	4,187.38	4,187.36	4,187.29	Inaccessible [4]
MWL-9	4,241.74	UNK	4,197.93	ND	ND	ND	ND	4,197.04	ND	4,196.64	4,196.55	4,196.45	4,196.19	4,195.90	4,195.83	4,195.69	4,195.46	4,195.32	4,195.12
MWL-10	4,573.45	UNK	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	silted up	silted up	silted up	silted up	silted up	silted up	silted up
MWL-11	4,579.80	UNK	ND	ND	ND	ND	ND	ND	ND	ND	4,521.01	4,521.16	4,521.07	4,521.25	4,521.28	4,520.88	4,520.98	4,521.10	4,520.95
MWL-12	4,446.85	UNK	ND	ND	ND	ND	ND	ND	ND	ND	4,395.07	4,409.67	4,407.80	4,405.64	4,405.11	4,404.95	4,404.82	4,404.90	4,404.92

[1] The January 2003 ground water flow data is the "median altitude of water table" between 2002 and 2003 (Langman, 2004).

[2] With the exception of MWQ-24 which was surveyed on September 16, 2013 all wells were surveyed or resurveyed by Lydick, Inc. between December 4, 2012 and January 2, 2013. Land surveying was completed using the New Mexico East State Plane North American Datum (NAD) 83 and North American Vertical Datum (NAVD) 88 (adjusted) in decimal feet. All horizontal coordinates were measured to the nearest fiftieth of a foot. All vertical coordinates were measured to the nearest tenth of a foot.

ND	No Data
NSD	No Survey Data
UNK	Unknown
4,165.24	Anamolous data not included in plots
130.90	Pump running during measurement of water level.

[3] Located within Life-Fire Range (Active Bombing Range)

[4] Inaccessible/safety hazard

TABLE 2
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

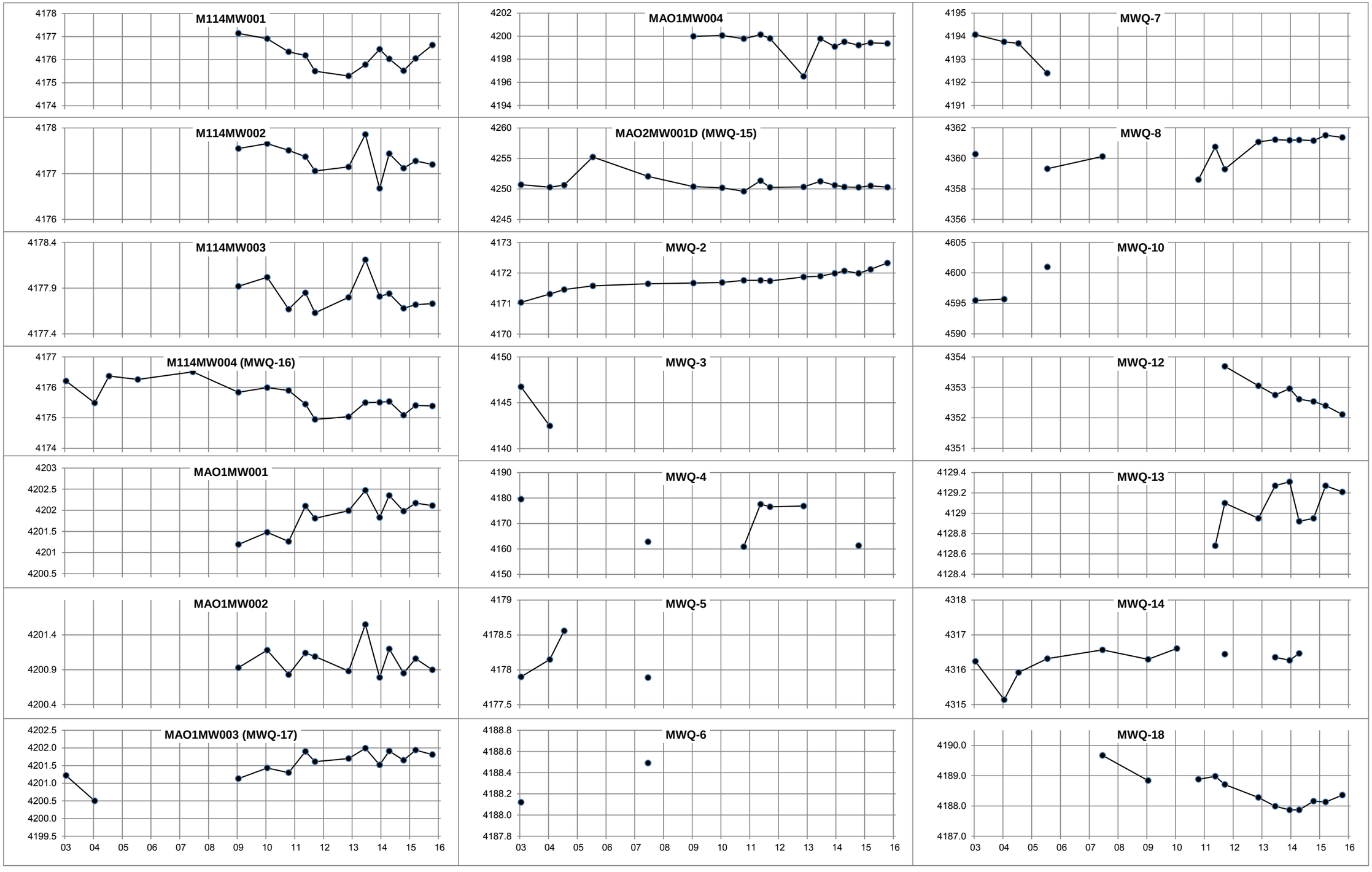


TABLE 2
SUMMARY OF GROUNDWATER ELEVATION AND DEPTH TO GROUNDWATER DATA

TABLE 2
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

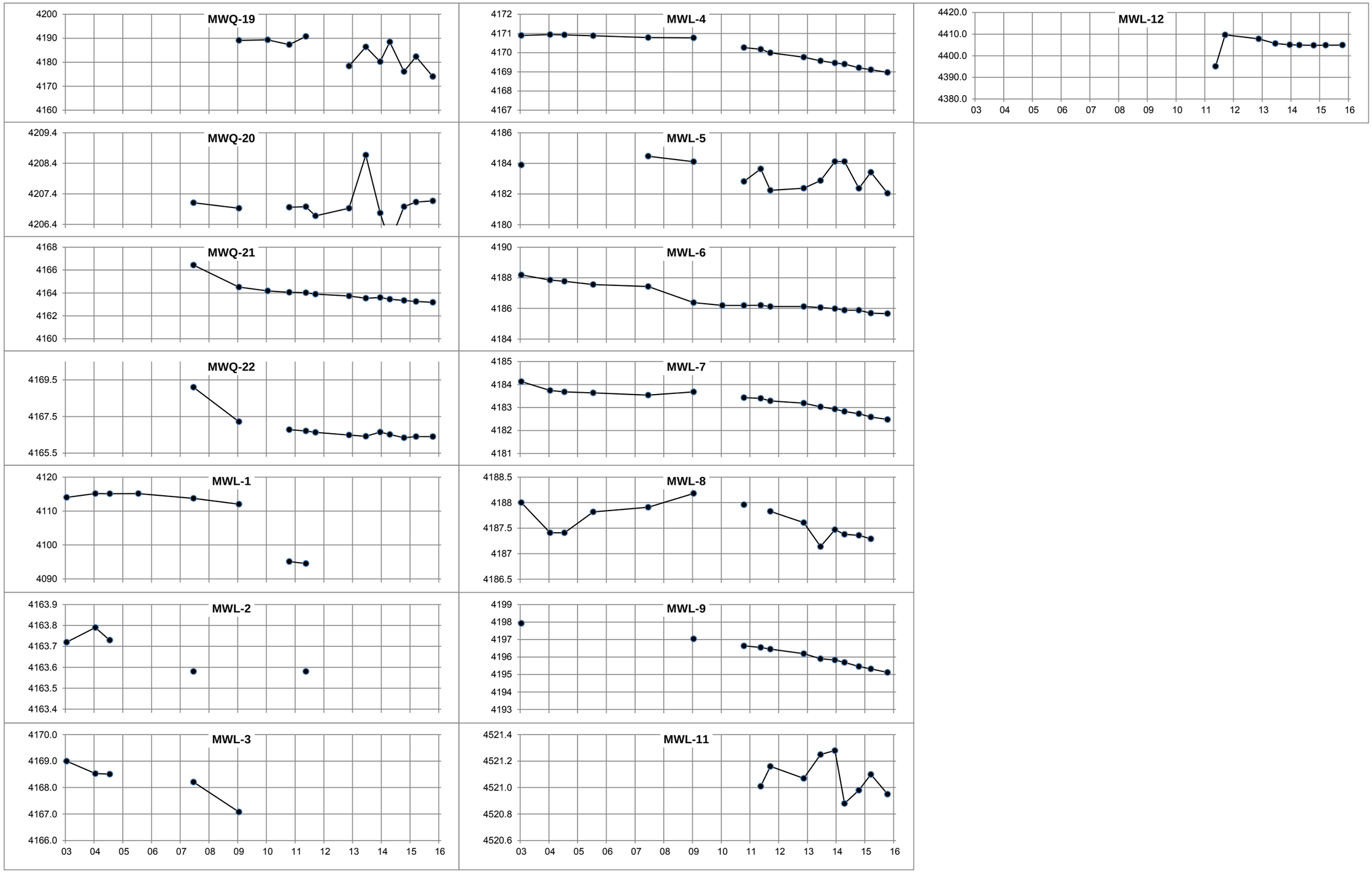


TABLE 3a
MELROSE AIR FORCE RANGE
ROOSEVELY AND CURRY COUNTIES, NEW MEXICO

						Test Site ID	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
						Lab Sample No.	21504021706	21504021701	21504021704	21504021703	21504030503	21504030501	21504030703	21504030701	21504030403	21504030401
						Sample Date	4/1/2015	4/1/2015	4/1/2015	4/1/2015	4/2/2015	4/2/2015	4/2/2015	4/2/2015	4/2/2015	4/2/2015
						Sample Time	12:53	11:45	11:26	13:25	10:20	9:25	10:59	9:40	14:06	12:10
	Parameter	Unit	WQCC (NMAC Section 20.6.2.3103)	USEPA Drinking Water Maximum Contaminant Levels	NMED SSLs - Tapwater Screening Levels											
Field	Dissolved oxygen	mg/L	---	---	---		0.44	0.69	2.76	0.68	5.61	5.30	6.20	6.78	0.90	5.72
	ORP	mV	---	---	---		124.10	202.80	218.60	105.90	180.80	206.20	171.00	196.40	130.10	141.20
	pH	SU	6 to 9	6.5-8.5	---		7.89	7.85	7.71	7.84	7.89	7.81	7.77	7.76	7.86	7.52
	Specific Conductance	mS/cm	---	---	---		13.22	12.96	14.04	13.14	3.30	2.90	2.92	1.89	9.85	0.55
	Temperature	deg C	---	---	---		18.30	18.30	18.70	18.40	18.20	18.10	18.30	18.00	18.10	17.30
	Turbidity	NTU	---	---	---		0.21	0.78	0.10	0.28	0.13	0.97	0.28	0.11	0.28	0.31
	Water Level	feet btoc	---	---	---		151.56	150.83	151.90	149.58	142.51	142.52	143.39	143.48	105.38	47.24

						Test Site ID	MWQ-18	MWQ-19	MWQ-2	MWQ-20	MWQ-21	MWQ-22
						Lab Sample No.	21504040701	21504040603	21504040702	21504040602	21404040601	21504040801
						Sample Date	4/3/2015	4/3/2015	4/3/2015	4/3/2015	4/3/2015	4/3/2015
						Sample Time	12:50	12:10	14:20	12:07	10:45	9:35
	Parameter	Unit	WQCC (NMAC Section 20.6.2.3103)	USEPA Drinking Water Maximum Contaminant Levels	NMED SSLs - Tapwater Screening Levels							
Field	Dissolved oxygen	mg/L	---	---	---		7.01	0.02	0.04	0.31	7.52	0.38
	ORP	mV	---	---	---		-52.10	-201.40	-41.60	-192.10	44.40	-148.10
	pH	SU	6 to 9	6.5-8.5	---		7.79	7.31	7.55	7.51	7.30	7.53
	Specific Conductance	mS/cm	---	---	---		0.63	7.07	11.26	17.85	1.31	1.88
	Temperature	deg C	---	---	---		17.60	17.90	18.20	17.80	16.90	17.00
	Turbidity	NTU	---	---	---		0.68	0.42	2.09	2.98	9.12	2.47
	Water Level	feet btoc	---	---	---		102.04	107.81	121.60	83.13	46.01	42.72

Notes: Laboratory: Gulf Coast Analytical Laboratory, Baton Rogue, LA; Sampling performed by Trinity Analysis & Development Corp.
mg/L: milligram per liter
mV: millivolt
SU: standard units
mS/cm: millisiemen per centimeter
deg C: degrees Celcius
NTU: nephelometric turbidity units

TABLE 3b
MELROSE AIR FORCE RANGE
ROOSEVELY AND CURRY COUNTIES, NEW MEXICO

					Test Site ID	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24	MWQ-14
					Lab Sample No.	21510230401	21510230413	21510230414	21510230401	21510230407	21510230404	21510230411	21510230405	21510230416	21510230419	21511141401
					Sample Date	10/22/2015	10/22/2015	10/22/2015	10/22/2015	10/22/2015	10/22/2015	10/22/2015	10/22/2015	10/23/2015	10/23/2015	11/13/2015
					Sample Time	11:10	9:17	10:23	9:10	12:55	12:38	14:45	13:48	8:55	10:55	9:25
	Parameter	**Unit**	**WQCC (NMAC Section 20.6.2.3103)**	**USEPA Drinking Water Maximum Contaminant Levels**	**NMED SSLs - Tapwater Screening Levels**											
Field	Dissolved oxygen	mg/L	---	---	---	4.15	0.68	3.20	1.71	5.43	5.50	6.09	6.80	0.26	6.25	2.57
	ORP	mV	---	---	---	125.60	176.70	158.30	138.10	121.50	107.60	121.50	100.70	128.80	133.40	207.40
	pH	SU	6 to 9	6.5-8.5	---	8.00	7.82	7.73	7.59	8.30	7.46	8.21	7.86	7.65	7.58	7.58
	Specific Conductance	mS/cm	---	---	---	9.56	12.44	13.75	11.05	2.90	2.78	2.57	1.79	8.16	0.60	2.21
	Temperature	deg C	---	---	---	17.30	16.40	16.70	17.06	17.74	16.80	18.09	17.10	17.30	16.35	16.46
	Turbidity	NTU	---	---	---	0.00	0.29	0.10	0.00	4.90	0.81	0.00	0.11	0.00	0.00	0.00
	Water Level	feet btoc	---	---	---	150.58	151.74	151.89	155.20	142.57	142.68	143.52	143.54	105.60	47.74	66.80

Notes: Laboratory: Gulf Coast Analytical Laboratory, Baton Rogue, LA; Sampling performed by Trinity Analysis & Development Corp.
mg/L: milligram per liter
mV: millivolt
SU: standard units
mS/cm: millisiemen per centimeter
deg C: degrees Celcius
NTU: nephelometric turbidity units
btoc: below top of casing

TABLE 4a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

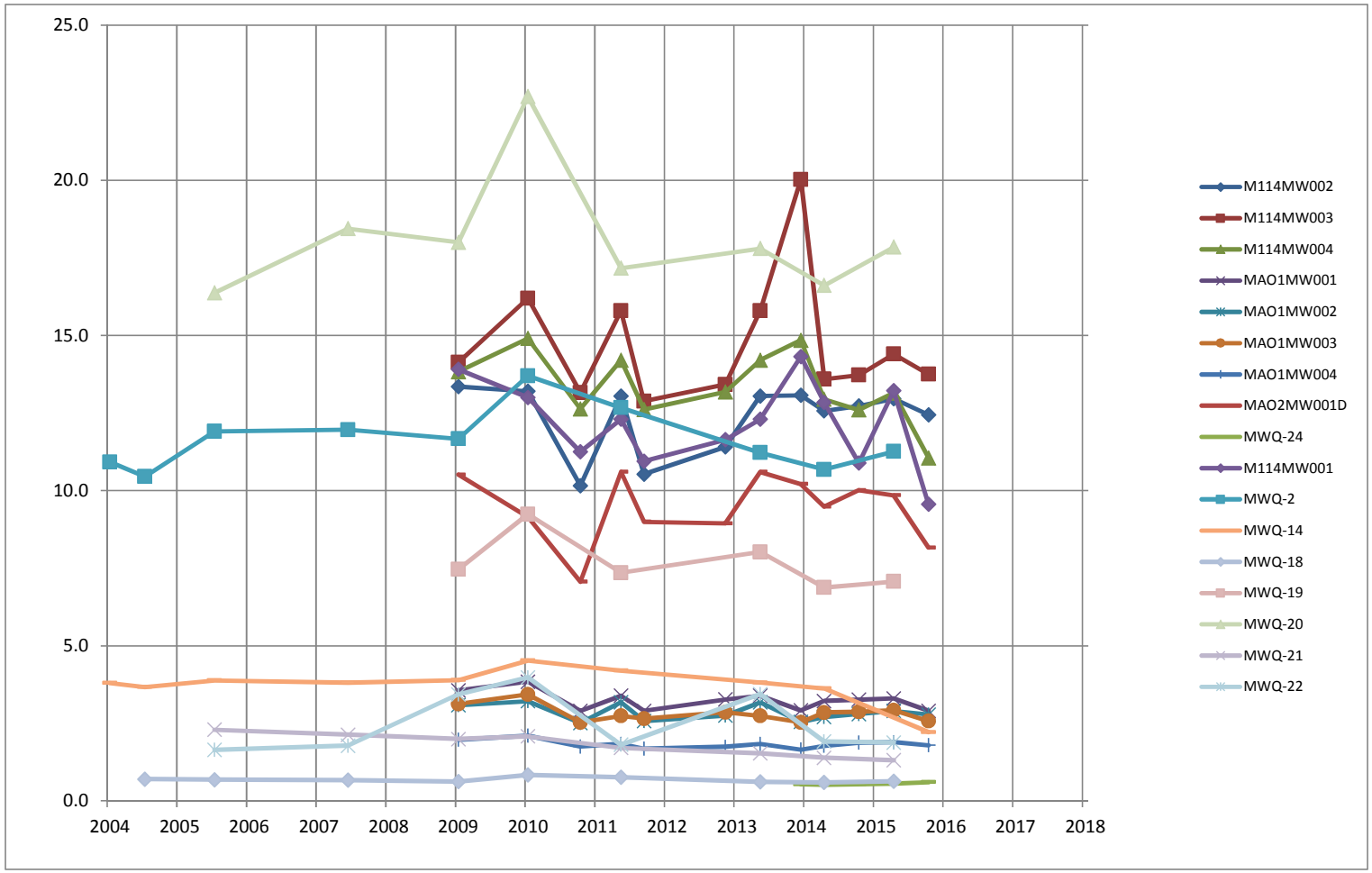
DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	13.91	13.35	14.13	13.83	3.56	3.08	3.12	1.97	10.51	
Jan-10	13.00	13.20	16.20	14.90	3.84	3.21	3.43	2.10	9.15	
Oct-10	11.25	10.16	13.16	12.63	2.90	2.51	2.53	1.75	7.06	
May-11	12.30	13.05	15.80	14.20	3.39	3.17	2.74	1.83	10.60	
Sep-11	10.95	10.53	12.88	12.61	2.90	2.57	2.65	1.68	8.99	
Nov-12	11.64	11.41	13.42	13.18	3.27	2.75	2.86	1.74	8.94	
May-13	12.30	13.05	15.80	14.20	3.39	3.17	2.74	1.83	10.60	
Dec-13	14.32	13.07	20.02	14.84	2.92	2.54	2.53	1.65	10.21	0.53
Apr-14	12.84	12.57	13.59	12.94	3.22	2.70	2.85	1.78	9.48	0.52
Oct-14	10.89	12.73	13.72	12.60	3.26	2.80	2.87	1.88	10.01	0.54
Apr-15	13.22	12.96	14.40	13.14	3.30	2.90	2.92	1.89	9.85	0.55
Oct-15	9.56	12.44	13.75	11.05	2.90	2.78	2.57	1.79	8.16	0.60
Min	10.89	10.16	12.88	12.60	2.90	2.51	2.53	1.65	7.06	0.52
Max	14.32	13.35	20.02	14.90	3.84	3.21	3.43	2.10	10.60	0.54
Average	12.34	12.31	14.87	13.59	3.26	2.85	2.83	1.82	9.56	0.53

Notes:
Data in mS/cm
No applicable screening criteria
Red indicates exceedance
Blank cells indicate no data

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	10.92	3.80					
Jul-04	10.45	3.67	0.70				
Jul-05	11.91	3.88	0.68		16.37	2.29	1.65
Jun-07	11.96	3.81	0.67		18.44	2.13	1.78
Jan-09	11.67	3.89	0.62	7.46	18.00	1.99	3.43
Jan-10	13.70	4.52	0.84	9.24	22.70	2.08	3.98
Oct-10							
May-11	12.67	4.20	0.76	7.35	17.17	1.71	1.81
Sep-11							
Nov-12							
May-13	11.22	3.81	0.61	8.02	17.80	1.53	3.44
Dec-13							
Apr-14	10.68	3.62	0.59	6.88	16.61	1.39	1.91
Oct-14							
Apr-15	11.26		0.63	7.07	17.85	1.31	1.88
Oct-15		2.21					
Min	10.45	3.62	0.59	6.88	16.37	1.39	1.65
Max	13.70	4.52	0.84	9.24	22.70	2.29	3.98
Average	11.69	3.91	0.68	7.79	18.16	1.87	2.57

TABLE 4a
SPECIFIC CONDUCTANCE

TABLE 4a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

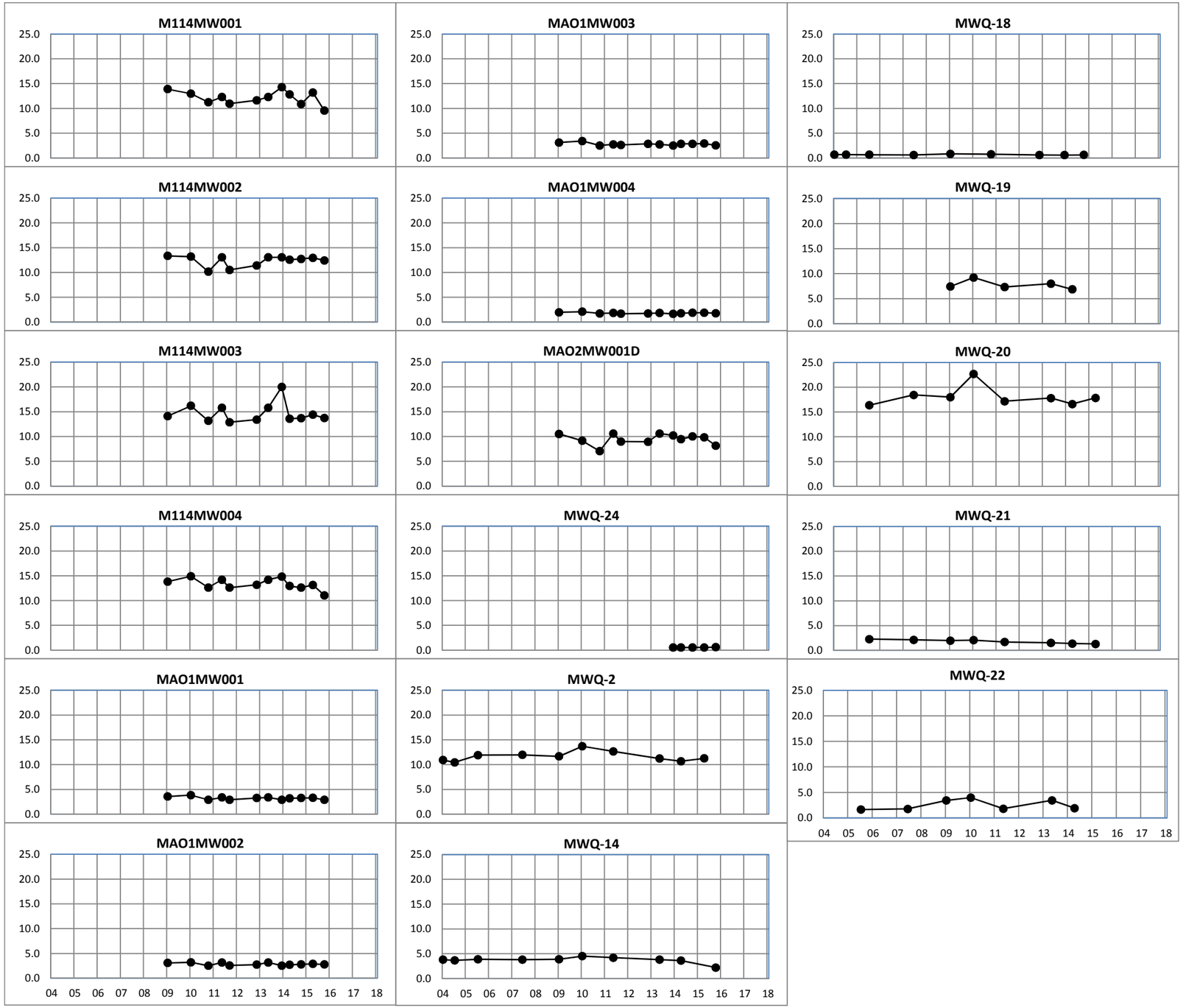


Notes:

Data in mS/cm

TABLE 4a
SPECIFIC CONDUCTANCE

TABLE 4a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mS/cm

TABLE 4b
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

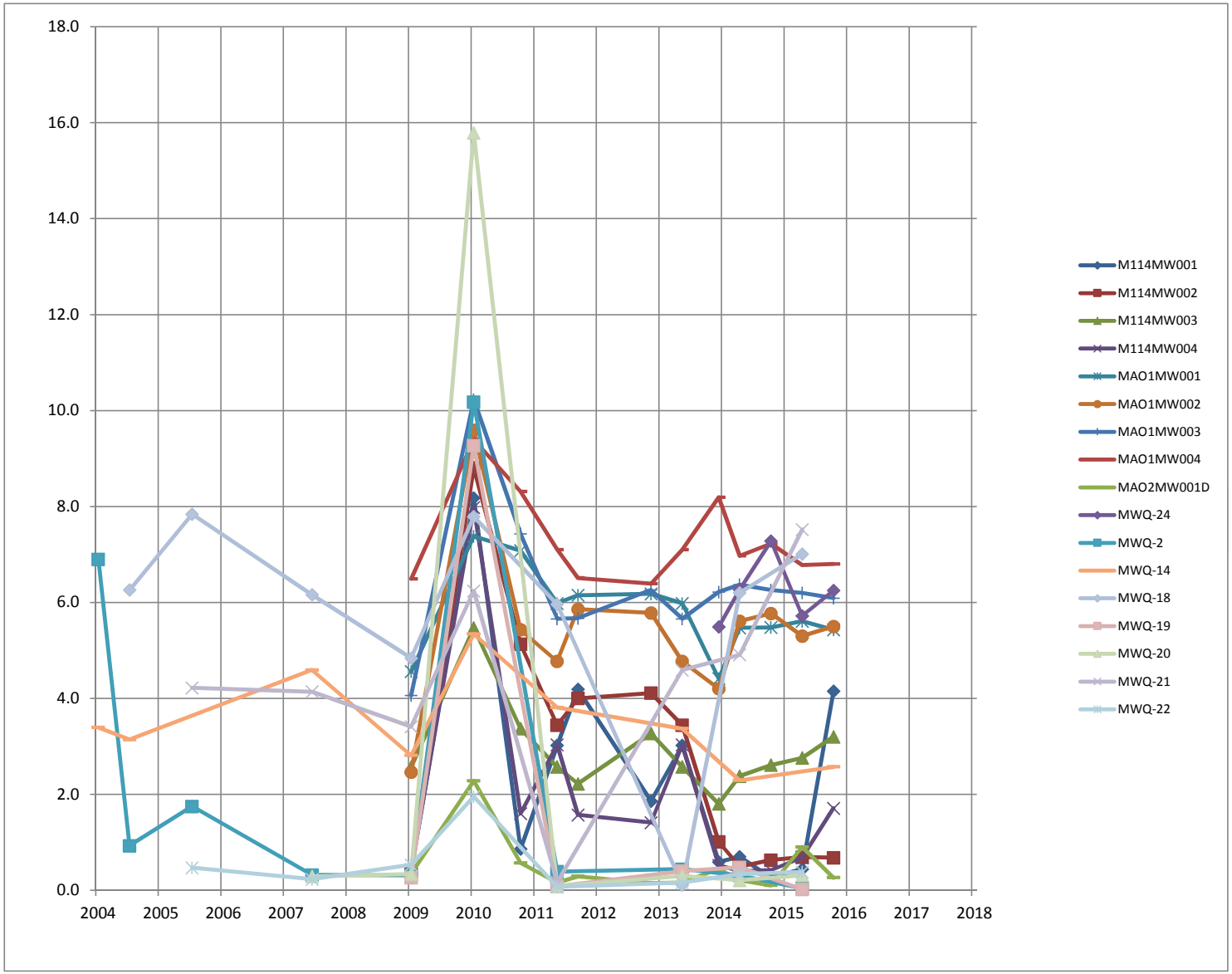
DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	0.37	0.40	2.57	0.43	4.56	2.46	4.06	6.49	0.35	
Jan-10	8.18	8.81	5.47	7.98	7.38	9.59	10.23	9.39	2.28	
Oct-10	0.86	5.13	3.37	1.60	7.08	5.43	7.43	8.31	0.57	
May-11	3.02	3.44	2.57	3.03	5.98	4.77	5.66	7.10	0.16	
Sep-11	4.19	4.00	2.22	1.57	6.15	5.86	5.67	6.51	0.29	
Nov-12	1.86	4.11	3.27	1.41	6.18	5.78	6.26	6.39	0.15	
May-13	3.02	3.44	2.57	3.03	5.98	4.77	5.66	7.10	0.16	
Dec-13	0.59	1.01	1.80	0.52	4.41	4.20	6.22	8.19	0.44	5.49
Apr-14	0.70	0.49	2.38	0.40	5.47	5.61	6.37	6.97	0.21	6.27
Oct-14	0.26	0.63	2.61	0.42	5.48	5.77	6.26	7.22	0.10	7.28
Apr-15	0.44	0.69	2.76	0.68	5.61	5.30	6.20	6.78	0.90	5.72
Oct-15	4.15	0.68	3.20	1.71	5.43	5.50	6.09	6.80	0.26	6.25
Min	0.26	0.40	1.80	0.40	4.41	2.46	4.06	6.39	0.10	5.49
Max	8.18	8.81	5.47	7.98	7.38	9.59	10.23	9.39	2.28	7.28
Average	2.31	3.15	2.88	2.04	5.87	5.42	6.38	7.37	0.47	6.35

Notes:
Data in mg/L
No applicable screening criteria
Red indicates exceedance
Blank cells indicate no data

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	6.90	3.39					
Jul-04	0.93	3.14	6.26				
Jul-05	1.75		7.84			4.22	0.47
Jun-07	0.32	4.59	6.16		0.29	4.14	0.23
Jan-09	0.31	2.81	4.84	0.26	0.34	3.41	0.53
Jan-10	10.18	5.34	7.79	9.27	15.79	6.24	1.95
Oct-10							
May-11	0.39	3.81	5.96	0.08	0.08	0.17	0.07
Sep-11							
Nov-12							
May-13	0.44	3.37	0.11	0.40	0.30	4.59	0.16
Dec-13							
Apr-14	0.31	2.29	6.20	0.48	0.21	4.91	0.34
Oct-14							
Apr-15	0.04		7.01	0.02	0.31	7.52	0.38
Oct-15		2.57					
Min	0.31	2.29	0.11	0.08	0.08	0.17	0.07
Max	10.18	5.34	7.84	9.27	15.79	6.24	1.95
Average	2.39	3.59	5.65	2.10	2.84	3.95	0.54

TABLE 4b
DISSOLVED OXYGEN

TABLE 4b
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

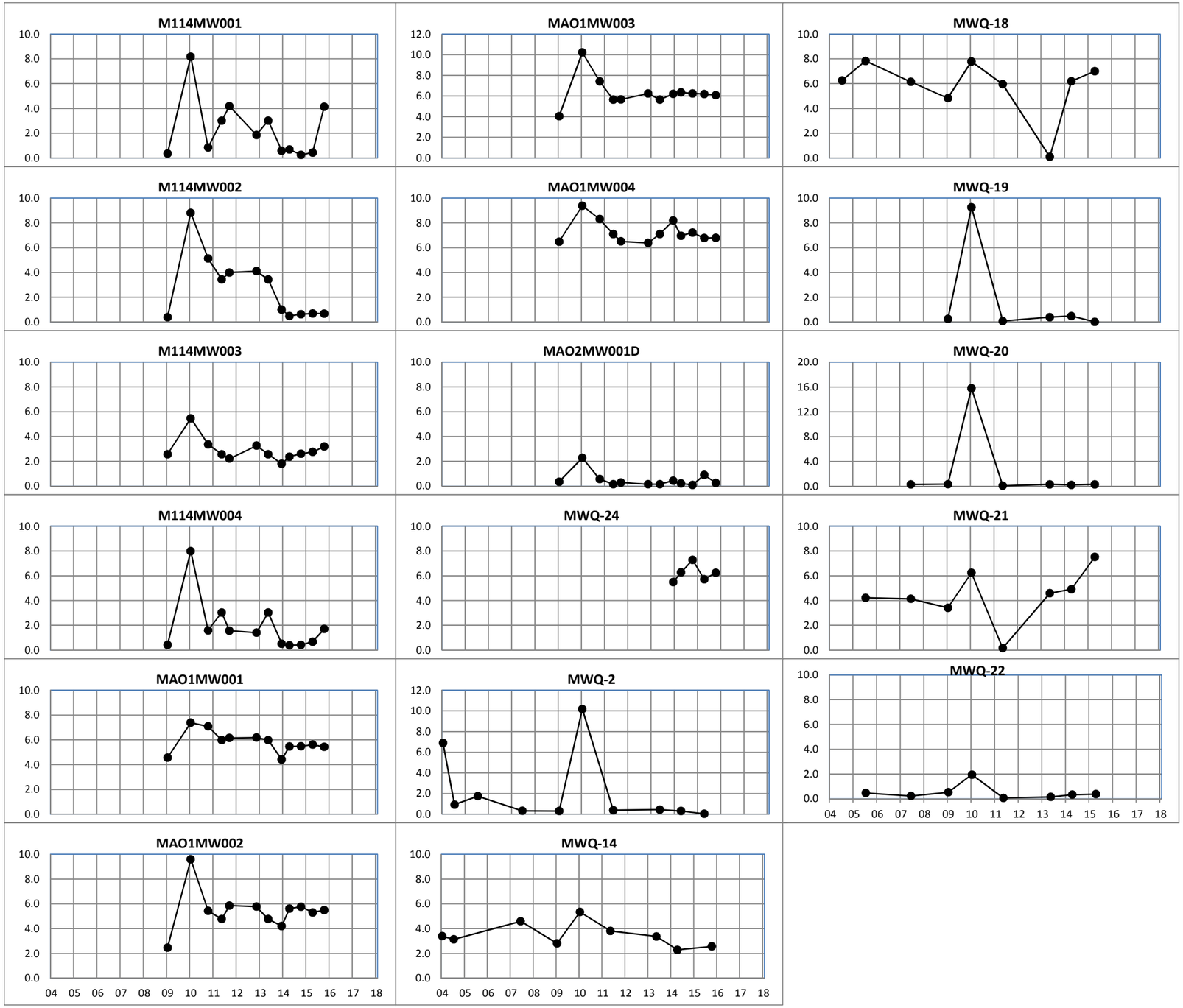


Notes:

Data in mg/L

TABLE 4b
DISSOLVED OXYGEN

TABLE 4b
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 4c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	7.80	7.80	7.92	7.70	7.81	7.99	7.81	7.87	7.72	
Jan-10	5.64	5.58	5.65	5.58	5.61	8.92	8.36	8.32	8.12	
Oct-10	7.48	7.71	7.47	7.63	7.79	7.83	7.64	7.59	7.43	
May-11	7.73	7.52	7.62	7.95	7.73	8.07	7.09	7.08	7.92	
Sep-11	8.11	7.98	8.13	8.04	8.11	8.33	8.07	8.11	8.01	
Nov-12	7.78	8.02	8.08	7.87	8.18	8.18	7.95	7.99	8.05	
May-13	7.73	7.52	7.62	7.95	7.73	8.07	7.09	7.08	7.92	
Dec-13	7.60	7.82	7.57	7.52	7.60	7.77	7.93	8.03	7.88	7.81
Apr-14	7.83	7.84	7.77	7.77	7.86	7.76	7.72	7.78	7.90	7.67
Oct-14	7.60	7.92	8.13	7.61	7.79	7.83	7.85	7.85	7.83	7.16
Apr-15	7.89	7.85	7.71	7.84	7.89	7.81	7.77	7.76	7.89	7.52
Oct-15	8.00	7.82	7.73	7.59	8.30	7.46	8.21	7.86	7.65	7.58
Min	5.64	5.58	5.65	5.58	5.61	7.76	7.09	7.08	7.43	7.16
Max	8.11	8.02	8.13	8.04	8.18	8.92	8.36	8.32	8.12	7.81
Average	7.53	7.57	7.60	7.56	7.62	8.08	7.75	7.77	7.88	7.55

Notes:

Data in std units

NMAC 20.6.2.3103

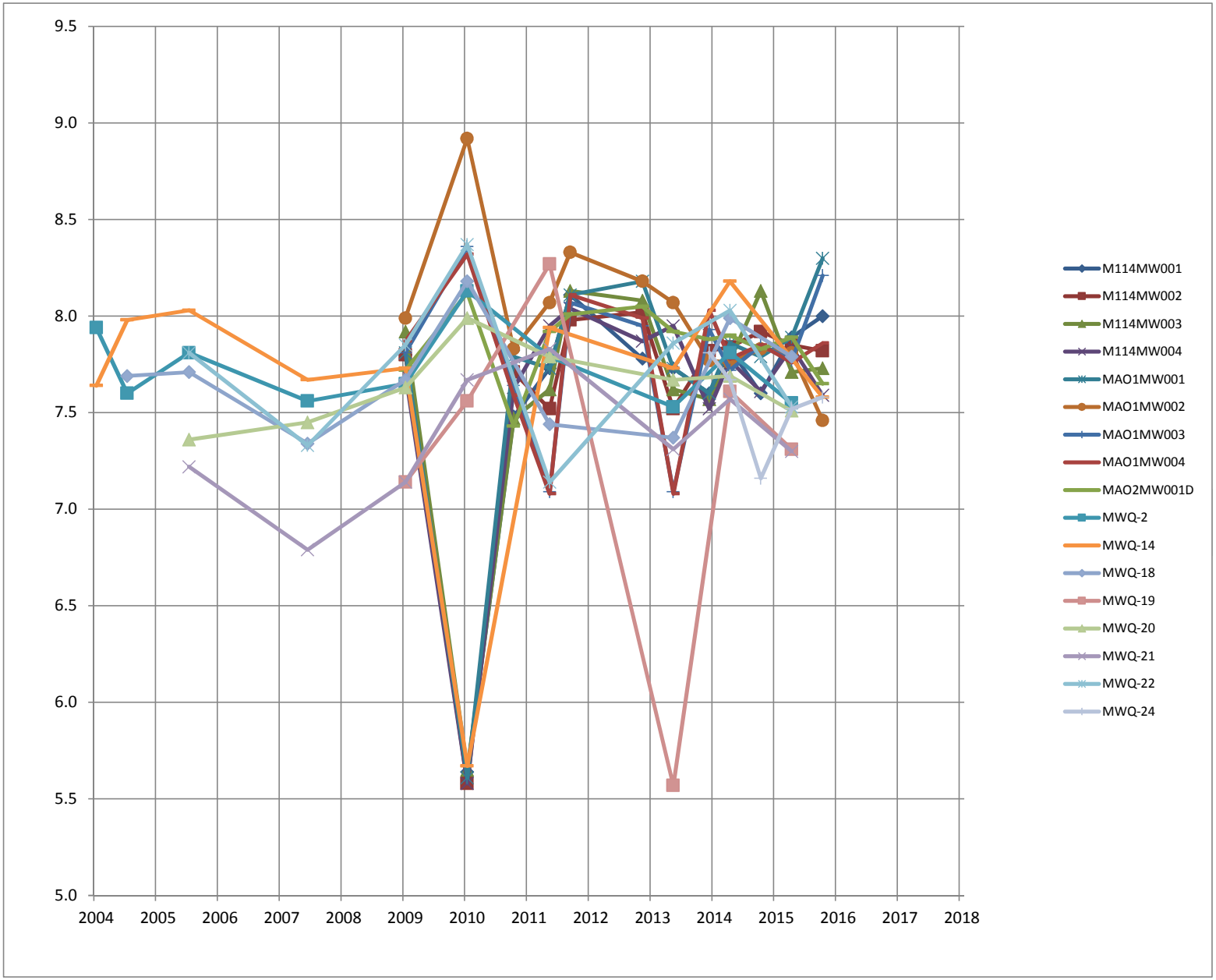
Screening Level: between 6 and 9 std units

Red indicates exceedance

Blank cells indicate no data

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	7.94	7.64					
Jul-04	7.60	7.98	7.69				
Jul-05	7.81	8.03	7.71		7.36	7.22	7.81
Jun-07	7.56	7.67	7.34		7.45	6.79	7.33
Jan-09	7.65	7.73	7.67	7.14	7.63	7.14	7.85
Jan-10	8.13	5.67	8.18	7.56	7.99	7.67	8.37
Oct-10							
May-11	7.79	7.94	7.44	8.27	7.79	7.83	7.14
Sep-11							
Nov-12							
May-13	7.53	7.73	7.37	5.57	7.67	7.31	7.86
Dec-13							
Apr-14	7.81	8.18	7.99	7.61	7.69	7.57	8.03
Oct-14							
Apr-15	7.55		7.79	7.31	7.51	7.30	7.53
Oct-15		7.58					
Min	7.53	5.67	7.34	5.57	7.36	6.79	7.14
Max	8.13	8.18	8.18	8.27	7.99	7.83	8.37
Average	7.76	7.62	7.67	7.23	7.65	7.36	7.77

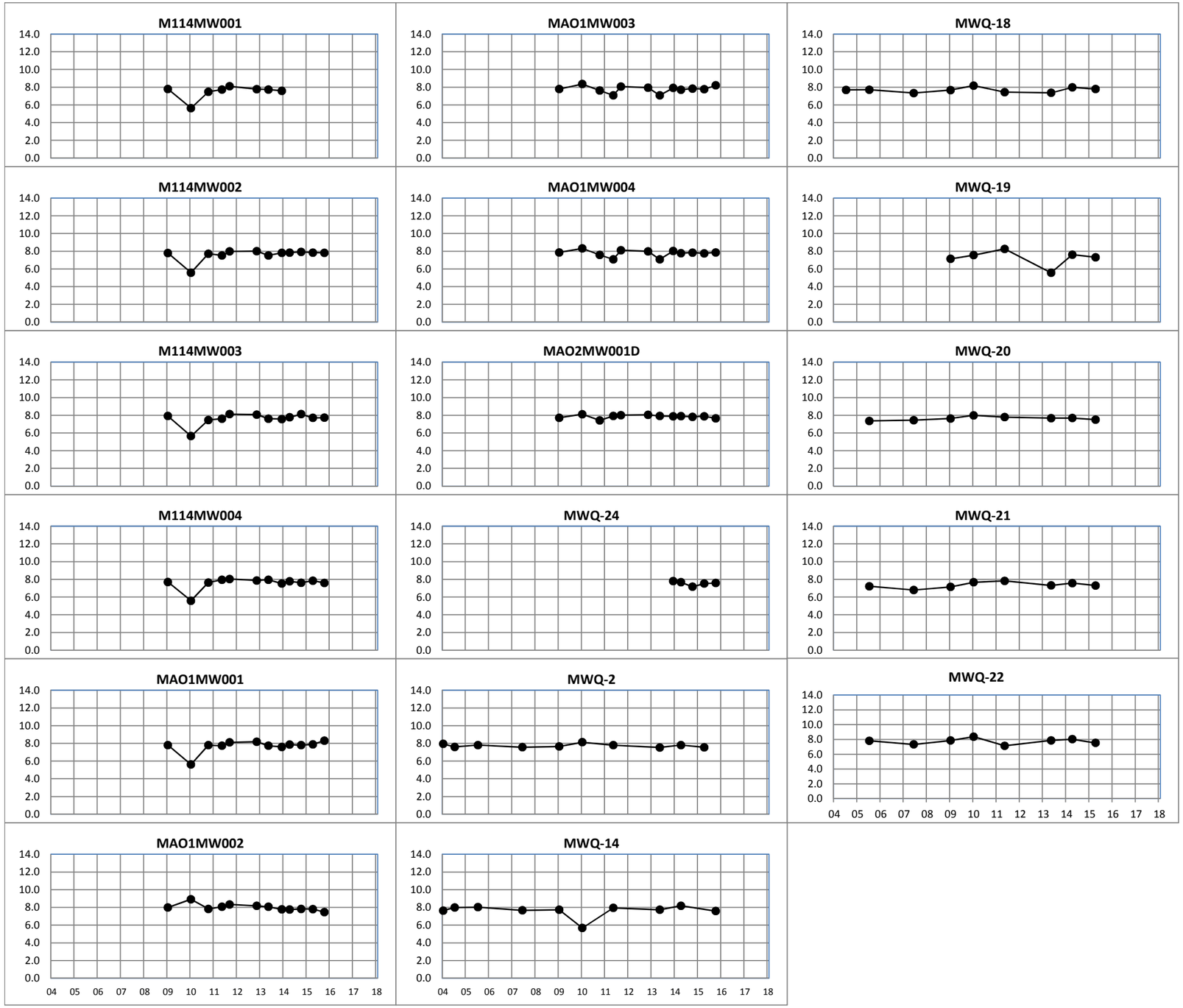
TABLE 4c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in std units

TABLE 4c
pH

TABLE 4c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in SU

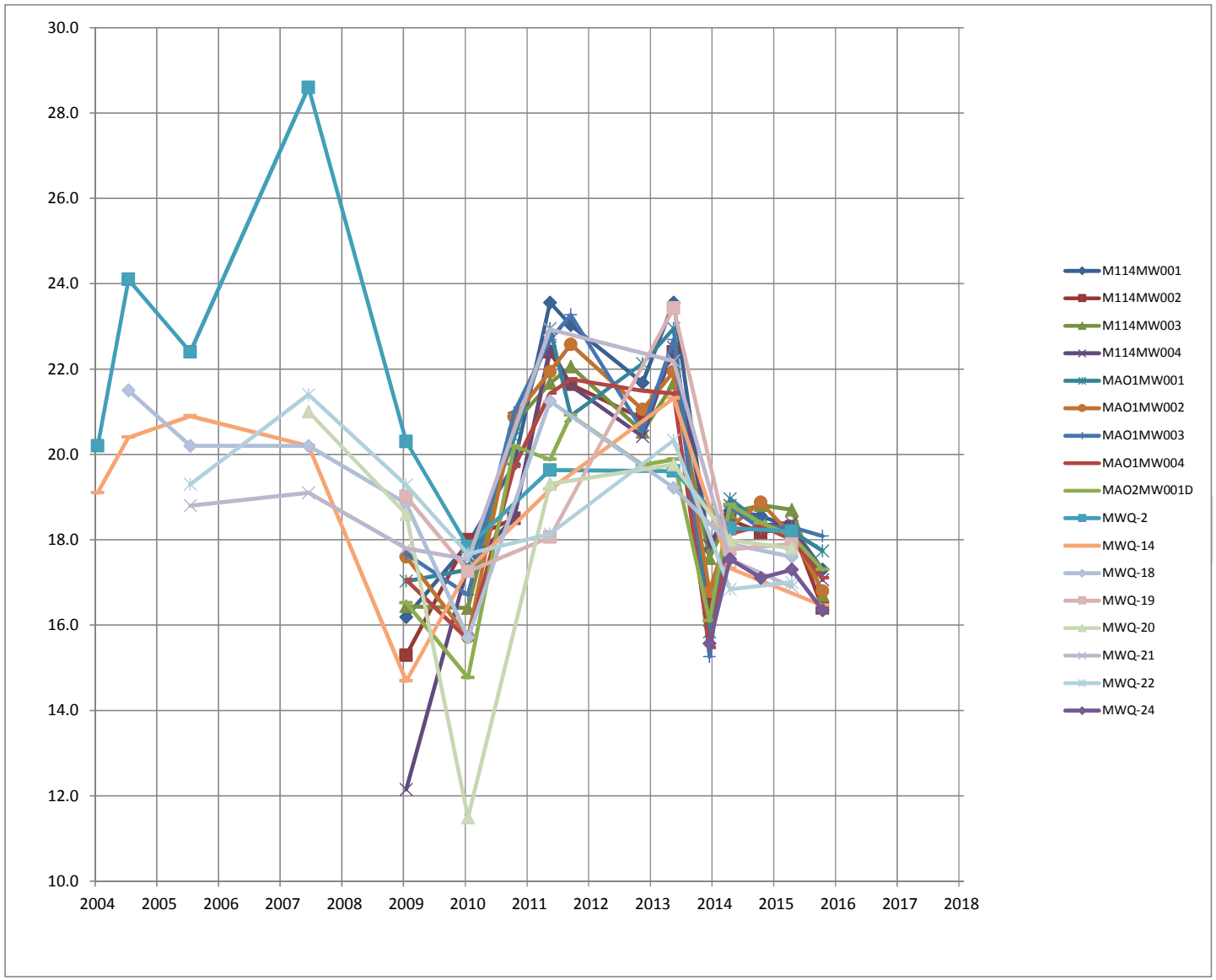
TABLE 4d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	16.19	15.29	16.44	12.15	17.03	17.60	17.67	17.06	16.52	
Jan-10	17.90	18.00	16.40	17.40	17.30	15.72	16.71	15.66	14.77	
Oct-10	19.77	18.50	20.72	18.51	20.40	20.88	20.98	19.71	20.19	
May-11	23.56	22.40	21.67	22.51	22.95	21.94	22.69	21.43	19.88	
Sep-11	23.03	21.64	22.06	21.61	20.91	22.58	23.27	21.76	20.92	
Nov-12	21.68	20.84	20.53	20.42	22.13	21.05	20.56	21.49	19.75	
May-13	23.56	22.40	21.67	22.51	22.95	21.94	22.69	21.43	19.88	
Dec-13	17.78	16.41	17.57	17.86	15.84	16.79	15.26	15.47	16.10	15.57
Apr-14	18.69	18.47	18.64	18.80	18.96	18.30	18.77	18.14	18.82	17.55
Oct-14	18.56	18.17	18.81	18.33	18.39	18.88	18.26	18.33	18.39	17.11
Apr-15	18.30	18.30	18.70	18.40	18.20	18.10	18.30	18.00	18.10	17.30
Oct-15	17.30	16.40	16.70	17.06	17.74	16.80	18.09	17.10	17.30	16.35
Min	16.19	15.29	16.40	12.15	15.84	15.72	15.26	15.47	14.77	15.57
Max	23.56	22.40	22.06	22.51	22.95	22.58	23.27	21.76	20.92	17.55
Average	20.07	19.21	19.45	19.01	19.69	19.57	19.69	19.05	18.52	16.74

Notes:
Data in degrees Celsius
No applicable screening criteria
Red indicates exceedance
Blank cells indicate no data

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	20.20	19.10					
Jul-04	24.10	20.40	21.50				
Jul-05	22.40	20.90	20.20			18.80	19.30
Jun-07	28.60	20.20	20.20		21.00	19.10	21.40
Jan-09	20.30	14.69	18.85	19.01	18.60	17.80	19.28
Jan-10	17.84	17.30	15.71	17.26	11.49	17.54	17.67
Oct-10							
May-11	19.63	19.18	21.25	18.06	19.31	22.93	18.14
Sep-11							
Nov-12							
May-13	19.61	21.32	19.22	23.43	19.76	22.19	20.33
Dec-13							
Apr-14	18.27	17.33	17.90	17.77	17.99	17.54	16.84
Oct-14							
Apr-15	18.20		17.60	17.90	17.80	16.90	17.00
Oct-15		16.46					
Min	17.84	14.69	15.71	17.26	11.49	17.54	16.84
Max	28.60	21.32	21.50	23.43	21.00	22.93	21.40
Average	21.22	18.94	19.35	19.11	18.03	19.41	18.99

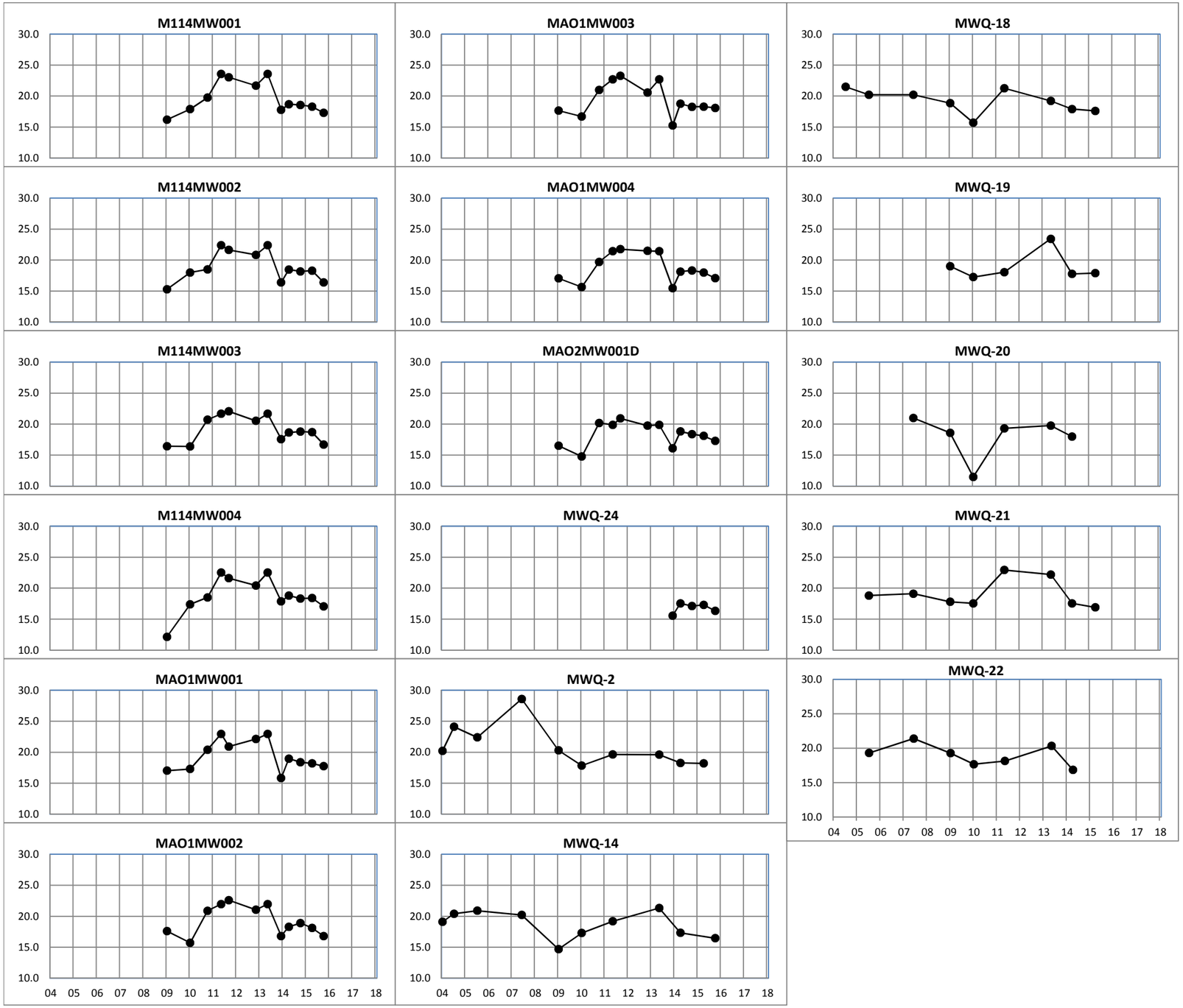
TABLE 4d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in degrees Celsius

TABLE 4d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in degrees Celsius

TABLE 4e
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

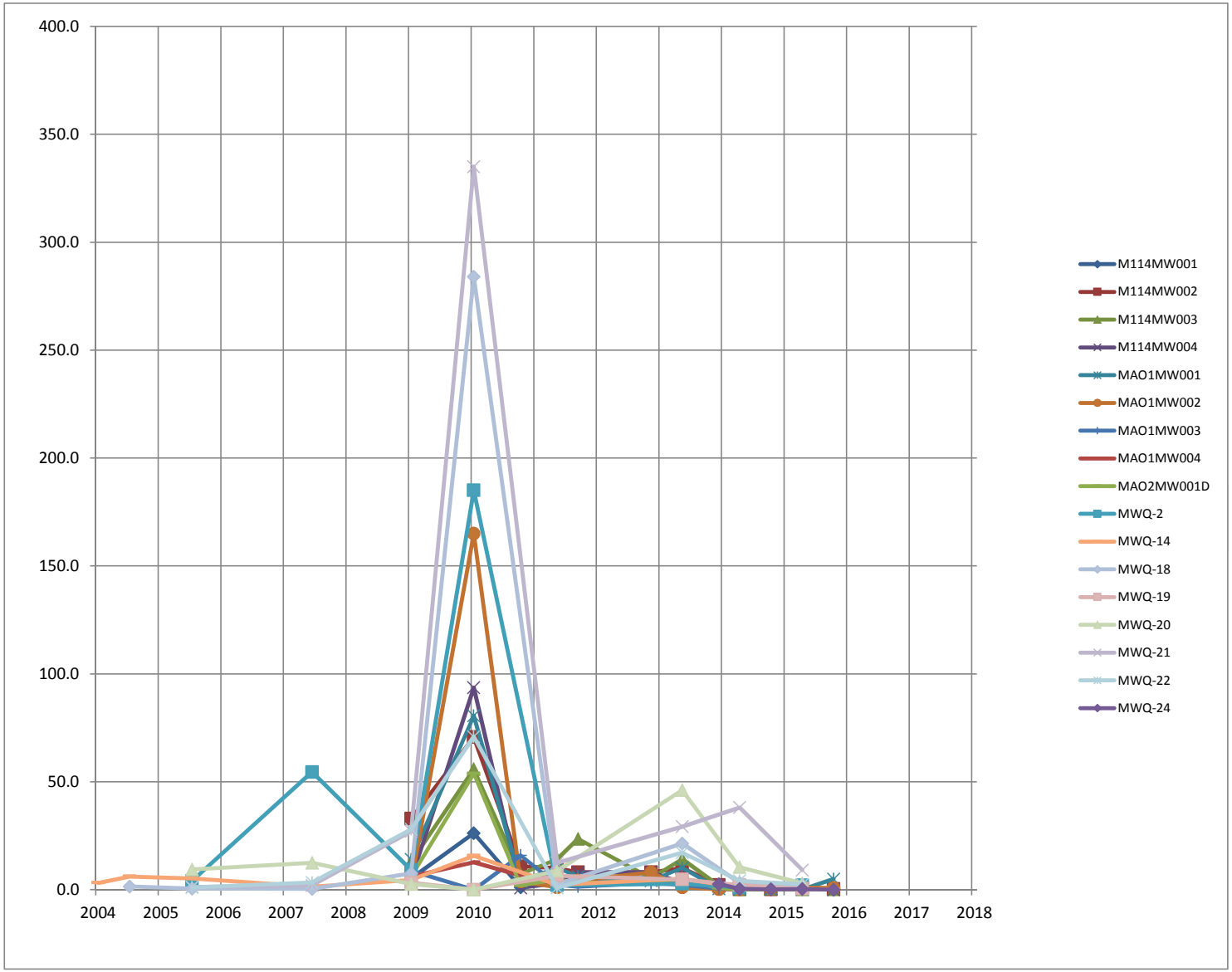
DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	5.20	33.00	13.00	5.00	14.00	3.10	8.80	6.00	6.10	
Jan-10	26.20	70.70	55.80	93.60	80.60	165.00	0.00	12.70	53.80	
Oct-10	1.08	10.80	7.11	0.84	3.84	3.76	15.90	6.54	1.97	
May-11	3.40	9.96	14.20	3.03	10.10	1.13	2.21	4.82	4.80	
Sep-11	5.10	8.06	23.50	8.05	6.02	4.25	1.39	2.22	2.96	
Nov-12	5.49	8.04	5.29	8.16	4.19	8.06	3.06	4.24	4.01	
May-13	3.40	9.96	14.20	3.03	10.10	1.13	2.21	4.82	4.80	
Dec-13	1.27	2.23	1.82	1.52	0.49	0.21	0.51	0.91	0.71	2.61
Apr-14	0.10	0.17	0.14	0.29	0.33	0.12	0.22	0.20	0.10	0.37
Oct-14	0.15	0.14	0.42	0.35	0.22	0.80	0.09	0.11	0.21	0.21
Apr-15	0.24	0.78	0.10	0.28	0.13	0.97	0.28	0.11	0.28	0.31
Oct-15	0.00	0.29	0.10	0.00	4.90	0.81	0.00	0.11	0.00	0.00
Min	0.10	0.14	0.14	0.29	0.22	0.12	0.00	0.11	0.10	0.21
Max	26.20	70.70	55.80	93.60	80.60	165.00	15.90	12.70	53.80	2.61
Average	5.14	15.31	13.55	12.39	12.99	18.76	3.44	4.26	7.95	1.06

Notes:
Data in NTUs
No applicable screening criteria
Red indicates exceedance
Blank cells indicate no data

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04		3.15					
Jul-04		6.12	1.49				
Jul-05	4.06	5.21	0.52		9.32	1.26	1.07
Jun-07	54.50	1.44	0.39		12.40	1.98	3.29
Jan-09	9.10	4.40	7.50	3.20	2.60	27.00	28.00
Jan-10	185.00	15.70	284.00	0.00	0.00	335.00	70.90
Oct-10							
May-11	2.02	2.29	2.50	6.46	8.71	12.40	0.87
Sep-11							
Nov-12							
May-13	2.79	5.03	21.40	4.71	46.10	29.20	17.10
Dec-13							
Apr-14	1.01	0.98	3.11	2.14	10.40	38.10	4.14
Oct-14							
Apr-15	2.09		0.68	0.42	2.98	9.12	2.47
Oct-15		0.00					
Min	1.01	0.98	0.39	0.00	0.00	1.26	0.87
Max	185.00	15.70	284.00	6.46	46.10	335.00	70.90
Average	36.93	4.92	40.11	3.30	12.79	63.56	17.91

TABLE 4e
TURBIDITY

TABLE 4e
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

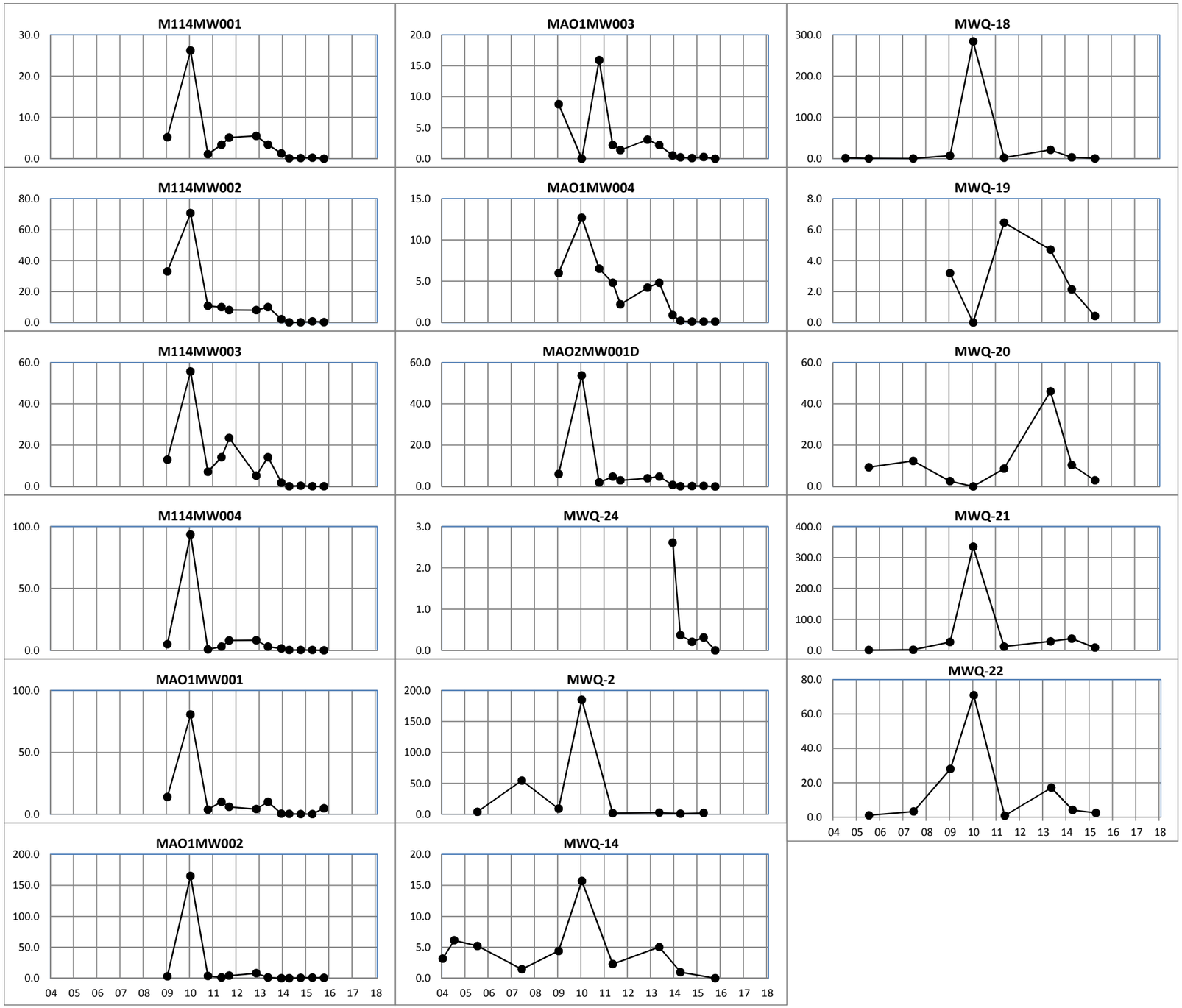


Notes:

Data in NTUs

TABLE 4e
TURBIDITY

TABLE 4e
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in NTU

TABLE 4e
TURBIDITY

								Sample ID	**M114MW001**			**M114MW002**			**M114MW003**			**M114MW004**		
								Laboratory ID	□15040□1□0□			□15040□1□01			□15040□1□04			□15040□1□0□		
								Sample Date	4/1/□015			4/1/□015			4/1/□015			4/1/□015		
								Sample Time	1□5□			11□45			11□□□			1□□5		
	Parameter	**Analytical Method**	**Unit**	**NMAC 20.6.2.3103 Groundwater - Human Health**	**NMAC 20.6.2.3103 Groundwater - Domestic Water Supply**	**NMAC 20.6.2.3103 Groundwater - Irrigation Use**	**USEPA Drinking Water MCLs (May 2009)**	**NMED SSLs Tapwater Screening Levels (July 2015)**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**
General	□□□r□d□	□□□□00.0□□□□□1	□□/□	□□	□50	□□	□□	□□	3250	□50	□50	3740	□50	□50	3940	□50	□50	3360	□50	□50
	□□□□d□	□□□□01□□	□□/□	0□□	□□	□□	□□	0.0014□	0.00050□	0.0005	0.0005	0.00050□	0.0005	0.0005	0.00050□	0.0005	0.0005	0.00050□	0.0005	0.0005
	□□r□□	□□□□00.0□□□□□1	□□/□	10	□□	□□	10	□1□□	□□□□	1	1	□0□□	1	1	□5□□	1	1	□4□□	1	1
	□□r□□	□□□□00.0□□□□□1	□□/□	□□	□□	□□	1	□□	1.00□	1	1	1.00□	1	1	1.00□	1	1	1.00□	1	1
	□□r□□r□□	□□ □□□0	□□/□	□□	□□	□□	□□	0.01□□□	0.00□1	0.0001	0.000□	0.00□1□	0.0001	0.000□	0.00□□1	0.0001	0.000□	0.00□45	0.0001	0.000□
	□□□□□	□□□□00.0□□□□□1	□□/□	□□	□00	□□	□□	□□	2190	□50	□50	2130	□50	□50	2370	□50	□50	1940	□50	□50
	□□□□□ □□□□□	□M□□0□□□011	□□/□□□□□	□□	□□	□□	□□	□□	55.5	0.□□	0.□□	□□□	0.□□	0.□□	□□□	0.□□	0.□□	□5.□	0.□□	0.□□
	□□□□ □□□□d□□□d□□□□	□M□540□□□011	□□/□	□□	1000	□□	□□	□□	5950	10	10	6690	10	10	7360	10	10	6970	10	10
Metals	□□□□□□□	□□□□□0□0□	□□/□	□□	□□	5000	□□	1□□00	100□	100	100	100□	100	100	100□	100	100	100□	100	100
	□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	5000	□□	1□□00	100□	100	100	100□	100	100	100□	100	100	100□	100	100
	□□□□□□	□□□□□0□0□	□□/□	□□	□□	□□	□	□□□□	10.0□	10	10	10.0□	10	10	10.0□	10	10	10.0□	10	10
	□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□	□□□□	10.0□	10	10	10.0□	10	10	10.0□	10	10	10.0□	10	10
	□r□□□□	□□□□□0□0□	□□/□	100	□□	□□	10	0.51□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□r□□□□	□□□□□0□0□□□□□□□d	□□/□	100	□□	□□	10	0.51□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□r□□	□□□□□0□0□	□□/□	1000	□□	□□	□000	□□□0	15□□□	5	5	1□4□	5	5	14.0□	5	5	1□□□	5	5
	□□r□□	□□□□□0□0□□□□□□□d	□□/□	1000	□□	□□	□000	□□□0	15.5□	5	5	1□4□	5	5	1□□□	5	5	15.4□	5	5
	□□r□□□□	□□□□□0□0□	□□/□	□□	□□	□□	4	1□4	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□r□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	4	1□4	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□d□□□	□□□□□0□0□	□□/□	10	□□	□□	5	□□4	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□d□□□	□□□□□0□0□□□□□□□d	□□/□	10	□□	□□	5	□□4	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
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	□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□	□□□000	□500	□500	□5□000	□500	□500	4□0000	□500	□500	41□000	□500	□500
	□□r□□ □□□	□□□□□0□0□	□□/□	50	□□	□□	100	5.5□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□r□□ □□□	□□□□□0□0□□□□□□□d	□□/□	50	□□	□□	100	5.5□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□r□□ □□□ □□□	□□□□1□□□□□	□□/□	□□	□□	□□	100	0.□5	□□5	0.0□	0.1	1.□5	0.0□	0.1	0.□□	0.0□	0.1	1.5□	0.0□	0.1
	□□□□□	□□□□□0□0□	□□/□	□□	□□	50	□□	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	50	□□	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□r	□□□□□0□0□	□□/□	□□	1000	□□	1□00	□□0	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□r	□□□□□0□0□□□□□□□d	□□/□	□□	1000	□□	1□00	□□0	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□r□□	□□□□□0□0□	□□/□	□□	1000	□□	□□	1□□00	500□	500	500	500□	500	500	500□	500	500	500□	500	500
	□r□□	□□□□□0□0□□□□□□□d	□□/□	□□	1000	□□	□□	1□□00	500□	500	500	500□	500	500	500□	500	500	500□	500	500
	□□□d	□□□□□0□0□	□□/□	50	□□	□□	15	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□d	□□□□□0□0□□□□□□□d	□□/□	50	□□	□□	15	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	M□□□□□□	□□□□□0□0□	□□/□	□□	□□	□□	□□	□□	□□□000	1□500	1□500	□10000	1□500	1□500	□□□000	1□500	1□500	□44000	1□500	1□500
	M□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□	□5□000	1□500	1□500	□□5000	1□500	1□500	□□5000	1□500	1□500	□□0000	1□500	1□500
	M□□□□□□□	□□□□□0□0□	□□/□	□□	□00	□□	□□	□0.0	□5.0□	□5	□5	□5.0□	□5	□5	□5.0□	□5	□5	□5.0□	□5	□5
	M□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□00	□□	□□	□0.0	□5.0□	□5	□5	□5.0□	□5	□5	□5.0□	□5	□5	□5.0□	□5	□5
	M□r□r□	□□□□4□0□	□□/□	□	□□	□□	□	0.□□□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□
	M□r□r□	□□□□4□0□□□□□□□d	□□/□	□	□□	□□	□	0.□□□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□	0.04□□	0.04□	0.04□
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	M□□□d□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	1000	□□	□□□	1□□□□	5	5	14□□□	5	5	□0□□	5	5	10□□□	5	5
	□□□□□	□□□□□0□0□	□□/□	□□	□□	□00	□□	□□□	10.0□	10	10	10.0□	10	10	10.0□	10	10	10.0□	10	10
	□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□00	□□	□□□	10.0□	10	10	10.0□	10	10	10.0□	10	10	10.0□	10	10
	□□□□□□□	□□□□□0□0□	□□/□	□□	□□	□□	□□	□□	14400	500	500	15□00	500	500	15□00	500	500	1□400	500	500
	□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□	14400	500	500	14□00	500	500	14□00	500	500	15500	500	500
	□□□□□□□	□□□□□0□0□	□□/□	50	□□	□□	50	□□□	□□□	5	5	1□□□□	5	5	□□□	5	5	□5□□	5	5
	□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	50	□□	□□	50	□□□	□□□	5	5	15□□□	5	5	□□□	5	5	1□□□□	5	5
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	□□d□□□	□□□□□0□0□	□□/□	□□	□□	□□	□□	□□	□□10000	1□500	1□500	□5□0000	1□500	1□500	□□00000	1□500	1□500	□□00000	1□500	1□500
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	□□□□□□□	□□□□□0□0□	□□/□	□□	□□	□□	□	0.1□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□	0.1□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□□□	□□□□□0□0□	□□/□	□□	□□	□□	□□	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□	5.00□	5	5	5.00□	5	5	5.00□	5	5	5.00□	5	5
	□□□□d□□□	□□□□□0□0□	□□/□	□□	□□	□□	□□	□□1	5.□4□	5	5	□0□□	5	5	□51□	5	5	5□4□□	5	5
	□□□□d□□□	□□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□1	5.5□□	5	5	□□□□	5	5	□□□□	5	5	5.0□□	5	5
	□□□□	□□□□□0□0□	□□/□	□□	10000	□□	□□	5□□0	100□	100	100	100□	100	100	100□	100	100	1□1□	100	100
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								Sample ID	**MAO1MW001**			**MAO1MW002**			**MAO1MW003**			**MAO1MW004**		
								Laboratory ID	□15040□050□			□15040□0501			□15040□0□0□			□15040□0□01		
								Sample Date	4/□/□015			4/□/□015			4/□/□015			4/□/□015		
								Sample Time	10□□0			□□5			10□5□			□40		
	Parameter	**Analytical Method**	**Unit**	**NMAC 20.6.2.3103 Groundwater - Human Health**	**NMAC 20.6.2.3103 Groundwater - Domestic Water Supply**	**NMAC 20.6.2.3103 Groundwater - Irrigation Use**	**USEPA Drinking Water MCLs (May 2009)**	**NMED SSLs Tapwater Screening Levels (July 2015)**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**
General	□□□r□d□	□□□□00□0□□□□□1	□□/□	□□	□50	□□	□□	□□	**560**	□5	□5	**438**	10	10	**484**	□5	□5	**257**	10	10
	□□□□d□	□□□□01□□	□□/□	0□□	□□	□□	□□	0□0014□	0□00050□	0□0005	0□0005	0□00050□	0□0005	0□0005	0□00050□	0□0005	0□0005	0□00050□	0□0005	0□0005
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	□□r□□	□□□□00□0□□□□□1	□□/□	□□	□□	□□	1	□□	0□□50□	0□□5	0□□5	0□050□	0□05	0□05	0□□50□	0□□5	0□□5	0□□00□	0□□	0□□
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	□□□□□	□□□□00□0□□□□□1	□□/□	□□	□00	□□	□□	□□	**682**	□5	□5	5□□	10	10	5□□	□5	□5	□4□	10	10
	□□□□□ □□□□□	□M□□□0□□□011	□□/□□□□□□	□□	□□	□□	□□	□□	1□□	0□□□	0□□□	□00	0□□□	0□□□	1□1	0□□□	0□□□	1□□	0□□□	0□□□
	□□□□□ □□□□d□□d□□□□	□M□540□□011	□□/□	□□	1000	□□	□□	□□	**1710**	10	10	**1490**	10	10	**1500**	10	10	□□□	10	10
Metals	□□□ □□□	□□□□0□0□	□□/□	□□	□□	5000	□□	1□□00	□05□	5	5	□5□0□	□5	□5	5□54□	5	5	5□00□	5	5
	□□□ □□□	□□□□0□0□□□□□□d	□□/□	□□	□□	5000	□□	1□□00	5□00□	5	5	5□□1□	5	5	5□00□	5	5	5□00□	5	5
	□□□□ □□	□□□□0□0□	□□/□	□□	□□	□□	□	□□□	0□50□	0□5	0□5	□50□	□5	□5	0□50□	0□5	0□5	0□50□	0□5	0□5
	□□□□ □□	□□□□0□0□□□□□□d	□□/□	□□	□□	□□	□	□□□	0□50□	0□5	0□5	0□□□	0□5	0□5	0□50□	0□5	0□5	0□50□	0□5	0□5
	□r□□□	□□□□0□0□	□□/□	100	□□	□□	10	0□51□	0□□4□	0□□5	0□□5	1□□5□	1□□5	1□□5	1□0□	0□□5	0□□5	1□□4	0□□5	0□□5
	□r□□□	□□□□0□0□□□□□□d	□□/□	100	□□	□□	10	0□51□	0□□4□	0□□5	0□□5	0□□0□	0□□5	0□□5	0□□□	0□□5	0□□5	1□□□	0□□5	0□□5
	□□r□□	□□□□0□0□	□□/□	1000	□□	□□	□000	□□□0	1□□□	0□□5	0□□5	14□□	1□□5	1□□5	14□□	0□□5	0□□5	□1□4	0□□5	0□□5
	□□r□□	□□□□0□0□□□□□□d	□□/□	1000	□□	□□	□000	□□□0	1□□□	0□□5	0□□5	15□4	0□□5	0□□5	14□4	0□□5	0□□5	□0□□	0□□5	0□□5
	□□r□□□□	□□□□0□0□	□□/□	□□	□□	□□	4	1□□4	0□□5□	0□□5	0□□5	1□□5□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□r□□□□	□□□□0□0□□□□□□d	□□/□	□□	□□	□□	4	1□□4	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□d□ □□□	□□□□0□0□	□□/□	10	□□	□□	5	□□□4	0□□5□	0□□5	0□□5	1□□5□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□d□ □□□	□□□□0□0□□□□□□d	□□/□	10	□□	□□	5	□□□4	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□□□□□	□□□□0□0□	□□/□	□□	□□	□□	□□	□□	□0100□	□□500	□□500	4□□400	□□5	□□5	□□100	1□□500	1□□500	4□□100	1□5	1□5
	□□□□□□	□□□□0□0□□□□□□d	□□/□	□□	□□	□□	□□	□□	□□□00□	□□500	□□500	4□□100	1□5	1□5	□1400	1□□500	1□□500	45500	1□5	1□5
	□□r□□ □□□	□□□□0□0□	□□/□	50	□□	□□	100	5□5□	0□51□	0□□5	0□□5	1□□□□	1□□5	1□□5	0□4□□	0□□5	0□□5	0□□□□	0□□5	0□□5
	□□r□□ □□□	□□□□0□0□□□□□□d	□□/□	50	□□	□□	100	5□5□	0□41□	0□□5	0□□5	1□5□	0□□5	0□□5	0□41□	0□□5	0□□5	0□□□□	0□□5	0□□5
	□□r□□ □□□ □□□	□□□ □1 □□□□□	□□/□	□□	□□	□□	100	0□□5	0□□□□	0□014	0□0□	1□□□	0□0□	0□1	0□□5□	0□014	0□0□	0□□□	0□014	0□0□
	□□□□□	□□□□0□0□	□□/□	□□	□□	50	□□	□□	0□□5□	0□□5	0□□5	1□□5□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□□□□	□□□□0□0□□□□□□d	□□/□	□□	□□	50	□□	□□	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□□□r	□□□□0□0□	□□/□	□□	1000	□□	1□00	□□0	0□□□□	0□□5	0□□5	1□□□□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□4□□	0□□5	0□□5
	□□□□r	□□□□0□0□□□□□□d	□□/□	□□	1000	□□	1□00	□□0	0□□5□	0□□5	0□□5	1□□□	0□□5	0□□5	0□□□□	0□□5	0□□5	0□5□□	0□□5	0□□5
	□r□□	□□□□0□0□	□□/□	□□	1000	□□	□□	1□□00	□5□0□	□5	□5	1□5□	1□5	1□5	□5□0□	□5	□5	□5□0□	□5	□5
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	M□r□□r□	□□□□4□0□	□□/□	□	□□	□□	□	0□□□□	0□04□□	0□04□	0□04□	0□04□□	0□04□	0□04□	0□04□□	0□04□	0□04□	0□04□□	0□04□	0□04□
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	M□□□d□□□□	□□□□0□0□	□□/□	□□	□□	1000	□□	□□□	□□1□	0□□5	0□□5	□□□4	1□□5	1□□5	4□4□	0□□5	0□□5	□□□□	0□□5	0□□5
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	□□□□□□□	□□□□0□0□□□□□□d	□□/□	50	□□	□□	50	□□□	4	0□□5	0□□5	4□55	0□□5	0□□5	□□□□	0□□5	0□□5	□0□	0□□5	0□□5
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	□□□□r	□□□□0□0□□□□□□d	□□/□	50	□□	□□	□□	□1□□	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
	□□d□□□	□□□□0□0□	□□/□	□□	□□	□□	□□	□□	□45000	1□500	1□500	5□5000	1□500	1□500	545000	□500	□500	□□1000	□500	□500
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	□□□□□□□	□□□□0□0□	□□/□	□□	□□	□□	□	0□1□□	0□□5□	0□□5	0□□5	1□□5□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
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	□□□□□□□	□□□□0□0□	□□/□	□□	□□	□□	□□	□□	0□□5□	0□□5	0□□5	1□□5□	1□□5	1□□5	0□□5□	0□□5	0□□5	0□□5□	0□□5	0□□5
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	□□□□	□□□□0□0□□□□□□d	□□/□	□□	10000	□□	□□	5□□0	□1□5	5	5	□1□4	5	5	□□□□	5	5	□□□5	5	5

□□□□□**Red** □d□□□□□□□□□d□□□□□□□□□□□r□□□□□□r□□□□□□□□□□□□□□r□□□□□□□d□□□□□□r□d□□□□□□□□□□□□□□d□□□□□□□□□M□□□□□□□□d□□□□□□□□r□d□□□□□□□□□□d r□□□□□□□□□□□□r□r□□d□□□□
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Table 5a
Summary of Spring 2015 Groundwater Chemical Analytical Data
Melrose Air Force Range, New Mexico

								Sample ID	**MAO2MW001D**			**MWQ-2**			**MWQ-18**			**MWQ-19**		
								Laboratory ID	□15040□040□			□1504040□0□			□1504040□01			□1504040□0□		
								Sample Date	4/□/□015			4/□/□015			4/□/□015			4/□/□015		
								Sample Time	14□0□			14□□0			1□□50			1□□10		
	Parameter	**Analytical Method**	**Unit**	**NMAC 20.6.2.3103 Groundwater - Human Health**	**NMAC 20.6.2.3103 Groundwater - Domestic Water Supply**	**NMAC 20.6.2.3103 Groundwater - Irrigation Use**	**USEPA Drinking Water MCLs (May 2009)**	**NMED SSLs Tapwater Screening Levels (July 2015)**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**
General	□□□r□d□	□□□□00□0□□□□□1	□□/□	□□	□50	□□	□□	□□	1920	100	100	3260	100	100	□□□1	1	1	1520	50	50
	□□□□d□	□□□□01□□	□□/□	0□□	□□	□□	□□	0.0014□	0.00050□	0.0005	0.0005	0.00050□	0.0005	0.0005	0.0015□	0.0005	0.0005	0.00050□	0.0005	0.0005
	□□r□□	□□□□00□0□□□□□1	□□/□	10	□□	□□	10	□1□□	4.5□	0.05	0.05	1.00□	1	1	0.4□4	0.05	0.05	0.500□	0.5	0.5
	□□r□□	□□□□00□0□□□□□1	□□/□	□□	□□	□□	1	□□	5.00□	5	5	1.00□	1	1	0.050□	0.05	0.05	0.500□	0.5	0.5
	□□r□□□r□□	□□ □□□0	□□/□	□□	□□	□□	□□	0.01□□□	0.014□	0.001	0.00□	0.0001□	0.0001	0.000□	0.00455	0.0001	0.000□	0.0001□	0.0001	0.000□
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	□□□□□ □□□□□d□□□d□□□□	□M□540□□011	□□/□	□□	1000	□□	□□	□□	4960	10	10	5920	10	10	□0□	10	10	3650	10	10
Metals	□□□□□□□	□□□□0□0□	□□/□	□□	□□	5000	□□	1□□00	□5□0□	□5	□5	500□	500	500	50□0□	50	50	500□	500	500
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	□r□□□□	□□□□0□0□	□□/□	100	□□	□□	10	0.51□	1□□5□	1□□5	1□□5	□5□0□	□5	□5	□4□□	□□5	□□5	□5□0□	□5	□5
	□r□□□□	□□□□0□0□□□□□□□d	□□/□	100	□□	□□	10	0.51□	1□□5□	1□□5	1□□5	□5□0□	□5	□5	□4□□	□□5	□□5	□5□0□	□5	□5
	□□r□□	□□□□0□0□	□□/□	1000	□□	□□	□000	□□□0	□□□□	1□□5	1□□5	□5□□□	□5	□5	□1□□	□□5	□□5	□□□□□	□5	□5
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	□□r□□□□	□□□□0□0□	□□/□	□□	□□	□□	4	1□4	1□□5□	1□□5	1□□5	□5□0□	□5	□5	□50□	□□5	□□5	□5□0□	□5	□5
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	□□d□□□□	□□□□0□0□	□□/□	10	□□	□□	5	□□4	1□□5□	1□□5	1□□5	□5□0□	□5	□5	□50□	□□5	□□5	□5□0□	□5	□5
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	□□□□□□□	□□□□0□0□□□□□□□d	□□/□	□□	□□	□□	□□	□□	1□□5□	1□□5	1□□5	□5□0□	□5	□5	□50□	□□5	□□5	□5□0□	□5	□5
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								Sample ID	MWQ-20			MWQ-21			MWQ-22			MWQ-24		
								Laboratory ID	□1504040□0□			□1504040□01			□1504040□01			□15040□0401		
								Sample Date	4/□/□015			4/□/□015			4/□/□015			4/□/□015		
								Sample Time	1□0□			10□45			□□5			1□10		
	Parameter	Analytical Method	Unit	NMAC 20.6.2.3103 Groundwater - Human Health	NMAC 20.6.2.3103 Groundwater - Domestic Water Supply	NMAC 20.6.2.3103 Groundwater - Irrigation Use	USEPA Drinking Water MCLs (May 2009)	NMED SSLs Tapwater Screening Levels (July 2015)	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL
General	□□r d□	□□□ □00 0□□ □□□1	□□/□	□□	□50	□□	□□	□□	**5490**	□50	□50	□□□	5	5	**320**	15	15	4□55	0□1	0□1
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Metals	□□□ □□□	□□□ □0□0□	□□/□	□□	□□	5000	□□	1□□00	500□	500	500	□□0	5	5	50□0□	50	50	□5□0□	□5	□5
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	□□□□	□□□ □0□0□	□□/□	□□	10000	□□	□□	5□□0	500□	500	500	□4□4	5	5	50□0□	50	50	□5□0□	□5	□5
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□□□□□ **Red** □d□□□□□□□d□□□□□□□□□□□r□□□□ □r□□□□□□□□□□□r□□□□□d□□□□□r□d□□□□□□□□□□□□d□□□□□□ □M□□□□□□□d□□□□□□□r□d□□□□□□□ □dr□□□□□ □□□□□□□r□r□□d□□□
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								Sample ID	**M114MW001**			**M114MW002**			**M114MW003**			**M114MW004**			**MAO1MW001**		
								Laboratory ID	□1510□□0401			□1510□□041□			□1510□□0414			□1510□□040□			□1510□□040□		
								Sample Date	10/□□/□015			10/□□/□015			10/□□/□015			10/□□/□015			10/□□/□015		
								Sample Time	11□10			□1□			10□□			□10			1□55		
	Parameter	**Analytical Method**	**Unit**	**NMAC 20.6.2.3103 Groundwater - Human Health**	**NMAC 20.6.2.3103 Groundwater - Domestic Water Supply**	**NMAC 20.6.2.3103 Groundwater - Irrigation Use**	**USEPA Drinking Water MCLs (May 2009)**	**NMED SSLs Tapwater Screening Levels (July 2015)**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**	**RESULT**	**MDL**	**RDL**
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	□□□d□□□	□□□ □0□0□ □□□□□□d	□□/□	□□	□□	□□	□□	□□□1	□□□□□	□5	□5	□□□□□	□5	□5	□□□□□	□5	□5	□□□0□	□5	□5	1□□4	1□□5	1□□5
	□□□□	□□□ □0□0□	□□/□	□□	10000	□□	□□	5□□0	50□0□	50	50	50□0□	50	50	50□0□	50	50	50□0□	50	50	□5□0□	□5	□5
	□□□□	□□□ □0□0□ □□□□□□d	□□/□	□□	10000	□□	□□	5□□0	50□0□	50	50	50□0□	50	50	50□0□	50	50	50□0□	50	50	□5□0□	□5	□5

□ □□□□**Red** □d□□□□□□□□□d□□□□□□□□□□□r□□□□ □□r□□□□□□□□□□□□□r□□□□□□d□ □□□□□□r□d□□□□□□□□□□□□□□ d□□□□□□□ □□M□ □□□□□□□d□□□□□□□r□d□□□□□□□□ □dr□□□□□ □□□□□□□□r□r□ □d□□□□ □□□□□
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							Sample ID	MAO1MW002			MAO1MW003			MAO1MW004			MAO2MW001D			MWQ 14			MWQ-24		
							Laboratory ID	□1510□□0404			□1510□□0411			□1510□□0405			□1510□□041□			□1511141401			□1510□□041□		
							Sample Date	10/□□/□015			10/□□/□015			10/□□/□015			10/□□/□015			11/1□/□015			10/□□/□015		
							Sample Time	1□□□			14:45			1□4□			□55			□□5			10:55		
	Parameter	Analytical Method	Unit	NMAC 20.6.2.3103 Groundwater - Human Health	NMAC 20.6.2.3103 Groundwater - Domestic Water Supply	NMAC 20.6.2.3103 Groundwater - Irrigation Use	USEPA Drinking Water MCLs (May 2009)	NMED SSLs Tapwater Screening Levels (July 2015)	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL	RESULT	MDL	RDL
□□□r□	□□□r d□	□□□ □00 0 □□□□1	□□/□	□□	□50	□□	□□	□□	**451**	□5	□5	**502**	□5	□5	**280**	□5	□5	**1890**	□5	□5	**600**	□5	□5	4□1	0.05	0.05
	□□□d□	□□□ □01 □□	□□/□	0□	□□	□□	□□	0.0014□	0.00□0□	0.001□	0.001□	0.001□□	0.001□	0.001□	0.001□□	0.001□	0.001□	0.00□0□	0.001□	0.001□	0.001□□	0.001□	0.001□	0.00□0□	0.001□	0.001□
	□□r□□	□□□ □00 0 □□□□1	□□/□	10	□□	□□	10	□1□	1.0□	0.5	0.5	0.□□□□	0.5	0.5	0.□□5	0□□	0□□	□□1	□	□	□5	0.5	0.5	□□□	0.1	0.1
	□□r□□	□□□ □00 0 □□□□1	□□/□	□□	□□	□□	1	□□	0.500□	0.5	0.5	0.500□	0.5	0.5	0.□00□	0□□	0□□	□00□	□	□	0.500□	0.5	0.5	0.100□	0.1	0.1
	□□r□□r□□	□□ □□□0	□□/□	□□	□□	□□	□□	0.01□□□	0.00□44	0.0001	0.000□	0.000□51	0.0001	0.000□	0.00□□5	0.0001	0.000□	0.00□	0.001	0.00□	0.00405	0.0001	0.000□	0.0001□□□	0.0001	0.000□
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	□□□□□ □□□□□□	□M□□□0 □□011	□□/□□□□□□	□□	□□	□□	□□	□□	1□0	0□□	0□□	1□□	0□□	0□□	1□□	0□□	0□□	151	0□□	0□□	151	0□□	0□□	□10	0□□	0□□
	□□□□□ □□□□□d □□□d□□□ □□	□M□540 □□011	□□/□	□□	1000	□□	□□	□□	**1670**	10	10	**1790**	10	10	**1150**	10	10	**5170**	10	10	**2140**	10	10	□5□	10	10
Metals	□□□ □□□	□□□ □0□0□	□□/□	□□	□□	5000	□□	1□□00	10.0□	10	10	11□□	10	10	10.0□	10	10	50.0□	50	50	□□1□	□5	□5	1□0□	5	5
	□□□ □□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	5000	□□	1□□00	10.0□	10	10	10.0□	10	10	10.0□	10	10	50.0□	50	50	1□□	□5	□5	□0□□	5	5
	□□□□ □□□	□□□ □0□0□	□□/□	□□	□□	□□	□	□□□	1.00□	1	1	1.00□	1	1	1.00□	1	1	5.00□	5	5	□50□	□5	□5	0.50□	0.5	0.5
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	□r□□□	□□□ □0□0□	□□/□	100	□□	□□	10	0.51□	0□□□	0.5	0.5	0□□□	0.5	0.5	1□1□	0.5	0.5	□50□	□5	□5	1□□□	1□5	1□5	4□5	0□5	0□5
	□r□□□	□□□ □0□0□ □□□□□□□d	□□/□	100	□□	□□	10	0.51□	0□□□	0.5	0.5	1.05□	0.5	0.5	1.40□	0.5	0.5	□50□	□5	□5	1□□□	1□5	1□5	4□1	0□5	0□5
	□□r□□	□□□ □0□0□	□□/□	1000	□□	□□	□000	□□0	14.1	0.5	0.5	1□□	0.5	0.5	□0	0.5	0.5	□10□	□5	□5	11□	1□5	1□5	4□□	0□5	0□5
	□□r□□	□□□ □0□0□ □□□□□□□d	□□/□	1000	□□	□□	□000	□□0	14.5	0.5	0.5	14□	0.5	0.5	□1.1	0.5	0.5	□□□□	□5	□5	11□	1□5	1□5	4□4	0□5	0□5
	□□r□□□□	□□□ □0□0□	□□/□	□□	□□	□□	4	1□4	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□r□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	4	1□4	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□d□ □□□	□□□ □0□0□	□□/□	10	□□	□□	5	□□4	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□d□ □□□	□□□ □0□0□ □□□□□□□d	□□/□	10	□□	□□	5	□□4	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□	4□□00	□50	□50	□4□00	1□500	1□500	44100	□50	□50	14□000	1□50	1□50	□4000	□□5	□□5	4□100	1□5	1□5
	□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□	4□□00	□50	□50	□□□00	1□500	1□500	4□□00	□50	□50	1□□000	1□50	1□50	□4100	□□5	□□5	4□□00	1□5	1□5
	□□r□□ □□□	□□□ □0□0□	□□/□	50	□□	□□	100	5.5□	1.4□□	0.5	0.5	0.50□	0.5	0.5	0□5□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□4□	0□5	0□5
	□□r□□ □□□	□□□ □0□0□ □□□□□□□d	□□/□	50	□□	□□	100	5.5□	1□□□	0.5	0.5	0.50□	0.5	0.5	0□□□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□□□	0□5	0□5
	□□r□□ □□□ □□□	□□□ □1□□□□□	□□/□	□□	□□	□□	100	0□5	1□□	0.04	0.0□	0□5□	0.01	0.0□	0□0□	0.01	0.05	0.0□□	0.01	0.0□	0.4□□	0.01	0.0□	0□□4	0.01	0.0□
	□□□□□□	□□□ □0□0□	□□/□	□□	□□	50	□□	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	50	□□	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□r	□□□ □0□0□	□□/□	□□	1000	□□	1□00	□□0	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□□□	0□5	0□5
	□□□□□r	□□□ □0□0□ □□□□□□□d	□□/□	□□	1000	□□	1□00	□□0	□□4	0.5	0.5	0.5□□	0.5	0.5	□4□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□4□	0□5	0□5
	□r□□	□□□ □0□0□	□□/□	□□	1000	□□	□□	1□□00	50.0□	50	50	50.0□	50	50	50.0□	50	50	□50□	□50	□50	1□5□	1□5	1□5	□5.0□	□5	□5
	□r□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	1000	□□	□□	1□□00	50.0□	50	50	50.0□	50	50	50.0□	50	50	□50□	□50	□50	1□5□	1□5	1□5	□5.0□	□5	□5
	□□□d	□□□ □0□0□	□□/□	50	□□	□□	15	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□d	□□□ □0□0□ □□□□□□□d	□□/□	50	□□	□□	15	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	M□□□□□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□	41500	□500	□500	□□□00	□500	□500	□□100	□500	□500	55100	□50	□50	□1□00	□500	□500	1□□00	□50	□50
	M□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□	44□00	□500	□500	□0000	□500	□500	40000	□500	□500	51400	□50	□50	□□100	□500	□500	1□500	□50	□50
	M□□□□□□□□	□□□ □0□0□	□□/□	□□	□00	□□	□□	□0□0	□50□	□5	□5	□50□	□5	□5	□50□	□5	□5	1□□	1□5	1□5	□□5□	□□5	□□5	1□5□	1□5	1□5
	M□□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□00	□□	□□	□0□0	□50□	□5	□5	□50□	□5	□5	□50□	□5	□5	1□□	1□5	1□5	□□5□	□□5	□□5	1□5□	1□5	1□5
	M□r□r□	□□□ □4□0□	□□/□	□	□□	□□	□	0□□□	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1
	M□r□r□	□□□ □4□0□ □□□□□□□d	□□/□	□	□□	□□	□	0□□□	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1	0.10□	0.1	0.1
	M□□□d□□□□	□□□ □0□0□	□□/□	□□	□□	1000	□□	□□□	□1□	0.5	0.5	4□1	0.5	0.5	5□□	0.5	0.5	1□□	□5	□5	□5□	1□5	1□5	1□□	0□5	0□5
	M□□□d□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	1000	□□	□□□	□4□	0.5	0.5	4.4□	0.5	0.5	□1□	0.5	0.5	1□□	□5	□5	□5	1□5	1□5	1□□	0□5	0□5
	□□□□□□	□□□ □0□0□	□□/□	□□	□□	□00	□□	□□□	1.00□	1	1	1.00□	1	1	1.00□	1	1	5.00□	5	5	□5.5	□5	□5	0.50□	0.5	0.5
	□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□00	□□	□□□	1.00□	1	1	1.00□	1	1	1.00□	1	1	5.00□	5	5	□5□□	□5	□5	0.50□	0.5	0.5
	□□□□□□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□	□□0	50	50	□□40	50	50	5□0	50	50	□0□0	□50	□50	11□00	1□5	1□5	4□0	□5	□5
	□□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□	□4□0	50	50	□4□0	50	50	5□00	50	50	□□□0	□50	□50	11000	1□5	1□5	44□0	□5	□5
	□□□□□□□	□□□ □0□0□	□□/□	50	□□	□□	50	□□□	4□□	0.5	0.5	□□□	0.5	0.5	□□□	0.5	0.5	**50.3**	□5	□5	□4□	1□5	1□5	0.54□	0□5	0□5
	□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	50	□□	□□	50	□□□	4□□	0.5	0.5	□□□	0.5	0.5	□□□	0.5	0.5	**65.3**	□5	□5	□5□	1□5	1□5	0.4□□	0□5	0□5
	□□□□r	□□□ □0□0□	□□/□	50	□□	□□	□□	□1□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□r	□□□ □0□0□ □□□□□□□d	□□/□	50	□□	□□	□□	□1□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□d□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□	545000	□500	□500	514000	□500	□500	□□□000	□500	□500	□□00000	□5000	□5000	□□□000	□500	□500	□1100	□50	□50
	□□d□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□	5□□000	□500	□500	51□000	□500	□500	□5□000	□500	□500	□0□0000	□5000	□5000	□□5000	□500	□500	5□□00	□50	□50
	□□□□□□□	□□□ □0□0□	□□/□	□□	□□	□□	□	0.1□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□	0.1□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□	0.50□	0.5	0.5	0.50□	0.5	0.5	0.50□	0.5	0.5	□50□	□5	□5	1□5□	1□5	1□5	0□5□	0□5	0□5
	□□□□d□□□	□□□ □0□0□	□□/□	□□	□□	□□	□□	□□1	1□	0.5	0.5	1□□	0.5	0.5	1□4	0.5	0.5	5□4□	□5	□5	5□	1□5	1□5	□0	0□5	0□5
	□□□□d□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	□□	□□	□□	□□1	1□□	0.5	0.5	1□	0.5	0.5	1□1	0.5	0.5	4.0□□	□5	□5	5.5□	1□5	1□5	□0	0□5	0□5
	□□□□	□□□ □0□0□	□□/□	□□	10000	□□	□□	5□□0	10.0□	10	10	10.0□	10	10	10.0□	10	10	50.0□	50	50	□5.0□	□5	□5	5.00□	5	5
	□□□□	□□□ □0□0□ □□□□□□□d	□□/□	□□	10000	□□	□□	5□□0	10.0□	10	10	10.0□	10	10	10.0□	10	10	50.0□	50	50	□5.0□	□5	□5	5.00□	5	5

□□□□□**Red**□d□□□□□□□□d□□□□□□□□□□□□r□□□□□ □r□□□□□□□□□□□□r□□□□□□□d□□□□□□□r□d□□□□□□□□□□□□□d□□□□□□□ □M□□□□□□□□d□□□□□□□□r□d□□□□□□□□ □dr□□□□□ □□□□□□□□□r□r□□d□□□□□□□□□□
□□□□□□□□□□r□r□□□□□□□□□□□□□□□□□□□□r□r□□d□□□r□□□□□□□□□□□□□□□□□□□□□□□□□□r□□□□□□r□r□□□□□□□□□□□□□□r□□□□□r□d□□□□d□

TABLE 6a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	<D.L.	<D.L.	280.0	<D.L.	180.0	<D.L.	<D.L.	<D.L.	410.0	<D.L.	820.0	<D.L.	350.0	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	359.0	<D.L.	<D.L.	<D.L.	45.3	46.7	128.0	85.2	69.8	<D.L.	334.0	<D.L.	283.0	100.0	<D.L.	<D.L.		
May-11	<D.L.	77.6	78.8	<D.L.	63.6	67.3	<D.L.	<D.L.	276.0	105.0	<D.L.	164.0	111.0	<D.L.	<D.L.	<D.L.	79.6	<D.L.		
Sep-11	100.0	<D.L.	85.3	<D.L.	200.0	<D.L.	110.0	<D.L.	84.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	446.0	<D.L.	231.0	<D.L.	2790.0	<D.L.	106.0	<D.L.	502.0	<D.L.	437.0	<D.L.	81.6	<D.L.	279.0	<D.L.	68.2	<D.L.		
May-13	75.8	<D.L.	86.6	<D.L.	93.9	<D.L.	106.0	<D.L.	319.0	<D.L.	187.0	114.0	205.0	88.4	98.5	78.9	72.1	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	30.8	13.8
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	11.0	9.1
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	26.1	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	10.3	12.7
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	8.1	<D.L.	<D.L.	5.6	5.5	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	112.0	<D.L.	<D.L.	<D.L.	11.9	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	12.0	8.0
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	446.00	77.60	359.00	0.00	2790.00	67.30	110.00	46.70	502.00	105.00	820.00	164.00	350.00	88.40	283.00	100.00	79.60	0.00	30.80	13.80
Avg	62.18	7.76	112.07	0.00	332.75	6.73	36.73	4.67	172.74	19.02	153.99	28.36	108.71	8.84	66.05	17.89	21.99	0.00	13.03	8.89

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04														
Jul-04														
Jul-05														
Jun-07		<D.L.		<D.L.										
Jan-09														
Jan-10	75.0	<D.L.	<D.L.	<D.L.	3200.0	<D.L.	64.0	<D.L.	38.0	<D.L.	2500.0	<D.L.	560.0	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	60.6	<D.L.	153.0	<D.L.	72.4	<D.L.	261.0	<D.L.	1100.0	272.0	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	121.0	<D.L.	144.0	<D.L.	626.0	131.0	91.1	<D.L.	2230.0	97.0	1700.0	<D.L.	1260.0	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	26.6	<D.L.	134.0	13.9	44.4	<D.L.	118.0	<D.L.	1080.0	29.2	18.3	13.6
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	880.0	44.1	<D.L.	<D.L.
Oct-15			67.1	167.0										
Min	0.0	0.0	0.0	0.0	134.0	0.0	44.4	0.0	38.0	0.0	1080.0	0.0	0.0	0.0
Max	121.0	0.0	144.0	0.0	3200.0	131.0	91.1	0.0	2230.0	97.0	2500.0	272.0	1260.0	13.6
Avg	49.0	0.0	57.8	0.0	1028.3	36.2	68.0	0.0	661.8	24.3	1595.0	75.3	459.6	3.4

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 5000 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6a
ALUMINUM

TABLE 6a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

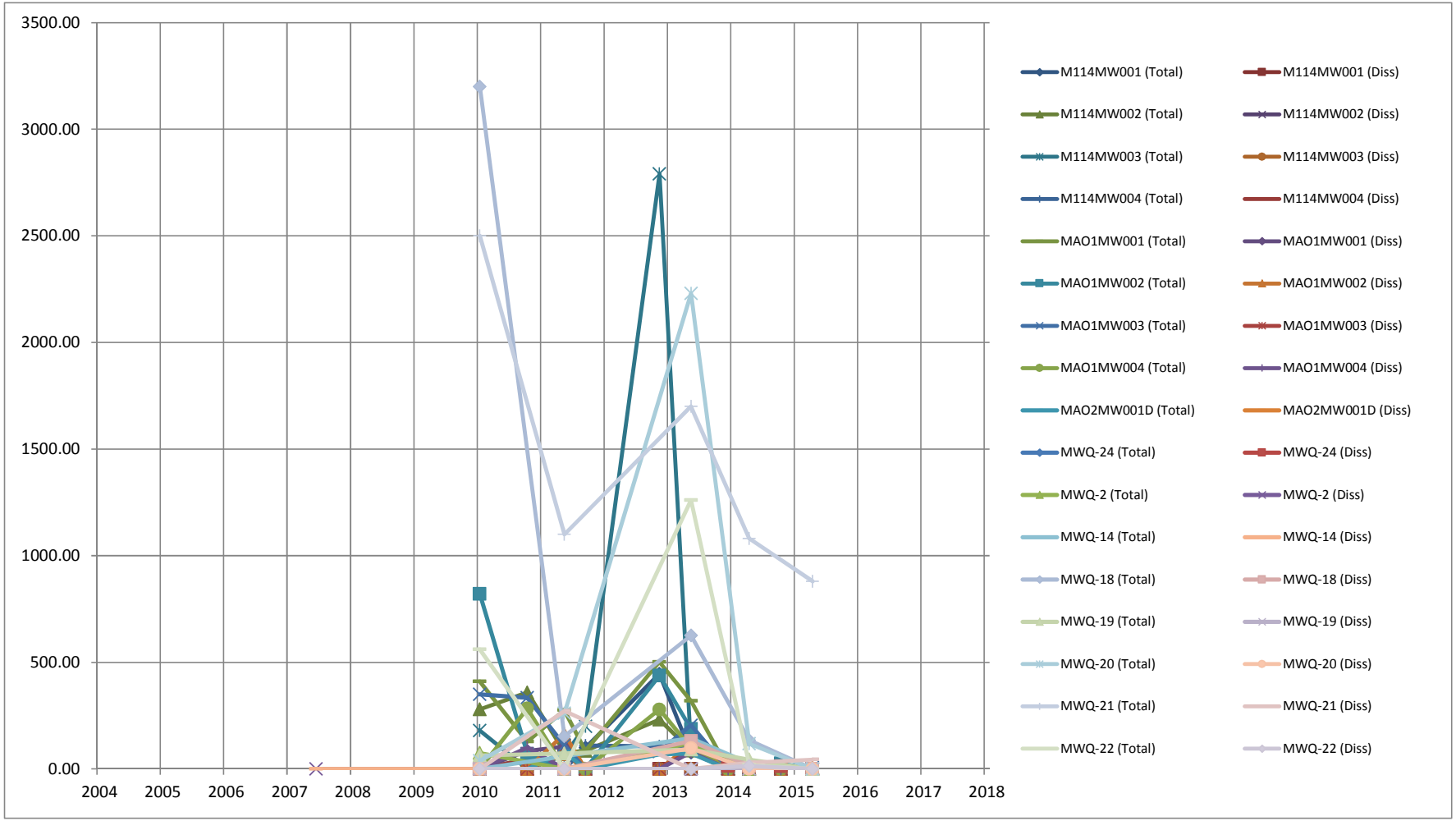


TABLE 6a
ALUMINUM

TABLE 6a
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

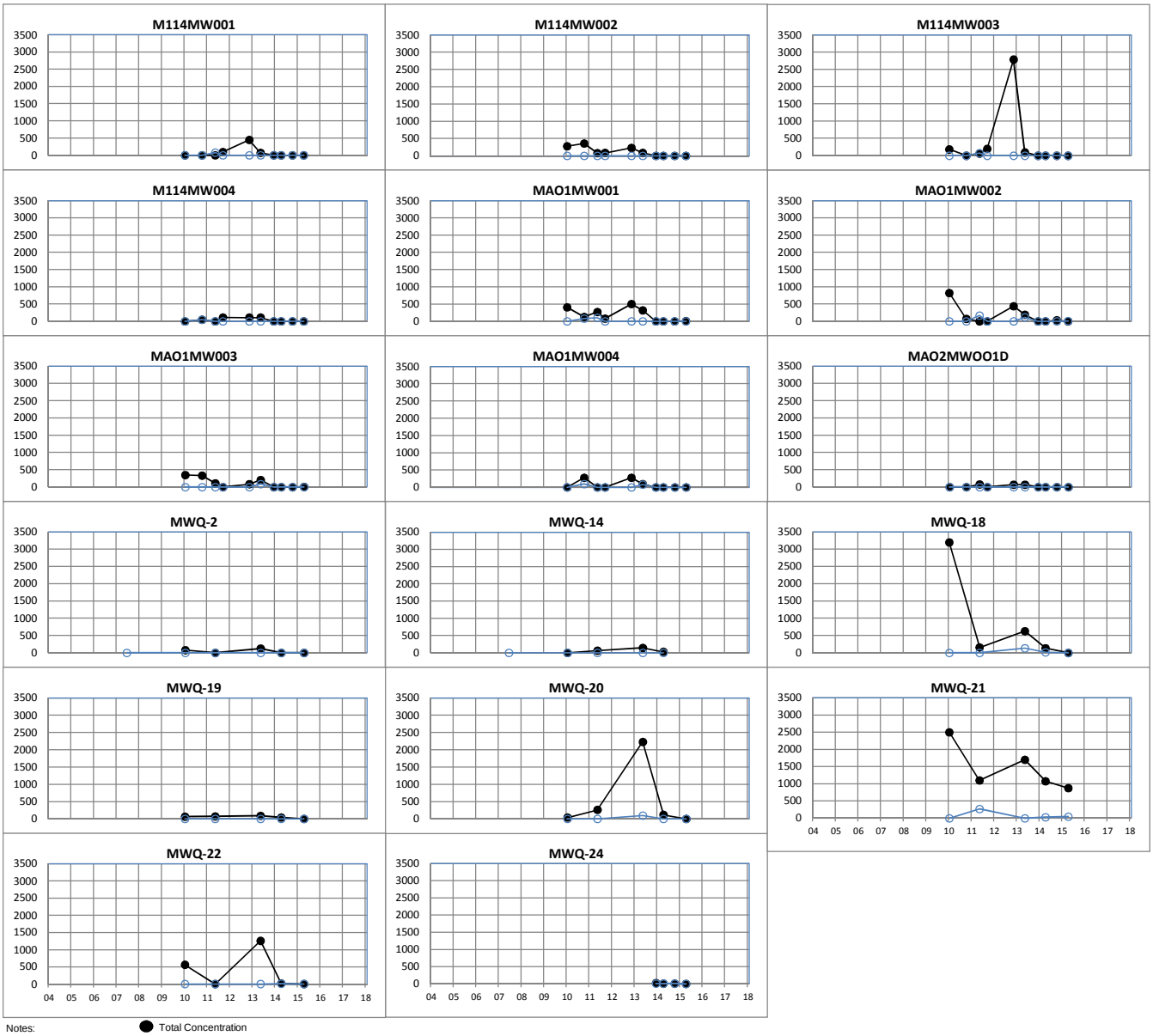


TABLE 6a
ALUMINUM

TABLE 6b
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	MWQ-24	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		0.59		<D.L.		<D.L.		0.65		0.16		<D.L.		<D.L.		<D.L.		0.89		
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**6.82**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	4.59	<D.L.	<D.L.	**102**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	5.29	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	**6.43**	<D.L.	4.27	<D.L.	<D.L.	4.85	<D.L.	5.71	<D.L.	<D.L.	3.66	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	4.69	4.38		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.96	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Max	6.4	0.6	4.3	0.0	0.0	4.9	6.8	5.7	0.0	0.2	102.0	1.0	5.3	0.0	0.0	0.0	4.7	4.4	0.0	0.0
Avg	0.6	0.1	0.4	0.0	0.0	0.4	0.7	1.0	0.0	0.0	10.6	0.1	0.5	0.0	0.0	0.0	0.5	0.5	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		1.9		0.26										
Jul-04		<D.L.		<D.L.		<D.L.								
Jul-05		<D.L.		0.36		0.082				0.360		0.11		0.048
Jun-07		0.22		0.11		0.071				0.500		0.099		0.23
Jan-09		2.00		<D.L.		<D.L.		<D.L.		0.63		0.88		1.00
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**20.3**	**6.00**	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.44	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	2.0	0.0	0.4	0.0	0.1	3.4	0.0	20.3	6.0	0.0	0.9	0.0	1.0
Avg	0.0	0.5	0.0	0.1	0.0	0.0	0.9	0.0	5.1	1.1	0.0	0.2	0.0	0.2

Notes:

Data in µg/L

USEPA Drinking Water MCL: 6.00 µg/L

Red indicates exceedance

Blank cells indicate no data

Wells MWQ-3, -4, -5, -6, -7, -10, -23, and MWL-6 not sampled after spring 2011

Due to a preponderance of no detects trends are not plotted

TABLE 6b
ANTIMONY

TABLE 6c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		4.4		5.1		6.5		0.55		0.96		1.6		2.5		2.6		**10.2**		
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	2.74	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	4.01	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	5.99		
Sep-11	<D.L.	3.83	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	4.75	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	<D.L.	3.97	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.96	4.01
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.21	1.22	<D.L.	<D.L.	3.01	3.02
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.39	1.40	<D.L.	<D.L.	4.77	4.92
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.64	0.64	<D.L.	0.70	1.08	0.99	1.34	1.29	<D.L.	<D.L.	4.32	4.23
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.78	0.78	0.97	1.05	1.21	1.40	<D.L.	<D.L.	4.75	4.71
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
Max	0.0	4.4	0.0	5.1	0.0	6.5	0.0	4.8	0.6	1.0	0.8	1.6	1.1	2.5	1.4	2.6	0.0	10.2	4.8	4.9
Avg	0.0	1.2	0.0	0.4	0.0	0.5	0.0	0.8	0.1	0.1	0.1	0.3	0.2	0.4	0.5	0.7	0.0	1.3	4.2	4.2

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		4.10		4.80										
Jul-04		4.7		4.1		7.2								
Jul-05		7.6		5.5		7.4				6.0		7.2		2.4
Jun-07		4.3		4.4		6.9				2.0		5.8		2.0
Jan-09		0.87		5.2		8.5		5.3		5.1		6.6		1.1
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	9.4	4.7	6.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	3	<D.L.	3.99	6.33	7.34	<D.L.	3.75	<D.L.	3.95	6.1	9.41	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	5.80	5.31	5.19	<D.L.	<D.L.	5.57	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	1.42	1.41	7.02	7.83	<D.L.	<D.L.	<D.L.	<D.L.	4.93	5.86	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			7.42	7.43	<D.L.	<D.L.	<D.L.	<D.L.	6.07	5.71	<D.L.	<D.L.
Oct-15			1.37	1.37										
Min	0.0	0.0	0.0	0.0	5.8	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	7.6	1.4	5.5	9.4	8.5	6.3	5.3	0.0	6.0	6.1	9.4	0.0	2.4
Avg	0.0	2.7	0.4	3.3	7.1	6.9	2.9	1.8	0.0	3.2	2.8	5.0	0.0	0.8

Notes:

Data in µg/L

USEPA Drinking Water MCL: 10 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6c
ARSENIC

TABLE 6c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

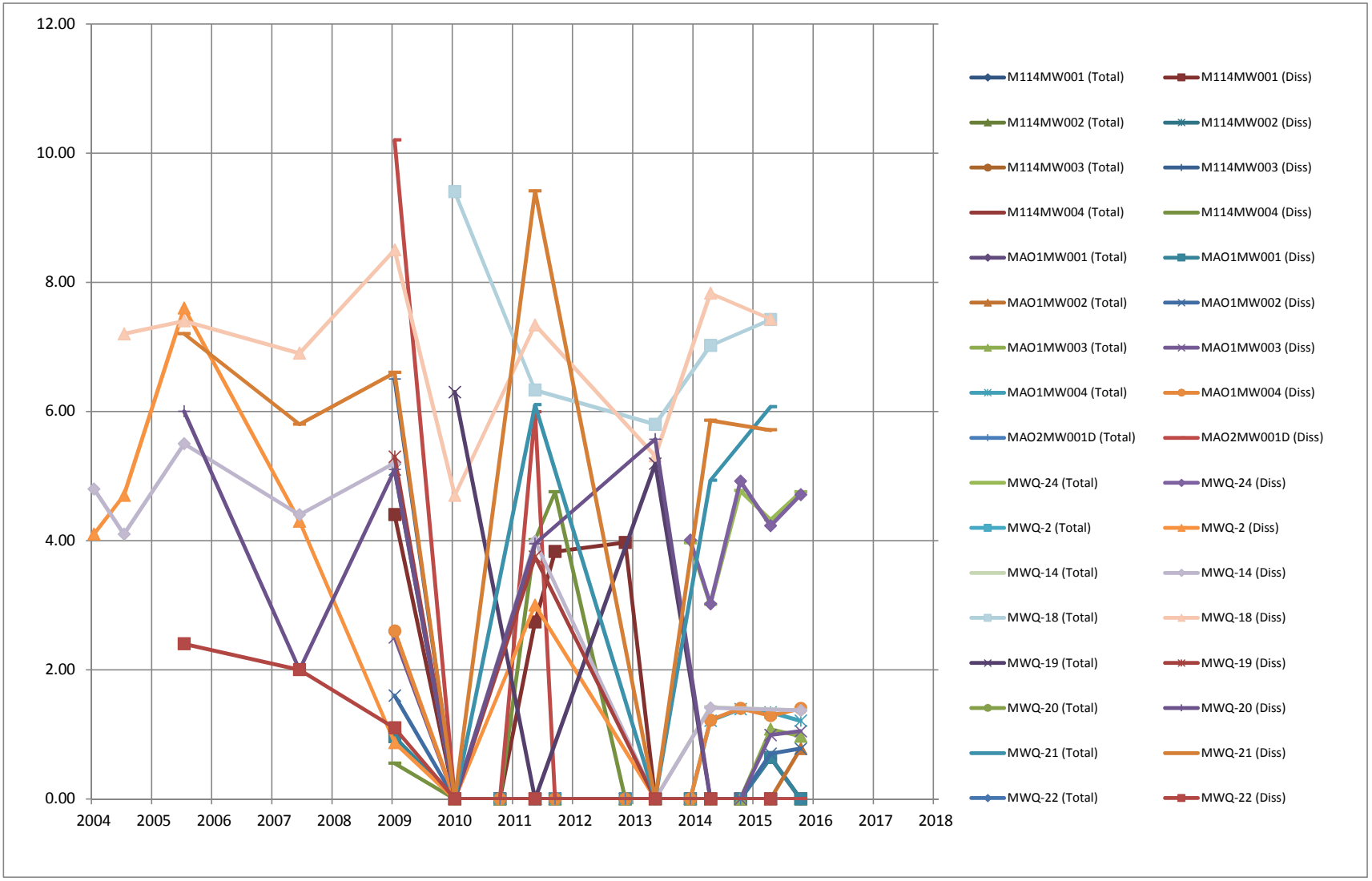
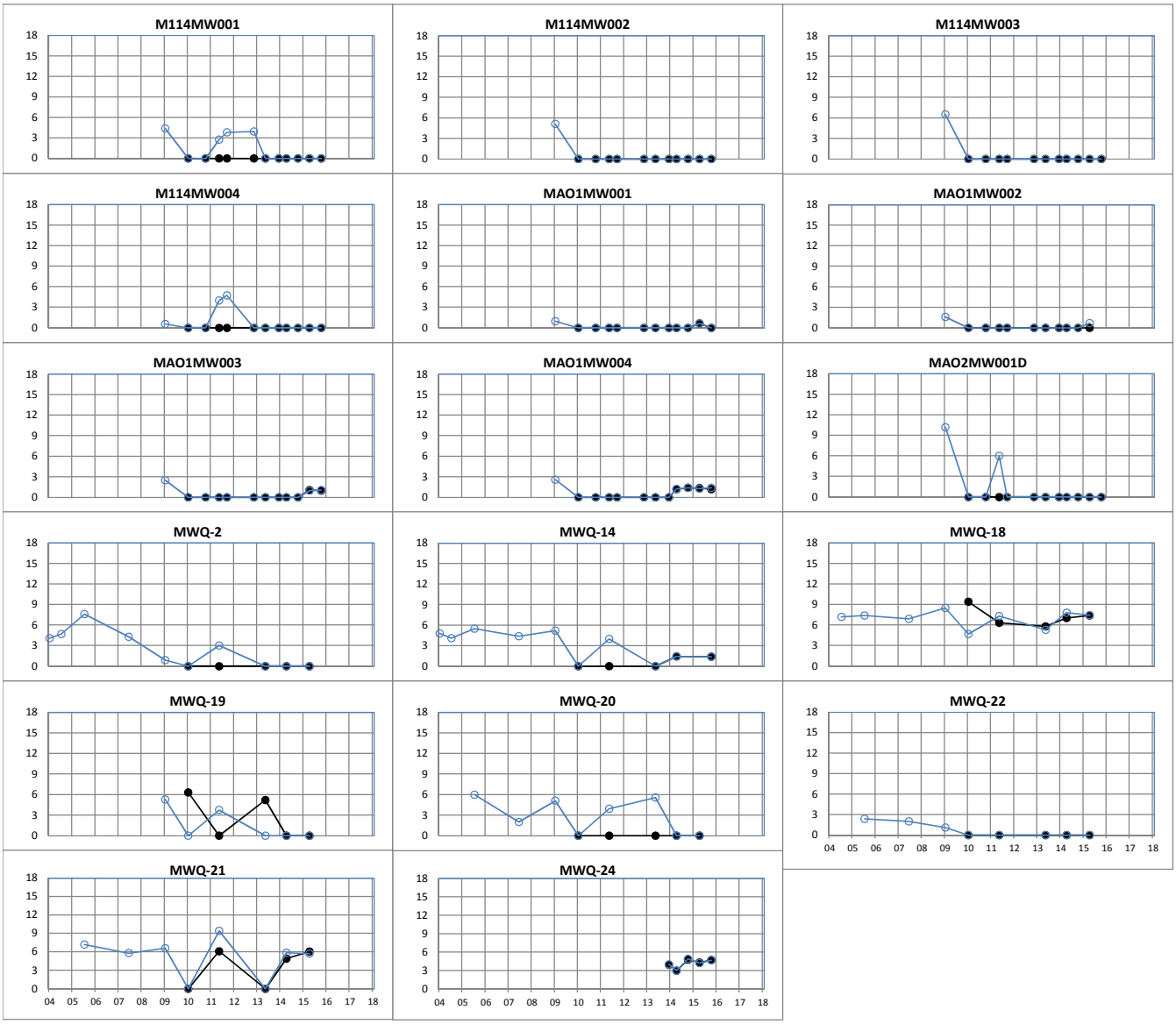


TABLE 6c
ARSENIC

TABLE 6c
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6c
ARSENIC

TABLE 6d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

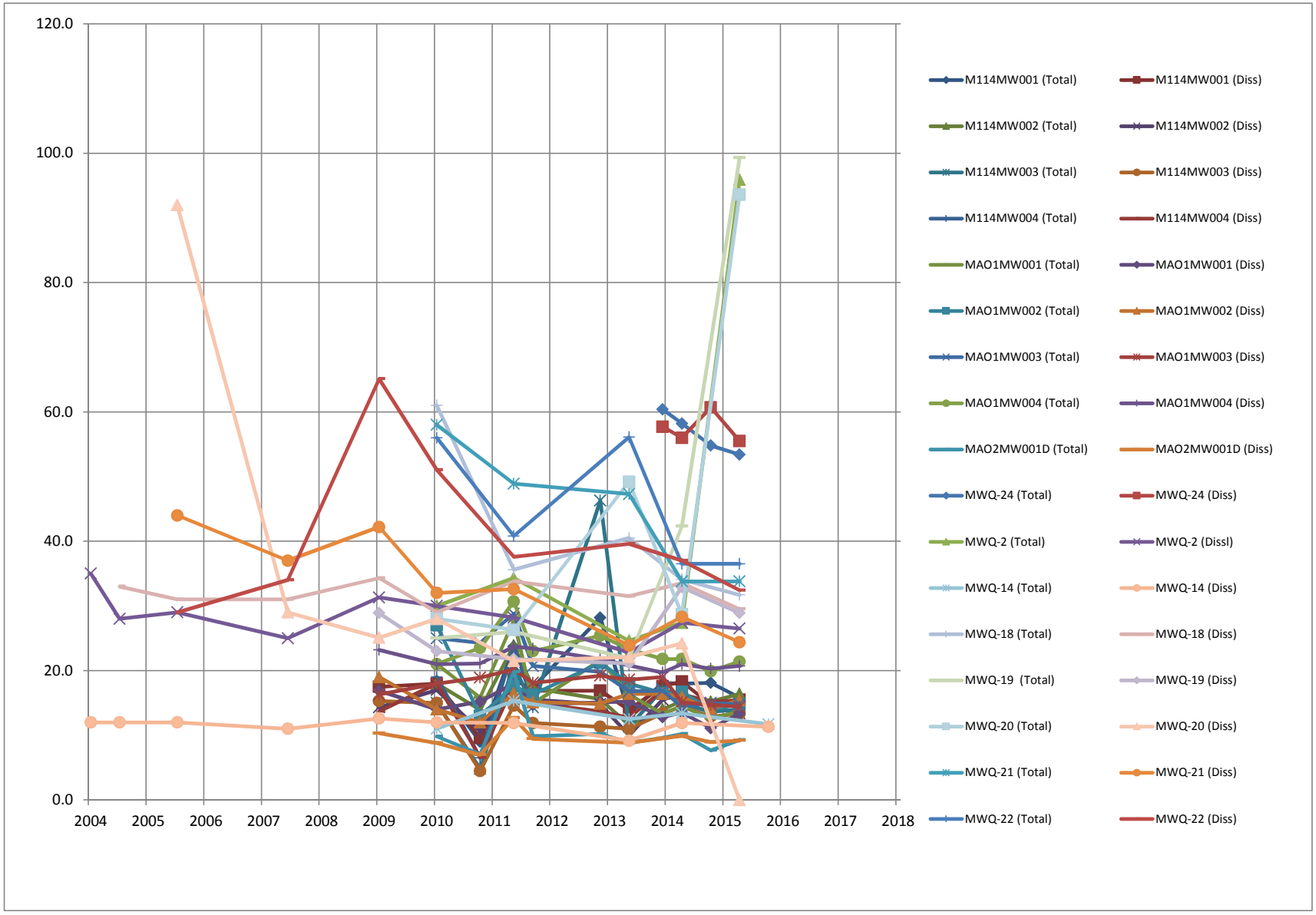


TABLE 6d
BARIUM

TABLE 6d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

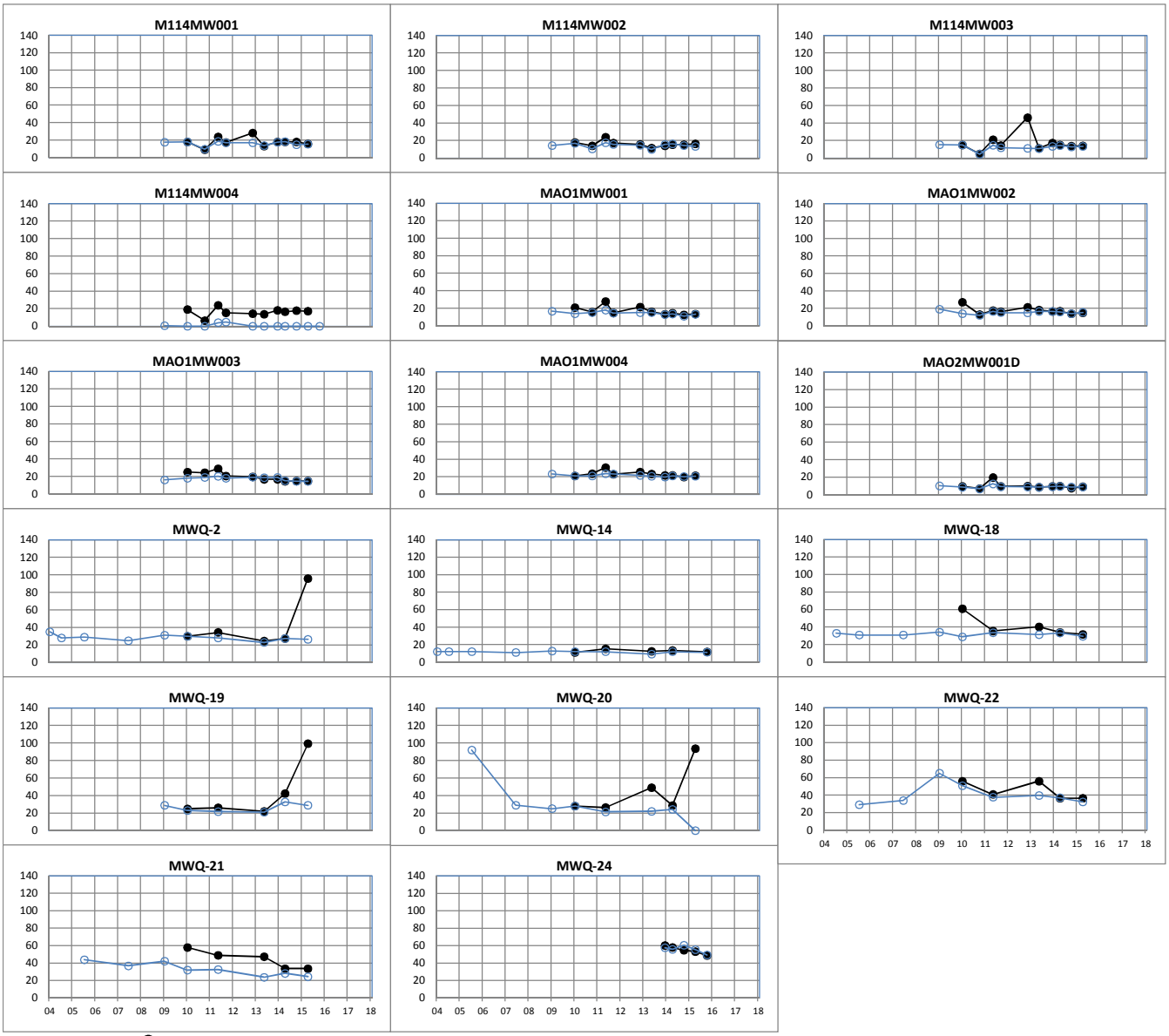
DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		17.5		14.3		15.3		13.7		16.9		19.0		16.3		23.2		10.3		
Jan-10	18.0	18.0	18.0	17.0	15.0	15.0	19.0	18.0	21.0	14.0	27.0	14.0	25.0	18.0	21.0	21.0	9.8	8.8		
Oct-10	9.01	9.58	13.9	10.6	4.82	4.49	6.49	6.58	15.8	15.2	13	12	24.3	18.9	23.5	21.1	7.06	6.97		
May-11	23.7	18.7	23.9	17.5	20.9	14.6	23.8	17.8	27.8	18.0	17.6	16.5	28.8	20.2	30.7	23.7	19.8	12.7		
Sep-11	17.4	16.9	17.3	15.5	14.3	11.9	15.2	15.0	14.9	14.7	16.3	15.1	20.7	18.1	23.0	23.4	9.8	9.4		
Nov-12	28.2	16.9	15.6	14.8	46.3	11.3	14.4	13.7	21.6	15.1	21.2	14.9	19.8	19.2	25.4	21.8	10.2	9.0		
May-13	13.3	13.9	11.6	10.0	11.3	11.0	13.6	12.7	16.3	15.2	18.0	16.4	16.8	18.6	23.3	20.8	8.8	8.8		
Dec-13	18.1	17.6	14.0	15.5	17.1	13.4	18.1	17.0	13.3	12.8	16.5	16.4	16.9	19.0	21.8	19.7	9.6	9.5	60.4	57.7
Apr-14	18.0	18.3	15.3	16.3	14.9	14.4	16.6	16.3	14.5	13.5	16.7	15.9	14.4	15.1	21.8	21.0	10.2	9.9	58.2	56.0
Oct-14	18.1	14.7	15.2	14.3	13.6	12.9	17.7	15.2	12.6	11.1	14.0	14.1	15.0	14.7	19.9	20.3	7.7	8.9	54.8	60.7
Apr-15	15.8	15.5	16.4	13.4	14.0	13.3	17.3	15.4	13.7	13.3	14.8	15.4	14.8	14.4	21.4	20.7	9.28	9.18	53.4	55.5
Oct-15	16.1	16.1	14.9	15.7	14.7	14.1	15.1	15.0	13.6	13.1	14.1	14.5	13.7	14.3	20.0	21.1	8.10	7.97	48.9	49.4
Min	9.0	9.6	11.6	10.0	4.8	4.5	6.5	6.6	12.6	11.1	13.0	12.0	14.4	14.4	19.9	19.7	7.1	7.0	53.4	55.5
Max	28.2	18.7	23.9	17.5	46.3	15.3	23.8	18.0	27.8	18.0	27.0	19.0	28.8	20.2	30.7	23.7	19.8	12.7	60.4	60.7
Avg	18.0	16.1	16.1	14.5	17.2	12.5	16.2	14.7	17.2	14.5	17.5	15.4	19.7	17.5	23.2	21.5	10.2	9.4	56.7	57.5

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		35.0		12.0										
Jul-04		28.0		12.0		33.0								
Jul-05		29.0		12.0		31.0				92.0		44.0		29.0
Jun-07		25.0		11.0		31.0				29.0		37.0		34.0
Jan-09		31.3		12.6		34.3		28.9		25.1		42.2		65.1
Jan-10	30.0	30.0	11.0	12.0	61.0	29.0	25.0	23.0	28.0	28.0	58.0	32.0	56.0	51.0
Oct-10														
May-11	34.3	28.2	15.3	11.9	35.6	33.8	26.0	21.8	26.3	21.5	48.9	32.6	40.8	37.6
Sep-11														
Nov-12														
May-13	24.6	22.8	12.5	9.2	40.5	31.5	21.9	21.1	49.2	22.1	47.3	23.9	56.1	39.6
Dec-13														
Apr-14	27.4	27.4	13.4	11.9	34.1	33.5	42.3	32.9	28.7	24.2	33.8	28.3	36.5	37.0
Oct-14														
Apr-15	95.9	26.5			31.7	29.5	99.3	28.9	93.6	<D.L.	33.8	24.4	36.5	32.4
Oct-15			11.7	11.3										
Min	24.6	22.8	11.0	9.2	34.1	29.0	21.9	21.1	26.3	21.5	33.8	23.9	36.5	29.0
Max	34.3	35.0	15.3	12.6	61.0	34.3	42.3	32.9	49.2	92.0	58.0	44.0	56.1	65.1
Avg	29.1	28.5	13.1	11.6	42.8	32.1	28.8	25.5	33.1	34.6	47.0	34.3	47.4	41.9

Notes:
Data in µg/L
NMAC 20.6.2.3103 Screening Level: 1000 µg/L
Red indicates exceedance
Blank cells indicate no data

TABLE 6d
BARIUM

TABLE 6d
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

TABLE 6d
BARIUM

TABLE 6e
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-11																				
Jan-09				0.054		0.051														
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	<D.L.	<D.L.	1.6	0.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.9	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	1.6	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Avg	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		0.33		<D.L.										
Jul-04		<D.L.		<D.L.		<D.L.								
Jul-05		<D.L.		<D.L.		<D.L.				<D.L.		<D.L.		<D.L.
Jun-11														
Jan-09		0.044		0.041		<D.L.		0.048		<D.L.		<D.L.		<D.L.
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Data in µg/L

USEPA Drinking Water MCL: 4.00 µg/L

Red indicates exceedance

Blank cells indicate no data

Wells MWQ-3, -4, -5, -6, -7, -10, -23, and MWL-6 not sampled after spring 2011

Due to a preponderance of no detects trends are not plotted

TABLE 6e
BERYLLIUM

TABLE 6f
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		390,000		303,000		422,000		373,000		53,500		44,000		61,200		44,000		123,000		
Jan-10	280,000	280,000	250,000	260,000	340,000	370,000	350,000	340,000	50,000	46,000	41,000	37,000	63,000	61,000	41,000	42,000	120,000	110,000		
Oct-10	262,000	277,000	253,000	263,000	354,000	360,000	328,000	320,000	49,100	50,300	36,900	35,200	66,600	60,700	37,400	36,600	111,900	115,000		
May-11	269,000	280,000	252,000	257,000	342,000	342,000	326,000	338,000	49,700	50,800	35,100	37,400	63,100	59,600	38,200	36,800	127,000	127,000		
Sep-11	259,000	285,000	251,000	267,000	317,000	334,000	303,000	339,000	51,000	51,300	39,000	39,100	64,100	58,600	39,300	39,900	114,000	119,000		
Nov-12	273,000	263,000	263,000	271,000	342,000	333,000	312,000	373,000	47,400	49,100	38,900	37,600	59,800	61,300	38,300	34,400	110,000	107,000		
May-13	281,000	254,000	294,000	276,000	343,000	348,000	329,000	319,000	45,500	46,800	38,900	38,500	60,300	64,700	39,000	35,500	108,000	106,000		
Dec-13	358,000	331,000	352,000	342,000	447,000	379,000	391,000	384,000	52,200	48,700	42,900	42,100	69,100	67,600	44,600	40,900	154,000	141,000	52,800	49,500
Apr-14	382,000	401,000	355,000	340,000	414,000	425,000	461,000	439,000	52,700	50,400	45,000	41,900	66,300	66,700	42,200	42,600	153,000	133,000	45,600	43,700
Oct-14	317,000	301,000	346,000	340,000	413,000	410,000	402,000	404,000	52,700	47,600	44,400	44,400	69,800	67,200	40,800	41,400	132,000	141,000	43,600	47,800
Apr-15	337,000	332,000	381,000	353,000	445,000	420,000	436,000	412,000	80,100	82,700	46,400	49,100	86,100	91,400	47,100	45,500	135,000	137,000	40,200	41,300
Oct-15	353,000	345,000	374,000	354,000	450,000	444,000	443,000	438,000	55,900	52,200	47,900	48,600	84,700	79,600	44,100	46,300	149,000	136,000	43,100	43,900
Min	259000	254000	250000	257000	317000	333000	303000	319000	45500	46000	35100	35200	59800	58600	37400	34400	108000	106000	40200	41300
Max	382000	401000	381000	354000	450000	444000	461000	439000	80100	82700	47900	49100	86100	91400	47100	46300	154000	141000	52800	49500
Avg	306455	311583	306455	302167	382455	382250	371000	373250	53300	52450	41491	41242	68445	66633	41091	40492	128536	124583	45060	45240

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		190,000		75,000										
Jul-04		190,000		69,000		40,000								
Jul-05		190,000		68,000		42,000				430,000		180,000		31,000
Jun-07		190,000		80,000		42,000				560,000		170,000		35,000
Jan-09		201,000		69,900		38,800		334,000		628,000		182,000		56,600
Jan-10	200,000	210,000	72,000	78,000	47,000	44,000	310,000	320,000	560,000	560,000	140,000	140,000	68,000	74,000
Oct-10														
May-11	187,000	204,000	65,900	66,700	41,200	44,400	286,000	285,000	556,000	544,000	122,000	120,000	37,300	38,500
Sep-11														
Nov-12														
May-13	188,000	183,000	66,300	63,000	43,900	40,200	302,000	283,000	565,000	547,000	116,000	99,800	76,400	71,100
Dec-13														
Apr-14	238,000	236,000	85,200	78,200	46,800	47,700	346,000	351,000	752,000	683,000	95,200	110,000	51,100	50,700
Oct-14														
Apr-15	281,000	249,000			47,600	48,000	381,000	333,000	844,000	774,000	122,000	109,000	54,300	52,300
Oct-15			94,000	94,100										
Min	187000	183000	65900	63000	41200	38800	286000	283000	556000	430000	116000	99800	37300	31000
Max	200000	210000	72000	80000	47000	44400	310000	334000	565000	628000	140000	182000	76400	74000
Avg	191667	194750	68067	71200	44033	41629	299333	305500	560333	544833	126000	148633	60567	51033

Notes:

Data in µg/L

No applicable screening criteria

Red indicates exceedance

Blank cells indicate no data

TABLE 6f
CALCIUM

TABLE 6f
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

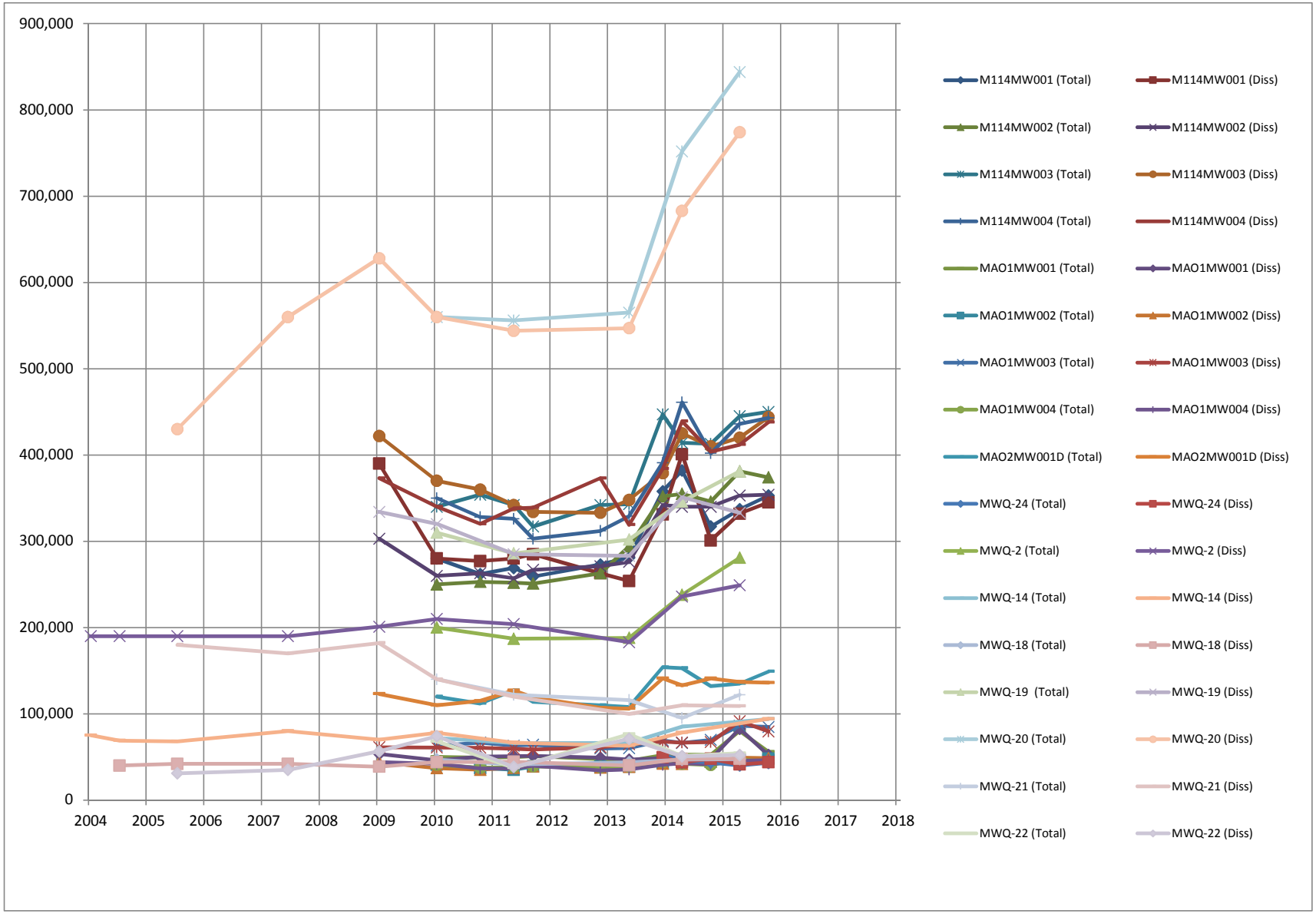
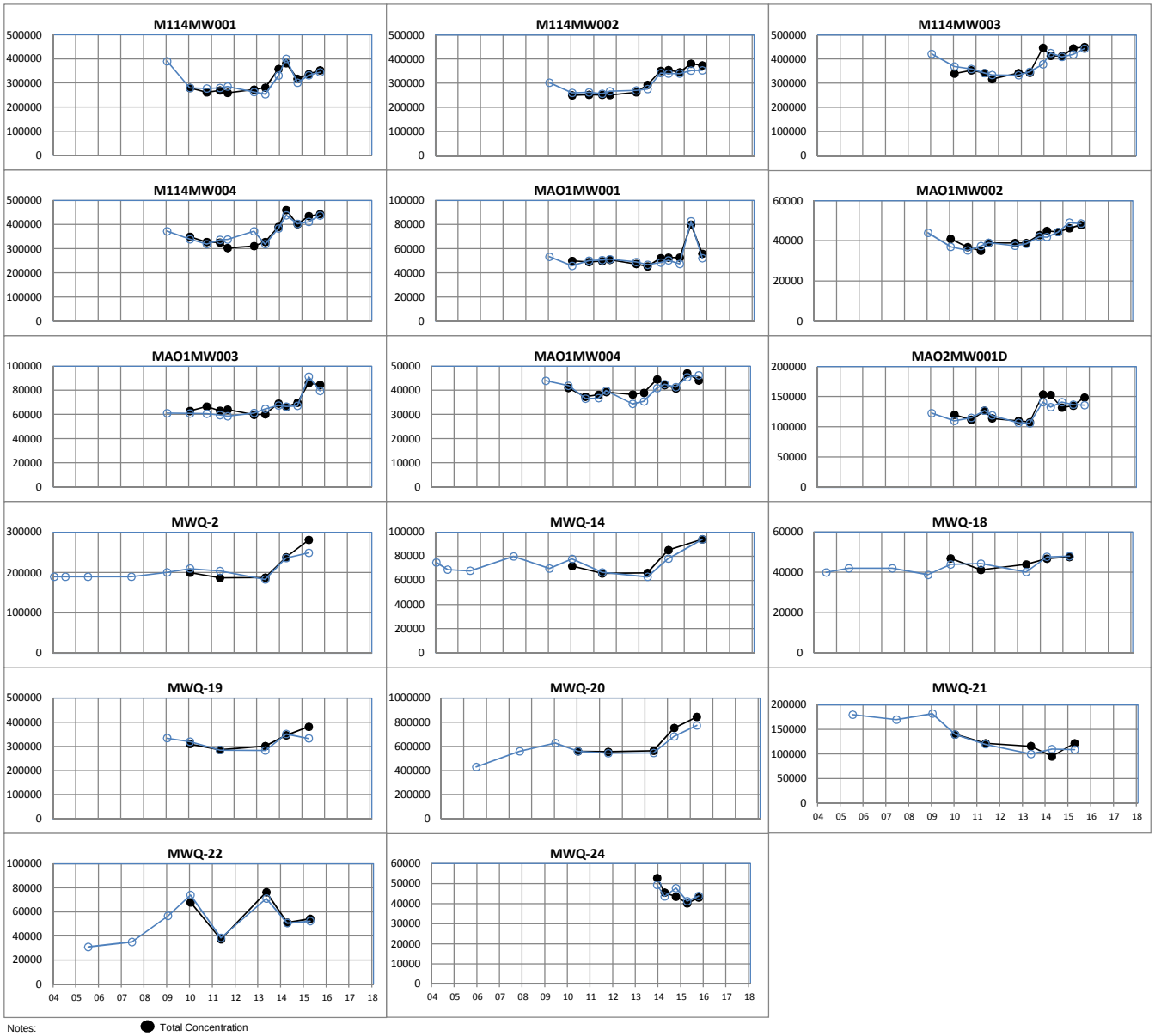


TABLE 6f
CALCIUM

TABLE 6f
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

Total Concentration

Dissolved Concentration

TABLE 6f
CALCIUM

TABLE 6g
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		2.80		**5.30**		0.13		**5.60**		0.92		3.20		0.16		1.40				
Jan-10	1.0	1.1	0.95	0.96	1.2	1.4	1.3	1.0	0.47	<D.L.	<D.L.	<D.L.	0.53	0.50	<D.L.	<D.L.	0.69	0.58		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	0.31	0.88	<D.L.	0.69	<D.L.	0.81	0.35	0.90	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	1.16	1.19	1.37	1.12	1.53	1.23	1.58	1.40	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	1.08	2.09	0.75	1.14	2.32	1.11	1.24	2.31	0.36	<D.L.	<D.L.	0.52	0.63	0.64	0.64	0.26	0.37	0.32		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	1.2	2.8	1.4	5.3	2.3	1.4	1.6	5.6	0.5	0.9	0.0	3.2	0.6	0.6	0.6	1.4	0.7	0.6	0.0	0.0
Avg	0.5	1.0	0.4	1.2	0.7	0.6	0.6	1.4	0.1	0.1	0.0	0.5	0.2	0.2	0.1	0.2	0.2	0.1	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		0.053										
Jul-04		0.078		0.059		<D.L.								
Jul-05		<D.L.		0.053		<D.L.				0.28		<D.L.		<D.L.
Jun-07		0.11		0.10		<D.L.				0.091		<D.L.		<D.L.
Jan-09		0.13		0.13		1.30		1.40		0.61		2.00		2.20
Jan-10	0.98	1.2	0.70	0.60	<D.L.	<D.L.	0.93	0.77	1.2	1.2	0.65	0.69	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	0.49	<D.L.	<D.L.	0.65	1.01	1.11	1.27	1.93	2.01	0.51	0.69	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	1.0	1.2	0.7	0.6	0.7	1.3	1.1	1.4	1.9	2.0	0.7	2.0	0.0	2.2
Avg	0.2	0.2	0.2	0.1	0.1	0.3	0.4	0.6	0.6	0.5	0.2	0.4	0.0	0.3

Notes:

Data in µg/L

USEPA Drinking Water MCL: 5.00 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6g
CADMIUM

TABLE 6g
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES NEW MEXICO

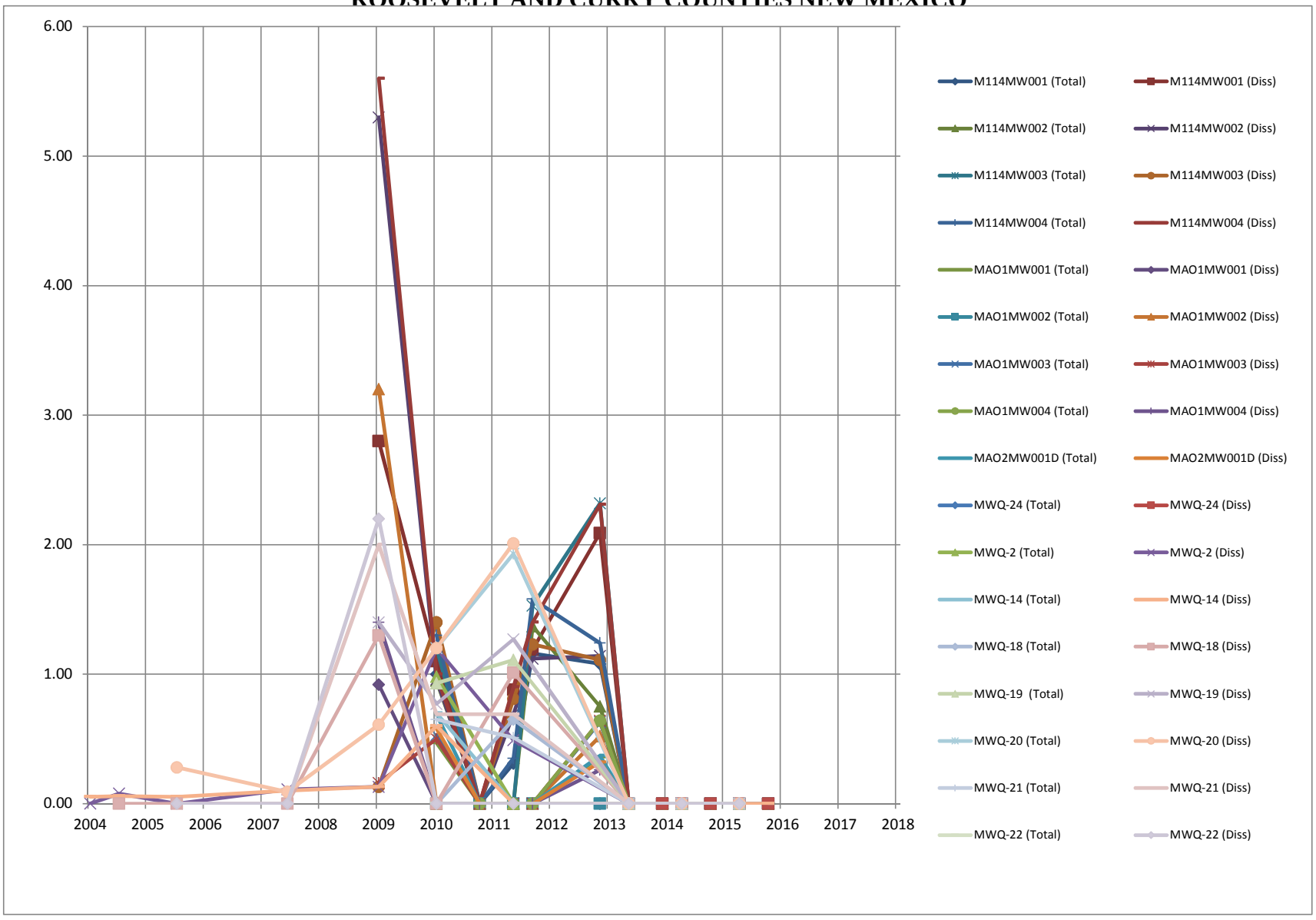


TABLE 6g
CADMIUM

TABLE 6g
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

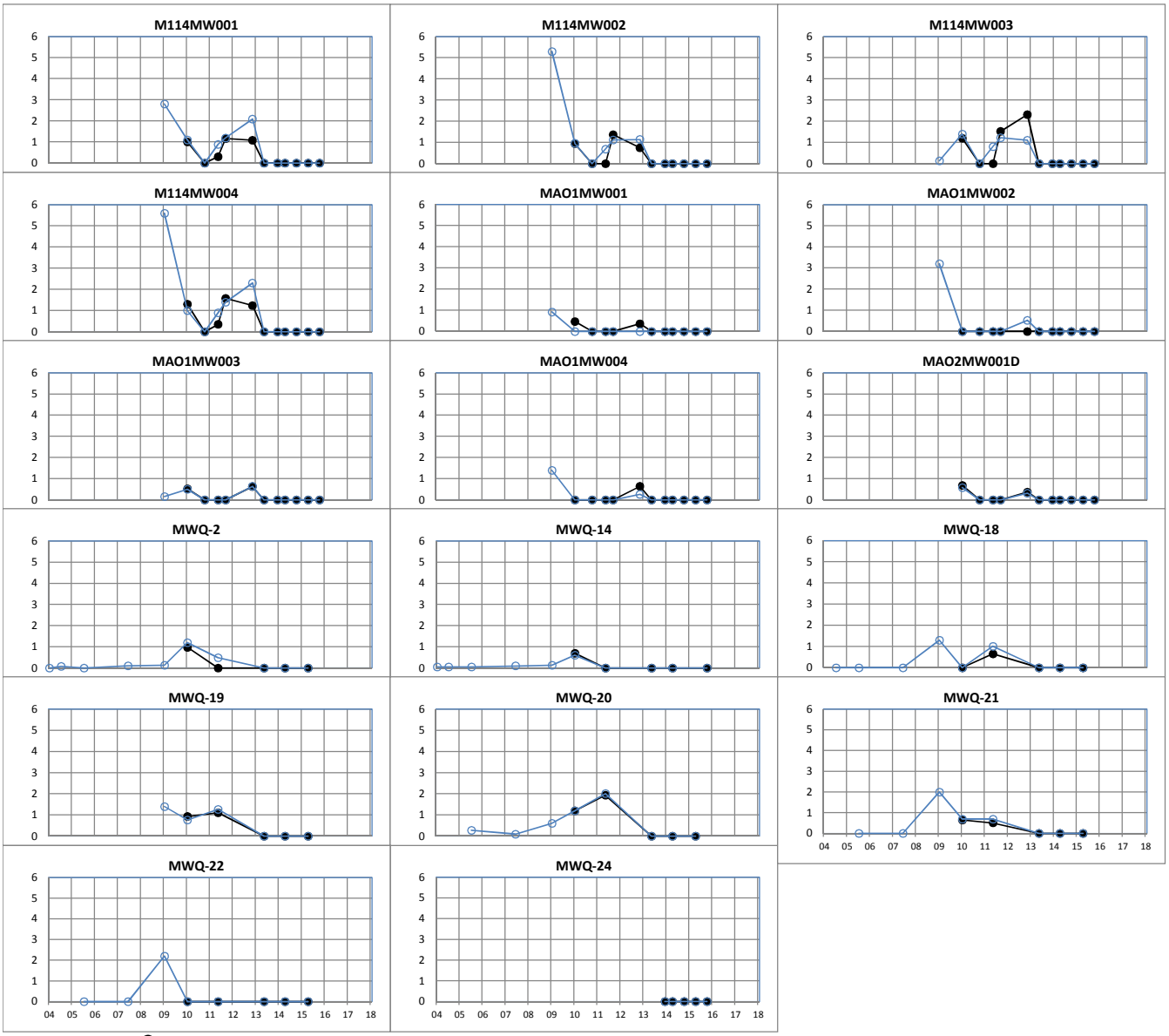


TABLE 6g
CADMIUM

TABLE 6h
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		0.50		0.39		0.55		0.52		0.48		0.18		0.077		0.12		0.46		
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	1.6	2.4	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	12.7	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	1.38	<D.L.	<D.L.	1.24	2.23	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.46	<D.L.	<D.L.	1.11	1.89	1.48		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	1.4	0.5	0.0	1.2	2.2	2.4	0.0	12.7	0.0	0.5	0.0	0.2	1.5	0.1	0.0	1.1	1.9	1.5	0.0	0.0
Avg	0.1	0.0	0.0	0.1	0.3	0.2	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		4.1		0.45										
Jul-04		2.9		0.45		0.14								
Jul-05		1.3		0.33		0.120				2.80		0.57		0.35
Jun-07		8.4		6.8		1.6				12.0		2.7		3.3
Jan-09		1.0		0.13		0.071		0.220		2.4		0.03		0.43
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.23	1.10	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.36	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.25	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	8.4	0.0	6.8	0.0	1.6	0.0	0.2	1.2	12.0	0.4	2.7	0.0	3.3
Avg	0.0	1.8	0.0	0.7	0.0	0.2	0.0	0.0	0.2	2.3	0.1	0.4	0.0	0.5

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 50 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6h
COBALT

TABLE 6h
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

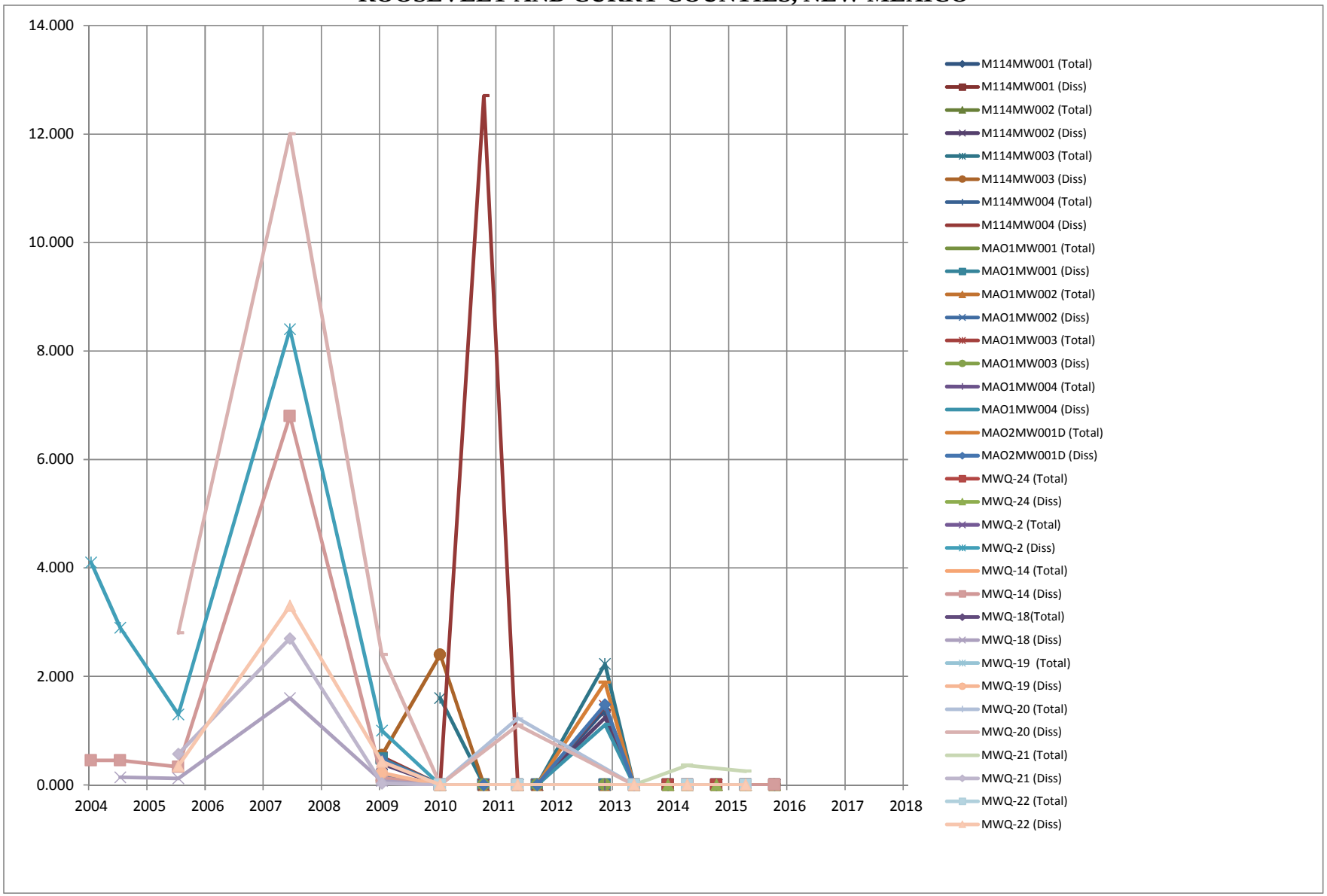


TABLE 6h
COBALT

TABLE 6h
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

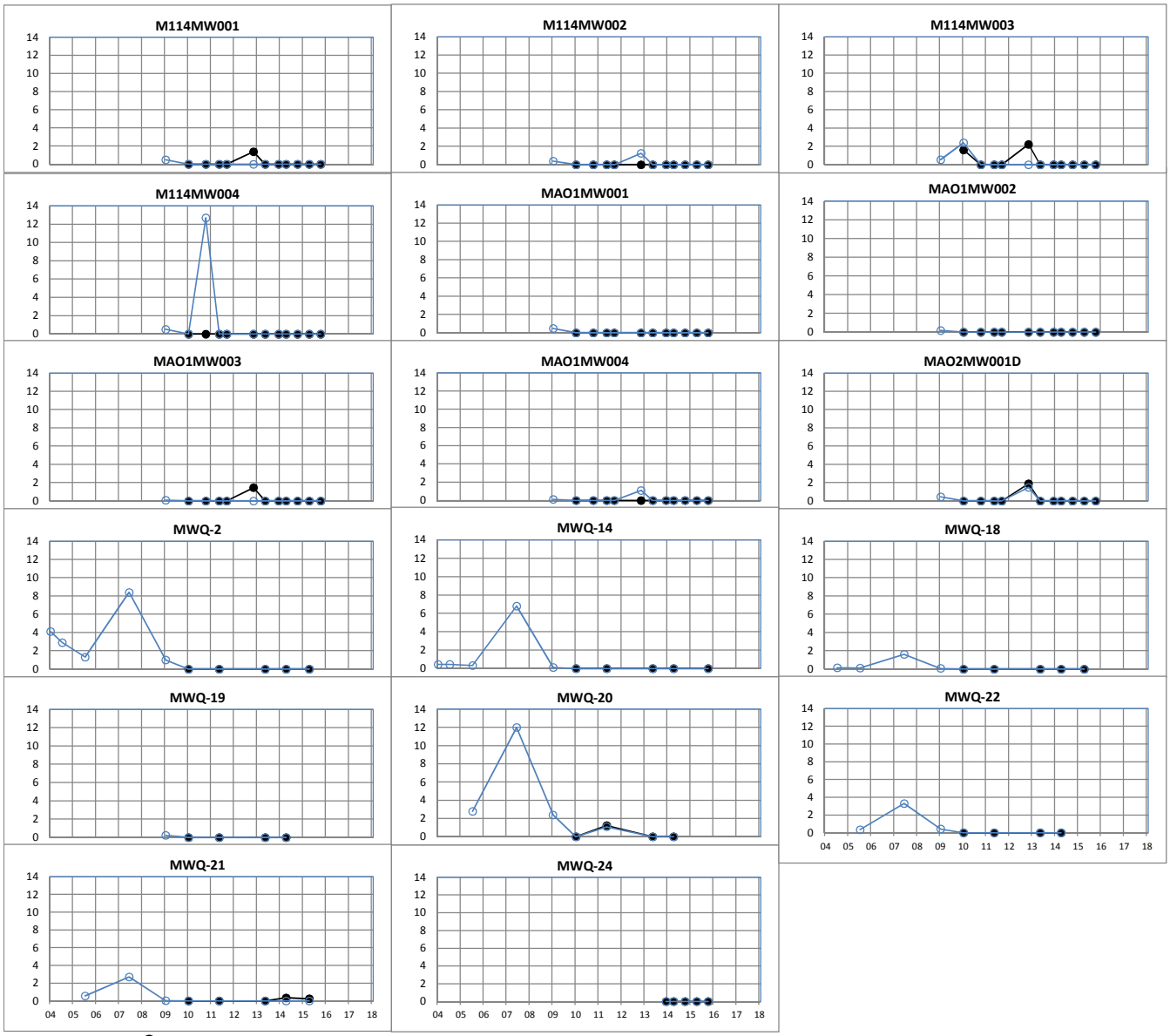


TABLE 6h
COBALT

TABLE 6i
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		3.00		4.30		3.60		7.80		2.20		3.50		1.90		2.20		1.20		
Jan-10	2.60	2.40	4.20	3.00	2.70	2.50	2.10	2.20	1.80	0.87	3.60	2.10	1.40	0.84	1.40	1.30	<D.L.	<D.L.		
Oct-10	4.27	4.27	7.10	6.04	3.52	3.20	4.03	2.04	2.43	2.72	2.93	2.11	17.10	6.68	2.81	1.20	1.71	1.74		
May-11	7.48	5.00	8.55	5.75	6.04	3.89	5.33	4.02	8.54	2.24	3.05	2.09	4.46	2.19	5.09	1.30	2.52	1.46		
Sep-11	8.46	4.17	4.92	3.73	2.88	1.33	4.29	2.38	1.06	<D.L.	2.47	1.12	1.96	<D.L.	1.21	<D.L.	1.31	<D.L.		
Nov-12	41.70	4.87	13.10	4.67	**70.70**	1.55	6.81	4.00	15.50	1.61	14.20	1.51	13.00	1.12	5.63	<D.L.	5.11	<D.L.		
May-13	3.90	3.85	2.87	<D.L.	9.90	5.13	2.72	<D.L.	4.55	<D.L.	5.72	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	2.72	2.63	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.04	0.03
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.64	3.19	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.66	0.62
Oct-14	3.92	3.98	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.70	1.45	<D.L.	<D.L.	0.79	0.66	<D.L.	<D.L.	0.57	0.58
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.51	0.41	1.87	1.59	0.49	0.41	0.77	0.66	<D.L.	<D.L.	<D.L.	0.38
Oct-15	4.88	4.71	<D.L.	2.91	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.46	1.39	<D.L.	<D.L.	0.65	0.66	<D.L.	<D.L.	0.84	0.79
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	41.7	5.0	13.1	6.0	70.7	5.1	6.8	7.8	15.5	2.7	14.2	3.5	17.1	6.7	5.6	2.2	5.1	1.7	0.8	0.8
Avg	7.3	3.2	3.7	2.5	8.7	1.8	2.3	1.9	3.1	0.8	3.5	1.7	3.5	1.1	1.7	0.7	1.0	0.4	0.4	0.5

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		2.50		2.00										
Jul-04		0.81		1.10		1.50								
Jul-05		4.20		1.60		1.50				3.40		1.40		0.98
Jun-07		1.40		1.70		1.70				2.90		1.10		0.94
Jan-09		2.60		2.00		0.88		33.60		2.50		1.60		1.20
Jan-10	1.40	<D.L.	1.70	1.40	3.80	0.80	0.77	<D.L.	1.50	<D.L.	2.30	0.70	0.99	<D.L.
Oct-10														
May-11	2.53	2.25	2.31	1.98	15.90	<D.L.	2.38	2.18	3.38	2.58	4.41	1.95	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	5.78	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	0.75	0.65	22.60	<D.L.	<D.L.	<D.L.	1.13	0.49	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.23	0.54	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	2.5	4.2	2.3	2.0	15.9	1.7	22.6	33.6	5.8	3.4	4.4	2.0	1.0	1.2
Avg	0.8	1.4	1.0	1.3	4.1	0.8	5.2	6.0	2.1	1.4	1.8	1.0	0.2	0.4

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 50 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6i
CHROMIUM

TABLE 6i
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

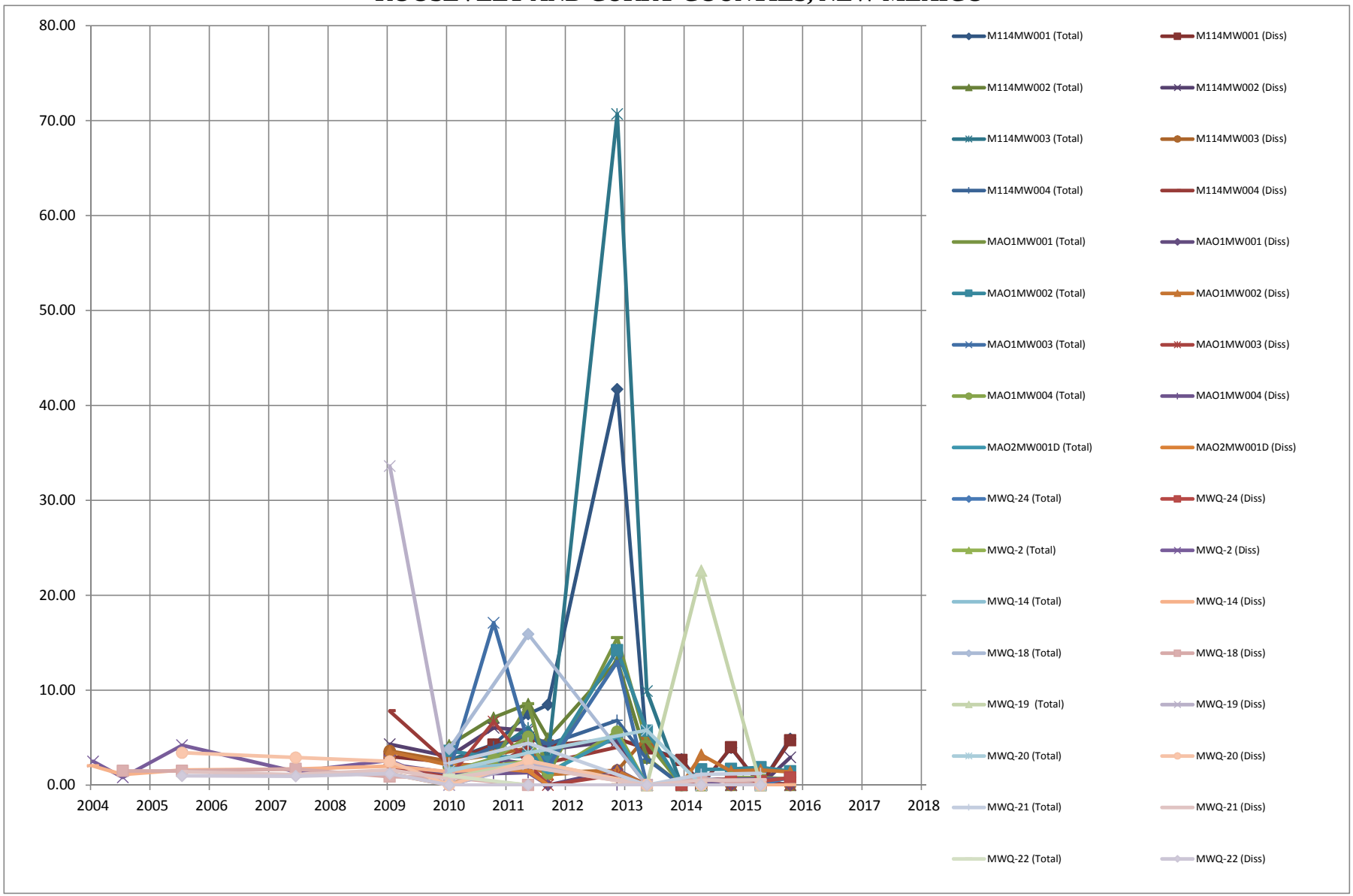
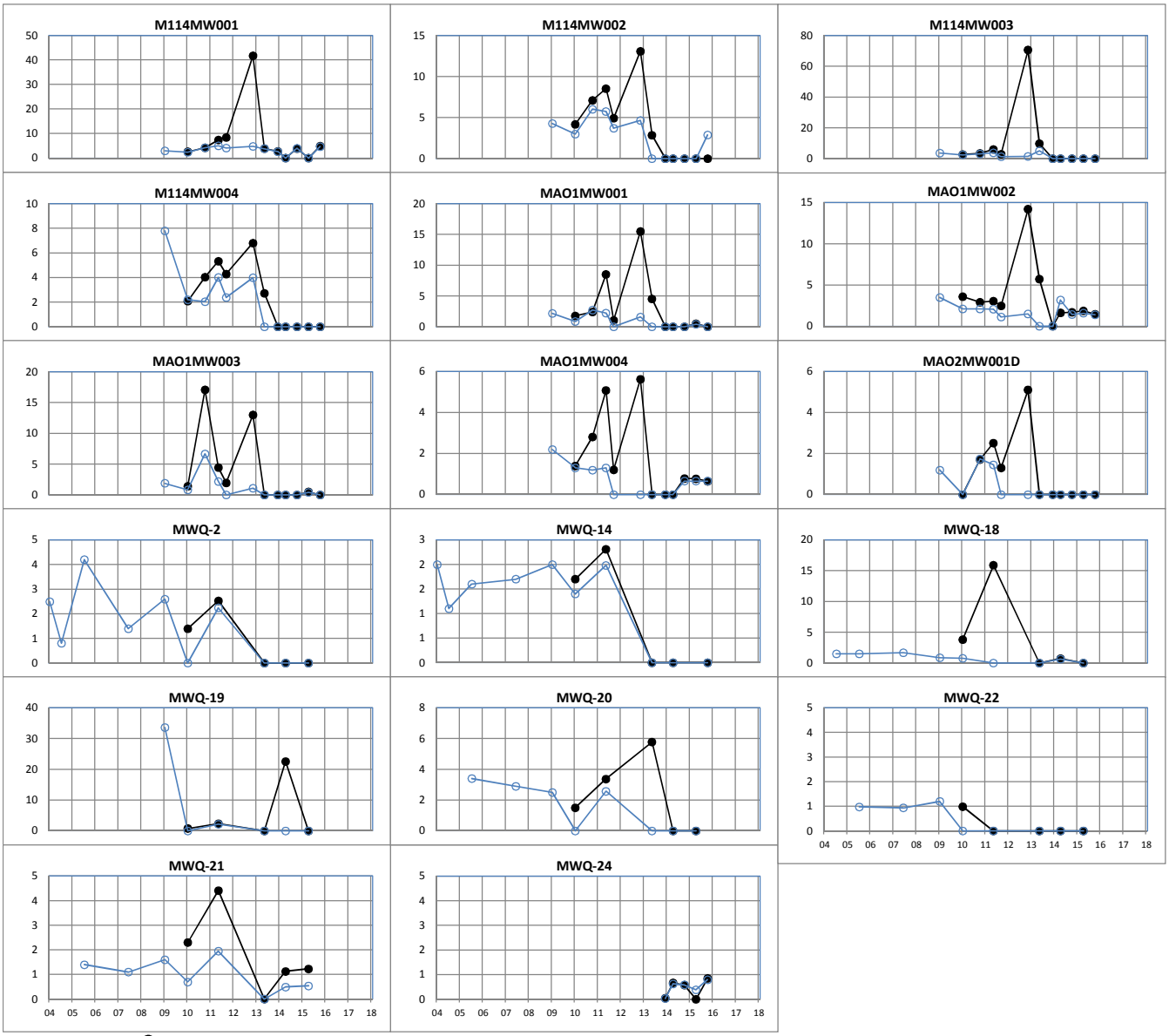


TABLE 6i
CHROMIUM

TABLE 6i
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

Total Concentration

Dissolved Concentration

TABLE 6i
CHROMIUM

TABLE 6j
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	21.00	7.00	47.00	7.00	9.60	6.10	7.00	10.00	5.20	7.80	13.00	6.40	8.30	<D.L.	<D.L.		<D.L.	<D.L.		
Oct-10	28.00	3.00	8.00	20.00	21.00	10.00	12.00	<D.L.	6.00		6.00		6.00	6.00	15.00	7.00	14.00	<D.L.		
May-11	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		18.00		7.00		<D.L.			
Sep-11	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.			
Nov-12	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.			
May-13	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.			
Dec-13	2.470		0.492		0.750		1.080		0.742		2.020		0.445		0.678		<D.L.		0.253	
Apr-14	0.847		0.905		0.828		0.643		0.327		1.700		0.371		0.643		<D.L.		0.604	
Oct-14	4.020		1.710		0.760		1.400		0.719		1.480		0.417		0.719		<D.L.		0.560	
Apr-15	3.750		1.750		0.760		1.530		0.362		1.390		0.358		0.680		<D.L.		0.368	
Oct-15	4.260		2.100		0.900		1.320		0.554		1.280		0.353		0.609		<D.L.		0.724	
Min	0.0	3.0	0.0	7.0	0.0	6.1	0.0	0.0	0.0	7.8	0.0	6.4	0.0	0.0	0.0	7.0	0.0	0.0	0.3	0.0
Max	28.0	7.0	47.0	20.0	21.0	10.0	12.0	10.0	6.0	7.8	13.0	6.4	18.0	6.0	15.0	7.0	14.0	0.0	0.7	0.0
Avg	5.8	5.0	5.6	13.5	3.1	8.1	2.3	5.0	1.3	7.8	2.4	6.4	3.1	3.0	2.3	7.0	1.3	0.0	0.5	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04														
Jul-04														
Jul-05														
Jun-07														
Jan-09														
Jan-10	<D.L.	<D.L.	7.80	7.00	26.00	4.40	13.00	6.40	<D.L.	<D.L.	22.00	6.40	6.40	4.50
Oct-10														
May-11	3.00		<D.L.		<D.L.		<D.L.		<D.L.		32.00		<D.L.	
Sep-11														
Nov-12														
May-13	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.	
Dec-13														
Apr-14	<D.L.		0.509		0.652		0.126		<D.L.		0.479		0.028	
Oct-14														
Apr-15	<D.L.				0.690		0.101		<D.L.		0.513		0.167	
Oct-15			0.462											
Min	0.000	0.000	0.000	7.000	0.000	4.400	0.000	6.400	0.000	0.000	0.000	6.400	0.000	4.500
Max	3.0	0.0	7.8	7.0	26.0	4.4	13.0	6.4	0.0	0.0	32.0	6.4	6.4	4.5
Avg	0.6	0.0	1.8	7.0	5.5	4.4	2.6	6.4	0.0	0.0	11.0	6.4	1.3	4.5

Notes:

Data in µg/L

USEPA Drinking Water MCL: 100 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6j
HEXAVALENT CHROMIUM

TABLE 6j
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRRY COUNTIES, NEW MEXICO

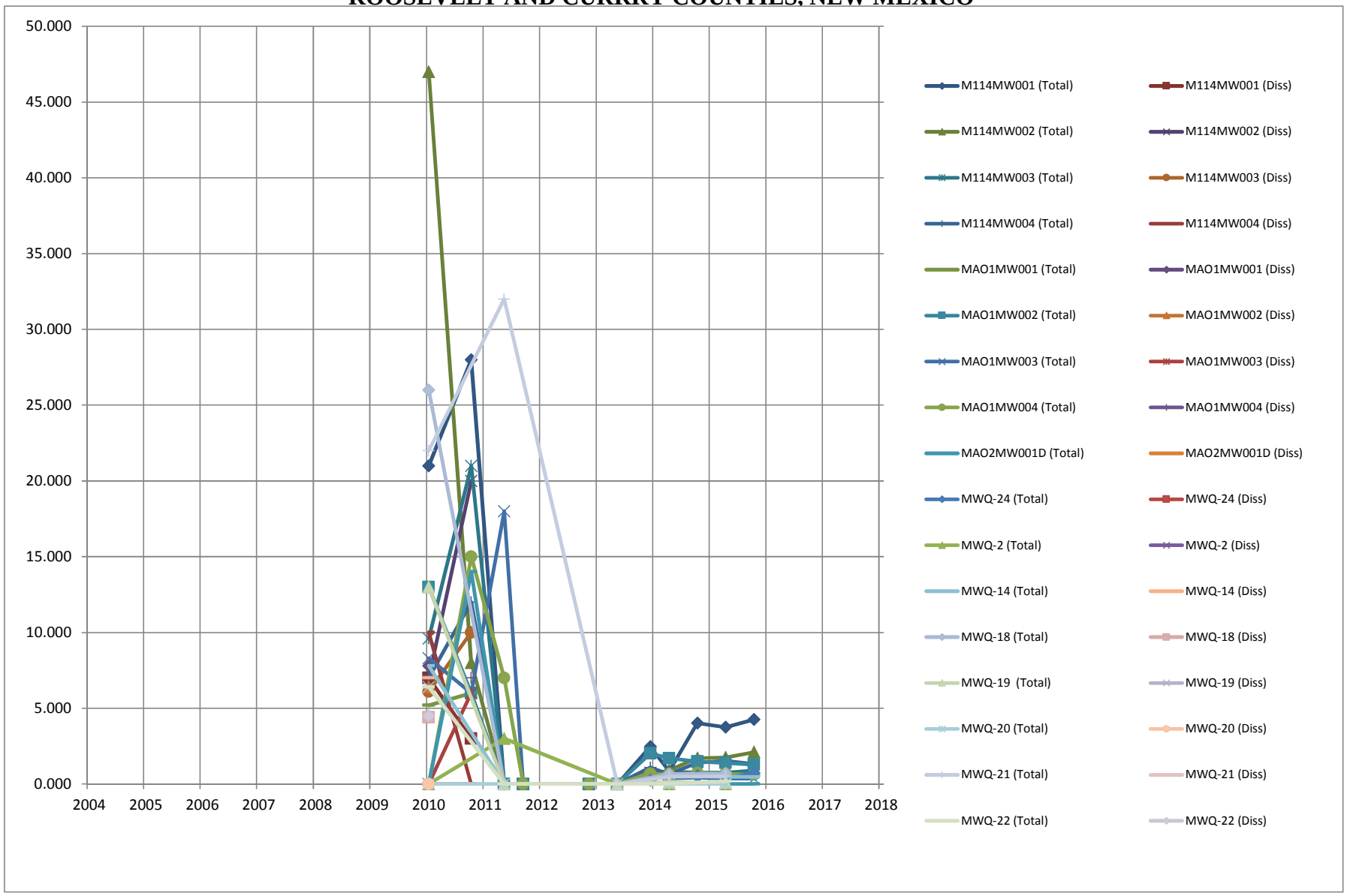
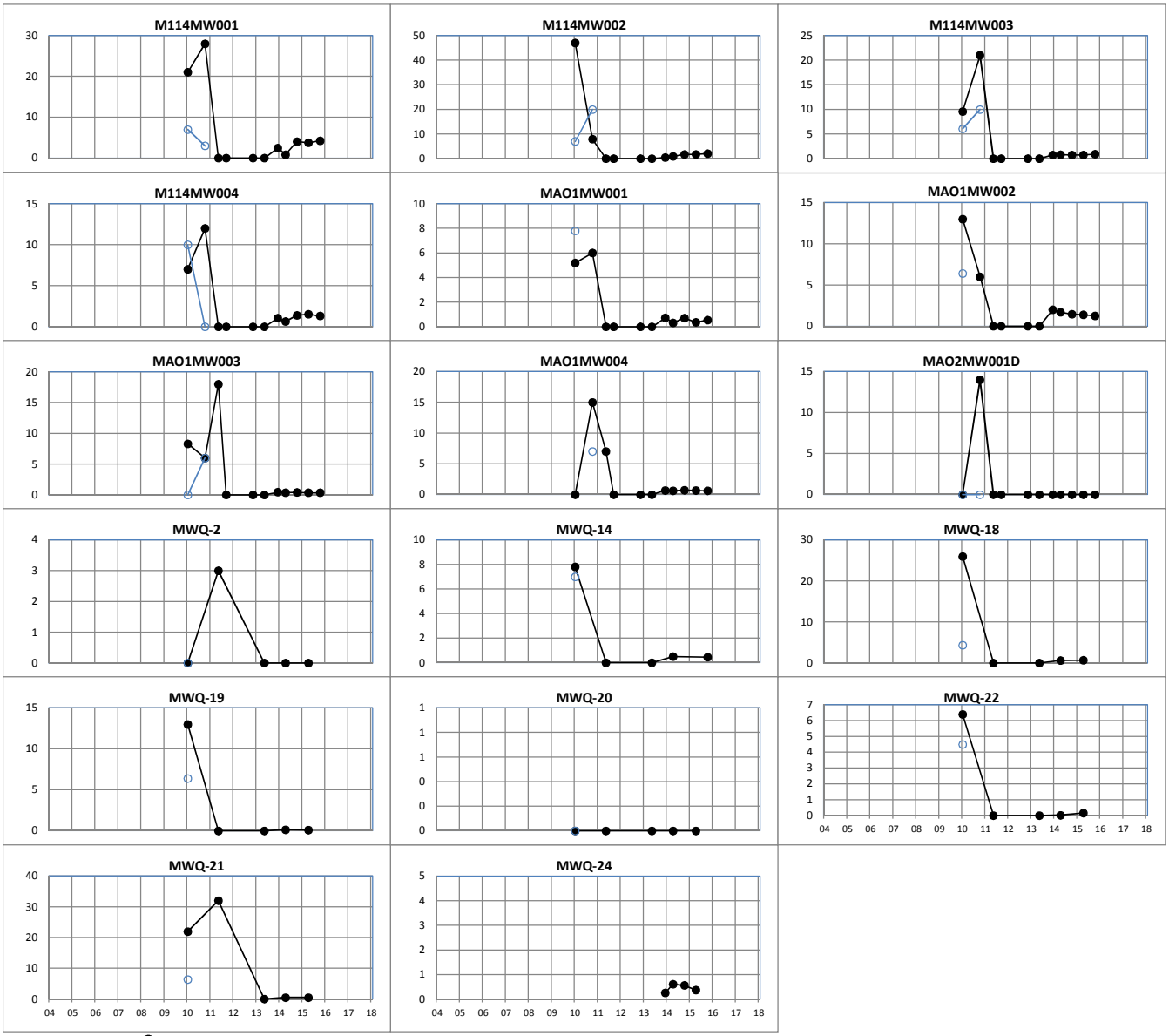


TABLE 6j
HEXAVALENT CHROMIUM

TABLE 6j
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

Total Concentration

Dissolved Concentration

TABLE 6j
HEXAVALENT CHROMIUM

TABLE 6k
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		6.3		5.9		5.7		5.8		2.7		2.3		2.2		1.9		33.8		
Jan-10	1.7	3.7	<D.L.	2.5	<D.L.	2.9	1.9	1.4	1.6	2.8	2.8	2.5	2.2	2.5	2.1	2.0	4.6	4.6		
Oct-10	14.1	<D.L.	19.5	24.2	17.3	20.0	12.7	12.6	11.6	12.3	9.8	9.7	14.5	13.2	9.0	8.5	16.4	17.1		
May-11	22.5	21.0	29.8	25.1	23.7	22.0	36.9	35.2	14.3	13.4	11.0	11.6	44.0	17.7	87.7	23.0	226.0	116.0		
Sep-11	15.8	15.6	13.8	15.8	13.3	15.1	13.8	17.6	10.6	11.7	10.2	10.6	13.7	12.7	8.2	9.6	25.3	23.8		
Nov-12	14.8	7.0	**1200.0**	500.0	11.8	10.0	8.6	5.1	11.7	10.7	13.3	9.0	11.6	11.6	**1330.0**	93.5	20.8	18.8		
May-13	26.2	27.0	27.7	22.0	24.6	20.3	24.4	20.2	20.2	18.1	17.5	17.7	22.9	27.3	21.7	18.7	24.6	21.5		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.9	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.4	<D.L.	<D.L.	<D.L.	<D.L.	0.5	0.7	1.6	2.0	<D.L.	0.3
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.4	<D.L.	1.5	1.8	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.6	0.7	1.3	1.3	<D.L.	0.3	0.5	0.5	2.0	2.4	<D.L.	0.5
Oct-15	<D.L.	<D.L.	<D.L.	4.3	<D.L.	3.4	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.7	<D.L.	0.5	<D.L.	3.5	<D.L.	<D.L.	0.3	0.3
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	26.2	27.0	1200.0	500.0	24.6	22.0	36.9	35.2	20.2	18.1	17.5	17.7	44.0	27.3	1330.0	93.5	226.0	116.0	0.3	0.5
Avg	8.6	6.7	117.3	50.0	8.2	8.3	8.9	8.2	6.4	6.1	6.0	5.7	10.0	7.3	132.8	13.6	29.6	20.0	0.1	0.2

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		5.9		3.5										
Jul-04		5.2		3.9		0.9								
Jul-05		6.8		2.5		0.6				11.0		4.3		1.7
Jun-07		3.3		4.0		0.9				3.9		2.7		1.4
Jan-09		3.5		3.1		2.2		4.8		4.0		4.3		2.3
Jan-10	4.7	4.2	2.0	2.2	3.8	2.3	4.7	2.4	4.8	4.5	3.2	2.8	5.0	2.7
Oct-10														
May-11	23.9	22.2	16.1	14.5	814.0	554.0	20.1	18.0	23.2	21.3	15.0	13.3	7.7	7.0
Sep-11														
Nov-12														
May-13	25.8	19.1	18.2	16.8	10.0	10.1	30.0	17.9	40.0	16.6	13.6	10.9	15.5	9.9
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	0.7	0.5	<D.L.	<D.L.	<D.L.	<D.L.	0.8	0.4	0.6	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	2.0	0.6	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	0.0	0.0
Max	25.8	22.2	18.2	16.8	814.0	554.0	30.0	18.0	40.0	21.3	15.0	13.3	15.5	9.9
Avg	10.9	7.0	7.3	5.1	165.7	63.5	11.0	7.2	13.6	7.7	6.9	4.9	5.8	3.1

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 1000 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6k
COPPER

TABLE 6k
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

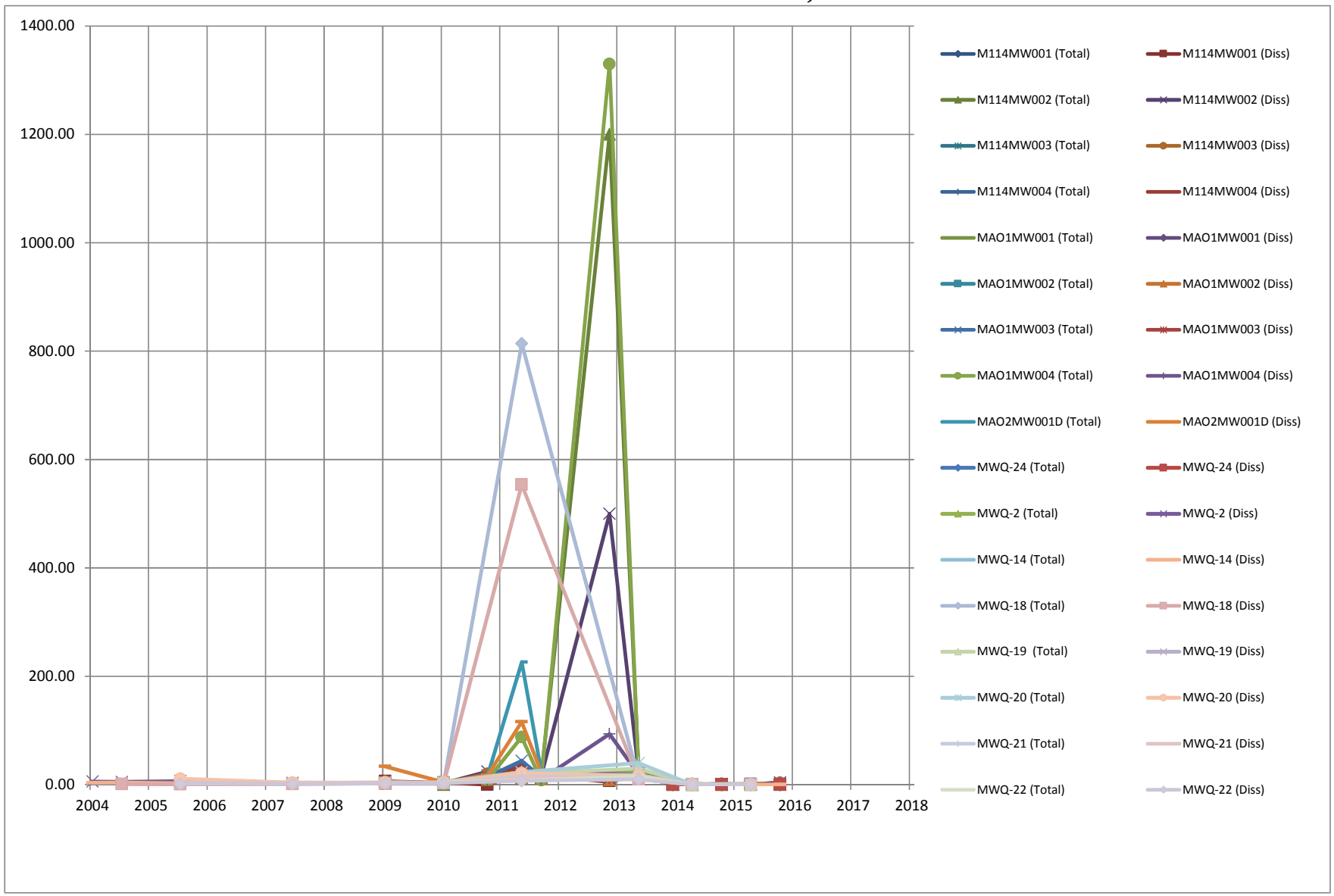
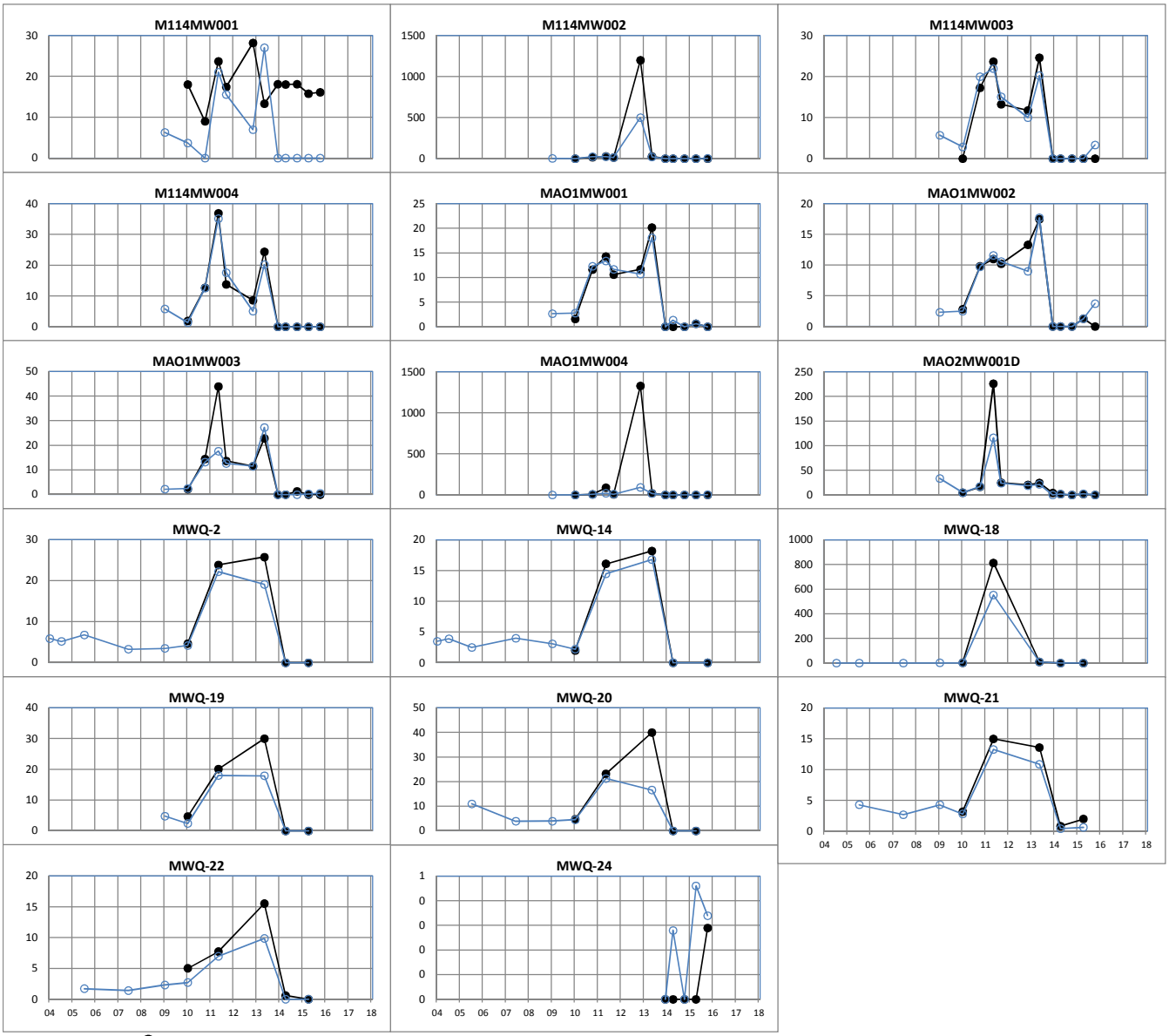


TABLE 6k
COPPER

TABLE 6k
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

Total Concentration

Dissolved Concentration

TABLE 6k
COPPER

TABLE 6l
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	<D.L.	<D.L.	280.0	<D.L.	140.0	<D.L.	<D.L.		280.0		480.0	<D.L.	210.0	<D.L.	<D.L.	<D.L.	26.0	<D.L.		
Oct-10	<D.L.	<D.L.	337.0	<D.L.	82.6	<D.L.	<D.L.	<D.L.	102.0	65.2	38.5	<D.L.	274.0	57.9	179.0	39.2	<D.L.	<D.L.		
May-11	79.9	<D.L.	160.0	<D.L.	130.0	<D.L.	<D.L.	<D.L.	204.0	46.6	<D.L.	<D.L.	116.0	<D.L.	176.0	<D.L.	<D.L.	<D.L.		
Sep-11	47.1	<D.L.	60.5	<D.L.	162.0	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	511.0	<D.L.	193.0	<D.L.	**1940.0**	<D.L.	44.2	<D.L.	312.0	<D.L.	345.0	<D.L.	79.6	<D.L.	189.0	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	126.0	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	27.0	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**3590.0**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	511.0	0.0	337.0	0.0	1940.0	3590.0	44.2	0.0	312.0	65.2	480.0	0.0	274.0	57.9	189.0	39.2	26.0	0.0	27.0	0.0
Avg	58.0	0.0	93.7	0.0	223.1	326.4	4.0	0.0	93.1	11.2	78.5	0.0	61.8	5.3	49.5	3.6	2.4	0.0	5.4	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04														
Jul-04														
Jul-05														
Jun-07		38.0		43.0		36.0				56.0		<D.L.		150.0
Jan-09														
Jan-10	320.0	<D.L.	<D.L.	<D.L.	**1900.0**	<D.L.	**2300.0**	<D.L.	63.0	<D.L.	**1400.0**	<D.L.	850.0	<D.L.
Oct-10														
May-11	52.8	<D.L.	<D.L.	<D.L.	168.0	<D.L.	**2820.0**	**2590.0**	241.0	71.1	669.0	127.0	147.0	142.0
Sep-11														
Nov-12														
May-13	164.0	<D.L.	92.4	<D.L.	580.0	<D.L.	**2340.0**	**1800.0**	**2500.0**	<D.L.	**1290.0**	<D.L.	**1250.0**	131.0
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	74.6	<D.L.	**1360.0**	**1240.0**	<D.L.	<D.L.	563.0	<D.L.	351.0	345.0
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	500.0	28.6	392.0	333.0
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	500.0	0.0	147.0	0.0
Max	320.0	38.0	92.4	43.0	1900.0	36.0	2820.0	2590.0	2500.0	71.1	1400.0	127.0	1250.0	345.0
Avg	107.4	6.3	18.5	7.2	544.5	6.0	1764.0	1126.0	560.8	21.2	884.4	25.9	598.0	183.5

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 1000 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6l
IRON

TABLE 6l
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

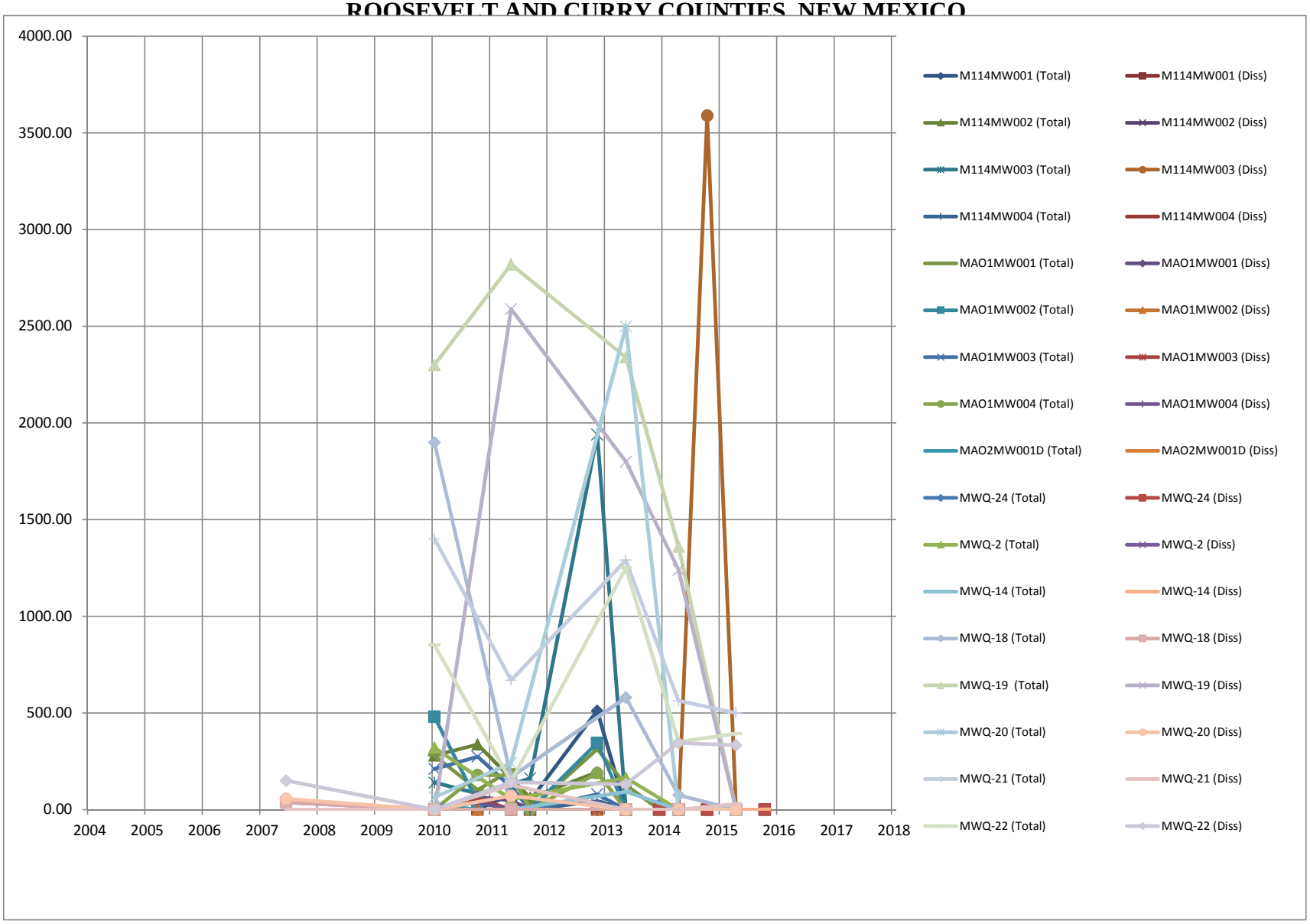
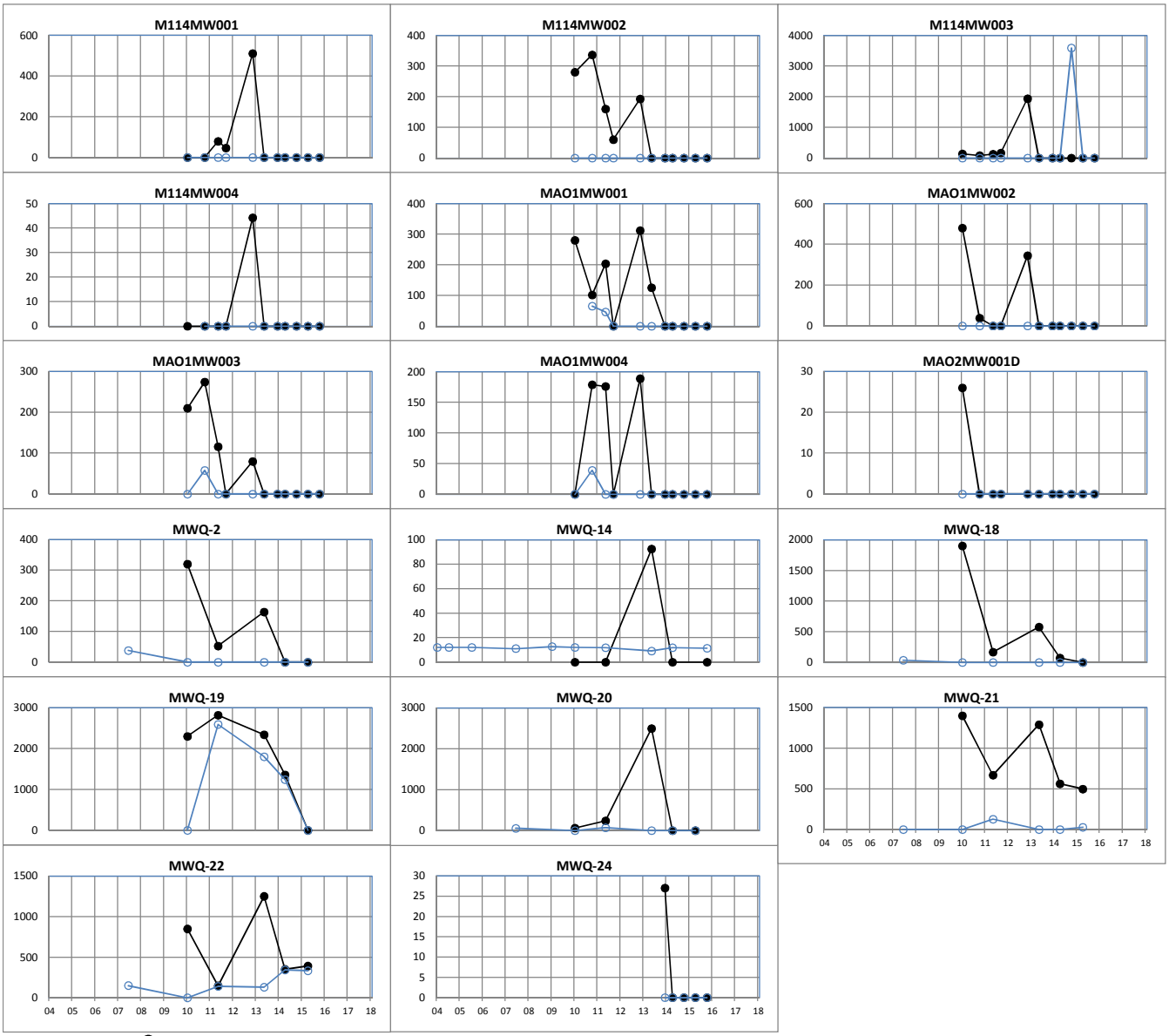


TABLE 6l
IRON

TABLE 6l
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in µg/L

Total Concentration

Dissolved Concentration

TABLE 6l
IRON

TABLE 6m
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		0.11		<D.L.		<D.L.		<D.L.		0.32		0.11		0.15		0.13		0.13		
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	2.3	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	<D.L.	<D.L.	<D.L.	<D.L.	2.55	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.1	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.2	2.3	0.1	0.0	0.1	0.0	0.0
Avg	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		<D.L.										
Jul-04		<D.L.		<D.L.		<D.L.								
Jul-05		<D.L.		0.5		0.44				0.6		0.54		0.56
Jun-07		<D.L.		<D.L.		0.21				0.20		<D.L.		0.21
Jan-09		0.11		<D.L.		1.40		0.31		0.16		0.23		<D.L.
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	1.79	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**120**	<D.L.	<D.L.	<D.L.	0.87	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.64	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.1	0.0	0.5	1.8	1.4	120.0	0.3	0.0	0.6	0.9	0.5	0.0	0.6
Avg	0.0	0.0	0.0	0.1	0.4	0.2	24.0	0.1	0.0	0.1	0.3	0.1	0.0	0.1

Notes:

Data in µg/L

USEPA Drinking Water MCL: 15 µg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6m
LEAD

TABLE 6n
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		336,000		290,000		355,000		320,000		53,100		44,900		63,300		42,800		57,700		
Jan-10	260,000	260,000	280,000	250,000	290,000	290,000	320,000	300,000	48,000	44,000	36,000	35,000	60,000	59,000	38,000	39,000	80,000	73,000		
Oct-10	232,000	244,000	243,000	249,000	278,000	279,000	286,000	278,000	48,400	48,400	36,500	33,700	65,700	60,700	35,000	33,700	81,900	77,900		
May-11	239,000	250,000	238,000	244,000	270,000	271,000	285,000	295,000	48,700	50,100	34,200	36,700	63,400	60,300	36,600	35,000	71,800	73,500		
Sep-11	236,000	257,000	255,000	258,000	270,000	272,000	283,000	283,000	48,000	51,400	35,800	36,100	61,200	58,700	35,500	36,100	67,600	73,300		
Nov-12	241,000	227,000	243,000	253,000	276,000	261,000	283,000	314,000	46,900	48,800	37,900	33,700	60,100	61,900	34,900	32,500	64,300	62,400		
May-13	234,000	264,000	260,000	289,000	266,000	272,000	278,000	287,000	43,400	47,600	36,800	36,500	59,600	64,600	36,300	33,200	56,200	59,400		
Dec-13	286,000	280,000	299,000	295,000	296,000	284,000	314,000	323,000	47,000	44,300	38,600	37,200	63,400	62,000	39,400	35,900	66,500	61,500	25,800	22,500
Apr-14	294,000	277,000	288,000	275,000	299,000	277,000	328,000	311,000	45,100	43,100	37,800	34,600	61,600	62,200	37,200	34,400	65,400	57,200	22,500	21,700
Oct-14	242,000	283,000	264,000	313,000	293,000	328,000	316,000	358,000	45,800	40,700	37,400	36,800	64,100	62,300	35,300	34,800	50,000	55,300	21,000	23,600
Apr-15	262,000	252,000	310,000	295,000	322,000	295,000	344,000	330,000	50,000	50,900	39,900	41,800	71,700	73,800	40,600	41,500	57,000	58,100	20,000	20,900
Oct-15	283,000	276,000	325,000	310,000	338,000	336,000	359,000	358,000	48,300	45,700	41,500	44,200	66,300	70,000	37,100	40,000	55,100	51,400	19,800	19,500
Min	232000	227000	238000	244000	266000	261000	278000	278000	43400	40700	34200	33700	59600	58700	34900	32500	50000	51400	19800	19500
Max	294000	336000	325000	313000	338000	355000	359000	358000	50000	53100	41500	44900	71700	73800	40600	42800	81900	77900	25800	23600
Avg	255364	267167	273182	276750	290727	293333	308727	313083	47236	47342	37491	37600	63373	63233	36900	36575	65073	63392	21820	21640

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		120,000		68,000										
Jul-04		130,000		64,000		20,000								
Jul-05		130,000		64,000		20,000				250,000		85,000		13,000
Jun-07		120,000		72,000		19,000				330,000		77,000		15,000
Jan-09		136,000		68,300		18,200		224,000		362,000		75,100		22,400
Jan-10	130,000	140,000	67,000	66,000	21,000	20,000	210,000	210,000	310,000	310,000	64,000	65,000	26,000	27,000
Oct-10														
May-11	124,000	135,000	61,800	62,400	18,700	20,200	188,000	188,000	311,000	306,000	57,600	57,700	16,200	17,400
Sep-11														
Nov-12														
May-13	122,000	119,000	61,000	57,700	21,500	19,300	197,000	181,000	305,000	290,000	56,900	45,600	31,000	29,000
Dec-13														
Apr-14	132,000	134,000	70,400	65,300	19,900	20,000	185,000	186,000	383,000	348,000	41,600	48,100	21,800	20,400
Oct-14														
Apr-15	149,000	139,000			20,100	20,000	214,000	190,000	426,000	386,000	53,500	48,200	21,700	21,200
Oct-15			71,600	69,100										
Min	122000	119000	61000	57700	18700	18200	185000	181000	305000	250000	41600	45600	16200	13000
Max	149000	140000	71600	72000	21500	20200	214000	224000	426000	386000	64000	85000	31000	29000
Avg	131400	130300	66360	65680	20240	19633	198800	196500	347000	322750	54720	62713	23340	20675

Notes:

Data in µg/L

No applicable screening criteria

Red indicates exceedance

Blank cells indicate no data

TABLE 6n
MAGNESIUM

TABLE 6n
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

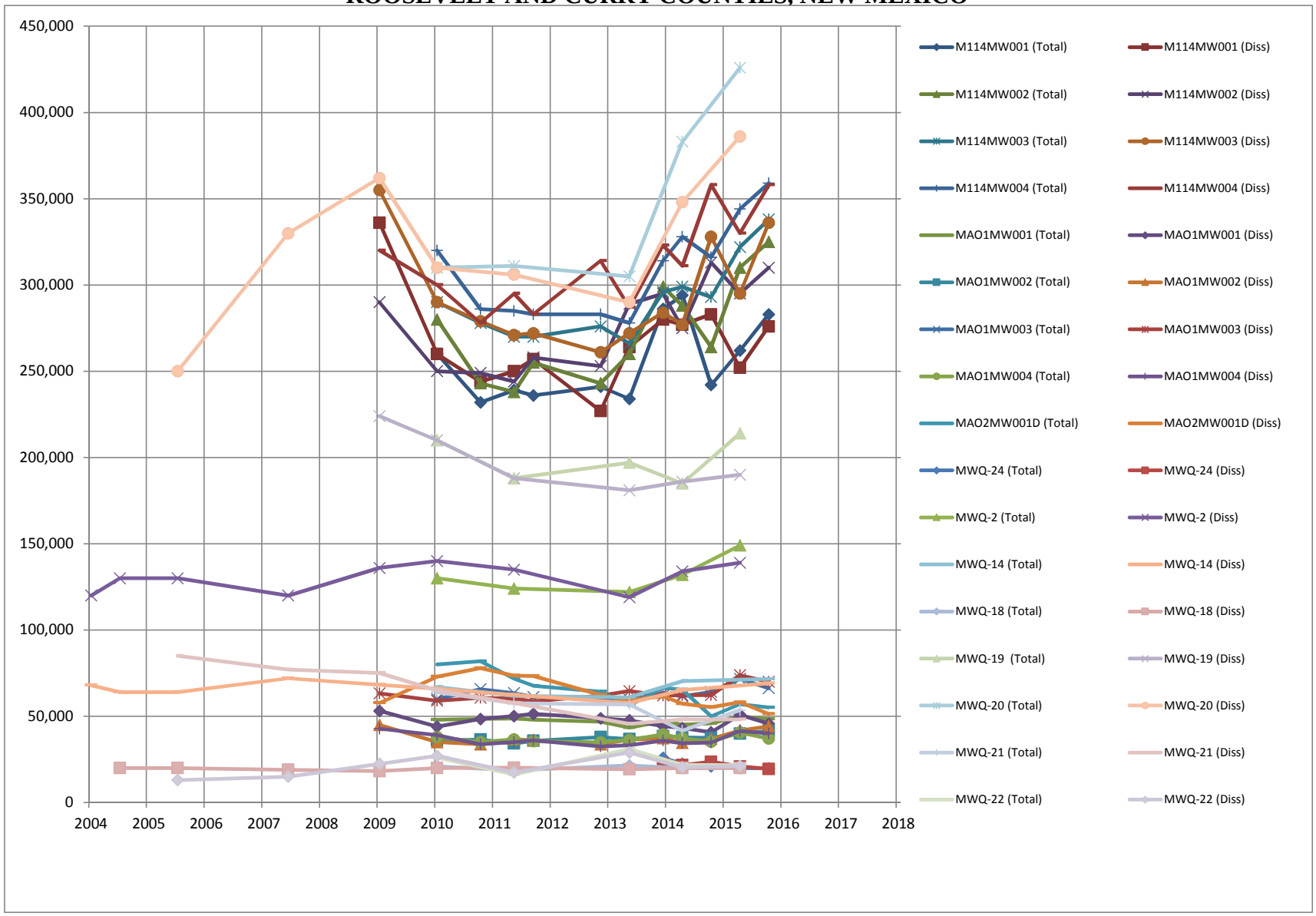
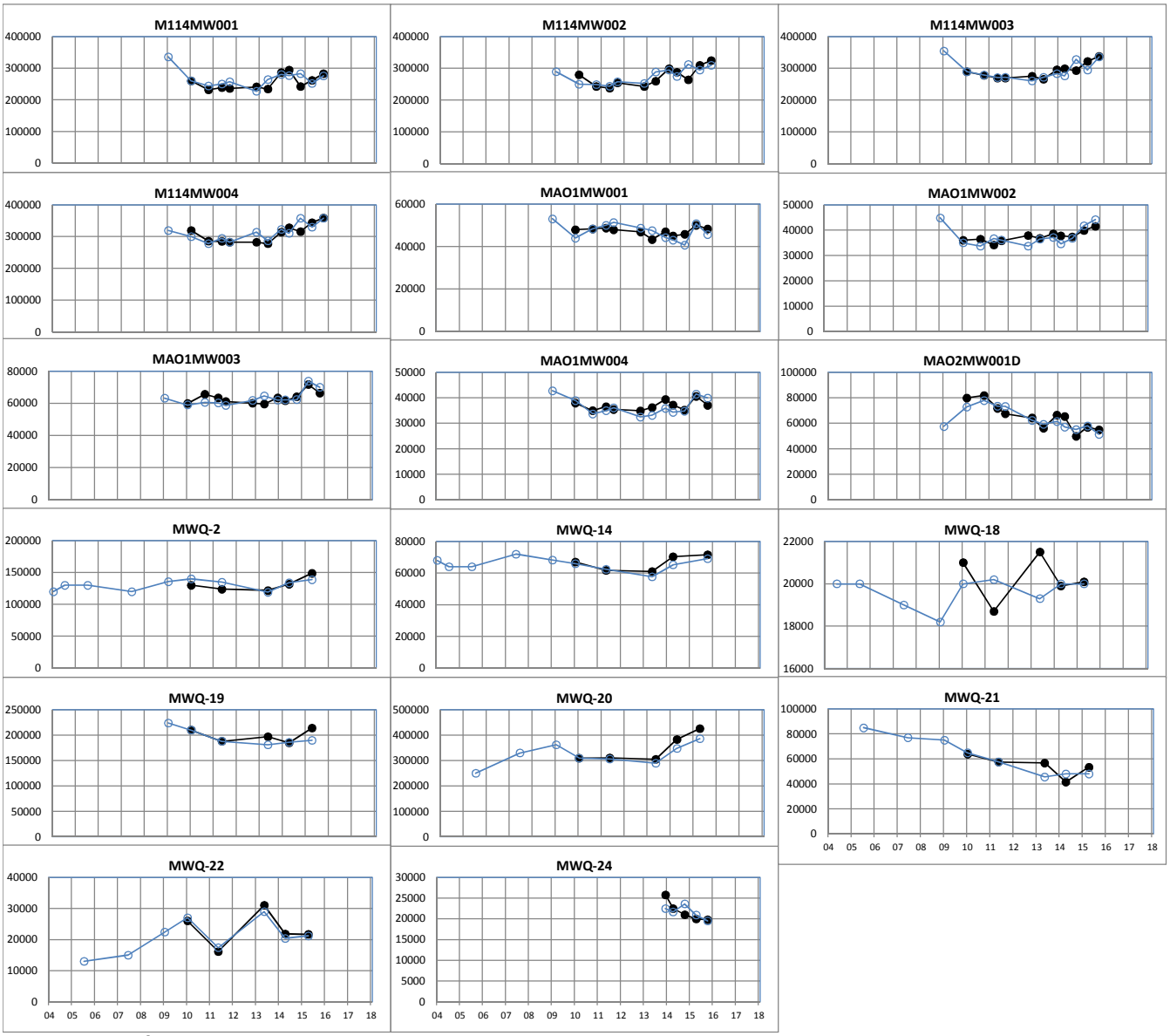


TABLE 6n
MAGNESIUM

TABLE 6n
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6n
MAGNESIUM

TABLE 6o
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		18.80		2.50		16.40		44.30		5.10		0.84		0.67		1.20		158		
Jan-10	0.54	0.35	16.0	0.67	3.1	0.39	0.72	0.36	13.0	0.47	28	0.26	13.0	<D.L.	1.6	0.85	77	65		
Oct-10	1.27	<D.L.	25.5	8.84	2.52	2.31	<D.L.	<D.L.	9.19	3.98	2.64	<D.L.	14.2	6.08	7.45	1.31	72.3	48.6		
May-11	4.1	<D.L.	9.2	<D.L.	7.8	<D.L.	5.27	3.1	12.6	2.16	2.76	<D.L.	7.9	<D.L.	6.88	2.26	**248**	**208**		
Sep-11	<D.L.	<D.L.	3.1	<D.L.	6.87	<D.L.	3.49	<D.L.	5.7	<D.L.	5.45	<D.L.	10.2	8.2	6.56	5.8	**209**	188		
Nov-12	33.5	7.45	4.73	<D.L.	56.7	<D.L.	<D.L.	<D.L.	9.26	<D.L.	17.5	8.05	<D.L.	<D.L.	25.7	<D.L.	**214**	193		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	7.46	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	4.0	4.38	188	185		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	159	150	14.70	8.89
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	7.52	<D.L.	<D.L.	<D.L.	<D.L.	191	177	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	180	190	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.67	<D.L.	<D.L.	<D.L.	183	186	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	8.78	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	182	169	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.3	48.6	0.0	0.0
Max	33.5	18.8	25.5	8.8	56.7	16.4	5.3	44.3	13.0	5.1	28.0	8.1	14.2	8.2	25.7	5.8	248.0	208.0	14.7	8.9
Avg	3.6	2.2	5.3	1.0	7.0	1.6	0.9	4.0	6.0	1.0	5.1	1.4	4.3	1.2	4.7	1.3	173.0	159.8	2.9	1.8

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		**410.0**		0.9										
Jul-04		**330.0**		0.9		<D.L.								
Jul-05		**420.0**		1.2		0.6				**550.0**		1.1		71.0
Jun-07		**350.0**		0.6		0.4				**900.0**		0.7		**410.0**
Jan-09		**458.0**		0.7		0.5		**472.0**		**886.0**		3.8		**201.0**
Jan-10	**420.0**	**430.0**	0.8	<D.L.	40.0	1.3	**450.0**	**450.0**	**770.0**	**760.0**	37.0	2.6	150.0	150.0
Oct-10														
May-11	82.9	50.1	13.8	<D.L.	5.3	9.3	**436.0**	**432.0**	**967.0**	**934.0**	19.9	<D.L.	**426.0**	**440.0**
Sep-11														
Nov-12														
May-13	**361.0**	**338.0**	5.4	<D.L.	8.4	<D.L.	**432.0**	**452.0**	**1,010.0**	**971.0**	23.0	<D.L.	110.0	91.9
Dec-13														
Apr-14	194.0	194.0	<D.L.	<D.L.	2.7	<D.L.	**383.0**	**364.0**	**975.0**	**888.0**	15.3	<D.L.	152.0	148.0
Oct-14														
Apr-15	**615.0**	**550.0**			<D.L.	<D.L.	**432.0**	**358.0**	**1,130.0**	**1,000.0**	13.9	1.3	168.0	191.0
Oct-15			<D.L.	<D.L.										
Min	82.9	50.1	0.0	0.0	2.7	0.0	383.0	364.0	770.0	550.0	15.3	0.0	110.0	71.0
Max	420.0	458.0	13.8	1.2	40.0	9.3	450.0	472.0	1010.0	971.0	37.0	3.8	426.0	440.0
Avg	264.5	331.1	5.0	0.5	14.1	1.5	425.3	434.0	930.5	841.3	23.8	1.2	209.5	216.0

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 200 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6o
MANGANESE

TABLE 6o
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

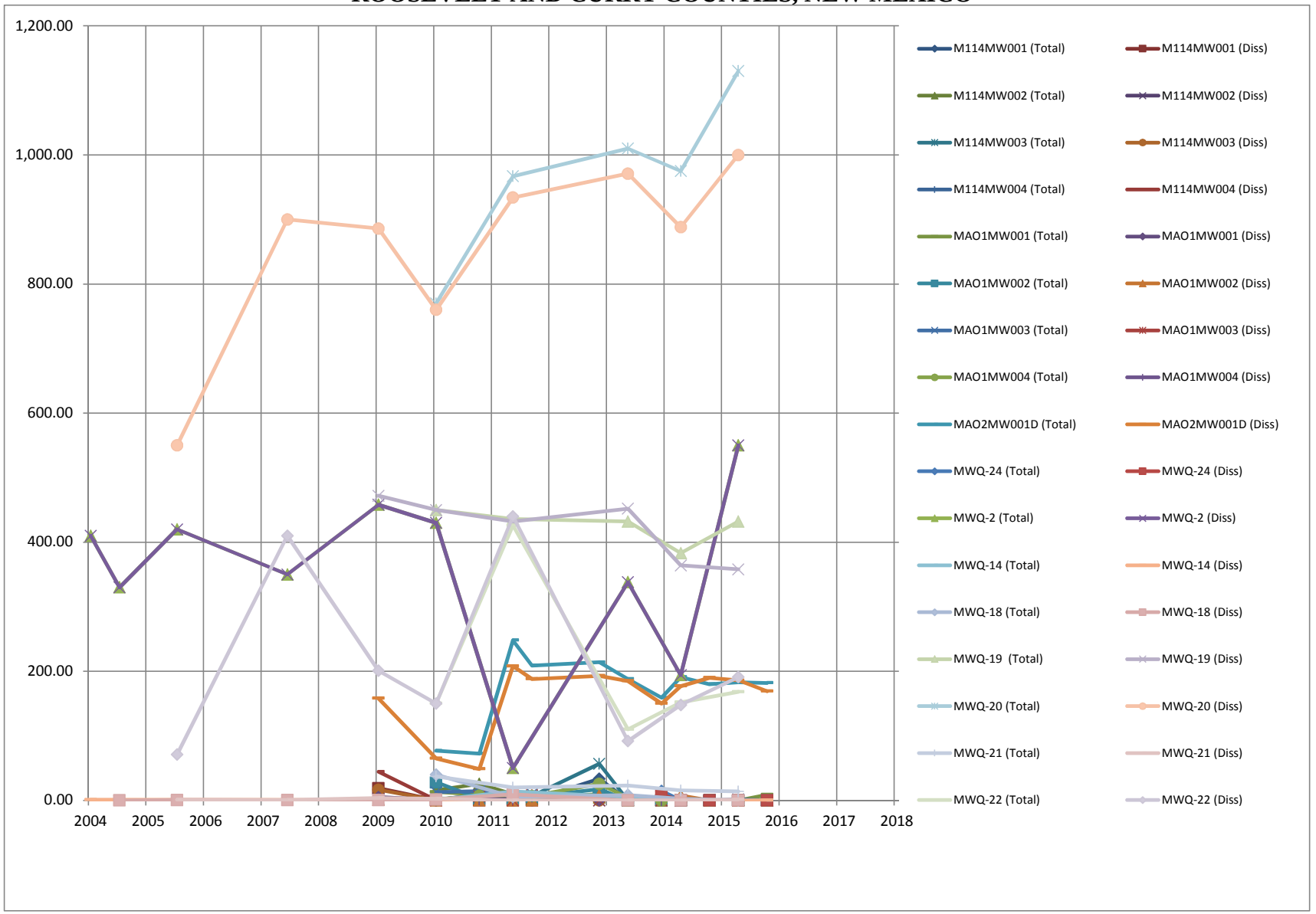
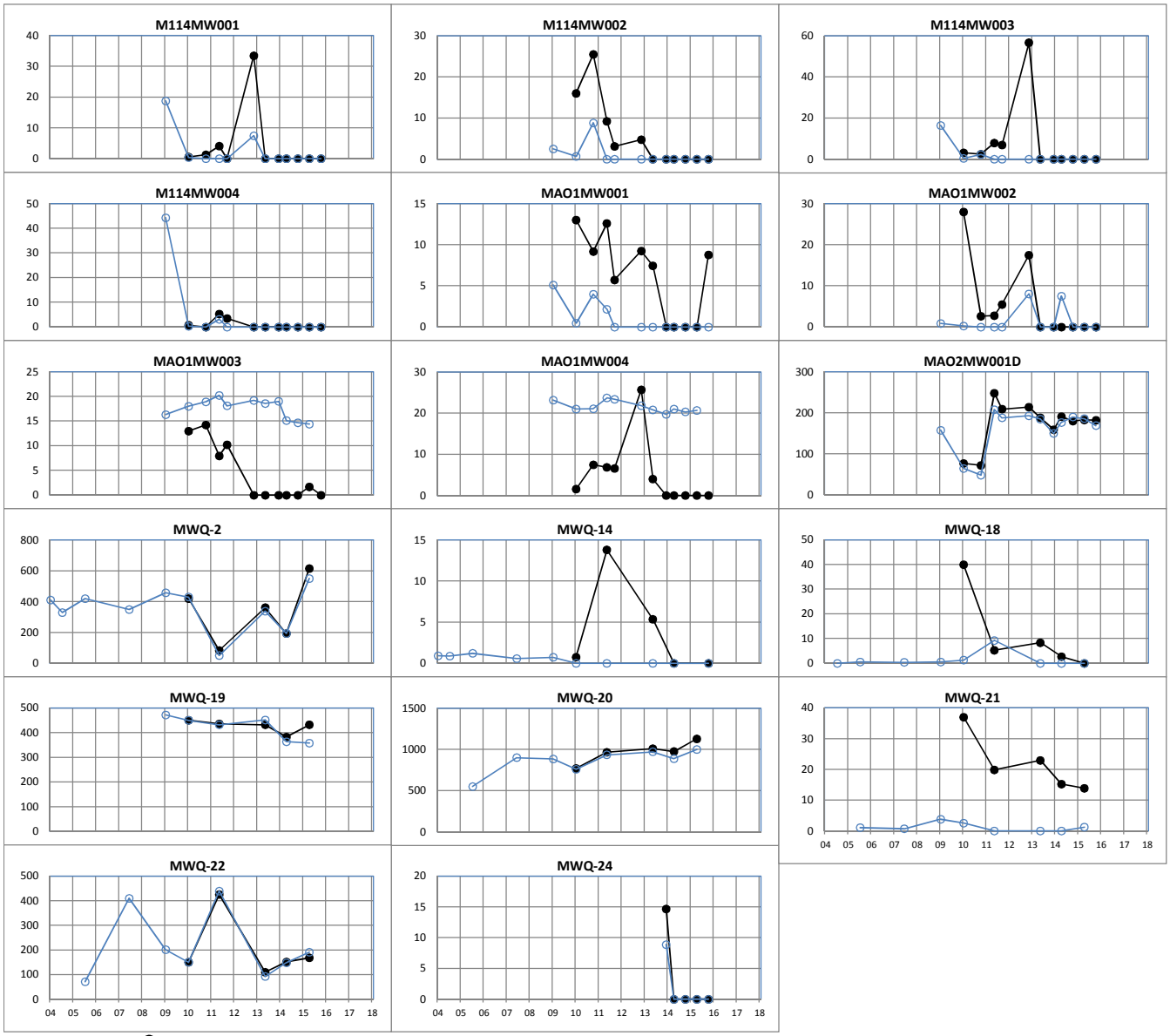


TABLE 6o
MANGANESE

TABLE 6o
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6o
MANGANESE

TABLE 6p
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		0.08		0.11		<D.L.		0.09		<D.L.		0.098		<D.L.		0.16		0.06		
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.03	0.034	0.048	0.033	0.034	0.035	0.035	0.033	0.035	0.036	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	0.082	0.102	<D.L.	<D.L.	0.092	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.093	0.095	<D.L.	0.080	0.084	<D.L.	<D.L.		
Nov-12	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-13	0.102	0.150	0.221	0.109	0.069	<D.L.	<D.L.	<D.L.	<D.L.	0.18992	0.8507	0.6392	0.094	<D.L.	0.170	0.247	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.079	<D.L.	0.257	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.10	0.15	0.22	0.11	0.07	0.09	0.03	0.09	0.05	0.19	0.85	0.64	0.10	0.08	0.17	0.26	0.00	0.06	0.00	0.00
Avg	0.01	0.03	0.03	0.02	0.01	0.01	0.00	0.01	0.00	0.02	0.08	0.07	0.02	0.01	0.03	0.07	0.00	0.01	0.00	0.00

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		<D.L.										
Jul-04		0.11		0.078		0.0690								
Jul-05														
Jun-07														
Jan-09		0.130		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	0.035	0.035	0.036	0.035	0.035	0.035	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	0.854	1.35	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.925	0.7532
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.13	0.85	1.35	0.04	0.07	0.04	0.04	0.04	0.04	0.00	0.00	0.93	0.75
Avg	0.00	0.03	0.17	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.19	0.13

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 2.00 µg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6p
MERCURY

TABLE 6q
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		12.20		15.80		8.20		10.00		5.70		11.40		4.00		6.00		23.60		
Jan-10	16.00	16.00	18.00	18.00	13.00	13.00	13.00	12.00	7.60	6.90	8.40	7.80	4.70	4.80	6.10	6.00	15.00	13.00		
Oct-10	24.20	25.90	19.60	<D.L.	8.47	8.67	22.70	22.10	3.77	4.66	5.47	6.77	4.20	4.49	4.65	5.64	13.00	12.50		
May-11	16.90	17.90	20.50	20.50	8.07	8.48	12.50	13.00	4.94	5.66	7.44	8.79	4.39	4.09	7.31	6.27	18.10	17.50		
Sep-11	17.80	18.80	23.70	22.10	9.56	8.60	13.10	13.30	4.42	4.61	5.93	6.66	<D.L.	<D.L.	4.78	5.07	14.00	15.20		
Nov-12	18.90	19.10	30.40	27.60	12.90	11.00	14.20	15.70	5.74	6.51	7.70	7.09	5.45	5.53	19.70	11.20	17.80	16.20		
May-13	12.90	13.20	13.50	12.50	8.54	9.54	12.30	12.70	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	15.60	15.40		
Dec-13	14.90	14.30	12.50	12.70	7.83	7.56	12.40	11.80	5.70	5.77	7.12	6.73	4.28	4.68	6.00	5.30	18.90	18.60	10.80	9.88
Apr-14	11.00	11.80	12.90	14.50	7.88	7.79	11.90	10.90	5.28	5.31	6.78	6.67	3.57	3.55	5.68	5.73	20.20	18.50	15.10	14.00
Oct-14	16.10	15.10	14.10	15.70	7.73	8.12	10.50	11.50	5.63	5.44	6.40	6.67	3.93	3.98	5.59	5.52	16.80	18.70	9.50	9.93
Apr-15	16.80	16.30	15.00	14.20	8.60	8.02	12.00	10.80	6.12	5.85	6.74	7.39	4.46	4.25	6.37	5.92	18.50	18.70	15.10	15.60
Oct-15	17.70	17.50	17.10	18.80	8.55	8.69	12.10	11.90	5.95	6.27	7.17	7.42	4.31	4.48	5.86	6.12	19.90	18.20	17.20	16.30
Min	11.0	11.8	12.5	0.0	7.7	7.6	10.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	12.5	9.5	9.9
Max	24.2	25.9	30.4	27.6	13.0	13.0	22.7	22.1	7.6	6.9	8.4	11.4	5.5	5.5	19.7	11.2	20.2	23.6	17.2	16.3
Avg	16.7	16.5	17.9	16.0	9.2	9.0	13.3	13.0	5.0	5.2	6.3	6.9	3.6	3.7	6.5	5.7	17.1	17.2	13.5	13.1

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		32.00		26.00										
Jul-04		21.00		26.00		5.00								
Jul-05		25.00		29.00		4.90				16.00		9.30		9.40
Jun-07		26.00		28.00		5.00				16.00		8.80		9.00
Jan-09		22.80		29.80		4.50		0.42		14.10		8.80		57.90
Jan-10	21.00	23.00	29.00	28.00	4.60	4.50	<D.L.	<D.L.	15.00	14.00	8.80	8.80	47.00	52.00
Oct-10														
May-11	20.60	22.60	25.40	26.00	16.40	11.60	<D.L.	<D.L.	17.00	16.40	9.63	9.72	11.10	12.00
Sep-11														
Nov-12														
May-13	23.50	21.90	24.80	23.40	<D.L.	<D.L.	<D.L.	<D.L.	16.90	18.80	9.85	9.46	47.80	46.60
Dec-13														
Apr-14	20.50	19.50	26.60	24.10	4.52	4.47	4.33	1.30	13.00	12.60	9.79	11.20	13.20	12.80
Oct-14														
Apr-15	<D.L.	<D.L.			4.68	4.55	<D.L.	<D.L.	<D.L.	<D.L.	12.20	11.20	13.00	13.10
Oct-15			25.60	25.00										
Min	0.0	0.0	24.8	23.4	0.0	0.0	0.0	0.0	0.0	0.0	8.8	8.8	11.1	9.0
Max	23.5	32.0	29.0	29.8	16.4	11.6	4.3	1.3	17.0	18.8	12.2	11.2	47.8	57.9
Avg	17.1	21.4	26.3	26.5	6.0	4.9	0.9	0.3	12.4	13.5	10.1	9.7	26.4	26.6

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 1000 µg/L

Red indicates exceedance

Blank cells indicate no data

Wells MWQ-3, -4, -5, -6, -7, -10, -23, and MWL-6 not sampled after spring 2011

TABLE 6q
MOLYBDENUM

TABLE 6q
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

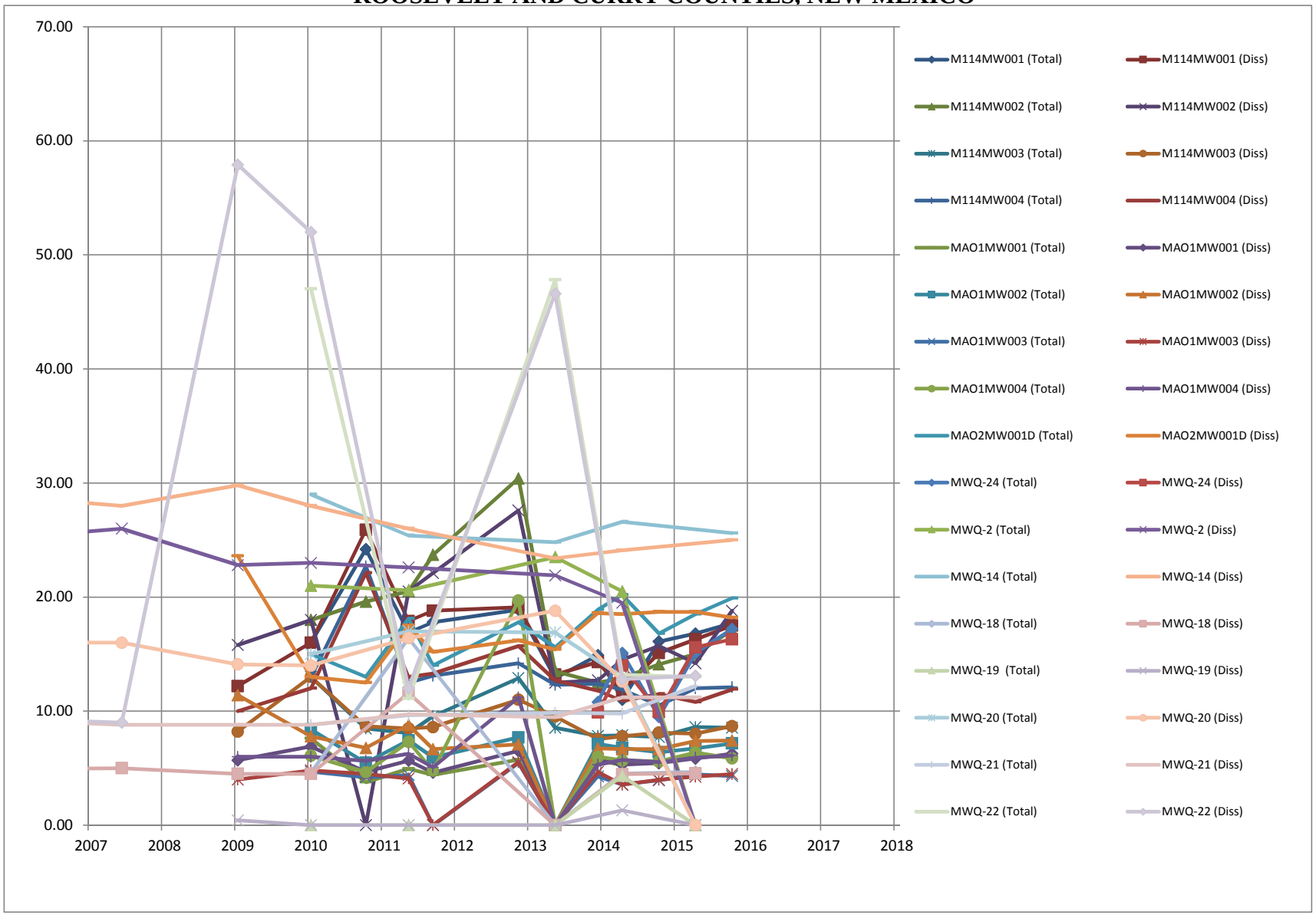


TABLE 6q
MOLYBENUM

TABLE 6q
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

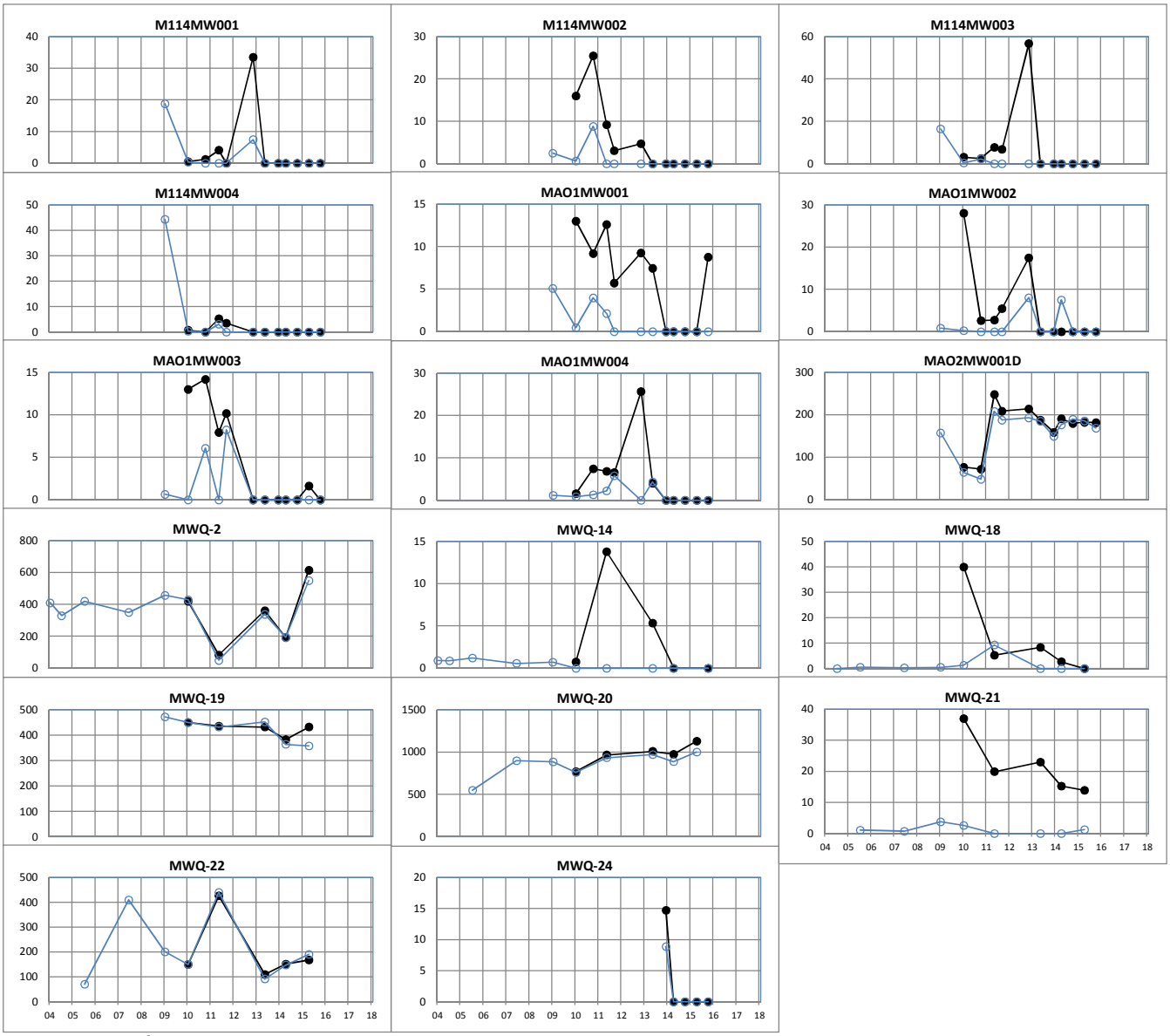


TABLE 6q
MOLYBENUM

TABLE 6r
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		16,800		15,400		16,600		15,700		7,230		7,530		7,790		6,410		12,500		
Jan-10	19,000	18,000	17,000	17,000	18,000	18,000	21,000	20,000	7,600	6,900	7,100	6,700	8,300	8,000	6,400	6,400	11,000	9,300		
Oct-10	16,600	17,900	19,500	20,300	22,600	22,100	18,200	17,500	8,040	8,320	6,990	6,820	9,620	8,320	5,960	5,810	12,300	11,600		
May-11	18,500	19,300	18,200	18,200	19,800	19,700	20,300	20,600	7,780	7,880	6,860	7,280	8,970	8,430	6,610	6,400	10,400	10,300		
Sep-11	16,400	17,700	16,500	16,800	17,000	17,400	17,100	18,300	7,120	7,670	6,640	6,710	7,750	7,620	6,040	6,150	8,540	9,280		
Nov-12	18,900	17,500	17,900	19,200	20,500	19,200	19,000	21,200	8,680	7,870	7,440	6,770	8,440	8,450	6,040	5,950	9,780	9,460		
May-13	18,000	16,900	18,900	17,900	19,700	18,100	19,600	19,800	7,570	7,620	7,170	7,350	8,410	9,070	6,460	6,000	8,680	9,380		
Dec-13	15,800	14,800	15,300	14,800	16,700	14,400	15,900	15,600	6,650	6,360	6,360	6,190	7,680	7,550	6,000	5,540	7,640	7,380	4,650	4,420
Apr-14	14,700	15,100	14,500	14,700	14,600	14,600	16,300	15,300	6,170	6,060	6,300	5,830	6,970	7,110	5,550	5,540	7,650	6,900	4,750	4,610
Oct-14	13,900	13,200	14,500	14,400	14,700	14,800	15,300	15,600	6,330	5,740	5,960	6,020	7,180	6,960	5,530	5,740	6,260	7,170	3,930	4,420
Apr-15	14,400	14,400	15,600	14,800	15,700	14,900	16,400	15,500	6,360	6,530	6,030	6,510	7,900	7,830	5,740	5,680	6,660	6,780	4,160	4,360
Oct-15	14,800	14,500	15,400	14,900	15,300	15,300	16,100	15,900	6,440	6,450	6,290	6,490	7,240	7,490	5,320	5,600	7,030	6,780	4,280	4,430
Min	13900	13200	14500	14400	14600	14400	15300	15300	6170	5740	5960	5830	6970	6960	5320	5540	6260	6780	3930	4360
Max	19000	19300	19500	20300	22600	22100	21000	21200	8680	8320	7440	7530	9620	9070	6610	6410	12300	12500	4750	4610
Avg	16455	16342	16664	16533	17691	17092	17745	17583	7158	7053	6649	6683	8042	7885	5968	5935	8722	8903	4354	4448

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		9,400		11,000										
Jul-04		9,300		11,000		3,000								
Jul-05		10,000		11,000		3,100				13,000		12,000		3,200
Jun-07		9,800		12,000		2,700				15,000		11,000		3,100
Jan-09		9,390		11,500		2,430		10,100		13,300		10,600		3,520
Jan-10	9,900	10,000	12,000	13,000	3,600	2,800	11,000	11,000	15,000	14,000	11,000	10,000	4,500	4,600
Oct-10														
May-11	11,600	12,600	11,400	11,400	2,770	2,870	10,400	10,400	16,200	15,700	10,300	9,970	3,260	3,340
Sep-11														
Nov-12														
May-13	10,400	10,800	11,300	11,200	3,130	2,820	10,800	10,700	16,500	15,600	10,500	9,200	5,090	4,630
Dec-13														
Apr-14	8,560	8,520	11,800	10,800	2,700	2,700	9,450	8,960	12,800	11,500	7,600	8,510	3,130	3,080
Oct-14														
Apr-15	9,030	8,140			2,580	2,500	9,810	8,840	14,200	12,000	8,770	8,300	3,100	3,020
Oct-15			11,200	11,000										
Min	8560	8140	11200	10800	2580	2430	9450	8840	12800	11500	7600	8300	3100	3020
Max	11600	12600	12000	13000	3600	3100	11000	11000	16500	15700	11000	12000	5090	4630
Avg	9898	9795	11540	11390	2956	2769	10292	10000	14940	13763	9634	9948	3816	3561

Notes:

Data in µg/L

No applicable screening criteria

Red indicates exceedance

Blank cells indicate no data

TABLE 6r
POTASSIUM

TABLE 6r
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

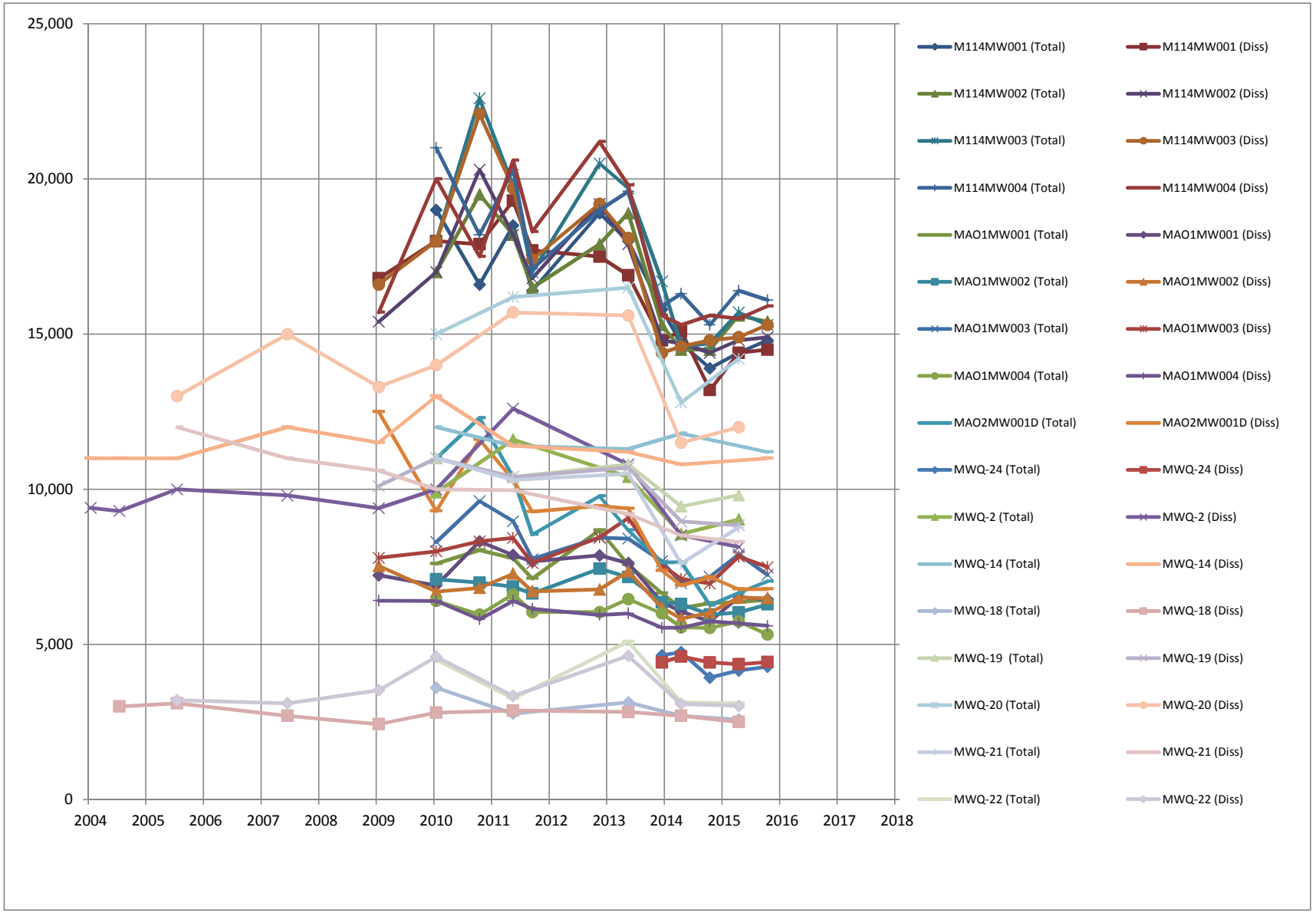
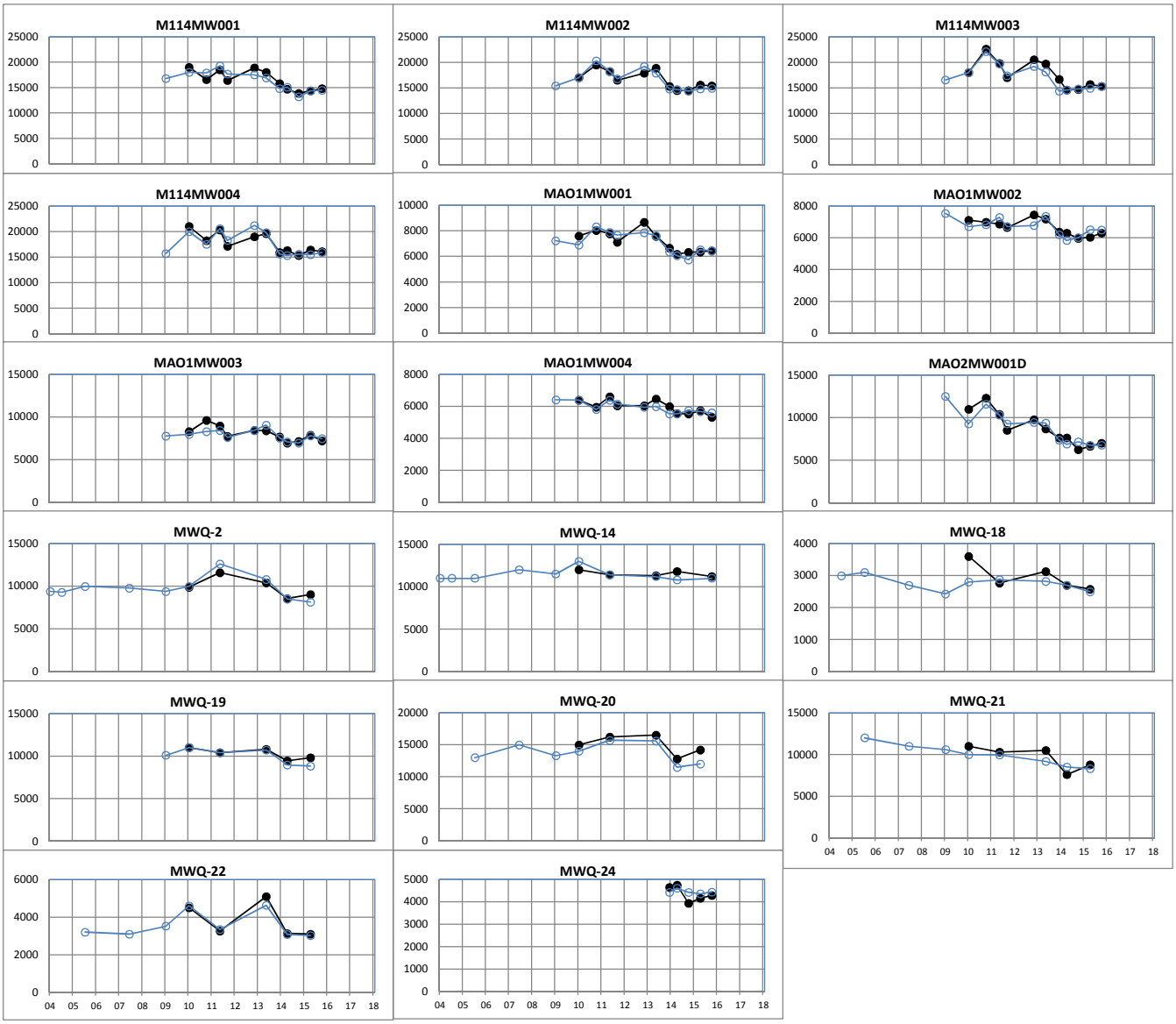


TABLE 6r
POTASSIUM

TABLE 6r
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6r
POTASSIUM

TABLE 6s
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		58.1		50.8		72.1		33.5		6.3		9.3		13.0		13.9		52.4		
Jan-10	33	33	24	33	40	45	31	29	4.90	8.30	5.0	5.1	6.6	6.8	8.9	<D.L.	150	140		
Oct-10	<D.L.	<D.L.	30.5	22.6	36.2	38.4	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	144	139		
May-11	31.1	28.8	20	21.8	30.7	31.5	19.6	18.9	<D.L.	<D.L.	5.87	<D.L.	<D.L.	<D.L.	4.44	<D.L.	94.7	107		
Sep-11	30.3	30.1	23.2	20.1	29.6	29.7	21.6	22.4	<D.L.	<D.L.	<D.L.	4.49	<D.L.	<D.L.	6.15	5.03	117	132		
Nov-12	33.2	33.5	25.4	27	37.3	29.7	24.5	25.4	7.2	7.07	<D.L.	<D.L.	<D.L.	<D.L.	5.9	<D.L.	113	106		
May-13	29.4	29.1	10.2		31.9	32.6	22.1	22	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	76.2	124		
Dec-13	27.4	29.9	12	12.8	33.4	29.1	20.6	21.2	4.33	4.09	4.93	5.14	4.48	4.05	6.75	6.24	14.7	30.1	0.48	0.59
Apr-14	34.1	30.9	18	16.9	32.8	30	23.8	22.5	5.2	5.7	6.29	5.77	5.54	5.74	7	6.76	36.5	35.9	0.95	0.8
Oct-14	29.2	25.8	18.7	15	31.7	28.7	23.6	21.9	4.59	4.24	4.79	4.61	4.4	3.79	6.35	6.81	33.7	42	0.58	0.65
Apr-15	28.6	28.7	16.3	15.7	33.7	29.8	25.2	18.9	4.09	4	3.91	4.55	4.03	3.96	7.03	7.09	46.3	49.3	<D.L.	0.56
Oct-15	29.8	29.5	17	18.9	30.1	31.3	24.1	23	3.52	4.96	4.72	4.73	3.96	3.97	6.27	6.67	50.3	65.3	0.54	0.49
Min	0.0	0.0	10.2	12.8	29.6	28.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	30.1	0.0	0.0
Max	34.1	58.1	30.5	50.8	40.0	72.1	31.0	33.5	7.2	8.3	6.3	9.3	6.6	13.0	8.9	13.9	150.0	140.0	1.0	0.8
Avg	27.8	29.8	19.6	23.1	33.4	35.7	21.5	21.6	3.1	3.7	3.2	3.6	2.6	3.4	5.3	4.4	79.7	85.3	0.4	0.5

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		23.0										
Jul-04		<D.L.		21.0		3.1								
Jul-05		5.4		27.0		2.4				8.2		12.0		8.8
Jun-07		7.1		27.0		4.0				13.0		11.0		7.0
Jan-09		2.2		45.7		3.8		12.8		30.4		14.8		2.3
Jan-10	<D.L.	5.3	28.0	26.0	<D.L.	6.8	<D.L.	<D.L.	<D.L.	<D.L.	12.0	10.0	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	26.3	23.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	11.0	9.9	<D.L.	5.0
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	24.9	28.0	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	10.7	<D.L.	<D.L.
Dec-13														
Apr-14	3.4	4.2	25.1	24.1	2.4	2.9	2.1	1.6	<D.L.	<D.L.	8.2	10.7	0.7	0.8
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	3.6	<D.L.	<D.L.	<D.L.	<D.L.	9.7	9.7	<D.L.	<D.L.
Oct-15			24.3	25.6										
Min	0.0	0.0	24.3	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0
Max	3.4	7.1	28.0	45.7	2.4	6.8	2.1	12.8	0.0	30.4	12.0	14.8	0.7	8.8
Avg	0.7	2.4	25.7	27.1	0.5	3.0	0.4	2.4	0.0	6.5	8.2	11.1	0.1	3.0

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 50 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6s
SELENIUM

TABLE 6s
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

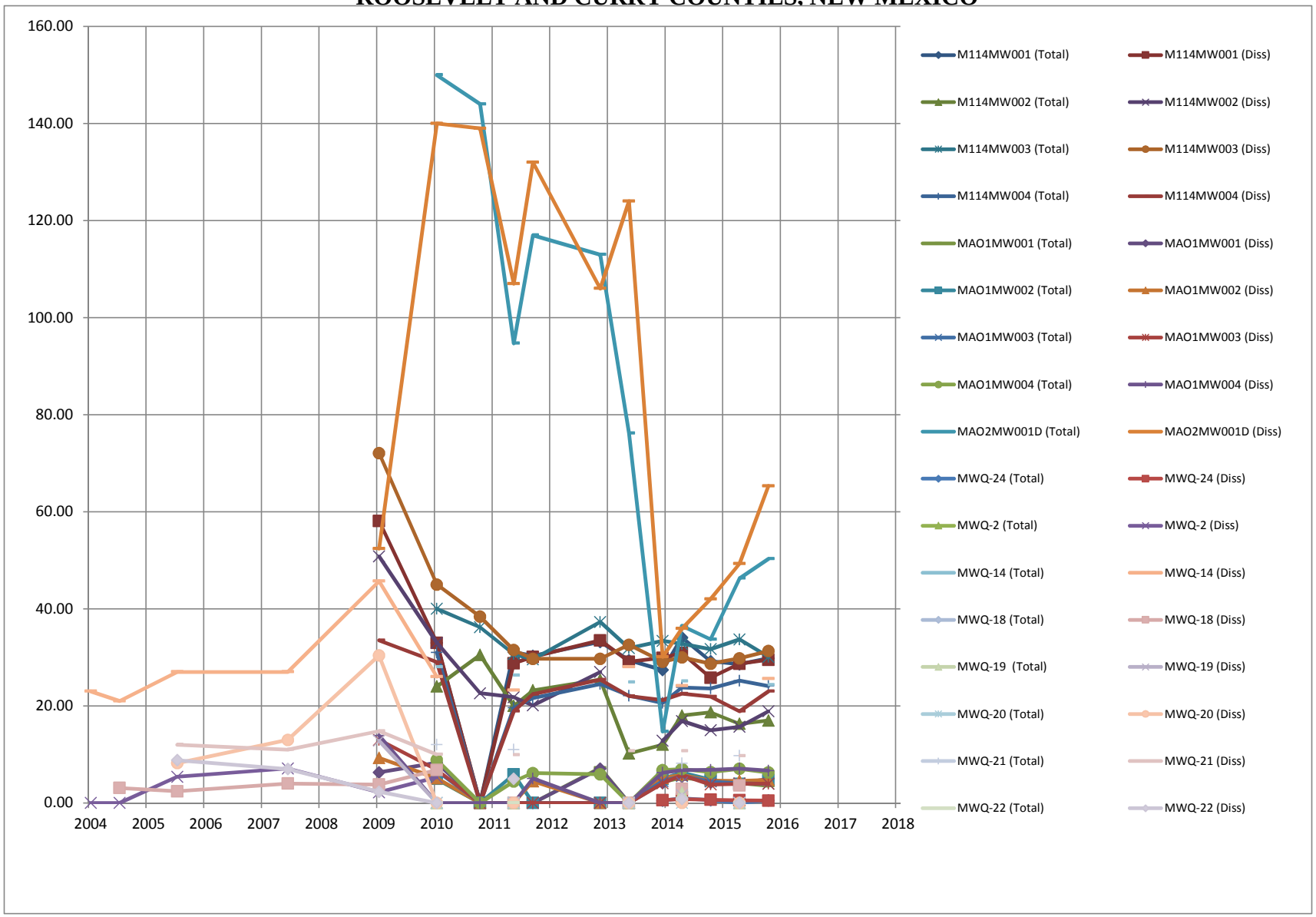
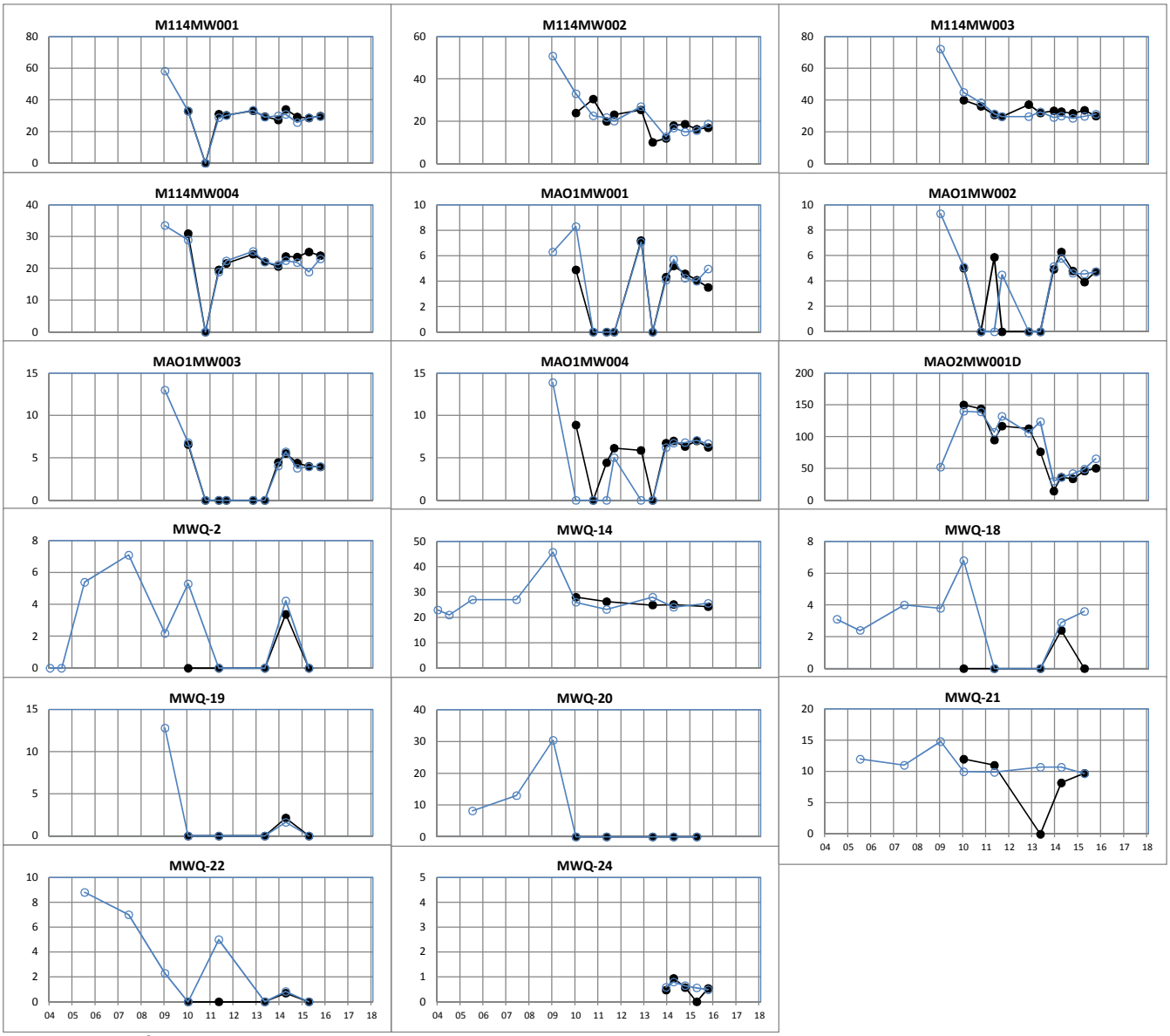


TABLE 6s
SELENIUM

TABLE 6s
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6s
SELENIUM

TABLE 6t
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	<D.L.	<D.L.	0.98	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.03	1.10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		<D.L.										
Jul-04		<D.L.		0.061		<D.L.								
Jul-05		<D.L.		<D.L.		<D.L.				<D.L.		<D.L.		<D.L.
Jun-07														
Jan-09		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 50 µg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6t
SILVER

TABLE 6v
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	40	38	23	21	2.3	2.9	<D.L.	<D.L.	<D.L.	<D.L.	1.4	<D.L.	<D.L.	<D.L.	2.6	2.4	3.2	2.9		
Oct-10	21.8	35.8	26.3	27.7	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	7.17	3.09	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	19.7	19.1	27.0	26.2	<D.L.	<D.L.	<D.L.	<D.L.	2.96	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	2.29	<D.L.	1.3	1.4		
Sep-11	8.97	9.2	40.6	39.4	<D.L.	<D.L.	1.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.4	2.1		
Nov-12	26.30	7.24	27.4	28.1	29.9	1.64	<D.L.	<D.L.	7.89	<D.L.	13.3	2.69	8.51	1.44	4.08	1.79	6.24	4.02		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	40.0	38.0	40.6	39.4	29.9	2.9	1.2	0.0	7.9	0.0	13.3	2.7	8.5	3.1	4.1	2.4	6.2	4.0	0.0	0.0
Avg	10.6	9.9	13.1	12.9	2.9	0.4	0.1	0.0	1.0	0.0	1.3	0.2	1.4	0.4	0.8	0.4	1.1	1.0	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		27.0		4.9										
Jul-04		18.0		5.7		1.9								
Jul-05		10.0		5.5		0.9				25.0		6.7		1.7
Jun-07		22.0		7.7		6.9				84.0		9.3		2.8
Jan-09														
Jan-10	2.5	1.6	3.7	3.5	2.2	<D.L.	<D.L.	<D.L.	3.3	3.3	1.6	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	1.6	1.9	1.2	<D.L.	6.9	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.3	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	15.6	14.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.7	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.7	<D.L.	<D.L.	<D.L.
Oct-15			25.5	25.3										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	2.5	27.0	25.5	25.3	14.3	6.9	0.0	0.0	3.3	84.0	1.6	9.3	0.0	2.8
Avg	0.8	8.9	6.1	7.6	4.7	1.2	0.0	0.0	0.7	16.0	0.7	2.4	0.0	0.6

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 200 µg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6v
NICKEL

TABLE 6u
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		2,910,000		2,610,000		3,270,000		2,780,000		732,000		645,000		655,000		401,000		1,880,000		
Jan-10	2,200,000	2,200,000	2,300,000	2,200,000	3,000,000	2,700,000	2,400,000	2,500,000	680,000	670,000	550,000	540,000	510,000	500,000	350,000	340,000	1,800,000	1,600,000		
Oct-10	1,950,000	2,130,000	2,030,000	2,170,000	2,600,000	2,660,000	2,250,000	2,260,000	582,000	599,000	548,000	491,000	591,000	463,000	315,000	301,000	1,570,000	1,580,000		
May-11	1,960,000	2,020,000	2,040,000	2,020,000	2,620,000	2,550,000	2,260,000	2,240,000	567,000	588,000	491,000	527,000	469,000	458,000	308,000	297,000	1,930,000	1,910,000		
Sep-11	2,080,000	2,080,000	2,100,000	2,220,000	2,540,000	2,580,000	2,170,000	2,480,000	569,000	556,000	531,000	530,000	459,000	430,000	321,000	323,000	1,580,000	1,630,000		
Nov-12	2,060,000	1,970,000	2,110,000	1,800,000	2,790,000	2,750,000	2,240,000	2,560,000	589,000	602,000	554,000	510,000	480,000	475,000	317,000	325,000	2,060,000	1,710,000		
May-13	2,140,000	2,210,000	2,390,000	2,450,000	2,610,000	2,570,000	2,430,000	2,460,000	611,000	575,000	565,000	567,000	513,000	498,000	338,000	299,000	1,900,000	1,920,000		
Dec-13	2,290,000	2,260,000	2,430,000	2,370,000	2,680,000	2,590,000	2,370,000	2,420,000	610,000	559,000	534,000	521,000	501,000	446,000	345,000	319,000	2,320,000	2,140,000	37,400	33,100
Apr-14	2,390,000	2,290,000	2,320,000	2,230,000	2,710,000	2,530,000	2,530,000	2,390,000	609,000	587,000	532,000	514,000	466,000	458,000	322,000	300,000	2,350,000	2,060,000	52,400	49,900
Oct-14	2,020,000	2,350,000	2,130,000	2,470,000	2,640,000	2,950,000	2,380,000	2,620,000	605,000	534,000	503,000	490,000	466,000	449,000	305,000	306,000	2,030,000	2,110,000	33,000	37,000
Apr-15	2,210,000	2,140,000	2,570,000	2,440,000	2,900,000	2,680,000	2,600,000	2,490,000	645,000	666,000	575,000	551,000	545,000	493,000	361,000	376,000	2,170,000	2,240,000	58,100	57,800
Oct-15	2,400,000	2,380,000	2,720,000	2,520,000	3,130,000	2,970,000	2,810,000	2,800,000	636,000	570,000	545,000	577,000	514,000	512,000	333,000	359,000	2,300,000	2,080,000	61,100	58,700
Min	1950000	1970000	2030000	1800000	2540000	2530000	2170000	2240000	567000	534000	491000	490000	459000	430000	305000	297000	1570000	1580000	33000	33100
Max	2400000	2910000	2720000	2610000	3130000	3270000	2810000	2800000	680000	732000	575000	645000	591000	655000	361000	401000	2350000	2240000	61100	58700
Avg	2154545	2245000	2285455	2291667	2747273	2733333	2403636	2500000	609364	603167	538909	538583	501273	486417	328636	328833	2000909	1905000	48400	47300

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		2,200,000		650,000										
Jul-04		2,400,000		720,000		76,000								
Jul-05		2,300,000		660,000		67,000				2,400,000		210,000		280,000
Jun-07		2,300,000		650,000		65,000				3,100,000		200,000		320,000
Jan-09		2,440,000		806,000		63,900		1,330,000		3,360,000		251,000		590,000
Jan-10	2,400,000	2,500,000	760,000	750,000	73,000	71,000	1,300,000	1,300,000	3,000,000	3,000,000	190,000	190,000	600,000	630,000
Oct-10														
May-11	2,170,000	2,260,000	628,000	633,000	65,500	68,800	1,100,000	1,110,000	2,970,000	2,780,000	184,000	181,000	315,000	319,000
Sep-11														
Nov-12														
May-13	2,240,000	2,220,000	739,000	710,000	69,900	69,800	1,290,000	1,330,000	3,280,000	3,370,000	176,000	169,000	567,000	600,000
Dec-13														
Apr-14	2,190,000	2,200,000	784,000	726,000	65,800	64,400	1,070,000	1,070,000	3,440,000	3,120,000	143,000	163,000	338,000	304,000
Oct-14														
Apr-15	2,440,000	2,450,000			67,500	67,000	1,280,000	1,130,000	3,800,000	3,510,000	191,000	173,000	354,000	365,000
Oct-15			797,000	775,000										
Min	2170000	2200000	628000	633000	65500	63900	1070000	1070000	2970000	2400000	143000	163000	315000	280000
Max	2440000	2500000	797000	806000	73000	76000	1300000	1330000	3800000	3510000	191000	251000	600000	630000
Avg	2288000	2327000	741600	708000	68340	68100	1208000	1211667	3298000	3080000	176800	192125	434800	426000

Notes:

Data in µg/L

No applicable screening criteria

Red indicates exceedance

Blank cells indicate no data

TABLE 6u
SODIUM

TABLE 6u
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

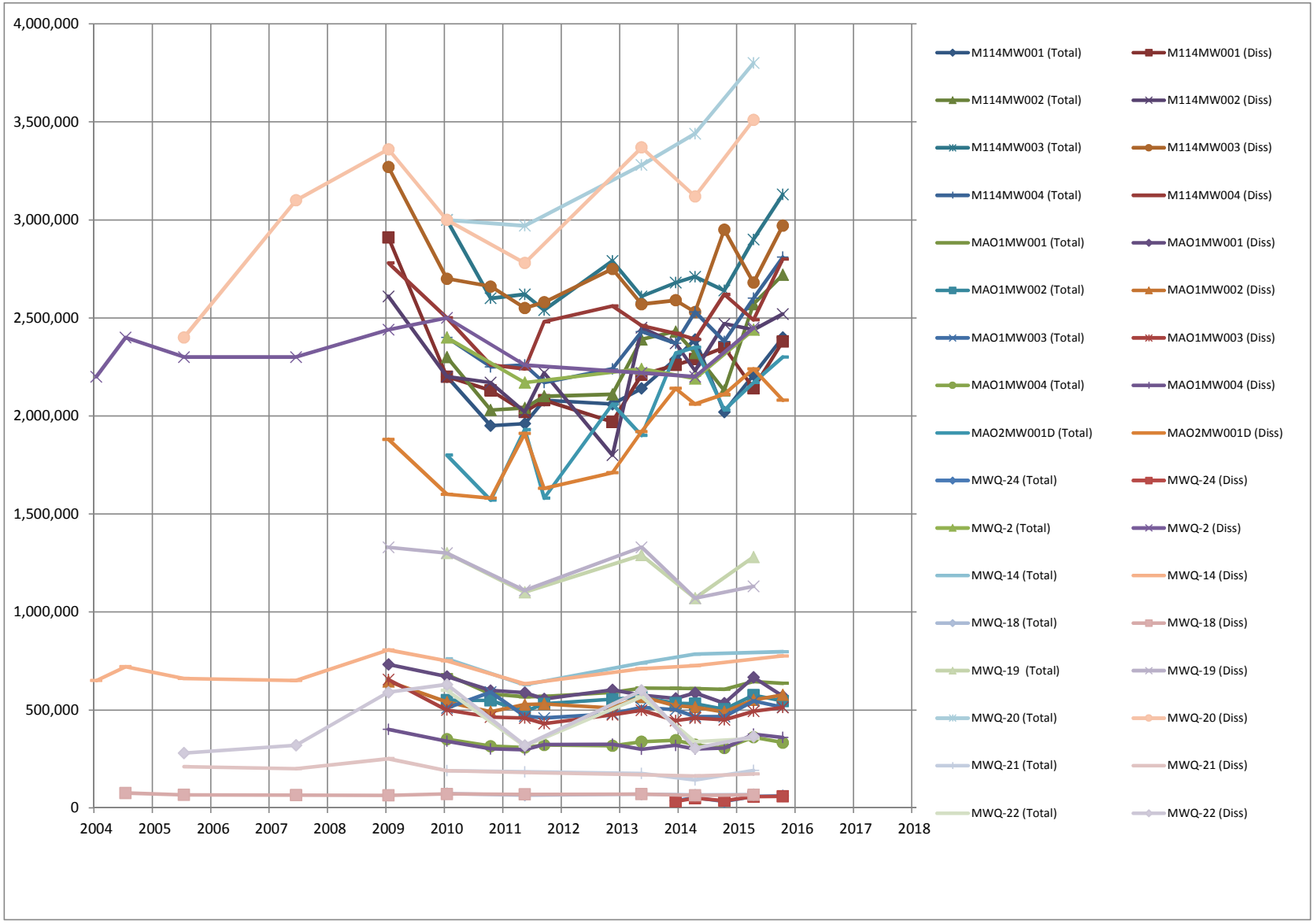
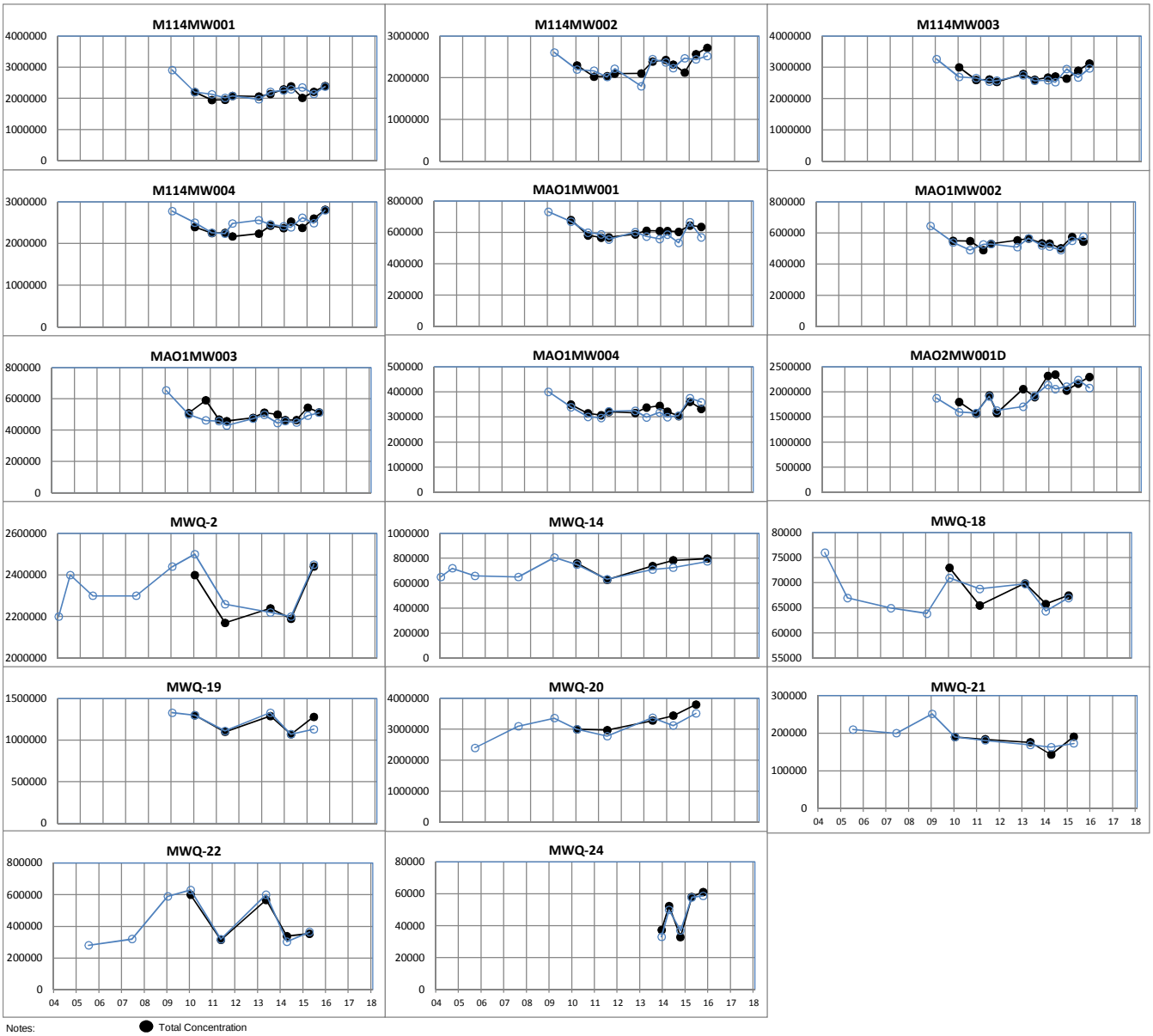


TABLE 6u
SODIUM

TABLE 6u
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6u
SODIUM

TABLE 6w
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	**8.4**	**11.0**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**2.88**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Nov-12	**3.04**	**5.18**	<D.L.	<D.L.	**3.61**	<D.L.	<D.L.	**5.45**	<D.L.	<D.L.	<D.L.	**4.91**	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**5.57**	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	3.0	5.2	0.0	0.0	8.4	11.0	0.0	5.5	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0
Avg	0.3	0.5	0.0	0.0	1.1	1.3	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04														
Jul-04														
Jul-05														
Jun-07						<D.L.				0.037		<D.L.		0.026
Jan-09														
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	**3.70**	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0
Avg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0

Notes:

Data in µg/L

USEPA Drinking Water MCL: 2 µg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6w
THALLIUM

TABLE 6x
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09																				
Jan-10	2.0	2.2	6.5	2.2	5.6	3.3	3.2	3.0	13	1.50	13	<D.L.	5.4	<D.L.	<D.L.	<D.L.	<D.L.	0.63		
Oct-10	<D.L.	<D.L.	4.49	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.93	0.79	<D.L.	<D.L.	6.81	0.43	<D.L.	2.4	<D.L.	<D.L.		
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.16	1.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Sep-11	<D.L.	<D.L.	2.01	<D.L.	2.45	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.37	1.24	<D.L.	<D.L.	1.52	<D.L.	<D.L.		
Nov-12	7.87	<D.L.	2.59	<D.L.	65.1	<D.L.	<D.L.	<D.L.	8.07	<D.L.	5.42	<D.L.	1.4	<D.L.	2.68	<D.L.	<D.L.	<D.L.		
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	3.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.		
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	6.02	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	2.75	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	7.9	2.2	6.5	2.2	65.1	3.3	3.2	3.0	13.0	1.5	13.0	6.0	6.8	0.4	2.7	2.4	0.0	0.6	0.0	0.0
Avg	0.9	0.2	1.4	0.2	6.7	0.3	0.3	0.3	2.9	0.3	1.7	0.7	1.4	0.0	0.2	0.4	0.0	0.1	0.0	0.0

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		<D.L.										
Jul-04		<D.L.		<D.L.		<D.L.								
Jul-05														
Jun-07														
Jan-09														
Jan-10	3.6	2.0	1.5	1.2	29	<D.L.	3.7	2.1	3.5	2.8	29	0.97	9.0	0.74
Oct-10														
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	1.42	<D.L.	10.6	5.29	<D.L.	<D.L.
Sep-11														
Nov-12														
May-13	<D.L.	<D.L.	<D.L.	<D.L.	38.4	<D.L.	<D.L.	<D.L.	136	<D.L.	15.9	<D.L.	15.7	<D.L.
Dec-13														
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	1.56	0.32	1.35	<D.L.	<D.L.	<D.L.	13.4	0.64	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	8.69	0.62	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0
Max	3.6	2.0	1.5	1.2	38.4	0.3	3.7	2.1	136.0	2.8	29.0	5.3	15.7	0.7
Avg	0.7	0.3	0.3	0.2	13.8	0.1	1.0	0.4	28.2	0.6	15.5	1.5	4.9	0.1

Notes:

Data in µg/L

No applicable screening criteria

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6x
TITANIUM

TABLE 6y
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		3.1		7.5		6.7		2.9		8.7		13.4		11.5		19.1		5.6		
Jan-10	6	6.4	8.2	6.4	9.4	9.7	8	6.8	11	9.7	13	12	14	13	20	20	9.8	8.8		
Oct-10	4.4	3.99	<D.L.	<D.L.	<D.L.	<D.L.	2.86	2.27	28.9	30.4	31.6	29.7	33.6	32.5	33.1	33.4	28.9	30.8		
May-11	**75.3**	**73.5**	**81**	**74.3**	**79.7**	**76.2**	**74.9**	**68.9**	61.1	58.3	50.8	53.4	**68.2**	**65.5**	58.8	56.4	**69.9**	**66.2**		
Sep-11	14.8	10.5	11	10.6	12.1	13.4	4	6.46	23	26.1	25.9	27.4	29.6	26.7	26.4	32.5	24.5	25.9		
Nov-12	20.2	11.8	13	22.3	16.6	21.1	14.2	8.78	30.6	27.2	23.9	20.7	36.4	35.5	27.3	32.2	32.8	30.4		
May-13	**86.3**	**66.3**	**92.9**	**68.9**	**90.9**	**73.1**	**78.7**	**73.7**	56.3	50.3	52.5	54.8	**68**	60.2	57.2	56.2	41.1	42.4		
Dec-13	6.42	5.53	9.67	8.97	10.5	8.85	6.09	5.13	11.9	11.1	11.1	10.8	13.3	13.3	19.4	17.1	6.25	5.27	30.6	28.4
Apr-14	6.05	5.76	8.14	7.1	9.5	9.04	6.68	6.2	10.2	10	11.7	10.5	12	12.2	18	17.8	5.34	4.38	20.9	19.7
Oct-14	6.5	6.58	7.27	7.92	9.38	9.77	5.48	5.78	12	11	11.5	11.5	13.5	12.9	18	17.7	<D.L.	<D.L.	33.4	34.6
Apr-15	5.94	5.57	9.06	7.76	9.51	8.82	5.42	5.02	10.9	10.9	11.2	12.8	14.2	14.2	20.3	19.6	5.05	4.77	28.3	29.1
Oct-15	6.7	6.22	8.33	7.67	10.4	9.79	6.86	6.7	11.8	13.4	12	12.2	12.9	13	18.4	19.1	5.84	4.09	30	30
Min	4.4	3.1	0.0	0.0	0.0	0.0	2.9	2.3	10.2	8.7	11.1	10.5	12.0	11.5	18.0	17.1	0.0	0.0	20.9	19.7
Max	86.3	73.5	92.9	74.3	90.9	76.2	78.7	73.7	61.1	58.3	52.5	54.8	68.2	65.5	58.8	56.4	69.9	66.2	33.4	34.6
Avg	21.7	17.1	22.6	19.1	23.5	20.5	19.4	16.6	24.3	22.3	23.2	22.4	28.7	25.9	28.8	28.4	20.9	19.1	28.6	28.4

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		1.5		3.9										
Jul-04		0.9		4.2		54.0								
Jul-05		4.5		4.6		60.0				3.8		45.0		33.0
Jun-07		<D.L.		5.2		62.0				0.9		47.0		15.0
Jan-09		<D.L.		4.8		52.9		<D.L.		<D.L.		44.6		0.4
Jan-10	<D.L.	1.2	6.2	6.0	63.0	58.0	1.8	1.3	1.1	1.8	48.0	45.0	1.3	1.5
Oct-10														
May-11	**73.5**	**71.6**	59.0	58.1	**78.6**	**79.9**	**64.3**	**64.6**	**64.0**	**64.1**	**99.7**	**98.8**	29.4	32.2
Sep-11														
Nov-12														
May-13	**66.9**	39.7	56.1	37.6	**78.3**	**75.3**	52.3	40.9	**65.4**	40.9	**85.9**	**70.5**	28.5	20.0
Dec-13														
Apr-14	<D.L.	<D.L.	6.6	6.0	56.3	57.7	<D.L.	<D.L.	<D.L.	<D.L.	42.2	46.3	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			57.4	57.6	<D.L.	<D.L.	<D.L.	<D.L.	51.9	48.0	<D.L.	<D.L.
Oct-15			5.6	5.6										
Min	0.0	0.0	5.6	3.9	56.3	52.9	0.0	0.0	0.0	0.0	42.2	44.6	0.0	0.0
Max	73.5	71.6	59.0	58.1	78.6	79.9	64.3	64.6	65.4	64.1	99.7	98.8	29.4	33.0
Avg	28.1	11.9	26.7	13.6	66.7	61.9	23.7	17.8	26.1	13.9	65.5	55.7	11.8	12.8

Notes:

Data in µg/L

NMED SSL Tapwater Screening Level: 63.1 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6y
VANADIUM

TABLE 6y
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

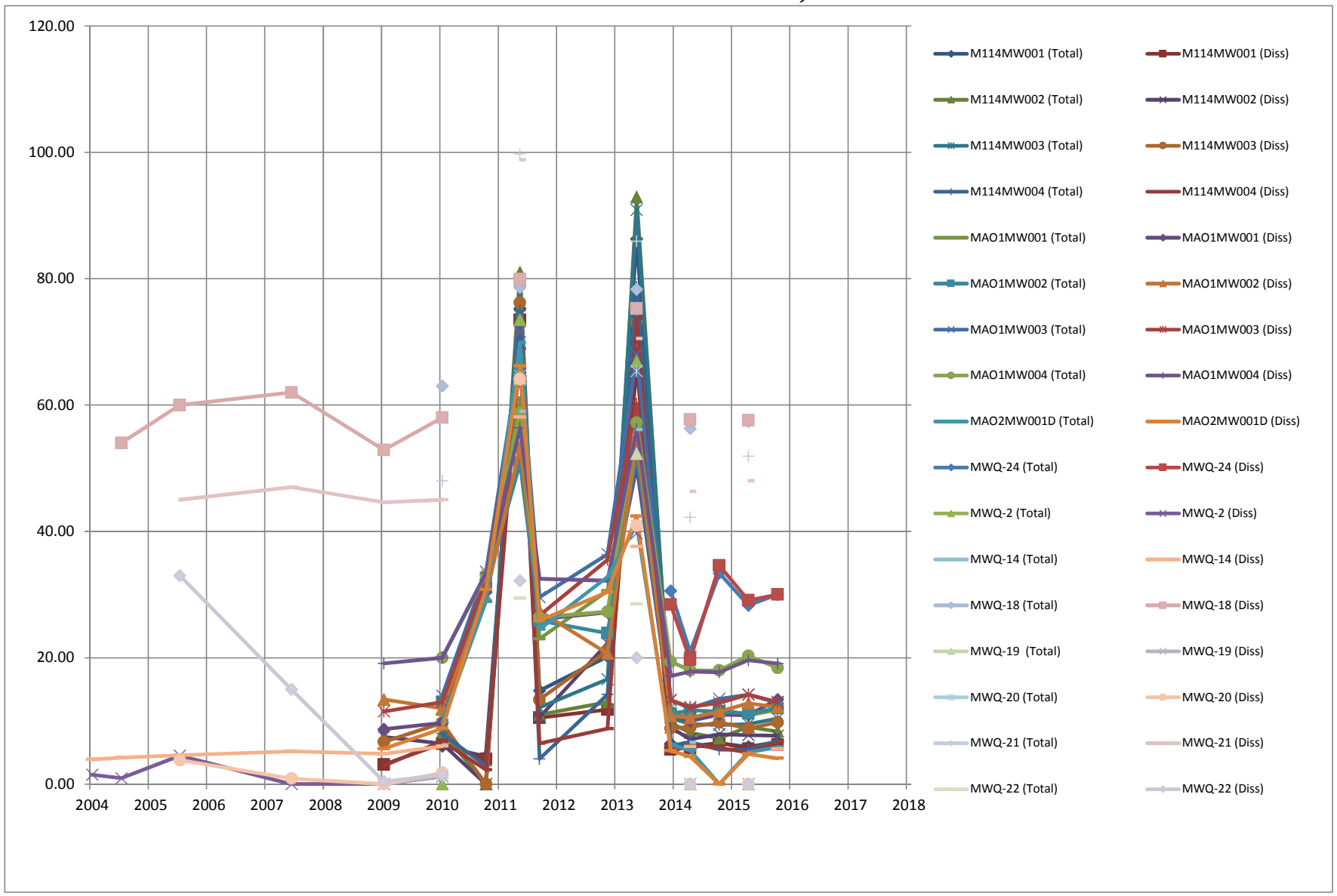
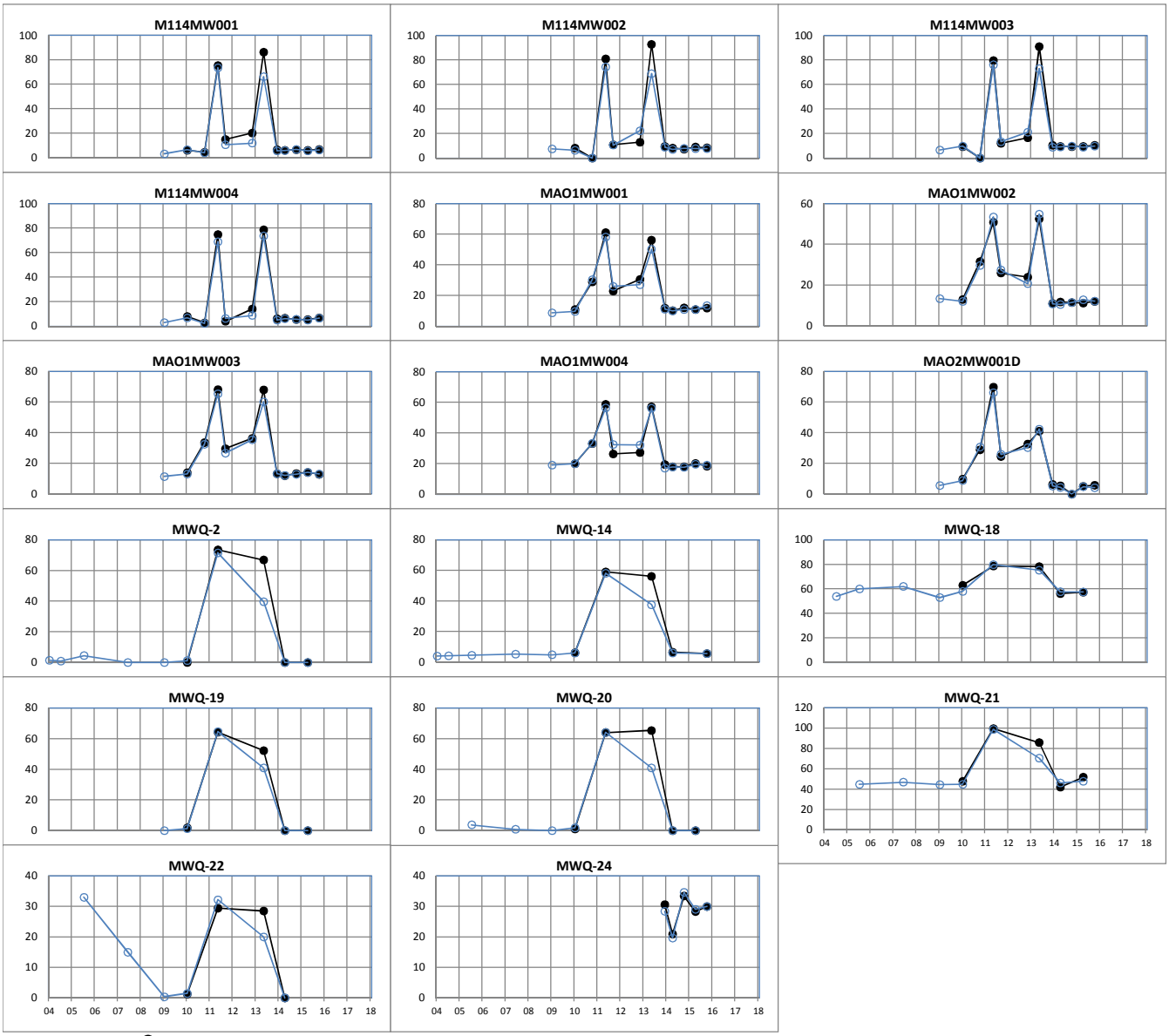


TABLE 6y
VANADIUM

TABLE 6y
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:
Data in µg/L

Total Concentration
Dissolved Concentration

TABLE 6y
VANADIUM

TABLE 6z
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09		450		533		421		885		415		826		447		257		375		
Jan-10	12	11	18	13	9.4	9.2	12	9.9	6.4	4.5	19	10	7.0	6.0	5.3	8.4	97	87		
Oct-10	715	741	1,350	1,350	<D.L.	<D.L.	443	427	<D.L.	<D.L.	11	<D.L.	11	<D.L.	<D.L.	<D.L.	96.5	92.9		
May-11	47.2	46.8	175	163	17.5	14.2	655	653	2.74	<D.L.	20.1	<D.L.	13.4	4.16	22.3	9.8	129	128		
Sep-11	394	413	239	234	276	271	347	366	229	248	210	219	339	316	276	305	288	301		
Nov-12	45.6	29.2	154	78	33.1	20.5	29.6	34.1	18.6	17.8	32.6	24.9	13.1	26.5	196	77.7	140	114		
May-13	4160	3850	122	102	334	375	2490	2500	437	509	1240	1280	3090	3830	691	729	341	393		
Dec-13	6.42	5.53	9.67	8.97	10.5	8.85	6.09	5.13	11.9	11.1	11.1	10.8	13.3	13.3	19.4	17.7	6.25	5.27	30.6	28.4
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	64.3	72.7	<D.L.	<D.L.	33.7		<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	59.7	55.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	102	<D.L.	<D.L.	<D.L.	<D.L.	26.3	<D.L.	11.7	10.9	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	121	<D.L.	21.6	21.5	36	31.4	30.4	28.8	24.4	22.5	<D.L.	26.2	<D.L.	22.8
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	4160.0	3850.0	1350.0	1350.0	334.0	421.0	2490.0	2500.0	437.0	509.0	1240.0	1280.0	3090.0	3830.0	691.0	729.0	341.0	393.0	30.6	28.4
Avg	494.5	466.8	188.0	206.8	61.9	93.3	378.9	421.2	66.1	102.2	146.7	218.4	322.1	389.3	113.3	119.8	99.8	126.9	6.1	10.2

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04		<D.L.		6										
Jul-04		3.8		4.6		3.9								
Jul-05		<D.L.		9.4		5.6				120		9.9		7.6
Jun-07		5.0		8.3		8.0				18		7.8		6.4
Jan-09		846		266		171		956		384		1130		1710
Jan-10	250	14	7.5	9.0	14	4.5	250	11	290	290	44	8.5	170	<D.L.
Oct-10														
May-11	394	426	<D.L.	<D.L.	52.40	38.20	865	615	2370	2190	15.6	<D.L.	7.64	<D.L.
Sep-11														
Nov-12														
May-13	1050	987	221	223	211	193	548	149	**11,900**	**11,100**	196	118	2230	1860
Dec-13														
Apr-14	442	440	27.7	26.2	9.73	7.15	84.4	<D.L.	518	462	79.2	9.65	<D.L.	<D.L.
Oct-14														
Apr-15	<D.L.	<D.L.			<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	84.4	23.2	<D.L.	<D.L.
Oct-15			<D.L.	<D.L.										
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0
Max	1050.0	987.0	221.0	266.0	211.0	193.0	865.0	956.0	11900.0	11100.0	196.0	1130.0	2230.0	1860.0
Avg	427.2	272.2	51.2	55.3	57.4	47.9	349.5	288.5	3015.6	1820.5	83.8	163.4	481.5	448.0

Notes:

Data in µg/L

NMAC 20.6.2.3103 Screening Level: 10000 µg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6z
ZINC

TABLE 6z
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

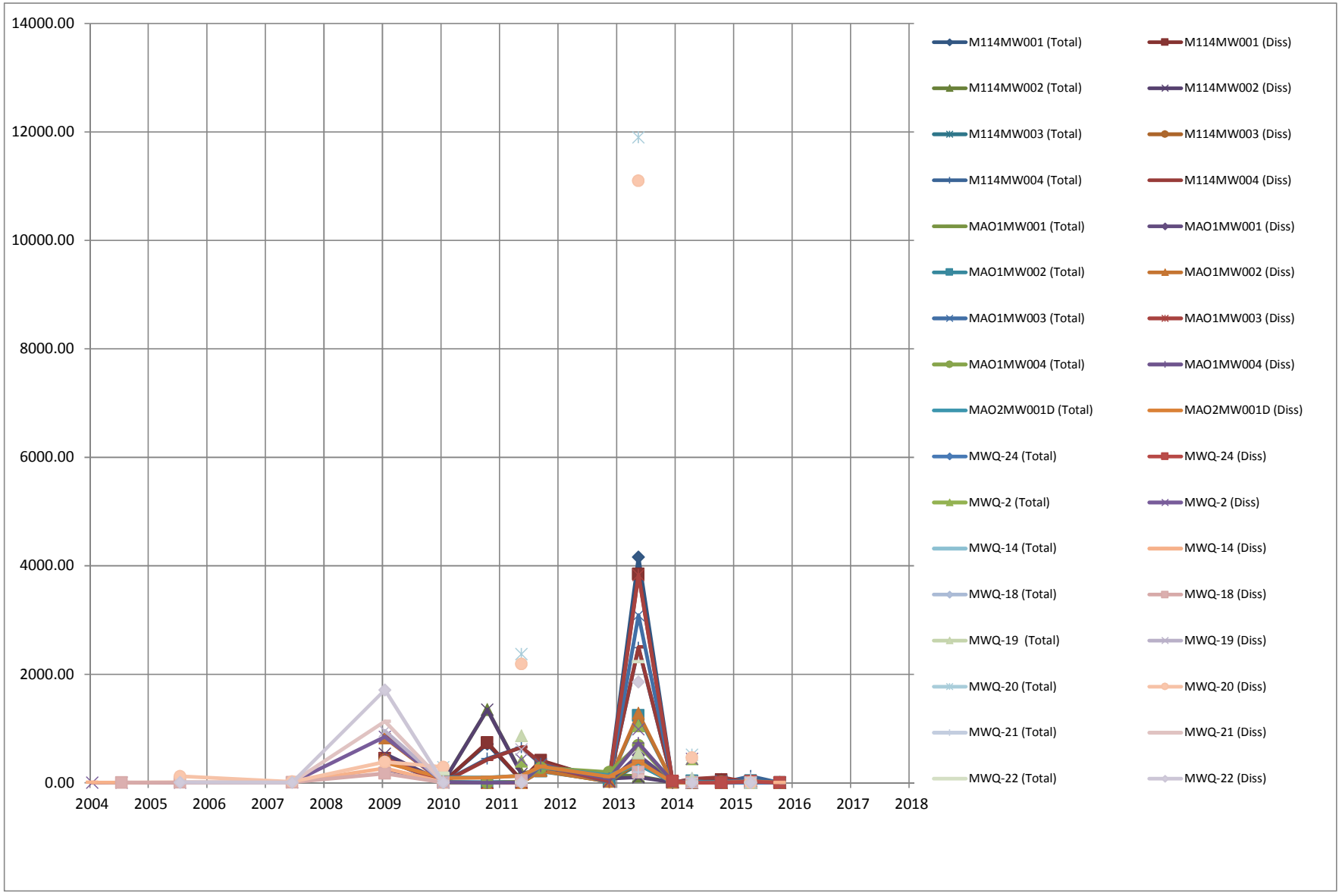


TABLE 6z
ZINC

TABLE 6z
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

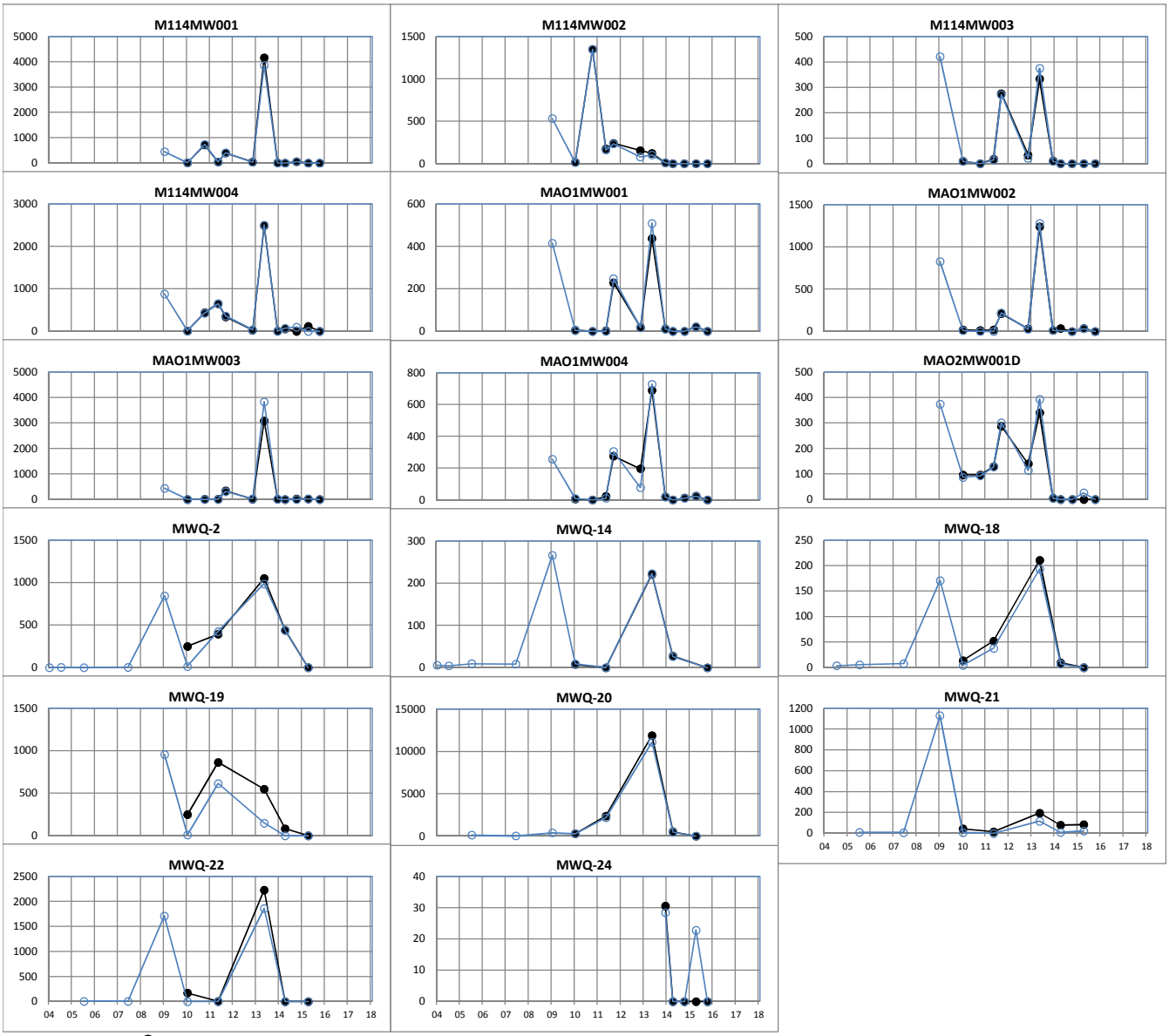


TABLE 6z
ZINC

TABLE 6aa
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09										
Jan-10	83	72	61	67	180	180	160	200	150	
Oct-10	91.5	81	52	67.9	168	175	160	205	171	
May-11	79.1	69.2	44.5	56.6	169	171	161	192	130	
Sep-11	79.4	79.8	53.5	59.3	172	180	152	200	142	
Nov-12	94.3	78.7	48.6	72.9	166	180	166	192	157	
May-13	78.0	63.9	48.5	61.3	173	191	159	201	149	
Dec-13	78.7	62.2	54.1	68.4	179	189	159	201	125	216
Apr-14	64.8	66.7	56.9	64.5	169	191	159	196	128	218
Oct-14	96.2	74.1	76.9	85.5	177	186	163	196	145	212
Apr-15	55.5	76.8	97.8	65.3	188	200	171	199	152	233
Oct-15	107.0	86.5	68.2	83.7	175	190	162	197	151	210
Min	56	62	45	57	166	171	152	192	125	210
Max	107	87	98	86	188	200	171	205	171	233
Average	83	74	60	68	174	185	161	198	145	218

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	82	140					
Jul-04	67	140	170				
Jul-05	68.9	133.5	166.9		52.7	206.2	139.9
Jun-07	66	130	160		51	230	170
Jan-09	93.7	212	197	455	64.8	306	99.8
Jan-10	82	140	170	370	66		
Oct-10							
May-11	83.1	133	161	302	55.7	244	147
Sep-11							
Nov-12							
May-13	89.1	147	170	236	60.7	246	77
Dec-13							
Apr-14	95.9	155	172	399	76.3	236	177
Oct-14							
Apr-15	101.0		184	542	77.8	253	198
Oct-15		151					
Min	66	130	160	236	51	206	77
Max	101	212	197	542	78	306	198
Average	83	148	172	384	63	246	144

Notes:
Data in mg/L
No applicable screening criteria
Red indicates exceedance
Blank cells indicate no data

TABLE 6aa
ALKALINITY

TABLE 6aa
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

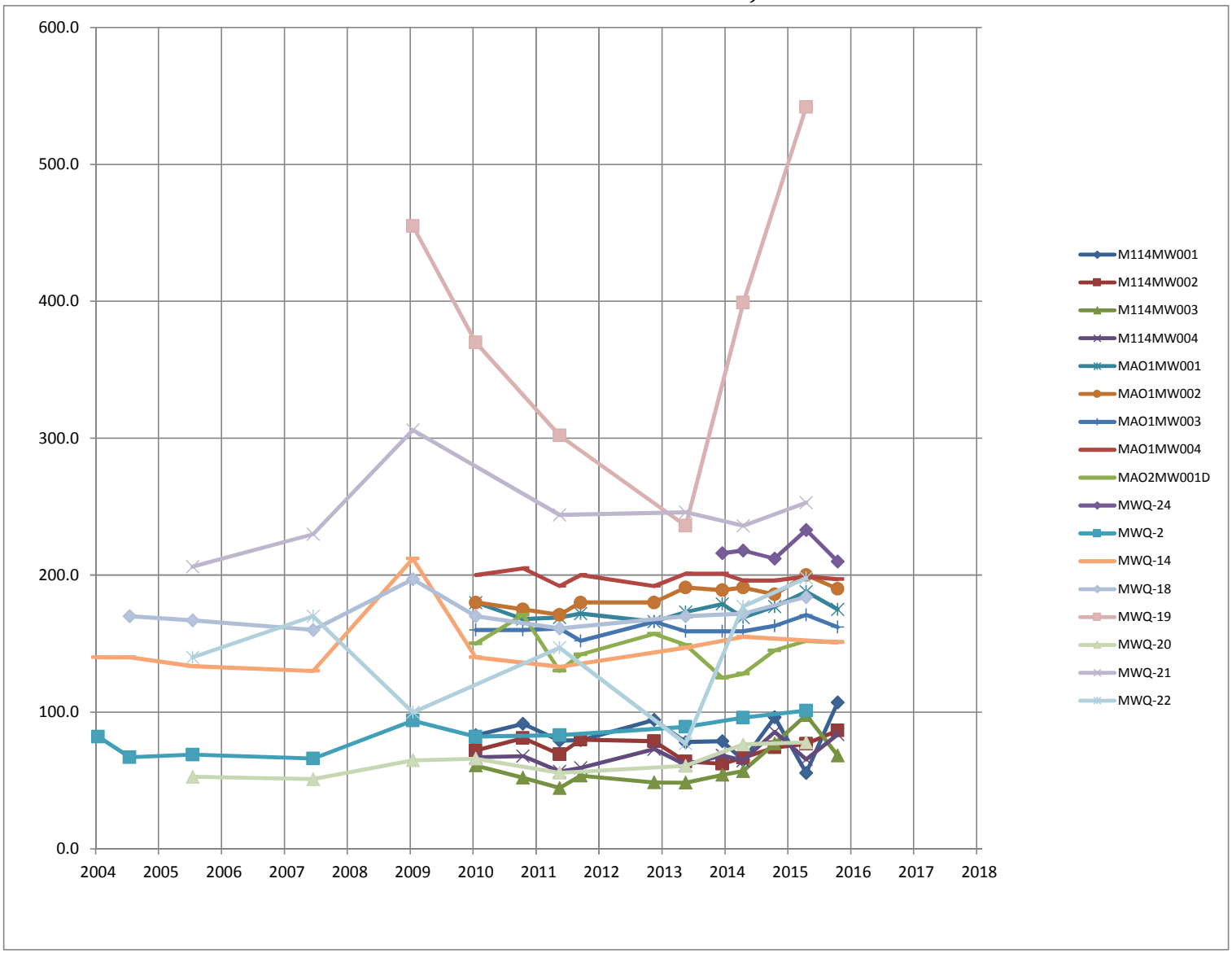
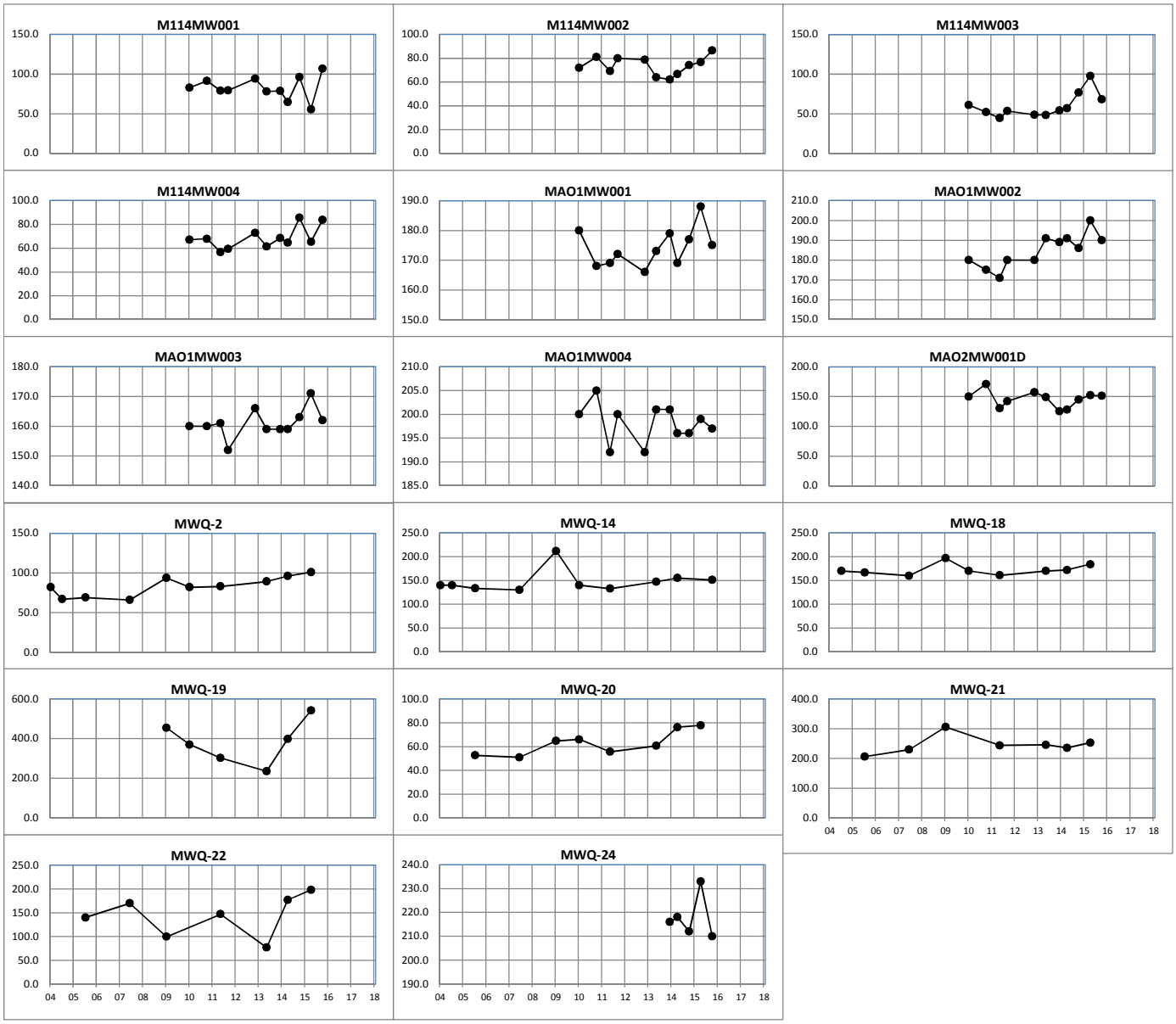


TABLE 6aa
ALKALINITY

TABLE 6aa
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 6aa
ALKALINITY

TABLE 6ab
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	**3,870**	**3,340**	**4,050**	**3,960**	**571**	**449**	**480**	**267**	**2,120**	
Jan-10	**3,000**	**3,200**	**4,100**	**4,100**	**630**	**470**	**500**	**270**	**1,500**	
Oct-10	**3,290**	**3,180**	**4,280**	**3,530**	**581**	**461**	**506**	238	**1,410**	
May-11	**3,280**	**3,660**	**4,550**	**4,180**	**651**	**473**	**537**	**269**	**2,190**	
Sep-11	**3,060**	**3,130**	**3,920**	**3,970**	**525**	**431**	**477**	**251**	**1,640**	
Nov-12	**3,320**	**3,610**	**4,590**	**4,400**	**501**	**511**	**531**	**276**	**1,780**	
May-13	**3,620**	**4,140**	**4,410**	**4,070**	**577**	**461**	**525**	**264**	**2,090**	
Dec-13	**3,940**	**4,220**	**4,810**	**4,260**	**572**	**403**	**563**	239	**2,770**	5.36
Apr-14	**3,750**	**3,800**	**4,080**	**3,930**	**563**	**439**	**529**	**270**	**2,190**	5.87
Oct-14	**3,100**	**2,120**	**4,180**	**4,010**	**523**	**443**	**477**	**255**	**2,290**	5.39
Apr-15	**3,250**	**3,740**	**3,940**	**3,360**	**560**	**438**	**484**	**257**	**1,920**	5
Oct-15	**2,980**	**3,570**	**3,900**	**3,720**	**444**	**451**	**502**	**280**	**1,890**	5
Min	2980	2120	3900	3360	444	403	477	238	1410	4.55
Max	3940	4220	4810	4400	651	511	563	280	2770	5.87
Average	3372	3476	4234	3958	558	453	509	261	1983	5.22

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	**3,200**	**470**					
Jul-04	**3,300**	**480**	45				
Jul-05	**3,500**	**650**	41		**2,700**	180	**280**
Jun-07	**3,400**	**640**	39		**5,900**	150	**290**
Jan-09							
Jan-10	**3,300**	**630**	35	**1,800**	**5,500**	120	**770**
Oct-10							
May-11	**3,310**	**715**	40.3	**2,050**	**6,010**	121	**342**
Sep-11							
Nov-12							
May-13	**3,620**	**599**	**626.0**	**2,150**	**6,160**	111	**845**
Dec-13							
Apr-14	**3,440**	**686**	37.6	**1,850**	**6,260**	113	**388**
Oct-14							
Apr-15	**3,260**		32.1	**1,520**	**5,490**	96	**320**
Oct-15		**600**					
Min	3200	470	32	1520	2700	96	280
Max	3620	715	626	2150	6260	180	845
Average	3370	608	112	1874	5431	127	462

Notes:
Data in mg/L
NMAC 20.6.2.3103 Screening Level: 250 mg/L
Red indicates exceedance
Blank cells indicate no data

TABLE 6ab
CHLORIDE

TABLE 6ab
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

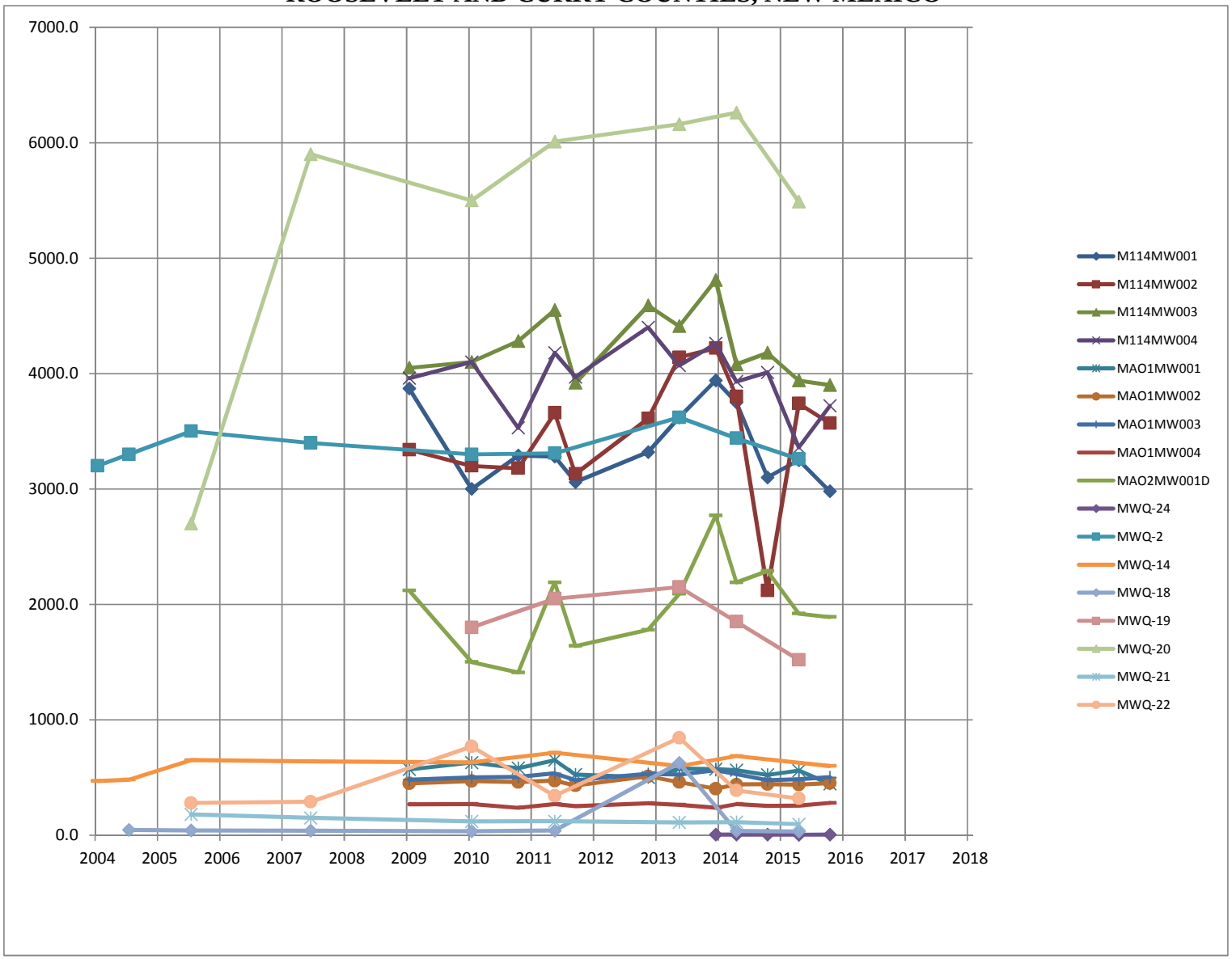
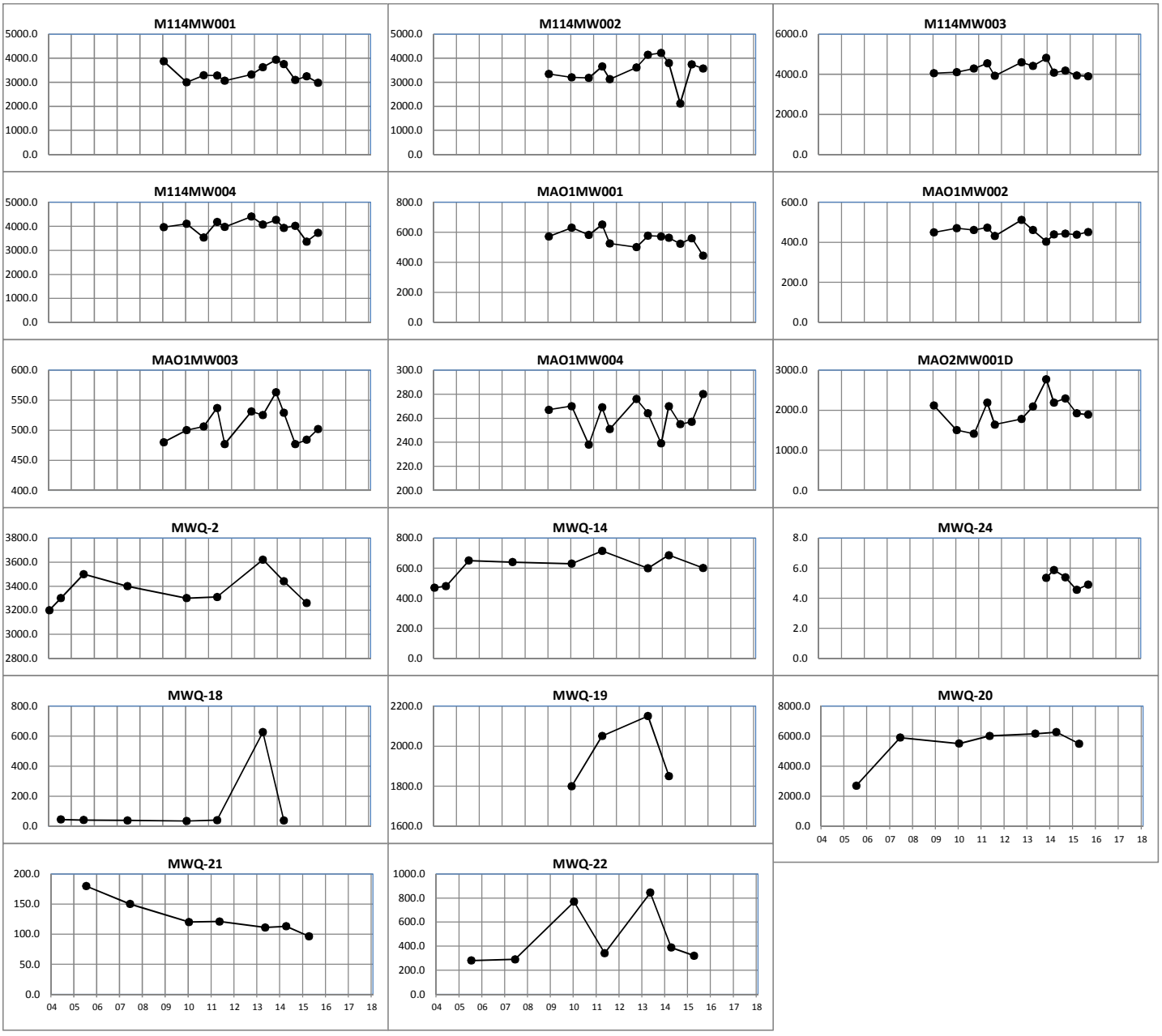


TABLE 6ab
CHLORIDE

TABLE 6ab
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 6ab
CHLORIDE

TABLE 6ac
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09										
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
Oct-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.0013	<D.L.	
Sep-11	<D.L.	<D.L.	0.0009	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
Nov-12	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.0005	
Dec-13	<D.L.	0.0007	0.0006	<D.L.	<D.L.	<D.L.	<D.L.	0.0007	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	0.0011	<D.L.	0.0033	0.0008	<D.L.	<D.L.
Oct-14	0.0023	0.0013	0.0005	0.0007	0.0015	0.0014	0.0025	0.0020	<D.L.	0.0014
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.0024
Oct-15	0.0020	0.0030	0.002	0.0020	0.0020	0.0020	<D.L.	<D.L.	0.0020	0.0020
Min	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max	0.002	0.003	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002
Average	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04							
Jul-04							
Jul-05							
Jun-07							
Jan-09							
Jan-10	<D.L.	0.0026	0.0051	0.0067	0.0041	0.0024	0.0029
Oct-10							
May-11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Sep-11							
Nov-12							
May-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.0007
Dec-13							
Apr-14	0.0040	0.0029	0.0022	0.0017	0.0032	0.0031	0.0008
Oct-14							
Apr-15	<D.L.		0.0015	<D.L.	<D.L.	0.0007	<D.L.
Oct-15		<D.L.					
Min	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max	0.004	0.003	0.005	0.007	0.004	0.003	0.003
Average	0.001	0.001	0.002	0.002	0.001	0.001	0.001

Notes:

Data in mg/L

NMAC 20.6.2.3103 Screening Level: 0.20 mg/L

Red indicates exceedance

Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6ac
CYANIDE

TABLE 6ad
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09										
Jan-10	1.4	0.59	1.1	1.0	0.35	0.50	0.26	0.93	6.4	
Oct-10	1.11	0.569	1.06	0.772	0.306	0.545	0.258	0.768	6.08	
May-11	0.901	0.375	0.719	0.90	0.233	0.325	0.163	0.615	1.560	
Sep-11	0.899	0.245	0.430	0.511	0.116	0.207	0.085	0.339	1.71	
Nov-12	1.190	0.528	0.988	0.825	0.290	0.443	0.214	0.732	5.05	
May-13	1.340	0.293	1.140	0.834	0.320	0.452	0.207	0.981	6.11	
Dec-13	0.925	0.226	0.843	0.538	0.249	0.411	0.175	0.672	2.40	2.22
Apr-14	0.965	0.224	0.723	0.532	0.209	0.368	0.150	0.504	2.24	1.88
Oct-14	1.260	0.371	1.080	0.857	0.289	0.458	0.222	0.811	3.56	3.76
Apr-15	2.780	2.060	2.570	2.460	0.676	0.528	0.612	1.050	4.59	2.96
Oct-15	4.220	<D.L.	4.110	3.750	0.993	1.080	0.922	0.995	6.71	2.96
Min	0.90	0.00	0.43	0.51	0.12	0.21	0.09	0.34	1.56	1.88
Max	4.22	2.06	4.11	3.75	0.99	1.08	0.92	1.05	6.71	3.76
Average	1.54	0.50	1.34	1.18	0.37	0.48	0.30	0.76	4.22	2.76

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04							
Jul-04							
Jul-05							
Jun-07							
Jan-09	<D.L.	2.630	0.534	0.627	0.110	1.860	0.873
Jan-10	<D.L.	2.6	0.49	<D.L.	<D.L.	2.4	<D.L.
Oct-10							
May-11	0.244	1.59	0.372	<D.L.	<D.L.	2.44	0.309
Sep-11							
Nov-12							
May-13	0.237	2.74	0.513	<D.L.	<D.L.	3.90	<D.L.
Dec-13							
Apr-14	0.157	1.29	0.298	<D.L.	0.030	1.47	<D.L.
Oct-14							
Apr-15	<D.L.		0.494	<D.L.	<D.L.	3.30	<D.L.
Oct-15		2.50					
Min	0.00	1.29	0.30	0.00	0.00	1.47	0.00
Max	0.24	2.74	0.53	0.63	0.11	3.90	0.87
Average	0.11	2.23	0.45	0.10	0.02	2.56	0.20

Notes:
Data in mg/L
NMAC 20.6.2.3103 Screening Level: 10 mg/L
Red indicates exceedance
Blank cells indicate no data

TABLE 6ad
NITRATE

TABLE 6ad
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

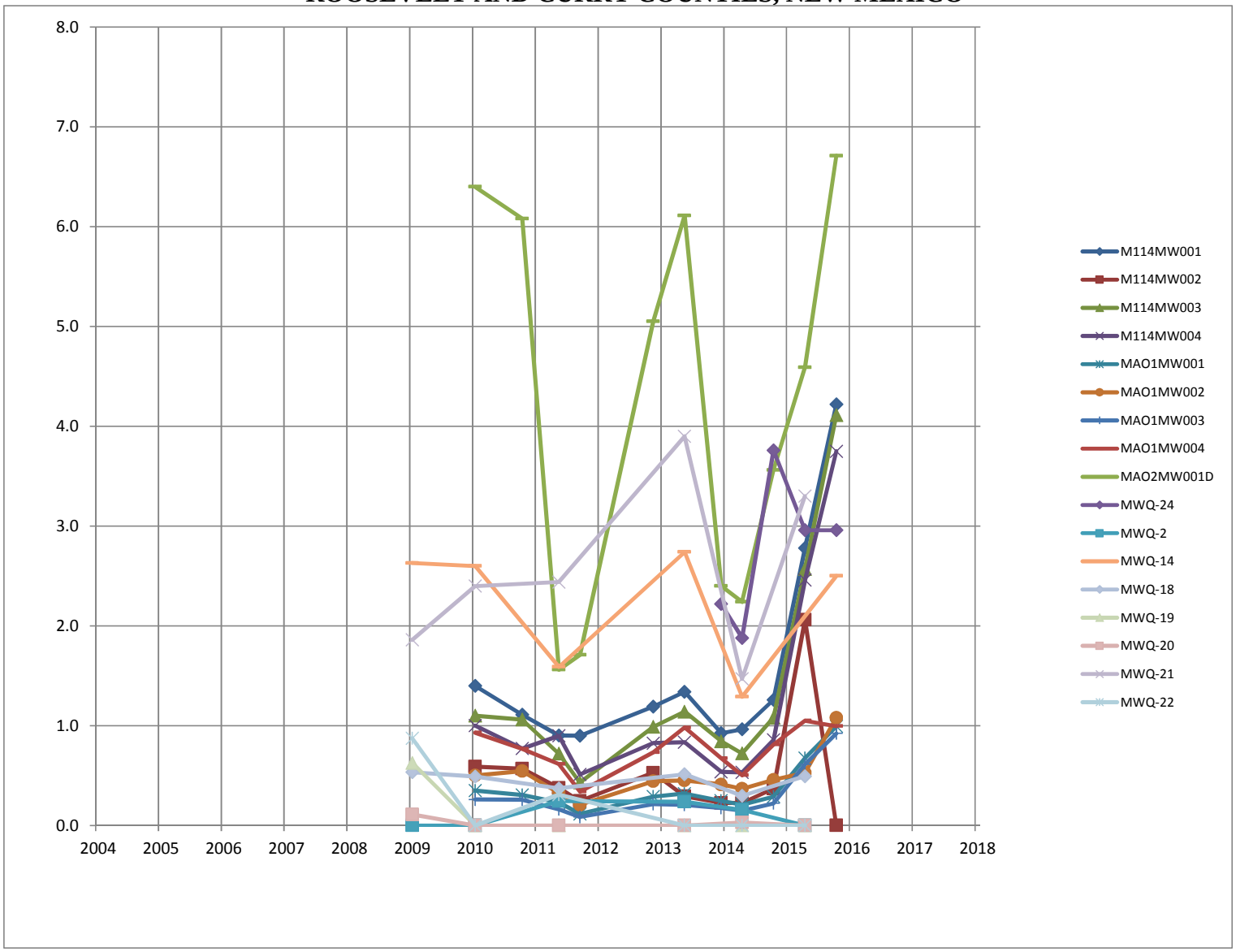
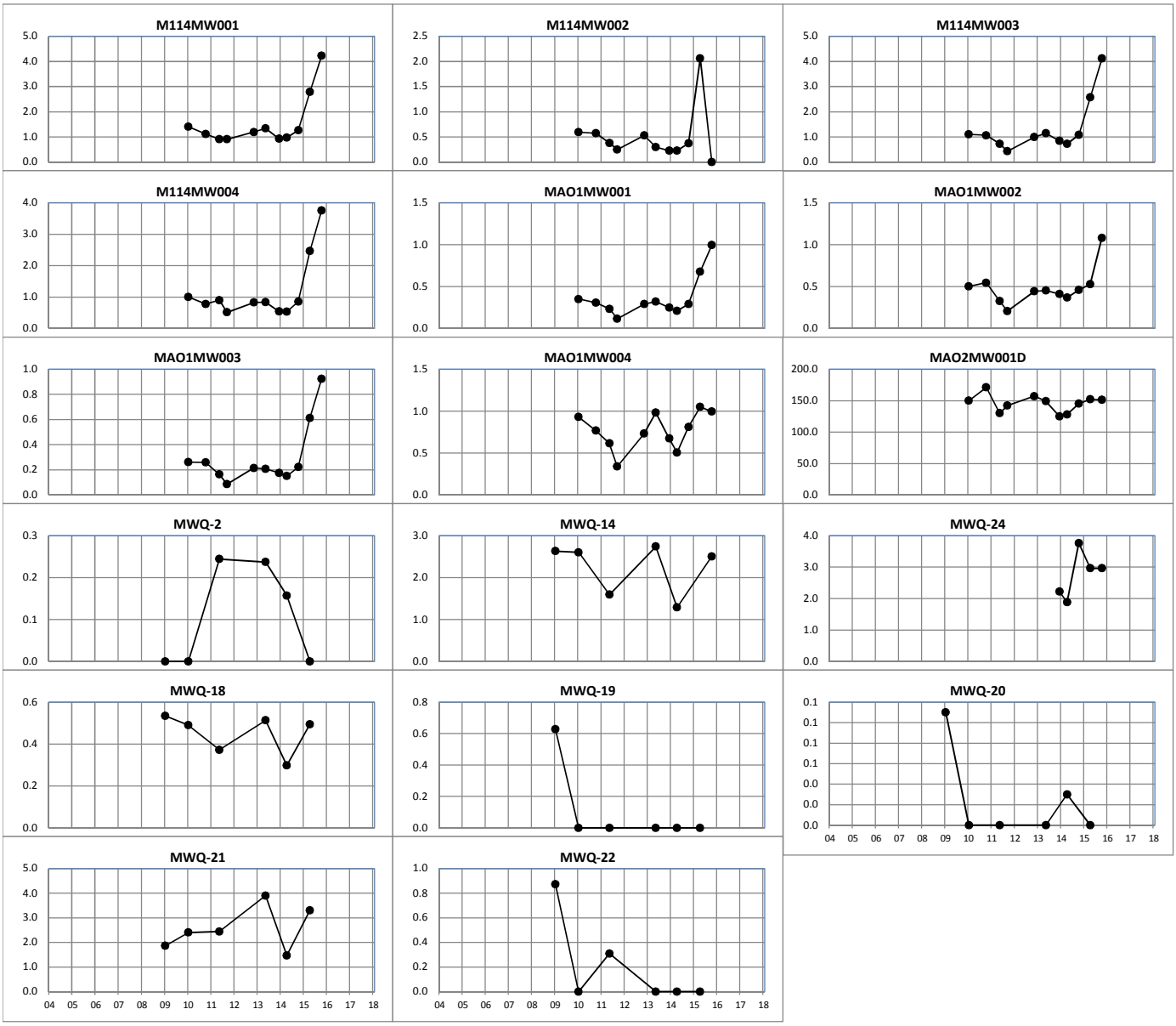


TABLE 6ad
NITRATE

TABLE 6ad
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 6ad
NITRATE

TABLE 6ae
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09										
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
Oct-10	0.015	0.006	<D.L.	0.017	<D.L.	<D.L.	0.004	<D.L.	0.047	
May-11	<D.L.	0.004	0.004	0.004	0.004	<D.L.	<D.L.	<D.L.	0.004	
Sep-11	<D.L.	<D.L.	0.005	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.035	
Nov-12	0.016	0.019	0.018	0.020	0.009	<D.L.	0.011	0.011	0.015	
May-13	<D.L.	<D.L.	<D.L.	0.006	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	
Dec-13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Apr-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	0.008	<D.L.	<D.L.	<D.L.	<D.L.
Apr-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Min	0	0	0	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04							
Jul-04							
Jul-05							
Jun-07							
Jan-09							
Jan-10	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-10							
May-11	<D.L.	<D.L.	<D.L.	0.007	0.006	0.008	0.011
Sep-11							
Nov-12							
May-13	0.004	0.003	0.006	<D.L.	0.010	0.004	0.005
Dec-13							
Apr-14	<D.L.	<D.L.	<D.L.	0.006	0.022	<D.L.	<D.L.
Oct-14							
Apr-15	<D.L.		<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
Oct-15		<D.L.					
Min	0	0	0	0	0	0	0
Max	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0

Notes:
Data in mg/L
USEPA Drinking Water MCL: 1 mg/L
Red indicates exceedance
Blank cells indicate no data

Due to a preponderance of no detects trends are not plotted

TABLE 6ae
NITRITE

TABLE 6af
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network																			
	SWMU 114								SWMU 130								SWMU 131			
	M114MW001		M114MW002		M114MW003		M114MW004		MAO1MW001		MAO1MW002		MAO1MW003		MAO1MW004		MAO2MW001D		MWQ-24	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04																				
Jul-04																				
Jul-05																				
Jun-07																				
Jan-09	2.9		2.8		4.4		2.0		0.3		2.0		0.4		4.2		19.0			
Jan-10	3.4		2.7		4.0		2.9		0.30		1.7		0.37		4.3		21			
Oct-10	<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		<D.L.		23.9			
May-11	3.27		2.80		4.10		2.79		0.369		2.05		1.03		9.8		22.4			
Sep-11	3.14	2.70	2.78	2.77	4.06	3.29	3.21	2.54	3.57	2.66	1.88	1.49	4.13	2.98	4.07	3.53	23.8	19.6		
Nov-12	3.13		28.2		3.92		2.92		0.409		1.40		0.395		13.10		21.5			
May-13	4.46		1.91		4.26		2.72		0.41		1.88		0.429		4.83		23.50			
Dec-13	3.47		2.06		4.02		2.80		0.37		2.08		0.415		4.80		21.20		0.19	
Apr-14	1.93		1.39		2.27		1.49		0.17		1.42		0.2		2.38		11.20		<D.L.	
Oct-14	3.01		2.29		3.38		2.33		0.31		1.51		0.335		3.81		14.90		0.14	
Apr-15	0.003		0.0002		0.004		0.0002		0.0003		0.0019		0.0003		0.0037		0.0143		0.0001	
Oct-15	0.00		0.00		0.00		0.00		0.00		0.00		0.000		0.00		0.01		0.00	
Min	0.0	2.7	0.0	2.8	0.0	3.3	0.0	2.5	0.0	2.7	0.0	1.5	0.0	3.0	0.0	3.5	0.0	19.6	0.0	
Max	4.5	2.7	28.2	2.8	4.4	3.3	3.2	2.5	3.6	2.7	2.1	1.5	4.1	3.0	13.1	3.5	23.9	19.6	0.2	
Avg	2.4	2.7	3.9	2.8	2.9	3.3	1.9	2.5	0.5	2.7	1.3	1.5	0.6	3.0	4.3	3.5	16.9	19.6	0.1	

DATE	Annual Network													
	MWQ-2		MWQ-14		MWQ-18		MWQ-19		MWQ-20		MWQ-21		MWQ-22	
	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss	Total	Diss
Jan-04	<D.L.		4.3											
Jul-04	<D.L.		3.5		5.9									
Jul-05														
Jun-07	<D.L.		4.8		5.4				<D.L.		7.0		1.5	
Jan-09														
Jan-10	<D.L.		4.6		4.7		<D.L.		0.033		7.4		<D.L.	
Oct-10														
May-11	0.198		4.52		10.8		0.198		0.495		8.27		1.48	
Sep-11														
Nov-12														
May-13	0.495		5.15		5.14		0.64		0.56		10.50		0.10	
Dec-13														
Apr-14	<D.L.		2.80		2.83		<D.L.		<D.L.		5.59		<D.L.	
Oct-14														
Apr-15	<D.L.				0.0046		<D.L.		<D.L.		0.0092		<D.L.	
Oct-15			0.00											
Min	0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Max	0.5		5.2		10.8		0.6		0.6		10.5		1.5	
Avg	0.1		3.7		5.0		0.2		0.2		6.5		0.5	

Notes:

Data in mg/L

NMED SSL Tapwater Screening Level: 0.01382 mg/L

Red indicates exceedance

Blank cells indicate no data

TABLE 6af
PERCHLORATE

TABLE 6af
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

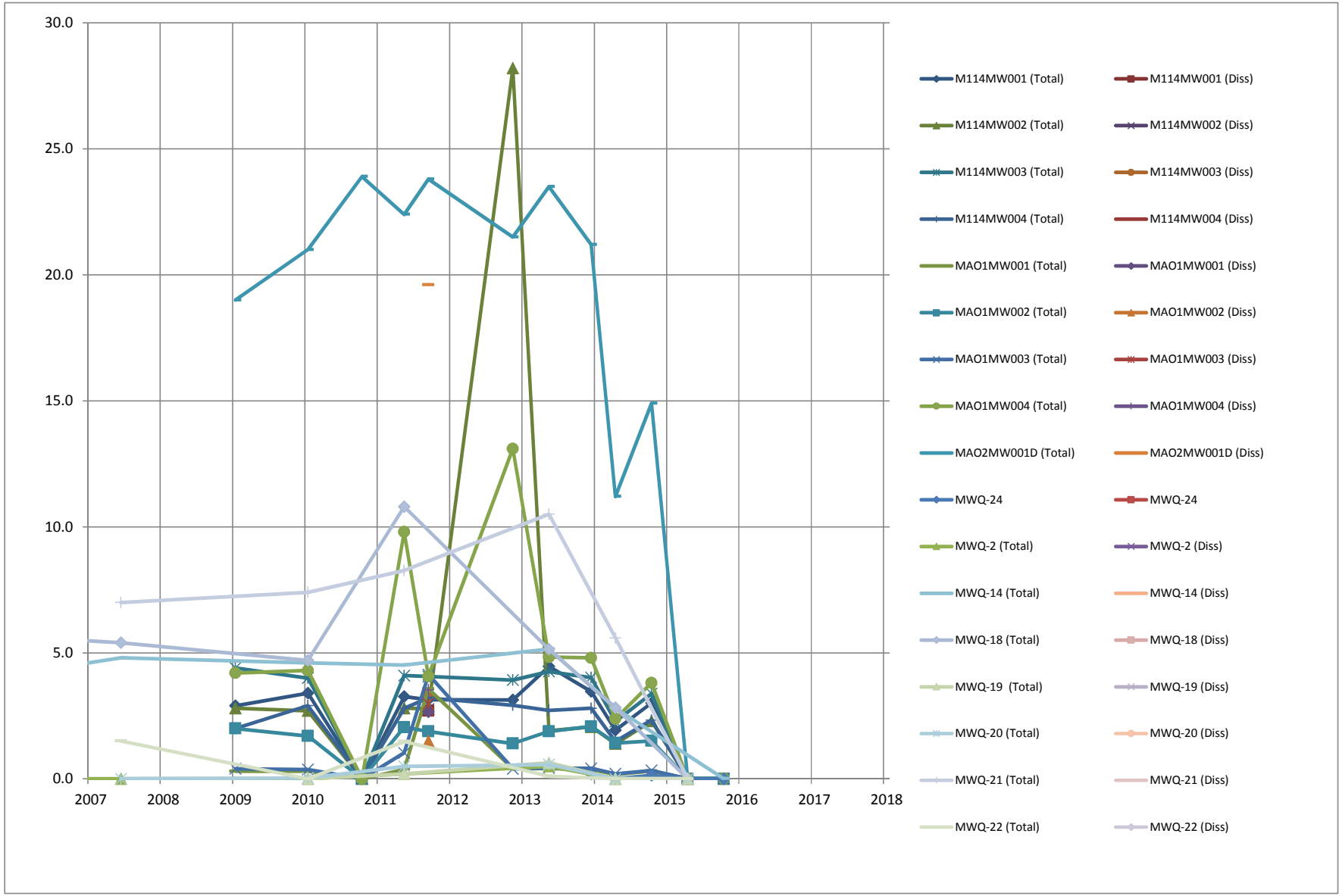


TABLE 6af
PERCHLORATE

TABLE 6af
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

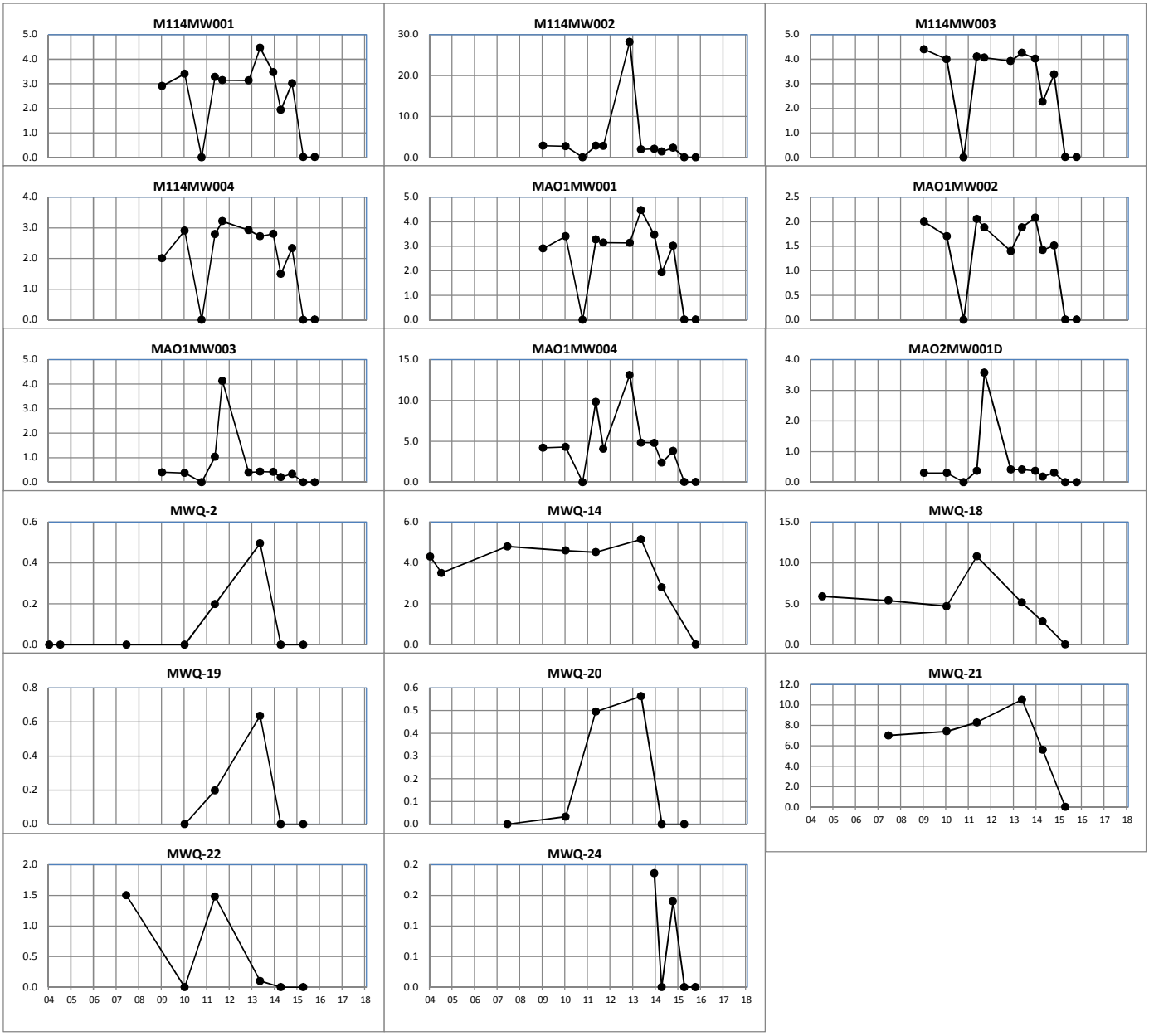


TABLE 6af
PERCHLORATE

TABLE 6ag
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09	**2,010**	**1,820**	**2,060**	**1,980**	**663**	534	552	351	**2,020**	
Jan-10	**2,000**	**1,900**	**2,300**	**2,200**	**740**	550	570	340	**1,900**	
Oct-10	**2,360**	**2,140**	**2,360**	**2,040**	**691**	**635**	**677**	376	**1,980**	
May-11	**2,140**	**2,130**	**2,460**	**2,110**	**704**	544	**616**	352	**2,130**	
Sep-11	**1,810**	**1,580**	**1,880**	**1,630**	564	514	524	329	**1,860**	
Nov-12	**2,200**	**2,200**	**2,460**	**2,290**	506	589	599	364	**2,080**	
May-13	**2,120**	**2,050**	**2,280**	**2,130**	**674**	536	592	327	**2,040**	
Dec-13	**2,120**	**1,940**	**2,410**	**2,050**	**665**	495	507	313	**2,290**	60.4
Apr-14	**2,010**	**1,980**	**2,170**	**2,040**	**678**	527	591	345	**2,070**	62.1
Oct-14	**1,990**	**1,120**	**2,240**	**2,080**	**617**	534	549	333	**2,230**	51.7
Apr-15	**2,190**	**2,130**	**2,370**	**1,940**	**682**	528	576	346	**2,070**	64.6
Oct-15	**2,050**	**2,080**	**2,330**	**2,090**	572	546	**601**	376	**2,010**	56.2
Min	1810	1120	1880	1630	506	495	507	313	1860	52
Max	2360	2200	2460	2290	740	635	677	376	2290	65
Average	2083	1923	2277	2048	646	544	580	346	2057	59

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	**1,200**	**740**					
Jul-04	**1,300**	**770**	110				
Jul-05	**1,300**	**900**	110		**730**	**730**	220
Jun-07	**1,500**	**960**	110		**1,800**	**690**	260
Jan-09							
Jan-10	**1,400**	**950**	110	**1,500**	**1,600**	570	420
Oct-10							
May-11	**1,350**	**994**	110	**1,530**	**1,630**	476	233
Sep-11							
Nov-12							
May-13	**1,410**	**961**	109	**1,380**	**1,710**	428	415
Dec-13							
Apr-14	**1,430**	**1,030**	116	**1,350**	**1,840**	424	242
Oct-14							
Apr-15	**1,520**		119	**1,100**	**1,770**	385	225
Oct-15		**912**					
Min	1200	740	109	1100	730	385	220
Max	1520	1030	119	1530	1840	730	420
Average	1379	913	112	1372	1583	529	288

Notes:
Data in mg/L
NMAC 20.6.2.3103 Screening Level: 600 mg/L
Red indicates exceedance
Blank cells indicate no data

TABLE 6ag
SULFATE

TABLE 6ag
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

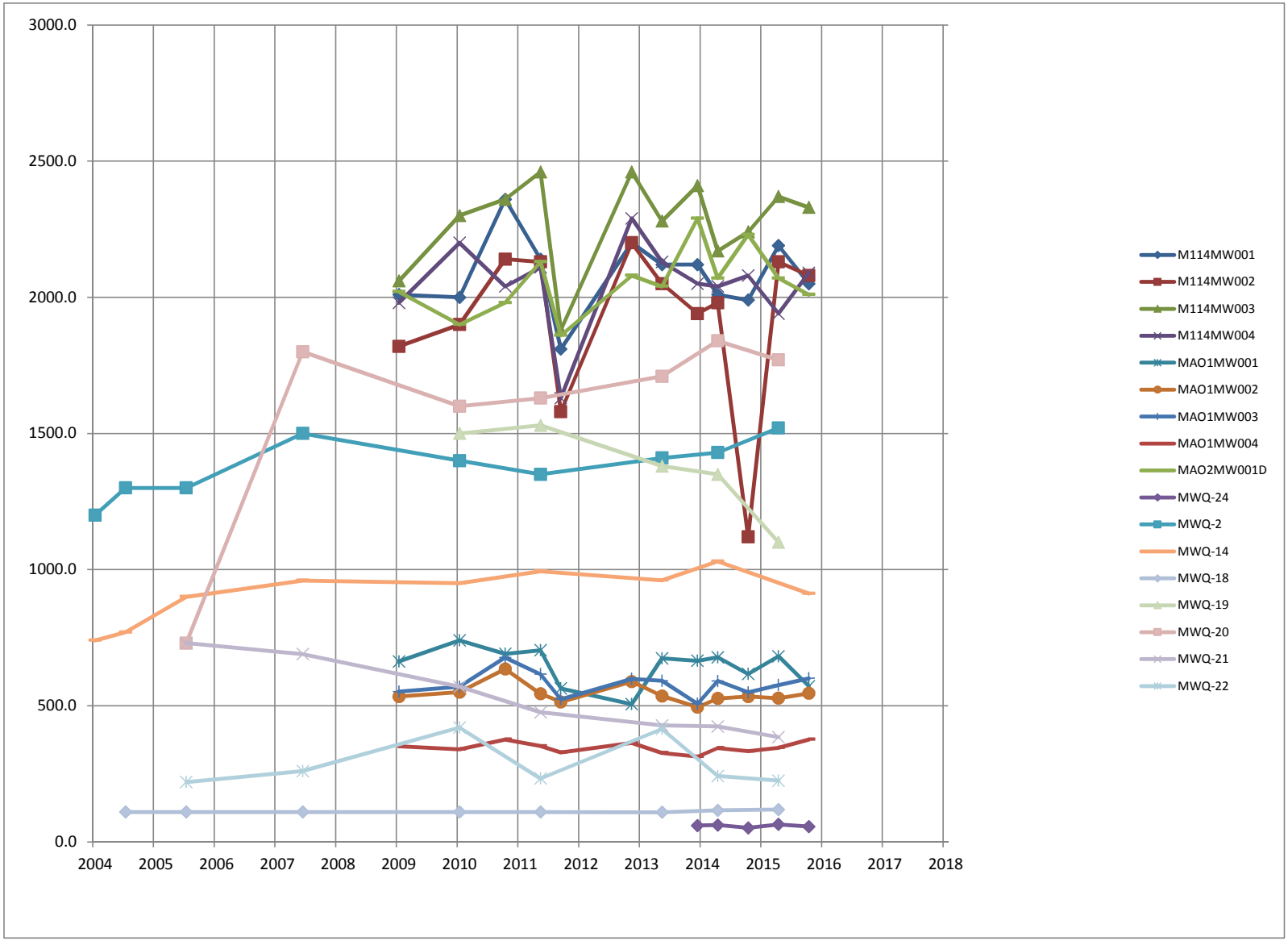
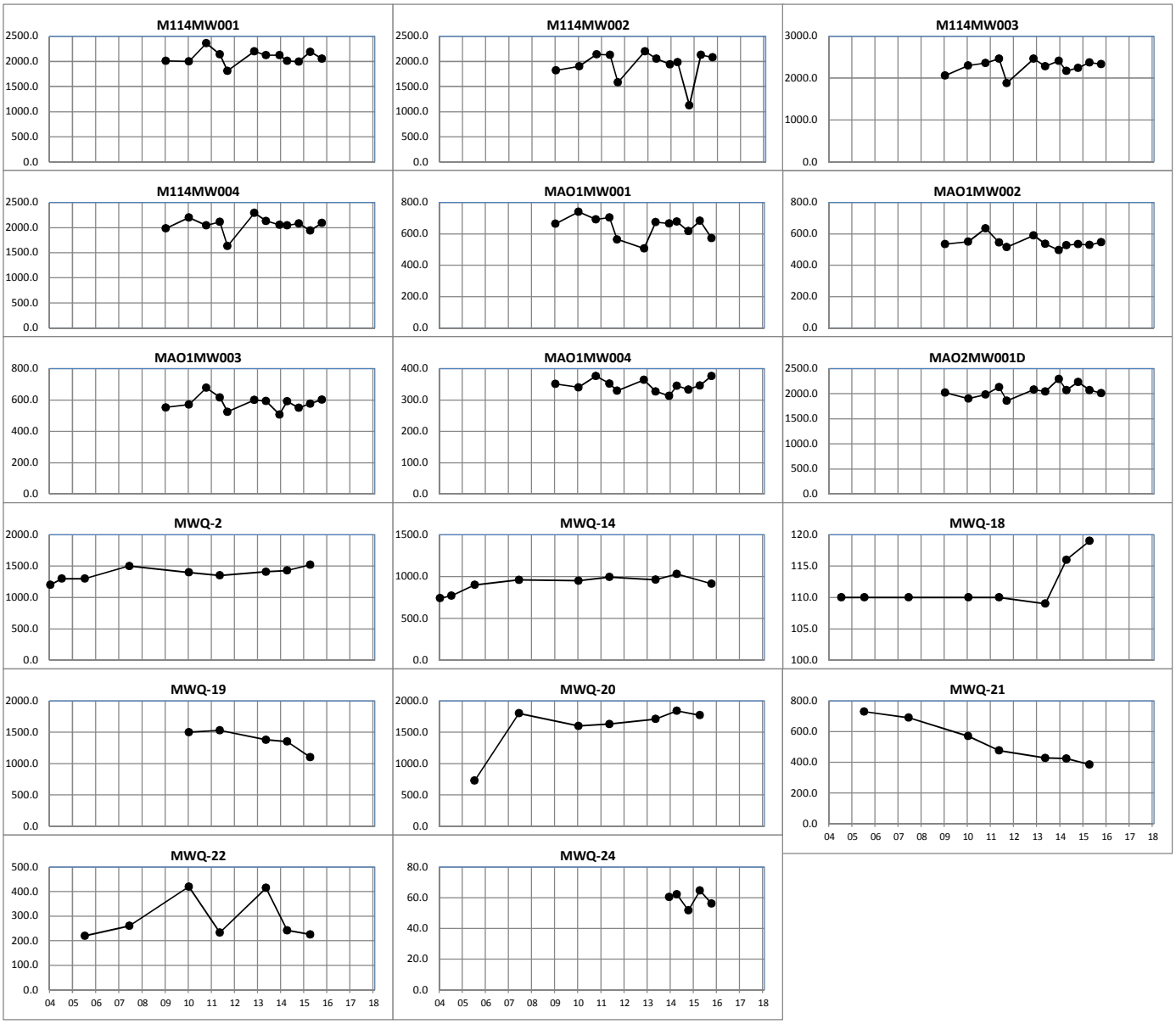


TABLE 6ag
SULFATE

TABLE 6ag
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 6ag
SULFATE

TABLE 6ah
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

DATE	Semiannual Network									
	SWMU 114				SWMU 130				SWMU 131	
	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-24
Jan-04										
Jul-04										
Jul-05										
Jun-07										
Jan-09										
Jan-10	**7,500**	**7,500**	**9,300**	**8,500**	**2,100**	**1,700**	**1,800**	**1,200**	**5,200**	
Oct-10	**7,800**	**7,980**	**8,940**	**8,830**	**2,100**	**1,780**	**1,820**	**1,110**	**5,240**	
May-11	**8,270**	**7,800**	**9,540**	**7,000**	**1,980**	**1,780**	**1,760**	**1,110**	**6,290**	
Sep-11	**7,640**	**7,610**	**9,870**	**9,500**	**1,990**	**1,720**	**1,790**	**1,130**	**5,620**	
Nov-12	**7,810**	**7,830**	**9,310**	**9,300**	**1,990**	**1,750**	**1,780**	**1,050**	**5,670**	
May-13	**8,820**	**8,890**	**9,900**	**9,460**	**1,960**	**1,780**	**1,750**	**1,140**	**5,400**	
Dec-13	**9,840**	**8,340**	**7,500**	**8,980**	**1,900**	**1,720**	**1,770**	**1,130**	**6,400**	349
Apr-14	**8,840**	**7,810**	**9,310**	**7,950**	**1,900**	**1,630**	**1,660**	888	**5,730**	270
Oct-14	**8,190**	**8,680**	**9,390**	**8,940**	**1,890**	**1,710**	**1,790**	**1,140**	**7,040**	344
Apr-15	**5,950**	**6,690**	**7,360**	**6,970**	**1,710**	**1,490**	**1,500**	922	**4,960**	230
Oct-15	**7,150**	**8,010**	**8,160**	**8,580**	**1,950**	**1,670**	**1,790**	**1,150**	**5,170**	353
Min	5950	6690	7360	6970	1710	1490	1500	888	4960	230
Max	9840	8890	9900	9500	2100	1780	1820	1200	7040	353
Average	7983	7922	8962	8546	1952	1703	1746	1088	5702	309

DATE	Annual Network						
	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Jan-04	**7,000**	**2,400**					
Jul-04	**7,400**	**2,400**	440				
Jul-05	**7,400**	**2,500**	450		**5,100**	**1,700**	910
Jun-07	**7,200**	**2,400**	470		**12,000**	**1,600**	**1,000**
Jan-09	**7,360**	**2,600**	445	**4,700**	**12,100**	**1,510**	**1,850**
Jan-10	**6,800**	**2,500**	460	**5,100**	**10,000**	**1,300**	**1,800**
Oct-10							
May-11	**7,120**	**2,670**	520	**5,500**	**11,900**	900	936
Sep-11							
Nov-12							
May-13	**6,630**	**1,940**	404	**5,360**	**11,800**	**1,030**	**1,970**
Dec-13							
Apr-14	**6,500**	**2,720**	364	**4,070**	**9,870**	970	920
Oct-14							
Apr-15	**5,920**		308	**3,650**	**9,250**	688	**1,010**
Oct-15		**2,140**					
Min	5920	1940	308	3650	5100	688	910
Max	7400	2720	520	5500	12100	1700	1970
Average	6933	2427	429	4730	10253	1212	1300

Notes:
Data in mg/L
NMAC 20.6.2.3103 Screening Level: 1000 mg/L
Red indicates exceedance
Blank cells indicate no data

TABLE 6ah
TDS

TABLE 6ah
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

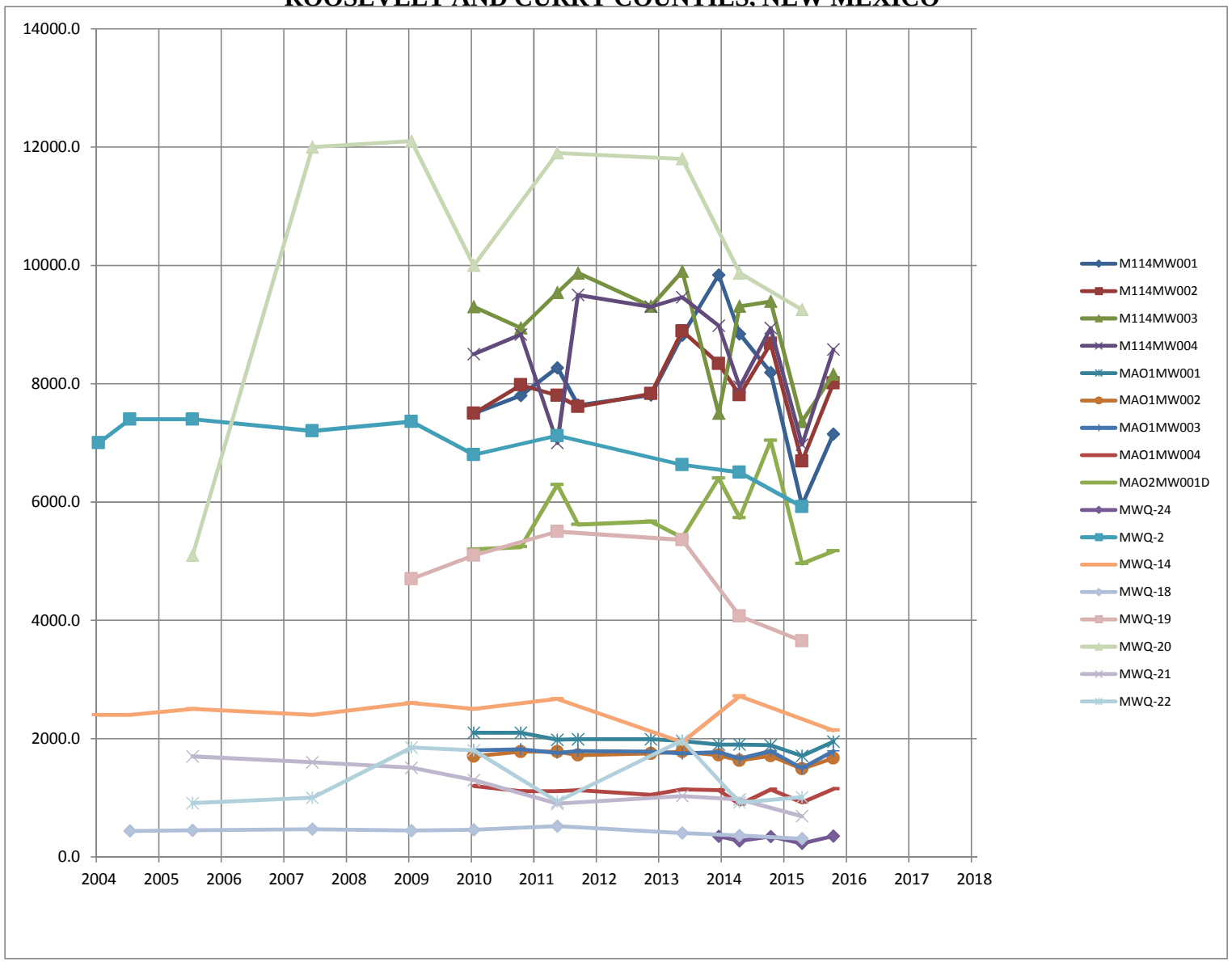
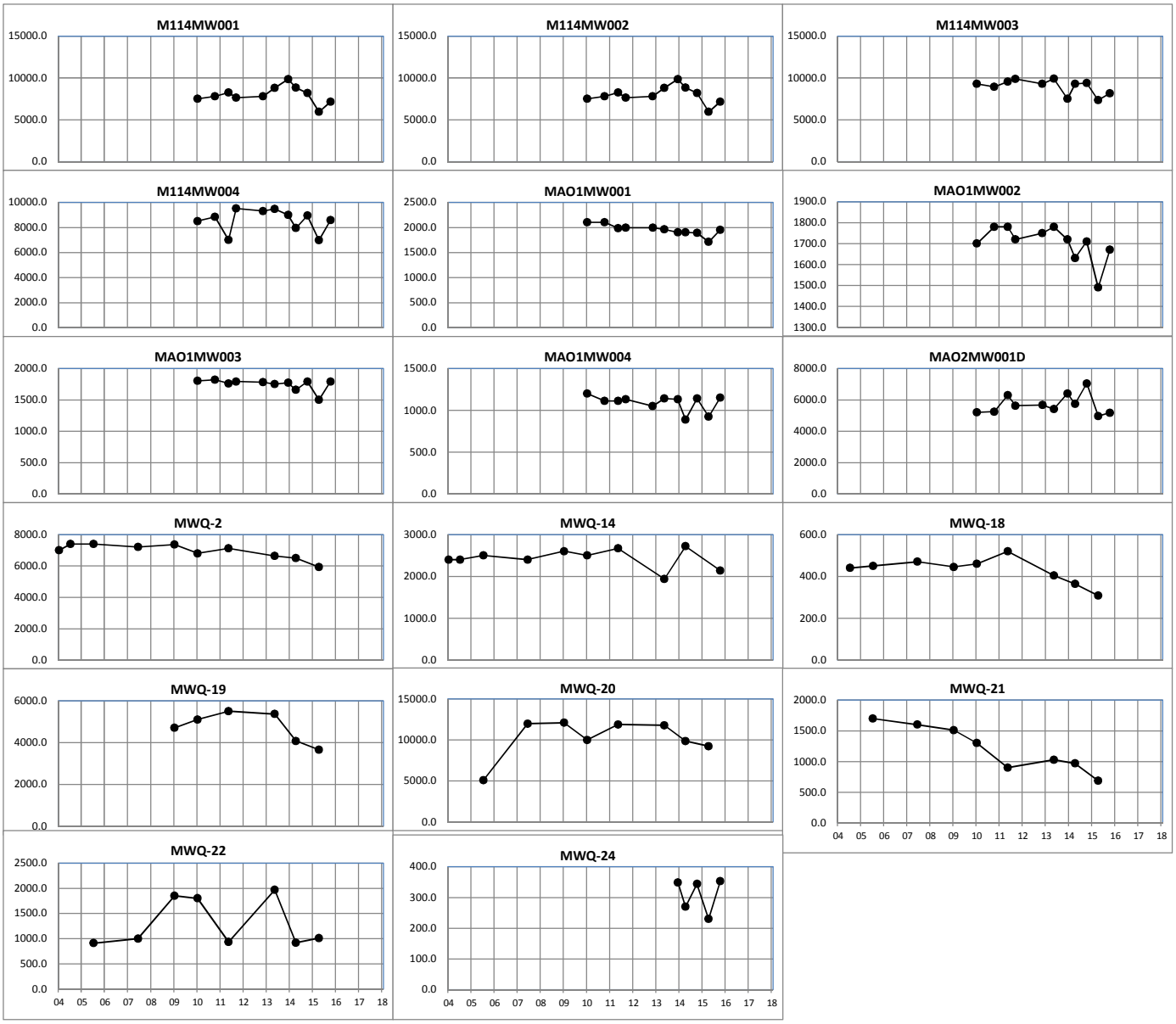


TABLE 6ah
TDS

TABLE 6ah
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO



Notes:

Data in mg/L

TABLE 6ah
TDS

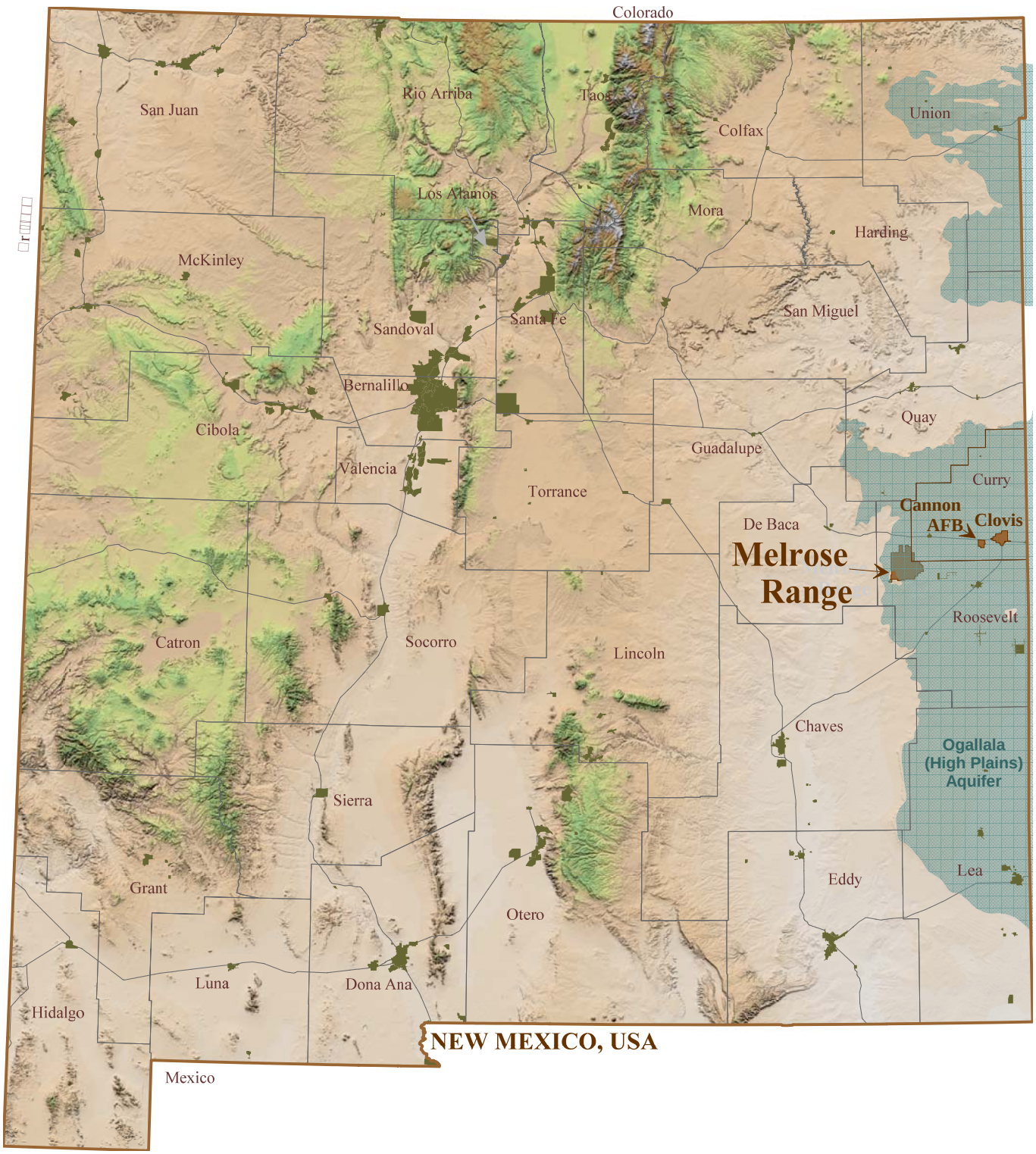
TABLE 6ai
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO

Parameter (µg/L)	NMAC 20.6.2.3103 Groundwater - Human Health	NMAC 20.6.2.3103 Groundwater - Domestic Water Supply	NMAC 20.6.2.3103 Groundwater - Irrigation Use	USEPA Drinking Water MCLs (May 2009)	NMED SSLs Tapwater Screening Levels July 2015)	Date	M114MW001	M114MW002	M114MW003	M114MW004	MAO1MW001	MAO1MW002	MAO1MW003	MAO1MW004	MAO2MW001D	MWQ-2	MWQ-14	MWQ-18	MWQ-19	MWQ-20	MWQ-21	MWQ-22
Acetone	NC	NC	NC	NC	14063.573	Oct-10			1.15	1.15					1.15							
						May-11							7.24	17.6								
						Sep-11	1.41	0.91	1.75	5.42												
						Nov-12		25.60				46.6		290								
						May-13	2.39															
						Apr-14					1.38											
Benzene	10	NC	NC	5	4.54	Jun-07											0.20			0.47		
						Nov-12		0.24						0.88								
Chloroform	100	NC	NC	NC	2.29	Jun-07														0.16		
Chloromethane	NC	NC	NC	NC	20.31	Nov-12		2.21						7.74								
1,2-Dichloroethane	10			5	1.71	Jun-07														0.13		
Methylene Chloride	100	NC	NC	5	106	Jan-10						0.33	0.50	0.33	0.50							
						Sep-11	0.89		1.37													
4-Methyl-2-pentanone	NC	NC	NC	NC	1243	Jun-07												6.90				
Toluene	750	NC	NC	1000	1090	Jun-07										0.39	0.55	2.40		0.60		0.33
						Jan-10	0.54	0.41	0.49	0.37	0.23		0.46	0.36	0.49							
						May-11	3.06	16.30	4.55	12.40	6.28	1.89			16.00							
Vinyl Chloride	1	NC	NC	2	0.201	Apr-14									0.606							

VOC data shown has been summarized from available reports. Only detected compounds are summarized.
NC= No criteria

TABLE 6ai
VOCS

FIGURES



N
W E
S
0 50
Miles

FIGURE 1
SITE LOCATION MAP
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis and Development Corp.

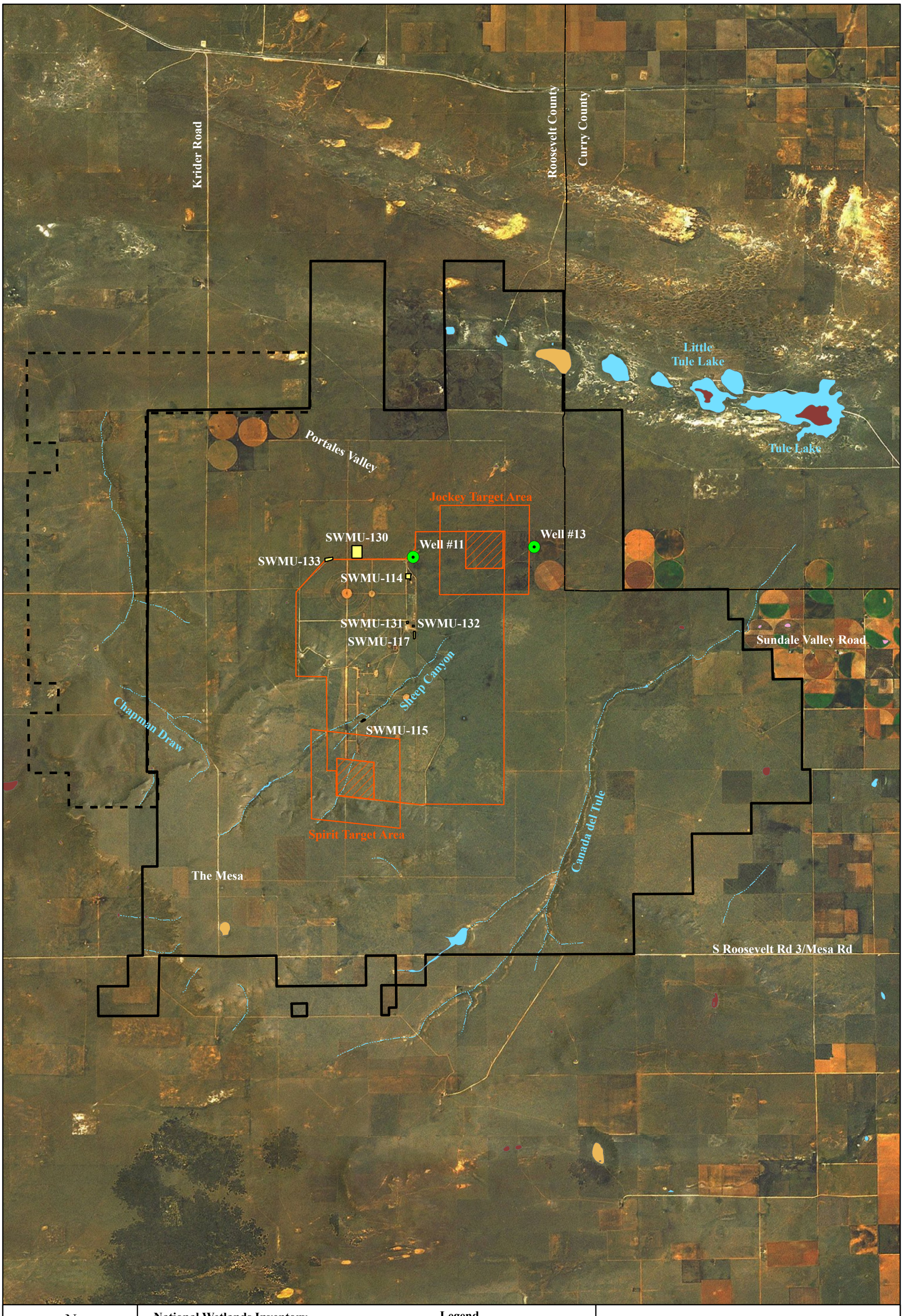


FIGURE 2
AERIAL OVERVIEW
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

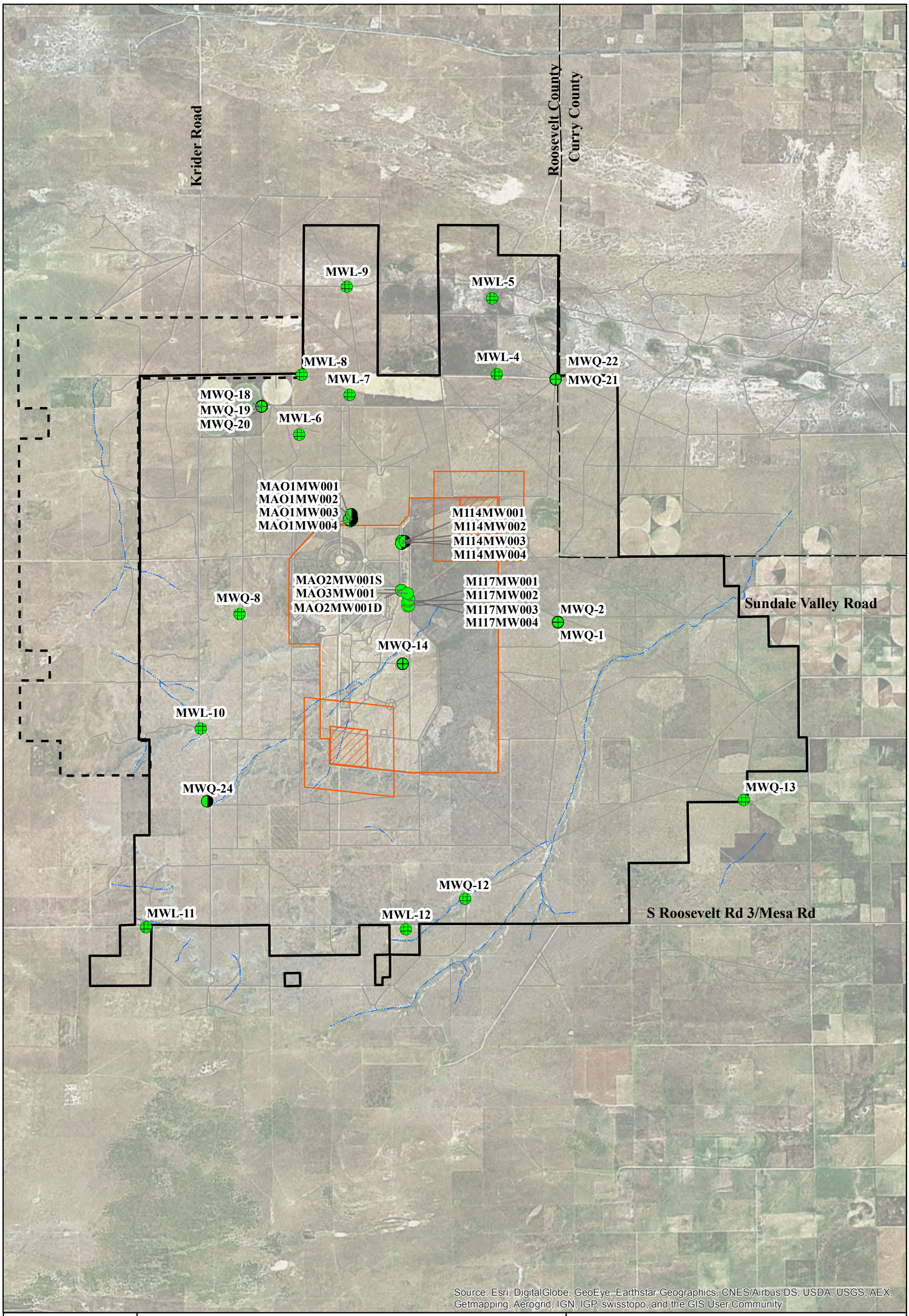
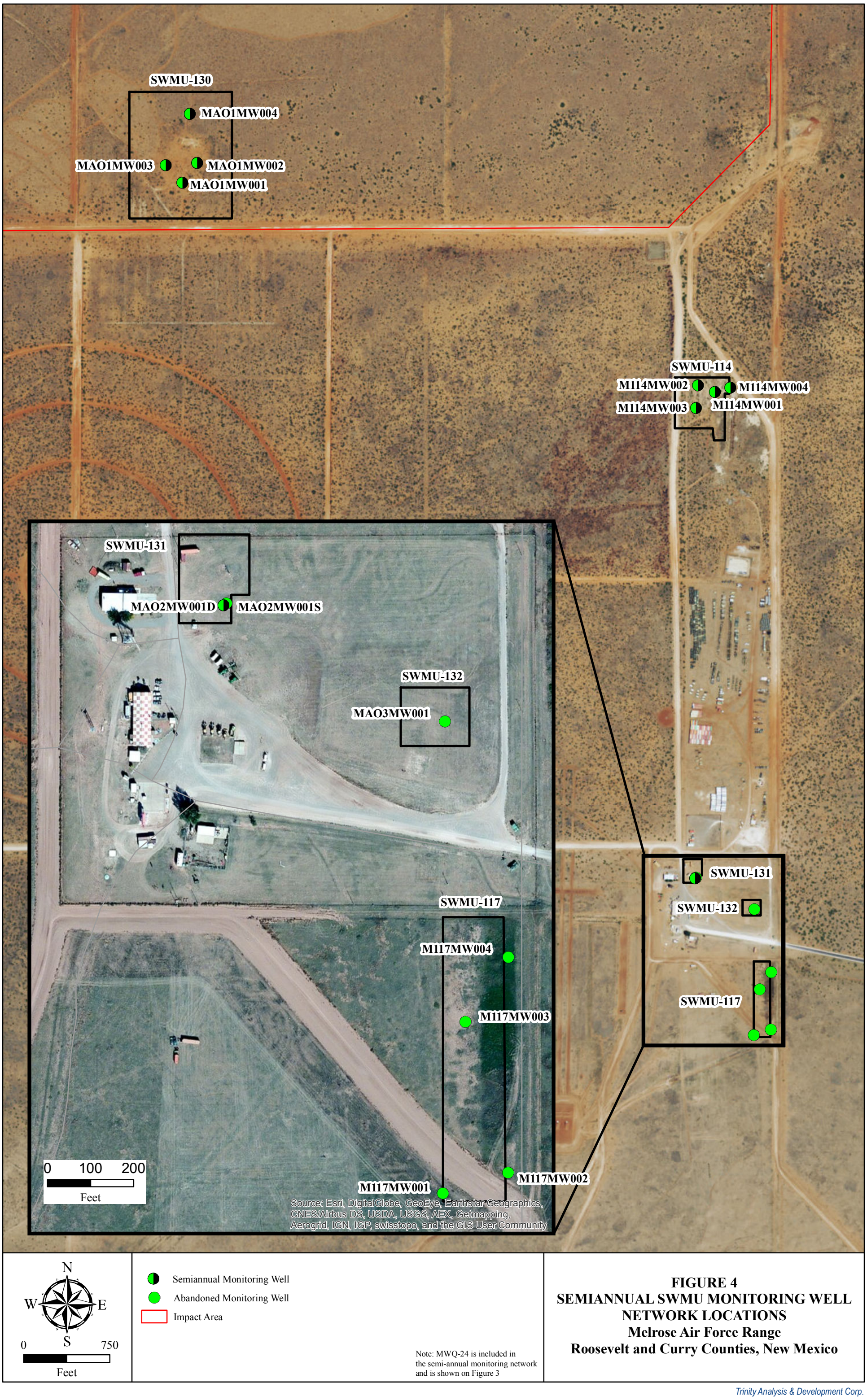


FIGURE 3
MONITORING WELL NETWORK
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

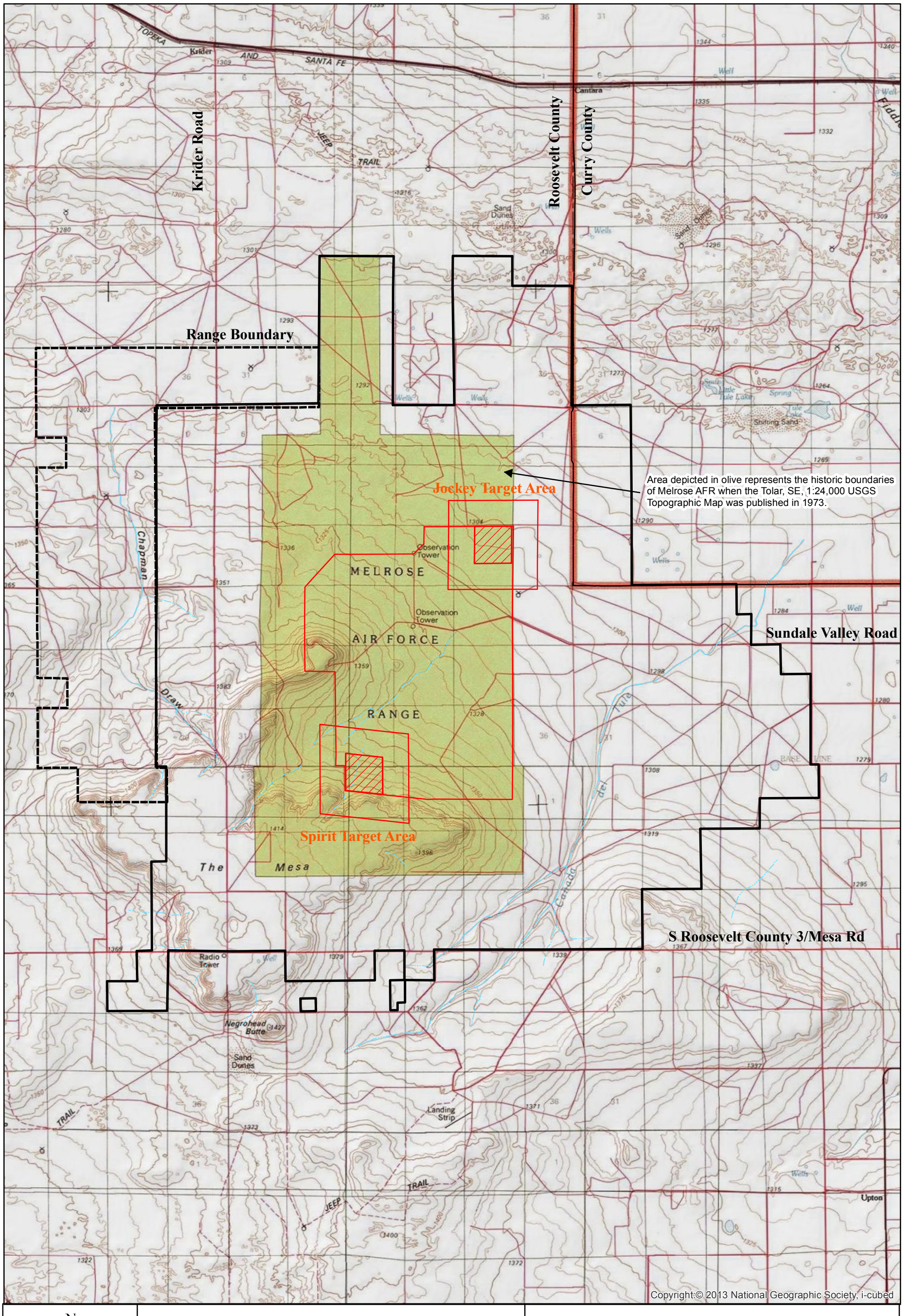


N
W E
S
0 750
Feet

Semiannual Monitoring Well
Abandoned Monitoring Well
Impact Area

Note: MWQ-24 is included in the semi-annual monitoring network and is shown on Figure 3

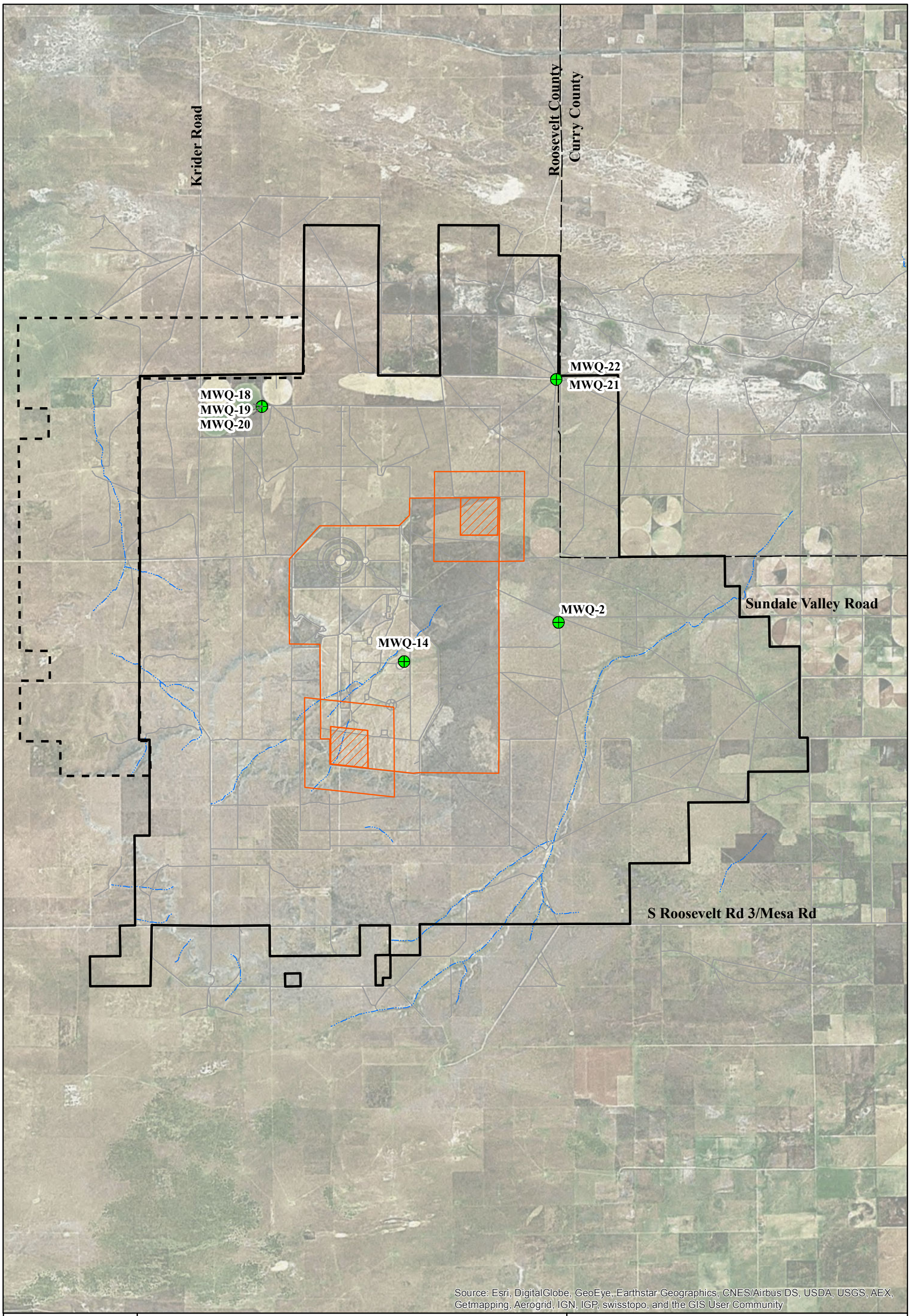
FIGURE 4
SEMIANNUAL SWMU MONITORING WELL NETWORK LOCATIONS
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico



N
W E
S
0 1.5
Miles

- Target Area
- Impact Area
- Installation Area
- Installation Area, New Mexico Land Trust
- Ephmeral Draw

FIGURE 5
USGS TOPOGRAPHIC MAP OF SITE & VICINITY
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico



N
W E
S
0 1.5
Miles

Annual Monitoring Well
Target Area
Impact Area
Installation Area, New Mexico Trust Land (to be aquired)
Installation Area
Ephmeral Draw

FIGURE 6
ANNUAL MONITORING WELL NETWORK
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.

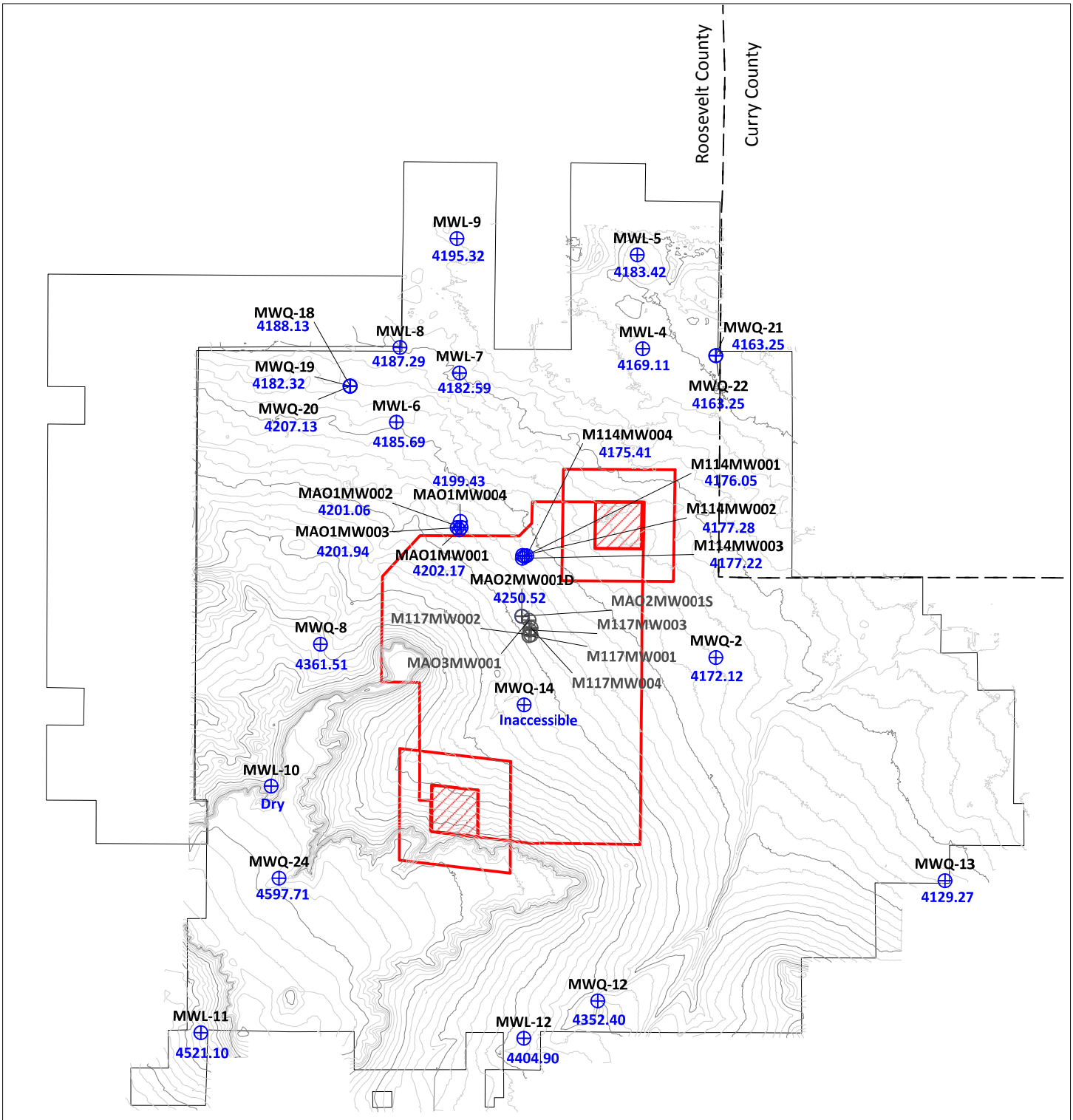
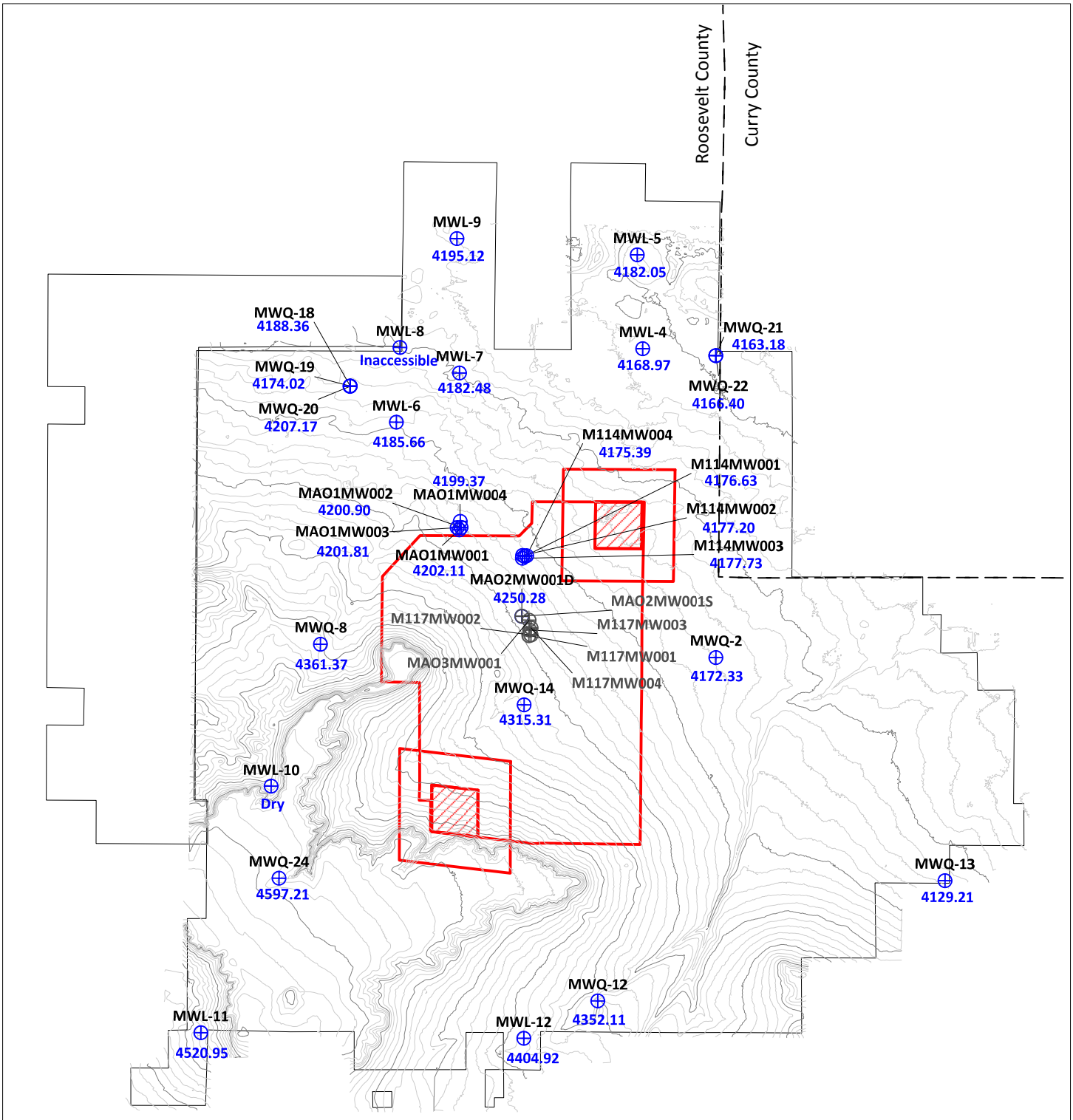


FIGURE 7
GROUNDWATER ELEVATIONS
APRIL 2015
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.



[illegible]

N
W E
S
0 10,000
Feet

4520.95 Groundwater Elevation(feet NAVD)

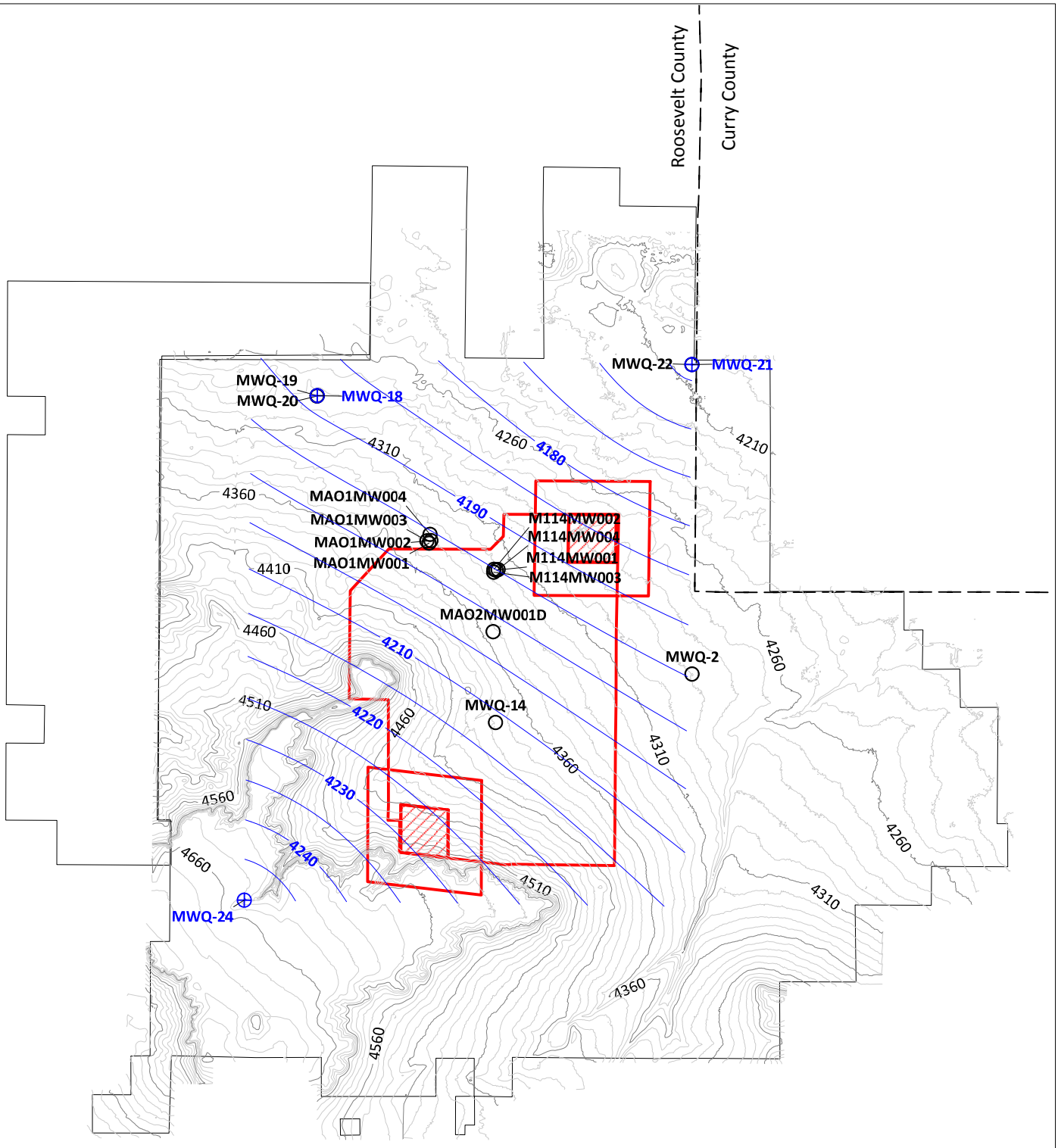
Monitoring Well

Impact Area

Abandoned Well

FIGURE 8
GROUNDWATER ELEVATIONS
OCTOBER 2015
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.



[illegible]	[illegible]
M[illegible]	41[illegible]
M[illegible]	41[illegible]
M[illegible]	45[illegible]

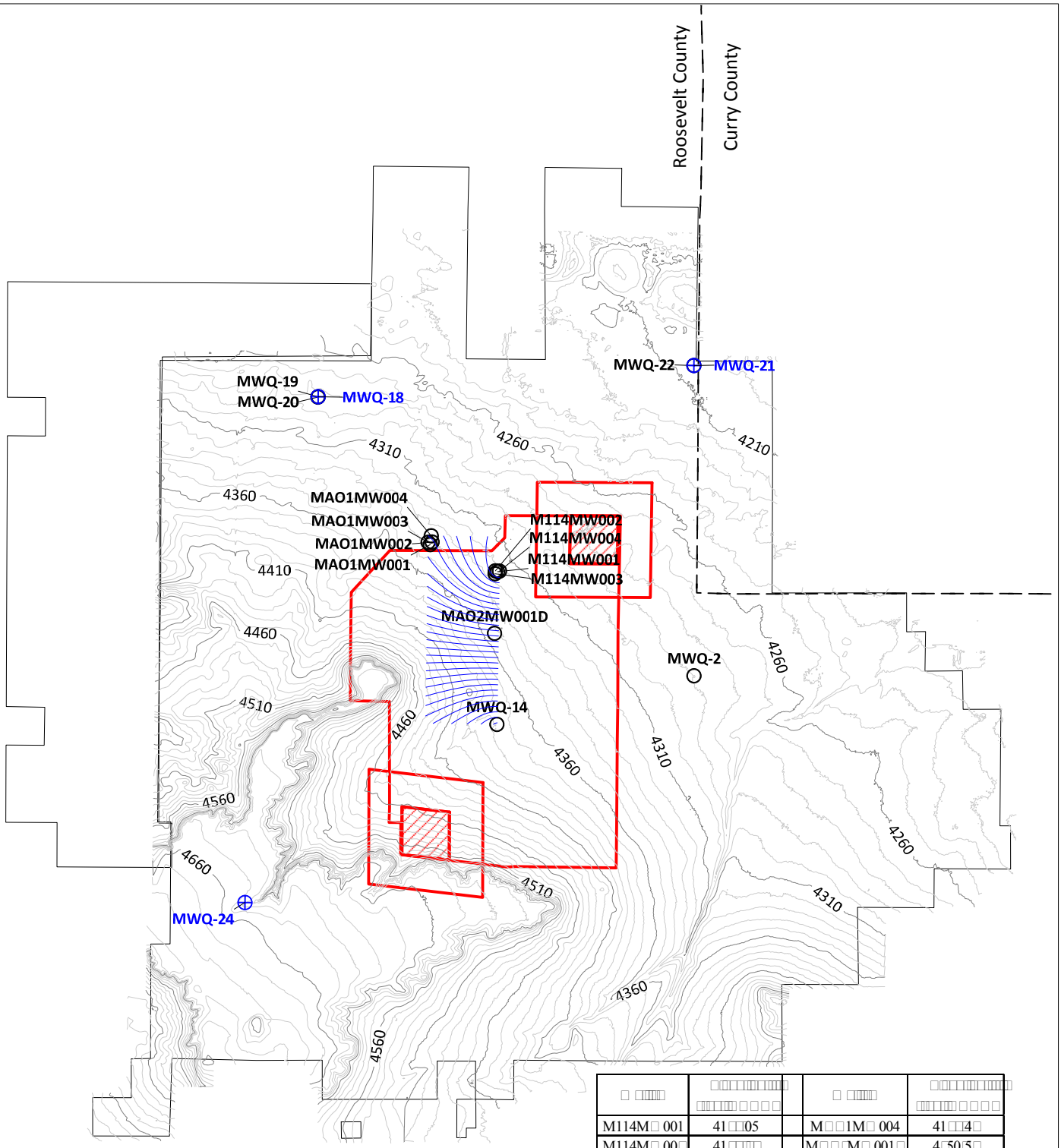
[illegible]

N
W E
S
0 10,000
Feet

[illegible]

FIGURE 9
GROUNDWATER FLOW DIRECTION
APRIL 2015
OGALLALA AQUIFER
(SOUTHERN HIGH PLAINS AQUIFER)
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.



M114M□ 001	41□□05	M□□1M□ 004	41□□4□
M114M□ 00□	41□□□□	M□□□M□ 001□	4□50□5□
M114M□ 00□	41□□□□	M□ □□	41□□1□
M114M□ 004	41□5□41	M□ □□14	□□M□□□r□d□
M□□1M□ 001	4□0□1□	M□ □□1□	41□□□□
M□□1M□ 00□	4□01□0□	M□ □□□0	4□0□1□
M□□1M□ 00□	4□01□4	M□ □□□	41□□40

□□□r□□□□ □□□□□□□□ □□ □□ □□□□ □□□□□□□□
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□□r□□□□□□ □□□r□□□□□□1□□□□□
□□r□□□□□□ □□□□ □□ □ □ □ □ □
□□r□□□□□□□□ □□□r□□□□0□□□□□□
□□r□□□□□□□□ □□□□ □□□M□□□□□1□□ □□□ □□□4
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10,000
Feet

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M□ □□□□M□ □1□□M□ □□□0□□□M□□□M□ 001□
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□□□□r□□□□□□□□r□ □□□□d□□□□□□r□□□□□□□□□□□□□□
d□□□□r□□□□□□□d□□r□□□□□□□□□□□□□□□□r□ □□□□□□
M□ □□□□□□□□□□□□d□d□□□□□□□□r□□□□□r□d□□□□□
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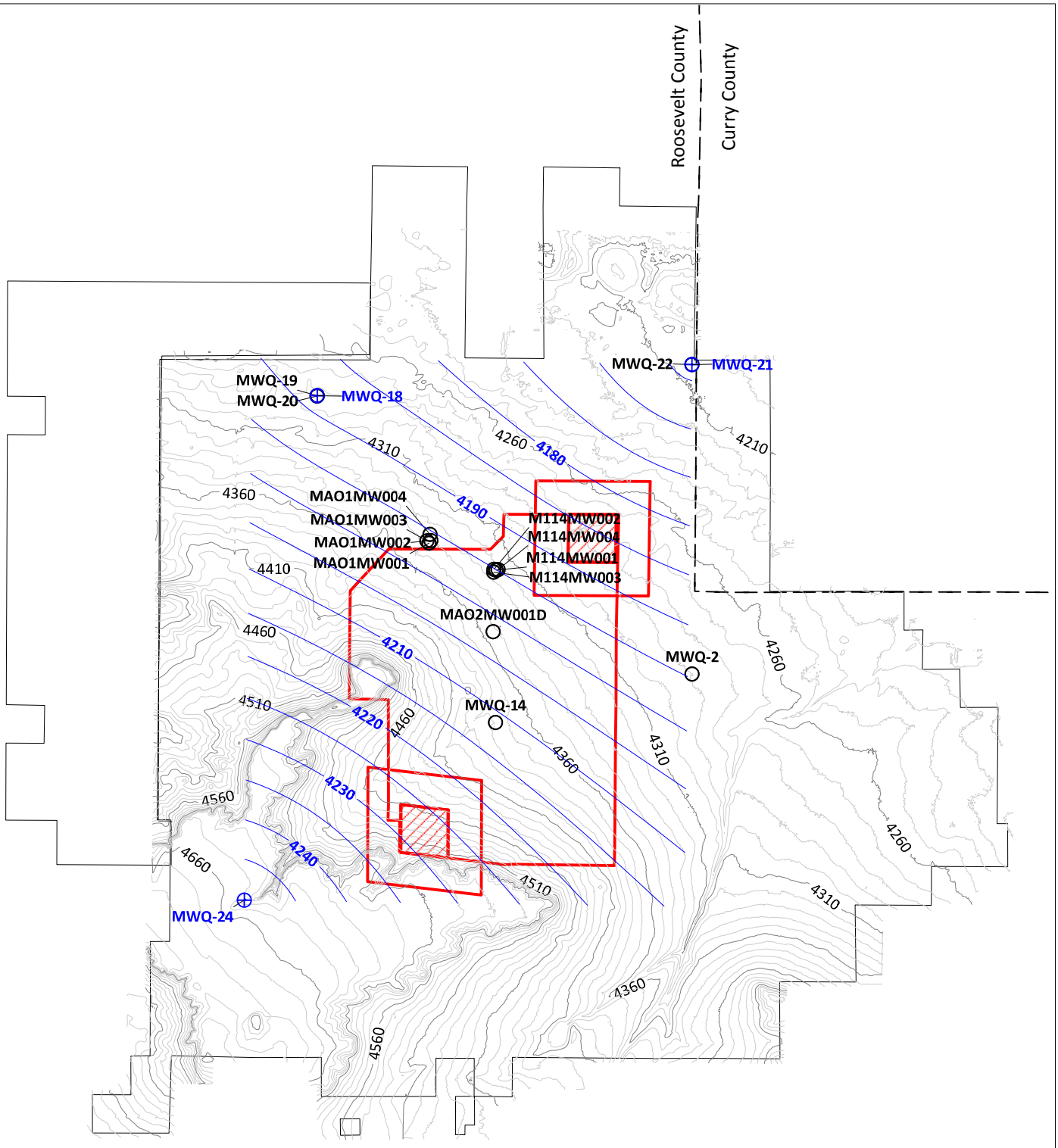
FIGURE 10
GROUNDWATER FLOW DIRECTION
APRIL 2015
CHINLE FORMATION
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.



[illegible]	[illegible]
M[illegible]	41[illegible]
M[illegible]	41[illegible]
M[illegible]	45[illegible]

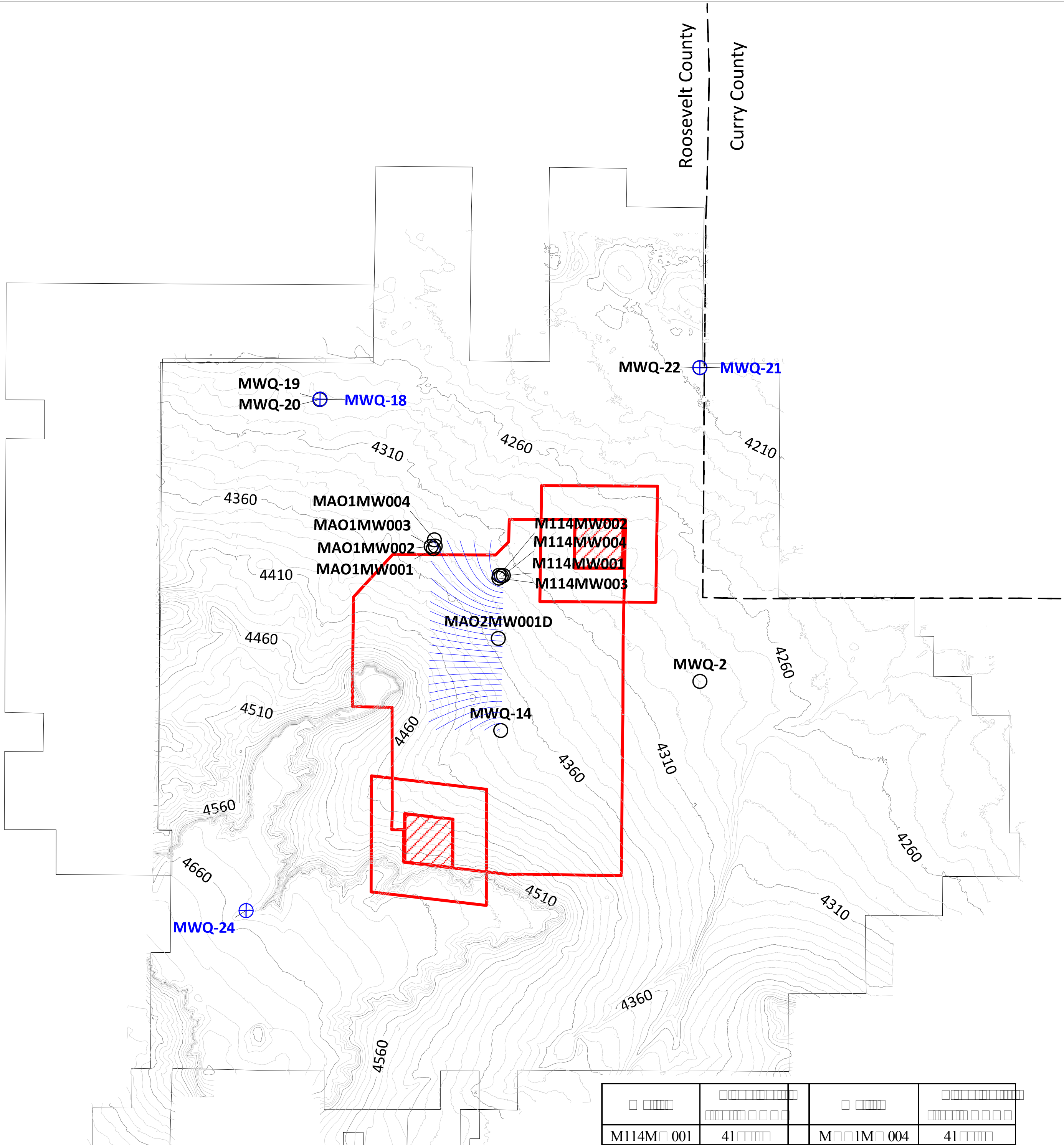
[illegible]

N
W E
S
0 10,000
Feet

[illegible]

FIGURE 11
GROUNDWATER FLOW DIRECTION
OCTOBER 2015
OGALLALA AQUIFER
(SOUTHERN HIGH PLAINS AQUIFER)
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.



[illegible]	[illegible]		[illegible]	[illegible]
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M114M□ 00□	41□□□0		M□0□M□ 001□	4□50□□
M114M□ 00□	41□□□□		M□ □□	41□□□□
M114M□ 004	41□5□□		M□ □□14	4□15□1
M□□1M□ 001	4□0□11		M□ □□1□	41□4□0□
M□□1M□ 00□	4□00□0		M□ □□0	4□0□1□
M□□1M□ 00□	4□01□1		M□ □□□	41□□44

[illegible]

N
W E
S

0 10,000
Feet

[illegible]

FIGURE 12
GROUNDWATER FLOW DIRECTION
OCTOBER 2015
CHINLE FORMATION
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

Trinity Analysis & Development Corp.

Krider Road

Roosevelt County

Curry County

MWQ-18

Chloride	32.1
Sulfate	119
TDS	308
Manganese	12.5U/12.5U

MWQ-19

Chloride	**1520**
Sulfate	**1100**
TDS	**3650**
Manganese	432J/358J

MWQ-20

Chloride	**5490**
Sulfate	**1770**
TDS	**9250**
Manganese	**1130/1000**

MWQ-21

Chloride	96.2
Sulfate	385
TDS	688
Manganese	13.9/1.26J

MWQ-22

Chloride	**320**
Sulfate	225
TDS	**1010**
Manganese	168/191

MAO1MW004
MAO1MW003
MAO1MW002
MAO1MW001

M114MW001
M114MW002
M114MW003
M114MW004

MAO2MW001D

MWQ-2

Chloride	**3260**
Sulfate	**1520**
TDS	**5920**
Manganese	**615/550**

MWQ-14

Chloride	**600**
Sulfate	**912**
TDS	**2140**
Manganese	6.25U/6.25U

MWQ-24

Chloride	4.55
Sulfate	64.6
TDS	25.0U

Sundale Valley Road

S Roosevelt Rd 3/Mesa Rd

N
W E
S
0 1.5
Miles

Annual Monitoring Well
Semiannual Monitoring Well
Target Area
Impact Area

5490 Red text indicates an exceedance of applicable screening criteria
U: indicates value below detection limit
J: indicates estimated result
Chloride, sulfate, and TDS results shown in mg/L. Manganese results shown in ug/L.

FIGURE 13
APRIL 2015 PARAMETER CONCENTRATIONS
ANNUAL GROUNDWATER QUALITY NETWORK
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

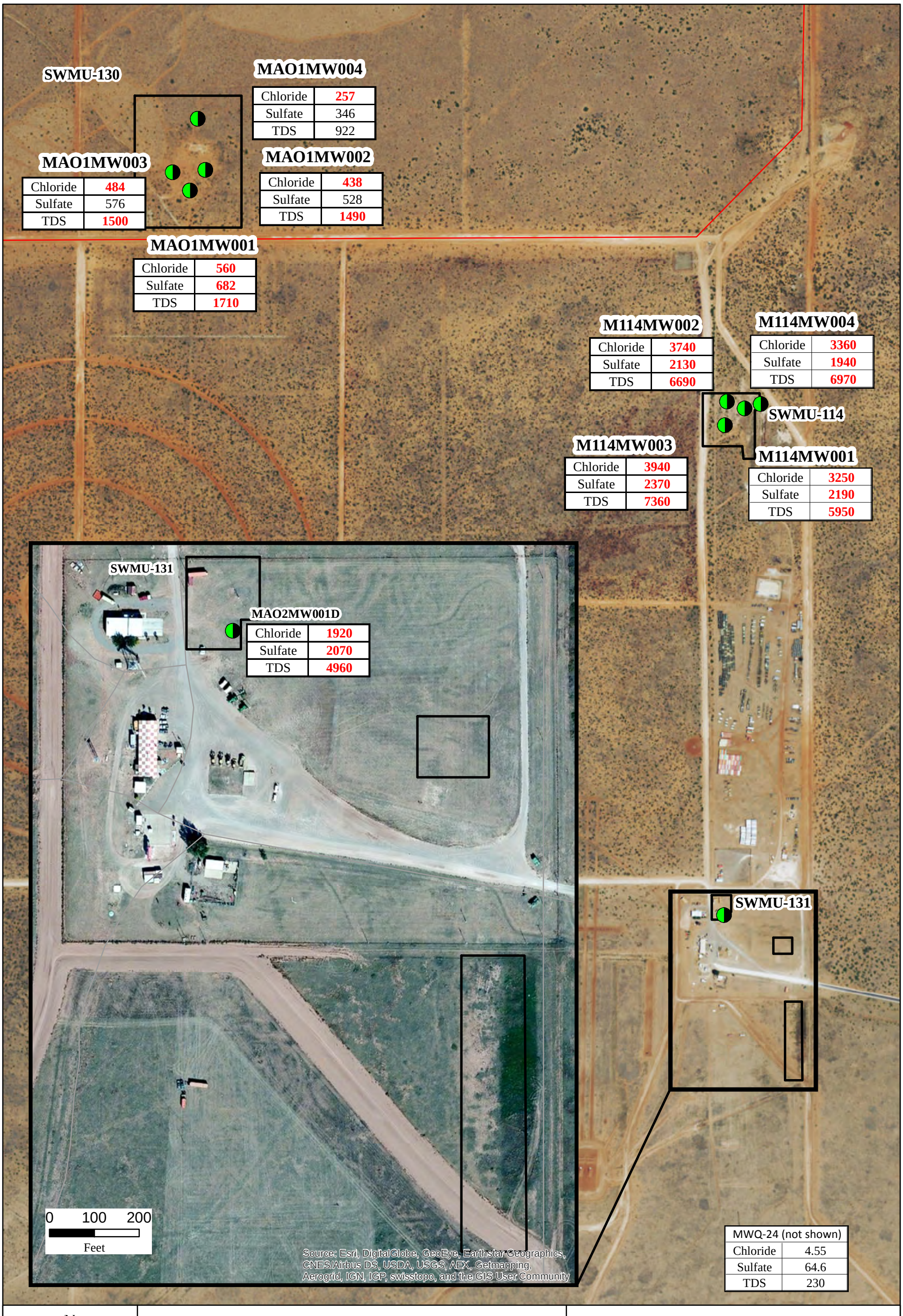
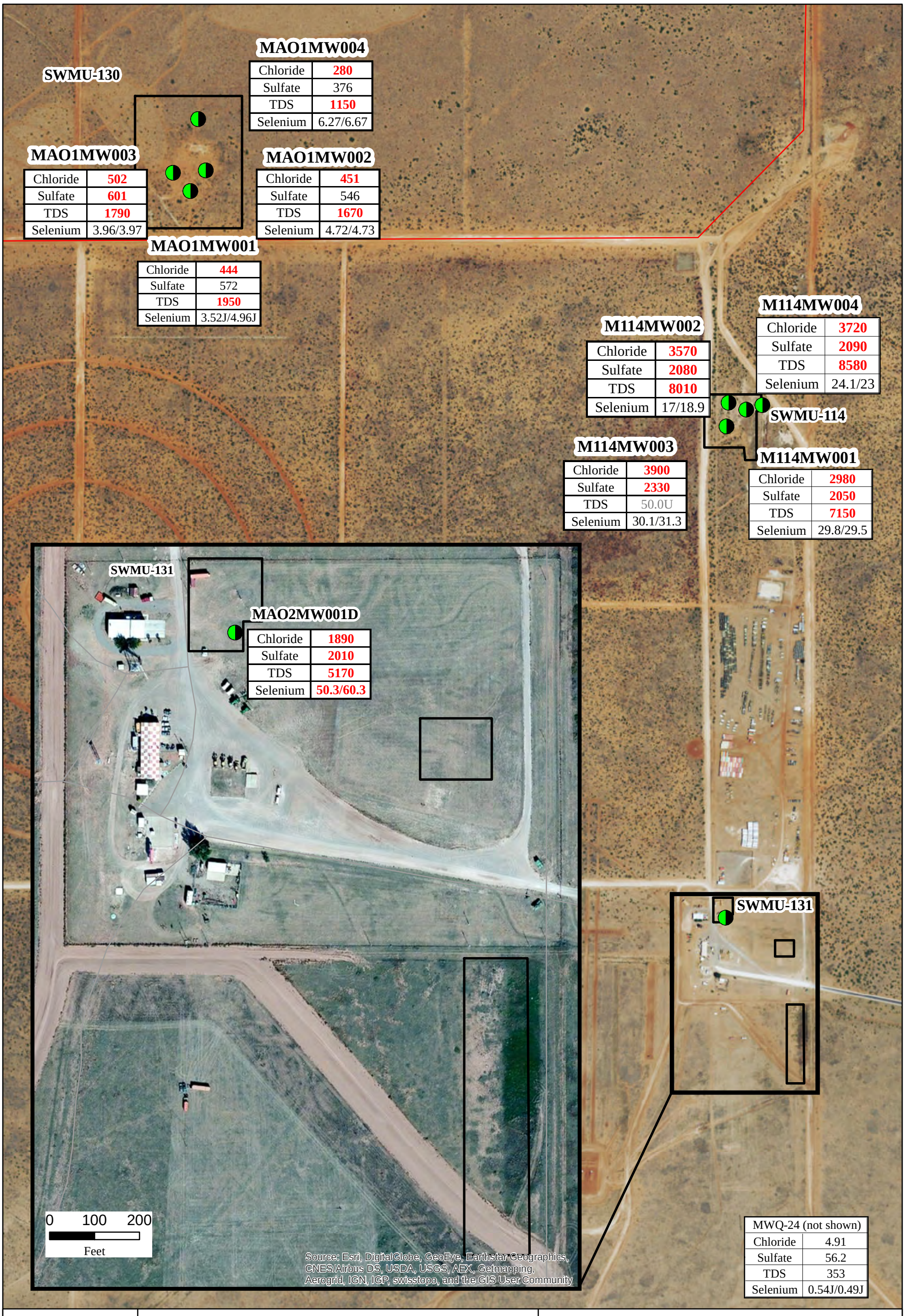


FIGURE 14
APRIL 2015 PARAMETER CONCENTRATIONS
SEMIANNUAL - SWMU GROUNDWATER QUALITY NETWORK
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico



N
W E
S
0 750
Feet

Semiannual Monitoring Well

Target Area

Impact Area

5490 Red text indicates an exceedance of applicable screening criteria
U: indicates value below detection limit
J: indicates estimated result
Chloride, sulfate, and TDS results shown in mg/L. Selenium results shown in ug/L.

FIGURE 15
OCTOBER 2015 PARAMETER CONCENTRATIONS
SEMIANNUAL - SWMU GROUNDWATER QUALITY NETWORK
Melrose Air Force Range
Roosevelt and Curry Counties, New Mexico

APPENDIX A

Groundwater Sampling Logs

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Environmental & Engineering Services
www.trinityadc.com

GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4/3/15
WELL NO: MWQ-2	SAMPLE ID: MWQ-2	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: (Y) N RH DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 220.64 feet to 230.64 feet	STATIC DEPTH TO WATER (feet): 121.60	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 222 feet) + 0.25 gallons = 0.92 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 225.71	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 225.71	PURGING INITIATED AT: 1340	PURGING ENDED AT: 1416	TOTAL VOLUME PURGED (gallons): 3.6

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1350	1.0	1.0	0.1	127.47	7.54	18.2	11.261	0.21	6.43	-41.6	CLEAR/NO	4.64
1400	1.0	2.0	0.1	131.03	7.54	18.2	11.260	0.12	6.44	-36.9	CLEAR/NO	3.27
1410	1.0	3.0	0.1	135.08	7.54	18.2	11.250	0.06	6.43	-37.7	CLEAR/NO	2.09
1413	0.3	3.3	0.1	136.73	7.54	18.2	11.259	0.03	6.43	-40.0	CLEAR/NO	2.03
1416	0.3	3.6	0.1	137.88	7.55	18.2	11.262	0.04	6.43	-41.6	CLEAR/NO	2.09

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Harrell / Trinity	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLE TIME: 1420
PUMP OR TUBING DEPTH IN WELL (feet): 225.71	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N Filtration Equipment Type: INLINE DISPOSABLE FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

H20 QUALITY PARAMETER
Model: YSI Pro DSS SN#: 14K101535
TURBIDIMETER
Model: LaMotte 2020we SN#: 5236
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:
☐ well needs repair No ☐ needs well tag No ☐ locking cap: YES ☐ other comment: _____
☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk N/A

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Environmental & Engineering Services
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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4/3/15
WELL NO: MWQ-18	SAMPLE ID: MWQ-18	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 119 feet to 139 feet	STATIC DEPTH TO WATER (feet): 102.04	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 124.65 feet) + 0.25 gallons = 0.60 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 128.15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 128.15	PURGING INITIATED AT: 1225	PURGING ENDED AT: 1249	TOTAL VOLUME PURGED (gallons): 2.4

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
RD 1231	0.6	0.6	0.1	102.29	8.16	17.4	0.709	6.51	0.35	-124.6	CLEAR/NO	0.99
1237	0.6	1.2	0.1	102.05	7.82	17.7	0.631	6.84	0.31	-81.6	CLEAR/NO	1.69
1243	0.6	1.8	0.1	102.08	7.80	17.7	0.631	7.01	0.31	-60.4	CLEAR/NO	0.86
1246	0.3	2.1	0.1	102.07	7.79	17.7	0.630	7.01	0.31	-58.2	CLEAR/NO	0.72
1249	0.3	2.4	0.1	102.09	7.79	17.6	0.630	7.01	0.31	-52.1	CLEAR/NO	0.68

RH

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Harren / Trinity	SAMPLER(S) SIGNATURE(S): Robert Harren	SAMPLE TIME: 1250
PUMP OR TUBING DEPTH IN WELL (feet): 128.15	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N Filtration Equipment Type: IN-LINE DISPOSABLE	FILTER SIZE: 0.45µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING DEIONIZED WATER (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI Pro DSS SN#: 14K101538
							TURBIDIMETER
							Model: LaMotte SN#: 5236
							2020we OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair No ☐ needs well tag No ☐ locking cap: Yes ☐ other comment: N/A

☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk N/A

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4/3/15
WELL NO: MWQ-19	SAMPLE ID: MWQ-19	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 200.07 feet to 221.07 feet	STATIC DEPTH TO WATER (feet): 107.81	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 207 feet) + 0.25 gallons = 0.88 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 210.19	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 210.19	PURGING INITIATED AT: 1131	PURGING ENDED AT: 1257	TOTAL VOLUME PURGED (gallons): 3.4

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1141	1.0	1.0	0.1	109.46	7.69	16.7	6.864	7.53	3.83	-146.5	CLEAR/NO	1.39
1151	1.0	2.0	0.1	114.04	7.33	17.9	7,948	7.33	4.43	-169.8	CLEAR/NO	4.22
1201	1.0	3.0	0.1	120.53	7.30	17.9	7.298	0.02	3.95	-196.0	CLEAR/NO	0.66
1209	0.3	3.3	0.1	122.20	7.29	17.9	7.054	0.02	3.90	-199.2	CLEAR/NO	0.56
1267	0.3	3.6	0.1	124.31	7.31	17.9	7.072	0.02	3.84	-201.4	CLEAR/NO	0.42

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. HARLEE / TRINITY	SAMPLER(S) SIGNATURE(S): ROBERT HARLEE	SAMPLE TIME: 1210
PUMP OR TUBING DEPTH IN WELL (feet): 210.19	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N FILTER SIZE: 0.45 µm Filtration Equipment Type: INLINE DISPOSABLE
FIELD DECONTAMINATION: PUMP Y (N) DEDICATED TUBING Y (N) (replaced)		FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI Pro DSS SN#: 14K101538
							TURBIDIMETER
							Model: LaMotte 2020we SN#: 52 36
							OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair N> ☐ needs well tag No ☐ locking cap: Yes ☐ other comment: N/A

☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk N/A

2012_1102

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4-3-15
WELL NO: MWQ-20	SAMPLE ID: MWQ-20	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): 0	FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 256 feet to 296 feet	STATIC DEPTH TO WATER (feet): 93.13	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 272 feet) + 0.25 gallons = 1.05 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 275.75	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 275.75	PURGING INITIATED AT: 1124	PURGING ENDED AT: 1206	TOTAL VOLUME PURGED (gallons): 4.20

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1140	1.6	1.6	0.10	92.41	7.36	17.8	18.03	0.24	10.97	-158.5	Clear none	4.57
1150	1.0	2.6	0.10	95.97	7.48	17.8	17.96	0.34	10.93	-177.3	Clear none	3.98
1200	1.0	3.6	0.10	98.40	7.51	17.8	17.87	0.28	10.88	-182.3	Clear none	4.11
1203	0.30	3.90	0.10	101.31	7.52	17.9	18.00	0.29	10.83	-186.1	Clear none	2.91
1206	0.30	4.20	0.10	101.78	7.51	17.8	17.85	0.31	10.77	-192.1	Clear none	2.98

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stegner Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1207
PUMP OR TUBING DEPTH IN WELL (feet): 275.75	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N Filtration Equipment Type: 81.10	FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

H20 QUALITY PARAMETER
Model: SN#:
TURBIDIMETER
Model: SN#:
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair ☐ needs well tag ☐ locking cap: ☐ other comment:
☐ DI Water Lot # ☐ MS / MSD ☐ Equip blk ☐ Ambient blk ☐ Trip blk

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4/3/15
WELL NO: MWQ-21	SAMPLE ID: MWQ-21	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 40.70 feet to 60.70 feet	STATIC DEPTH TO WATER (feet): 46.01	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 52.5 feet) + 0.25 gallons = 0.48 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 54.14	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 54.14	PURGING INITIATED AT: 1010	PURGING ENDED AT: 1041	TOTAL VOLUME PURGED (gallons): 3.1

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1015	0.5	0.5	0.1	46.03	7.47	17.2	1.42	7.62	0.73	-36.1	CLEAR/No	11.4
1020	0.5	1.0	0.1	46.03	7.40	16.8	1.43	7.78	0.73	-4.4	CLEAR/No	10.8
1025	0.5	1.5	0.1	46.03	7.33	17.0	1.41	7.51	0.73	21.7	CLEAR/No	13.7
1035	1.0	2.5	0.1	46.03	7.31	17.0	1.29	7.53	0.71	43.6	CLEAR/No	9.86
1038	0.3	2.8	0.1	46.04	7.32	17.1	1.33	7.50	0.71	45.7	CLEAR/No	8.99
1041	0.3	3.1	0.1	46.03	7.30	16.9	1.31	7.52	0.73	44.4	CLEAR/No	9.12

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: B. P. Harbert / Trinity	SAMPLER(S) SIGNATURE(S): Robert Harbert	SAMPLE TIME: 1045
PUMP OR TUBING DEPTH IN WELL (feet): 54.14	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	FIELD EQUIPMENT IDENTIFICATION
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				H20 QUALITY PARAMETER
							Model: YSI 556 MPS SN#: 12C102551
							TURBIDIMETER
							Model: LaMotte SN#: 52608
							2020we OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk _____

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Annual	SITE LOCATION: Melrose AFR, NM	DATE: 4-3-15
WELL NO: MWQ-22	SAMPLE ID: MWQ-22	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 90.70 feet to 150.70 feet	STATIC DEPTH TO WATER (feet): 42.72	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 118.5 feet) + 0.25 gallons = 0.65 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 120.30	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 120.30	PURGING INITIATED AT: 0855	PURGING ENDED AT: 0934	TOTAL VOLUME PURGED (gallons): 3.90

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0915	2.00	2.00	0.10	45.76	6.81	17.0	3.15	1.03	1.70	-19.2	Clear none	3.48
0925	1.00	3.00	0.10	45.96	7.43	17.0	1.96	0.42	1.03	-133.7	clear none	3.21
0928	0.30	3.30	0.10	45.97	7.49	17.0	1.90	0.38	0.99	-141.2	clear none	2.98
0931	0.30	3.60	0.10	45.94	7.51	17.0	1.89	0.37	0.98	-147.6	clear none	3.11
0934	0.30	3.90	0.10	45.94	7.53	17.0	1.88	0.38	0.99	-148.1	clear none	2.47

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stuart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 0935
PUMP OR TUBING DEPTH IN WELL (feet): 120.30	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N Filtration Equipment Type: In Line	FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) | FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER	
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model:	SN#:
							TURBIDIMETER	
							Model:	SN#:
							OTHER	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk _____

~~MWQ-22~~
MWQ-22-MS
MWQ-22-SD

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM	DATE: 4/2/15
WELL NO: MAO1MW001	SAMPLE ID: MAO1MW001	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 141.56 feet to 161.56 feet	STATIC DEPTH TO WATER (feet): 142.51	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 155 feet) + 0.25 gallons = 0.75 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 158.89	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 158.89	PURGING INITIATED AT: 0958	PURGING ENDED AT: 1015	TOTAL VOLUME PURGED (gallons): ~~1.7~~ 2.55 RH

(RH Corr. Vol Purged (gal))

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1006	~~0.8~~ RH	0.8	0.15	143.38	7.95	18.2	RH 3.27	5.70	1.76	183.4	CLEAR/No	0.22
1009	~~0.5~~ RH	1.1	0.15	143.44	7.90	18.4	3.30	5.59	1.78	182.9	CLEAR/No	0.06
1012	~~0.5~~ RH	1.4	0.15	143.65	7.88	18.3	3.29	5.60	1.77	181.6	CLEAR/No	0.15
1015	~~0.3~~ RH	1.7	0.15	143.78	7.89	18.2	3.30	5.61	1.77	180.8	CLEAR/No	0.13

RH

1.2
1.65
2.10
2.55

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. HARRELL / TRINITY	SAMPLER(S) SIGNATURE(S): ROBERT HARRELL	SAMPLE TIME: 1020
PUMP OR TUBING DEPTH IN WELL (feet): 158.89	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N Filtration Equipment Type: INLINE DISPOSABLE	FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) DEDICATED? TUBING Y (N) (DEDICATED? replaced)

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	FIELD EQUIPMENT IDENTIFICATION
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				H20 QUALITY PARAMETER
					~~4H 395-567~~		Model: YSI Pro Plus SN#: 12C102551 TURBIDIMETER
							Model: LaMotte 2020 we SN#: 5268 OTHER
							HERON DIPPER-T
							RH

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:
☐ well needs repair No ☐ needs well tag No ☐ locking cap: YES ☐ other comment: N/A
☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk MAO1MW002-C
0925

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM	DATE: 4/2/15
WELL NO: MAO1MW002 / SAMPLE ID: MAO1MW002	FREE PRODUCT: Y (N) / DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) / DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 145.31 feet to 155.31 feet	STATIC DEPTH TO WATER (feet): 142.52	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 149 feet) + 0.25 gallons = 0.73 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 152.64	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 152.64	PURGING INITIATED AT: 0857	PURGING ENDED AT: 0920	TOTAL VOLUME PURGED (gallons): 2.3

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0905	0.8	0.8	0.1	143.76	7.46	18.1	2.93	5.48	1.56	211.1	CLEAR/No	1.80
0908	0.3	1.1	0.1	143.98	7.56	18.1	2.92	5.30	1.56	210.4	CLEAR/No	1.48
0911	0.3	1.4	0.1	144.37	7.65	18.0	2.92	5.32	1.56	209.5	CLEAR/No	1.62
0914	0.3	1.7	0.1	144.66	7.77	18.1	2.92	5.32	1.56	207.9	CLEAR/No	1.78
0917	0.3	2.0	0.1	145.15	7.80	18.2	2.91	5.31	1.57	207.7	CLEAR/No	0.97
0920	0.3	2.3	0.1	145.38	7.81	18.1	2.90	5.30	1.55	206.2	CLEAR/No	0.97

RA

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Harrell / Trinity	SAMPLER(S) SIGNATURE(S): Robert Harrell	SAMPLE TIME: 0925
PUMP OR TUBING DEPTH IN WELL (feet): 152.64	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N / Filtration Equipment Type: / FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N) PDI WATER TUBING Y (N) DEDICATED (replaced)		FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				
						395	Model: YSI Pro Plus / SN#: 12C102551 TURBIDIMETER
							Model: LaMotte / SN#: 5268
							2020we OTHER
							HERON DIPPER T
							RH

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:
☐ well needs repair No ☐ needs well tag No ☐ locking cap: Yes ☐ other comment: N/A
☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk MAO1MW002-CQ
0925

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM	DATE: 4-2-15
WELL NO: MAO1MW003 / SAMPLE ID: MAO1MW003	FREE PRODUCT: Y (N) / DEPTH TO PRODUCT (ft BTOC): NA	FIELD DUPLICATE: Y (N) / DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 145.31 feet to 155.31 feet	STATIC DEPTH TO WATER (feet): 143.39 ~~143.39~~	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 153 feet) + 0.25 gallons = 0.74 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 156.69	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 156.69	PURGING INITIATED AT: 1022	PURGING ENDED AT: 1058	TOTAL VOLUME PURGED (gallons): 3.60

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1037	1.00	1.00	0.10	144.13	7.82	18.3	2.92	6.31	1.56	175.7	clear none	0.38
1042 ~~1039~~	1.10	2.10	0.10	144.92	7.79	18.3	2.92	~~6.20~~ 6.18	1.56	173.4	Clear none	0.34
1047	1.00	3.00	0.10	145.54	7.77	18.2	2.92	6.17	1.56	172.0	clear none	0.41
1055	0.30	3.30	0.10	145.90	7.72	18.3	2.92	6.20	1.56	171.3	clear none	0.31
1058	0.30	3.60	0.10	145.91	7.77	18.3	2.92	6.20	1.56	171.0	clear none	0.28

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1059
PUMP OR TUBING DEPTH IN WELL (feet): 156.69	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type: N/A / FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

H20 QUALITY PARAMETER
Model: YSI 10 Plus SN#: 12C10755 1
TURBIDIMETER
Model: 2020we SN#: 5236-0115
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair ~~~ ☐ needs well tag ~~~ ☐ locking cap: ~~~ ☐ other comment: ~~~

☐ DI Water Lot # ~~~ ☐ MS / MSD ~~~ ☐ Equip blk ~~~ ☐ Ambient blk ~~~ ☐ Trip blk MA01MW003-C @ 0940

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM		DATE: 4-2-15
WELL NO: MAO1MW004	SAMPLE ID: MAO1MW004	FREE PRODUCT: Y N DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 140.08 feet to 160.08 feet	STATIC DEPTH TO WATER (feet): 143.48	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 154 feet) + 0.25 gallons = 0.75 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 157.41	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 157.41	PURGING INITIATED AT: 0858	PURGING ENDED AT: 0939	TOTAL VOLUME PURGED (gallons): 4.10

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0930	3.20	3.20	0.10	145.91	7.84	18.2	1.89	7.03	0.99	196.5	clear none	0.29
0933	0.30	3.50	0.10	146.15	7.79	18.2	1.89	6.90	0.99	196.9	clear none	0.14
0936	0.30	3.80	0.10	146.33	7.77	18.2	1.89	6.77	0.99	196.7	clear none	0.17
0939	0.30	4.10	0.10	146.47	7.76	18.0	1.89	6.78	0.99	196.4	clear none	0.11

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity ADC	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 0940
PUMP OR TUBING DEPTH IN WELL (feet): 157.41	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N Filtration Equipment Type: inline FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N replaced) FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI ProPlus SN#: 12C103551
							TURBIDIMETER
							Model: 2020we SN#: 5236-0115
							OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair ☐ needs well tag ☐ locking cap: ☐ other comment:

☐ DI Water Lot # ☐ MS / MSD ☐ Equip blk ☐ Ambient blk ☐ Trip blk MAO1MW004-C

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Background	SITE LOCATION: Melrose AFR, NM	DATE: 4-2-15
WELL NO: MWQ-24	SAMPLE ID: MWQ-24	FREE PRODUCT: Y N (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 42.80 feet to 62.80 feet	STATIC DEPTH TO WATER (feet): 47.24	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 57 feet) + 0.25 gallons = 0.49 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 60.1	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 60.1	PURGING INITIATED AT: 1145	PURGING ENDED AT: 1209	TOTAL VOLUME PURGED (gallons): 2.40

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1150	0.50	0.50	0.10	47.44	7.85	17.3	0.544	7.43	0.27	135.6	clear none	2.64
1200	1.00	1.50	0.10	47.63	7.49	17.1	0.551	5.60	0.27	141.9	clear none	0.59
1203	0.30	1.80	0.10	47.79	7.50	17.2	0.550	5.61	0.27	142.1	clear none	0.41
1206	0.30	2.10	0.10	47.79	7.53	17.1	0.551	5.73	0.27	140.0	clear none	0.38
1209	0.30	2.40	0.10	47.79	7.52	17.3	0.551	5.72	0.27	141.2	clear none	0.31

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1210
PUMP OR TUBING DEPTH IN WELL (feet): 60.1	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N Filtration Equipment Type: In Line	FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI 6 Series SN#: 12C10255
							TURBIDIMETER
							Model: 2020we SN#: 5236-018
							OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair ☐ needs well tag ☐ locking cap: ☐ other comment:

☐ DI Water Lot # ☐ MS / MSD ☐ Equip blk ☐ Ambient blk ☐ Trip blk MWQ-24-C

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-131	SITE LOCATION: Melrose AFR, NM	DATE: 4/2/15
WELL NO: MAO2MW001D	SAMPLE ID: MAO2MW001D	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: (Y) N DUPLICATE ID: MAO1MW0030-a

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 161.95 feet to 181.95 feet	STATIC DEPTH TO WATER (feet): 105.38	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 176 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 179.28	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 179.28	PURGING INITIATED AT: 1325	PURGING ENDED AT: 1405	TOTAL VOLUME PURGED (gallons): 4.00

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1335	1.0	1.0	0.10	106.76	7.79	18.2	10.67	1.85	6.22	144.4	Clear none	0.55
1345	1.0	2.0	0.10	108.13	7.85	18.1	9.99	0.91	5.79	135.9	Clear none	0.49
1355	1.0	3.0	0.10	109.21	7.84	18.1	9.91	0.92	5.71	131.2	clear none	0.31
1405 ~~1410~~	1.0	4.0	0.10	109.87	7.86	18.1	9.85	0.90	5.70	130.1	Clear none	0.28

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1406
PUMP OR TUBING DEPTH IN WELL (feet): 179.28	TUBING MATERIAL CODE: CPE	FIELD-FILTERED: (Y) N Filtration Equipment Type: In Line	FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

H20 QUALITY PARAMETER
Model: YSI Pro Plus SN#: 12J102551
TURBIDIMETER
Model: 2020WL SN#: ~~20~~ 5226-0115
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk ~~MA02MW~~

For primary duplicate MA02MW0019

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 4-1-15
WELL NO: M114MW001	SAMPLE ID: M114MW001	FREE PRODUCT: Y (N) NA DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 159.39 feet to 179.39 feet	STATIC DEPTH TO WATER (feet): 151.56	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 173 feet) + 0.25 gallons = 0.79 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 176.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 176.7	PURGING INITIATED AT: 1216	PURGING ENDED AT: 1252	TOTAL VOLUME PURGED (gallons): 3.60

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1226	1.0	1.0	0.10	151.75	7.78	19.9	11.24	4.43	6.54	142.1	clear none	0.31
~~1234~~ 1236	1.0	2.0	0.10	152.87	7.90	18.6	13.37	0.79	7.93	135.4	clear none	0.39
1246	1.0	3.0	0.10	154.52	7.90	18.3	13.31	0.52	7.84	128.9	clear none	0.22
1249	0.30	3.30	0.10	154.69	7.89	18.3	13.25	0.44	7.84	125.1	clear none	0.21
1252	0.30	3.60	0.10	154.71	7.89	18.3	13.22	0.44	7.89	124.1	clear none	0.24

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trihydro	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1253
PUMP OR TUBING DEPTH IN WELL (feet): 176.7	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N FILTER SIZE: 0.45 µm Filtration Equipment Type: Inline

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER	
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model:	SN#:
							TURBIDIMETER	
							Model:	SN#:
							OTHER	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD Yes ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk M114MW003-C for M114MW001

M114MW001-MS

M114MW001-SD

MW114MW001-C for MS/MSD

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 4/1/15
WELL NO: M114MW002	SAMPLE ID: M114MW002	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 162.11 feet to 182.11 feet	STATIC DEPTH TO WATER (feet): 150.83	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 175 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 179.44	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 179.44	PURGING INITIATED AT: 1110 ~~1055~~ RH	PURGING ENDED AT: 1142 ~~1342~~ RH	TOTAL VOLUME PURGED (gallons): 4.48

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1130 RH ~~1330~~	2.8	2.8	0.14	152.31	7.80	18.1	13.15	0.60	7.78	210.9	CLEAR/NO	0.52
1136 RH ~~1336~~	0.84	3.64	0.14	153.00	7.84	18.4	13.06	0.45	7.74	207.6	CLEAR/NO	0.34
1139 RH ~~1339~~	0.42	4.06	0.14	153.42	7.85	18.4	13.03	0.69	7.72	204.5	CLEAR/NO	0.62
1142 RH ~~1342~~	0.42	4.48	0.14	153.93	7.85	18.5	12.96	0.69	7.69	202.8	CLEAR/NO	0.78

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. HARRELL / TRINITY	SAMPLER(S) SIGNATURE(S): R. SEELY R. HARRELL	SAMPLE TIME: ~~1345~~ RH 1145
PUMP OR TUBING DEPTH IN WELL (feet): 179.44	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N FILTRATION Equipment Type: INLINE DISPOSABLE	FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N) DEDICATED TUBING Y (N) (replaced) DEDICATED		FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
1	PE	1L	NaOH	CYANIDE	BP	~~495~~ RH 529
1	PE	500mL	—	TDS		
1	PE	250mL	HNO_3	TOTAL METALS		
1	PE	250mL	HNO_3	D.S. METALS		
1	PE	250mL	—	ALKALINITY		
1	PE	250mL	—	Chloride/Sulfate	↓	↓

H20 QUALITY PARAMETER
Model: YSI Pro Plus SN#: ~~120~~ RH 12C10255
TURBIDIMETER
Model: LaMotte SN#: 5268
2020mL OTHER
HERON DIPPER T
RH

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:
☐ well needs repair NO ☐ needs well tag NO ☐ locking cap: YES ☐ other comment: N/A
☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk M114MW002-C

1	PE	250mL	—	Nitrate/Nitrite	BP	~~495~~ RH 529
1	PE	120mL	—	PERCHLORATE		
3	CG	40mL	HCl	VOCs		
2	AG	1L	—	EXPLOSIVES		
1	PE	250mL	$NH_4(2SO_4)$, $HNaOH$	Cr+6	↓	↓

C1145

2012_1102

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 4-1-15
WELL NO: M114MW003	SAMPLE ID: M114MW003	FREE PRODUCT: Y (N) N/A DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID: N/A

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 159.62 feet to 179.62 feet	STATIC DEPTH TO WATER (feet): 151.90	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 174 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 176.95	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 176.95	PURGING INITIATED AT: 1054	PURGING ENDED AT: 1125	TOTAL VOLUME PURGED (gallons): 3.11

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1104	1.00	1.00	0.10	153.31	7.35	18.6	14.02	3.03	8.32	228.8	Clear none	0.54
1114	1.00	2.00	0.10	154.76	7.59	18.4	14.04	2.99	8.35	225.1	Clear none	0.31
1119	0.50	2.50	0.10	154.54	7.608	18.5	14.03	2.78	8.34	222.1	Clear none	0.20
1122	0.30	2.80	0.10	155.31	7.71	18.7	14.05	2.80	8.37	220.5	Clear none	0.25
1125	0.38	3.11	0.10	155.71	7.71	18.7	14.04	2.76	8.35	218.6	Clear none	0.10

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1126
PUMP OR TUBING DEPTH IN WELL (feet): 176.95	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N Filtration Equipment Type: Inline	FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

H20 QUALITY PARAMETER
Model: SN#:
TURBIDIMETER
Model: SN#:
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair ☐ needs well tag ☐ locking cap: ☐ other comment:

☐ DI Water Lot # ☐ MS / MSD ☐ Equip blk ☐ Ambient blk ☐ Trip blk M114MW003-C

M x 6 CAN

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 4/1/15
WELL NO: M114MW004	SAMPLE ID: M114MW004	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 161.42 feet to 181.42 feet	STATIC DEPTH TO WATER (feet): 149.58	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 175 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 178.75	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 178.75	PURGING INITIATED AT: 1222	PURGING ENDED AT: 1319	TOTAL VOLUME PURGED (gallons): 7.98

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1255	4.62	4.62	0.14	153.63	7.88	18.5	13.53	0.92	8.02	120.5	CLEAR/No	0.54
1301	0.84	5.46	0.14	153.97	7.98	18.4	13.46	2.59	7.98	117.5	CLEAR/No	0.52
1304	0.42	5.88	0.14	154.33	7.95	18.5	13.44	2.56	7.86	115.5	CLEAR/No	0.19
1307	0.42	6.30	0.14	154.69	7.85	18.4	13.39	0.73	7.94	113.4	CLEAR/No	0.28
1310	0.42	6.72	0.14	155.18	7.84	18.5	13.18	1.08	7.84	111.3	CLEAR/No	0.65
1313	0.42	7.14	0.14	155.54	7.84	18.5	13.28	0.76	7.81	109.3	CLEAR/No	0.29
1316	0.42	7.56	0.14	155.88	7.85	18.4	13.18	0.70	7.79	107.3	CLEAR/No	0.36
1319	0.42	7.98	0.14	156.10	7.84	18.4	13.14	0.68	7.78	105.9	CLEAR/No	0.28
							RA					

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: R. Harrell / Trinity	SAMPLER(S) SIGNATURE(S): R. Harrell	SAMPLE TIME: 1325
PUMP OR TUBING DEPTH IN WELL (feet): 178.75	TUBING MATERIAL CODE: PE	FIELD-FILTERED: (Y) N FILTER SIZE: 0.45µm Filtration Equipment Type: INLINE DISPOSABLE

FIELD DECONTAMINATION: PUMP Y (N) DEDICATED TUBING Y (N) DEDICATED (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
						529
SEE WELL M114MW002						

H20 QUALITY PARAMETER
Model: YSI Pro Plus SN#: 12C10255

TURBIDIMETER
Model: LaMotte 2020we SN#: 5268

OTHER
HERON DIPPER T

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:
☐ well needs repair No ☐ needs well tag No ☐ locking cap: Yes ☐ other comment: N/A
☐ DI Water Lot # N/A ☐ MS / MSD N/A ☐ Equip blk N/A ☐ Ambient blk N/A ☐ Trip blk M114MW002-C
@ 1145

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 10-22-15
WELL NO: M114MW001	SAMPLE ID: M114MW001	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): —
		FIELD DUPLICATE: Y (N) DUPLICATE ID: —

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 159.39 feet to 179.39 feet	STATIC DEPTH TO WATER (feet): 150.58	PURGE PUMP TYPE OR BAILER: QED

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 173 feet) + 0.25 gallons = 0.79 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 176.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 176.7	PURGING INITIATED AT: 1005	PURGING ENDED AT: 1106 HH2	TOTAL VOLUME PURGED (gallons): 6.10

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1020	1.5	1.5	.10	153.20	8.06	17.29	10.97	6.08	6.24	120.1	clear/no	0.0
1025	.50	2.0	.10	153.78	8.07	17.27	10.92	5.70	6.22	117.2	clear/no	0.0
1030	.50	2.5	.10	153.85	8.06	17.45	10.80	5.31	6.15	121.8	clear/no	0.0
1045	1.5	4.0	.10	156.76	8.05	17.40	10.13	4.47	5.73	115.6	clear/no	0.0
1100	1.5	5.5	.10	158.30	8.00	17.41	9.68	4.21	5.47	124.4	clear/no	0.0
1103	.3	5.8	.10	158.71	8.00	17.37	9.62	4.11	5.43	122.8	clear/no	0.0
1106	.3	6.10	.10	159.15	8.00	17.30	9.56	4.15	5.39	125.6	clear/no	0.0

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Tony Lucero / Trinity ADC	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1110
PUMP OR TUBING DEPTH IN WELL (feet): 176.7	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N FILTER SIZE: 0.45 µm Filtration Equipment Type: inline

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI 556 SN# 13A1000064
3	CG	40 mL	HCL	VOCs BP	BP	378	TURBIDIMETER
2	AG	1L	—	Explosives			Model: 2020we SN#: 1269-2699
2	PE	250mL	HNO3	Total/Diss Metals			OTHER
1	PE	1L	NaOH	Cyanide			
1	PE	500mL	—	Alk TDS			
1	PE	125mL	—	NO3/NO2 Chloride SO4			
REMARKS: 1	PE	250mL	-	Perchlorate			

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-01 @910

1 PE 250mL $NH_4(2SO_4)$ HNO_4OH Cr+6 BP 378

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU 114	SITE LOCATION: Melrose AFR	DATE: 10/22/15
WELL NO: M114MW007	SAMPLE ID: M114MW002	FREE PRODUCT: Y N DEPTH TO PRODUCT (ft BTOC):
		FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 162.11 feet to 182.11 feet	STATIC DEPTH TO WATER (feet): 151.74	PURGE PUMP TYPE OR BAILER: QED

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 175 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 179.44	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 179.44	PURGING INITIATED AT: 0850	PURGING ENDED AT: 0916	TOTAL VOLUME PURGED (gallons): 2.60

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0900	1.00	1.00	0.10	154.18	7.80	16.4	12.57	1.30	7.27	184.7	Clear none	0.41
0910	1.00	2.00	0.10	155.61	7.81	16.5	12.48	0.71	7.19	177.1	Clear none	0.31
0913	0.30	2.30	0.10	155.64	7.82	16.5	12.41	0.69	7.17	176.9	clear none	0.30
0916	0.30	2.60	0.10	155.74	7.82	16.4	12.44	0.68	7.16	176.7	Clear none	0.29

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 0917
PUMP OR TUBING DEPTH IN WELL (feet): 179.44	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N Filtration Equipment Type: inline FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI ProPlus SN#: 59196
3	CG	40mL	HCl	VOCs	BP	378	TURBIDIMETER
2	AG	1L	–	Explosives			Model: 2020we SN#: 65589
2	PE	250mL	HNO_3	Total/Diss Metals			OTHER
1	PE	1L	NaOH	Cyanide			
1	PE	500mL	–	AlK/HDS			
1	PE	125mL	–	NO_3/NO_3 SO_4,Cl-			
REMARKS: 1	PE	250mL	–	Perchlorate			

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____
☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-07@0917

1 PE 250mL $NH_4(2SO_4)$ HNO_3 BP 378

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 10-22-15
WELL NO: M114MW003	SAMPLE ID: M114MW003	FREE PRODUCT: Y N DEPTH TO PRODUCT (ft BTOC):	FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: ~~167~~ feet to ~~187~~ feet	STATIC DEPTH TO WATER (feet): 15.89	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.026 gallons/foot x 174 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 176.95	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 176.95	PURGING INITIATED AT: 0957	PURGING ENDED AT: 1022	TOTAL VOLUME PURGED (gallons): 2.50

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1007	1.0	1.0	0.10	153.30	7.71	16.7	13.74	3.50	7.98	160.1	clear none	0.71
1010	0.30	1.30	0.10	153.91	7.72	16.7	13.73	3.20	7.96	158.5	clear none	0.65
1013	0.30	1.60	0.10	154.62	7.72	16.7	13.75	3.16	7.99	158.0	clear none	0.51
1016	0.30	1.90	0.10	155.27	7.73	16.7	13.75	3.~~35~~ 15	7.97	158.2	clear none	0.45
1019	0.30	2.20	0.10	155.99	7.73	16.7	13.75	3.~~16~~ 15	7.99	158.3	clear none	0.23
1022	0.30	2.50	0.10	156.10	7.73	16.7	13.75	3.2	7.99	158.3	clear none	0.10

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1023
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N Filtration Equipment Type: inline	FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCl	VOCs	BP	<100
2	AG	1L	—	Explosives	BP	378
2	PE	250mL	HNO_3	Total/Diss Metals	BP	378
1	PE	1L	NaOH	Cyanide	BP	
1	PE	500mL	—	Alk/TDS	BP	
1	PE	125mL	—	NO_3/NO_2/Chloride/Sulfate	BP	
1	PE	250mL	—	Perchlorate		

H20 QUALITY PARAMETER
Model: YSI Pro Plus SN#: 15196
TURBIDIMETER
Model: 2020we SN#: 65589
OTHER

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____
☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-02 @ 0917

(1 | PE | 250mL | $NH_4(2SO_4)$ HNO_3 | Cr+6 | BP | 378
Screened : 159.62 to 179.62 ft

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-114	SITE LOCATION: Melrose AFR, NM	DATE: 10-22-15
WELL NO: M114MW004	SAMPLE ID: M114MW004	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): NA
		FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 161.42 feet to 181.42 feet	STATIC DEPTH TO WATER (feet): 155.20	PURGE PUMP TYPE OR BAILER: DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 175 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 178.75	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 178.75	PURGING INITIATED AT: 0818	PURGING ENDED AT: 0910	TOTAL VOLUME PURGED (gallons): 5.10

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0900	4.50	4.50	.10	160.48	7.53	17.04	11.08	1.69	6.33	143.2	clear/no	0.0
0903	.30	4.80	.10	160.71	7.57	17.04	11.07	1.70	6.32	139.9	clear/no	0.0
0906	.30	5.10	.10	161.08	7.59	17.06	11.05	1.71	6.31	138.1	clear/no	0.0

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Tony Lucero / Trinity ADC	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 0910
PUMP OR TUBING DEPTH IN WELL (feet): 178.75	TUBING MATERIAL CODE: CODE	FIELD-FILTERED: (Y) N Filtration Equipment Type: inline FILTER SIZE: 0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y N (replaced)

FIELD EQUIPMENT IDENTIFICATION
H20 QUALITY PARAMETER — Model: YSI556 SN#: 13A1000064
TURBIDIMETER — Model: 2020we SN#: 1269-2699
OTHER

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCl	VOCs	BP	378
2	AG	1L	—	Explosives		
2	PE	250mL	HNO3	Tot./Diss Metals		
1	PE	1L	NaOH	Cyanide		
1	PE	500mL	—	Alk/TDS		
1	PE	125mL	-	NO2/NO3 Cl, SO4		
1	PE	250mL	-	Perchlorate		

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-01 0910

1 PE 250mL | NH4(2SO4) | HNaOH | BP 378

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM	DATE: 10-22-15
WELL NO: MA01 MW001	SAMPLE ID: MA01MW001	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): NA
		FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 141.56 feet to 161.56 feet	STATIC DEPTH TO WATER (feet): 142.57	PURGE PUMP TYPE OR BAILER: BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 155 feet) + 0.35 gallons = 0.75 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 158.89	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 158.89	PURGING INITIATED AT: 1206	PURGING ENDED AT: 1250	TOTAL VOLUME PURGED (gallons): ~3.4

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1216	1.0	1.0	.10	143.51	8.08	1825	3.000	7.00	1.56	108.3	clear/no	10
1221	.50	1.5	.10	143.60	8.16	17.79	2.925	6.03	1.53	116.8	clear/no	13
1230	.90	2.4	.10	143.80	8.24	17.85	2.906	5.16	1.52	117.8	clear/no	10
1244	.40	2.8	.10	144.12	8.28	17.81	2.907	5.54	1.52	121.3	clear/no	6.0
1247	.30	3.1	.10	144.35	8.29	17.68	2.902	5.56	1.51	121.2	clear/no	5.3
1250	.30	3.4	.10	144.41	8.30	17.74	2.902	5.43	1.51	121.5	clear/no	4.8

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Tony Lucero / Trinity ADC	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1255
PUMP OR TUBING DEPTH IN WELL (feet): 158.89	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N Filtration Equipment Type: in line FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI556 SN#: 13A100064
3	CG	40mL	HCL	VOCs	BP	378	TURBIDIMETER
2	AG	1L	—	Explosives			Model: 2020we SN#: 1269-2699
2	PE	250mL	HNO3	Total Diss Metals			OTHER
1	PE	1L	NaOH	Cyanide			
1	PE	500mL	—	Alk/TDS			
1	PE	125mL	—	NO2/NO3 Cl-, SO4			

REMARKS: Batteries went dead in controller Between 1230 & 1245 reading so purge volume is off. 1240 started pump, re again

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☒ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-042 1255

MA01MW001-MSD
MA01MW001-MS

1 PE 250mL | – | Perchlorate | BP | 378

1 PE 250mL | $NH_4(2SO_4)$ HNO_3 OH | Cr^{+6} | BP | 378

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: MAFB, NM	DATE: 10-22-15
WELL NO: MA01MW007	SAMPLE ID: MA01MW007	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): NA
		FIELD DUPLICATE: Y (N) DUPLICATE ID: NA

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 145.31 feet to 155.31 feet	STATIC DEPTH TO WATER (feet): 142.68	PURGE PUMP TYPE OR BAILER: DB ?

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0076 gallons/foot x 149 feet) + 0.25 gallons = 0.73 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 152.64	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 152.64	PURGING INITIATED AT: 1215	PURGING ENDED AT: 1237	TOTAL VOLUME PURGED (gallons): 2.20

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1225	1.0	1.0	0.10	146.30	7.44	16.8	2.79	5.60	1.46	109.2	clear none	2.11
1228	0.30	1.30	0.10	144.40	7.45	16.8	2.79	5.20	1.46	108.8	clear none	1.89
1231	0.30	1.60	0.10	~~145.42~~ 146.76	7.46	16.8	2.80	5.50	1.47	108.5	clear none	1.11
1234	0.30	1.90	0.10	146.19	7.46	16.8	2.78	5.50	1.45	107.9	Clear none	0.71
1237	0.30	2.20	0.10	145.74	7.46	16.8	2.78	5.50	1.45	107.6	Clear none	0.81

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1238
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: (Y) N FILTER SIZE: 0.45 µm Filtration Equipment Type: Inline

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCL	VOCs	BP	378
2	AG	1L	—	Explosives		
2	PE	250mL	HNO_3	Total/Dissmet		
1	PE	1L	NaOH	Cyanide		
1	PE	500mL	—	NH_3/TOS		
1	PE	125mL	—	NO_2/NO_3 Cl- SO4		

H20 QUALITY PARAMETER — Model: YSI ProPlus SN#: 5919G
TURBIDIMETER — Model: 2020e SN#: 6555
OTHER

REMARKS: * 144.46 @ 1231 KB

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____
☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-03 @1238

1 PE 250mL — * 1 Perchlorate/BP/378
1 PE 250mL $NH_4(2SO4)HNH_4OH$ Cr+6 BP 378

2012_1102

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☑ NOT APPLICABLE (NO SYSTEM)

SITE NAME:	SITE LOCATION:	DATE:
SWMU-130	Melrose AFR, NM	10-22-15
WELL NO:	**SAMPLE ID:**	**FREE PRODUCT:** Y (N) / DEPTH TO PRODUCT (ft BTOC): NA	**FIELD DUPLICATE:** Y (N) / DUPLICATE ID: NA
MA01MW0023	MA01MW0023		

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	1/4	145.31 feet to 155.31 feet	143.52	BP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 153 feet) + 0.25 gallons = ~~3.60~~ 0.74 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
156.67	156.67	1420	1438	1.8

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1430	1.0	1.0	.10	145.10	8.32	18.00	2.574	6.77	1.33	112.0	clear/no	0.0
1434	.4	1.4	.10	145.25	8.21	18.05	2.571	6.32	1.34	121.0	clear/no	0.0
1438	.4	1.8	.10	145.25	8.21	18.09	2.570	6.09	1.33	121.5	clear/no	0.0

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME:
Tony Lucero (Trinity ADC		1445
PUMP OR TUBING DEPTH IN WELL (feet):	**TUBING MATERIAL CODE:**	**FIELD-FILTERED:** Y (N) / Filtration Equipment Type:	**FILTER SIZE:**
156.67	LDPE	None	0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCL	VOCs	BP	378
2	AG	1L	—	Explosives		
2	PE	250mL	HNO3	Total/Dissolved Metals		
1	PE	125	NaOH	Cyanide		
1	PE	500mL	—	Alk/TDS		
1	PE	~~250mL~~	—	NO2/NO3 Cl, SO4		
1	PE	250mL	—	Perchlorate		
1	PE	2x40mL	(NH4)2SO4 HNO3	Cr+6	BP	378

H20 QUALITY PARAMETER
Model: YSI 556 SN#: 13H1000064
TURBIDIMETER
Model: HACH SN#: 1269-2699
OTHER

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____
☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-05 @ 1445

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Modified FDEP Form FD 9000-24

GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☒ NOT APPLICABLE (NO SYSTEM)

SITE NAME: SWMU-130	SITE LOCATION: Melrose AFR, NM	DATE: 10-22-15
WELL NO: MA01MW0064	SAMPLE ID: MA01MW0064	FREE PRODUCT: Y (N) / DEPTH TO PRODUCT (ft BTOC): —
		FIELD DUPLICATE: Y (N) / DUPLICATE ID: —

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 144.09 feet to 160.09 feet	STATIC DEPTH TO WATER (feet): 143.54	PURGE PUMP TYPE OR BAILER: QBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY (only fill out if applicable)

= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= 0.10 gallons + (0.0026 gallons/foot x 154 feet) + 0.25 gallons = 0.75 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 157.41	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 157.41	PURGING INITIATED AT: 1325	PURGING ENDED AT: 1347	TOTAL VOLUME PURGED (gallons): 2.20

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1335	1.0	1.0	0.10	144.50	7.84	16.9	1.79	7.1	0.91	101.3	Clear none	0.32
1338	0.30	1.30	0.10	144.68	7.85	16.9	1.79	6.8	0.91	101.2	Clear none	0.28
1341	0.30	1.60	0.10	144.92	7.86	17.0	1.79	6.8	0.91	101.1	Clear none	0.21
1344	0.30	1.90	0.10	145.04	7.86	17.1	1.79	6.7	0.91	100.9	Clear none	0.14
1347	0.30	2.20	0.10	145.44	7.86	17.1	1.79	6.8	0.91	100.7	Clear none	0.11

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Benjamin Stewart Trinity	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME: 1348
PUMP OR TUBING DEPTH IN WELL (feet): 157.41	TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: (Y) N / Filtration Equipment Type: Nalge FILTER SIZE: 0.45 µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	H20 QUALITY PARAMETER
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED				Model: YSI ProPlus SN#: 5A194
3	CG	40mL	HCL	VOCs	BP	378	TURBIDIMETER
2	AG	1L	—	Explosives			Model: Hach SN#: 65589
2	PE	250mL	HNO3	Total/Dissolved Metals			OTHER
1	PE	1L	NaOH	Cyanide			
1	PE	500mL	—	Alk/TDS			
1	PE	125mL	—	NO2/NO3 Cl, SO4			
REMARKS: 1	PE	250mL	—	Perchlorate			

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-03 @ 1338

1 PE 250mL $NH_4(2SO_4)HNaOH$ | Cr^{+6} | BP | 378

2012_1102

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☑ NOT APPLICABLE (NO SYSTEM)

SITE NAME:	SITE LOCATION:	DATE:
SWMU-131	Melrose AFR, NM	10-23-15
WELL NO:	**SAMPLE ID:**	**FREE PRODUCT:** Y N / **DEPTH TO PRODUCT (ft BTOC):**	**FIELD DUPLICATE:** (Y) N / **DUPLICATE ID:**
MA02MW001 (D) TR	MA02MW0010		MA02MW001D-a

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	1/4	161.95 feet to 181.15 feet	105.60	QB?

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.10 gallons + (0.0026 gallons/foot x 176 feet) + 0.25 gallons = 0.80 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
179.28	179.28	0810	0850	4.0

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0830	2.0	2.0	.10	108.62	7.38	17.44	8.166	.42	4.56	192.1	clear/no	0.0
0835	.5	2.5	.10	108.80	7.56	17.31	8.169	.33	4.56	157.4	clear/no	0.0
0840	.5	3.0	.10	109.45	7.65	17.31	8.167	.29	4.55	129.6	clear/no	0.0
0845	.5	3.5	.10	110.0	7.64	17.30	8.166	.26	4.55	128.4	clear/no	0.0
0850	.5	4.0	.10	110.40	7.65	17.30	8.159	.26	4.55	128.8	clear/no	0.0

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME:
Tony Lucero / Trinity ADC		0855

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N / Filtration Equipment Type:	FILTER SIZE:
179.28	LDPE	inline	0.45 µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCl	VOCs	BP	378
2	AG	1L	—	Explosives		
2	PE	250mL	HNO3	Total/Diss metals		
1	PE	1L	NaOH	Cyanide		
1	PE	500mL	—	NO2/NO3 Alk Cl, SO4 TDS		
1	PE	125mL	—	NO2/NO3 Cl, SO4		
1	PE	250mL	—	Perchlorate		

H20 QUALITY PARAMETER
Model: YSI556 SN#: 13A100064
TURBIDIMETER
Model: 2020we SN#: 1269-2699
OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair_____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____
☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk TB-06 @0855

1 PE 250mL $NH_4(SO_4)+NaOH$ / Cr^{+6} / BP / 378

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GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF X NOT APPLICABLE (NO SYSTEM)

SITE NAME:	SITE LOCATION:	DATE:
Background	Melrose AFR	10-23-15
WELL NO: MW2-24	SAMPLE ID: MW2-24	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): —
		FIELD DUPLICATE: Y (N) DUPLICATE ID: —

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
4	1/4	42.80 feet to 62.80 feet	47.74	DBP

WELL VOLUME PURGE: **1 WELL VOLUME** = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: **1 EQUIPMENT VOL.** = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 6.10 gallons + (0.0026 gallons/foot x 57 feet) + 0.25 gallons = 0.49 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):
60.1	60.1	1030	1050	2.0

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
1040	1.0	1.0	.10	48.21	7.52	16.35	.603	6.84	.30	132.2	clear/no	0.0
1045	.5	1.5	.10	48.33	7.55	16.35	.601	6.42	.29	133.6	clear/no	0.0
1050	.5	2.0	.10	48.35	7.58	16.35	.600	6.25	.29	133.4	clear/no	0.0

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLE TIME:
Tony Lucero Trinity ADC		1055

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N Filtration Equipment Type: inline	FILTER SIZE: 0.45 µm
60.1	LDPE		

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

FIELD EQUIPMENT IDENTIFICATION

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			
3	CG	40mL	HCL	VOCs	BP	378
2	AG	1L	—	Explosives		
2	PE	250mL	HNO3	Total/Dis Metals		
1	PE	1L	NaOH	Cyanide		
1	PE	500mL	—	Alkalos		
1	PE	125mL	—	NO3/NO2 Chloride, SO4		
REMARKS: 1	PE	250mL	—	Perchlorate		

H20 QUALITY PARAMETER
Model: VSI55C SN#: ~~5919~~ 13A100064
TURBIDIMETER
Model: 2020we SN#: 1269-2699
OTHER

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES:

☐ well needs repair — ☐ needs well tag — ☐ locking cap: — ☐ other comment: —

☐ DI Water Lot # — ☐ MS / MSD — ☐ Equip blk — ☐ Ambient blk — ☐ Trip blk TB-08 @ 1055

1 PE 250mL | $NH_4(2SO4)HN_4O4$ | Cr^{+6} | BP | 378

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ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services
www.trinityadc.com

Modified FDEP Form FD 9000-24

GROUNDWATER SAMPLING LOG

☐ SYSTEM ON ☐ SYSTEM OFF ☐ NOT APPLICABLE (NO SYSTEM)

SITE NAME: Melrose AFB	SITE LOCATION: Melrose NM	DATE: 11-13-15
WELL NO: MW2 14	SAMPLE ID: MW2 14	FREE PRODUCT: Y (N) DEPTH TO PRODUCT (ft BTOC): NA
		FIELD DUPLICATE: Y (N) DUPLICATE ID:

PURGING DATA

WELL DIAMETER (inches): 4	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 90.7 feet to 110.7 feet	STATIC DEPTH TO WATER (feet): 66.80	PURGE PUMP TYPE OR BAILER: QBP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) x WELL CAPACITY
(only fill out if applicable)
= (feet – feet) x gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY x TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot x feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 100.66	PURGING INITIATED AT: 0845	PURGING ENDED AT: 0920	TOTAL VOLUME PURGED (gallons): 3.5

Time	Volume Purged (gallons)	Cum. Volume Purged (gallons)	Purge Rate (gpm)	Depth to Water (ft BTOC)	pH (SU)	Temp. (°C)	Spec. Cond. (mS/cm)	Dissolved Oxygen (mg/L)	Salinity (‰)	ORP (mV)	Color/ Odor (describe)	Turbidity (NTUs)
0905	2.0	2.0	.10	68.48	7.28	16.52	2.205	2.58	1.14	207.3	clear / no	0.00
0910	.5	2.5	.10	69.31	7.57	16.46	2.217	2.58	1.14	207.4	clear / no	0.00
0915	.5	3.0	.10	69.50	7.58	16.46	2.214	2.57	1.14	207.5	clear / no	0.00
0920	.5	3.5	.10	69.70	7.58	16.46	2.214	2.57	1.14	207.4	clear / no	0.00

WELL CAPACITY (gal/ft): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Tony Lucero	SAMPLER(S) SIGNATURE(S): Tony Lucero	SAMPLE TIME: 0925
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: (Y) N FILTER SIZE: 1 µm; Filtration Equipment Type: inline

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)

SAMPLE CONTAINER SPECIFICATION				INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED			

FIELD EQUIPMENT IDENTIFICATION

H20 QUALITY PARAMETER
Model: YSI 556 SN#: 13A1000064

TURBIDIMETER
Model: LaMotte 2020 SN#: 1269-2699

OTHER

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater)
Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

☐ well needs repair _____ ☐ needs well tag _____ ☐ locking cap: _____ ☐ other comment: _____

☐ DI Water Lot # _____ ☐ MS / MSD _____ ☐ Equip blk _____ ☐ Ambient blk _____ ☐ Trip blk _____

APPENDIX B

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

April 18, 2015

Analytical Report for Service Request No: R1502311

Mr. Jonathan Kramer
Gulf Coast Analytical Laboratories
7979 GSRI Avenue
Baton Rouge, LA 70820

Laboratory Results for: Melorse AFR/A012-113

Dear Mr. Kramer:

Enclosed are the results of the sample(s) submitted to our laboratory between April 2, 2015 and April 4, 2015. For your reference, these analyses have been assigned our service request number **R1502311**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Tracy Christ
Project Manager

ALS Environmental

Client:	Gulf Coast Analytical Laboratories	**Service Request No.:**	R1502311
Project:	Melrose	**Date Received:**	4/2-4/4/15
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS. This report contains analytical results for samples designated for Tier III. When appropriate to the method, method blank results have been reported with each analytical test. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS). Any correspondence via e-mail or phone will follow this narrative page in the report.

Sample Receipt

Eighteen water samples were received for analysis at ALS between 4/2-4/4/15. The samples were received in good condition. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Hexavalent Chromium

All Initial Calibrations were compliant.

The Continuing Calibration Verification (CCV2 and CCV4) were outside of the control limits high and have been flagged with a "*". All samples with hits were repeated under compliant QC.

The Continuing Calibration Blank (CCB2) contained a hit. All samples with detections were repeated under compliant QC.

All Method Blanks were free of contamination.

Site specific QC was requested on sampleM114MW001 (R1502311-001). Both the Matrix Spike and Duplicate Matrix Spike were outside of the QC limits low and have been flagged with a "*".

The Laboratory Control Samples were within control limits.

No other analytical or quality control problems were encountered during analysis.

Approved by Tracy Chuat Date 4/18/15

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1502311

Lab ID	Client ID
R1502311-001	M114MW001
R1502311-002	M114MW003
R1502311-003	M114MW002
R1502311-004	M114MW004
R1502311-005	MA01MW004
R1502311-006	MA01MW003
R1502311-007	MA01MW002
R1502311-008	MA01MW001
R1502311-009	MWQ-24
R1502311-010	MA02MW001D
R1502311-011	MA02MW001D-a
R1502311-012	MWQ-22
R1502311-013	MWQ-21
R1502311-014	MWQ-20
R1502311-015	MWQ-19
R1502311-016	MWQ-18
R1502311-017	MWQ-2
R1502311-018	MWQ-2a

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Gulf Coast Analytical Labs
Project: Melorse AFR/A012-113
Sample Matrix: Water

Service Request: R1502311
Date Collected: 4/ 1/15 - 4/ 3/15
Date Received: 4/ 2/15 - 4/ 4/15

Analysis Method: 218.6 LL

Units: µg/L
Basis: NA

Chromium, Hexavalent, Dissolved

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
M114MW001	R1502311-001	**3.75**		0.10	0.07	5	NA	4/15/15 13:12	
M114MW003	R1502311-002	**0.76**		0.10	0.07	5	NA	4/15/15 13:45	
M114MW002	R1502311-003	**1.75**		0.10	0.07	5	NA	4/15/15 13:55	
M114MW004	R1502311-004	**1.53**		0.10	0.07	5	NA	4/15/15 14:06	
MA01MW004	R1502311-005	**0.680**		0.020	0.014	1	NA	4/15/15 14:17	
MA01MW003	R1502311-006	**0.358**		0.020	0.014	1	NA	4/15/15 14:28	
MA01MW002	R1502311-007	**1.39**		0.10	0.07	5	NA	4/15/15 14:38	
MA01MW001	R1502311-008	**0.362**		0.020	0.014	1	NA	4/15/15 15:33	
MWQ-24	R1502311-009	**0.368**		0.020	0.014	1	NA	4/15/15 15:44	
MA02MW001D	R1502311-010	0.020	U	0.020	0.014	1	NA	4/13/15 17:52	
MA02MW001D-a	R1502311-011	0.020	U	0.020	0.014	1	NA	4/13/15 18:03	
MWQ-22	R1502311-012	**0.167**		0.020	0.014	1	NA	4/15/15 15:55	
MWQ-21	R1502311-013	**0.513**		0.020	0.014	1	NA	4/15/15 16:27	
MWQ-20	R1502311-014	0.020	U	0.020	0.014	1	NA	4/13/15 18:56	
MWQ-19	R1502311-015	**0.101**		0.020	0.014	1	NA	4/15/15 16:38	
MWQ-18	R1502311-016	**0.690**		0.020	0.014	1	NA	4/15/15 16:49	
MWQ-2	R1502311-017	0.020	U	0.020	0.014	1	NA	4/13/15 19:50	
MWQ-2a	R1502311-018	0.020	U	0.020	0.014	1	NA	4/13/15 20:01	
Method Blank	R1502311-MB1	0.020	U	0.020	0.014	1	NA	4/13/15 14:26	
Method Blank	R1502311-MB2	0.020	U	0.020	0.014	1	NA	4/15/15 12:20	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Gulf Coast Analytical Labs
Project: Melorse AFR/A012-113
Sample Matrix: Water

Service Request: R1502311
Date Collected: 4/1/15
Date Received: 4/2/15
Date Analyzed: 4/15/15

Matrix Spike Summary
General Chemistry Parameters

Sample Name: M114MW001
Lab Code: R1502311-001

Units: µg/L
Basis: NA

Analytical Method: 218.6 LL

		M114MW001MS Matrix Spike R1502311-001MS				M114MW001DMS Duplicate Matrix Spike R1502311-001DMS						
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
Chromium, Hexavalent, Dissolved	3.75	4.40	1.00	66	*	4.43	1.00	68	*	90 - 110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Gulf Coast Analytical Labs
Project: Melorse AFR/A012-113
Sample Matrix: Water

Service Request: R1502311
Date Analyzed: 4/13/15

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1502311-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.216	0.200	108	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Gulf Coast Analytical Labs
Project: Melorse AFR/A012-113
Sample Matrix: Water

Service Request: R1502311
Date Analyzed: 4/15/15

Lab Control Sample Summary
General Chemistry Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1502311-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.212	0.200	106	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Gulf Coast Analytical Labs **Service Request:** R1502311
Project: Melorse AFR/A012-113

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL **Units:** µg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery		Acceptance Limits
CCV1	440699	RQ1503725-04	4/13/15 14:10	0.500	0.495	99		95 - 105
CCV2	440699	RQ1503725-03	4/13/15 17:09	0.500	0.527	105	*	95 - 105
CCV3	440699	RQ1503725-02	4/13/15 19:18	0.500	0.508	102		95 - 105
CCV4	440699	RQ1503725-01	4/13/15 20:22	0.500	0.541	108	*	95 - 105
CCV5	440703	RQ1503726-07	4/15/15 12:03	0.500	0.517	103		95 - 105
CCV6	440703	RQ1503726-06	4/15/15 14:57	0.500	0.507	101		95 - 105
CCV7	440703	RQ1503726-05	4/15/15 17:13	0.500	0.524	105		95 - 105

Client: Gulf Coast Analytical Labs
Project: Melorse AFR/A012-113

Service Request: R1502311

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: 218.6 LL

Units: µg/L

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
CCB1	440699	RQ1503725-08	4/13/15 14:26	0.014	0.020	0.020	U
CCB2	440699	RQ1503725-07	4/13/15 17:20	0.014	0.020	**0.072**	
CCB3	440699	RQ1503725-06	4/13/15 19:29	0.014	0.020	0.020	U
CCB4	440699	RQ1503725-05	4/13/15 20:33	0.014	0.020	0.020	U
CCB5	440703	RQ1503726-10	4/15/15 12:20	0.014	0.020	0.020	U
CCB6	440703	RQ1503726-09	4/15/15 15:21	0.014	0.020	0.020	U
CCB7	440703	RQ1503726-08	4/16/15 09:03	0.014	0.020	0.020	U

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-113

Chain of Custody Number (1): 150401004

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Robert Harrell	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code[2]	Sample Number[3]	Sample Matrix[4]	Number of containers	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW001		04 01 2015	1253		N	1	WG	1	X				D
M114MW001-MS		04 01 2015	1253		MS	1	WG	1	X				D
M114MW001-SD		04 01 2015	1253	-	SD	1	WG	1	X				D
M114MW003		04 01 2015	1126	-	N	1	WG	1	X				D
M114MW002		04 01 2015	1145	-	N	1	WG	1	X				D
M114MW004		04 01 2015	1325	-	N	1	WG	1	X				D
				-									
				-									
				-									
				-									
				-									
				-									
				-									
				-									

Sample Analysis Requested[5] / Quality Assurance Samples[6]

R1502311 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/1/15	1630		4/2/15	0940
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No
Method of Shipment:	FedEx
Analytical Lab: ~~GCAL~~	ALS
Lab Recipient:	
Shipped: No.:	1
Airbill Number:	
Delivery Location:	Rochester, NY
Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

R1502311 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

Cooler Receipt and Preservation Check Form

Project/Client Trinity Folder Number R15-2311

Cooler received on 4/2/15 by: @

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 4/2/15 Time: 0952 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.5						
Correction Factor (°C)	-1.6						
Corrected Temp (°C)	0.9°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 4/2/15 at 0955
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: [signature]

Cooler Breakdown: Date: 4/2/15 Time: 1236 by: @

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 012615-2440;

Other Comments:

Cr+6 Buffer: WC1401251) Exp. 12/15

PC Secondary Review: [signature]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040206

Project Name / Site Name: Melorse AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Robert Harrell	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code[2]	Sample Number[1]	Sample Matrix[4]	Number of containers	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MAOIMW004		04022015	0940		N	1	WG	1	X				F
MAOIMW003		04022015	1059		N	1	WG	1	X				F
MAOIMW002		04022015	0925	-	N	1	WG	1	X				F
MAOIMW001		04022015	1020	-	N	1	WG	1	X				F
MW2-24		04022015	1210	-	N	1	WG	1	X				F
MA02MW001D		04022015	1406	-	N	1	WG	1	X				F
MA02MW001D-a		04022015	1406	-	FD	1	WG	1	X				F
				-									
				-									
				-									
				-									
				-									
				-									
				-									
				-									

R1502311 5
Gulf Coast Analytical Laboratories
Melorse AFR

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1900		4/3/15	0925
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	1
Method of Shipment:	FedEx	Airbill Number:	
Analytical Lab: ~~GCAL~~	ALS	Delivery Location:	Rochester, NY
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

R1502311 5
Gulf Coast Analytical Laboratories
Melorse AFR

Cooler Receipt and Preservation Check Form

Project/Client Trinity / Gulf Coast Folder Number 115-2311

Cooler received on 4/3/15 by: JH3 COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk, or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as:	Bulk Encore 5035set (NA)

8. Temperature Readings Date: 4/3/15 Time: 0959 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	1.6						
Correction Factor (°C)	-0.7						
Corrected Temp (°C)	0.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: mr by JH3 on 4/3/15 at 1000
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: TChrist

Cooler Breakdown: Date: 4/3/15 Time: 1327 by: JH3

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 012615-2AAD

Other Comments:

PC Secondary Review: TChrist

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040305

Project Name / Site Name: Melorse AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Robert Harrell	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code[2]	Sample Number[3]	Sample Matrix[4]	Number of containers	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MWQ-22		04032015	0935		N	1	WG	1	X				E
MWQ-22-MS		04032015	0935		MS	1	WG	1	X				E
MWQ-22-MSD		04032015	0935	-	SD	1	WG	1	X				E
MWQ-21		04032015	1045	-	N	1	WG	1	X				E
MWQ-20		04032015	1207	-	N	1	WG	1	X				E
MWQ-19		04032015	1210	-	N	1	WG	1	X				E
MWQ-18		04032015	1250	-	N	1	WG	1	X				E
MWQ-7		04032015	1420	-	N	1	WG	1	X				E
MWQ-2-a		04032015	1420	-	FD	1	WG	1	X				E
				-									
				-									
				-									
				-									
				-									
				-									

Quality Assurance Samples[6]

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Gulf Coast Analytical Laboratories
Melorse AFR

Comments: ~~Dissolved metals were field filtered~~

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1.		4/3/15	1630			
2.						
3.					4/4/15	0945

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	
Method of Shipment:	FedEx	Airbill Number:	
Analytical Lab: ~~GCAL~~ ACS		Delivery Location:	Rochester, NY
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

R1502311 5
Gulf Coast Analytical Laboratories
Melorse AFR

Cooler Receipt and Preservation Check Form

Project/Client Trinity / Gulf Coast. Folder Number 115 - 2311

Cooler received on 4/4/15 by: JKJ

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT	
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 4/4/15 Time: 1046 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	1.3						
Correction Factor (°C)	-0.7						
Corrected Temp (°C)	0.6						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Mor by JKJ on 4/4/15 at 1047
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: TChrist

Cooler Breakdown: Date: 4/4/15 Time: 1003 by: JKJ

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (NA)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 012615 - 2440

Other Comments:

PC Secondary Review: TChrist

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Southeast
ACCUTEST LABORATORIES

11/12/15

Technical Report for

Trinity Analysis & Development Corp

Melrose Air Force Range, NM

A012-113

Accutest Job Number: FA28705

Sampling Date: 10/23/15

Report to:

Trinity Analysis & Development Corp
1002 N Eglin Pkwy
Shalimar, FL 32579
jkramer@trinityadc.com; jbrown@trinityadc.com

ATTN: Jonathan Kramer

Total number of pages in report: **221**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Sample Summary

Trinity Analysis & Development Corp

Job No: FA28705

Melrose Air Force Range, NM
Project No: A012-113

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA28705-1	10/23/15	08:55	BSTL	10/24/15	AQ	Ground Water	MA02MW001D
FA28705-1F	10/23/15	08:55	BSTL	10/24/15	AQ	Groundwater Filtered	MA02MW001D
FA28705-2	10/23/15	08:55	BSTL	10/24/15	AQ	Trip Blank Water	TB-07

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: [illegible]

Job No: [illegible]

Site: [illegible]

Report Date [illegible]

[illegible]

[illegible]

Volatiles by GCMS By Method SW846 8260B

Matrix: [illegible]

Batch ID: [illegible]

[illegible]

Extractables by GCMS By Method SW846 6850

Matrix: [illegible]

Batch ID: [illegible]

[illegible]

Extractables by GC By Method SW846 8330A

Matrix: [illegible]

Batch ID: [illegible]

[illegible]

Metals By Method SW846 6020A

Matrix: [illegible]

Batch ID: [illegible]

[illegible]

Metals By Method SW846 6020A

Matrix: [illegible] Batch ID: [illegible]M[illegible]00[illegible]

[illegible]05[illegible]

Metals By Method SW846 7470A

Matrix: [illegible] Batch ID: [illegible]M[illegible]5[illegible]

[illegible]

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

Wet Chemistry By Method EPA 335.4/SW 9012B

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

Wet Chemistry By Method SM2320 B-11

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

Wet Chemistry By Method SM2540 C-11

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

Wet Chemistry By Method SW846 7196A

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

[illegible]

Manual Integration Summary

Lab Sample ID	Analysis Type	File ID	Manual Integrations
FA28705-1	GCSEMI	BB048470.D	3,4-Dinitrotoluene
GBB1341-CC1341	GCSEMI	BB048072.D	1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, 4-amino-2,6-Dinitrotoluene, DNX, HMX, m-Nitrotoluene, MNX, Nitrobenzene, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, RDX, Tetryl
GBB1341-ECC1341	GCSEMI	BB048078.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1341-IC1341	GCSEMI	BB048064.D	1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-amino-4,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, 4-amino-2,6-Dinitrotoluene, DNX, HMX, m-Nitrotoluene,MNX, Nitrobenzene, Nitroglycerine, o-Nitrotoluene, PETN, RDX, Tetryl, TNX
GBB1341-IC1341	GCSEMI	BB048065.D	1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-amino-4,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, 4-amino-2,6-Dinitrotoluene, m-Nitrotoluene, MNX, Nitrobenzene, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, RDX, Tetryl, TNX
GBB1341-IC1341	GCSEMI	BB048066.D	1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,6-Dinitrotoluene, 3,5-Dinitroaniline, HMX, m-Nitrotoluene, MNX, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, RDX, Tetryl
GBB1341-IC1341	GCSEMI	BB048067.D	2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 3,4-Dinitrotoluene, m-Nitrotoluene, MNX, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, TNX
GBB1341-IC1341	GCSEMI	BB048069.D	DNX, m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene,PETN
GBB1341-IC1341	GCSEMI	BB048070.D	m-Nitrotoluene, p-Nitrotoluene, PETN
GBB1341-ICC1341	GCSEMI	BB048068.D	2,6-Dinitrotoluene, m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1341-ICV1341	GCSEMI	BB048071.D	DNX, HMX, m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN, TNX
GBB1342-CC1341	GCSEMI	BB048084.D	1,3-Dinitrobenzene, 2,6-Dinitrotoluene, m-Nitrotoluene,Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1342-CC1341	GCSEMI	BB048095.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1342-CC1341	GCSEMI	BB048107.D	m-Nitrotoluene, PETN
GBB1342-CC1341	GCSEMI	BB048119.D	m-Nitrotoluene, PETN
GBB1343-CC1341	GCSEMI	BB048129.D	m-Nitrotoluene, PETN
GBB1343-ECC1341	GCSEMI	BB048137.D	m-Nitrotoluene, p-Nitrotoluene, PETN
GBB1344-CC1341	GCSEMI	BB048139.D	PETN
GBB1344-CC1341	GCSEMI	BB048149.D	m-Nitrotoluene, PETN
GBB1344-CC1341	GCSEMI	BB048161.D	m-Nitrotoluene
GBB1344-ECC1341	GCSEMI	BB048178.D	m-Nitrotoluene, PETN
GBB1345-CC1341	GCSEMI	BB048180.D	PETN
GBB1345-CC1341	GCSEMI	BB048190.D	3,5-Dinitroaniline, m-Nitrotoluene, o-Nitrotoluene,p-Nitrotoluene, PETN

GBB1345-CC1341	GCSEMI	BB048202.D	PETN
GBB1345-CC1341	GCSEMI	BB048214.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1345-ECC1341	GCSEMI	BB048249.D	PETN
GBB1346-CC1341	GCSEMI	BB048251.D	m-Nitrotoluene, PETN
GBB1346-CC1341	GCSEMI	BB048262.D	m-Nitrotoluene
GBB1346-CC1341	GCSEMI	BB048273.D	PETN
GBB1346-ECC1341	GCSEMI	BB048276.D	m-Nitrotoluene, PETN
GBB1347-CC1341	GCSEMI	BB048278.D	m-Nitrotoluene, p-Nitrotoluene, PETN
GBB1347-CC1341	GCSEMI	BB048289.D	3,5-Dinitroaniline, m-Nitrotoluene, Nitrobenzene, p-Nitrotoluene, PETN
GBB1347-CC1341	GCSEMI	BB048300.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1347-ECC1341	GCSEMI	BB048307.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1348-CC1341	GCSEMI	BB048309.D	2,6-Dinitrotoluene, m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1348-ECC1341	GCSEMI	BB048320.D	m-Nitrotoluene, PETN
GBB1349-CC1341	GCSEMI	BB048323.D	m-Nitrotoluene, PETN
GBB1349-CC1341	GCSEMI	BB048334.D	m-Nitrotoluene, PETN
GBB1349-CC1341	GCSEMI	BB048346.D	m-Nitrotoluene, PETN
GBB1349-ECC1341	GCSEMI	BB048349.D	m-Nitrotoluene, PETN
GBB1350-CC1341	GCSEMI	BB048351.D	2,6-Dinitrotoluene, m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1350-CC1341	GCSEMI	BB048360.D	m-Nitrotoluene, Nitrobenzene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1350-ECC1341	GCSEMI	BB048367.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1351-CC1341	GCSEMI	BB048369.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1351-ECC1341	GCSEMI	BB048378.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1352-CC1341	GCSEMI	BB048380.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1352-CC1341	GCSEMI	BB048391.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1352-CC1341	GCSEMI	BB048403.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1352-CC1341	GCSEMI	BB048415.D	PETN
GBB1352-ECC1341	GCSEMI	BB048427.D	m-Nitrotoluene, PETN
GBB1353-CC1341	GCSEMI	BB048429.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1353-ECC1341	GCSEMI	BB048440.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1354-CC1341	GCSEMI	BB048442.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1354-ECC1341	GCSEMI	BB048452.D	PETN
GBB1355-CC1341	GCSEMI	BB048454.D	m-Nitrotoluene, PETN
GBB1355-ECC1341	GCSEMI	BB048465.D	2,6-Dinitrotoluene, m-Nitrotoluene, PETN
GBB1356-CC1341	GCSEMI	BB048467.D	m-Nitrotoluene, PETN
GBB1356-ECC1341	GCSEMI	BB048477.D	m-Nitrotoluene, PETN
GBB1357-CC1341	GCSEMI	BB048479.D	m-Nitrotoluene, p-Nitrotoluene, PETN
GBB1357-CC1341	GCSEMI	BB048490.D	m-Nitrotoluene, PETN
GBB1357-CC1341	GCSEMI	BB048502.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1357-CC1341	GCSEMI	BB048514.D	m-Nitrotoluene, p-Nitrotoluene, PETN
GBB1357-ECC1341	GCSEMI	BB048525.D	m-Nitrotoluene, PETN
GBB1358-CC1341	GCSEMI	BB048527.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1358-ECC1341	GCSEMI	BB048530.D	m-Nitrotoluene, Nitrobenzene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1359-CC1341	GCSEMI	BB048532.D	m-Nitrotoluene, PETN
GBB1359-CC1341	GCSEMI	BB048543.D	m-Nitrotoluene, PETN
GBB1359-ECC1341	GCSEMI	BB048554.D	m-Nitrotoluene, o-Nitrotoluene, p-Nitrotoluene, PETN
GBB1360-CC1341	GCSEMI	BB048556.D	m-Nitrotoluene, PETN, Tetryl
GBB1360-CC1341	GCSEMI	BB048565.D	PETN
GBB1360-ECC1341	GCSEMI	BB048571.D	PETN
GBB1361-CC1341	GCSEMI	BB048573.D	m-Nitrotoluene, PETN

GBB1361-ECC1341	GCSEMI	BB048583.D	m-Nitrotoluene, PETN
GPP1915-CC1915	GCSEMI	PP378247.D	2-amino-4,6-Dinitrotoluene, 3,4-Dinitrotoluene, 4-amino-2,6-Dinitrotoluene, Nitroglycerine, p-Nitrotoluene, PETN, Tetryl, TNX
GPP1915-CC1915	GCSEMI	PP378255.D	PETN
GPP1915-ECC1915	GCSEMI	PP378262.D	PETN
GPP1915-IC1915	GCSEMI	PP378239.D	2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-amino-4,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, 4-amino-2,6-Dinitrotoluene, m-Nitrotoluene, MNX, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, RDX, TNX
GPP1915-IC1915	GCSEMI	PP378240.D	3,4-Dinitrotoluene, MNX, Nitroglycerine, PETN
GPP1915-IC1915	GCSEMI	PP378241.D	1,3-Dinitrobenzene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, Nitroglycerine, o-Nitrotoluene, PETN
GPP1915-IC1915	GCSEMI	PP378242.D	PETN
GPP1915-IC1915	GCSEMI	PP378244.D	1,3-Dinitrobenzene, 2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-amino-4,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, 4-amino-2,6-Dinitrotoluene, m-Nitrotoluene, Nitrobenzene, Nitroglycerine, o-Nitrotoluene, p-Nitrotoluene, PETN, Tetryl
GPP1915-IC1915	GCSEMI	PP378245.D	PETN
GPP1915-ICC1915	GCSEMI	PP378243.D	3,4-Dinitrotoluene, Nitroglycerine, PETN
GPP1915-ICV1915	GCSEMI	PP378246.D	PETN
GPP1916-CC1915	GCSEMI	PP378264.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1916-ECC1915	GCSEMI	PP378268.D	DNX, HMX, PETN, TNX
GPP1917-CC1915	GCSEMI	PP378270.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1917-ECC1915	GCSEMI	PP378275.D	PETN
GPP1918-CC1915	GCSEMI	PP378277.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1918-CC1915	GCSEMI	PP378288.D	3,4-Dinitrotoluene, PETN
GPP1918-ECC1915	GCSEMI	PP378294.D	PETN
GPP1920-CC1915	GCSEMI	PP378308.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1920-ECC1915	GCSEMI	PP378314.D	PETN, TNX
GPP1921-CC1915	GCSEMI	PP378316.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN, RDX
GPP1921-ECC1915	GCSEMI	PP378324.D	PETN, RDX
GPP1922-CC1915	GCSEMI	PP378327.D	3,4-Dinitrotoluene, Nitroglycerine, PETN
GPP1922-ECC1915	GCSEMI	PP378334.D	PETN
GPP1923-CC1915	GCSEMI	PP378336.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1923-CC1915	GCSEMI	PP378347.D	PETN
GPP1923-ECC1915	GCSEMI	PP378358.D	PETN
GPP1924-CC1915	GCSEMI	PP378360.D	3,5-Dinitroaniline, o-Nitrotoluene, PETN
GPP1924-CC1915	GCSEMI	PP378367.D	PETN, TNX
GPP1924-ECC1915	GCSEMI	PP378376.D	PETN, TNX
GPP1925-CC1915	GCSEMI	PP378378.D	PETN
GPP1925-ECC1915	GCSEMI	PP378389.D	2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 3,4-Dinitrotoluene, 3,5-Dinitroaniline, o-Nitrotoluene, PETN, Tetryl
GPP1926-CC1915	GCSEMI	PP378391.D	PETN
GPP1926-CC1915	GCSEMI	PP378402.D	PETN
GPP1926-CC1915	GCSEMI	PP378414.D	PETN
GPP1926-ECC1915	GCSEMI	PP378418.D	PETN
OP58134-BS	GCSEMI	BB048468.D	2,6-Dinitrotoluene, RDX, TNX
OP58134-MS	GCSEMI	BB048474.D	1,3,5-Trinitrobenzene, DNX, HMX, m-Nitrotoluene, MNX, o-Nitrotoluene, p-Nitrotoluene, TNX
OP58134-MSD	GCSEMI	BB048475.D	1,3,5-Trinitrobenzene, DNX, HMX, m-Nitrotoluene, MNX, o-Nitrotoluene, p-Nitrotoluene, TNX
VB4406-IC4406	MSVOA	B109134.D	Tert-Amyl Alcohol, Tert-Butyl Alcohol

113 Manual Integrations were found for FA28705

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Southeast, Inc.	**Job No**	FA28705
Site:	BBAFLFWB: Melrose Air Force Range, NM	**Report Date**	11/11/2015 11:07:13 A

On 10/30/2015, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a maximum corrected temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of FA28705 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP90028

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA28742-3MS, FA28742-3MSD, FA28742-3PS, FA28742-3SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Sodium are outside control limits. Matrix Spike Rec. outside of QC limits
- RPD(s) for MSD for Aluminum are outside control limits for sample MP90028-S2. High rpd due to possible sample nonhomogeneity.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Cadmium, Chromium, Copper, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc are outside control limits for sample MP90028-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: FA28705
Account: Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Collected: 10/23/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA28705-1	**MA02MW001D**					
Vinyl Chloride		0.41 J	1.0	0.25	ug/l	SW846 8260B
Perchlorate		14.6	0.20	0.040	ug/l	SW846 6850
Barium [a]		7.9	2.0		ug/l	SW846 6020A
Calcium [a]		115000	6300		ug/l	SW846 6020A
Magnesium [a]		50600	6300		ug/l	SW846 6020A
Manganese [a]		167	4.0		ug/l	SW846 6020A
Potassium [a]		6550	500		ug/l	SW846 6020A
Selenium [a]		51.3	2.0		ug/l	SW846 6020A
Sodium [a]		2020000	130000		ug/l	SW846 6020A
Vanadium [a]		6.1	3.0		ug/l	SW846 6020A
Alkalinity, Total as CaCO3		143	5.0		mg/l	SM2320 B-11
Chloride		2060	100		mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate		6.7	5.0		mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved		5400	1000		mg/l	SM2540 C-11
Sulfate		2130	100		mg/l	EPA 300/SW846 9056A
FA28705-1F	**MA02MW001D**					
Barium [a]		7.9	2.0		ug/l	SW846 6020A
Calcium [a]		110000	6300		ug/l	SW846 6020A
Magnesium [a]		49600	6300		ug/l	SW846 6020A
Manganese [a]		159	4.0		ug/l	SW846 6020A
Potassium [a]		6590	500		ug/l	SW846 6020A
Selenium [a]		54.4	2.0		ug/l	SW846 6020A
Sodium [a]		1750000	130000		ug/l	SW846 6020A
Vanadium [a]		6.4	3.0		ug/l	SW846 6020A
FA28705-2	**TB-07**					

No hits reported in this sample.

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MA02MW001D		
Lab Sample ID:	FA28705-1	**Date Sampled:**	10/23/15
Matrix:	AQ - Ground Water	**Date Received:**	10/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Melrose Air Force Range, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B109327.D	1	11/05/15	WV	n/a	n/a	VB4414
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane [a]	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MA02MW001D		
Lab Sample ID:	FA28705-1	**Date Sampled:**	10/23/15
Matrix:	AQ - Ground Water	**Date Received:**	10/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Melrose Air Force Range, NM		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	0.41	1.0	0.25	ug/l	J
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	104%		83-118%

(a) Associated CCV outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA28705-1
Matrix: AQ - Ground Water
Method: SW846 6850 SW846 6850
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q16587.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	14.6	0.20	0.040	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA28705-1
Matrix: AQ - Ground Water
Method: SW846 8330A SW846 3535A
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB048470.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.19	0.075	ug/l	
121-82-4	RDX	ND	0.19	0.075	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	0.19	0.075	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.19	0.075	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.19	0.075	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.19	0.075	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.19	0.075	ug/l	
98-95-3	Nitrobenzene	ND	0.19	0.075	ug/l	
88-72-2	o-Nitrotoluene	ND	0.19	0.075	ug/l	
99-08-1	m-Nitrotoluene	ND	0.19	0.075	ug/l	
99-99-0	p-Nitrotoluene	ND	0.19	0.075	ug/l	
479-45-8	Tetryl	ND	0.19	0.075	ug/l	
99-35-4	1,3,5-Trinitrobenzene	ND	0.19	0.075	ug/l	
118-96-7	2,4,6-Trinitrotoluene	ND	0.19	0.075	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	100%		70-136%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA28705-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Antimony [a]	< 4.0	4.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Arsenic [a]	< 3.0	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Barium [a]	7.9	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Beryllium [a]	< 1.0	1.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Cadmium [a]	< 6.0	6.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Calcium [a]	115000	6300	ug/l	25	11/02/15	11/10/15	ANJ	SW846 6020A [4]	SW846 3010A [6]
Chromium [a]	< 8.0	8.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Cobalt [a]	< 1.0	1.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Copper [a]	< 10	10	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Iron [a]	< 50	50	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Lead [a]	< 3.0	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Magnesium [a]	50600	6300	ug/l	25	11/02/15	11/09/15	ANJ	SW846 6020A [3]	SW846 3010A [6]
Manganese [a]	167	4.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Mercury	< 0.50	0.50	ug/l	1	10/30/15	10/30/15	JL	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	< 8.0	8.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Potassium [a]	6550	500	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Selenium [a]	51.3	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Silver [a]	< 2.0	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Sodium [a]	2020000	130000	ug/l	500	11/02/15	11/09/15	ANJ	SW846 6020A [3]	SW846 3010A [6]
Thallium [a]	< 2.0	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Vanadium [a]	6.1	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Zinc [a]	< 20	20	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]

(1) Instrument QC Batch: MA12749
(2) Instrument QC Batch: N:MA37984
(3) Instrument QC Batch: N:MA38002
(4) Instrument QC Batch: N:MA38011
(5) Prep QC Batch: MP29597
(6) Prep QC Batch: N:MP90028

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA28705-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	143	5.0	mg/l	1	11/02/15 09:05	LE	SM2320 B-11
Chloride	2060	100	mg/l	50	10/24/15 19:06	VK	EPA 300/SW846 9056A
Chromium, Hexavalent [a]	< 0.010	0.010	mg/l	1	10/24/15 17:45	JK	SW846 7196A
Cyanide, Total	< 0.010	0.010	mg/l	1	11/04/15 14:37	DM	EPA 335.4/SW 9012B
Nitrogen, Nitrate	6.7	5.0	mg/l	50	10/24/15 19:06	VK	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 5.0	5.0	mg/l	50	10/24/15 19:06	VK	EPA 300/SW846 9056A
Solids, Total Dissolved	5400	1000	mg/l	1	10/29/15 14:15	KC	SM2540 C-11
Sulfate	2130	100	mg/l	50	10/24/15 19:06	VK	EPA 300/SW846 9056A

(a) Sample received outside the holding time.
(b) Dilution required due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA28705-1F
Matrix: AQ - Groundwater Filtered
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Antimony [a]	< 4.0	4.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Arsenic [a]	< 3.0	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Barium [a]	7.9	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Beryllium [a]	< 1.0	1.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Cadmium [a]	< 6.0	6.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Calcium [a]	110000	6300	ug/l	25	11/02/15	11/10/15	ANJ	SW846 6020A [4]	SW846 3010A [6]
Chromium [a]	< 8.0	8.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Cobalt [a]	< 1.0	1.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Copper [a]	< 10	10	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Iron [a]	< 50	50	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Lead [a]	< 3.0	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Magnesium [a]	49600	6300	ug/l	25	11/02/15	11/09/15	ANJ	SW846 6020A [3]	SW846 3010A [6]
Manganese [a]	159	4.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Mercury	< 0.50	0.50	ug/l	1	10/30/15	10/30/15	JL	SW846 7470A [1]	SW846 7470A [5]
Nickel [a]	< 8.0	8.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Potassium [a]	6590	500	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Selenium [a]	54.4	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Silver [a]	< 2.0	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Sodium [a]	1750000	130000	ug/l	500	11/02/15	11/09/15	ANJ	SW846 6020A [3]	SW846 3010A [6]
Thallium [a]	< 2.0	2.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Vanadium [a]	6.4	3.0	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]
Zinc [a]	< 20	20	ug/l	2	11/02/15	11/06/15	ANJ	SW846 6020A [2]	SW846 3010A [6]

(1) Instrument QC Batch: MA12749
(2) Instrument QC Batch: N:MA37984
(3) Instrument QC Batch: N:MA38002
(4) Instrument QC Batch: N:MA38011
(5) Prep QC Batch: MP29597
(6) Prep QC Batch: N:MP90028

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: TB-07
Lab Sample ID: FA28705-2
Matrix: AQ - Trip Blank Water
Method: SW846 8260B
Project: Melrose Air Force Range, NM

Date Sampled: 10/23/15
Date Received: 10/24/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B109328.D	1	11/05/15	WV	n/a	n/a	VB4414
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane [a]	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-07		
Lab Sample ID:	FA28705-2	**Date Sampled:**	10/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	10/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Melrose Air Force Range, NM		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.25	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	105%		83-118%

(a) Associated CCV outside control limits.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FA28705

Page 1 of 1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR20151023103

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5)

Quality Assurance Samples (6)

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Chromium (VI) 218.6	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
1) MAO3MW001D		10/23/2015	0955		N	2	WG	10	X	X	X	X	X	X	X	X	X	X	X				C
2) TB-07		10/23/2015	0955		TB	1	WQ	2	X														C
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time
1.		10/23/15	1400	FED EX		
2.	FED EX	10-24-15	10:30		10-24-15	10:30
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: Fedex

Analytical Lab: Accutest

Lab Recipient:

Shipped: No.: 1

Airbill Number:

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

FA28705: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA28705 CLIENT: IRW.TY PROJECT: MELROSE AFR SEMIANNUAL

DATE/TIME RECEIVED: 10-24-15 10:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 8092 5091 1273

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

pH PAPER LOT#s WIDI HC131225

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 2.8

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

NARROW RANGE (AO36133) OTHER (specify) 405-230010

SUMMARY OF COMMENTS: ~~RECEIVED (2) 250ml BOTTLES FOR 8270 SAMPLES~~ (MA)

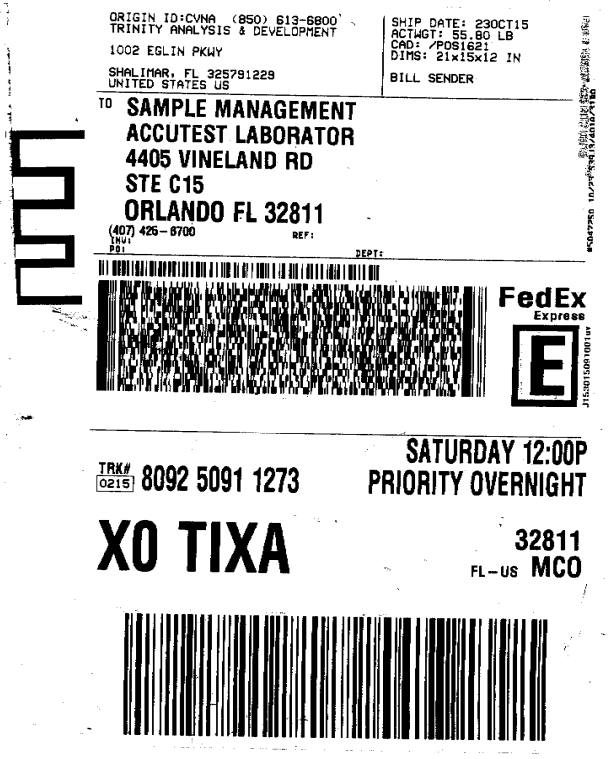
RECEIVED XCR SAMPLE OUT OF HOLD TIME. FEDEX ARRIVED AT 10:30AM.

TECHNICIAN SIGNATURE/DATE 10-24-15 REVIEWER SIGNATURE/DATE 10-24-15

NF 10/14 YELLOWSHEET110514.xls

5.1 5

FA28705: Chain of Custody
Page 2 of 3



ORIGIN ID:CVNA (850) 613-6800
TRINITY ANALYSIS & DEVELOPMENT

1002 EGLIN PKWY

SHALIMAR, FL 325791229
UNITED STATES US

SHIP DATE: 23OCT15
ACTWGT: 55.00 LB
CAD: /POS1621
DIMS: 21x15x12 IN

BILL SENDER

TO SAMPLE MANAGEMENT
ACCUTEST LABORATOR
4405 VINELAND RD
STE C15
ORLANDO FL 32811
(407) 425-6700

INV:
PO:
REF:
DEPT:

FedEx Express

TRK# 0215 8092 5091 1273

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO TIXA

32811
FL-US MCO

FA28705: Chain of Custody
Page 3 of 3

ACCUTEST LABORATORIES
FA28705

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4414-MB	B109324.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.25	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

Method Blank Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4414-MB	B109324.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	105%	83-118%

Blank Spike Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4414-BS	B109323.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	137	110	50-147
71-43-2	Benzene	25	25.3	101	81-122
75-27-4	Bromodichloromethane	25	25.3	101	79-123
75-25-2	Bromoform	25	23.8	95	66-123
78-93-3	2-Butanone (MEK)	125	113	90	56-143
75-15-0	Carbon Disulfide	25	24.6	98	66-148
56-23-5	Carbon Tetrachloride	25	27.2	109	76-136
108-90-7	Chlorobenzene	25	23.4	94	82-124
75-00-3	Chloroethane	25	33.0	132	62-144
67-66-3	Chloroform	25	25.1	100	80-124
124-48-1	Dibromochloromethane	25	23.9	96	78-122
75-34-3	1,1-Dichloroethane	25	26.4	106	81-122
107-06-2	1,2-Dichloroethane	25	25.6	102	75-125
75-35-4	1,1-Dichloroethylene	25	27.3	109	78-137
156-59-2	cis-1,2-Dichloroethylene	25	23.7	95	78-120
156-60-5	trans-1,2-Dichloroethylene	25	28.2	113	76-127
78-87-5	1,2-Dichloropropane	25	24.2	97	76-124
10061-01-5	cis-1,3-Dichloropropene	25	25.0	100	75-118
10061-02-6	trans-1,3-Dichloropropene	25	25.9	104	80-120
100-41-4	Ethylbenzene	25	25.0	100	81-121
591-78-6	2-Hexanone	125	103	82	61-129
74-83-9	Methyl Bromide	25	26.3	105	59-143
74-87-3	Methyl Chloride	25	29.0	116	50-159
75-09-2	Methylene Chloride	25	27.4	110	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	103	82	66-122
100-42-5	Styrene	25	24.1	96	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	21.3	85	72-120
127-18-4	Tetrachloroethylene	25	24.6	98	76-135
108-88-3	Toluene	25	23.3	93	80-120
71-55-6	1,1,1-Trichloroethane	25	25.0	100	75-130
79-00-5	1,1,2-Trichloroethane	25	22.1	88	76-119
79-01-6	Trichloroethylene	25	25.3	101	81-126
75-01-4	Vinyl Chloride	25	27.1	108	69-159
1330-20-7	Xylene (total)	75	75.2	100	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB4414-BS	B109323.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA28705-1MS	B109346.D	1	11/05/15	WV	n/a	n/a	VB4414
FA28705-1MSD	B109347.D	1	11/05/15	WV	n/a	n/a	VB4414
FA28705-1	B109327.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Compound	FA28705-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	143	114	125	166	133	15	50-147/21
71-43-2	Benzene	ND		25	25.8	103	25	30.3	121	16*	81-122/14
75-27-4	Bromodichloromethane	ND		25	24.7	99	25	26.7	107	8	79-123/19
75-25-2	Bromoform	ND		25	22.8	91	25	22.0	88	4	66-123/21
78-93-3	2-Butanone (MEK)	ND		125	127	102	125	149	119	16	56-143/18
75-15-0	Carbon Disulfide	ND		25	18.6	74	25	21.0	84	12	66-148/23
56-23-5	Carbon Tetrachloride	ND		25	26.5	106	25	29.2	117	10	76-136/23
108-90-7	Chlorobenzene	ND		25	24.2	97	25	27.2	109	12	82-124/14
75-00-3	Chloroethane	ND		25	37.7	151*	25	41.6	166*	10	62-144/20
67-66-3	Chloroform	ND		25	25.6	102	25	29.9	120	15	80-124/15
124-48-1	Dibromochloromethane	ND		25	23.6	94	25	23.8	95	1	78-122/19
75-34-3	1,1-Dichloroethane	ND		25	26.8	107	25	31.4	126*	16*	81-122/15
107-06-2	1,2-Dichloroethane	ND		25	26.1	104	25	31.2	125	18*	75-125/14
75-35-4	1,1-Dichloroethylene	ND		25	26.7	107	25	32.8	131	21*	78-137/18
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.7	95	25	27.2	109	14	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	27.1	108	25	32.3	129*	18*	76-127/17
78-87-5	1,2-Dichloropropane	ND		25	24.0	96	25	28.4	114	17*	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		25	21.8	87	25	24.7	99	12	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		25	25.3	101	25	26.5	106	5	80-120/22
100-41-4	Ethylbenzene	ND		25	26.3	105	25	29.3	117	11	81-121/14
591-78-6	2-Hexanone	ND		125	137	110	125	153	122	11	61-129/18
74-83-9	Methyl Bromide	ND		25	30.1	120	25	33.7	135	11	59-143/19
74-87-3	Methyl Chloride	ND		25	32.2	129	25	36.3	145	12	50-159/19
75-09-2	Methylene Chloride	ND		25	27.0	108	25	32.0	128	17*	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		125	136	109	125	159	127*	16	66-122/16
100-42-5	Styrene	ND		25	24.8	99	25	27.0	108	8	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	23.9	96	25	28.4	114	17*	72-120/14
127-18-4	Tetrachloroethylene	ND		25	24.1	96	25	27.0	108	11	76-135/16
108-88-3	Toluene	ND		25	25.2	101	25	28.0	112	11	80-120/14
71-55-6	1,1,1-Trichloroethane	ND		25	24.6	98	25	29.4	118	18*	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		25	23.7	95	25	26.9	108	13	76-119/14
79-01-6	Trichloroethylene	ND		25	24.7	99	25	28.3	113	14	81-126/15
75-01-4	Vinyl Chloride	0.41	J	25	29.7	117	25	33.6	133	12	69-159/18
1330-20-7	Xylene (total)	ND		75	79.9	107	75	89.3	119	11	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA28705-1MS	B109346.D	1	11/05/15	WV	n/a	n/a	VB4414
FA28705-1MSD	B109347.D	1	11/05/15	WV	n/a	n/a	VB4414
FA28705-1	B109327.D	1	11/05/15	WV	n/a	n/a	VB4414

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA28705-1, FA28705-2

CAS No.	Surrogate Recoveries	MS	MSD	FA28705-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	103%	79-125%
2037-26-5	Toluene-D8	101%	100%	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	100%	104%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample:	VB4406-BFB	**Injection Date:**	10/30/15
Lab File ID:	B109133.D	**Injection Time:**	12:38
Instrument ID:	GCMSB		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	102755	29.9		Pass
75	30.0 - 60.0% of mass 95	169813	49.5		Pass
95	Base peak, 100% relative abundance	343232	100.0		Pass
96	5.0 - 9.0% of mass 95	23301	6.79		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	258475	75.3		Pass
175	5.0 - 9.0% of mass 174	19456	5.67	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	257387	75.0	(99.6) [a]	Pass
177	5.0 - 9.0% of mass 176	16871	4.92	(6.55) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB4406-IC4406	B109134.D	10/30/15	13:04	00:26	Initial cal 1
VB4406-IC4406	B109135.D	10/30/15	13:30	00:52	Initial cal 2
VB4406-IC4406	B109136.D	10/30/15	13:57	01:19	Initial cal 3
VB4406-ICC4406	B109137.D	10/30/15	14:23	01:45	Initial cal 4
VB4406-IC4406	B109138.D	10/30/15	14:50	02:12	Initial cal 5
VB4406-IC4406	B109139.D	10/30/15	15:16	02:38	Initial cal 6
VB4406-ICV4406	B109141.D	10/30/15	16:11	03:33	Initial cal verification 4
VB4406-BS	B109142.D	10/30/15	17:08	04:30	Blank Spike
VB4406-MB	B109143.D	10/30/15	17:35	04:57	Method Blank
ZZZZZZ	B109145.D	10/30/15	18:27	05:49	(unrelated sample)
FA28744-1	B109146.D	10/30/15	18:54	06:16	(used for QC only; not part of job FA28705)
ZZZZZZ	B109147.D	10/30/15	19:20	06:42	(unrelated sample)
ZZZZZZ	B109148.D	10/30/15	19:47	07:09	(unrelated sample)
ZZZZZZ	B109149.D	10/30/15	20:13	07:35	(unrelated sample)
ZZZZZZ	B109150.D	10/30/15	20:39	08:01	(unrelated sample)
ZZZZZZ	B109151.D	10/30/15	21:06	08:28	(unrelated sample)
ZZZZZZ	B109153.D	10/30/15	21:58	09:20	(unrelated sample)
ZZZZZZ	B109154.D	10/30/15	22:24	09:46	(unrelated sample)
ZZZZZZ	B109155.D	10/30/15	22:51	10:13	(unrelated sample)
ZZZZZZ	B109156.D	10/30/15	23:17	10:39	(unrelated sample)
ZZZZZZ	B109157.D	10/30/15	23:43	11:05	(unrelated sample)
ZZZZZZ	B109158.D	10/31/15	00:10	11:32	(unrelated sample)
FA28744-1MS	B109159.D	10/31/15	00:36	11:58	Matrix Spike
FA28744-1MSD	B109160.D	10/31/15	01:02	12:24	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample:	VB4406-BFB	**Injection Date:**	10/30/15
Lab File ID:	B109133.D	**Injection Time:**	12:38
Instrument ID:	GCMSB		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB4406-ECC4406	B109161.D	10/31/15	01:28	12:50	Ending cal 4

Instrument Performance Check (BFB)

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample:	VB4414-BFB	**Injection Date:**	11/05/15
Lab File ID:	B109321.D	**Injection Time:**	08:44
Instrument ID:	GCMSB		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	92677	30.6		Pass
75	30.0 - 60.0% of mass 95	150117	49.6		Pass
95	Base peak, 100% relative abundance	302699	100.0		Pass
96	5.0 - 9.0% of mass 95	20552	6.79		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	229781	75.9		Pass
175	5.0 - 9.0% of mass 174	17389	5.74	(7.57) [a]	Pass
176	95.0 - 101.0% of mass 174	224341	74.1	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	14482	4.78	(6.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VB4414-CC4406	B109322.D	11/05/15	09:13	00:29	Continuing cal 4
VB4414-BS	B109323.D	11/05/15	09:42	00:58	Blank Spike
VB4414-MB	B109324.D	11/05/15	10:08	01:24	Method Blank
ZZZZZZ	B109326.D	11/05/15	11:02	02:18	(unrelated sample)
FA28705-1	B109327.D	11/05/15	11:28	02:44	MA02MW001D
FA28705-2	B109328.D	11/05/15	11:55	03:11	TB-07
ZZZZZZ	B109329.D	11/05/15	12:21	03:37	(unrelated sample)
ZZZZZZ	B109330.D	11/05/15	12:48	04:04	(unrelated sample)
ZZZZZZ	B109331.D	11/05/15	13:14	04:30	(unrelated sample)
ZZZZZZ	B109332.D	11/05/15	13:41	04:57	(unrelated sample)
ZZZZZZ	B109333.D	11/05/15	14:08	05:24	(unrelated sample)
ZZZZZZ	B109334.D	11/05/15	14:34	05:50	(unrelated sample)
ZZZZZZ	B109335.D	11/05/15	15:01	06:17	(unrelated sample)
ZZZZZZ	B109336.D	11/05/15	15:28	06:44	(unrelated sample)
ZZZZZZ	B109337.D	11/05/15	15:54	07:10	(unrelated sample)
ZZZZZZ	B109338.D	11/05/15	16:21	07:37	(unrelated sample)
ZZZZZZ	B109340.D	11/05/15	17:14	08:30	(unrelated sample)
ZZZZZZ	B109342.D	11/05/15	18:07	09:23	(unrelated sample)
ZZZZZZ	B109343.D	11/05/15	18:34	09:50	(unrelated sample)
ZZZZZZ	B109344.D	11/05/15	19:00	10:16	(unrelated sample)
FA28705-1MS	B109346.D	11/05/15	19:53	11:09	Matrix Spike
FA28705-1MSD	B109347.D	11/05/15	20:20	11:36	Matrix Spike Duplicate
VB4414-ECC4406	B109348.D	11/05/15	20:46	12:02	Ending cal 4

Volatile Internal Standard Area Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	VB4414-CC4406	**Injection Date:**	11/05/15
Lab File ID:	B109322.D	**Injection Time:**	09:13
Instrument ID:	GCMSB	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	1466529	9.86	1067879	13.08	617921	15.62	89149	7.11
Check Std [b]	1302966	9.86	977748	13.08	540828	15.62	83601	7.11
Upper Limit [c]	2605932	10.36	1955496	13.58	1081656	16.12	167202	7.61
Lower Limit [d]	651483	9.36	488874	12.58	270414	15.12	41801	6.61

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VB4414-BS	1303168	9.86	1000243	13.08	560667	15.62	95591	7.11
VB4414-MB	1306309	9.86	961818	13.08	485673	15.62	92736	7.11
ZZZZZZ	1289481	9.86	948473	13.07	491314	15.62	85383	7.11
FA28705-1	1215379	9.86	886373	13.08	459316	15.62	82410	7.11
FA28705-2	1170420	9.86	859840	13.08	442446	15.62	74894	7.11
ZZZZZZ	1140833	9.86	823487	13.08	432597	15.62	76524	7.12
ZZZZZZ	1124700	9.86	803237	13.08	411882	15.62	75823	7.12
ZZZZZZ	1083120	9.86	819500	13.08	405523	15.62	76017	7.12
ZZZZZZ	1078178	9.86	789197	13.08	402605	15.62	78075	7.12
ZZZZZZ	1044973	9.86	781603	13.08	401185	15.62	75748	7.12
ZZZZZZ	1047698	9.86	764482	13.08	397656	15.62	74593	7.12
ZZZZZZ	1004432	9.86	752744	13.08	384977	15.62	74740	7.11
ZZZZZZ	1035157	9.86	761282	13.08	385824	15.62	72623	7.12
ZZZZZZ	1056737	9.86	734404	13.08	384304	15.62	72076	7.11
ZZZZZZ	1029328	9.86	753300	13.08	379870	15.62	72340	7.11
ZZZZZZ	985479	9.86	728152	13.08	374067	15.62	72319	7.11
ZZZZZZ	995140	9.85	724156	13.08	375717	15.62	70795	7.11
ZZZZZZ	988760	9.86	694747	13.08	373936	15.62	68072	7.11
ZZZZZZ	974359	9.86	726860	13.08	365081	15.62	66945	7.11
FA28705-1MS	1048055	9.86	782458	13.08	457857	15.62	80309	7.11
FA28705-1MSD	1097789	9.86	859105	13.08	485427	15.62	91175	7.11
VB4414-ECC4406	1173304	9.86	903342	13.08	508098	15.62	82714	7.11

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VB4406-ICC4406 B109137.D 10/30/15 14:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA28705-1	B109327.D	98	103	100	104
FA28705-2	B109328.D	98	101	100	105
FA28705-1MS	B109346.D	101	103	101	99
FA28705-1MSD	B109347.D	101	103	100	100
VB4414-BS	B109323.D	102	103	96	98
VB4414-MB	B109324.D	99	101	100	105

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FA28705 **Sample:** VB4406-ICC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109137.D
Project: Melrose Air Force Range, NM

Response Factor Report MSVOA4

Method : C:\msdchem\1\METHODS\B-OCT30.m (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Oct 30 16:18:43 2015
Response via : Initial Calibration

Calibration Files
1 =b109134.D 2 =b109135.D 3 =b109136.D 4 =b109137.D
5 =b109138.D 6 =b109139.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Dichlorodifluoromet	0.523	0.452	0.434	0.466	0.400	0.409	0.447	9.98
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9963								
		Response Ratio = 0.00000 + 0.41262 *A								
3)	P	Chloromethane	1.018	0.817	0.775	0.759	0.681	0.677	0.788	15.91
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9978								
		Response Ratio = 0.00000 + 0.68828 *A								
4)	C	Vinyl Chloride	0.614	0.510	0.500	0.523	0.453	0.460	0.510	11.35
5)		Bromomethane	0.381	0.283	0.268	0.255	0.219	0.199	0.268	23.85
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9995								
		Response Ratio = 0.00000 + 0.28267 *A + -0.04233 *A^2								
6)		Chloroethane	0.286	0.241	0.234	0.228	0.196	0.186	0.229	15.50
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9925								
		Response Ratio = 0.00000 + 0.19441 *A								
7)		Trichlorofluorometh	0.674	0.573	0.563	0.565	0.493	0.496	0.561	11.76
8)		Ethyl Ether	0.371	0.304	0.300	0.307	0.291	0.287	0.310	10.02
9)		1,2-Dichlorotrifluo	0.447	0.391	0.358	0.361	0.330	0.321	0.368	12.53
10)		Freon 113	0.381	0.358	0.323	0.336	0.317	0.321	0.339	7.41
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9995								
		Response Ratio = 0.00000 + 0.32148 *A								
11)	C	1,1-Dichloroethene	0.712	0.634	0.595	0.608	0.582	0.582	0.619	8.00
12)		Acetone	0.147	0.103	0.097	0.095	0.093	0.093	0.105	20.27
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9999								
		Response Ratio = 0.00000 + 0.09295 *A								
13)		Iodomethane	0.639	0.538	0.513	0.533	0.529	0.539	0.548	8.24
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9998								
		Response Ratio = 0.00000 + 0.53482 *A								
14)		Carbon Disulfide	1.154	1.028	1.009	1.013	0.947	0.957	1.018	7.28
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9993								
		Response Ratio = 0.00000 + 0.96079 *A								
15)		Methyl acetate	0.360	0.275	0.258	0.258	0.250	0.254	0.276	15.20
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9998								
		Response Ratio = 0.00000 + 0.25325 *A								
16)		Methylene Chloride	1.165	0.784	0.702	0.700	0.674	0.665	0.782	24.65
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9997								
		Response Ratio = 0.00000 + 0.67165 *A								

Initial Calibration Summary

Job Number: FA28705 **Sample:** VB4406-ICC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109137.D
Project: Melrose Air Force Range, NM

17)		Methyl Tert Butyl E	0.851	0.685	0.672	0.696	0.675	0.691	0.712	9.68
18)		trans-1,2-Dichloroe	0.633	0.561	0.538	0.552	0.519	0.519	0.554	7.70
19)		Acrylonitrile	0.155	0.126	0.120	0.125	0.123	0.123	0.129	10.05
20)		Hexane	0.722	0.683	0.636	0.689	0.652	0.638	0.670	5.09
21)		Di-isopropyl ether	2.264	1.804	1.740	1.728	1.681	1.638	1.809	12.71
22)		Vinyl acetate	1.276	1.048	1.024	0.997	0.903	0.810	1.010	15.61
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9999								
		Response Ratio = 0.00000 + 1.10969 *A + -0.02988 *A^2								
23)	P	1,1-Dichloroethane	0.804	0.677	0.639	0.632	0.614	0.605	0.662	11.16
24)		ETBE	1.348	1.108	1.100	1.130	1.135	1.132	1.159	8.10
25)		2-Butanone	0.621	0.493	0.471	0.477	0.454	0.434	0.491	13.56
26)		2,2-Dichloropropane	0.470	0.415	0.407	0.418	0.402	0.398	0.418	6.29
27)		cis-1,2-Dichloroeth	0.425	0.356	0.342	0.347	0.334	0.339	0.357	9.50
28)		Bromochloromethane	0.204	0.165	0.155	0.155	0.157	0.161	0.166	11.43
29)		Tetrahydrofuran	0.118	0.092	0.092	0.091	0.095	0.097	0.098	10.49
30)	C	Chloroform	0.681	0.552	0.540	0.520	0.511	0.510	0.552	11.77
31)	S	Dibromofluoromethan	0.275	0.276	0.274	0.277	0.279	0.273	0.276	0.74
32)		1,1,1-Trichloroetha	0.553	0.485	0.478	0.489	0.476	0.475	0.493	6.11
33)		Cyclohexane	0.850	0.824	0.797	0.810	0.797	0.776	0.809	3.14
34)		Carbon Tetrachlorid	0.435	0.426	0.409	0.432	0.427	0.428	0.426	2.11
35)		1,1-Dichloropropene	0.449	0.433	0.395	0.410	0.396	0.389	0.412	5.83
36)	S	1,2-Dichloroethane-	0.353	0.353	0.340	0.341	0.337	0.335	0.343	2.32
37)		TAME	0.833	0.715	0.720	0.729	0.726	0.726	0.741	6.07
38)		Benzene	1.375	1.201	1.136	1.124	1.079	1.046	1.160	10.15
39)		1,2-Dichloroethane	0.730	0.516	0.479	0.493	0.475	0.466	0.526	19.23
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9996								
		Response Ratio = 0.00000 + 0.47139 *A								
40)		Trichloroethene	0.345	0.317	0.292	0.304	0.294	0.297	0.308	6.54
41)		Methylcyclohexane	0.559	0.549	0.539	0.555	0.522	0.528	0.542	2.76
42)	C	1,2-Dichloropropane	0.487	0.382	0.367	0.374	0.362	0.364	0.389	12.50
43)		Dibromomethane	0.210	0.179	0.171	0.172	0.169	0.170	0.178	8.94
44)		Bromodichloromethan	0.444	0.380	0.381	0.397	0.382	0.386	0.395	6.31
45)		2-Chloroethyl vinyl	0.230	0.186	0.187	0.187	0.179	0.175	0.191	10.34
46)		2-Nitropropane	0.080	0.065	0.073	0.083	0.084	0.087	0.079	10.43
47)		cis-1,3-Dichloropro	0.521	0.439	0.459	0.459	0.450	0.461	0.465	6.19
48)		4-Methyl-2-pentanon	0.451	0.342	0.335	0.342	0.323	0.306	0.350	14.66
49)	I	Chlorobenzene-d5	----------ISTD----------							
50)	S	Toluene-d8	1.283	1.312	1.314	1.329	1.268	1.291	1.299	1.76
51)	C	Toluene	2.045	1.734	1.655	1.701	1.584	1.562	1.714	10.23
52)		trans-1,3-Dichlorop	0.532	0.479	0.495	0.505	0.497	0.512	0.503	3.53
53)		1,1,2-Trichloroetha	0.359	0.277	0.270	0.274	0.261	0.265	0.284	12.99
54)		Tetrachloroethene	0.451	0.416	0.400	0.426	0.398	0.422	0.419	4.70
55)		2-hexanone	0.396	0.301	0.309	0.309	0.302	0.292	0.318	12.13
56)		1,3-Dichloropropane	0.756	0.576	0.550	0.555	0.522	0.521	0.580	15.28
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9994								
		Response Ratio = 0.00000 + 0.52530 *A								
57)		Dibromochloromethan	0.386	0.331	0.359	0.382	0.384	0.401	0.374	6.69
58)		1,2-Dibromoethane	0.380	0.315	0.308	0.321	0.305	0.315	0.324	8.62
59)		1-Chlorohexane	0.540	0.531	0.560	0.566	0.538	0.555	0.548	2.56
60)	P	Chlorobenzene	1.451	1.156	1.104	1.103	1.054	1.079	1.158	12.75
61)	C	Ethylbenzene	2.224	1.960	1.881	1.854	1.755	1.722	1.899	9.53
62)		1,1,1,2-Tetrachloro	0.416	0.398	0.393	0.400	0.403	0.420	0.405	2.61
63)		m,p-Xylene	1.656	1.505	1.501	1.467	1.336	1.315	1.463	8.55
64)		o-Xylene	1.735	1.594	1.571	1.599	1.465	1.441	1.568	6.77
65)		Styrene	1.231	1.192	1.250	1.292	1.215	1.212	1.232	2.87
66)	P	Bromoform	0.195	0.170	0.182	0.211	0.211	0.225	0.199	10.34

Initial Calibration Summary

Job Number: FA28705 **Sample:** VB4406-ICC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109137.D
Project: Melrose Air Force Range, NM

67)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
68)		Isopropylbenzene	3.601	3.297	3.233	3.244	3.055	3.004	3.239	6.53
69)		Cyclohexanone	0.039	0.033	0.035	0.038	0.039	0.039	0.037	6.87
70)	S	4-Bromofluorobenzen	0.980	0.966	0.931	0.924	0.920	0.896	0.936	3.32
71)	P	1,1,2,2-Tetrachloro	0.934	0.742	0.671	0.695	0.650	0.663	0.726	14.75
72)		trans-1,4-Dichloro-	0.250	0.196	0.222	0.243	0.239	0.252	0.234	9.14
73)		n-Propylbenzene	4.746	4.155	3.890	3.971	3.604	3.521	3.981	11.11
74)		Bromobenzene	1.088	0.848	0.812	0.825	0.823	0.833	0.871	12.24
75)		1,2,3-Trichloroprop	0.238	0.191	0.171	0.176	0.175	0.174	0.188	13.70
76)		1,3,5-Trimethylbenz	3.159	2.985	2.893	2.943	2.753	2.682	2.903	5.87
77)		2-Chlorotoluene	3.377	2.872	2.709	2.722	2.516	2.442	2.773	12.04
78)		4-Chlorotoluene	3.177	2.703	2.541	2.516	2.442	2.332	2.619	11.44
79)		tert-Butylbenzene	1.964	1.781	1.725	1.751	1.664	1.649	1.756	6.49
80)		1,2,4-Trimethylbenz	3.290	2.904	2.866	2.899	2.745	2.720	2.904	7.05
81)		sec-Butylbenzene	3.883	3.747	3.576	3.629	3.458	3.378	3.612	5.13
82)		4-Isopropyltoluene	3.068	3.147	3.023	3.098	3.004	2.915	3.042	2.67
83)		1,3-Dichlorobenzene	2.079	1.681	1.625	1.647	1.601	1.633	1.711	10.64
84)		1,4-Dichlorobenzene	2.197	1.790	1.645	1.682	1.625	1.670	1.768	12.32
85)		Benzyl Chloride	0.967	0.932	1.148	1.262	1.301	1.311	1.154	14.63
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9997								
		Response Ratio = 0.00000 + 1.20937 *A + 0.05381 *A^2								
86)		n-Butylbenzene	3.519	3.296	3.113	3.184	2.924	2.822	3.143	8.02
87)		1,2-Dichlorobenzene	1.946	1.583	1.519	1.539	1.505	1.538	1.605	10.53
88)		1,2-Dibromo-3-Chlor	0.118	0.098	0.100	0.107	0.107	0.110	0.107	6.83
89)		1,2,4-Trichlorobenz	1.145	0.975	0.946	0.959	0.993	1.018	1.006	7.22
90)		Hexachlorobutadiene	0.520	0.476	0.444	0.460	0.467	0.471	0.473	5.38
91)		Naphthalene	1.986	1.738	1.772	1.839	1.834	1.838	1.835	4.65
92)		1,2,3-Trichlorobenz	1.089	0.857	0.827	0.864	0.860	0.868	0.894	10.83
93)	I	Tert Butyl alcohol-d1	----------ISTD----------							
94)		Acrolein	5.316	4.032	3.821	4.092	3.773	3.731	4.127	14.54
95)		Tert-Butyl Alcohol	1.835	1.510	1.360	1.453	1.424	1.480	1.510	11.06
96)		Tert amyl alcohol	1.257	1.000	0.954	1.087	1.119	1.150	1.094	9.90
97)		1,4-Dioxane		0.113	0.112	0.121	0.126	0.133	0.121	7.36

(#) = Out of Range

B-OCT30.m Mon Nov 02 07:39:06 2015

Initial Calibration Verification

Job Number: FA28705 **Sample:** VB4406-ICV4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109141.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\103015\b109141.D Vial: 13
Acq On : 30 Oct 2015 4:11 pm Operator: WILFREDO
Sample : ICV4406-4 Inst : MSVOA4
Misc : ms32133,vb4406,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\B-OCT30.m (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Oct 30 16:18:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	103	0.00	9.86
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	38.401	4.0	88	0.00	4.36
3 P	Chloromethane	40.000	37.369	6.6	88	0.01	4.66
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.510	0.432	15.3	86	0.00	4.89
		Amount	Calc.	%Drift			
5	Bromomethane	40.000	32.955	17.6	85	0.00	5.44
6	Chloroethane	40.000	40.382	-1.0	89	0.00	5.58
		AvgRF	CCRF	%Dev			
7	Trichlorofluoromethane	0.561	0.471	16.0	86	0.04	5.99
8	Ethyl Ether	0.310	0.258	16.8	87	0.00	6.28
9	1,2-Dichlorotrifluoroetha	0.368	0.295	19.8	85	0.00	6.25
		Amount	Calc.	%Drift			
10	Freon 113	40.000	32.189	19.5	80	0.00	6.65
		AvgRF	CCRF	%Dev			
11 C	1,1-Dichloroethene	0.619	0.505	18.4	86	0.00	6.66
		Amount	Calc.	%Drift			
12	Acetone	200.000	219.772	-9.9	111	0.00	6.63
13	Iodomethane	40.000	30.854	22.9#	80	0.00	6.89
14	Carbon Disulfide	40.000	28.847	27.9#	71	0.00	7.03
15	Methyl acetate	200.000	192.130	3.9	97	0.00	7.02
16	Methylene Chloride	40.000	37.122	7.2	92	0.00	7.20
		AvgRF	CCRF	%Dev			
17	Methyl Tert Butyl Ether	0.712	0.630	11.5	94	0.00	7.51
18	trans-1,2-Dichloroethene	0.554	0.495	10.6	93	0.00	7.54
19	Acrylonitrile	0.129	0.124	3.9	102	0.00	7.43
20	Hexane	0.670	0.541	19.3	81	0.00	7.83
21	Di-isopropyl ether	1.809	1.550	14.3	93	0.00	8.01
		Amount	Calc.	%Drift			
22	Vinyl acetate	200.000	200.241	-0.1	103	0.00	7.96
		AvgRF	CCRF	%Dev			

Initial Calibration Verification

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23	P	1,1-Dichloroethane	0.662	0.564	14.8	92	0.00	8.01
24		ETBE	1.159	0.984	15.1	90	0.00	8.40
25		2-Butanone	0.491	0.486	1.0	106	0.00	8.58
26		2,2-Dichloropropane	0.418	0.378	9.6	94	0.00	8.66
27		cis-1,2-Dichloroethene	0.357	0.292	18.2	87	0.00	8.63
28		Bromochloromethane	0.166	0.138	16.9	92	0.00	8.90
29		Tetrahydrofuran	0.098	0.092	6.1	104	0.00	8.96
30	C	Chloroform	0.552	0.464	15.9	92	0.00	8.94
31	S	Dibromofluoromethane	0.276	0.281	-1.8	105	0.00	9.11
32		1,1,1-Trichloroethane	0.493	0.400	18.9	85	0.00	9.22
33		Cyclohexane	0.809	0.673	16.8	86	0.00	9.33
34		Carbon Tetrachloride	0.426	0.383	10.1	92	0.00	9.42
35		1,1-Dichloropropene	0.412	0.354	14.1	89	0.00	9.37
36	S	1,2-Dichloroethane-d4	0.343	0.348	-1.5	105	0.00	9.50
37		TAME	0.741	0.681	8.1	97	0.00	9.64
38		Benzene	1.160	0.989	14.7	91	0.00	9.61
		----------	Amount	Calc.	%Drift	----------		
39		1,2-Dichloroethane	40.000	38.087	4.8	94	0.00	9.58
		----------	AvgRF	CCRF	%Dev	----------		
40		Trichloroethene	0.308	0.267	13.3	91	0.00	10.25
41		Methylcyclohexane	0.542	0.464	14.4	86	0.00	10.51
42	C	1,2-Dichloropropane	0.389	0.320	17.7	89	0.00	10.48
43		Dibromomethane	0.178	0.157	11.8	94	0.00	10.62
44		Bromodichloromethane	0.395	0.362	8.4	94	0.00	10.73
45		2-Chloroethyl vinyl ether	0.191	0.193	-1.0	107	0.00	10.95
46		2-Nitropropane	0.079	0.078	1.3	98	0.00	10.91
47		cis-1,3-Dichloropropene	0.465	0.425	8.6	96	0.00	11.19
48		4-Methyl-2-pentanone	0.350	0.328	6.3	99	0.00	11.27
49	I	Chlorobenzene-d5	1.000	1.000	0.0	108	0.00	13.08
50	S	Toluene-d8	1.299	1.270	2.2	103	0.00	11.51
51	C	Toluene	1.714	1.411	17.7	90	0.00	11.58
52		trans-1,3-Dichloropropene	0.503	0.493	2.0	105	0.00	11.73
53		1,1,2-Trichloroethane	0.284	0.243	14.4	96	0.00	11.95
54		Tetrachloroethene	0.419	0.358	14.6	91	0.00	12.20
55		2-hexanone	0.318	0.298	6.3	104	0.00	12.14
		----------	Amount	Calc.	%Drift	----------		
56		1,3-Dichloropropane	40.000	35.834	10.4	92	0.00	12.15
		----------	AvgRF	CCRF	%Dev	----------		
57		Dibromochloromethane	0.374	0.344	8.0	97	0.00	12.43
58		1,2-Dibromoethane	0.324	0.284	12.3	96	0.00	12.61
59		1-Chlorohexane	0.548	0.472	13.9	90	0.00	12.98
60	P	Chlorobenzene	1.158	0.966	16.6	95	0.00	13.11
61	C	Ethylbenzene	1.899	1.620	14.7	94	0.00	13.18
62		1,1,1,2-Tetrachloroethane	0.405	0.358	11.6	97	0.00	13.17
63		m,p-Xylene	1.463	1.270	13.2	94	0.00	13.29
64		o-Xylene	1.568	1.306	16.7	88	0.00	13.75
65		Styrene	1.232	1.040	15.6	87	0.00	13.75
66	P	Bromoform	0.199	0.190	4.5	97	0.00	14.00
67	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	15.62
68		Isopropylbenzene	3.239	2.817	13.0	90	0.00	14.13
69		Cyclohexanone	0.037	0.022	40.5#	60	0.00	14.27
70	S	4-Bromofluorobenzene	0.936	0.931	0.5	104	0.00	14.33
71	P	1,1,2,2-Tetrachloroethane	0.726	0.623	14.2	93	0.00	14.39
72		trans-1,4-Dichloro-2-Bute	0.234	0.243	-3.8	103	0.00	14.45

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: VB4406-ICV4406
Lab FileID: B109141.D

73	n-Propylbenzene	3.981	3.541	11.1	92	0.00	14.58
74	Bromobenzene	0.871	0.740	15.0	93	0.00	14.55
75	1,2,3-Trichloropropane	0.188	0.165	12.2	97	0.00	14.49
76	1,3,5-Trimethylbenzene	2.903	2.512	13.5	88	0.00	14.74
77	2-Chlorotoluene	2.773	2.385	14.0	91	0.00	14.73
78	4-Chlorotoluene	2.619	2.248	14.2	92	0.00	14.83
79	tert-Butylbenzene	1.756	1.524	13.2	90	0.00	15.13
80	1,2,4-Trimethylbenzene	2.904	2.564	11.7	91	0.00	15.17
81	sec-Butylbenzene	3.612	3.236	10.4	92	0.00	15.37
82	4-Isopropyltoluene	3.042	2.677	12.0	89	0.00	15.50
83	1,3-Dichlorobenzene	1.711	1.501	12.3	94	0.00	15.56
84	1,4-Dichlorobenzene	1.768	1.527	13.6	94	0.00	15.65
		Amount	Calc.	%Drift			
85	Benzyl Chloride	40.000	35.911	10.2	92	0.00	15.76
		AvgRF	CCRF	%Dev			
86	n-Butylbenzene	3.143	2.664	15.2	87	0.00	15.95
87	1,2-Dichlorobenzene	1.605	1.406	12.4	94	0.00	16.08
88	1,2-Dibromo-3-Chloropropa	0.107	0.103	3.7	100	0.00	16.89
89	1,2,4-Trichlorobenzene	1.006	0.895	11.0	97	0.00	17.87
90	Hexachlorobutadiene	0.473	0.410	13.3	92	0.00	18.03
91	Naphthalene	1.835	1.911	-4.1	107	0.00	18.20
92	1,2,3-Trichlorobenzene	0.894	0.797	10.9	95	0.00	18.49
93 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	121	0.01	7.12
94	Acrolein	4.127	3.887	5.8	115	0.00	6.46
95	Tert-Butyl Alcohol	1.510	1.327	12.1	110	0.00	7.21
96	Tert amyl alcohol	1.094	0.983	10.1	109	0.00	9.41
97	1,4-Dioxane	0.121	0.113	6.6	113	0.00	10.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
b109137.D B-OCT30.m Sat Oct 31 13:12:32 2015

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-CC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109322.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\110515\b109322.D Vial: 2
Acq On : 5 Nov 2015 9:13 am Operator: WILFREDO
Sample : CC4406-4 Inst : MSVOA4
Misc : ms32189,vb4414,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\B-OCT30.m (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Oct 30 16:18:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF / Amount	CCRF / Calc.	%Dev / %Drift	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	89	0.00	9.86
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	35.945	10.1	71	0.00	4.36
3 P	Chloromethane	40.000	44.296	-10.7	89	0.00	4.65
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.510	0.502	1.6	85	0.00	4.89
		Amount	Calc.	%Drift			
5	Bromomethane	40.000	43.383	-8.5	93	0.00	5.43
6	Chloroethane	40.000	50.768	-26.9#	96	0.00	5.57
		AvgRF	CCRF	%Dev			
7	Trichlorofluoromethane	0.561	0.591	-5.3	93	0.00	5.95
8	Ethyl Ether	0.310	0.286	7.7	83	0.00	6.27
9	1,2-Dichlorotrifluoroetha	0.368	0.360	2.2	89	0.00	6.25
		Amount	Calc.	%Drift			
10	Freon 113	40.000	40.453	-1.1	86	0.00	6.64
		AvgRF	CCRF	%Dev			
11 C	1,1-Dichloroethene	0.619	0.595	3.9	87	0.00	6.65
		Amount	Calc.	%Drift			
12	Acetone	200.000	194.556	2.7	84	0.00	6.62
13	Iodomethane	40.000	37.968	5.1	85	0.00	6.88
14	Carbon Disulfide	40.000	41.933	-4.8	88	0.00	7.02
15	Methyl acetate	200.000	193.403	3.3	84	0.00	7.01
16	Methylene Chloride	40.000	39.968	0.1	85	0.00	7.20
		AvgRF	CCRF	%Dev			
17	Methyl Tert Butyl Ether	0.712	0.668	6.2	85	0.00	7.51
18	trans-1,2-Dichloroethene	0.554	0.526	5.1	85	0.00	7.54
19	Acrylonitrile	0.129	0.105	18.6	75	0.00	7.42
20	Hexane	0.670	0.659	1.6	85	0.00	7.82
21	Di-isopropyl ether	1.809	1.671	7.6	86	0.00	8.00
		Amount	Calc.	%Drift			
22	Vinyl acetate	200.000	178.583	10.7	80	0.00	7.96
		AvgRF	CCRF	%Dev			

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-CC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109322.D
Project: Melrose Air Force Range, NM

23	P	1,1-Dichloroethane	0.662	0.630	4.8	89	0.00	8.00
24		ETBE	1.159	1.064	8.2	84	0.00	8.40
25		2-Butanone	0.491	0.417	15.1	78	0.00	8.58
26		2,2-Dichloropropane	0.418	0.442	-5.7	94	0.00	8.66
27		cis-1,2-Dichloroethene	0.357	0.331	7.3	85	0.00	8.63
28		Bromochloromethane	0.166	0.148	10.8	85	0.00	8.89
29		Tetrahydrofuran	0.098	0.081	17.3	79	0.00	8.95
30	C	Chloroform	0.552	0.525	4.9	90	0.00	8.93
31	S	Dibromofluoromethane	0.276	0.281	-1.8	90	0.00	9.10
32		1,1,1-Trichloroethane	0.493	0.475	3.7	86	0.00	9.22
33		Cyclohexane	0.809	0.755	6.7	83	0.00	9.32
34		Carbon Tetrachloride	0.426	0.421	1.2	87	0.00	9.42
35		1,1-Dichloropropene	0.412	0.394	4.4	85	0.00	9.37
36	S	1,2-Dichloroethane-d4	0.343	0.341	0.6	89	0.00	9.49
37		TAME	0.741	0.722	2.6	88	0.00	9.63
38		Benzene	1.160	1.107	4.6	88	0.00	9.61
		----------	Amount	Calc.	%Drift	----------		
39		1,2-Dichloroethane	40.000	39.361	1.6	84	0.00	9.57
		----------	AvgRF	CCRF	%Dev	----------		
40		Trichloroethene	0.308	0.286	7.1	84	0.00	10.25
41		Methylcyclohexane	0.542	0.530	2.2	85	0.00	10.51
42	C	1,2-Dichloropropane	0.389	0.358	8.0	85	0.00	10.48
43		Dibromomethane	0.178	0.160	10.1	83	0.00	10.62
44		Bromodichloromethane	0.395	0.374	5.3	84	0.00	10.73
45		2-Chloroethyl vinyl ether	0.191	0.176	7.9	83	0.00	10.95
46		2-Nitropropane	0.079	0.084	-6.3	91	0.00	10.91
47		cis-1,3-Dichloropropene	0.465	0.455	2.2	88	0.00	11.18
48		4-Methyl-2-pentanone	0.350	0.299	14.6	78	0.00	11.27
49	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00	13.08
50	S	Toluene-d8	1.299	1.302	-0.2	90	0.00	11.51
51	C	Toluene	1.714	1.548	9.7	83	0.00	11.58
52		trans-1,3-Dichloropropene	0.503	0.479	4.8	87	0.00	11.73
53		1,1,2-Trichloroethane	0.284	0.250	12.0	84	0.00	11.95
54		Tetrachloroethene	0.419	0.393	6.2	85	0.00	12.20
55		2-hexanone	0.318	0.270	15.1	80	0.00	12.14
		----------	Amount	Calc.	%Drift	----------		
56		1,3-Dichloropropane	40.000	39.566	1.1	86	0.00	12.15
		----------	AvgRF	CCRF	%Dev	----------		
57		Dibromochloromethane	0.374	0.352	5.9	84	0.00	12.43
58		1,2-Dibromoethane	0.324	0.287	11.4	82	0.00	12.61
59		1-Chlorohexane	0.548	0.534	2.6	86	0.00	12.98
60	P	Chlorobenzene	1.158	1.062	8.3	88	0.00	13.11
61	C	Ethylbenzene	1.899	1.837	3.3	91	0.00	13.18
62		1,1,1,2-Tetrachloroethane	0.405	0.387	4.4	88	0.00	13.17
63		m,p-Xylene	1.463	1.395	4.6	87	0.00	13.29
64		o-Xylene	1.568	1.507	3.9	86	0.00	13.74
65		Styrene	1.232	1.198	2.8	85	0.00	13.74
66	P	Bromoform	0.199	0.188	5.5	81	0.00	14.00
67	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	15.62
68		Isopropylbenzene	3.239	3.104	4.2	84	0.00	14.13
69		Cyclohexanone	0.037	0.035	5.4	80	0.00	14.27
70	S	4-Bromofluorobenzene	0.936	0.960	-2.6	91	0.00	14.33
71	P	1,1,2,2-Tetrachloroethane	0.726	0.642	11.6	81	0.00	14.39
72		trans-1,4-Dichloro-2-Bute	0.234	0.234	0.0	84	0.00	14.45

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-CC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109322.D
Project: Melrose Air Force Range, NM

73	n-Propylbenzene	3.981	3.999	-0.5	88	0.00	14.57
74	Bromobenzene	0.871	0.798	8.4	85	0.00	14.55
75	1,2,3-Trichloropropane	0.188	0.158	16.0	78	0.00	14.49
76	1,3,5-Trimethylbenzene	2.903	2.888	0.5	86	0.00	14.73
77	2-Chlorotoluene	2.773	2.699	2.7	87	0.00	14.73
78	4-Chlorotoluene	2.619	2.461	6.0	86	0.00	14.83
79	tert-Butylbenzene	1.756	1.688	3.9	84	0.00	15.13
80	1,2,4-Trimethylbenzene	2.904	2.745	5.5	83	0.00	15.17
81	sec-Butylbenzene	3.612	3.547	1.8	86	0.00	15.37
82	4-Isopropyltoluene	3.042	2.953	2.9	83	0.00	15.50
83	1,3-Dichlorobenzene	1.711	1.594	6.8	85	0.00	15.56
84	1,4-Dichlorobenzene	1.768	1.627	8.0	85	0.00	15.65
		Amount	Calc.	%Drift			
85	Benzyl Chloride	40.000	39.212	2.0	85	0.00	15.76
		AvgRF	CCRF	%Dev			
86	n-Butylbenzene	3.143	3.091	1.7	85	0.00	15.95
87	1,2-Dichlorobenzene	1.605	1.454	9.4	83	0.00	16.07
88	1,2-Dibromo-3-Chloropropa	0.107	0.091	15.0	74	0.00	16.89
89	1,2,4-Trichlorobenzene	1.006	0.901	10.4	82	0.00	17.87
90	Hexachlorobutadiene	0.473	0.456	3.6	87	0.00	18.03
91	Naphthalene	1.835	1.624	11.5	77	0.00	18.20
92	1,2,3-Trichlorobenzene	0.894	0.801	10.4	81	0.00	18.49
93 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	94	0.00	7.11
94	Acrolein	4.127	3.591	13.0	82	0.00	6.45
95	Tert-Butyl Alcohol	1.510	1.300	13.9	84	0.00	7.20
96	Tert amyl alcohol	1.094	0.989	9.6	85	0.00	9.41
97	1,4-Dioxane	0.121	0.119	1.7	92	0.00	10.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
b109137.D B-OCT30.m Thu Nov 05 10:10:44 2015

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-ECC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109348.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\110515\b109348.D Vial: 22
Acq On : 5 Nov 2015 8:46 pm Operator: WILFREDO
Sample : ECC4406-4 Inst : MSVOA4
Misc : ms32207,vb4414,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\B-OCT30.m (RTE Integrator)
Title : EPA 624 & SWA 5030B/8260B
Last Update : Fri Oct 30 16:18:43 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	80	0.00	9.86
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	40.041	-0.1	71	0.00	4.35
3 P	Chloromethane	40.000	49.282	-23.2	89	0.00	4.65
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.510	0.577	-13.1	88	0.00	4.89
		Amount	Calc.	%Drift			
5	Bromomethane	40.000	48.600	-21.5	92	0.00	5.44
6	Chloroethane	40.000	56.227	-40.6	96	0.00	5.57
		AvgRF	CCRF	%Dev			
7	Trichlorofluoromethane	0.561	0.676	-20.5	96	-0.01	5.94
8	Ethyl Ether	0.310	0.356	-14.8	93	0.00	6.28
9	1,2-Dichlorotrifluoroetha	0.368	0.442	-20.1	98	0.00	6.25
		Amount	Calc.	%Drift			
10	Freon 113	40.000	45.323	-13.3	87	0.00	6.64
		AvgRF	CCRF	%Dev			
11 C	1,1-Dichloroethene	0.619	0.688	-11.1	91	0.00	6.66
		Amount	Calc.	%Drift			
12	Acetone	200.000	239.943	-20.0	94	0.00	6.63
13	Iodomethane	40.000	42.876	-7.2	86	0.00	6.89
14	Carbon Disulfide	40.000	47.587	-19.0	90	0.00	7.02
15	Methyl acetate	200.000	248.927	-24.5	98	0.00	7.01
16	Methylene Chloride	40.000	45.777	-14.4	88	0.00	7.20
		AvgRF	CCRF	%Dev			
17	Methyl Tert Butyl Ether	0.712	0.785	-10.3	90	0.00	7.51
18	trans-1,2-Dichloroethene	0.554	0.611	-10.3	89	0.00	7.54
19	Acrylonitrile	0.129	0.129	0.0	83	0.00	7.43
20	Hexane	0.670	0.664	0.9	77	0.00	7.82
21	Di-isopropyl ether	1.809	1.931	-6.7	89	0.00	8.01
		Amount	Calc.	%Drift			
22	Vinyl acetate	200.000	152.338	23.8	62	0.00	7.96
		AvgRF	CCRF	%Dev			

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-ECC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109348.D
Project: Melrose Air Force Range, NM

23	P	1,1-Dichloroethane	0.662	0.734	-10.9	93	0.00	8.01
24		ETBE	1.159	1.266	-9.2	90	0.00	8.40
25		2-Butanone	0.491	0.526	-7.1	88	0.00	8.58
26		2,2-Dichloropropane	0.418	0.386	7.7	74	0.00	8.67
27		cis-1,2-Dichloroethene	0.357	0.388	-8.7	89	0.00	8.63
28		Bromochloromethane	0.166	0.175	-5.4	90	0.00	8.90
29		Tetrahydrofuran	0.098	0.102	-4.1	90	0.00	8.95
30	C	Chloroform	0.552	0.598	-8.3	92	0.00	8.94
31	S	Dibromofluoromethane	0.276	0.287	-4.0	83	0.00	9.11
32		1,1,1-Trichloroethane	0.493	0.527	-6.9	86	0.00	9.22
33		Cyclohexane	0.809	0.861	-6.4	85	0.00	9.33
34		Carbon Tetrachloride	0.426	0.481	-12.9	89	0.00	9.42
35		1,1-Dichloropropene	0.412	0.456	-10.7	89	0.00	9.37
36	S	1,2-Dichloroethane-d4	0.343	0.350	-2.0	82	0.00	9.49
37		TAME	0.741	0.821	-10.8	90	0.00	9.63
38		Benzene	1.160	1.264	-9.0	90	0.00	9.61
		----------	Amount	Calc.	%Drift	----------		
39		1,2-Dichloroethane	40.000	46.113	-15.3	88	0.00	9.58
		----------	AvgRF	CCRF	%Dev	----------		
40		Trichloroethene	0.308	0.336	-9.1	88	0.00	10.25
41		Methylcyclohexane	0.542	0.573	-5.7	83	0.00	10.51
42	C	1,2-Dichloropropane	0.389	0.410	-5.4	88	0.00	10.48
43		Dibromomethane	0.178	0.188	-5.6	87	0.00	10.62
44		Bromodichloromethane	0.395	0.429	-8.6	86	0.00	10.73
45		2-Chloroethyl vinyl ether	0.191	0.211	-10.5	90	0.00	10.95
46		2-Nitropropane	0.079	0.099	-25.3	96	0.00	10.91
47		cis-1,3-Dichloropropene	0.465	0.497	-6.9	87	0.00	11.19
48		4-Methyl-2-pentanone	0.350	0.373	-6.6	87	0.00	11.27
49	I	Chlorobenzene-d5	1.000	1.000	0.0	85	0.00	13.08
50	S	Toluene-d8	1.299	1.295	0.3	82	0.00	11.51
51	C	Toluene	1.714	1.750	-2.1	87	0.00	11.58
52		trans-1,3-Dichloropropene	0.503	0.531	-5.6	89	0.00	11.73
53		1,1,2-Trichloroethane	0.284	0.289	-1.8	89	0.00	11.95
54		Tetrachloroethene	0.419	0.420	-0.2	83	0.00	12.20
55		2-hexanone	0.318	0.343	-7.9	94	0.00	12.14
		----------	Amount	Calc.	%Drift	----------		
56		1,3-Dichloropropane	40.000	45.001	-12.5	90	0.00	12.15
		----------	AvgRF	CCRF	%Dev	----------		
57		Dibromochloromethane	0.374	0.395	-5.6	87	0.00	12.43
58		1,2-Dibromoethane	0.324	0.334	-3.1	88	0.00	12.60
59		1-Chlorohexane	0.548	0.568	-3.6	85	0.00	12.98
60	P	Chlorobenzene	1.158	1.152	0.5	88	0.00	13.11
61	C	Ethylbenzene	1.899	2.046	-7.7	93	0.00	13.18
62		1,1,1,2-Tetrachloroethane	0.405	0.435	-7.4	92	0.00	13.17
63		m,p-Xylene	1.463	1.586	-8.4	91	0.00	13.29
64		o-Xylene	1.568	1.705	-8.7	90	0.00	13.74
65		Styrene	1.232	1.351	-9.7	88	0.00	13.74
66	P	Bromoform	0.199	0.209	-5.0	84	0.00	14.00
67	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	15.62
68		Isopropylbenzene	3.239	3.357	-3.6	85	0.00	14.13
69		Cyclohexanone	0.037	0.028	24.3	60	0.00	14.27
70	S	4-Bromofluorobenzene	0.936	0.948	-1.3	84	0.00	14.33
71	P	1,1,2,2-Tetrachloroethane	0.726	0.702	3.3	83	0.00	14.39
72		trans-1,4-Dichloro-2-Bute	0.234	0.240	-2.6	81	0.00	14.45

Continuing Calibration Summary

Job Number: FA28705 **Sample:** VB4414-ECC4406
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** B109348.D
Project: Melrose Air Force Range, NM

73	n-Propylbenzene	3.981	4.249	-6.7	88	0.00	14.57
74	Bromobenzene	0.871	0.899	-3.2	90	0.00	14.55
75	1,2,3-Trichloropropane	0.188	0.182	3.2	85	0.00	14.49
76	1,3,5-Trimethylbenzene	2.903	3.090	-6.4	86	0.00	14.73
77	2-Chlorotoluene	2.773	2.912	-5.0	88	0.00	14.73
78	4-Chlorotoluene	2.619	2.673	-2.1	87	0.00	14.83
79	tert-Butylbenzene	1.756	1.863	-6.1	87	0.00	15.13
80	1,2,4-Trimethylbenzene	2.904	3.118	-7.4	88	0.00	15.17
81	sec-Butylbenzene	3.612	3.830	-6.0	87	0.00	15.37
82	4-Isopropyltoluene	3.042	3.210	-5.5	85	0.00	15.50
83	1,3-Dichlorobenzene	1.711	1.749	-2.2	87	0.00	15.56
84	1,4-Dichlorobenzene	1.768	1.802	-1.9	88	0.00	15.64
		Amount	Calc.	%Drift			
85	Benzyl Chloride	40.000	30.767	23.1	62	0.00	15.76
		AvgRF	CCRF	%Dev			
86	n-Butylbenzene	3.143	3.257	-3.6	84	0.00	15.95
87	1,2-Dichlorobenzene	1.605	1.630	-1.6	87	0.00	16.07
88	1,2-Dibromo-3-Chloropropa	0.107	0.110	-2.8	84	0.00	16.89
89	1,2,4-Trichlorobenzene	1.006	0.994	1.2	85	0.00	17.87
90	Hexachlorobutadiene	0.473	0.471	0.4	84	0.00	18.03
91	Naphthalene	1.835	1.924	-4.9	86	0.00	18.20
92	1,2,3-Trichlorobenzene	0.894	0.897	-0.3	85	0.00	18.49
93 I	Tert Butyl alcohol-d10	1.000	1.000	0.0	93	0.00	7.11
94	Acrolein	4.127	3.056	26.0	69	0.00	6.46
95	Tert-Butyl Alcohol	1.510	1.558	-3.2	99	0.00	7.20
96	Tert amyl alcohol	1.094	1.169	-6.9	100	0.00	9.41
97	1,4-Dioxane	0.121	0.139	-14.9	106	0.00	10.57

(#) = Out of Range SPCC's out = 0 CCC's out = 0
b109137.D B-OCT30.m Fri Nov 06 07:44:48 2015

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58213-MB	Q16586.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504

The QC reported here applies to the following samples: **Method:** SW846 6850

FA28705-1

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	ND	0.20	0.040	ug/l	

Blank Spike Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58213-BS	Q16585.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504

The QC reported here applies to the following samples: **Method:** SW846 6850

FA28705-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
14797-73-0	Perchlorate	0.2	0.19	95	80-120

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58213-MS	Q16588.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504
OP58213-MSD	Q16589.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504
FA28705-1	Q16587.D	1	11/04/15	NAF	11/04/15	OP58213	SQ504

The QC reported here applies to the following samples: **Method:** SW846 6850

FA28705-1

CAS No.	Compound	FA28705-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
14797-73-0	Perchlorate	14.6		0.2	14.9	150* [a]	0.2	14.4	-100* [a]	3	80-120/15

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	SQ504-CC482	**Injection Date:**	11/04/15
Lab File ID:	Q16582.D	**Injection Time:**	10:33
Instrument ID:	GCMSQ	**Method:**	SW846 6850

	IS 1 AREA	RT
Initial Cal [a]	21762	4.70
Check Std [b]	30139	4.71
Upper Limit [c]	32643	6.71
Lower Limit [d]	10881	2.71

Lab Sample ID	IS 1 AREA	RT
OP58213-BS	22596	4.72
OP58213-MB	22249	4.73
FA28705-1	17923	4.62
OP58213-MS	17276	4.63
OP58213-MSD	17239	4.63

IS 1 = Cl18O4 (ISTD)

(a) Initial Cal is: SQ482-ICC482 Q15988.D 09/28/15 14:27. Area is AVERAGE of initial cal points.
(b) Check Std Limit = -50 to + 50% of initial cal area.
(c) Upper Limit = + 50% of initial standard area; Retention time + 2 minutes of check standard.
(d) Lower Limit = -50% of initial standard area; Retention time -2 minutes of check standard.

Initial Calibration Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: SQ482-ICC482
Lab FileID: Q15988.D

Initial Calibration ReSponse Factors - D:\MassHunter\Data\0928_6850_SQ482\SQ482.batch.bin

Level ID : Calibration File
1 : D:\MassHunter\Data\0928_6850_SQ482\Q15985.d
2 : D:\MassHunter\Data\0928_6850_SQ482\Q15986.d
3 : D:\MassHunter\Data\0928_6850_SQ482\Q15987.d
4 : D:\MassHunter\Data\0928_6850_SQ482\Q15988.d
5 : D:\MassHunter\Data\0928_6850_SQ482\Q15989.d
6 : D:\MassHunter\Data\0928_6850_SQ482\Q15990.d
7 : D:\MassHunter\Data\0928_6850_SQ482\Q15991.d
8 : D:\MassHunter\Data\0928_6850_SQ482\Q15992.d

Compound	1	2	3	4	5	6	7	8	AvgRF	%RSD	r^2
1) Cl18O4	----------ISTD----------										
3) Perchlorate	1.1844	1.0884	1.0626	1.2245	1.1046	1.2092	1.2500	1.2708	1.1743	6.721	0.9999

*(value) - Average RF below (value)

7.5.1

7

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: SQ482-ICV482
Lab FileID: Q15993.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\0928_6850_SQ482\SQ482.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0928_6850_SQ482\Q15985.d
2:D:\MassHunter\Data\0928_6850_SQ482\Q15986.d
3:D:\MassHunter\Data\0928_6850_SQ482\Q15987.d
4:D:\MassHunter\Data\0928_6850_SQ482\Q15988.d
5:D:\MassHunter\Data\0928_6850_SQ482\Q15989.d
6:D:\MassHunter\Data\0928_6850_SQ482\Q15990.d
7:D:\MassHunter\Data\0928_6850_SQ482\Q15991.d
8:D:\MassHunter\Data\0928_6850_SQ482\Q15992.d

Data File: Q15993
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.873	-6.3	93.7

CC Criteria: +/- 15%

Continuing Calibration Summary

Job Number: FA28705 **Sample:** SQ504-CC482
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q16582.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\1104_6850_SQ504\SQ504.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0928_6850_SQ482\Q15985.d
2:D:\MassHunter\Data\0928_6850_SQ482\Q15986.d
3:D:\MassHunter\Data\0928_6850_SQ482\Q15987.d
4:D:\MassHunter\Data\0928_6850_SQ482\Q15988.d
5:D:\MassHunter\Data\0928_6850_SQ482\Q15989.d
6:D:\MassHunter\Data\0928_6850_SQ482\Q15990.d
7:D:\MassHunter\Data\0928_6850_SQ482\Q15991.d
8:D:\MassHunter\Data\0928_6850_SQ482\Q15992.d

Data File: Q16582
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.961	-1.9	98.1

CC Criteria: +/- 15%

Continuing Calibration Summary

Job Number: FA28705 **Sample:** SQ504-CC482
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q16583.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\1104_6850_SQ504\SQ504.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0928_6850_SQ482\Q15985.d
2:D:\MassHunter\Data\0928_6850_SQ482\Q15986.d
3:D:\MassHunter\Data\0928_6850_SQ482\Q15987.d
4:D:\MassHunter\Data\0928_6850_SQ482\Q15988.d
5:D:\MassHunter\Data\0928_6850_SQ482\Q15989.d
6:D:\MassHunter\Data\0928_6850_SQ482\Q15990.d
7:D:\MassHunter\Data\0928_6850_SQ482\Q15991.d
8:D:\MassHunter\Data\0928_6850_SQ482\Q15992.d

Data File: Q16583
Type : QC
Level : 1

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	0.200	0.192	-3.8	96.2

CC Criteria: +/- 15%

7.5.4

7

Continuing Calibration Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: SQ504-CC482
Lab FileID: Q16590.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\1104_6850_SQ504\SQ504.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0928_6850_SQ482\Q15985.d
2:D:\MassHunter\Data\0928_6850_SQ482\Q15986.d
3:D:\MassHunter\Data\0928_6850_SQ482\Q15987.d
4:D:\MassHunter\Data\0928_6850_SQ482\Q15988.d
5:D:\MassHunter\Data\0928_6850_SQ482\Q15989.d
6:D:\MassHunter\Data\0928_6850_SQ482\Q15990.d
7:D:\MassHunter\Data\0928_6850_SQ482\Q15991.d
8:D:\MassHunter\Data\0928_6850_SQ482\Q15992.d

Data File: Q16590
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	2.076	3.8	103.8

CC Criteria: +/- 15%

7.5.5

7

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58134-MB	BB048469.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA28705-1

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.20	0.080	ug/l	
121-82-4	RDX	ND	0.20	0.080	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	0.20	0.080	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.20	0.080	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
98-95-3	Nitrobenzene	ND	0.20	0.080	ug/l	
88-72-2	o-Nitrotoluene	ND	0.20	0.080	ug/l	
99-08-1	m-Nitrotoluene	ND	0.20	0.080	ug/l	
99-99-0	p-Nitrotoluene	ND	0.20	0.080	ug/l	
479-45-8	Tetryl	ND	0.20	0.080	ug/l	
99-35-4	1,3,5-Trinitrobenzene	ND	0.20	0.080	ug/l	
118-96-7	2,4,6-Trinitrotoluene	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries		Limits
610-39-9	3,4-Dinitrotoluene	98%	70-136%

Method Blank Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58134-MB	PP378379.D	1	11/02/15	KL	10/29/15	OP58134	GPP1925

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA28705-1

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.20	0.080	ug/l	
121-82-4	RDX	ND	0.20	0.080	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	0.20	0.080	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.20	0.080	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
98-95-3	Nitrobenzene	ND	0.20	0.080	ug/l	
88-72-2	o-Nitrotoluene	ND	0.20	0.080	ug/l	
99-08-1	m-Nitrotoluene	ND	0.20	0.080	ug/l	
99-99-0	p-Nitrotoluene	ND	0.20	0.080	ug/l	
479-45-8	Tetryl	ND	0.20	0.080	ug/l	
99-35-4	1,3,5-Trinitrobenzene	ND	0.20	0.080	ug/l	
118-96-7	2,4,6-Trinitrotoluene	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries		Limits
610-39-9	3,4-Dinitrotoluene	102%	70-136%

Blank Spike Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58134-BS	BB048468.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA28705-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
2691-41-0	HMX	5	5.5	110	77-144
121-82-4	RDX	5	5.3	106	77-125
99-65-0	1,3-Dinitrobenzene	5	4.5	90	79-122
606-20-2	2,6-Dinitrotoluene	5	5.2	104	81-131
121-14-2	2,4-Dinitrotoluene	5	4.7	94	80-123
35572-78-2	2-amino-4,6-Dinitrotoluene	5	5.2	104	81-120
19406-51-0	4-amino-2,6-Dinitrotoluene	5	4.5	90	79-119
98-95-3	Nitrobenzene	5	4.6	92	78-130
88-72-2	o-Nitrotoluene	5	4.7	94	76-131
99-08-1	m-Nitrotoluene	5	5.1	102	78-122
99-99-0	p-Nitrotoluene	5	4.6	92	79-124
479-45-8	Tetryl	5	4.9	98	65-124
99-35-4	1,3,5-Trinitrobenzene	5	5.0	100	79-128
118-96-7	2,4,6-Trinitrotoluene	5	4.7	94	72-112

CAS No.	Surrogate Recoveries	BSP	Limits
610-39-9	3,4-Dinitrotoluene	100%	70-136%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP58134-MS	BB048474.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356
OP58134-MSD	BB048475.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356
FA28755-3 [a]	BB048473.D	1	10/30/15	KL	10/29/15	OP58134	GBB1356
FA28755-3 [b]	PP378382.D	1	11/02/15	KL	10/29/15	OP58134	GPP1925

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA28705-1

CAS No.	Compound	FA28755-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
2691-41-0	HMX	0.53		9.62	11.0	109	9.62	11.1	110	1	77-144/21
121-82-4	RDX	0.19	U	9.62	9.4	98	9.62	9.9	103	5	77-125/19
99-65-0	1,3-Dinitrobenzene	0.19	U	9.62	9.0	94	9.62	9.1	95	1	79-122/17
606-20-2	2,6-Dinitrotoluene	0.19	U	9.62	9.7	101	9.62	10	104	3	81-131/17
121-14-2	2,4-Dinitrotoluene	0.19	U	9.62	9.1	95	9.62	9.0	94	1	80-123/19
35572-78-2	2-amino-4,6-Dinitrotoluene	0.19	U	9.62	9.8	102	9.62	9.8	102	0	81-120/19
19406-51-0	4-amino-2,6-Dinitrotoluene	0.19	U	9.62	8.3	86	9.62	8.6	89	4	79-119/20
98-95-3	Nitrobenzene	0.19	U	9.62	9.4	98	9.62	9.8	102	4	78-130/19
88-72-2	o-Nitrotoluene	0.19	U	9.62	9.1	95	9.62	9.5	99	4	76-131/20
99-08-1	m-Nitrotoluene	0.19	U	9.62	10.0	104	9.62	10.4	108	4	78-122/18
99-99-0	p-Nitrotoluene	0.19	U	9.62	9.2	96	9.62	9.5	99	3	79-124/18
479-45-8	Tetryl	0.19	U	9.62	4.9	51*	9.62	4.0	42*	20	65-124/20
99-35-4	1,3,5-Trinitrobenzene	0.19	U	9.62	6.6	69*	9.62	5.6	58*	16	79-128/16
118-96-7	2,4,6-Trinitrotoluene	0.19	U	9.62	7.3	76	9.62	6.9	72	6	72-112/16

CAS No.	Surrogate Recoveries	MS	MSD	FA28755-3	FA28755-3	Limits
610-39-9	3,4-Dinitrotoluene	89%	89%	89%	93%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Method: SW846 8330A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
FA28705-1	BB048470.D	100
OP58134-BS	BB048468.D	100
OP58134-MB	BB048469.D	98
OP58134-MB	PP378379.D	102
OP58134-MS	BB048474.D	89
OP58134-MSD	BB048475.D	89

Surrogate Compounds	Recovery Limits
S1 = 3,4-Dinitrotoluene	70-136%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	GBB1356-CC1341	**Injection Date:**	10/30/15
Lab File ID:	BB048467.D	**Injection Time:**	08:40
Instrument ID:	GCBB	**Method:**	SW846 8330A

	S1 [a] RT	S1 [b] RT
Check Std	11.10	11.10

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP58134-BS	BB048468.D	10/30/15	09:05		11.12
OP58134-MB	BB048469.D	10/30/15	09:30		11.13
FA28705-1	BB048470.D	10/30/15	09:55		11.14
ZZZZZZ	BB048471.D	10/30/15	10:20		11.14
ZZZZZZ	BB048472.D	10/30/15	10:45		11.14
FA28755-3	BB048473.D	10/30/15	11:10		11.13
OP58134-MS	BB048474.D	10/30/15	11:35		11.14
OP58134-MSD	BB048475.D	10/30/15	12:00		11.15
GBB1356-ECC1341	BB048477.D	10/30/15	12:48	11.12	11.12

Surrogate Compounds

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	GPP1925-CC1915	**Injection Date:**	11/02/15
Lab File ID:	PP378378.D	**Injection Time:**	09:54
Instrument ID:	GCPP	**Method:**	SW846 8330A

	S1 [a] RT	S1 [b] RT
Check Std	17.03	17.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP58134-MB	PP378379.D	11/02/15	10:29		17.00
ZZZZZZ	PP378380.D	11/02/15	11:02		16.98
ZZZZZZ	PP378381.D	11/02/15	11:36		16.95
FA28755-3	PP378382.D	11/02/15	12:09		16.95
OP58153-MB	PP378383.D	11/02/15	12:45		16.94
ZZZZZZ	PP378384.D	11/02/15	13:18		16.93
GPP1925-ECC1915	PP378389.D	11/02/15	16:11	16.95	16.95

Surrogate Compounds

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.5.2

8

Initial Calibration Summary

Job Number: FA28705 **Sample:** GBB1341-ICC1341
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB048068.D
Project: Melrose Air Force Range, NM

Response Factor Report G1315B

Method : D:\MSDCHEM\1\METHODS\8330B_0930.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Thu Oct 01 08:16:27 2015
Response via : Initial Calibration

Calibration Files
20 =BB048064.D 50 =BB048065.D 100 =BB048066.D 200 =BB048067.D
500 =BB048068.D 1000=BB048069.D 2000=BB048070.D

	Compound	20	50	100	200	500	1000	2000	Avg	%RSD
1)	TNX	2.388	3.295	3.363	3.281	3.362	3.530	3.659	3.268 E3	12.58
2)	HMX	1.595	1.447	1.449	1.560	1.454	1.537	1.572	1.516 E3	4.24
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9996									
	Response Ratio = 0.00000 + 1559.55669 *A									
3)	DNX	2.604	3.042	3.139	2.967	2.984	3.128	3.229	3.013 E3	6.73
4)	MNX	2.446	2.740	2.682	2.523	2.555	2.705	2.765	2.631 E3	4.64
5)	RDX	1.773	2.061	1.886	1.702	1.626	1.778	1.848	1.810 E3	7.74
6)	1,3,5-Trinitroben	3.517	4.211	3.954	3.773	3.729	3.882	4.044	3.873 E3	5.85
7)	1,3-Dinitrobenzen	4.987	5.332	5.255	5.214	5.026	5.040	5.214	5.153 E3	2.58
8)	3,5-Dinitroanilin	4.826	4.386	4.184	3.998	3.919	4.154	4.323	4.256 E3	7.07
9)	Nitrobenzene	3.051	3.225	3.183	2.938	2.887	2.833	3.043	3.023 E3	4.86
10)	Nitroglycerin								0.000	-1.00
11)	Tetryl	3.304	3.202	2.809	2.617	2.625	2.777	2.922	2.894 E3	9.29
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9999									
	Response Ratio = 0.00000 + 2600.27489 *A + 0.16138 *A^2									
12)	2,4,6-Trinitrotol	4.144	3.808	3.643	3.336	3.305	3.452	3.605	3.613 E3	8.14
13)	2-Amino-4,6-Dinit	3.050	3.017	3.008	2.912	2.916	3.122	3.265	3.041 E3	4.04
14)	4-Amino-2,6-Dinit	2.112	2.249	2.777	2.337	2.278	2.350	2.432	2.362 E3	8.81
15)S	3,4-Dinitrotoluen	1.910	2.283	2.536	2.078	1.980	1.960	2.038	2.112 E3	10.54
16)	2,4-Dinitrotoluen	4.797	5.036	5.128	4.483	4.588	4.534	4.723	4.755 E3	5.23
17)	2,6-Dinitrotoluen	2.698	2.939	2.771	2.556	2.589	2.588	2.683	2.689 E3	4.97
18)	o-Nitrotoluene	2.563	2.264	2.162	2.196	2.093	2.119	2.292	2.241 E3	7.10
19)	p-Nitrotoluene	3.840	3.750	3.343	3.297	3.275	3.306	3.531	3.477 E3	6.74
20)	m-Nitrotoluene	2.863	3.129	2.988	2.902	2.940	2.936	3.163	2.989 E3	3.83
21)	PETN								0.000	-1.00

Signal #2

1)	TNX	4.696	5.599	5.369	5.159	5.188	5.439	5.631	5.297 E3	6.07
2)	HMX	4.304	4.383	4.160	4.038	4.004	4.326	4.357	4.225 E3	3.70
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9996									
	Response Ratio = 0.00000 + 4331.35384 *A									
3)	DNX	4.586	4.960	5.196	4.845	4.649	4.993	5.139	4.910 E3	4.71
4)	MNX	3.686	4.190	4.152	3.905	3.880	4.195	4.329	4.048 E3	5.63
5)	RDX	3.048	2.982	2.837	2.800	2.684	2.863	2.957	2.882 E3	4.28
6)	1,3,5-Trinitroben	7.587	8.162	7.711	7.154	7.153	7.543	7.813	7.589 E3	4.73
7)	1,3-Dinitrobenzen	3.706	3.425	3.471	3.387	3.429	3.464	3.615	3.500 E3	3.33
8)	3,5-Dinitroanilin	6.855	7.130	6.904	6.707	6.643	7.074	7.317	6.947 E3	3.46
9)	Nitrobenzene	3.324	2.885	2.892	2.796	2.761	2.764	2.966	2.913 E3	6.76
10)	Nitroglycerin	1.292	1.260	1.218	1.234	1.214	1.220	1.260	1.243 E3	2.34
11)	Tetryl	5.340	4.769	4.405	4.037	4.156	4.394	4.610	4.530 E3	9.61
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9999									
	Response Ratio = 0.00000 + 4114.22935 *A + 0.24919 *A^2									

Initial Calibration Summary

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: GBB1341-ICC1341
Lab FileID: BB048068.D

12)	2,4,6-Trinitrotol	4.817	4.273	4.120	4.107	3.970	4.165	4.292	4.249	E3	6.42
13)	2-Amino-4,6-Dinit	4.027	4.431	4.049	4.073	4.218	4.600	4.816	4.316	E3	7.13
14)	4-Amino-2,6-Dinit	3.770	4.316	4.405	4.071	4.251	4.592	4.815	4.317	E3	7.89
15)S	3,4-Dinitrotoluen	3.610	3.531	3.553	3.376	3.318	3.456	3.598	3.492	E3	3.21
16)	2,4-Dinitrotoluen	3.346	3.380	2.985	3.008	2.972	3.007	3.123	3.117	E3	5.62
17)	2,6-Dinitrotoluen	3.382	3.770	3.419	3.401	3.377	3.394	3.500	3.463	E3	4.08
18)	o-Nitrotoluene	3.366	2.738	2.717	3.092	2.993	2.968	3.237	3.016	E3	7.97
19)	p-Nitrotoluene	3.257	2.782	2.641	2.753	2.722	2.805	3.022	2.855	E3	7.45
20)	m-Nitrotoluene	3.313	3.499	3.598	3.491	3.508	3.486	3.805	3.529	E3	4.20
21)	PETN	1.431	1.407	1.298	1.266	1.268	1.366	1.305	1.334	E3	5.02

(#) = Out of Range

8330B_0930.M Thu Oct 01 08:58:43 2015

8.6.1

8

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: GBB1341-ICV1341
Lab FileID: BB048071.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0930BPL\BB048071.D\dad1B.ch Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\0930BPL\BB048071.D\dad1A.ch
Acq On : 30-Sep-2015, 15:36:09 Operator: kismetl
Sample : icv1341-500 Inst : G1315B
Misc : OP57720,GBB1341,1000,,,10,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0930.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Thu Oct 01 08:16:27 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	500.000	487.745	2.5	95	-0.01	1.13- 1.73
	Amount	Calc.	%Drift				
2	HMX	500.000	560.704	-12.1	120	0.00	1.25- 1.85
	Amount	Calc.	%Drift				
3	DNX	500.000	466.303	6.7	94	0.00	1.52- 2.12
4	MNX	500.000	468.870	6.2	97	0.00	2.12- 2.72
5	RDX	500.000	511.467	-2.3	114	0.00	2.64- 3.44
6	1,3,5-Trinitrobenzene	500.000	506.052	-1.2	105	0.00	4.37- 5.17
7	1,3-Dinitrobenzene	500.000	470.412	5.9	96	0.00	5.68- 6.48
8	3,5-Dinitroaniline	500.000	463.625	7.3	101	0.00	6.16- 6.96
9	Nitrobenzene	500.000	521.267	-4.3	109	0.00	7.31- 8.11
10	Nitroglycerin	----------NA----------					
	Amount	Calc.	%Drift				
11	Tetryl	500.000	441.094	11.8	90	0.00	9.46-10.26
	Amount	Calc.	%Drift				
12	2,4,6-Trinitrotoluene	500.000	432.484	13.5	95	0.00	9.87-10.67
13	2-Amino-4,6-Dinitrotol	500.000	525.811	-5.2	110	0.00	10.42-11.22
14	4-Amino-2,6-Dinitrotol	500.000	524.443	-4.9	109	0.00	10.93-11.73
15 S	3,4-Dinitrotoluene	500.000	494.586	1.1	106	0.00	11.28-12.07
16	2,4-Dinitrotoluene	500.000	495.828	0.8	103	0.00	11.83-12.63
17	2,6-Dinitrotoluene	500.000	508.652	-1.7	106	0.00	12.21-13.01
18	o-Nitrotoluene	500.000	512.560	-2.5	110	0.00	14.34-15.22
19	p-Nitrotoluene	500.000	495.056	1.0	105	0.00	14.59-15.59
20	m-Nitrotoluene	500.000	546.981	-9.4	111	0.00	15.13-16.13
21	PETN	----------NA----------					
*****	Signal #2 *****						
1	TNX	500.000	463.992	7.2	95	-0.01	1.13- 1.73
	Amount	Calc.	%Drift				
2	HMX	500.000	566.220	-13.2	122	0.00	1.25- 1.85
	Amount	Calc.	%Drift				
3	DNX	500.000	458.395	8.3	97	0.00	1.52- 2.12
4	MNX	500.000	462.871	7.4	97	0.00	2.12- 2.72
5	RDX	500.000	514.844	-3.0	111	0.00	2.64- 3.44

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: GBB1341-ICV1341
Lab FileID: BB048071.D

			Amount	Calc.	%Drift			
6		1,3,5-Trinitrobenzene	500.000	496.198	0.8	105	0.00	4.38- 5.18
7		1,3-Dinitrobenzene	500.000	478.606	4.3	98	0.00	5.68- 6.48
8		3,5-Dinitroaniline	500.000	487.326	2.5	102	0.00	6.16- 6.96
9		Nitrobenzene	500.000	514.894	-3.0	109	0.00	7.31- 8.11
10		Nitroglycerin	2500.000	2472.561	1.1	101	0.01	8.93- 9.93
			Amount	Calc.	%Drift			
11		Tetryl	500.000	443.505	11.3	90	0.00	9.46-10.26
			Amount	Calc.	%Drift			
12		2,4,6-Trinitrotoluene	500.000	463.636	7.3	99	0.01	9.87-10.67
13		2-Amino-4,6-Dinitrotol	500.000	538.354	-7.7	110	0.00	10.42-11.22
14		4-Amino-2,6-Dinitrotol	500.000	533.917	-6.8	108	0.00	10.93-11.73
15	S	3,4-Dinitrotoluene	500.000	500.260	-0.1	105	0.00	11.28-12.08
16		2,4-Dinitrotoluene	500.000	487.571	2.5	102	0.00	11.83-12.63
17		2,6-Dinitrotoluene	500.000	505.298	-1.1	104	0.00	12.22-13.02
18		o-Nitrotoluene	500.000	534.236	-6.8	108	0.00	14.22-15.22
19		p-Nitrotoluene	500.000	506.007	-1.2	106	0.00	14.60-15.60
20		m-Nitrotoluene	500.000	560.214	-12.0	113	0.00	15.13-16.13
21		PETN	2500.000	2716.025	-8.6	114	0.00	16.56-17.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB048068.D 8330B_0930.M Thu Oct 01 08:59:00 2015

8.6.2

8

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GBB1356-CC1341
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB048467.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1030BPL\BB048467.D\dad1B.ch Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\1030BPL\BB048467.D\dad1A.ch
Acq On : 30-Oct-2015, 08:40:28 Operator: kismetl
Sample : cc1341-1000 Inst : G1315B
Misc : OP58134,GBB1356,1000,,,10,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0930.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Fri Oct 30 14:01:05 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	1031.155	-3.1	95	0.00	1.09- 1.69
	Amount	Calc.	%Drift				
2	HMX	1000.000	1015.842	-1.6	103	0.00	1.20- 1.80
	Amount	Calc.	%Drift				
3	DNX	1000.000	1016.587	-1.7	98	0.00	1.46- 2.06
4	MNX	1000.000	985.889	1.4	96	0.00	2.03- 2.63
5	RDX	1000.000	997.255	0.3	102	0.00	2.52- 3.32
6	1,3,5-Trinitrobenzene	1000.000	1029.656	-3.0	103	0.00	4.20- 5.00
7	1,3-Dinitrobenzene	1000.000	994.020	0.6	102	0.00	5.45- 6.25
8	3,5-Dinitroaniline	1000.000	1047.655	-4.8	107	0.00	5.88- 6.68
9	Nitrobenzene	1000.000	972.016	2.8	104	0.00	7.02- 7.82
10	Nitroglycerin	----------	NA	----------			
	Amount	Calc.	%Drift				
11	Tetryl	1000.000	1057.315	-5.7	106	0.00	8.96- 9.76
	Amount	Calc.	%Drift				
12	2,4,6-Trinitrotoluene	1000.000	967.653	3.2	101	0.00	9.40-10.20
13	2-Amino-4,6-Dinitrotol	1000.000	1048.564	-4.9	102	0.00	9.84-10.64
14	4-Amino-2,6-Dinitrotol	1000.000	974.771	2.5	98	0.00	10.30-11.10
15 S	3,4-Dinitrotoluene	1000.000	980.010	2.0	106	0.00	10.69-11.49
16	2,4-Dinitrotoluene	1000.000	956.559	4.3	100	0.00	11.32-12.12
17	2,6-Dinitrotoluene	1000.000	1011.370	-1.1	105	0.00	11.72-12.52
18	o-Nitrotoluene	1000.000	962.258	3.8	102	0.00	13.97-14.85
19	p-Nitrotoluene	1000.000	973.632	2.6	102	0.00	14.23-15.23
20	m-Nitrotoluene	1000.000	990.312	1.0	101	0.00	14.78-15.78
21	PETN	----------	NA	----------			
*****	Signal #2 *****						
1	TNX	1000.000	974.013	2.6	95	0.00	1.09- 1.69
	Amount	Calc.	%Drift				
2	HMX	1000.000	1010.773	-1.1	101	0.00	1.20- 1.80
	Amount	Calc.	%Drift				
3	DNX	1000.000	1000.949	-0.1	98	0.00	1.46- 2.06
4	MNX	1000.000	1007.593	-0.8	97	0.00	2.03- 2.63
5	RDX	1000.000	997.434	0.3	100	0.00	2.52- 3.32

8.6.3

8

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GBB1356-CC1341
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB048467.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
6		1,3,5-Trinitrobenzene	1000.000	1016.210	-1.6	102	0.00	4.20- 5.00
7		1,3-Dinitrobenzene	1000.000	1013.049	-1.3	102	0.00	5.45- 6.25
8		3,5-Dinitroaniline	1000.000	1067.326	-6.7	105	0.00	5.88- 6.68
9		Nitrobenzene	1000.000	961.241	3.9	101	0.00	7.01- 7.81
10		Nitroglycerin	5000.000	4823.095	3.5	98	0.00	8.55- 9.55
			Amount	Calc.	%Drift			
11		Tetryl	1000.000	1102.654	-10.3	110	0.00	8.96- 9.76
			Amount	Calc.	%Drift			
12		2,4,6-Trinitrotoluene	1000.000	961.051	3.9	98	0.00	9.40-10.20
13		2-Amino-4,6-Dinitrotol	1000.000	1067.975	-6.8	100	0.00	9.83-10.63
14		4-Amino-2,6-Dinitrotol	1000.000	1031.119	-3.1	97	0.00	10.30-11.10
15	S	3,4-Dinitrotoluene	1000.000	988.893	1.1	100	0.00	10.69-11.49
16		2,4-Dinitrotoluene	1000.000	909.045	9.1	94	0.00	11.31-12.11
17		2,6-Dinitrotoluene	1000.000	1000.046	-0.0	102	0.00	11.72-12.52
18		o-Nitrotoluene	1000.000	982.354	1.8	100	0.00	13.85-14.85
19		p-Nitrotoluene	1000.000	970.875	2.9	99	0.00	14.23-15.23
20		m-Nitrotoluene	1000.000	985.850	1.4	100	0.00	14.78-15.78
21		PETN	5000.000	4174.217	16.5	82	0.00	16.23-17.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB048069.D 8330B_0930.M Fri Oct 30 14:20:18 2015

8.6.3

8

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GBB1356-ECC1341
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB048477.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1030BPL\BB048477.D\dad1B.ch Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\1030BPL\BB048477.D\dad1A.ch
Acq On : 30-Oct-2015, 12:48:41 Operator: kismetl
Sample : ecc1341-1000 Inst : G1315B
Misc : OP58134,GBB1356,1000,,,10,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0930.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Fri Oct 30 14:01:05 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	1019.090	-1.9	94	0.00	1.09- 1.69
	Amount	Calc.	%Drift				
2	HMX	1000.000	1015.868	-1.6	103	0.00	1.20- 1.80
	Amount	Calc.	%Drift				
3	DNX	1000.000	1012.074	-1.2	97	0.00	1.46- 2.06
4	MNX	1000.000	987.644	1.2	96	0.00	2.03- 2.63
5	RDX	1000.000	988.801	1.1	101	0.00	2.52- 3.32
6	1,3,5-Trinitrobenzene	1000.000	1014.445	-1.4	101	0.00	4.20- 5.00
7	1,3-Dinitrobenzene	1000.000	981.192	1.9	100	0.00	5.45- 6.25
8	3,5-Dinitroaniline	1000.000	1021.964	-2.2	105	0.00	5.88- 6.68
9	Nitrobenzene	1000.000	985.347	1.5	105	0.01	7.02- 7.82
10	Nitroglycerin	----------NA----------					
	Amount	Calc.	%Drift				
11	Tetryl	1000.000	1037.675	-3.8	103	0.02	8.96- 9.76
	Amount	Calc.	%Drift				
12	2,4,6-Trinitrotoluene	1000.000	953.333	4.7	100	0.02	9.40-10.20
13	2-Amino-4,6-Dinitrotol	1000.000	1033.841	-3.4	101	0.00	9.84-10.64
14	4-Amino-2,6-Dinitrotol	1000.000	952.971	4.7	96	0.01	10.30-11.10
15 S	3,4-Dinitrotoluene	1000.000	944.191	5.6	102	0.03	10.69-11.49
16	2,4-Dinitrotoluene	1000.000	935.906	6.4	98	0.02	11.32-12.12
17	2,6-Dinitrotoluene	1000.000	990.069	1.0	103	0.02	11.72-12.52
18	o-Nitrotoluene	1000.000	1004.359	-0.4	106	0.03	13.97-14.85
19	p-Nitrotoluene	1000.000	1009.952	-1.0	106	0.03	14.23-15.23
20	m-Nitrotoluene	1000.000	1035.067	-3.5	105	0.02	14.78-15.78
21	PETN	----------NA----------					
*****	Signal #2 *****						
1	TNX	1000.000	963.659	3.6	94	0.00	1.09- 1.69
	Amount	Calc.	%Drift				
2	HMX	1000.000	1006.844	-0.7	101	0.00	1.20- 1.80
	Amount	Calc.	%Drift				
3	DNX	1000.000	989.695	1.0	97	0.00	1.46- 2.06
4	MNX	1000.000	997.460	0.3	96	0.00	2.03- 2.63
5	RDX	1000.000	999.114	0.1	101	0.00	2.52- 3.32

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GBB1356-ECC1341
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB048477.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
6		1,3,5-Trinitrobenzene	1000.000	1004.470	-0.4	101	0.00	4.20- 5.00
7		1,3-Dinitrobenzene	1000.000	998.306	0.2	101	0.00	5.45- 6.25
8		3,5-Dinitroaniline	1000.000	1061.476	-6.1	104	0.00	5.88- 6.68
9		Nitrobenzene	1000.000	976.965	2.3	103	0.00	7.01- 7.81
10		Nitroglycerin	5000.000	4783.507	4.3	97	0.02	8.55- 9.55
			Amount	Calc.	%Drift			
11		Tetryl	1000.000	1089.921	-9.0	109	0.02	8.96- 9.76
			Amount	Calc.	%Drift			
12		2,4,6-Trinitrotoluene	1000.000	950.205	5.0	97	0.02	9.40-10.20
13		2-Amino-4,6-Dinitrotol	1000.000	1066.053	-6.6	100	0.00	9.83-10.63
14		4-Amino-2,6-Dinitrotol	1000.000	1027.301	-2.7	97	0.01	10.30-11.10
15	S	3,4-Dinitrotoluene	1000.000	961.838	3.8	97	0.03	10.69-11.49
16		2,4-Dinitrotoluene	1000.000	908.273	9.2	94	0.02	11.31-12.11
17		2,6-Dinitrotoluene	1000.000	990.141	1.0	101	0.02	11.72-12.52
18		o-Nitrotoluene	1000.000	1003.652	-0.4	102	0.02	13.85-14.85
19		p-Nitrotoluene	1000.000	1006.903	-0.7	102	0.03	14.23-15.23
20		m-Nitrotoluene	1000.000	1017.615	-1.8	103	0.03	14.78-15.78
21		PETN	5000.000	4184.409	16.3	82	0.03	16.23-17.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB048069.D 8330B_0930.M Fri Oct 30 14:20:19 2015

8.6.4

Initial Calibration Summary

Job Number: FA28705 **Sample:** GPP1915-ICC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378243.D
Project: Melrose Air Force Range, NM

Response Factor Report G1315B

Method : C:\MSDCHEM\2\METHODS\8330RP3_929.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Tue Sep 29 08:42:48 2015
Response via : Initial Calibration

Calibration Files
20 =PP378239.D 50 =PP378240.D 100 =PP378241.D 200 =PP378242.D
500 =PP378243.D 1000=PP378244.D 2000=PP378245.D

	Compound	20	50	100	200	500	1000	2000	Avg		%RSD
1)	TNX	1.066	1.188	1.037	1.051	1.011	1.002	1.033	1.055	E4	5.92
2)	HMX	3.236	3.501	3.275	3.235	3.218	3.230	3.349	3.292	E3	3.11
3)	DNX	8.818	9.873	8.859	9.162	9.076	9.005	9.335	9.161	E3	3.93
4)	MNX	7.279	8.011	7.404	7.361	7.358	7.233	7.485	7.447	E3	3.51
5)	1,3,5-Trinitroben	1.174	1.236	1.096	1.096	1.075	1.060	1.100	1.120	E4	5.61
6)	RDX	5.129	5.618	4.871	4.953	4.891	4.724	4.930	5.017	E3	5.80
7)	1,3-Dinitrobenzen	1.509	1.680	1.442	1.448	1.424	1.391	1.449	1.478	E4	6.49
8)	Nitrobenzene	0.983	1.002	0.932	0.929	0.930	0.907	0.927	0.944	E4	3.65
9)	2,4,6-Trinitrotol	0.967	1.110	0.987	1.005	0.997	0.963	1.003	1.005	E4	4.89
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998										
	Response Ratio = 0.00000 + 9558.76964 *A + 0.22944 *A^2										
10)	Nitroglycerin								0.000		-1.00
11)	Tetryl	8.502	8.146	8.157	7.924	8.048	7.666	8.015	8.065	E3	3.15
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998										
	Response Ratio = 0.00000 + 7633.94990 *A + 0.18368 *A^2										
12)S	3,4-Dinitrotoluen	4.764	5.853	5.927	5.691	5.606	5.438	5.661	5.563	E3	6.95
13)	2,6-Dinitrotoluen	6.435	8.100	7.027	7.224	7.136	6.859	7.196	7.140	E3	7.05
14)	2,4-Dinitrotoluen	1.331	1.492	1.327	1.330	1.317	1.273	1.333	1.343	E4	5.11
15)	o-Nitrotoluene	5.907	5.144	5.382	5.495	5.556	5.698	5.597	5.540	E3	4.34
16)	3,5-Dinitroanilin	1.075	1.401	1.251	1.277	1.250	1.179	1.265	1.243	E4	8.00
17)	p-Nitrotoluene	4.901	5.386	5.291	5.296	5.203	5.096	5.194	5.195	E3	3.07
18)	4-Amino-2,6-Dinit	7.553	8.264	7.258	7.066	6.852	6.764	7.024	7.255	E3	7.12
19)	m-Nitrotoluene	5.554	6.521	6.480	6.167	6.194	6.125	6.224	6.181	E3	5.13
20)	2-Amino-4,6-Dinit	0.944	1.111	0.979	0.999	0.979	0.931	0.979	0.989	E4	5.93
21)	PETN								0.000		-1.00

Signal #2

1)	TNX	1.492	1.744	1.580	1.609	1.537	1.522	1.553	1.577	E4	5.27
2)	HMX	1.179	1.247	1.068	1.134	1.056	1.034	1.051	1.110	E4	7.16
3)	DNX	1.393	1.594	1.559	1.600	1.502	1.533	1.532	1.530	E4	4.56
4)	MNX	1.056	1.238	1.039	1.099	1.109	1.110	1.146	1.114	E4	5.87
5)	1,3,5-Trinitroben	2.029	2.127	1.871	1.859	1.884	1.857	1.931	1.937	E4	5.34
6)	RDX	1.113	1.020	0.943	0.870	0.929	0.911	0.942	0.961	E4	8.39
7)	1,3-Dinitrobenzen	1.254	1.252	1.033	1.059	1.065	1.050	1.095	1.115	E4	8.60
8)	Nitrobenzene	9.776	9.271	8.608	8.972	8.667	8.437	8.794	8.932	E3	5.15
9)	2,4,6-Trinitrotol	1.230	1.382	1.318	1.385	1.302	1.266	1.330	1.316	E4	4.33
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998										
	Response Ratio = 0.00000 + 12501.50510 *A + 0.38849 *A^2										
10)	Nitroglycerin	4.488	3.895	3.495	3.706	3.434	3.607	3.582	3.744	E3	9.63
11)	Tetryl	1.493	1.540	1.529	1.406	1.325	1.399	1.394	1.441	E4	5.59
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998										
	Response Ratio = 0.00000 + 13733.12667 *A + 0.11022 *A^2										

Initial Calibration Summary

Job Number: FA28705 **Sample:** GPP1915-ICC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378243.D
Project: Melrose Air Force Range, NM

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12)S 3,4-Dinitrotoluen 0.936 1.354 1.080 1.153 1.067 1.066 1.138 1.114 E4  11.42
13)  2,6-Dinitrotoluen 0.881 1.084 1.226 1.055 1.009 1.003 1.048 1.044 E4   9.91
14)  2,4-Dinitrotoluen 0.935 1.084 1.100 0.919 0.939 0.927 0.964 0.981 E4   7.85
15)  o-Nitrotoluene    7.546 7.339 8.589 8.604 8.145 8.192 8.350 8.109 E3   6.07
16)  3,5-Dinitroanilin 1.744 2.202 2.205 2.128 2.116 2.020 2.139 2.079 E4   7.70
17)  p-Nitrotoluene    0.423 1.026 0.973 0.835 0.844 0.836 0.869 0.829 E4  23.42
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 8618.29141 *A

18)  4-Amino-2,6-Dinit 1.159 1.374 1.495 1.468 1.362 1.321 1.392 1.367 E4   8.04
19)  m-Nitrotoluene    1.168 0.984 1.137 1.031 1.085 1.070 1.086 1.080 E4   5.71
20)  2-Amino-4,6-Dinit 0.801 1.035 1.209 1.266 1.318 1.333 1.393 1.194 E4  17.42
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 13762.87494 *A

21)  PETN              3.323 3.755 3.783 3.963 3.917 3.832 3.947 3.789 E3   5.81
-------------------------------------------------------------------------------
(#) = Out of Range

          8330RP3_929.M        Tue Sep 29 09:02:56 2015
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8.6.5

8

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: GPP1915-ICV1915
Lab FileID: PP378246.D

Evaluate Continuing Calibration Report

Signal #1 : P:\DATA\0928BPL\PP378246.D\dad1B.ch Vial: 38
Signal #2 : P:\DATA\0928BPL\PP378246.D\dad1A.ch
Acq On : 28-Sep-2015, 15:52:39 Operator: kismetl
Sample : icv1915-500 Inst : G1315B
Misc : OP57600,GPP1915,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\2\METHODS\8330RP3_929.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Tue Sep 29 08:42:48 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	500.000	440.311	11.9	92	-0.01	3.59- 6.17
2	HMX	500.000	560.114	-12.0	115	-0.02	5.72- 6.72
3	DNX	500.000	437.264	12.5	88	-0.02	5.92- 6.92
4	MNX	500.000	435.416	12.9	88	-0.02	7.42- 8.42
5	1,3,5-Trinitrobenzene	500.000	472.185	5.6	98	-0.02	8.46- 9.46
6	RDX	500.000	487.278	2.5	100	-0.03	9.06-10.06
7	1,3-Dinitrobenzene	500.000	464.060	7.2	96	-0.03	11.34-12.34
8	Nitrobenzene	500.000	503.104	-0.6	102	-0.03	12.43-13.43
	----------	Amount	Calc.	%Drift			----------
9	2,4,6-Trinitrotoluene	500.000	429.193	14.2	83	-0.03	13.61-14.61
	----------	Amount	Calc.	%Drift			----------
10	Nitroglycerin	----------NA----------					
	----------	Amount	Calc.	%Drift			----------
11	Tetryl	500.000	430.281	13.9	82	-0.05	15.52-16.52
	----------	Amount	Calc.	%Drift			----------
12 S	3,4-Dinitrotoluene	500.000	549.849	-10.0	109	-0.02	16.74-17.74
13	2,6-Dinitrotoluene	500.000	526.329	-5.3	105	-0.04	17.12-18.12
14	2,4-Dinitrotoluene	500.000	492.955	1.4	101	-0.03	17.93-18.93
15	o-Nitrotoluene	500.000	519.327	-3.9	104	-0.04	19.75-20.75
16	3,5-Dinitroaniline	500.000	475.983	4.8	95	-0.03	19.37-20.37
17	p-Nitrotoluene	500.000	517.891	-3.6	103	-0.03	21.11-22.11
18	4-Amino-2,6-Dinitrotol	500.000	503.443	-0.7	107	-0.05	21.66-22.66
19	m-Nitrotoluene	500.000	544.735	-8.9	109	-0.04	22.68-23.68
20	2-Amino-4,6-Dinitrotol	500.000	510.344	-2.1	103	-0.04	24.23-25.23
21	PETN	----------NA----------					
*****	Signal #2 *****						
1	TNX	500.000	447.017	10.6	92	-0.01	3.59- 6.17
2	HMX	500.000	538.657	-7.7	113	-0.02	5.72- 6.72
3	DNX	500.000	439.375	12.1	90	-0.03	5.92- 6.92
4	MNX	500.000	443.356	11.3	89	-0.03	7.42- 8.42
5	1,3,5-Trinitrobenzene	500.000	479.800	4.0	99	-0.02	8.46- 9.46
6	RDX	500.000	476.886	4.6	99	-0.03	9.07-10.07
7	1,3-Dinitrobenzene	500.000	486.160	2.8	102	-0.03	11.34-12.34
8	Nitrobenzene	500.000	512.740	-2.5	106	-0.02	12.43-13.43

Initial Calibration Verification

Job Number: FA28705
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: GPP1915-ICV1915
Lab FileID: PP378246.D

			Amount	Calc.	%Drift			
9		2,4,6-Trinitrotoluene	500.000	455.704	8.9	89	-0.03	13.62-14.62
10		Nitroglycerin	2500.000	2329.423	6.8	102	-0.04	14.60-15.60
11		Tetryl	500.000	435.447	12.9	91	-0.05	15.52-16.52
12	S	3,4-Dinitrotoluene	500.000	558.084	-11.6	116	-0.02	16.73-17.73
13		2,6-Dinitrotoluene	500.000	534.645	-6.9	111	-0.04	17.11-18.11
14		2,4-Dinitrotoluene	500.000	510.448	-2.1	107	-0.03	17.93-18.93
15		o-Nitrotoluene	500.000	553.803	-10.8	110	-0.03	19.74-20.74
16		3,5-Dinitroaniline	500.000	492.134	1.6	97	-0.04	19.37-20.37
17		p-Nitrotoluene	500.000	542.453	-8.5	111	-0.03	21.12-22.12
18		4-Amino-2,6-Dinitrotol	500.000	541.734	-8.3	109	-0.05	21.66-22.66
19		m-Nitrotoluene	500.000	548.249	-9.6	109	-0.04	22.68-23.68
20		2-Amino-4,6-Dinitrotol	500.000	482.745	3.5	101	-0.04	24.24-25.24
21		PETN	2500.000	2622.433	-4.9	101	-0.02	25.38-27.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PP378243.D 8330RP3_929.M Tue Sep 29 09:03:19 2015

8.6.6

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GPP1925-CC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378378.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : P:\DATA\1102BPL\PP378378.D\dad1B.ch Vial: 2
Signal #2 : P:\DATA\1102BPL\PP378378.D\dad1A.ch
Acq On : 02-Nov-2015, 09:54:24 Operator: kismetl
Sample : cc1915-1000 Inst : G1315B
Misc : OP58134,GPP1925,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\2\METHODS\8330RP3_929.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Tue Nov 03 10:53:37 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	907.887	9.2	96	0.00	3.57- 6.15
2	HMX	1000.000	974.721	2.5	99	0.00	5.69- 6.69
3	DNX	1000.000	941.502	5.8	96	0.00	5.89- 6.89
4	MNX	1000.000	940.132	6.0	97	0.00	7.35- 8.35
5	1,3,5-Trinitrobenzene	1000.000	945.155	5.5	100	0.00	8.37- 9.37
6	RDX	1000.000	944.097	5.6	100	0.00	8.97- 9.97
7	1,3-Dinitrobenzene	1000.000	941.570	5.8	100	0.00	11.22-12.22
8	Nitrobenzene	1000.000	934.438	6.6	97	0.00	12.29-13.29
	----------	Amount	Calc.	%Drift			----------
9	2,4,6-Trinitrotoluene	1000.000	984.323	1.6	100	0.00	13.44-14.44
	----------	Amount	Calc.	%Drift			----------
10	Nitroglycerin	----------	NA	----------			
	----------	Amount	Calc.	%Drift			----------
11	Tetryl	1000.000	978.082	2.2	100	0.00	15.28-16.28
	----------	Amount	Calc.	%Drift			----------
12 S	3,4-Dinitrotoluene	1000.000	977.412	2.3	100	0.00	16.53-17.53
13	2,6-Dinitrotoluene	1000.000	971.102	2.9	101	0.00	16.90-17.90
14	2,4-Dinitrotoluene	1000.000	953.219	4.7	101	0.00	17.70-18.70
15	o-Nitrotoluene	1000.000	972.472	2.8	95	0.00	19.49-20.49
16	3,5-Dinitroaniline	1000.000	1008.696	-0.9	106	0.00	19.08-20.08
17	p-Nitrotoluene	1000.000	957.299	4.3	98	0.00	20.83-21.83
18	4-Amino-2,6-Dinitrotol	1000.000	929.517	7.0	100	0.00	21.33-22.33
19	m-Nitrotoluene	1000.000	953.278	4.7	96	0.00	22.36-23.36
20	2-Amino-4,6-Dinitrotol	1000.000	944.563	5.5	100	0.00	23.89-24.89
21	PETN	----------	NA	----------			
*****	Signal #2 *****						
1	TNX	1000.000	928.986	7.1	96	0.00	3.57- 6.15
2	HMX	1000.000	930.121	7.0	100	0.00	5.69- 6.69
3	DNX	1000.000	956.783	4.3	96	0.00	5.89- 6.89
4	MNX	1000.000	953.796	4.6	96	0.00	7.35- 8.35
5	1,3,5-Trinitrobenzene	1000.000	951.973	4.8	99	0.00	8.37- 9.37
6	RDX	1000.000	937.551	6.2	99	0.00	8.97- 9.97
7	1,3-Dinitrobenzene	1000.000	951.669	4.8	101	0.00	11.22-12.22
8	Nitrobenzene	1000.000	980.048	2.0	104	0.00	12.29-13.29

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GPP1925-CC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378378.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
9		2,4,6-Trinitrotoluene	1000.000	1013.217	-1.3	103	0.00	13.44-14.44
10		Nitroglycerin	5000.000	4833.356	3.3	100	0.00	14.39-15.39
11		Tetryl	1000.000	1011.069	-1.1	100	0.00	15.29-16.29
12	S	3,4-Dinitrotoluene	1000.000	1013.566	-1.4	106	0.00	16.52-17.52
13		2,6-Dinitrotoluene	1000.000	992.492	0.8	103	0.00	16.90-17.90
14		2,4-Dinitrotoluene	1000.000	999.897	0.0	106	0.00	17.70-18.70
15		o-Nitrotoluene	1000.000	1010.408	-1.0	100	0.00	19.50-20.50
16		3,5-Dinitroaniline	1000.000	1033.415	-3.3	106	0.00	19.07-20.07
17		p-Nitrotoluene	1000.000	976.723	2.3	101	0.00	20.83-21.83
18		4-Amino-2,6-Dinitrotol	1000.000	998.798	0.1	103	0.00	21.34-22.34
19		m-Nitrotoluene	1000.000	966.209	3.4	98	0.00	22.36-23.36
20		2-Amino-4,6-Dinitrotol	1000.000	939.003	6.1	97	0.00	23.89-24.89
21		PETN	5000.000	3617.830	27.6#	72	0.00	25.11-27.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PP378244.D 8330RP3_929.M Tue Nov 03 12:48:09 2015

8.6.7

8

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GPP1925-ECC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378389.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : P:\DATA\1102BPL\PP378389.D\dad1B.ch Vial: 2
Signal #2 : P:\DATA\1102BPL\PP378389.D\dad1A.ch
Acq On : 02-Nov-2015, 16:11:03 Operator: kismetl
Sample : ecc1915-1000 Inst : G1315B
Misc : OP58134,GPP1925,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\MSDCHEM\2\METHODS\8330RP3_929.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Tue Nov 03 10:53:37 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	1020.690	-2.1	108	0.00	3.57- 6.15
2	HMX	1000.000	1144.122	-14.4	117	-0.02	5.69- 6.69
3	DNX	1000.000	954.619	4.5	97	-0.01	5.89- 6.89
4	MNX	1000.000	922.330	7.8	95	-0.02	7.35- 8.35
5	1,3,5-Trinitrobenzene	1000.000	925.479	7.5	98	-0.01	8.37- 9.37
6	RDX	1000.000	919.897	8.0	98	-0.05	8.97- 9.97
7	1,3-Dinitrobenzene	1000.000	928.300	7.2	99	-0.03	11.22-12.22
8	Nitrobenzene	1000.000	974.167	2.6	101	-0.03	12.29-13.29
	----------	Amount	Calc.	%Drift			----------
9	2,4,6-Trinitrotoluene	1000.000	1041.393	-4.1	106	-0.04	13.44-14.44
	----------	Amount	Calc.	%Drift			----------
10	Nitroglycerin	----------NA----------					
	----------	Amount	Calc.	%Drift			----------
11	Tetryl	1000.000	1047.942	-4.8	107	-0.08	15.28-16.28
	----------	Amount	Calc.	%Drift			----------
12 S	3,4-Dinitrotoluene	1000.000	1144.037	-14.4	117	-0.08	16.53-17.53
13	2,6-Dinitrotoluene	1000.000	1068.700	-6.9	111	-0.08	16.90-17.90
14	2,4-Dinitrotoluene	1000.000	1035.999	-3.6	109	-0.08	17.70-18.70
15	o-Nitrotoluene	1000.000	1086.297	-8.6	106	-0.05	19.49-20.49
16	3,5-Dinitroaniline	1000.000	1026.645	-2.7	108	-0.16	19.08-20.08
17	p-Nitrotoluene	1000.000	1027.340	-2.7	105	-0.06	20.83-21.83
18	4-Amino-2,6-Dinitrotol	1000.000	936.896	6.3	100	-0.18	21.33-22.33
19	m-Nitrotoluene	1000.000	959.730	4.0	97	-0.07	22.36-23.36
20	2-Amino-4,6-Dinitrotol	1000.000	921.100	7.9	98	-0.18	23.89-24.89
21	PETN	----------NA----------					
*****	Signal #2 *****						
1	TNX	1000.000	951.088	4.9	99	0.00	3.57- 6.15
2	HMX	1000.000	937.346	6.3	101	-0.02	5.69- 6.69
3	DNX	1000.000	942.083	5.8	94	-0.01	5.89- 6.89
4	MNX	1000.000	937.392	6.3	94	-0.02	7.35- 8.35
5	1,3,5-Trinitrobenzene	1000.000	935.107	6.5	98	-0.01	8.37- 9.37
6	RDX	1000.000	919.644	8.0	97	-0.05	8.97- 9.97
7	1,3-Dinitrobenzene	1000.000	939.056	6.1	100	-0.04	11.22-12.22
8	Nitrobenzene	1000.000	988.356	1.2	105	-0.03	12.29-13.29

Continuing Calibration Summary

Job Number: FA28705 **Sample:** GPP1925-ECC1915
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** PP378389.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
9		2,4,6-Trinitrotoluene	1000.000	1013.136	-1.3	103	-0.03	13.44-14.44
			Amount	Calc.	%Drift			
10		Nitroglycerin	5000.000	4807.984	3.8	100	-0.04	14.39-15.39
			Amount	Calc.	%Drift			
11		Tetryl	1000.000	1031.067	-3.1	102	-0.09	15.29-16.29
			Amount	Calc.	%Drift			
12	S	3,4-Dinitrotoluene	1000.000	1072.106	-7.2	112	-0.08	16.52-17.52
13		2,6-Dinitrotoluene	1000.000	1037.026	-3.7	108	-0.08	16.90-17.90
14		2,4-Dinitrotoluene	1000.000	1076.720	-7.7	114	-0.08	17.70-18.70
15		o-Nitrotoluene	1000.000	1134.993	-13.5	112	-0.06	19.50-20.50
16		3,5-Dinitroaniline	1000.000	1004.673	-0.5	103	-0.16	19.07-20.07
			Amount	Calc.	%Drift			
17		p-Nitrotoluene	1000.000	943.490	5.7	97	-0.05	20.83-21.83
			Amount	Calc.	%Drift			
18		4-Amino-2,6-Dinitrotol	1000.000	969.002	3.1	100	-0.18	21.34-22.34
19		m-Nitrotoluene	1000.000	944.063	5.6	95	-0.08	22.36-23.36
			Amount	Calc.	%Drift			
20		2-Amino-4,6-Dinitrotol	1000.000	906.574	9.3	94	-0.19	23.89-24.89
			Amount	Calc.	%Drift			
21		PETN	5000.000	3403.547	31.9#	67	-0.04	25.11-27.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PP378244.D 8330RP3_929.M Tue Nov 03 13:08:22 2015

8.6.8

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
Analyst: JL Run ID: MA12749
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:20	MA12749-STD1	1		STD1
11:21	MA12749-STD2	1		STD2
11:23	MA12749-STD3	1		STD3
11:24	MA12749-STD4	1		STD4
11:26	MA12749-STD5	1		STD5
11:28	MA12749-STD6	1		STD6
11:30	MA12749-HSTD1	1		
11:32	MA12749-ICV1	1		
11:34	MA12749-ICB1	1		
11:36	MA12749-CRI1	1		
11:37	MA12749-CCV1	1		
11:38	MA12749-CCB1	1		
11:40	MP29597-MB1	1		
11:42	MP29597-B1	1		
11:43	FA28732-1	1		(sample used for QC only; not part of login FA28705)
11:45	MP29597-D1	1		
11:46	MP29597-SD1	5		
11:47	MP29597-S1	1		
11:49	MP29597-S2	1		
11:51	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:55	MA12749-CCV2	1		
11:56	MA12749-CCB2	1		
11:58	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:02	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:07	ZZZZZZ	1		
12:09	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
Analyst: JL Run ID: MA12749
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:10	ZZZZZZ	1		
12:11	MA12749-CCV3	1		
12:13	MA12749-CCB3	1		
12:15	FA28705-1	1		
12:16	FA28705-1F	1		
---------->	Last reportable sample/prep for job FA28705			
12:17	MP29598-MB1	1		
12:19	MP29598-B1	1		
12:20	FA28773-1	1		(sample used for QC only; not part of login FA28705)
12:22	MP29598-D1	1		
12:23	MP29598-SD1	5		
12:24	MP29598-S1	1		
12:26	MP29598-S2	1		
12:28	ZZZZZZ	1		
12:29	MA12749-CCV4	1		
12:31	MA12749-CCB4	1		
12:33	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:35	MP29598-MB2	1		
12:36	MP29598-B2	1		
12:38	MP29598-MB3	1		
12:40	MP29598-B3	1		
12:41	MP29598-MB4	1		
12:43	MP29598-B4	1		
12:44	ZZZZZZ	1		
12:46	MA12749-CRI2	1		
12:47	MA12749-CCV5	1		
12:49	MA12749-CCB5	1		
---------->	Last reportable CCB for job FA28705			

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA12749 Units: ug/l

Time: / Sample ID:			11:34 ICB1		11:38 CCB1		11:56 CCB2		12:13 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	-0.0087	<0.50	-0.0080	<0.50	-0.014	<0.50	-0.014	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA12749 Units: ug/l

Time:			12:31		12:49	
Sample ID:			CCB4		CCB5	
Metal	RL	IDL	raw	final	raw	final
Mercury	0.50	.03	-0.017	<0.50	-0.011	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA12749 Units: ug/l

Time:		11:32			11:37			11:55	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA12749 Units: ug/l

Time:		12:11			12:29			12:47	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	2.7	90.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA12749 Units: ug/l

Time:		11:30	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	5.9	98.3

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H51030W2.CSV Date Analyzed: 10/30/15 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA12749 Units: ug/l

Time:			11:36		12:46	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.18	90.0	0.19	95.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP29597 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/30/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	-0.0062	<0.50

Associated samples MP29597: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP29597
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date:			10/30/15					10/30/15	
Metal	FA28732-1 Original	DUP	RPD	QC Limits	FA28732-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.9	3	96.7	80-120

Associated samples MP29597: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP29597 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 10/30/15

Metal	FA28732-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	20

Associated samples MP29597: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP29597
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/30/15

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	80-120

Associated samples MP29597: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP29597
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/30/15

Metal	FA28732-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP29597: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN68474	5.0	0.0	mg/l	250	251	100.0	90-113%
Chloride	GP26867/GN68349	2.0	0.0	mg/l	50	51.4	102.8	90-110%
Chromium, Hexavalent	GN68380	0.010	0.0	mg/l	0.10	0.11	108.7	85-115%
Cyanide, Total	GP26924/GN68530	0.010	0.0	mg/l	0.1	0.104	104.0	90-110%
Fluoride	GP26867/GN68349	0.20	0.0	mg/l	2.5	2.64	105.6	90-110%
Nitrogen, Nitrate	GP26867/GN68349	0.10	0.0	mg/l	2.5	2.51	100.4	90-110%
Nitrogen, Nitrite	GP26867/GN68349	0.10	0.0	mg/l	2.5	2.71	108.4	90-110%
Solids, Total Dissolved	GN68428	100	0.0	mg/l				
Sulfate	GP26867/GN68349	2.0	0.0	mg/l	50	52.1	104.2	90-110%

Associated Samples:
Batch GN68380: FA28705-1
Batch GN68428: FA28705-1
Batch GN68474: FA28705-1
Batch GP26867: FA28705-1
Batch GP26924: FA28705-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN68474	FA28705-1	mg/l	143	141	2.0	0-20%
Solids, Total Dissolved	GN68428	FA28699-8	mg/l	886	890	0.5	0-5%

Associated Samples:
Batch GN68428: FA28705-1
Batch GN68474: FA28705-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP26867/GN68349	FA28701-6	mg/l	0.80 U	50	53.0	106.0	90-110%
Chromium, Hexavalent	GN68380	FA28705-1	mg/l	0.0	0.10	0.10	101.9	85-115%
Cyanide, Total	GP26924/GN68530	FA28881-1	mg/l	0.0041	0.1	0.10	95.9	90-110%
Fluoride	GP26867/GN68349	FA28701-6	mg/l	0.060 U	2.5	2.6	104.0	90-110%
Nitrogen, Nitrate	GP26867/GN68349	FA28701-6	mg/l	0.050 U	2.5	2.6	104.0	90-110%
Nitrogen, Nitrite	GP26867/GN68349	FA28701-6	mg/l	0.050 U	2.5	2.8	112.0N(a)	90-110%
Sulfate	GP26867/GN68349	FA28701-6	mg/l	0.60 U	50	52.9	105.8	90-110%

Associated Samples:
Batch GN68380: FA28705-1
Batch GP26867: FA28705-1
Batch GP26924: FA28705-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP26867/GN68349	FA28701-6	mg/l	0.80 U	50	53.0	0.0	20%
Chromium, Hexavalent	GN68380	FA28705-1	mg/l	0.0	0.10	0.10	0.0	20%
Cyanide, Total	GP26924/GN68530	FA28881-1	mg/l	0.0041	0.1	0.10	0.0	20%
Fluoride	GP26867/GN68349	FA28701-6	mg/l	0.060 U	2.5	2.6	0.0	20%
Nitrogen, Nitrate	GP26867/GN68349	FA28701-6	mg/l	0.050 U	2.5	2.6	0.0	20%
Nitrogen, Nitrite	GP26867/GN68349	FA28701-6	mg/l	0.050 U	2.5	2.8	0.0	20%
Sulfate	GP26867/GN68349	FA28701-6	mg/l	0.60 U	50	53.0	0.2	20%

Associated Samples:
Batch GN68380: FA28705-1
Batch GP26867: FA28705-1
Batch GP26924: FA28705-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315241001.TXT Date Analyzed: 10/24/15 Methods: EPA 300/SW846 9056A
Analyst: VK Run ID: GN68349
Parameters: Chloride,Nitrogen, Nitrate,Nitrogen, Nitrite,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:31	GN68349-CCV1	1		
10:14	GP26867-MB1	1		
10:28	GP26867-B1	1		
13:55	ZZZZZZ	10		
14:09	ZZZZZZ	25		
14:23	ZZZZZZ	25		
14:37	ZZZZZZ	1		
14:51	ZZZZZZ	5		
15:05	ZZZZZZ	5		
15:19	GN68349-CCV2	1		
15:34	GN68349-CCB1	1		
15:48	ZZZZZZ	5		
16:02	ZZZZZZ	5		
16:16	FA28701-6	1		(sample used for QC only; not part of login FA28705)
16:30	ZZZZZZ	10		
16:44	ZZZZZZ	5		
16:59	FA28699-9	1		(sample used for QC only; not part of login FA28705)
17:13	ZZZZZZ	5		
17:27	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:55	ZZZZZZ	10		
18:09	GN68349-CCV3	1		
18:24	GN68349-CCB2	1		
18:38	ZZZZZZ	10		
18:52	ZZZZZZ	1		
19:06	FA28705-1	50		
19:20	GP26867-S1	1		
19:34	GP26867-S2	1		
19:49	GP26867-S3	1		
20:03	GP26867-S4	1		
20:17	GN68349-CCV4	1		
20:31	GP26868-MB1	1		
20:45	GP26868-B1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315241001.TXT Date Analyzed: 10/24/15 Methods: EPA 300/SW846 9056A
Analyst: VK Run ID: GN68349
Parameters: Chloride,Nitrogen, Nitrate,Nitrogen, Nitrite,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:59	ZZZZZZ	1		
21:14	FA28704-2	1		(sample used for QC only; not part of login FA28705)
21:28	ZZZZZZ	1		
21:42	ZZZZZZ	1		
21:56	GP26868-S1	1		
22:10	GP26868-S2	1		
22:24	GN68349-CCV5	1		
22:39	GN68349-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315241001.TXT Date Analyzed: 10/24/15 Methods: EPA 300/SW846 9056A
Run ID: GN68349 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN68349-CCV1	Chloride	51.0	2.0	0.80	50	102.0	90-110
GN68349-CCV1	Nitrogen, Nitrite	2.7	0.10	0.050	2.5	108.0	90-110
GN68349-CCV1	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN68349-CCV1	Sulfate	51.6	2.0	0.60	50	103.2	90-110
GN68349-CCV2	Chloride	51.4	2.0	0.80	50	102.8	90-110
GN68349-CCV2	Nitrogen, Nitrite	2.7	0.10	0.050	2.5	108.0	90-110
GN68349-CCV2	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN68349-CCV2	Sulfate	51.1	2.0	0.60	50	102.2	90-110
GN68349-CCB1	Chloride	0.80 U	2.0	0.80			
GN68349-CCB1	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN68349-CCB1	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN68349-CCB1	Sulfate	0.60 U	2.0	0.60			
GN68349-CCV3	Chloride	51.4	2.0	0.80	50	102.8	90-110
GN68349-CCV3	Nitrogen, Nitrite	2.6	0.10	0.050	2.5	104.0	90-110
GN68349-CCV3	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN68349-CCV3	Sulfate	51.0	2.0	0.60	50	102.0	90-110
GN68349-CCB2	Chloride	0.80 U	2.0	0.80			
GN68349-CCB2	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN68349-CCB2	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN68349-CCB2	Sulfate	0.60 U	2.0	0.60			
GN68349-CCV4	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN68349-CCV4	Nitrogen, Nitrite	2.6	0.10	0.050	2.5	104.0	90-110
GN68349-CCV4	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN68349-CCV4	Sulfate	50.9	2.0	0.60	50	101.8	90-110
GN68349-CCV5	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN68349-CCV5	Nitrogen, Nitrite	2.7	0.10	0.050	2.5	108.0	90-110
GN68349-CCV5	Nitrogen, Nitrate	2.6	0.10	0.050	2.5	104.0	90-110
GN68349-CCV5	Sulfate	51.4	2.0	0.60	50	102.8	90-110
GN68349-CCB3	Chloride	0.80 U	2.0	0.80			
GN68349-CCB3	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN68349-CCB3	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN68349-CCB3	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A110415CN1.CSV Date Analyzed: 11/04/15 Methods: EPA 335.4/SW 9012B
Analyst: DM Run ID: GN68530
Parameters: Cyanide, Total

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:11	GN68530-ICV1	1		
14:13	GN68530-CRI1	1		
14:14	ZZZZZZ	1		
14:15	GN68530-HSTD1	1		
14:28	GN68530-CCV1	1		
14:30	GN68530-CCB1	1		
14:31	GP26924-MB1	1		
14:32	GP26924-B1	1		
14:33	GP26924-S1	1		
14:34	GP26924-S2	1		
14:37	FA28705-1	1		
14:38	ZZZZZZ	1		
14:39	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:42	GN68530-CCV2	1		
14:43	GN68530-CCB2	1		
14:44	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:47	FA28881-1	1		(sample used for QC only; not part of login FA28705)
14:48	GN68530-CCV3	1		
14:49	GN68530-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA28705
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A110415CN1.CSV Date Analyzed: 11/04/15 Methods: EPA 335.4/SW 9012B
Run ID: GN68530 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN68530-ICV1	Cyanide, Total	0.24	0.010	0.0030	.25	96.0	90-110
GN68530-CRI1	Cyanide, Total	0.011	0.010	0.0030	.01	110.0	90-110
GN68530-HSTD1	Cyanide, Total	0.50	0.010	0.0030	.5	100.0	90-110
GN68530-CCV1	Cyanide, Total	0.26	0.010	0.0030	.25	104.0	90-110
GN68530-CCB1	Cyanide, Total	0.0030 U	0.010	0.0030			
GN68530-CCV2	Cyanide, Total	0.26	0.010	0.0030	.25	104.0	90-110
GN68530-CCB2	Cyanide, Total	0.0030 U	0.010	0.0030			
GN68530-CCV3	Cyanide, Total	0.26	0.010	0.0030	.25	104.0	90-110
GN68530-CCB3	Cyanide, Total	0.0030 U	0.010	0.0030			

(!) Outside of QC limits

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

FED-EX Tracking # 6127 2756 3346 | Bottle Order Control #
Accutest Quote # | Accutest Job # FA28705

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: Accutest Laboratories	Project Name: Melrose Air Force Range, NM		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB-Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 4405 Vineland Rd, Suite C-15	Street		
City: Orlando State: FL Zip: 32811	City State	Billing Information (if different from Report to) Company Name	
Project Contact: jeans E-mail: jeans@accutest.com	Project #	Street Address	
Phone #: 407-425-6700 Fax #	Client Purchase Order #	City State Zip	
Sampler(s) Name(s): BSTL Phone	Project Manager	Attention:	

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	Di Water	MEOH	ENCORE	XM/CPMS 6020	LAB USE ONLY
1F	MA02MW001D		10/23/15	8:55:00 AM	BSTL	AQ	1			1						X	
1	MA02MW001D		10/23/15	8:55:00 AM	BSTL	AQ	1			1						X	FL

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] 10 Day (business)
- [ ] 5-7 Day
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [X] other 14

Rush T/A data available VIA Labiink

Data Deliverable Information

- [ ] Commercial "A" (Level 1, Results Only)
- [ ] Commercial "B" (Level 2, Results + QC summary)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] DOD FULT1 (Level 4)
- [X] Other REDT1
- [ ] EDD Format

Comments / Special Instructions

ALNJ

INITIAL ASESSMENT Am IB

LABEL VERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery. 920

Relinquished by Sampler: 1	Date Time: 10/29/15 1200	Received By: 1	Relinquished By: 2	Date Time: 10-30-15	Received By: 2	
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4	
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Intact / Not Intact	Preserved where applicable	On Ice / Cooler Temp. 3°C/P

11.1 11

FA28705: Chain of Custody
Page 1 of 2
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: FA28705 **Client:** **Project:**

Date / Time Received: 10/30/2015 9:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

FA28705: Chain of Custody
Page 2 of 2

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:10	MA37969-STD1	1		STDA
16:15	MA37969-STD2	1		STDA
16:19	MA37969-STD3	1		STDB
16:30	MA37969-STD4	1		STDA
16:41	MA37969-STD5	1		STDA
16:45	MA37969-STD6	1		STDB
16:50	MA37969-STD7	1		STDC
16:54	MA37969-STD8	1		STDD
16:59	MA37969-STD9	1		STDE
17:03	MA37969-STD10	1		STDF
17:08	MA37969-STD11	1		STDG
17:12	MA37969-STD12	1		STDH
17:17	MA37969-STD13	1		STDI
17:21	MA37969-STD14	1		STDJ
17:32	ZZZZZZ	1		
17:36	MA37969-ICVA1	1		
17:41	MA37969-ICV1	1		60ppb Al.
17:45	MA37969-ICB1	1		
17:50	MA37969-CRIB1	1		See rerun
17:54	MA37969-CRIA1	1		2ppb Sb and Pb. Not needed.
17:59	MA37969-CRIB2	1		
18:05	MA37969-CCVA1	1		
18:10	MA37969-CCB1	1		
18:15	ZZZZZZ	1		
18:25	MA37969-ICSA1	1		
18:30	MA37969-ICSAB1	1		
18:35	ZZZZZZ	1		
18:39	MA37969-CCVA2	1		
18:44	MA37969-CCB2	1		
18:48	MP90028-MB1	2		Batch to reanalysis for multiple elements, run checks out.
18:53	MP90028-B1	25		
18:57	MP90028-S1	25		
19:02	MP90028-S2	25		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:06	FA28742-3	2		(sample used for QC only; not part of login FA28705)
19:11	MP90028-SD1	10		
19:15	MP90028-PS1	2		Na needs higher dilution
---------->	Last reportable sample/prep for job FA28705			
19:20	MA37969-CCVA3	1		
19:24	MA37969-CCB3	1		
19:29	ZZZZZZ	2		
19:33	ZZZZZZ	2		
19:38	ZZZZZZ	2		
19:42	ZZZZZZ	2		
19:47	ZZZZZZ	2		
19:51	ZZZZZZ	2		
19:56	ZZZZZZ	2		
20:00	ZZZZZZ	2		
20:05	ZZZZZZ	2		
20:09	MA37969-CCVA4	1		
20:14	MA37969-CCB4	1		
20:18	ZZZZZZ	2		
20:23	ZZZZZZ	2		
20:27	ZZZZZZ	2		
20:32	MA37969-CCVA5	1		
20:37	MA37969-CCB5	1		
20:41	MP90045-MB1	5		Batch to reanalysis for multiple elements, run checks out
20:46	MP90045-B1	25		
20:50	MP90045-S1	25		
20:55	MP90045-S2	25		
20:59	FA28833-1	5		(sample used for QC only; not part of login FA28705)
21:04	MP90045-SD1	25		
21:08	MP90045-PS1	5		Fe overrange
21:13	MA37969-CCVA6	1		
21:17	MA37969-CCB6	1		
21:22	ZZZZZZ	1		
21:26	MA37969-CRIB3	1		
21:31	MA37969-CRIA2	1		2ppb Sb and Pb. Not needed.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:35	MA37969-CCVA7	1		
21:40	MA37969-CCB7	1		
---------->	Last reportable CCB for job FA28705			
	Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:10	MA37969-STD1	100	100	100	100	100	100	100	100
16:15	MA37969-STD2	100	100	100	100	100	100	100	100
16:19	MA37969-STD3	100.1	99.735	99.738	99.637	99.493	99.707	98.981	99.873
16:30	MA37969-STD4	100	100	100	100	100	100	100	100
16:41	MA37969-STD5	100	100	100	100	100	100	100	100
16:45	MA37969-STD6	99.511	99.445	98.856	99.061	100.004	99.126	99.115	99.374
16:50	MA37969-STD7	98.847	99.325	98.65	99.067	99.526	99.016	99.662	99.015
16:54	MA37969-STD8	98.907	98.774	98.51	98.103	99.953	99.089	99.212	98.726
16:59	MA37969-STD9	98.85	98.755	98.653	98.857	99.949	99.716	99.975	99.559
17:03	MA37969-STD10	99.647	98.881	98.245	98.733	100.076	98.955	99.692	99.532
17:08	MA37969-STD11	96.902	98.167	97.201	98.891	97.805	97.21	98.799	99.167
17:12	MA37969-STD12	97.84	98.921	97.636	98.355	98.099	96.808	97.104	97.587
17:17	MA37969-STD13	96.772	98.313	96.996	98.048	97.422	96.527	97.53	96.684
17:21	MA37969-STD14	95.932	97.964	97.17	97.039	97.151	96.637	97.831	95.449
17:32	ZZZZZZ	98.782	100.77	100.246	100.078	100.991	100.416	100.939	100.491
17:36	MA37969-ICVA1	97.633	99.4	99.888	101.081	100.011	100.743	100.876	98.767
17:41	MA37969-ICV1	98.561	99.87	99.371	100.044	99.361	99.233	99.138	100.137
17:45	MA37969-ICB1	98.713	99.988	99.495	100.96	100.148	99.202	100.391	100.164
17:50	MA37969-CRIB1	No results reported for the elements associated with this internal standard.							
17:54	MA37969-CRIA1	No results reported for the elements associated with this internal standard.							
17:59	MA37969-CRIB2	99.288	100.689	99.98	100.212	100.189	100.452	100.764	100.617
18:05	MA37969-CCVA1	98.68	99.731	98.014	99.371	99.146	98.242	98.81	97.942
18:10	MA37969-CCB1	96.831	98.798	98.396	100.098	99.335	99.419	99.678	99.976
18:15	ZZZZZZ	96.4	98.281	98.538	99.641	99.371	98.672	99.824	99.508
18:25	MA37969-ICSA1	92.428	97.195	96.673	100.483	94.306	94.368	97.672	88.414
18:30	MA37969-ICSAB1	94.161	101.343	99.118	104.218	98.314	97.836	101.093	92.217
18:35	ZZZZZZ	100.958	103.59	100.905	103.802	104.338	102.996	103.86	104.315
18:39	MA37969-CCVA2	99.027	102.974	101.711	103.227	102.515	100.901	102.09	101.578
18:44	MA37969-CCB2	100.753	101.725	100.188	102.556	101.539	101.143	101.879	102.53
18:48	MP90028-MB1	98.589	98.374	96.063	99.132	100.959	98.266	101.085	98.147
18:53	MP90028-B1	103.823	108.395	107.02	106.631	108.626	107.669	106.381	107.715
18:57	MP90028-S1	100.899	105.317	106.108	104.151	106.619	106.251	105.525	105.819
19:02	MP90028-S2	99.231	105.219	103.996	104.849	105.28	105.602	104.901	104.419

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:06	FA28742-3	96.358	96.733	95.409	99.234	98.096	98.235	101.163	95.631
19:11	MP90028-SD1	100.14	103.64	103.998	104.548	105.727	106.205	104.956	104.045
19:15	MP90028-PS1	95.703	98.105	95.247	99.646	98.826	97.866	101.052	95.195
19:20	MA37969-CCVA3	98.689	102.476	101.481	101.598	102.156	100.719	101.074	101.661
19:24	MA37969-CCB3	98.421	101.215	100.079	101.42	101.457	100.36	102.176	102.473
19:29	ZZZZZZ	96.527	98.438	95.38	99.642	99.912	98.778	100.943	96.2
19:33	ZZZZZZ	97.744	98.406	95.638	99.562	100.663	98.171	100.695	97.111
19:38	ZZZZZZ	97.523	98.633	95.769	98.601	100.371	98.374	100.404	96.163
19:42	ZZZZZZ	98.408	98.583	94.417	97.679	100	98.371	100.025	95.507
19:47	ZZZZZZ	97.229	96.996	93.606	97.169	99.149	96.746	99.74	94.474
19:51	ZZZZZZ	97.724	97.157	92.605	98.065	99.154	96.071	99.27	95.031
19:56	ZZZZZZ	97.615	96.039	93.639	97.544	98.692	96.684	98.877	94.838
20:00	ZZZZZZ	96.353	95.747	92.95	97.15	96.827	97.077	100.374	94.04
20:05	ZZZZZZ	99.217	96.963	95.824	98.984	99.002	98.247	100.74	94.943
20:09	MA37969-CCVA4	101.022	100.55	99.215	98.485	99.648	99.184	98.268	99.536
20:14	MA37969-CCB4	102.587	101.922	100.389	101.625	101.563	100.379	101.154	103.166
20:18	ZZZZZZ	99.321	97.605	93.634	98.76	98.294	96.992	101.131	94.288
20:23	ZZZZZZ	101.822	98.442	93.353	98.516	99.639	97.236	101.61	95.976
20:27	ZZZZZZ	101.287	99.162	94.778	99.19	100.524	98.114	101.874	96.962
20:32	MA37969-CCVA5	104.429	102.95	99.824	99.962	100.62	98.871	99.83	101.051
20:37	MA37969-CCB5	104.393	103.529	101.207	103.776	101.329	100.972	102.751	103.52
20:41	MP90045-MB1	105.558	103.725	99.317	101.093	101.714	99.933	101.419	103.263
20:46	MP90045-B1	109.168	109.691	107.19	107.346	107.079	106.419	105.865	107.791
20:50	MP90045-S1	106.116	106.879	106.236	103.967	104.077	104.543	102.291	105.131
20:55	MP90045-S2	105.456	106.931	103.641	104.06	104.585	104.196	103.029	105.384
20:59	FA28833-1	101.418	101.653	97.422	101.445	96.883	95.439	98.478	98.317
21:04	MP90045-SD1	106.63	107.773	103.596	104.017	104.095	103.851	102.621	106.935
21:08	MP90045-PS1	100.657	101.955	97.837	100.909	97.525	95.776	98.916	97.679
21:13	MA37969-CCVA6	102.316	101.054	99.157	102.146	100	99.513	101.196	99.416
21:17	MA37969-CCB6	102.351	103.349	100.979	102.326	101.007	101.223	102.344	102.668
21:22	ZZZZZZ	104.738	105.1	101.752	101.405	102.931	101.227	101.612	104.205
21:26	MA37969-CRIB3	104.138	104.282	101.648	102.926	101.64	101.259	102.088	103.452
21:31	MA37969-CRIA2	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:35	MA37969-CCVA7	104.297	105.014	101.131	102.193	101.095	100.21	101.119	101.942
21:40	MA37969-CCB7	104.402	102.958	99.239	100.755	100.19	99.23	100.383	102.701

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (74-1)	70-130 %	70-130 %
Istd#6	Germanium (74-2)	70-130 %	70-130 %
Istd#7	Germanium (74-3)	70-130 %	70-130 %
Istd#8	Rhodium (103-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:10	MA37969-STD1	100	100	100	100	100	100	100	100
16:15	MA37969-STD2	100	100	100	100	100	100	100	100
16:19	MA37969-STD3	99.755	98.599	99.288	98.541	99.589	99.545	99.024	99.766
16:30	MA37969-STD4	100	100	100	100	100	100	100	100
16:41	MA37969-STD5	100	100	100	100	100	100	100	100
16:45	MA37969-STD6	97.701	99.418	98.857	98.363	99.566	99.073	100.186	99.262
16:50	MA37969-STD7	97.223	98.843	98.418	98.581	99.119	98.831	99.738	98.967
16:54	MA37969-STD8	97.295	98.886	98.173	97.971	99.154	99.763	100.531	98.238
16:59	MA37969-STD9	99.126	99.627	98.235	97.824	101.369	99.565	99.942	100.51
17:03	MA37969-STD10	97.932	99.167	98.47	98.017	100.811	99.568	100.65	99.849
17:08	MA37969-STD11	96.352	98.405	98.663	98.053	100.255	98.885	100.894	99.729
17:12	MA37969-STD12	95.602	96.651	98.063	97.088	100.224	98.268	98.932	99.066
17:17	MA37969-STD13	94.673	96.38	97.381	95.555	100.219	98.501	99.566	99.766
17:21	MA37969-STD14	94.004	95.402	96.28	94.945	99.206	98.017	98.555	98.574
17:32	ZZZZZZ	99.564	100.346	99.828	99.391	101.11	100.744	100.813	100.452
17:36	MA37969-ICVA1	96.33	98.416	98.976	97.92	101.096	99.516	101.669	100.856
17:41	MA37969-ICV1	99.594	100.258	99.646	98.721	100.274	99.483	100.801	99.607
17:45	MA37969-ICB1	99.179	100.39	100.268	98.812	100.613	99.612	99.918	100.315
17:50	MA37969-CRIB1	No results reported for the elements associated with this internal standard.							
17:54	MA37969-CRIA1	No results reported for the elements associated with this internal standard.							
17:59	MA37969-CRIB2	100.766	99.291	100.356	99.571	102.256	100.429	100.381	101.203
18:05	MA37969-CCVA1	96.266	97.39	98.283	96.965	100.433	99.776	100.815	100.846
18:10	MA37969-CCB1	98.402	99.441	98.881	97.636	99.757	99.279	99.923	99.706
18:15	ZZZZZZ	99.357	98.949	98.752	98.064	100.077	98.694	99.579	99.87
18:25	MA37969-ICSA1	85.988	89.845	92.351	90.913	97.408	94.334	96.097	96.668
18:30	MA37969-ICSAB1	87.97	90.789	96.221	91.949	101.095	95.945	96.942	100.699
18:35	ZZZZZZ	104.169	102.608	103.642	100.904	104.879	101.756	101.948	104.577
18:39	MA37969-CCVA2	101.711	100.529	101.474	99.457	103.735	102.329	103.086	103.495
18:44	MA37969-CCB2	103.052	101.574	102.764	100.519	103.238	102.378	100.841	102.424
18:48	MP90028-MB1	99.077	99.41	98.553	95.162	101.062	98.812	100.398	100.654
18:53	MP90028-B1	107.141	103.849	107.922	106.034	109.68	106.179	105.569	107.977
18:57	MP90028-S1	105.175	102.624	105.646	104.45	106.68	104.529	104.301	105.558
19:02	MP90028-S2	103.628	103.087	104.761	102.68	105.298	103.39	105.188	105.025

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:06	FA28742-3	94.062	96.515	97.155	95.243	98.847	97.839	98.472	98.679
19:11	MP90028-SD1	105.467	102.403	104.758	104.801	105.388	104.751	104.05	104.412
19:15	MP90028-PS1	94.247	96.362	97.17	94.218	99.56	97.492	99.904	99.545
19:20	MA37969-CCVA3	98.51	99.072	101.988	99.234	104.641	102.455	101.023	104.065
19:24	MA37969-CCB3	100.56	101.289	101.875	98.908	102.483	99.888	101.086	101.766
19:29	ZZZZZZ	94.295	96.192	97.383	95.202	99.908	98.044	98.456	98.811
19:33	ZZZZZZ	94.142	96.348	98.587	94.496	101.22	97.885	100.346	100.281
19:38	ZZZZZZ	93.888	95.925	98.326	94.663	100.252	97.305	98.234	99.526
19:42	ZZZZZZ	93.333	95.828	97.158	93.295	100.445	97.288	97.443	99.932
19:47	ZZZZZZ	92.442	94.791	96.702	93.474	99.172	97.598	97.548	98.979
19:51	ZZZZZZ	92.872	94.368	96.735	92.966	99.21	96.492	97.526	98.727
19:56	ZZZZZZ	92.925	95.04	96.697	93.003	99.873	96.791	98.447	98.269
20:00	ZZZZZZ	92.13	95.598	96.331	92.602	99.327	96.842	98.872	98.497
20:05	ZZZZZZ	93.846	96.9	97.097	94.994	99.397	99.188	99.876	99.028
20:09	MA37969-CCVA4	99.601	96.57	100.427	98.934	103.498	102.458	101.47	103.697
20:14	MA37969-CCB4	102.578	101.514	102.774	100.454	104.017	102.455	102.345	103.509
20:18	ZZZZZZ	92.124	95.978	97.354	93.403	98.809	98.246	100.149	99.253
20:23	ZZZZZZ	92.196	98.062	98.428	94.255	101.461	98.444	102.36	100.611
20:27	ZZZZZZ	93.533	97.608	98.524	95.335	101.411	99.779	102.157	101.133
20:32	MA37969-CCVA5	99.966	98.836	101.714	99.519	104.643	103.369	104.752	105.057
20:37	MA37969-CCB5	104.69	103.466	103.338	101.802	104.354	104.021	105.314	104.189
20:41	MP90045-MB1	101.338	101.289	103.996	99.493	104.645	102.503	101.374	104.03
20:46	MP90045-B1	107.245	105.722	108.033	106.285	108.929	108.213	109.614	107.984
20:50	MP90045-S1	105.727	101.795	105.98	104.618	107.501	106.825	106.244	106.429
20:55	MP90045-S2	104.073	102.238	105.407	102.999	107.385	105.724	107.628	107.021
20:59	FA28833-1	96.285	99.158	99.894	96.322	102.489	101.352	104.968	102.077
21:04	MP90045-SD1	106.861	102.377	106.964	104.789	107.78	106.952	106.298	107.109
21:08	MP90045-PS1	95.858	98.559	98.985	95.973	102.304	101.645	103.257	102.074
21:13	MA37969-CCVA6	99.397	100.138	100.675	99.241	102.94	102.592	105.922	103.172
21:17	MA37969-CCB6	104.036	101.848	102.795	101.272	103.426	102.983	104.5	102.857
21:22	ZZZZZZ	102.716	100.815	105.08	100.861	104.624	102.544	102.239	104.167
21:26	MA37969-CRIB3	104.016	101.779	103.107	101.164	103.988	102.594	103.449	103.65
21:31	MA37969-CRIA2	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:35	MA37969-CCVA7	99.345	99.849	103.553	100.226	105.371	104.203	104.489	104.856
21:40	MA37969-CCB7	100.579	100.383	103.272	98.7	103.432	102.1	102.044	102.166

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Rhodium (103-2)	70-130 %	70-130 %
Istd#10	Rhodium (103-3)	70-130 %	70-130 %
Istd#11	Indium (115-1)	70-130 %	70-130 %
Istd#12	Indium (115-2)	70-130 %	70-130 %
Istd#13	Terbium (159-1)	70-130 %	70-130 %
Istd#14	Terbium (159-2)	70-130 %	70-130 %
Istd#15	Terbium (159-3)	70-130 %	70-130 %
Istd#16	Holmium (165-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
16:10	MA37969-STD1	100	100	100
16:15	MA37969-STD2	100	100	100
16:19	MA37969-STD3	99.068	99.633	98.93
16:30	MA37969-STD4	100	100	100
16:41	MA37969-STD5	100	100	100
16:45	MA37969-STD6	99.415	100.461	100.736
16:50	MA37969-STD7	99.204	100.251	100.032
16:54	MA37969-STD8	99.614	100.443	101.162
16:59	MA37969-STD9	99.935	101.247	101.893
17:03	MA37969-STD10	100.029	102.034	102.257
17:08	MA37969-STD11	99.283	99.782	99.103
17:12	MA37969-STD12	99.423	99.863	100.114
17:17	MA37969-STD13	99.278	98.249	97.712
17:21	MA37969-STD14	98.453	96.49	96.752
17:32	ZZZZZZ	101.411	100.342	101.744
17:36	MA37969-ICVA1	100.374	99.87	99.497
17:41	MA37969-ICV1	100.214	100.549	100.306
17:45	MA37969-ICB1	100.069	101.256	100.276
17:50	MA37969-CRIB1	No results reported for the elements associated with this internal standard.		
17:54	MA37969-CRIA1	No results reported for the elements associated with this internal standard.		
17:59	MA37969-CRIB2	100.671	102.072	101.042
18:05	MA37969-CCVA1	99.9	99.076	98.838
18:10	MA37969-CCB1	99.53	99.28	99.602
18:15	ZZZZZZ	99.731	100.331	100.58
18:25	MA37969-ICSA1	95.444	90.862	88.766
18:30	MA37969-ICSAB1	96.977	93.225	89.613
18:35	ZZZZZZ	102.708	104.075	101.664
18:39	MA37969-CCVA2	102.626	102.409	100.679
18:44	MA37969-CCB2	102.583	103.377	102.141
18:48	MP90028-MB1	99.221	105.627	103.441
18:53	MP90028-B1	107.098	107.704	107.173
18:57	MP90028-S1	104.805	105.349	104.926
19:02	MP90028-S2	103.589	104.126	103.792

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
19:06	FA28742-3	98.674	100.821	100.177
19:11	MP90028-SD1	105.183	104.557	104.622
19:15	MP90028-PS1	98.407	98.735	97.76
19:20	MA37969-CCVA3	102.698	102.374	100.347
19:24	MA37969-CCB3	100.824	101.791	100.314
19:29	ZZZZZZ	99.23	100.544	98.985
19:33	ZZZZZZ	98.29	100.692	98.961
19:38	ZZZZZZ	98.088	100.702	98.579
19:42	ZZZZZZ	97.614	100.661	98.495
19:47	ZZZZZZ	97.927	99.252	98.222
19:51	ZZZZZZ	97.272	99.393	97.196
19:56	ZZZZZZ	97.936	99.611	98.149
20:00	ZZZZZZ	97.195	98.121	97.147
20:05	ZZZZZZ	100.384	99.245	99.821
20:09	MA37969-CCVA4	103.272	101.12	100.267
20:14	MA37969-CCB4	103.101	104.353	101.794
20:18	ZZZZZZ	98.674	99.309	97.459
20:23	ZZZZZZ	99.424	100.934	97.933
20:27	ZZZZZZ	100.7	101.642	99.104
20:32	MA37969-CCVA5	104.163	102.268	100.518
20:37	MA37969-CCB5	105.242	104.157	103.459
20:41	MP90045-MB1	103.701	105.447	103.428
20:46	MP90045-B1	108.304	107.848	106.443
20:50	MP90045-S1	107.716	105.391	105.425
20:55	MP90045-S2	106.431	106.5	104.168
20:59	FA28833-1	102.303	102.735	100.383
21:04	MP90045-SD1	107.597	108.131	105.848
21:08	MP90045-PS1	102.036	100.615	98.504
21:13	MA37969-CCVA6	103.254	101.433	99.264
21:17	MA37969-CCB6	103.657	102.776	101.149
21:22	ZZZZZZ	102.86	103.822	100.266
21:26	MA37969-CRIB3	103.103	103.479	100.855
21:31	MA37969-CRIA2	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
Analyst: KK Run ID: MA37969
Parameters: As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Ni,Na,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
21:35	MA37969-CCVA7	104.246	102.554	99.186
21:40	MA37969-CCB7	102.075	102.272	99.209

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Holmium (165-2)	70-130 %	70-130 %
Istd#18	Bismuth (209-1)	70-130 %	70-130 %
Istd#19	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37969 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	17:45 ICB1 raw	17:45 ICB1 final	18:10 CCB1 raw	18:10 CCB1 final	18:44 CCB2 raw	18:44 CCB2 final
Aluminum	25	.37	20						
Antimony	2.0	.13	1.0						
Arsenic	1.5	.07	1.0	0.030	<1.5	0.042	<1.5	0.032	<1.5
Barium	1.0	.015	0.50						
Beryllium	0.50	.006	0.25	0.0039	<0.50	0.011	<0.50	0.014	<0.50
Boron	25	3.2	20						
Cadmium	3.0	.014	2.0	0.0024	<3.0	0.0025	<3.0	0.028	<3.0
Calcium	250	2.7	50						
Chromium	4.0	.02	3.0	0.0069	<4.0	0.0092	<4.0	0.014	<4.0
Cobalt	0.50	.0061	0.25	-0.0011	<0.50	0.0048	<0.50	0.0067	<0.50
Copper	5.0	.028	4.0	-0.10	<5.0	-0.080	<5.0	-0.060	<5.0
Iron	25	.43	13	-0.013	<25	0.38	<25	2.0	<25
Lead	1.5	.0066	1.0	-0.00073	<1.5	0.0052	<1.5	0.026	<1.5
Magnesium	250	.4	130						
Manganese	2.0	.016	1.0	-0.0051	<2.0	-0.010	<2.0	0.0052	<2.0
Molybdenum	1.0	.022	0.50						
Nickel	4.0	.026	3.0	0.0054	<4.0	0.0013	<4.0	-0.0016	<4.0
Potassium	250	2.6	50						
Selenium	1.0	.058	0.50						
Silver	1.0	.0051	0.50						
Sodium	250	4.3	50	25.3	<250	26.1	<250	34.1	<250
Strontium	10	.0047	5.0						
Thallium	1.0	.012	0.50						
Tin	5.0	.024	2.5						
Titanium	1.0	.05	0.50						
Vanadium	1.5	.11	1.0	-0.0058	<1.5	-0.0041	<1.5	0.016	<1.5
Zinc	10	.15	7.5	-0.23	<10	-0.16	<10	-0.27	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37969 Units: ug/l

Time: / Sample ID:				19:24 CCB3		20:14 CCB4		20:37 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.37	20						
Antimony	2.0	.13	1.0						
Arsenic	1.5	.07	1.0	0.13	<1.5	0.064	<1.5	0.062	<1.5
Barium	1.0	.015	0.50						
Beryllium	0.50	.006	0.25	0.018	<0.50	0.015	<0.50	0.021	<0.50
Boron	25	3.2	20						
Cadmium	3.0	.014	2.0	0.027	<3.0	0.019	<3.0	0.025	<3.0
Calcium	250	2.7	50						
Chromium	4.0	.02	3.0	0.011	<4.0	0.0029	<4.0	0.011	<4.0
Cobalt	0.50	.0061	0.25	0.0096	<0.50	0.0088	<0.50	0.0054	<0.50
Copper	5.0	.028	4.0	-0.097	<5.0	-0.094	<5.0	-0.11	<5.0
Iron	25	.43	13	1.4	<25	1.2	<25	1.4	<25
Lead	1.5	.0066	1.0	0.028	<1.5	0.017	<1.5	0.018	<1.5
Magnesium	250	.4	130						
Manganese	2.0	.016	1.0	0.0025	<2.0	-0.0065	<2.0	-0.0019	<2.0
Molybdenum	1.0	.022	0.50						
Nickel	4.0	.026	3.0	-0.015	<4.0	-0.018	<4.0	-0.014	<4.0
Potassium	250	2.6	50						
Selenium	1.0	.058	0.50						
Silver	1.0	.0051	0.50						
Sodium	250	4.3	50	30.4	<250	31.5	<250	27.8	<250
Strontium	10	.0047	5.0						
Thallium	1.0	.012	0.50						
Tin	5.0	.024	2.5						
Titanium	1.0	.05	0.50						
Vanadium	1.5	.11	1.0	0.011	<1.5	0.033	<1.5	0.028	<1.5
Zinc	10	.15	7.5	-0.58	<10	-0.58	<10	-0.61	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37969 Units: ug/l

Time:				21:17		21:40	
Sample ID:				CCB6		CCB7	
Metal	RL	IDL	LOD	raw	final	raw	final
Aluminum	25	.37	20				
Antimony	2.0	.13	1.0				
Arsenic	1.5	.07	1.0	0.070	<1.5	0.050	<1.5
Barium	1.0	.015	0.50				
Beryllium	0.50	.006	0.25	0.025	<0.50	0.018	<0.50
Boron	25	3.2	20				
Cadmium	3.0	.014	2.0	0.026	<3.0	0.020	<3.0
Calcium	250	2.7	50				
Chromium	4.0	.02	3.0	0.014	<4.0	0.0076	<4.0
Cobalt	0.50	.0061	0.25	0.0084	<0.50	0.010	<0.50
Copper	5.0	.028	4.0	-0.090	<5.0	-0.098	<5.0
Iron	25	.43	13	1.4	<25	1.3	<25
Lead	1.5	.0066	1.0	0.024	<1.5	0.023	<1.5
Magnesium	250	.4	130				
Manganese	2.0	.016	1.0	0.0044	<2.0	-0.0037	<2.0
Molybdenum	1.0	.022	0.50				
Nickel	4.0	.026	3.0	-0.016	<4.0	-0.0059	<4.0
Potassium	250	2.6	50				
Selenium	1.0	.058	0.50				
Silver	1.0	.0051	0.50				
Sodium	250	4.3	50	27.2	<250	27.4	<250
Strontium	10	.0047	5.0				
Thallium	1.0	.012	0.50				
Tin	5.0	.024	2.5				
Titanium	1.0	.05	0.50				
Vanadium	1.5	.11	1.0	-0.0096	<1.5	-0.0015	<1.5
Zinc	10	.15	7.5	-0.43	<10	-0.51	<10

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37969 Units: ug/l

Time:		17:36			17:41			18:05	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	60	60.7	101.2				50	50.0	100.0
Barium	anr								
Beryllium	60	60.1	100.2				50	51.1	102.2
Boron									
Cadmium	60	59.0	98.3				50	49.0	98.0
Calcium	anr								
Chromium	60	59.3	98.8				50	50.0	100.0
Cobalt	60	59.1	98.5				50	49.4	98.8
Copper	60	59.3	98.8				50	49.1	98.2
Iron	5500	5720	104.0				5000	5230	104.6
Lead	60	61.2	102.0				50	50.6	101.2
Magnesium	anr								
Manganese	60	59.9	99.8				50	50.4	100.8
Molybdenum									
Nickel	60	60.0	100.0				50	49.5	99.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	5500	5600	101.8				5000	5130	102.6
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	60	59.4	99.0				50	50.3	100.6
Zinc	60	60.1	100.2				50	48.7	97.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37969 Units: ug/l

Time:		18:39			19:20			20:09	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	49.9	99.8	50	50.0	100.0	50	49.7	99.4
Barium	anr								
Beryllium	50	50.5	101.0	50	50.8	101.6	50	49.5	99.0
Boron									
Cadmium	50	49.6	99.2	50	50.0	100.0	50	49.2	98.4
Calcium	anr								
Chromium	50	49.5	99.0	50	49.5	99.0	50	49.8	99.6
Cobalt	50	48.6	97.2	50	48.6	97.2	50	49.3	98.6
Copper	50	49.1	98.2	50	49.0	98.0	50	49.4	98.8
Iron	5000	5160	103.2	5000	5160	103.2	5000	5200	104.0
Lead	50	50.6	101.2	50	50.6	101.2	50	51.0	102.0
Magnesium	anr								
Manganese	50	48.9	97.8	50	49.3	98.6	50	49.6	99.2
Molybdenum									
Nickel	50	49.2	98.4	50	49.0	98.0	50	49.5	99.0
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	5000	5080	101.6	5000	5050	101.0	5000	5120	102.4
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	50	49.7	99.4	50	50.1	100.2	50	50.1	100.2
Zinc	50	48.5	97.0	50	48.5	97.0	50	49.4	98.8

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37969 Units: ug/l

Time:		20:32			21:13			21:35	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	50	49.2	98.4	50	50.0	100.0	50	49.3	98.6
Barium	anr								
Beryllium	50	49.0	98.0	50	49.6	99.2	50	49.7	99.4
Boron									
Cadmium	50	49.9	99.8	50	50.0	100.0	50	50.0	100.0
Calcium	anr								
Chromium	50	49.6	99.2	50	50.7	101.4	50	49.7	99.4
Cobalt	50	49.2	98.4	50	50.0	100.0	50	49.1	98.2
Copper	50	49.4	98.8	50	49.8	99.6	50	49.4	98.8
Iron	5000	5250	105.0	5000	5310	106.2	5000	5250	105.0
Lead	50	50.8	101.6	50	50.9	101.8	50	49.9	99.8
Magnesium	anr								
Manganese	50	49.9	99.8	50	50.6	101.2	50	49.9	99.8
Molybdenum									
Nickel	50	49.2	98.4	50	50.1	100.2	50	49.4	98.8
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	5000	5150	103.0	5000	5190	103.8	5000	5150	103.0
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	50	50.2	100.4	50	50.8	101.6	50	50.0	100.0
Zinc	50	49.7	99.4	50	50.2	100.4	50	48.7	97.4

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA37969 Units: ug/l

Time:		17:59		21:26	
Sample ID:	CRIB	CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec
Aluminum	25				
Antimony	0.50				
Arsenic	0.50	0.58	116.0	0.45	90.0
Barium	1.0				
Beryllium	0.50	0.51	102.0	0.40	80.0
Boron	25				
Cadmium	0.50	0.52	104.0	0.40	80.0
Calcium	250				
Chromium	1.0	1.1	110.0	0.80	80.0
Cobalt	0.50	0.51	102.0	0.41	82.0
Copper	2.0	2.1	105.0	1.6	80.0
Iron	25	24.5	98.0	20.0	80.0
Lead	0.50	0.50	100.0	0.40	80.0
Magnesium	250				
Manganese	0.50	0.50	100.0	0.40	80.0
Molybdenum	1.0				
Nickel	1.0	1.1	110.0	0.85	85.0
Potassium	250				
Selenium	0.50				
Silver	0.50				
Sodium	250	261	104.4	213	85.2
Strontium	5.0				
Thallium	0.50				
Tin	5.0				
Titanium	1.0				
Vanadium	1.0	1.1	110.0	0.83	83.0
Zinc	5.0	4.9	98.0	4.3	86.0

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110515M2L.CSV Date Analyzed: 11/05/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA37969 Units: ug/l

Time:			18:25		18:30	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	91200	91.2	91800	91.8
Antimony			0.27		0.20	
Arsenic		20	0.16		19.7	98.5
Barium			0.094		0.12	
Beryllium			0.012		0.013	
Boron			3.0		0.82	
Cadmium		20	-0.48		18.4	92.0
Calcium	100000	100000	90100	90.1	90700	90.7
Chromium		20	1.3		20.2	101.0
Cobalt		20	0.013		18.7	93.5
Copper		20	0.47		18.5	92.5
Iron	100000	100000	91200	91.2	92200	92.2
Lead			0.22		0.22	
Magnesium	100000	100000	90400	90.4	91600	91.6
Manganese		20	0.32		19.0	95.0
Molybdenum	2000	2000	2120	106.0	2110	105.5
Nickel		20	0.17		18.3	91.5
Potassium	100000	100000	92300	92.3	93700	93.7
Selenium		20	0.084		20.8	104.0
Silver		20	0.016		18.5	92.5
Sodium	100000	100000	91400	91.4	93100	93.1
Strontium			0.69		0.69	
Thallium			0.0056		0.0035	
Tin			0.14		0.13	
Titanium	2000	2000	1950	97.5	1970	98.5
Vanadium		20	0.055		20.7	103.5
Zinc		20	0.56		18.9	94.5

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:52	MA37984-STD1	1		STDA
14:56	MA37984-STD2	1		STDA
15:01	MA37984-STD3	1		STDA
15:05	MA37984-STD4	1		STDB
15:10	MA37984-STD5	1		STDC
15:15	MA37984-STD6	1		STDD
15:19	MA37984-STD7	1		STDE
15:24	MA37984-STD8	1		STDF
15:30	MA37984-STD9	1		STDG
15:34	MA37984-STD10	1		STDH
15:39	MA37984-STD11	1		STDI
15:43	MA37984-STD12	1		STDJ
15:58	ZZZZZZ	1		
16:02	MA37984-ICVA1	1		
16:07	MA37984-ICV1	1		60ppb Al.
16:11	MA37984-ICB1	1		
16:16	MA37984-CRIB1	1		See rerun
16:21	MA37984-CRIA1	1		2ppb Sb and Pb, not needed
16:25	MA37984-CRIB2	1		Ca out
16:30	MA37984-CCVA1	1		
16:42	MA37984-CCB1	1		
16:46	MA37984-ICSA1	1		
16:52	MA37984-ICSAB1	1		
17:00	ZZZZZZ	1		
17:05	MA37984-CCVA2	1		
17:10	MA37984-CCB2	1		
17:14	ZZZZZZ	2		
17:19	ZZZZZZ	25		
17:23	MP89931-PS1	10		
17:28	ZZZZZZ	100		
17:32	ZZZZZZ	100		
17:37	ZZZZZZ	25		
17:42	ZZZZZZ	100		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	17:46	ZZZZZZ	1		
	17:51	MA37984-CCVA3	1		
	17:55	MA37984-CCB3	1		
	18:00	MP90028-MB1	2		Batch to reanalysis for Ca, low check out
	18:04	MP90028-B1	25		
	18:09	MP90028-S1	25		
	18:13	MP90028-S2	25		
	18:18	FA28742-3	2		(sample used for QC only; not part of login FA28705)
	18:22	MP90028-SD1	10		
	18:27	MP90028-PS1	2		
	18:31	MP90028-PS1	5		Ca and Na
	18:36	ZZZZZZ	1		
	18:40	MA37984-CCVA4	1		
	18:45	MA37984-CCB4	1		
	18:49	FA28705-1	2		overange.
	18:54	FA28705-1F	2		overange.
---------->		Last reportable sample/prep for job FA28705			
	18:58	ZZZZZZ	1		
	19:03	MP90045-MB1	5		Batch to reanalysis for Ca, low check.
	19:07	MP90045-B1	25		
	19:12	MP90045-S1	25		
	19:16	MP90045-S2	25		
	19:21	FA28833-1	5		(sample used for QC only; not part of login FA28705)
	19:25	FA28833-1	10		(sample used for QC only; not part of login FA28705)
	19:30	ZZZZZZ	1		
	19:34	MA37984-CCVA5	1		
	19:39	MA37984-CCB5	1		
	19:43	MP90045-SD1	25		
	19:48	MP90045-SD1	50		
	19:52	MP90045-PS1	5		
	19:57	MP90045-PS1	10		
	20:01	ZZZZZZ	1		
	20:06	MA37984-CCVA6	1		
	20:10	MA37984-CCB6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	20:15	MA37984-CRIA2	1		2ppb Sb and Pb, not needed
	20:19	MA37984-CRIB3	1		Ca out
	20:24	ZZZZZZ	1		
	20:28	MA37984-CCVA7	1		
	20:33	MA37984-CCB7	1		
---------->		Last reportable CCB for job FA28705			
	20:37	MP90117A-MB1	5		Batch to reanalysis for Sb, low check out.
	20:42	MP90117A-B1	10		
	20:47	MP90117A-S1	10		
	20:51	MP90117A-S2	10		
	20:56	ZZZZZZ	1		
	21:00	JC7252-1	10		(sample used for QC only; not part of login FA28705)
	21:05	MP90117A-SD1	50		
	21:09	ZZZZZZ	1		
	21:14	ZZZZZZ	1		
	21:18	MA37984-CCVA8	1		
	21:23	MA37984-CCB8	1		
	21:27	ZZZZZZ	5		
	21:32	ZZZZZZ	5		
	21:36	ZZZZZZ	5		
	21:41	ZZZZZZ	1		
	21:46	MP90037-MB1	2		Ge-3 out, batch to reanalysis for Se.
	21:50	MP90037-B1	10		
	21:55	MP90037-S1	10		
	21:59	MP90037-S2	10		
	22:04	ZZZZZZ	1		
	22:08	MA37984-CCVA9	1		
	22:13	MA37984-CCB9	1		
	22:17	JC7205-6A	2		(sample used for QC only; not part of login FA28705)
	22:22	MP90037-SD1	10		
	22:26	ZZZZZZ	2		
	22:31	ZZZZZZ	2		
	22:35	ZZZZZZ	2		
	22:40	ZZZZZZ	2		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:44	ZZZZZZ	2		
22:49	ZZZZZZ	2		
22:53	ZZZZZZ	2		
22:58	ZZZZZZ	1		
23:02	MA37984-CCVA10	1		
23:07	MA37984-CCB10	1		
23:11	ZZZZZZ	2		
23:16	ZZZZZZ	2		
23:21	ZZZZZZ	2		
23:25	ZZZZZZ	2		
23:30	ZZZZZZ	2		
23:34	ZZZZZZ	2		
23:39	ZZZZZZ	2		
23:43	ZZZZZZ	2		
23:48	ZZZZZZ	2		
23:52	ZZZZZZ	1		
23:57	MA37984-CCVA11	1		
00:01	MA37984-CCB11	1		
00:06	MA37984-CRIA3	1		2ppb Sb and Pb, not needed
00:10	MA37984-CRI1	1		Sb out
00:15	ZZZZZZ	2		
00:20	ZZZZZZ	2		
00:24	ZZZZZZ	2		
00:29	JC7252-1	5		(sample used for QC only; not part of login FA28705)
00:33	MP90117A-SD1	25		
00:38	ZZZZZZ	1		
00:42	ZZZZZZ	1		
00:47	MA37984-CCVA12	1		
00:51	MA37984-CCB12	1		
00:56	MA37984-CRIA4	1		2ppb Sb and Pb, not needed
01:00	MA37984-CRI2	1		Sb out
01:05	MA37984-CCVA13	1		
01:09	MA37984-CCB13	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:52	MA37984-STD1	100	100	100	100	100	100	100	100
14:56	MA37984-STD2	100	100	100	100	100	100	100	100
15:01	MA37984-STD3	100	100	100	100	100	100	100	100
15:05	MA37984-STD4	101.612	100.942	102.002	101.876	101.061	101.453	100.845	101.746
15:10	MA37984-STD5	99.605	99.529	100.643	100.042	100.749	99.98	100.161	100.166
15:15	MA37984-STD6	101.032	100.715	101.035	101.389	101.049	101.258	101.059	101.466
15:19	MA37984-STD7	100.285	100.102	102.282	100.312	101.431	100.349	100.372	101.228
15:24	MA37984-STD8	100.761	100.263	101.105	101.32	103.053	101.168	100.788	101.006
15:30	MA37984-STD9	100.593	100.4	101.406	102.359	101.509	100.705	101.368	101.021
15:34	MA37984-STD10	101.253	101.492	102.688	102.435	101.077	100.671	100.968	101.828
15:39	MA37984-STD11	101.86	101.822	102.975	103.025	102.29	101.581	101.661	100.925
15:43	MA37984-STD12	104.499	104.262	104.608	103.16	103.173	101.669	101.552	100.44
15:58	ZZZZZZ	99.079	98.466	100.27	99.342	99.431	99.104	98.594	98.617
16:02	MA37984-ICVA1	101.621	102.673	103.389	103.354	103.271	103.003	101.84	100.557
16:07	MA37984-ICV1	98.894	99.187	100.156	100.085	99.283	99.276	99.256	98.54
16:11	MA37984-ICB1	98.646	98.474	99.764	98.976	98.355	98.028	99.207	98.415
16:16	MA37984-CRIB1	No results reported for the elements associated with this internal standard.							
16:21	MA37984-CRIA1	No results reported for the elements associated with this internal standard.							
16:25	MA37984-CRIB2	99.945	100.256	100.35	100.221	101.338	100.154	99.909	99.413
16:30	MA37984-CCVA1	101.8	102.468	102.908	101.902	102.476	101.775	102.052	99.929
16:42	MA37984-CCB1	99.45	98.547	101.088	99.772	100.265	100.097	99.802	99.54
16:46	MA37984-ICSA1	100.054	102.805	104.092	105.696	99.983	100.525	101.559	93.79
16:52	MA37984-ICSAB1	103.723	105.618	105.376	107.164	101.622	100.418	102.455	94.877
17:00	ZZZZZZ	101.054	98.435	99.005	100.195	98.915	97.536	98.664	98.745
17:05	MA37984-CCVA2	106.113	104.091	104.323	105.17	104.154	102.403	102.223	102.178
17:10	MA37984-CCB2	101.242	100.396	100.048	100.915	100.219	98.733	98.88	99.624
17:14	ZZZZZZ	105.019	102.053	101.368	102.905	102.983	101.709	102.882	101.389
17:19	ZZZZZZ	105.614	103.799	105.51	104.485	104.429	103.403	101.857	103.308
17:23	MP89931-PS1	103.029	110.15	110.603	111.013	101.751	99.717	100.28	97.945
17:28	ZZZZZZ	104.805	104.407	104.852	105.059	103.74	103.707	103.51	103.939
17:32	ZZZZZZ	106.242	106.338	106.537	105.027	104.916	102.858	102.829	104.131
17:37	ZZZZZZ	105.996	108.068	107.754	106.884	105.42	104.267	103.106	104.279
17:42	ZZZZZZ	104.545	106.441	107.185	106.667	105.574	104.336	103.688	104.124

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:46	ZZZZZZ	101.288	102.225	103.155	102.73	102.355	102.328	100.794	102.159
17:51	MA37984-CCVA3	105.177	107.876	108.044	108.906	106.702	106.168	105.826	105.19
17:55	MA37984-CCB3	102.109	102.672	103.62	103.144	102.92	102.014	102.278	102.432
18:00	MP90028-MB1	104.359	101.749	102.072	103.32	105.212	105.154	106.28	101.374
18:04	MP90028-B1	105.325	108.122	109.214	105.887	108.959	107.956	104.278	106.117
18:09	MP90028-S1	102.444	105.963	108.3	105.023	107.099	107.493	103.163	104.281
18:13	MP90028-S2	101.727	105.343	108.163	104.613	105.686	106.875	102.464	103.869
18:18	FA28742-3	104.696	101.985	102.164	104.081	106.52	106.553	107.615	101.128
18:22	MP90028-SD1	104.202	106.654	107.529	105.747	107.415	106.606	104.008	104.762
18:27	MP90028-PS1	103.763	102.332	102.774	104.541	106.098	105.828	106.857	98.884
18:31	MP90028-PS1	105.847	106.167	106.343	106.794	107.353	106.209	105.777	104.378
18:36	ZZZZZZ	101.881	102.287	103.146	102.128	102.81	101.458	101.525	102.628
18:40	MA37984-CCVA4	104.279	105.613	106.513	106.047	105.498	104.43	103.394	103.658
18:45	MA37984-CCB4	99.5	101.164	103.05	102.401	101.414	101.49	99.9	101.128
18:49	FA28705-1	95.088	104.299	106.169	112.175	105.342	105.934	109.776	92.043
18:54	FA28705-1F	100.758	111.112	115.395	114.192	111.991	115.25	114.287	96.705
18:58	ZZZZZZ	116.057	113.909	115.226	112.522	113.073	111.573	108.788	111.065
19:03	MP90045-MB1	114.991	112.513	112.559	110.519	113.155	110.067	109.165	110.079
19:07	MP90045-B1	112.852	112.38	113.401	111.348	113.289	111.175	108.675	109.788
19:12	MP90045-S1	110.853	111.892	112.089	110.721	111.178	109.816	107.222	108.583
19:16	MP90045-S2	109.586	111.117	111.83	110.878	110.121	109.288	108.152	108.107
19:21	FA28833-1	107.715	110.899	108.66	110.851	108.236	107.034	107.48	106.264
19:25	FA28833-1	105.461	108.131	107.797	108.77	106.483	105.822	105.113	105.761
19:30	ZZZZZZ	100.98	100.177	101.037	102.097	101.429	100.245	100.38	99.848
19:34	MA37984-CCVA5	106.148	107.85	108.272	109.5	107.307	105.79	105.966	105.743
19:39	MA37984-CCB5	102.954	103.967	104.744	104.517	103.821	102.799	103.211	102.516
19:43	MP90045-SD1	107.231	108.982	108.279	108.149	107.702	107.019	107.074	107.239
19:48	MP90045-SD1	108.992	106.981	108.837	108.197	106.52	105.486	105.897	104.905
19:52	MP90045-PS1	108.363	110.958	109.364	111.457	107.244	105.804	108.354	105.432
19:57	MP90045-PS1	108.73	109.547	110.769	109.881	108.036	107.332	107.87	107.6
20:01	ZZZZZZ	102.097	102.183	104.547	104.619	102.114	101.757	102.583	101.786
20:06	MA37984-CCVA6	107.543	109.404	109.865	109.828	109.083	107.332	107.729	106.277
20:10	MA37984-CCB6	103.213	104.417	104.907	105.854	104.748	103.133	103.08	104.347

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
20:15	MA37984-CRIA2	No results reported for the elements associated with this internal standard.							
20:19	MA37984-CRIB3	107.223	108.293	109.511	110.046	108.724	106.25	107.347	106.851
20:24	ZZZZZZ	106.637	108.038	109.182	108.99	106.421	107.174	105.844	106.544
20:28	MA37984-CCVA7	110.851	113.113	112.816	113.842	112.307	109.665	110.298	109.623
20:33	MA37984-CCB7	107.33	107.795	107.324	108.424	106.935	105.493	104.891	106.022
20:37	MP90117A-MB1	109.449	107.622	106.447	107.388	108.023	105.805	105.779	106.905
20:42	MP90117A-B1	109.125	109.518	110.001	109.524	108.557	107.607	106.236	106.671
20:47	MP90117A-S1	106.873	107.742	108.175	108.307	106.622	105.264	104.241	104.077
20:51	MP90117A-S2	105.905	106.791	103.468	104.362	105.136	101.561	102.647	101.914
20:56	ZZZZZZ	99.568	97.878	96.983	98.016	98.134	96.775	97.721	97.448
21:00	JC7252-1	106.962	106.064	102.271	102.536	103.099	101.114	99.56	102.2
21:05	MP90117A-SD1	105.865	103.459	100.625	100.791	102.101	100.003	99.311	102.059
21:09	ZZZZZZ	101.164	97.569	95.925	96.59	97.197	96.124	95.993	97.407
21:14	ZZZZZZ	102.227	98.324	97.102	98.078	98.306	96.699	97.118	98.731
21:18	MA37984-CCVA8	109.322	104.946	104.033	105.357	103.41	102.025	103.623	103.549
21:23	MA37984-CCB8	105.459	101.706	99.813	101.688	101.128	99.092	100.08	101.373
21:27	ZZZZZZ	110.329	106.078	103.142	106.844	109.37	106.838	109.299	106.247
21:32	ZZZZZZ	105.289	105.191	102.224	110.709	105.028	104.537	108.827	105.981
21:36	ZZZZZZ	105.597	112.148	111.571	128.402	112.538	111.845	124.622	112.645
21:41	ZZZZZZ	92.017	113.393	108.659	120.065	111.948	108.759	115.158	108.741
21:46	MP90037-MB1	91.776	109.935	109.472	121.883	117.882	119.035	130.66 !a	106.066
21:50	MP90037-B1	102.98	115.989	111.613	122.406	115.124	110.224	116.07	111.362
21:55	MP90037-S1	104.854	114.346	112.347	120.92	113.343	110.453	116.538	109.938
21:59	MP90037-S2	105.803	114.919	111.346	118.897	113.231	110.288	113.926	109.1
22:04	ZZZZZZ	102.279	107.754	105.351	113.196	106.943	104.877	110.103	106.701
22:08	MA37984-CCVA9	106.983	113.666	110.144	118.497	111.17	108.65	112.951	109.723
22:13	MA37984-CCB9	103.972	107.887	106.071	112.808	107.462	103.913	108.655	106.871
22:17	JC7205-6A	105.158	113.005	109.768	119.756	117.541	118.829	127.198	104.278
22:22	MP90037-SD1	115.952	119.176	114.621	119.101	117.091	113.955	116.951	112.649
22:26	ZZZZZZ	104.357	143.311 !a	141.168 !a	153.197 !a	117.851	118.461	124.013	105.782
22:31	ZZZZZZ	103.58	112.849	107.187	116.797	117.617	116.454	122.718	105.489
22:35	ZZZZZZ	106.22	112.98	109.195	117.741	118.342	117.551	123.857	106.809
22:40	ZZZZZZ	108.462	112.503	107.653	116.204	117.956	115.122	122.895	106.014

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:44	ZZZZZZ	109.19	112.146	107.168	115.042	115.977	113.764	119.728	105.142
22:49	ZZZZZZ	107.166	112.751	106.885	114.681	115.443	119.002	127.014	102.197
22:53	ZZZZZZ	109.977	114.5	110.551	118.795	119.785	117.57	123.358	108.515
22:58	ZZZZZZ	113.957	114.351	109.631	114.926	111.858	108.123	111.335	110.943
23:02	MA37984-CCVA10	114.675	115.626	112.305	117.738	113.092	109.432	115.098	111.442
23:07	MA37984-CCB10	109.927	110.866	108.132	112.402	109.328	106.624	108.936	109.176
23:11	ZZZZZZ	106.417	118.601	114.945	124.769	113.443	113.756	120.21	102.522
23:16	ZZZZZZ	106.808	126.487	124.849	137.193	!a128.091	140.171	!a151.148	!a110.686
23:21	ZZZZZZ	112.566	132.553	!a124.445	131.215	!a136.226	!a133.149	!a137.318	!a121.833
23:25	ZZZZZZ	112.298	123.985	116.886	129.268	128.246	123.622	132.087	!a115.714
23:30	ZZZZZZ	113.013	123.814	117.005	127.455	126.275	123.512	132.518	!a115.635
23:34	ZZZZZZ	112.95	120.587	112.807	122.525	122.856	119.425	125.459	110.777
23:39	ZZZZZZ	106.521	115.471	109.913	122.591	117.867	118.574	127.485	105.2
23:43	ZZZZZZ	114.621	121.331	112.644	123.575	123.839	120.182	125.868	113.407
23:48	ZZZZZZ	112.846	118.074	110.231	120.951	120.581	116.497	123.454	111.365
23:52	ZZZZZZ	117.776	115.637	108.552	114.772	112.245	108.665	111.188	111.995
23:57	MA37984-CCVA11	118.848	117.285	110.412	119.113	113.256	108.556	113.733	113.182
00:01	MA37984-CCB11	115.191	112.001	106.514	111.06	108.786	105.507	108.792	108.995
00:06	MA37984-CRIA3	No results reported for the elements associated with this internal standard.							
00:10	MA37984-CRI1	117.689	113.559	109.475	113.791	110.054	107.095	109.496	109.7
00:15	ZZZZZZ	116.459	113.656	105.506	113.346	115.024	111.553	116.572	106.048
00:20	ZZZZZZ	114.465	115.73	108.749	117.701	116.415	122.371	129.178	105.106
00:24	ZZZZZZ	111.384	115.602	109.307	118.295	113.074	110.887	117.802	102.917
00:29	JC7252-1	No results reported for the elements associated with this internal standard.							
00:33	MP90117A-SD1	No results reported for the elements associated with this internal standard.							
00:38	ZZZZZZ	104.805	106.859	99.002	107.019	105.077	100.954	106.121	106.065
00:42	ZZZZZZ	104.724	107.485	100.746	110.163	105.615	102.786	107.209	106.549
00:47	MA37984-CCVA12	110.365	113.549	106.925	112.591	111.469	107.506	109.515	110.577
00:51	MA37984-CCB12	106.941	109.31	104.773	111.472	107.982	105.044	108.419	108.647
00:56	MA37984-CRIA4	No results reported for the elements associated with this internal standard.							
01:00	MA37984-CRI2	112.536	114.329	108.868	115.125	111.722	108.57	111.349	112.507
01:05	MA37984-CCVA13	117.042	117.197	110.548	115.826	113.644	110.928	112.674	114.07
01:09	MA37984-CCB13	113.24	112.215	107.81	108.097	110.029	107.495	103.978	111.092

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (74-1)	70-130 %	70-130 %
Istd#6	Germanium (74-2)	70-130 %	70-130 %
Istd#7	Germanium (74-3)	70-130 %	70-130 %
Istd#8	Rhodium (103-1)	70-130 %	70-130 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:52	MA37984-STD1	100	100	100	100	100	100	100	100
14:56	MA37984-STD2	100	100	100	100	100	100	100	100
15:01	MA37984-STD3	100	100	100	100	100	100	100	100
15:05	MA37984-STD4	102.196	101.878	101.448	100.96	101.094	101.986	101.804	101.516
15:10	MA37984-STD5	100.577	100.293	99.509	99.921	100.285	100.756	100.122	100.954
15:15	MA37984-STD6	101.222	100.573	100.774	99.487	100.131	100.655	100.313	100.528
15:19	MA37984-STD7	100.883	100.419	101.252	99.947	101.105	101.232	101.233	101.33
15:24	MA37984-STD8	101.376	101.344	101.197	100.533	100.66	101.086	101.324	101.605
15:30	MA37984-STD9	101.405	101.71	101.451	100.786	101.576	101.316	102.074	101.717
15:34	MA37984-STD10	101.303	101.707	102.503	100.562	101.597	102.037	102.588	102.313
15:39	MA37984-STD11	99.962	100.43	101.394	100.04	102.156	101.314	101.454	102.653
15:43	MA37984-STD12	100.011	99.439	101.389	101.362	103.354	102.048	101.501	104.065
15:58	ZZZZZZ	98.335	98.656	97.493	98.405	97.747	97.899	97.354	98.104
16:02	MA37984-ICVA1	99.904	99.419	100.781	100.787	101.843	101.516	99.943	101.62
16:07	MA37984-ICV1	98.171	98.265	99.092	98.514	97.858	97.405	97.962	97.271
16:11	MA37984-ICB1	97.797	98.254	97.786	97.098	97.173	96.424	96.869	97.333
16:16	MA37984-CRIB1	No results reported for the elements associated with this internal standard.							
16:21	MA37984-CRIA1	No results reported for the elements associated with this internal standard.							
16:25	MA37984-CRIB2	99.472	100.146	99.249	99.263	99.261	99.02	98.401	99.196
16:30	MA37984-CCVA1	99.589	100.001	101.258	99.937	102.062	101.477	100.88	101.307
16:42	MA37984-CCB1	99.402	97.806	98.844	98.895	97.653	98.205	96.359	98.775
16:46	MA37984-ICSA1	91.073	92.948	97.082	95.771	101.685	98.381	98.247	102.415
16:52	MA37984-ICSAB1	91.921	93.059	98.96	95.854	102.438	98.283	97.965	102.979
17:00	ZZZZZZ	98.285	97.97	98.444	96.956	97.879	96.574	95.779	98.348
17:05	MA37984-CCVA2	101.568	101.081	102.862	101.159	103.626	102.485	101.237	103.852
17:10	MA37984-CCB2	98.825	98.938	99.576	98.14	99.408	98.476	97.306	99.226
17:14	ZZZZZZ	101.379	101.08	101.117	99.351	101.968	100.933	99.937	102.268
17:19	ZZZZZZ	102.556	101.48	103.632	102.306	104.081	102.399	100.527	104.303
17:23	MP89931-PS1	97.039	98.514	100.773	98.236	104.039	101.797	101.461	104.526
17:28	ZZZZZZ	103.105	103.01	104.006	102.142	103.844	102.621	102.441	103.668
17:32	ZZZZZZ	103.55	101.992	104.049	102.629	104.679	103.307	101.475	105.36
17:37	ZZZZZZ	103.386	102.223	105.33	102.643	104.954	103.119	101.645	105.449
17:42	ZZZZZZ	104.226	102.356	104.892	103.322	104.696	103.4	100.906	104.444

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:46	ZZZZZZ	101.515	100.673	101.819	100.676	100.189	99.423	97.65	100.841
17:51	MA37984-CCVA3	104.459	103.133	105.579	104.523	106.936	105.571	103.249	106.407
17:55	MA37984-CCB3	101.468	100.781	101.983	101.35	102.149	100.329	98.121	101.705
18:00	MP90028-MB1	100.758	100.616	101.036	100.114	101.961	100.823	99.349	101.83
18:04	MP90028-B1	105.578	102.372	106.694	106.303	105.983	103.725	101.163	105.447
18:09	MP90028-S1	104.688	101.006	105.579	105.396	103.611	102.89	100.373	104.057
18:13	MP90028-S2	104.993	101.31	104.539	105.289	103.53	103.865	100.409	103.376
18:18	FA28742-3	99.358	100.046	101.471	99.854	102.408	101.703	101.334	102.273
18:22	MP90028-SD1	104.678	102.026	105.089	105.159	104.865	103.801	100.969	105.204
18:27	MP90028-PS1	98.913	99.879	100.5	99.182	102.076	101.88	101.351	103.384
18:31	MP90028-PS1	104.539	102.162	105.74	103.673	105.762	103.958	103.166	105.754
18:36	ZZZZZZ	101.362	100.01	101.531	100.241	100.147	99.647	98.523	101.046
18:40	MA37984-CCVA4	102.483	101.299	103.612	101.887	105.099	102.532	101.789	105.196
18:45	MA37984-CCB4	101.614	99.043	100.794	100.682	100.056	99.451	97.356	100.55
18:49	FA28705-1	88.061	92.372	96.217	92.42	99.117	93.27	95.806	99.36
18:54	FA28705-1F	94.813	93.363	101.202	99.273	104.207	99.243	95.88	105.284
18:58	ZZZZZZ	110.134	105.954	110.924	108.467	109.89	106.44	102.757	109.927
19:03	MP90045-MB1	108.558	105.616	109.683	106.707	109.437	105.559	102.618	108.803
19:07	MP90045-B1	107.986	104.94	110.827	107.675	109.59	106.666	102.47	109.608
19:12	MP90045-S1	107.151	104.178	108.608	107.479	108.53	105.931	103.482	108.303
19:16	MP90045-S2	106.98	104.297	107.941	106.491	107.958	105.773	103.038	108.063
19:21	FA28833-1	105.315	103.361	106.323	103.3	107.862	105.032	103.797	107.902
19:25	FA28833-1	104.562	102.554	104.969	103.722	106.518	104.176	101.691	106.054
19:30	ZZZZZZ	99.219	99.707	100.308	97.958	99.97	97.862	96.967	100.36
19:34	MA37984-CCVA5	104.714	103.536	106.222	104.151	107.05	104.286	102.993	107.396
19:39	MA37984-CCB5	101.447	100.554	102.255	100.008	102.459	100.36	97.457	102.101
19:43	MP90045-SD1	106.428	104.412	106.556	104.414	106.664	104.52	102.409	105.475
19:48	MP90045-SD1	106.065	103.913	105.934	103.391	106.637	103.411	102.961	106.534
19:52	MP90045-PS1	105.195	103.471	105.475	103.924	108.509	105.473	103.478	107.961
19:57	MP90045-PS1	106.24	104.327	106.915	104.624	108.122	105.241	102.714	108.36
20:01	ZZZZZZ	100.987	99.944	101.869	99.516	101.039	100.209	98.189	101.274
20:06	MA37984-CCVA6	106.774	103.92	107.279	104.81	107.869	105.678	102.928	108.006
20:10	MA37984-CCB6	103.104	101.152	104.375	101.383	102.597	100.685	99.353	102.92

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
20:15	MA37984-CRIA2	No results reported for the elements associated with this internal standard.							
20:19	MA37984-CRIB3	106.733	104.811	107.157	104.968	106.485	104.04	102.753	106.456
20:24	ZZZZZZ	106.029	104.039	105.558	104.091	105.606	103.502	101.354	105.321
20:28	MA37984-CCVA7	107.758	106.184	109.568	106.15	110.129	107.334	106.024	111.605
20:33	MA37984-CCB7	105.479	103.247	105.611	102.689	105.781	102.91	100.815	106.714
20:37	MP90117A-MB1	104.851	102.451	105.837	101.622	107.05	102.659	100.844	106.943
20:42	MP90117A-B1	104.513	102.515	107.036	103.359	107.176	104.118	102.327	106.974
20:47	MP90117A-S1	100.195	99.119	104.725	101.475	106.229	102.711	100.714	106.703
20:51	MP90117A-S2	98.981	98.05	104.022	99.026	105.886	102.19	100.805	105.897
20:56	ZZZZZZ	96.359	96.157	98.072	95.086	98.064	97.223	95.217	97.987
21:00	JC7252-1	99.48	97.658	104.394	99.203	105.731	101.771	99.671	105.906
21:05	MP90117A-SD1	99.493	97.433	102.923	99.986	103.172	100.936	97.618	103.957
21:09	ZZZZZZ	96.49	95.903	97.575	95.093	97.781	96.862	94.48	98.177
21:14	ZZZZZZ	96.868	96.01	98.891	95.602	99.932	97.84	94.349	99.565
21:18	MA37984-CCVA8	102.785	101.353	103.812	100.416	106.255	103.858	103.505	107.171
21:23	MA37984-CCB8	100.03	99.088	101.296	97.403	101.538	99.718	97.916	102.122
21:27	ZZZZZZ	105.752	104.494	106.628	102.545	107.131	104.289	103.474	107.907
21:32	ZZZZZZ	107.371	108.577	107.219	102.966	107.11	105.665	106.824	107.691
21:36	ZZZZZZ	114.819	119.679	114.685	106.673	114.532	108.449	113.743	114.041
21:41	ZZZZZZ	108.6	108.515	110.671	99.49	110.165	99.92	102.108	109.92
21:46	MP90037-MB1	109.535	110.338	108.072	100.76	108.668	101.499	105.086	108.283
21:50	MP90037-B1	110.997	110.242	113.58	103.722	114.927	106.161	107.734	115.25
21:55	MP90037-S1	109.183	108.815	111.507	102.673	113.804	106.317	106.474	114.545
21:59	MP90037-S2	109.061	108.05	111.162	104.219	114.078	106.45	106.029	114.41
22:04	ZZZZZZ	106.907	105.687	106.924	100.02	107.557	101.227	101.641	107.959
22:08	MA37984-CCVA9	108.95	107.96	111.036	103.186	113.517	106.321	106.87	114.074
22:13	MA37984-CCB9	106.02	105.372	107.303	100.156	106.918	101.222	101.677	106.835
22:17	JC7205-6A	104.908	105.244	108.891	100.09	110.421	104.854	106.37	111.122
22:22	MP90037-SD1	112.561	109.821	115.681	107.828	115.741	109.869	108.206	116.81
22:26	ZZZZZZ	107.8	107.335	108.32	102.264	114.341	109.326	110.527	115.287
22:31	ZZZZZZ	105.753	106.347	108.805	99.801	111.844	105.341	106.47	112.32
22:35	ZZZZZZ	106.659	106.665	109.826	102.044	112.059	106.649	107.166	112.691
22:40	ZZZZZZ	105.537	105.357	108.873	100.328	112.023	106.783	106.418	112.206

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:44	ZZZZZZ	105.159	104.353	108.549	100.128	112.273	106.349	105.984	113.496
22:49	ZZZZZZ	99.959	101.299	106.28	98.841	110.777	104.282	104.936	111.472
22:53	ZZZZZZ	108.411	108.56	111.081	103.66	114.027	108.361	107.95	114.41
22:58	ZZZZZZ	110.388	107.217	110.696	103.678	112.169	105.621	104.351	111.705
23:02	MA37984-CCVA10	111.077	109.526	113.194	105.181	115.35	109.234	107.87	116.326
23:07	MA37984-CCB10	108.482	105.752	109.739	102.115	110.156	104.647	102.732	109.829
23:11	ZZZZZZ	101.524	102.397	105.896	100.119	112.404	105.704	106.103	113.716
23:16	ZZZZZZ	113.036	112.906	115.696	109.082	119.263	113.731	114.463	120.571
23:21	ZZZZZZ	119.873	115.104	125.365	113.362	127.893	118.07	114.31	128.283
23:25	ZZZZZZ	115.657	115.156	117.903	107.647	121.29	113.806	114.743	122.426
23:30	ZZZZZZ	115.311	113.731	120.082	108.12	122.717	113.125	112.821	123.413
23:34	ZZZZZZ	112.66	109.943	115.628	105.181	119.655	112.031	111.007	119.703
23:39	ZZZZZZ	107.1	108.102	110.207	101.551	115.082	109.341	111.362	115.803
23:43	ZZZZZZ	113.726	112.466	117.798	106.451	120.404	112.882	113.207	121.203
23:48	ZZZZZZ	110.362	108.979	114.955	103.496	117.454	109.644	110.842	118.114
23:52	ZZZZZZ	111.638	107.974	113.349	104.595	112.949	108.338	105.719	113.847
23:57	MA37984-CCVA11	111.71	108.941	114.126	105.561	116.868	111.399	110.095	117.329
00:01	MA37984-CCB11	108.749	105.369	110.965	102.472	110.952	105.892	103.439	111.019
00:06	MA37984-CRIA3	No results reported for the elements associated with this internal standard.							
00:10	MA37984-CRI1	109.573	106.875	110.619	103.379	112.278	107.579	106.104	112.206
00:15	ZZZZZZ	105.909	103.833	109.585	100.2	114.093	108.339	107.726	114.69
00:20	ZZZZZZ	104.012	104.775	108.982	102.583	113.589	110.889	110.619	114.063
00:24	ZZZZZZ	99.849	100.807	107.927	99.105	113.552	107.403	106.029	114.398
00:29	JC7252-1	No results reported for the elements associated with this internal standard.							
00:33	MP90117A-SD1	No results reported for the elements associated with this internal standard.							
00:38	ZZZZZZ	106.162	102.725	108.035	97.146	108.243	102.919	101.954	108.881
00:42	ZZZZZZ	106.191	103.9	109.458	99.27	109.466	104.509	103.138	109.983
00:47	MA37984-CCVA12	109.808	104.786	113.574	103.636	115.225	109.737	105.464	116.546
00:51	MA37984-CCB12	109.251	105.39	110.24	102.45	109.897	106.492	103.869	110.005
00:56	MA37984-CRIA4	No results reported for the elements associated with this internal standard.							
01:00	MA37984-CRI2	112.653	109.154	114.024	106.546	114.965	110.838	107.842	115.408
01:05	MA37984-CCVA13	113.039	108.769	115.949	108.033	117.814	113.388	109.743	118.35
01:09	MA37984-CCB13	111.322	102.617	112.185	104.591	113.197	108.232	101.196	113.001

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Rhodium (103-2)	70-130 %	70-130 %
Istd#10	Rhodium (103-3)	70-130 %	70-130 %
Istd#11	Indium (115-1)	70-130 %	70-130 %
Istd#12	Indium (115-2)	70-130 %	70-130 %
Istd#13	Terbium (159-1)	70-130 %	70-130 %
Istd#14	Terbium (159-2)	70-130 %	70-130 %
Istd#15	Terbium (159-3)	70-130 %	70-130 %
Istd#16	Holmium (165-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
14:52	MA37984-STD1	100	100	100
14:56	MA37984-STD2	100	100	100
15:01	MA37984-STD3	100	100	100
15:05	MA37984-STD4	100.851	101.75	101.242
15:10	MA37984-STD5	100.026	100.829	100.303
15:15	MA37984-STD6	99.81	101.1	100.484
15:19	MA37984-STD7	100.56	101.865	101.397
15:24	MA37984-STD8	100.667	100.846	102
15:30	MA37984-STD9	100.483	100.805	100.022
15:34	MA37984-STD10	101.514	101.235	100.605
15:39	MA37984-STD11	100.667	99.542	98.575
15:43	MA37984-STD12	101.565	100.09	97.789
15:58	ZZZZZZ	96.607	96.896	95.976
16:02	MA37984-ICVA1	100.45	98.92	98.193
16:07	MA37984-ICV1	96.689	97.732	95.721
16:11	MA37984-ICB1	95.842	96.948	95.341
16:16	MA37984-CRIB1	No results reported for the elements associated with this internal standard.		
16:21	MA37984-CRIA1	No results reported for the elements associated with this internal standard.		
16:25	MA37984-CRIB2	97.979	99.214	96.946
16:30	MA37984-CCVA1	100.261	98.884	97.69
16:42	MA37984-CCB1	96.755	97.043	95.952
16:46	MA37984-ICSA1	97.81	93.306	88.842
16:52	MA37984-ICSAB1	98.385	94.183	89.308
17:00	ZZZZZZ	96.272	96.536	94.904
17:05	MA37984-CCVA2	102.201	101.295	99.202
17:10	MA37984-CCB2	97.745	97.913	95.978
17:14	ZZZZZZ	99.379	104.499	101.739
17:19	ZZZZZZ	101.38	103.38	100.066
17:23	MP89931-PS1	101.035	99.899	96.675
17:28	ZZZZZZ	101.788	103.827	101.315
17:32	ZZZZZZ	102.294	103.562	100.714
17:37	ZZZZZZ	102.114	125.596	122.082
17:42	ZZZZZZ	102.178	109.24	106.533

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
17:46	ZZZZZZ	98.345	99.031	96.624
17:51	MA37984-CCVA3	103.831	102.831	100.102
17:55	MA37984-CCB3	99.069	100.187	97.439
18:00	MP90028-MB1	100.624	105.892	103.672
18:04	MP90028-B1	103.466	104.075	101.796
18:09	MP90028-S1	101.807	101.454	100.102
18:13	MP90028-S2	101.816	101.973	100.905
18:18	FA28742-3	101.139	104.271	101.467
18:22	MP90028-SD1	103.346	103.828	101.66
18:27	MP90028-PS1	100.96	100.935	100.115
18:31	MP90028-PS1	102.779	103.404	100.299
18:36	ZZZZZZ	98.853	100.253	97.617
18:40	MA37984-CCVA4	101.985	101.472	99.47
18:45	MA37984-CCB4	98.527	98.637	96.549
18:49	FA28705-1	92.891	90.242	84.201
18:54	FA28705-1F	98.541	94.024	87.954
18:58	ZZZZZZ	105.174	107.802	102.95
19:03	MP90045-MB1	104.701	108.284	103.472
19:07	MP90045-B1	104.768	106.66	102.853
19:12	MP90045-S1	105.077	106.144	102.639
19:16	MP90045-S2	105.015	105.73	102.913
19:21	FA28833-1	104.309	107.105	102.286
19:25	FA28833-1	103.962	103.519	101.604
19:30	ZZZZZZ	97.044	98.706	95.322
19:34	MA37984-CCVA5	103.95	103.538	100.081
19:39	MA37984-CCB5	99.577	100.499	96.968
19:43	MP90045-SD1	103.926	104.475	102.194
19:48	MP90045-SD1	102.727	104.88	100.831
19:52	MP90045-PS1	104.683	101.077	98.886
19:57	MP90045-PS1	104.657	106.011	101.068
20:01	ZZZZZZ	99.342	99.243	96.89
20:06	MA37984-CCVA6	104.501	104.032	99.872
20:10	MA37984-CCB6	99.916	101.41	97.499

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
20:15	MA37984-CRIA2	No results reported for the elements associated with this internal standard.		
20:19	MA37984-CRIB3	103.239	104.808	100.822
20:24	ZZZZZZ	102.274	104.559	100.43
20:28	MA37984-CCVA7	106.383	107	102.115
20:33	MA37984-CCB7	101.959	104.318	99.043
20:37	MP90117A-MB1	101.439	106.367	101.203
20:42	MP90117A-B1	103.172	104.855	99.826
20:47	MP90117A-S1	101.85	102.133	96.319
20:51	MP90117A-S2	100.896	100.946	96.897
20:56	ZZZZZZ	96.257	97.303	94.009
21:00	JC7252-1	101.532	102.606	96.848
21:05	MP90117A-SD1	100.19	102.859	99.139
21:09	ZZZZZZ	96.382	97.227	93.947
21:14	ZZZZZZ	96.774	98.243	94.848
21:18	MA37984-CCVA8	103.239	103.884	99.56
21:23	MA37984-CCB8	98.998	100.731	96.571
21:27	ZZZZZZ	104.124	112.251	106.759
21:32	ZZZZZZ	104.909	109.163	105.497
21:36	ZZZZZZ	108.874	115.45	107.681
21:41	ZZZZZZ	99.149	107.732	94.342
21:46	MP90037-MB1	101.336	107.031	97.547
21:50	MP90037-B1	105.745	111.647	100.984
21:55	MP90037-S1	105.767	108.92	100.034
21:59	MP90037-S2	105.992	108.992	100.036
22:04	ZZZZZZ	100.42	104.004	96.515
22:08	MA37984-CCVA9	105.718	108.097	99.512
22:13	MA37984-CCB9	100.351	104.861	96.979
22:17	JC7205-6A	104.133	106.998	98.116
22:22	MP90037-SD1	109.019	113.533	104.098
22:26	ZZZZZZ	109.596	109.372	100.992
22:31	ZZZZZZ	104.653	108.058	99.086
22:35	ZZZZZZ	105.53	109.179	100.585
22:40	ZZZZZZ	105.595	108.298	100.331

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
22:44	ZZZZZZ	105.222	107.802	99.921
22:49	ZZZZZZ	103.333	102.853	94.365
22:53	ZZZZZZ	107.409	110.626	102.611
22:58	ZZZZZZ	104.692	109.517	100.512
23:02	MA37984-CCVA10	109.213	110.724	103.306
23:07	MA37984-CCB10	103.956	107.245	99.499
23:11	ZZZZZZ	105.618	102.279	93.923
23:16	ZZZZZZ	113.093	107.465	98.466
23:21	ZZZZZZ	116.587	120.051	107.638
23:25	ZZZZZZ	113.031	116.642	104.775
23:30	ZZZZZZ	112.704	117.281	105.491
23:34	ZZZZZZ	111.459	113.209	103.265
23:39	ZZZZZZ	108.883	106.664	97.953
23:43	ZZZZZZ	112.449	117.384	105.918
23:48	ZZZZZZ	109.581	113.188	103.228
23:52	ZZZZZZ	107.52	111.08	102.093
23:57	MA37984-CCVA11	110.723	112.697	103.752
00:01	MA37984-CCB11	104.948	108.263	100.494
00:06	MA37984-CRIA3	No results reported for the elements associated with this internal standard.		
00:10	MA37984-CRI1	107.152	109.278	102.19
00:15	ZZZZZZ	107.806	110.385	101.298
00:20	ZZZZZZ	110.295	106.177	100.235
00:24	ZZZZZZ	107.166	103.422	93.502
00:29	JC7252-1	No results reported for the elements associated with this internal standard.		
00:33	MP90117A-SD1	No results reported for the elements associated with this internal standard.		
00:38	ZZZZZZ	102.225	106.724	97.714
00:42	ZZZZZZ	103.861	107.713	99.378
00:47	MA37984-CCVA12	108.958	111.362	101.77
00:51	MA37984-CCB12	105.91	108.856	101.328
00:56	MA37984-CRIA4	No results reported for the elements associated with this internal standard.		
01:00	MA37984-CRI2	109.142	111.761	104.717
01:05	MA37984-CCVA13	112.461	113.402	105.027
01:09	MA37984-CCB13	107.68	110.296	102.595

! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
Analyst: GT Run ID: MA37984
Parameters: Al,Sb,As,Ba,Be,Cd,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Holmium (165-2)	70-130 %	70-130 %
Istd#18	Bismuth (209-1)	70-130 %	70-130 %
Istd#19	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37984 Units: ug/l

Time:				16:11		16:42		17:10	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.37	20	0.045	<25	0.070	<25	1.3	<25
Antimony	0.50	.13	0.50	-0.016	<2.0	-0.095	<2.0	-0.025	<2.0
Arsenic	0.50	.07	0.45	-0.0024	<1.5	-0.0023	<1.5	0.0060	<1.5
Barium	1.0	.015	0.50	0.0039	<1.0	0.010	<1.0	0.014	<1.0
Beryllium	0.50	.006	0.25	0.0048	<0.50	0.0053	<0.50	0.014	<0.50
Boron	25	3.2	20						
Cadmium	0.50	.014	0.30	0.010	<3.0	0.014	<3.0	0.0075	<3.0
Calcium	250	2.7	50						
Chromium	1.0	.02	0.50	0.0016	<4.0	0.0056	<4.0	-0.0093	<4.0
Cobalt	0.50	.0061	0.25	0.0022	<0.50	0.0021	<0.50	0.0074	<0.50
Copper	2.0	.028	0.50	-0.0015	<5.0	0.0077	<5.0	0.017	<5.0
Iron	25	.43	13	0.14	<25	0.081	<25	1.4	<25
Lead	0.50	.0066	0.25	-0.0047	<1.5	-0.0037	<1.5	0.015	<1.5
Magnesium	250	.4	130	0.13	<250	0.11	<250	1.2	<250
Manganese	1.0	.016	0.50	0.00063	<2.0	-0.0050	<2.0	0.0083	<2.0
Molybdenum	1.0	.022	0.50						
Nickel	1.0	.026	1.0	0.0044	<4.0	0.0015	<4.0	0.0033	<4.0
Potassium	250	2.6	50	-0.10	<250	-0.55	<250	1.0	<250
Selenium	0.50	.058	0.50	-0.0043	<1.0	-0.029	<1.0	-0.014	<1.0
Silver	0.50	.0051	0.25	0.0020	<1.0	-0.00015	<1.0	0.013	<1.0
Sodium	250	4.3	50	0.95	<250	0.58	<250	6.9	<250
Strontium	5.0	.0047	2.5						
Thallium	0.50	.012	0.35	0.013	<1.0	0.0091	<1.0	0.060	<1.0
Tin	5.0	.024	2.5						
Titanium	1.0	.05	0.50						
Vanadium	1.0	.11	0.50	-0.0088	<1.5	-0.013	<1.5	-0.021	<1.5
Zinc	5.0	.15	1.5	-0.20	<10	-0.20	<10	-0.12	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37984 Units: ug/l

Time:				17:55		18:45		19:39	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.37	20	0.94	<25	0.90	<25	0.96	<25
Antimony	0.50	.13	0.50	0.055	<2.0	0.071	<2.0	-0.019	<2.0
Arsenic	0.50	.07	0.45	0.022	<1.5	0.036	<1.5	0.018	<1.5
Barium	1.0	.015	0.50	0.022	<1.0	0.012	<1.0	0.023	<1.0
Beryllium	0.50	.006	0.25	0.018	<0.50	0.020	<0.50	0.019	<0.50
Boron	25	3.2	20						
Cadmium	0.50	.014	0.30	0.039	<3.0	-0.000050	<3.0	0.0040	<3.0
Calcium	250	2.7	50						
Chromium	1.0	.02	0.50	-0.0032	<4.0	-0.0047	<4.0	0.010	<4.0
Cobalt	0.50	.0061	0.25	0.0088	<0.50	0.010	<0.50	0.0099	<0.50
Copper	2.0	.028	0.50	0.027	<5.0	0.029	<5.0	0.017	<5.0
Iron	25	.43	13	1.2	<25	1.1	<25	1.2	<25
Lead	0.50	.0066	0.25	0.018	<1.5	0.019	<1.5	0.018	<1.5
Magnesium	250	.4	130	0.90	<250	0.92	<250	1.0	<250
Manganese	1.0	.016	0.50	0.016	<2.0	0.014	<2.0	0.013	<2.0
Molybdenum	1.0	.022	0.50						
Nickel	1.0	.026	1.0	0.024	<4.0	0.018	<4.0	-0.0029	<4.0
Potassium	250	2.6	50	0.20	<250	1.7	<250	5.6	<250
Selenium	0.50	.058	0.50	0.026	<1.0	0.075	<1.0	0.0065	<1.0
Silver	0.50	.0051	0.25	0.013	<1.0	0.017	<1.0	0.018	<1.0
Sodium	250	4.3	50	4.4	<250	5.2	<250	20.6	<250
Strontium	5.0	.0047	2.5						
Thallium	0.50	.012	0.35	0.060	<1.0	0.079	<1.0	0.068	<1.0
Tin	5.0	.024	2.5						
Titanium	1.0	.05	0.50						
Vanadium	1.0	.11	0.50	-0.066	<1.5	-0.054	<1.5	-0.078	<1.5
Zinc	5.0	.15	1.5	-0.14	<10	-0.17	<10	-0.25	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA37984 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	20:10 CCB6 raw	final	20:33 CCB7 raw	final
Aluminum	25	.37	20	1.0	<25	0.76	<25
Antimony	0.50	.13	0.50	-0.053	<2.0	-0.11	<2.0
Arsenic	0.50	.07	0.45	0.019	<1.5	0.025	<1.5
Barium	1.0	.015	0.50	0.020	<1.0	0.011	<1.0
Beryllium	0.50	.006	0.25	0.018	<0.50	0.018	<0.50
Boron	25	3.2	20				
Cadmium	0.50	.014	0.30	0.0053	<3.0	0.0090	<3.0
Calcium	250	2.7	50				
Chromium	1.0	.02	0.50	-0.0013	<4.0	-0.0019	<4.0
Cobalt	0.50	.0061	0.25	0.0071	<0.50	0.011	<0.50
Copper	2.0	.028	0.50	0.0097	<5.0	0.019	<5.0
Iron	25	.43	13	1.2	<25	1.1	<25
Lead	0.50	.0066	0.25	0.013	<1.5	0.010	<1.5
Magnesium	250	.4	130	0.86	<250	1.1	<250
Manganese	1.0	.016	0.50	0.012	<2.0	0.0051	<2.0
Molybdenum	1.0	.022	0.50				
Nickel	1.0	.026	1.0	0.014	<4.0	0.014	<4.0
Potassium	250	2.6	50	4.0	<250	3.7	<250
Selenium	0.50	.058	0.50	-0.0081	<1.0	0.012	<1.0
Silver	0.50	.0051	0.25	0.014	<1.0	0.013	<1.0
Sodium	250	4.3	50	16.9	<250	14.9	<250
Strontium	5.0	.0047	2.5				
Thallium	0.50	.012	0.35	0.065	<1.0	0.059	<1.0
Tin	5.0	.024	2.5				
Titanium	1.0	.05	0.50				
Vanadium	1.0	.11	0.50	-0.034	<1.5	-0.046	<1.5
Zinc	5.0	.15	1.5	-0.17	<10	-0.25	<10

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37984 Units: ug/l

Time:		16:02			16:07			16:30	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5340	97.1	60	63.1	105.2	5000	5060	101.2
Antimony	60	63.0	105.0				50	51.3	102.6
Arsenic	60	60.2	100.3				50	48.9	97.8
Barium	60	59.6	99.3				50	48.5	97.0
Beryllium	60	58.9	98.2				50	49.9	99.8
Boron									
Cadmium	60	59.1	98.5				50	48.5	97.0
Calcium	anr								
Chromium	60	58.5	97.5				50	48.7	97.4
Cobalt	60	58.5	97.5				50	48.3	96.6
Copper	60	58.2	97.0				50	48.3	96.6
Iron	5500	5270	95.8				5000	4980	99.6
Lead	60	59.5	99.2				50	49.1	98.2
Magnesium	5500	5320	96.7				5000	5080	101.6
Manganese	60	59.0	98.3				50	48.9	97.8
Molybdenum	anr								
Nickel	60	57.7	96.2				50	47.8	95.6
Potassium	5500	5160	93.8				5000	4980	99.6
Selenium	60	58.8	98.0				50	48.4	96.8
Silver	60	58.6	97.7				50	47.4	94.8
Sodium	5500	5350	97.3				5000	5050	101.0
Strontium									
Thallium	60	62.3	103.8				50	49.7	99.4
Tin									
Titanium									
Vanadium	60	59.2	98.7				50	49.2	98.4
Zinc	60	58.8	98.0				50	48.1	96.2

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37984 Units: ug/l

Time:		17:05			17:51			18:40	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	5000	100.0	5000	4950	99.0	5000	4950	99.0
Antimony	50	52.2	104.4	50	52.1	104.2	50	51.5	103.0
Arsenic	50	48.9	97.8	50	49.1	98.2	50	48.4	96.8
Barium	50	48.0	96.0	50	48.6	97.2	50	48.2	96.4
Beryllium	50	48.4	96.8	50	49.8	99.6	50	49.2	98.4
Boron									
Cadmium	50	48.6	97.2	50	48.6	97.2	50	49.0	98.0
Calcium	anr								
Chromium	50	48.9	97.8	50	48.8	97.6	50	48.2	96.4
Cobalt	50	48.0	96.0	50	48.2	96.4	50	47.5	95.0
Copper	50	47.8	95.6	50	48.1	96.2	50	47.5	95.0
Iron	5000	4950	99.0	5000	4980	99.6	5000	4920	98.4
Lead	50	49.1	98.2	50	49.0	98.0	50	49.2	98.4
Magnesium	5000	5060	101.2	5000	5010	100.2	5000	4940	98.8
Manganese	50	48.4	96.8	50	48.8	97.6	50	48.0	96.0
Molybdenum	anr								
Nickel	50	47.7	95.4	50	47.5	95.0	50	46.8	93.6
Potassium	5000	4940	98.8	5000	4990	99.8	5000	4930	98.6
Selenium	50	49.3	98.6	50	48.9	97.8	50	49.0	98.0
Silver	50	47.3	94.6	50	47.9	95.8	50	47.4	94.8
Sodium	5000	5090	101.8	5000	5030	100.6	5000	4980	99.6
Strontium									
Thallium	50	49.3	98.6	50	49.4	98.8	50	49.7	99.4
Tin									
Titanium									
Vanadium	50	49.1	98.2	50	49.3	98.6	50	49.2	98.4
Zinc	50	48.2	96.4	50	48.5	97.0	50	47.5	95.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA37984 Units: ug/l

Time:		19:34			20:06			20:28	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4970	99.4	5000	4980	99.6	5000	4990	99.8
Antimony	50	51.6	103.2	50	51.6	103.2	50	51.7	103.4
Arsenic	50	48.9	97.8	50	48.8	97.6	50	48.3	96.6
Barium	50	48.6	97.2	50	48.3	96.6	50	48.4	96.8
Beryllium	50	49.6	99.2	50	49.4	98.8	50	50.5	101.0
Boron									
Cadmium	50	48.9	97.8	50	48.6	97.2	50	48.8	97.6
Calcium	anr								
Chromium	50	48.6	97.2	50	48.3	96.6	50	48.2	96.4
Cobalt	50	47.8	95.6	50	47.6	95.2	50	47.6	95.2
Copper	50	47.2	94.4	50	47.6	95.2	50	47.5	95.0
Iron	5000	4960	99.2	5000	4940	98.8	5000	4940	98.8
Lead	50	49.0	98.0	50	48.9	97.8	50	48.7	97.4
Magnesium	5000	5040	100.8	5000	5040	100.8	5000	5050	101.0
Manganese	50	48.4	96.8	50	48.1	96.2	50	47.8	95.6
Molybdenum	anr								
Nickel	50	47.3	94.6	50	47.0	94.0	50	46.9	93.8
Potassium	5000	5010	100.2	5000	5030	100.6	5000	5010	100.2
Selenium	50	49.1	98.2	50	48.3	96.6	50	48.4	96.8
Silver	50	48.0	96.0	50	47.0	94.0	50	47.6	95.2
Sodium	5000	5100	102.0	5000	5080	101.6	5000	5080	101.6
Strontium									
Thallium	50	49.6	99.2	50	49.8	99.6	50	49.9	99.8
Tin									
Titanium									
Vanadium	50	49.0	98.0	50	48.7	97.4	50	48.7	97.4
Zinc	50	47.2	94.4	50	47.3	94.6	50	47.2	94.4

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA37984 Units: ug/l

Time:		16:25		20:19	
Sample ID:	CRIB	CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec
Aluminum	25	22.6	90.4	23.1	92.4
Antimony	0.50	0.52	104.0	0.48	96.0
Arsenic	0.50	0.47	94.0	0.49	98.0
Barium	1.0	1.0	100.0	0.95	95.0
Beryllium	0.50	0.48	96.0	0.48	96.0
Boron	25				
Cadmium	0.50	0.51	102.0	0.45	90.0
Calcium	250				
Chromium	1.0	0.99	99.0	1.0	100.0
Cobalt	0.50	0.49	98.0	0.48	96.0
Copper	2.0	2.0	100.0	2.0	100.0
Iron	25	23.3	93.2	23.2	92.8
Lead	0.50	0.47	94.0	0.49	98.0
Magnesium	250	232	92.8	230	92.0
Manganese	0.50	0.48	96.0	0.48	96.0
Molybdenum	1.0				
Nickel	1.0	0.97	97.0	0.95	95.0
Potassium	250	230	92.0	231	92.4
Selenium	0.50	0.46	92.0	0.44	88.0
Silver	0.50	0.48	96.0	0.48	96.0
Sodium	250	231	92.4	244	97.6
Strontium	5.0				
Thallium	0.50	0.46	92.0	0.48	96.0
Tin	5.0				
Titanium	1.0				
Vanadium	1.0	1.0	100.0	0.97	97.0
Zinc	5.0	5.1	102.0	5.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB110615M3L.CSV Date Analyzed: 11/06/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA37984 Units: ug/l

Time:			16:46		16:52	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	91300	91.3	91900	91.9
Antimony			0.12		0.063	
Arsenic		20	0.099		19.5	97.5
Barium			0.11		0.13	
Beryllium			0.019		0.014	
Boron			-2.6		-6.1	
Cadmium		20	0.63		20.1	100.5
Calcium	100000	100000	90700	90.7	91800	91.8
Chromium		20	1.2		20.2	101.0
Cobalt		20	0.021		18.5	92.5
Copper		20	0.93		18.6	93.0
Iron	100000	100000	88900	88.9	89600	89.6
Lead			0.21		0.21	
Magnesium	100000	100000	91400	91.4	92300	92.3
Manganese		20	0.37		19.0	95.0
Molybdenum	2000	2000	2070	103.5	2090	104.5
Nickel		20	0.23		17.7	88.5
Potassium	100000	100000	91300	91.3	92400	92.4
Selenium		20	0.078		20.8	104.0
Silver		20	0.026		18.8	94.0
Sodium	100000	100000	92800	92.8	94000	94.0
Strontium			0.70		0.70	
Thallium			0.0093		0.0056	
Tin			0.078		0.070	
Titanium	2000	2000	1970	98.5	1990	99.5
Vanadium		20	0.034		20.6	103.0
Zinc		20	1.4		18.1	90.5

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:14	MA38002-STD1	1		STDA
11:19	MA38002-STD2	1		STDB
11:23	MA38002-STD3	1		STDC
11:28	MA38002-STD4	1		STDD
11:33	MA38002-STD5	1		STDE
11:37	MA38002-STD6	1		STDF
11:42	MA38002-STD7	1		STDG
11:46	MA38002-STD8	1		STDH
11:51	MA38002-STD9	1		STDI
11:56	MA38002-STD10	1		STDJ
12:05	ZZZZZZ	1		
12:09	MA38002-ICVA1	1		
12:19	MA38002-ICV1	1		60ppb Al and out. Not needed.
12:24	MA38002-ICB1	1		
12:29	MA38002-CRIB1	1		
12:34	MA38002-CRIA1	1		2ppb Sb and Pb, not needed.
12:39	MA38002-CCVA1	1		
12:43	MA38002-CCB1	1		
12:48	MA38002-ICSA1	1		
12:53	MA38002-ICSAB1	1		
12:57	ZZZZZZ	1		
13:02	MA38002-CCVA2	1		
13:06	MA38002-CCB2	1		
13:11	MP90110-MB1	5		
13:16	MP90110-S1	50		To reanalysis for Pb, high RSD on QC sample
13:20	ZZZZZZ	100		
13:25	MP90110-S1	100		To reanalysis for Ba, high RSD on QC sample
13:30	MP90110-S2	50		To reanalysis for Pb, high RSD on QC sample
13:34	MP90110-S2	100		To reanalysis for Ba, high RSD on QC sample
13:39	ZZZZZZ	1		
13:43	FA28664-2	50		(sample used for QC only; not part of login FA28705)
13:48	FA28664-2	100		(sample used for QC only; not part of login FA28705)
13:53	MA38002-CCVA3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:57	MA38002-CCB3	1		
14:02	MP90110-SD1	250		To reanalysis for Ba and Pb, high RSD on QC sample.
14:06	MP90110-SD1	500		
14:11	MP90110-PS1	50		To reanalysis, spiking problems.
14:16	MP90110-PS1	100		To reanalysis, spiking problems.
14:20	ZZZZZZ	50		
14:25	ZZZZZZ	50		
14:30	ZZZZZZ	100		
14:34	ZZZZZZ	500		
14:39	MA38002-CCVA4	1		
14:44	MA38002-CCB4	1		
14:49	ZZZZZZ	50		
14:53	ZZZZZZ	500		
14:58	ZZZZZZ	50		
15:03	ZZZZZZ	500		
15:07	ZZZZZZ	50		
15:12	ZZZZZZ	500		
15:17	ZZZZZZ	50		
15:21	ZZZZZZ	500		
15:28	ZZZZZZ	500		
15:33	MA38002-CCVA5	1		
15:37	MA38002-CCB5	1		
15:42	MA38002-CRIB2	1		
15:47	MA38002-CRIA2	1		2ppb Sb and Pb, not needed.
15:52	MP90045-MB1	5		
15:56	MP90045-B1	25		
16:01	MP90045-S1	25		
16:06	MP90045-S2	25		
16:10	FA28833-1	5		(sample used for QC only; not part of login FA28705)
16:15	MP90045-SD1	25		
16:19	MP90045-PS1	5		
16:24	MA38002-CCVA6	1		
16:29	MA38002-CCB6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:35	MA38002-CRIB3	1		Mn out
16:39	MP90028-MB1	2		
16:44	MP90028-B1	25		
16:49	MP90028-S1	25		
16:53	MP90028-S2	25		
16:58	ZZZZZZ	1		
17:02	FA28742-3	2		(sample used for QC only; not part of login FA28705)
17:07	MP90028-SD1	10		
17:12	MP90028-PS1	2		
17:16	MA38002-CCVA7	1		
17:21	MA38002-CCB7	1		
17:26	FA28705-1	25		CCV out for Ca
17:30	FA28705-1	500		Na
17:35	FA28705-1F	25		CCV out for Ca
17:39	FA28705-1F	500		Na
---------->	Last reportable sample/prep for job FA28705			
17:44	ZZZZZZ	1		
17:49	FA28833-1	5		(sample used for QC only; not part of login FA28705)
17:53	MP90045-SD1	25		Confirmation
17:58	ZZZZZZ	1		
18:02	MA38002-CRIB4	1		
18:07	MA38002-CCVA8	1		
18:12	MA38002-CCB8	1		
---------->	Last reportable CCB for job FA28705			
18:16	MP90048A-MB1	2		
18:21	MP90048A-B1	10		
18:26	MP90048A-S1	10		
18:30	MP90048A-S2	10		
18:35	ZZZZZZ	1		
18:39	JC7298-10A	2		(sample used for QC only; not part of login FA28705)
18:44	MP90048A-SD1	10		
18:49	ZZZZZZ	2		
18:53	ZZZZZZ	2		
18:58	MA38002-CCVA9	1		
19:02	MA38002-CCB9	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:07	ZZZZZZ	2		
19:12	ZZZZZZ	2		
19:16	ZZZZZZ	2		
19:21	ZZZZZZ	2		
19:26	ZZZZZZ	2		
19:30	ZZZZZZ	2		
19:35	ZZZZZZ	2		
19:39	ZZZZZZ	2		
19:44	ZZZZZZ	2		
19:49	MA38002-CCVA10	1		
19:53	MA38002-CCB10	1		
19:58	ZZZZZZ	2		
20:02	ZZZZZZ	2		
20:07	ZZZZZZ	2		
20:12	ZZZZZZ	2		
20:16	ZZZZZZ	2		
20:21	ZZZZZZ	2		
20:26	ZZZZZZ	2		
20:30	ZZZZZZ	2		
20:35	MA38002-CCVA11	1		
20:39	MA38002-CCB11	1		
20:44	ZZZZZZ	1		
20:49	MA38002-CRIB5	1		Mn out
20:53	MA38002-CCVA12	1		
20:58	MA38002-CCB12	1		
21:03	MP90189-MB1	1		
21:07	MP90189-B1	1		
21:12	MP90189-S1	1		
21:16	MP90189-S2	1		
21:21	JC7438-1	1		(sample used for QC only; not part of login FA28705)
21:26	ZZZZZZ	1		
21:31	ZZZZZZ	1		
21:35	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:40	ZZZZZZ	1		
21:45	MA38002-CCVA13	1		
21:49	MA38002-CCB13	1		
21:54	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:08	ZZZZZZ	1		
22:12	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:22	MP90190-MB1	1		
22:26	MP90190-B1	1		
22:31	MP90190-S1	1		
22:36	MP90190-S2	1		
22:40	MA38002-CCVA14	1		
22:45	MA38002-CCB14	1		
22:49	JC7438-11	1		(sample used for QC only; not part of login FA28705)
22:54	ZZZZZZ	1		
22:59	ZZZZZZ	1		
23:03	ZZZZZZ	1		
23:08	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:17	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:31	ZZZZZZ	1		
23:36	MA38002-CCVA15	1		
23:40	MA38002-CCB15	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:14	MA38002-STD1	100	100	100	100	100	100	100	100
11:19	MA38002-STD2	100.559	99.823	102.182	100.104	99.349	100.713	99.286	99.036
11:23	MA38002-STD3	101.775	100.966	100.727	99.061	101.275	101.266	99.336	100.275
11:28	MA38002-STD4	105.033	103.239	104.209	100.818	104.581	104.884	102.276	102.991
11:33	MA38002-STD5	103.9	103.339	104.201	101.288	103.387	104.634	101.031	103.426
11:37	MA38002-STD6	104.354	103.994	103.653	100.358	103.873	102.797	101.148	103.59
11:42	MA38002-STD7	105.216	103.814	103.92	102.184	101.974	103.129	101.338	101.256
11:46	MA38002-STD8	104.324	103.983	103.675	100.705	102.831	104.301	101.315	101.887
11:51	MA38002-STD9	105.365	104.557	104.796	100.509	102.931	103.795	100.817	101.114
11:56	MA38002-STD10	106.126	105.752	105.407	101.99	104.827	105.308	101.138	101.638
12:05	ZZZZZZ	101.518	101.096	104.11	99.295	101.145	104.456	99.326	100.085
12:09	MA38002-ICVA1	103.084	103.193	104.508	99.694	104.281	106.354	100.1	100.821
12:19	MA38002-ICV1	No results reported for the elements associated with this internal standard.							
12:24	MA38002-ICB1	104.28	104.006	106.282	102.343	103.628	106.393	102.172	101.83
12:29	MA38002-CRIB1	105.228	105.359	106.872	102.756	105.623	108.048	102.459	102.67
12:34	MA38002-CRIA1	No results reported for the elements associated with this internal standard.							
12:39	MA38002-CCVA1	105.722	105.815	101.737	100.256	104.493	101.976	99.026	103.506
12:43	MA38002-CCB1	104.449	103.585	104.397	101.462	103.542	104.111	99.983	101.681
12:48	MA38002-ICSA1	96.241	98.418	98.819	93.233	97.806	101.236	96.206	93.475
12:53	MA38002-ICSAB1	93.362	98.349	103.272	96.913	99.897	105.87	100.29	95.057
12:57	ZZZZZZ	97.033	100.266	101.569	95.165	101.424	103.181	97.101	100.73
13:02	MA38002-CCVA2	95.839	99.833	101.154	95.126	99.977	103.337	95.783	99.083
13:06	MA38002-CCB2	95.666	98.536	100.161	94.445	99.256	101.228	94.939	98.331
13:11	MP90110-MB1	99.334	99.053	101.814	95.958	101.262	102.537	97.895	100.422
13:16	MP90110-S1	102.997	104.27	104.257	100.747	103.462	105.822	101.071	102.157
13:20	ZZZZZZ	191.259 !	178.701 !	298.382 !	256.895 !	158.441 !	268.192 !	235.519 !	156.902 !
13:25	MP90110-S1	107.429	105.805	104.932	100.342	105.144	107.266	101.111	103.714
13:30	MP90110-S2	106.859	105.927	108.013	103.598	104.557	109.393	104.778	102.446
13:34	MP90110-S2	110.531	109.825	108.992	105.483	109.616	109.077	105.492	106.776
13:39	ZZZZZZ	111.826	109.902	109.814	104.501	109.24	110.495	104.568	107.397
13:43	FA28664-2	104.728	103.963	111.484	107.336	101.296	111.489	107.307	100.273
13:48	FA28664-2	115.917	114.506	111.429	108.156	111.36	113.18	108.822	110.82
13:53	MA38002-CCVA3	113.155	113.147	108.586	104.977	110.299	110.551	105.222	108.147

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:57	MA38002-CCB3	110.424	107.549	107.115	101.903	105.452	107.957	103.063	105.525
14:02	MP90110-SD1	111.238	109.102	108.514	104.884	107.769	111.035	105.052	105.415
14:06	MP90110-SD1	112.134	109.538	108.9	104.171	107.274	111.576	104.558	106.998
14:11	MP90110-PS1	No results reported for the elements associated with this internal standard.							
14:16	MP90110-PS1	No results reported for the elements associated with this internal standard.							
14:20	ZZZZZZ	115.959	113.921	112.32	107.878	111.572	112.324	107.388	109.692
14:25	ZZZZZZ	115.721	114.564	113.622	107.646	111.485	112.025	108.175	108.822
14:30	ZZZZZZ	116.623	113.926	113.819	106.944	110.841	111.174	107.471	110.592
14:34	ZZZZZZ	113.304	111.282	111.043	107.602	109.782	111.429	106.023	107.657
14:39	MA38002-CCVA4	114.889	113.853	112.462	98.323	109.498	111.909	96.115	108.77
14:44	MA38002-CCB4	114.086	111.677	111.103	105.457	109.597	113.072	105.522	109.669
14:49	ZZZZZZ	114.715	113.413	110.078	106.464	111.253	112.133	105.072	109.374
14:53	ZZZZZZ	112.817	111.042	111.301	105.637	108.243	111.394	105.342	107.904
14:58	ZZZZZZ	112.664	111.547	109.954	104.882	107.987	108.498	106.413	106.088
15:03	ZZZZZZ	114.55	112.006	108.818	104.088	109.099	108.589	103.784	107.826
15:07	ZZZZZZ	114.298	112.493	110.809	105.622	110.327	110.616	104.331	107.361
15:12	ZZZZZZ	113.798	111.079	108.762	102.811	109.847	111.126	102.95	107.689
15:17	ZZZZZZ	111.149	109.481	108.611	103.416	106.969	107.906	102.025	104.985
15:21	ZZZZZZ	112.568	109.562	110.304	102.959	106.69	110.828	102.689	105.837
15:28	ZZZZZZ	112.879	112.267	109.958	104.626	110.321	112.548	103.744	107.936
15:33	MA38002-CCVA5	110.666	110.329	109.566	102.136	107.511	109.566	101.435	104.721
15:37	MA38002-CCB5	113.137	111.789	110.874	105.803	108.472	113.283	105.168	107.035
15:42	MA38002-CRIB2	111.421	109.842	110.351	103.015	107.127	111.398	103.353	105.928
15:47	MA38002-CRIA2	No results reported for the elements associated with this internal standard.							
15:52	MP90045-MB1	113.382	112.04	107.487	102.797	109.974	108.983	103.727	108.667
15:56	MP90045-B1	106.004	107.281	106.492	95.366	105.913	107.465	97.064	104.296
16:01	MP90045-S1	102.347	105.171	105.128	95.908	102.484	104.603	96.196	100.836
16:06	MP90045-S2	102.705	105.146	105.926	95.867	101.528	105.852	95.206	101.006
16:10	FA28833-1	108.014	109.579	110.444	104.905	104.932	109.44	104.858	103.38
16:15	MP90045-SD1	107.881	108.947	107.954	99.532	105.444	108.472	99.166	104.411
16:19	MP90045-PS1	109.452	111.421	110.466	104.363	107.493	109.583	100.951	104.184
16:24	MA38002-CCVA6	107.119	107.408	107.795	99.37	104.217	107.724	98.865	103.786
16:29	MA38002-CCB6	103.597	104.89	107.365	102.926	101.055	107.205	102.489	101.045

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:35	MA38002-CRIB3	111.139	110.697	111.954	104.653	108.053	113.02	103.537	106.924
16:39	MP90028-MB1	111.736	109.747	111.916	107.025	113.171	116.564	110.027	111.185
16:44	MP90028-B1	108.512	111.298	110.233	96.86	109.062	110.841	96.089	106.971
16:49	MP90028-S1	102.269	104.72	103.494	93.815	103.321	103.121	94.562	102.26
16:53	MP90028-S2	99.305	102.085	101.371	91.87	101.622	102.611	91.336	100.186
16:58	ZZZZZZ	101.262	101.632	100.97	96.842	99.81	102.477	95.179	98.454
17:02	FA28742-3	102.867	103.601	102.882	98.249	106.466	108.269	103.787	105.014
17:07	MP90028-SD1	101.845	104.702	98.497	96.167	104.025	101.869	98.792	102.213
17:12	MP90028-PS1	102.254	103.651	102.569	99.483	105.081	109.311	104.054	103.119
17:16	MA38002-CCVA7	104.396	106.945	105.738	99.611	104.084	109.522	99.213	102.911
17:21	MA38002-CCB7	103.845	104.285	102.135	97.015	102.272	103.649	97.104	100.646
17:26	FA28705-1	99.071	103.582	102.906	93.883	101.278	105.796	94.859	100.331
17:30	FA28705-1	98.582	102.168	103.027	96.894	101.091	106.782	97.234	98.848
17:35	FA28705-1F	96.825	102.862	104.008	95.473	99.481	106.453	94.882	100.117
17:39	FA28705-1F	100.162	103.82	106.342	97.651	103.367	109.937	100.023	102.505
17:44	ZZZZZZ	100.274	103.653	104.921	96.787	103.689	106.259	98.669	100.875
17:49	FA28833-1	No results reported for the elements associated with this internal standard.							
17:53	MP90045-SD1	No results reported for the elements associated with this internal standard.							
17:58	ZZZZZZ	102.711	105.065	103.013	94.862	103.943	104.945	95.522	101.816
18:02	MA38002-CRIB4	101.427	103.771	103.357	97.235	102.502	105.913	95.619	101.097
18:07	MA38002-CCVA8	98.105	99.442	104.352	95.442	97.975	104.876	94.388	96.18
18:12	MA38002-CCB8	101.431	103.638	104.774	97.56	101.625	105.956	97.248	100.845
18:16	MP90048A-MB1	105.189	105.351	107.532	99.621	109.006	113.789	105.489	106.559
18:21	MP90048A-B1	103.407	107.084	106.704	97.263	104.823	106.518	95.176	103.233
18:26	MP90048A-S1	98.659	102.805	103.695	94.561	100.976	102.762	93.444	100.827
18:30	MP90048A-S2	93.84	98.778	99.525	92.522	98.149	101.283	91.346	97.365
18:35	ZZZZZZ	94.634	97.915	99.303	92.553	96.826	100.043	92.924	95.157
18:39	JC7298-10A	90.003	92.863	97.854	94.914	95.555	104.366	99.93	94.341
18:44	MP90048A-SD1	95.819	100.57	100.829	92.093	100.221	102.464	93.858	98.509
18:49	ZZZZZZ	95.577	100.32	101.781	96.615	98.957	105.381	99.643	98.37
18:53	ZZZZZZ	92.065	99.887	96.659	88.74	97.442	100.523	92.006	97.397
18:58	MA38002-CCVA9	93.902	99.697	99.73	93.107	98.194	101.12	94.242	97.905
19:02	MA38002-CCB9	97.114	102.09	102.614	94.506	101.361	106.094	96.063	100.076

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:07	ZZZZZZ	95.851	99.786	100.071	94.807	102.473	107.56	99.87	100.299
19:12	ZZZZZZ	97.366	103.241	100.974	95.321	104.731	108.852	101.024	102.681
19:16	ZZZZZZ	95.902	100.316	99.331	92.811	104.487	105.537	98.282	100.465
19:21	ZZZZZZ	94.904	99.368	98.384	93.445	102.912	103.964	97.511	99.774
19:26	ZZZZZZ	95.837	101.784	100.8	95.93	105.803	107.145	102.526	102.494
19:30	ZZZZZZ	98.754	103.272	101.348	96.669	108.224	108.68	103.106	104.544
19:35	ZZZZZZ	98.295	103.133	101.736	96.231	108.33	110.266	102.459	103.669
19:39	ZZZZZZ	98.299	103.474	101.558	96.805	106.99	108.286	103.297	103.056
19:44	ZZZZZZ	97.235	102.68	102.71	97.142	107.486	108.377	103.29	102.166
19:49	MA38002-CCVA10	100.595	105.001	104.12	97.528	104.461	107.551	98.229	102.132
19:53	MA38002-CCB10	99.387	103.684	104.065	96.381	103.187	106.28	98.385	101.262
19:58	ZZZZZZ	95.289	101.16	99.613	95.757	102.958	105.075	98.725	98.71
20:02	ZZZZZZ	92.928	99.529	98.981	94.932	102.222	104.979	99.59	99.065
20:07	ZZZZZZ	95.086	99.819	99.577	95.66	104.447	107.309	101.168	100.986
20:12	ZZZZZZ	96.987	101.623	100.094	96.315	105.932	108.619	100.764	100.43
20:16	ZZZZZZ	95.286	101.845	102.191	100.27	100.825	108.061	105.616	99.18
20:21	ZZZZZZ	99.88	107.001	105.701	101.697	106.867	110.962	106.987	104.611
20:26	ZZZZZZ	105.956	108.95	109.72	104.207	114.239	116.115	109.319	109.472
20:30	ZZZZZZ	95.986	104.107	103.187	97.932	101.767	110.24	100.327	101.329
20:35	MA38002-CCVA11	100.835	108.015	107.347	99.956	107.083	110.378	101.101	104.237
20:39	MA38002-CCB11	101.475	107.715	107.864	98.824	106.526	111.226	101.655	105.691
20:44	ZZZZZZ	104.596	109.754	109.992	102.428	108.129	114.775	103.58	107.164
20:49	MA38002-CRIB5	104.088	110.083	110.094	102.572	108.278	112.609	104.521	107.933
20:53	MA38002-CCVA12	103.08	109.737	107.706	100.192	108.525	109.639	103.01	106.577
20:58	MA38002-CCB12	102.436	107.796	107.998	100.823	107.707	111.321	103.457	105.977
21:03	MP90189-MB1	103.619	108.814	108.956	101.229	108.364	113.041	101.868	107.073
21:07	MP90189-B1	102.38	108.343	109.154	99.893	106.433	110.232	100.674	105.809
21:12	MP90189-S1	97.79	108.138	103.557	94.047	106.968	108.097	97.621	106.184
21:16	MP90189-S2	95.33	106.35	104.731	94.134	104.369	109.903	96.36	105.062
21:21	JC7438-1	98.124	108.773	108.847	97.88	106.909	113.409	101.762	106.64
21:26	ZZZZZZ	98.042	109.414	103.78	98.605	108.425	109.212	101.865	108.092
21:31	ZZZZZZ	99.001	109.673	110.78	98.086	109.113	113.318	99.733	108.433
21:35	ZZZZZZ	98.285	108.856	110.685	98.221	107.316	114.896	100.077	106.115

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:40	ZZZZZZ	99.529	110.68	109.048	99.411	108.969	113.525	102.359	108.094
21:45	MA38002-CCVA13	99.1	107.449	108.143	99.447	105.821	111.131	100.244	104.996
21:49	MA38002-CCB13	101.767	108.954	104.454	100.647	107.718	107.907	101.969	106.746
21:54	ZZZZZZ	98.521	108.797	109.577	98.861	108.554	112.479	101.588	107.045
21:59	ZZZZZZ	98.352	109.295	109.41	97.502	108.536	113.387	99.236	108.042
22:03	ZZZZZZ	97.333	108.218	108.504	97.957	106.42	111.697	99.86	106.01
22:08	ZZZZZZ	97.191	108.134	109.312	97.761	108.043	115.212	100.354	106.369
22:12	ZZZZZZ	95.346	106.707	108.029	97.294	105.28	110.046	98.652	104.454
22:17	ZZZZZZ	100.888	108.472	108.824	99.722	108.249	112.721	101.261	106.698
22:22	MP90190-MB1	101.564	107.968	106.426	100.036	107.883	108.412	101.548	105.995
22:26	MP90190-B1	99.924	107.643	107.425	97.191	107.409	109.466	98.966	105.521
22:31	MP90190-S1	96.424	107.234	106.746	95.86	106.488	112.029	97.341	106.847
22:36	MP90190-S2	96.67	109.423	107.372	95.924	108.128	112.514	98.038	107.954
22:40	MA38002-CCVA14	96.497	105.533	107.461	98.618	104.029	111.329	100.537	102.982
22:45	MA38002-CCB14	99.672	107.217	105.816	99.314	105.51	109.635	100.627	105.47
22:49	JC7438-11	98.548	109.3	109.439	97.959	108.103	115.721	100.25	107.521
22:54	ZZZZZZ	97.233	109.593	109.9	96.418	107.312	112.916	99.63	107.745
22:59	ZZZZZZ	99.633	111.923	112.288	99.422	109.899	114.062	102.429	109.24
23:03	ZZZZZZ	98.913	111.574	111.453	100.135	109.717	115.237	101.998	108.31
23:08	ZZZZZZ	99.306	111.252	114.696	103.983	110.056	119.124	105.816	109.745
23:13	ZZZZZZ	101.531	114.758	115.237	101.932	113.733	121.943	103.02	114.12
23:17	ZZZZZZ	100.042	113.112	116.059	103.086	111.32	118.96	105.005	111.419
23:22	ZZZZZZ	103.311	117.678	118.235	105.393	115.528	121.627	107.374	114.212
23:26	ZZZZZZ	102.374	116.911	117.955	105.327	116.272	121.632	106.69	114.961
23:31	ZZZZZZ	102.787	117.233	117.611	103.373	114.774	124.005	106.41	113.871
23:36	MA38002-CCVA15	99.183	108.558	105.939	100.718	108.308	109.588	101.275	105.074
23:40	MA38002-CCB15	101.449	108.487	109.592	100.906	108.271	112.782	103.847	106.063

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %
Istd#8	Germanium (74-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:14	MA38002-STD1	100	100	100	100	100	100	100	100
11:19	MA38002-STD2	100.136	98.714	99.21	99.746	99.064	99.588	101.521	100.91
11:23	MA38002-STD3	100.858	100.31	100.453	100.369	99.626	100.504	101.666	102.301
11:28	MA38002-STD4	103.481	102.409	102.905	102.838	102.051	102.849	104.579	104.159
11:33	MA38002-STD5	103.296	100.293	102.344	102.73	101.078	103.017	104.012	103.72
11:37	MA38002-STD6	101.82	100.56	102.335	102.582	100.122	102.741	103.386	104.642
11:42	MA38002-STD7	102.794	99.599	101.82	103.678	101.286	103.246	105.079	104.775
11:46	MA38002-STD8	103.764	100.748	101.403	102.754	100.557	102.559	105.083	104.696
11:51	MA38002-STD9	102.71	99.473	100.861	101.273	98.705	102.454	103.976	104.996
11:56	MA38002-STD10	103.721	100.523	100.614	100.978	97.624	101.301	103.385	105.837
12:05	ZZZZZZ	103.761	98.696	100.128	102.106	99.78	100.659	103.809	102.212
12:09	MA38002-ICVA1	104.533	99.072	99.468	100.531	96.571	99.927	103.674	103.436
12:19	MA38002-ICV1	No results reported for the elements associated with this internal standard.							
12:24	MA38002-ICB1	106.055	101.966	103.156	104.743	102.266	103.094	106.928	105.444
12:29	MA38002-CRIB1	105.601	102.518	104.816	105.361	102.051	105.144	107.642	105.953
12:34	MA38002-CRIA1	No results reported for the elements associated with this internal standard.							
12:39	MA38002-CCVA1	101.644	99.223	101.552	98.498	97.933	102.561	101.783	104.894
12:43	MA38002-CCB1	104.313	100.937	102.14	103.32	101.409	102.278	104.517	103.061
12:48	MA38002-ICSA1	96.288	91.324	87.359	88.39	85.541	92.528	95.444	97.905
12:53	MA38002-ICSAB1	100.586	94.204	89.043	90.969	87.387	92.99	99.435	98.223
12:57	ZZZZZZ	101.875	97.664	101.76	101.608	97.499	102.166	106.041	102.403
13:02	MA38002-CCVA2	102.132	95.67	98.405	99.378	94.794	99.55	104.324	102.064
13:06	MA38002-CCB2	100.24	95.535	99.283	100.781	96.371	99.356	103.395	100.163
13:11	MP90110-MB1	103.813	97.237	100.489	101.754	98.569	100.785	103.765	102.062
13:16	MP90110-S1	105.333	98.915	102.293	103.673	99.658	102.113	106.779	105.183
13:20	ZZZZZZ	266.746 !	234.221 !	171.73 !	291.641 !	248.307 !	178.191 !	289.702 !	178.51 !
13:25	MP90110-S1	106.636	100.596	104.223	105.041	100.039	104.671	106.893	106.483
13:30	MP90110-S2	108.158	103.456	103.174	105.446	102.809	103.298	107.418	104.935
13:34	MP90110-S2	109.424	103.248	106.262	107.152	103.227	106.2	109.053	108.662
13:39	ZZZZZZ	110.452	104.71	108.204	108.514	103.962	108.504	110.679	109.065
13:43	FA28664-2	112.345	105.199	100.62	108.621	103.715	102.027	110.611	101.828
13:48	FA28664-2	113.327	107.274	111.98	109.005	104.755	112.908	111.428	111.458
13:53	MA38002-CCVA3	109.522	103.171	108.045	104.246	101.325	108.007	108.259	111.111

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:57	MA38002-CCB3	108.592	102.073	105.454	106.029	101.487	105.265	107.139	107.204
14:02	MP90110-SD1	108.802	103.496	106.092	105.948	102.352	106.952	109.588	106.983
14:06	MP90110-SD1	109.716	103.818	106.918	106.804	102.357	107.296	110.189	107.662
14:11	MP90110-PS1	No results reported for the elements associated with this internal standard.							
14:16	MP90110-PS1	No results reported for the elements associated with this internal standard.							
14:20	ZZZZZZ	111.761	105.197	110.252	109.154	104.249	108.734	111.799	110.436
14:25	ZZZZZZ	113.665	106.344	108.258	108.438	103.854	108.298	110.948	110.509
14:30	ZZZZZZ	114.11	104.641	108.366	109.414	103.151	108.829	112.543	110.311
14:34	ZZZZZZ	111.487	103.222	105.72	106.532	102.52	106.448	110.619	107.268
14:39	MA38002-CCVA4	110.366	94.893	107.278	106.727	93.668	108.124	109.752	110.369
14:44	MA38002-CCB4	110.536	103.386	110.482	109.09	102.977	108.09	111.003	109.141
14:49	ZZZZZZ	110.681	104.296	108.02	108.14	102.751	108.294	111.222	108.472
14:53	ZZZZZZ	110.788	105.155	107.227	108.209	103.389	107.465	110.499	108.464
14:58	ZZZZZZ	110.059	102.797	105.804	105.659	102.23	105.493	109.383	108.261
15:03	ZZZZZZ	108.075	103.414	108.457	106.254	101.428	107.127	108.105	109.659
15:07	ZZZZZZ	110.045	103.68	107.847	106.947	101.461	107.062	109.824	108.244
15:12	ZZZZZZ	109.291	101.24	108.396	107.072	100.362	106.802	109.468	109.715
15:17	ZZZZZZ	107.647	101.765	103.435	103.679	99.526	104.746	106.274	106.091
15:21	ZZZZZZ	109.496	102.981	106.41	107.562	101.927	105.135	109.945	106.624
15:28	ZZZZZZ	111.776	102.693	109.669	107.776	100.688	107.33	110.71	109.227
15:33	MA38002-CCVA5	109.976	100.861	105.152	104.304	97.914	104.893	108.639	108.089
15:37	MA38002-CCB5	112.039	104.387	108.419	107.982	102.799	108.042	111.571	109.42
15:42	MA38002-CRIB2	110.493	102.208	106.761	107.213	100.658	105.747	110.351	106.83
15:47	MA38002-CRIA2	No results reported for the elements associated with this internal standard.							
15:52	MP90045-MB1	106.951	102.549	108.948	103.652	99.636	107.386	106.974	106.705
15:56	MP90045-B1	106.751	95.798	105.115	102.64	94.927	104.602	107.377	106.236
16:01	MP90045-S1	105.347	93.401	102.056	101.138	93.033	101.995	105.819	105.067
16:06	MP90045-S2	104.495	95.442	101.698	101.038	94.359	100.898	105.353	102.249
16:10	FA28833-1	109.173	101.982	100.942	103.061	98.475	101.285	106.546	103.811
16:15	MP90045-SD1	107.8	97.994	106.2	104.771	97.741	105.476	109.481	107.219
16:19	MP90045-PS1	107.052	100.472	102.402	101.921	96.062	102.358	104.981	106.98
16:24	MA38002-CCVA6	107.176	97.806	102.058	102.897	95.927	102.399	106.407	105.964
16:29	MA38002-CCB6	107.176	101.486	103.176	104.979	100.964	102.367	108.506	102.256

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:35	MA38002-CRIB3	111.597	102.872	107.009	108.097	102.374	106.499	112.412	109.081
16:39	MP90028-MB1	115.133	111.907	105.519	107.315	102.355	104.38	109.496	106.839
16:44	MP90028-B1	108.843	96.584	108.448	106.986	96.164	108.059	112.392	110.312
16:49	MP90028-S1	102.912	92.666	102.961	101.256	93.379	102.528	106.13	106.604
16:53	MP90028-S2	101.944	91.156	101.496	99.706	91.435	100.966	104.831	103.07
16:58	ZZZZZZ	102.305	95.639	100.643	100.536	95.138	100.582	103.884	101.192
17:02	FA28742-3	109.282	103.988	97.334	98.69	95.106	99.659	102.296	103.45
17:07	MP90028-SD1	100.49	97.142	102.62	98.569	96.77	103.452	103.002	106.605
17:12	MP90028-PS1	108.597	102.852	96.12	99.357	94.872	98.666	102.163	103.109
17:16	MA38002-CCVA7	107.248	98.738	101.916	103.478	96.322	102.569	107.713	106.387
17:21	MA38002-CCB7	102.187	97.485	101.681	100.805	95.546	101.044	103.703	104.512
17:26	FA28705-1	103.686	94.669	98.026	98.803	91.317	100.694	106.521	105.15
17:30	FA28705-1	106.012	96.433	100.655	102.234	95.591	100.604	107.244	103.015
17:35	FA28705-1F	104.053	94.545	97.873	98.869	91.638	100.138	107.038	102.985
17:39	FA28705-1F	107.479	99.25	102.012	105.334	96.827	102.598	110.9	104.793
17:44	ZZZZZZ	106.445	96.839	101.895	103.914	97.159	101.901	108.113	104.26
17:49	FA28833-1	No results reported for the elements associated with this internal standard.							
17:53	MP90045-SD1	No results reported for the elements associated with this internal standard.							
17:58	ZZZZZZ	104.755	94.614	103.53	101.537	94.879	102.328	106.694	104.919
18:02	MA38002-CRIB4	105.286	95.118	101.561	102.34	95.076	101.295	107.683	103.846
18:07	MA38002-CCVA8	104.625	95.116	94.958	100.259	92.468	95.643	105.737	96.971
18:12	MA38002-CCB8	105.503	97.881	101.665	102.851	96.17	100.991	106.984	103.063
18:16	MP90048A-MB1	111.917	105.161	101.437	104.06	98.159	101.295	107.14	103.81
18:21	MP90048A-B1	106.324	94.587	105.129	103.905	94.061	103.898	108.804	107.583
18:26	MP90048A-S1	102.074	93.064	100.398	99.199	91.201	100.74	104.453	105.738
18:30	MP90048A-S2	99.647	91.661	97.3	97.542	90.839	98.101	102.598	100.404
18:35	ZZZZZZ	99.881	92.978	97.252	98.935	92.712	97.134	102.083	98.947
18:39	JC7298-10A	103.862	99.65	86.923	95.596	91.909	88.706	98.641	90.224
18:44	MP90048A-SD1	102.802	92.905	99.109	99.947	92.288	100.771	105.81	102.91
18:49	ZZZZZZ	104.191	97.704	91.114	93.395	89.147	93.69	100.437	96.903
18:53	ZZZZZZ	99.497	91.67	89.076	89.958	83.64	92.965	96.666	98.331
18:58	MA38002-CCVA9	100.76	92.314	97.657	98.023	92.284	98.341	104.229	103.809
19:02	MA38002-CCB9	104.437	96.026	102.341	103.173	96.165	102.336	108.899	106.009

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:07	ZZZZZZ	106.93	99.573	94.858	98.483	92.981	96.461	103.134	98.842
19:12	ZZZZZZ	107.459	99.285	96.474	98.41	93.018	98.768	103.918	102.752
19:16	ZZZZZZ	105.214	98.435	93.557	95.62	89.724	95.458	100.238	98.827
19:21	ZZZZZZ	104.209	97.786	93.23	94.856	90.189	95.063	99.487	98.4
19:26	ZZZZZZ	107.04	102.25	95.657	97.946	93.635	97.753	102.654	104.251
19:30	ZZZZZZ	108.32	102.35	98.234	99.909	95.533	99.406	103.853	105.612
19:35	ZZZZZZ	107.919	101.583	97.409	99.288	93.949	98.409	102.97	105.299
19:39	ZZZZZZ	107.06	100.914	96.4	98.44	94.264	98.86	102.956	105.604
19:44	ZZZZZZ	107.387	101.69	97.841	99.519	95.318	99.97	104.059	105.918
19:49	MA38002-CCVA10	105.61	97.448	102.005	102.231	96.077	103.462	107.524	110.158
19:53	MA38002-CCB10	105.775	96.907	103.08	104.15	97.726	103.156	108.126	108.303
19:58	ZZZZZZ	105.07	98.158	94.202	96.973	92.018	96.04	100.532	101.435
20:02	ZZZZZZ	103.868	98.922	92.714	95.698	92.068	95.02	99.401	100.413
20:07	ZZZZZZ	105.558	100.904	94.926	97.718	94.063	97.268	101.614	101.339
20:12	ZZZZZZ	106.598	100.135	94.605	97.922	93.876	97.408	101.144	104.991
20:16	ZZZZZZ	106.979	104.074	92.659	96.46	94.853	95.456	100.831	104.644
20:21	ZZZZZZ	109.562	105.006	98.253	102.434	97.767	102.464	106.798	109.228
20:26	ZZZZZZ	114.85	108.324	108.873	108.837	103.717	106.249	111.742	111.639
20:30	ZZZZZZ	107.855	101.357	92.329	96.755	92.798	97.21	103.119	105.368
20:35	MA38002-CCVA11	108.606	100.197	105.286	106.278	99.273	106.609	111.868	114.375
20:39	MA38002-CCB11	111.074	100.986	108.99	109.19	99.794	108.024	113.472	112.623
20:44	ZZZZZZ	113.33	102.433	108.963	110.532	103.593	109.997	114.359	114.939
20:49	MA38002-CRIB5	112.622	103.592	112.963	110.471	103.843	110.058	115.205	115.047
20:53	MA38002-CCVA12	111.056	100.086	106.266	107.018	99.832	109.449	112.44	114.343
20:58	MA38002-CCB12	110.666	101.468	109.082	108.303	102.276	107.212	112.365	113.843
21:03	MP90189-MB1	113.347	101.667	112.437	108.771	102.175	109.282	113.117	113.552
21:07	MP90189-B1	109.146	101.357	105.719	107.731	100.289	107.38	112.181	112.714
21:12	MP90189-S1	107.166	95.641	104.403	100.188	92.891	106.222	108.889	114.057
21:16	MP90189-S2	107.968	96.46	101.167	101.36	92.499	103.955	110.501	112.386
21:21	JC7438-1	112.53	99.985	104.263	105.038	96.141	107.948	115.563	115.029
21:26	ZZZZZZ	108.16	101.06	105.183	99.293	96.811	108.609	110.309	114.167
21:31	ZZZZZZ	114.674	99.409	105.638	106.217	95.486	108.574	116.424	115.278
21:35	ZZZZZZ	113.484	100.157	103.741	105.415	95.863	107.01	116.336	114.176

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:40	ZZZZZZ	113.059	99.858	105.803	104.504	96.112	109.093	114.899	115.501
21:45	MA38002-CCVA13	110.241	99.241	104.843	105.649	98.505	105.903	112.849	112.888
21:49	MA38002-CCB13	107.345	102.329	111.609	103.983	101.007	107.539	109.872	113.636
21:54	ZZZZZZ	112.469	99.537	103.865	103.939	95.17	107.689	115.927	113.703
21:59	ZZZZZZ	114.301	98.167	104.672	104.013	94.638	107.957	115.375	114.262
22:03	ZZZZZZ	111.4	99.655	103.322	102.936	93.926	106.949	114.791	113.171
22:08	ZZZZZZ	113.674	100.022	103.124	103.87	94.727	106.718	115.19	113.538
22:12	ZZZZZZ	111.354	97.939	101.583	102.038	93.848	104.863	112.987	110.994
22:17	ZZZZZZ	111.178	100.469	109.917	107.695	99.992	107.741	113.959	111.972
22:22	MP90190-MB1	109.217	100.977	110.908	105.703	99.598	107.914	111.947	111.779
22:26	MP90190-B1	109.132	98.289	105.291	105.606	97.466	105.741	111.478	111.819
22:31	MP90190-S1	110.172	98.298	102.798	102.006	93.61	105.481	112.38	113.166
22:36	MP90190-S2	110.975	97.755	103.467	102.287	92.763	107.326	113.225	115.098
22:40	MA38002-CCVA14	110.99	99.577	104.388	104.545	96.93	104.126	111.847	110.645
22:45	MA38002-CCB14	108.831	101.03	106.568	104.881	100.302	106.865	110.434	112.03
22:49	JC7438-11	113.347	98.944	106.286	103.754	95.026	108.022	115.204	114.349
22:54	ZZZZZZ	114.171	98.687	105.953	104.002	93.894	107.146	114.733	113.66
22:59	ZZZZZZ	115.368	101.236	106.27	106.189	95.955	109.489	118.365	115.545
23:03	ZZZZZZ	115.619	100.644	105.565	105.244	96.247	109.487	117.595	115.98
23:08	ZZZZZZ	118.532	106.169	109.819	108.321	99.99	109.055	121.145	115.589
23:13	ZZZZZZ	120.008	104.615	116.222	110.045	98.688	117.365	121.932	118.92
23:17	ZZZZZZ	119.543	105.15	112.241	109.569	99.381	115.548	121.198	118.067
23:22	ZZZZZZ	121.679	106.096	118.959	112.03	101.035	122.463	124.507	122.208
23:26	ZZZZZZ	121.381	105.602	116.833	111.092	100.918	117.832	123.513	120.612
23:31	ZZZZZZ	120.248	104.139	116.657	109.454	99.278	119.899	121.667	121.026
23:36	MA38002-CCVA15	108.884	101.061	109.43	102.598	97.65	109.613	110.422	114.038
23:40	MA38002-CCB15	111.787	101.428	111.907	108.899	100.181	108.607	115.986	113.656

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %
Istd#10	Germanium (74-3)	60-125 %
Istd#11	Rhodium (103-1)	60-125 %
Istd#12	Rhodium (103-2)	60-125 %
Istd#13	Rhodium (103-3)	60-125 %
Istd#14	Indium (115-1)	60-125 %
Istd#15	Indium (115-2)	60-125 %
Istd#16	Terbium (159-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
11:14	MA38002-STD1	100	100	100	100	100	100
11:19	MA38002-STD2	100.653	100.423	99.826	101.1	100.781	101.474
11:23	MA38002-STD3	100.677	100.439	100.155	100.842	101.352	101.069
11:28	MA38002-STD4	103.4	102.568	102.49	104.164	104.951	104.236
11:33	MA38002-STD5	103.265	101.861	102.981	103.502	104.327	104.359
11:37	MA38002-STD6	103.729	102.279	102.092	104.099	104.43	104.608
11:42	MA38002-STD7	104.575	103.258	103.396	104.564	104.126	104.519
11:46	MA38002-STD8	104.092	102.049	103.525	103.985	103.304	103.053
11:51	MA38002-STD9	103.894	101.24	104.161	104.192	102.171	101.262
11:56	MA38002-STD10	104.061	101.469	104.145	104.37	101.659	100.626
12:05	ZZZZZZ	102.543	100.429	99.861	102.424	101.23	101.88
12:09	MA38002-ICVA1	102.767	99.7	102.216	103.644	99.899	100.753
12:19	MA38002-ICV1	No results reported for the elements associated with this internal standard.					
12:24	MA38002-ICB1	104.732	102.206	104.221	104.876	103.427	104.49
12:29	MA38002-CRIB1	105.549	103.295	105	106.024	105.543	105.86
12:34	MA38002-CRIA1	No results reported for the elements associated with this internal standard.					
12:39	MA38002-CCVA1	100.793	101.085	105.098	101.499	102.302	98.462
12:43	MA38002-CCB1	103.09	101.137	100.421	103.562	101.977	102.687
12:48	MA38002-ICSA1	99.72	95	96.165	100.236	89.669	91.26
12:53	MA38002-ICSAB1	101.478	96.71	97.655	102.887	89.937	93.847
12:57	ZZZZZZ	104.712	99.31	101.036	104.732	101.83	104.983
13:02	MA38002-CCVA2	104.31	99.174	101.213	105.204	99.943	102.917
13:06	MA38002-CCB2	102.663	98.238	97.805	102.584	99.592	103.097
13:11	MP90110-MB1	103.499	99.701	98.486	103.793	103.002	106.209
13:16	MP90110-S1	106.057	101.528	103.215	106.102	104.378	106.316
13:20	ZZZZZZ	299.171 !	258.132 !	177.335 !	301.2 !	172.18 !	288.378 !
13:25	MP90110-S1	105.742	100.898	105.2	106.166	106.001	107.247
13:30	MP90110-S2	106.447	103.889	104.111	106.397	104.305	106.241
13:34	MP90110-S2	107.091	103.533	106.949	107.217	106.266	107.854
13:39	ZZZZZZ	107.316	102.866	108.342	108.157	106.326	106.536
13:43	FA28664-2	107.615	103.782	99.851	108.201	100.135	108.228
13:48	FA28664-2	107.724	104.749	110.542	108.498	110.07	108.122
13:53	MA38002-CCVA3	106.047	103.33	109.344	106.284	105.283	104.215

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:57	MA38002-CCB3	104.858	100.29	105.741	104.856	104.304	103.898
14:02	MP90110-SD1	105.096	101.443	105.533	105.758	105.556	106.01
14:06	MP90110-SD1	105.954	101.656	106.502	105.743	105.385	104.536
14:11	MP90110-PS1	No results reported for the elements associated with this internal standard.					
14:16	MP90110-PS1	No results reported for the elements associated with this internal standard.					
14:20	ZZZZZZ	107.655	103.182	109.422	107.529	108.755	107.544
14:25	ZZZZZZ	107.482	102.826	108.594	108.16	107.483	107.198
14:30	ZZZZZZ	107.855	102.822	109.367	107.745	108.197	107.316
14:34	ZZZZZZ	105.023	101.687	105.959	105.349	105.29	104.562
14:39	MA38002-CCVA4	106.925	94.641	108.888	107.501	105.179	104.724
14:44	MA38002-CCB4	106.696	101.531	107.819	106.777	105.094	105.851
14:49	ZZZZZZ	106.584	101.925	107.721	106.433	107.028	106.44
14:53	ZZZZZZ	106.204	102.358	106.859	106.087	104.982	106.073
14:58	ZZZZZZ	105.067	101.34	107.306	105.257	105.418	104.667
15:03	ZZZZZZ	104.319	100.71	108.396	104.577	106.865	104.053
15:07	ZZZZZZ	106.04	100.992	107.634	105.734	106.132	105.161
15:12	ZZZZZZ	105.247	99.156	107.493	105.198	105.586	104.499
15:17	ZZZZZZ	103.051	98.728	104.371	103.325	103.294	102.966
15:21	ZZZZZZ	105.137	99.941	104.977	105.705	102.034	104.431
15:28	ZZZZZZ	105.772	99.869	107.623	105.545	106.116	105.608
15:33	MA38002-CCVA5	105.566	99.233	107.167	106.179	102.267	102.315
15:37	MA38002-CCB5	106.224	100.663	107.45	106.731	104.989	105.395
15:42	MA38002-CRIB2	105.042	98.77	105.266	105.068	103.374	104.799
15:47	MA38002-CRIA2	No results reported for the elements associated with this internal standard.					
15:52	MP90045-MB1	101.318	97.388	104.912	101.507	106.011	102.044
15:56	MP90045-B1	104.004	95.908	102.802	104.236	102.462	104.095
16:01	MP90045-S1	103.451	94.932	100.719	104.215	100.537	104.336
16:06	MP90045-S2	102.594	95.621	100.814	103.173	100.308	102.363
16:10	FA28833-1	103.061	97.79	100.914	102.486	102.546	102.823
16:15	MP90045-SD1	106.081	98.011	105.634	106.289	104.98	106.619
16:19	MP90045-PS1	103.205	96.724	103.364	103.133	101.179	99.768
16:24	MA38002-CCVA6	103.364	96.866	104.527	104.053	99.724	100.733
16:29	MA38002-CCB6	103.448	98.754	100.898	103.419	98.335	102.527

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:35	MA38002-CRIB3	107.274	100.367	107.138	107.656	105.185	106.365
16:39	MP90028-MB1	105.123	100.566	104.614	105.038	109.162	106.381
16:44	MP90028-B1	108.76	98.711	108.39	109.56	106.672	109.449
16:49	MP90028-S1	103.971	95.677	104.985	104.939	102.367	105.002
16:53	MP90028-S2	102.856	94.674	100.078	102.976	100.996	103.274
16:58	ZZZZZZ	101.014	96.043	99.682	101.184	99.898	99.828
17:02	FA28742-3	100.311	97.013	99.318	100.39	102.649	100.375
17:07	MP90028-SD1	100.093	98.652	105.819	100.514	104.674	99.903
17:12	MP90028-PS1	101.256	97.536	99.489	101.571	98.694	98.038
17:16	MA38002-CCVA7	105.701	99.347	103.887	106.24	101.23	102.906
17:21	MA38002-CCB7	100.001	95.553	100.184	100.531	100.062	99.437
17:26	FA28705-1	105.302	96.517	104.306	105.501	99.467	102.952
17:30	FA28705-1	102.538	96.647	99.187	103.61	100.697	104.609
17:35	FA28705-1F	105.505	96.973	100.493	106.104	98.261	102.672
17:39	FA28705-1F	106.853	98.158	100.622	107.196	103.71	107.852
17:44	ZZZZZZ	104.759	97.962	102.111	104.682	101.91	104.504
17:49	FA28833-1	No results reported for the elements associated with this internal standard.					
17:53	MP90045-SD1	No results reported for the elements associated with this internal standard.					
17:58	ZZZZZZ	102.746	94.611	101.805	102.212	100.764	101.348
18:02	MA38002-CRIB4	102.671	95.866	101.353	102.91	100.788	103.214
18:07	MA38002-CCVA8	103.164	94.592	94.868	103.31	94.648	100.289
18:12	MA38002-CCB8	102.638	96.194	100.614	103.778	98.865	102.2
18:16	MP90048A-MB1	102.749	96.981	101.708	103.131	104.204	103.927
18:21	MP90048A-B1	107.269	97.805	106.432	107.613	102.849	106.265
18:26	MP90048A-S1	102.727	95.408	102.633	103.009	101.148	103.047
18:30	MP90048A-S2	101.967	94.848	99.238	102.089	98.242	101.483
18:35	ZZZZZZ	100.581	94.79	96.237	100.93	98.186	101.27
18:39	JC7298-10A	98.585	94.168	89.644	98.93	92.699	98.3
18:44	MP90048A-SD1	103.502	95.53	99.97	103.983	101.972	104.09
18:49	ZZZZZZ	99.775	94.583	95.217	100.758	92.118	94.007
18:53	ZZZZZZ	98.408	91.477	94.912	98.636	90.792	92.524
18:58	MA38002-CCVA9	103.048	96.444	100.062	103.956	98.726	101.627
19:02	MA38002-CCB9	105.805	97.818	103.297	106.016	101.616	106.274

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:07	ZZZZZZ	102.933	97.287	97.676	102.784	98.159	102.056
19:12	ZZZZZZ	102.106	96.931	101.369	103.067	99.896	102.121
19:16	ZZZZZZ	100.135	94.714	96.59	99.881	95.415	97.009
19:21	ZZZZZZ	99.045	95.183	97.389	99.778	95.029	96.648
19:26	ZZZZZZ	101.353	97.937	99.613	102.689	99.288	100.133
19:30	ZZZZZZ	103.016	98.695	104.554	102.631	100.875	101.636
19:35	ZZZZZZ	103.404	98.736	104.318	103.731	100.226	100.31
19:39	ZZZZZZ	102.83	99.376	105.101	103.445	99.39	100.625
19:44	ZZZZZZ	103.03	99.507	105.002	103.7	100.79	102.02
19:49	MA38002-CCVA10	106.906	100.348	108.591	107.905	103.018	105.251
19:53	MA38002-CCB10	105.209	99.27	107.753	105.25	103.003	104.726
19:58	ZZZZZZ	100.827	97.52	99.473	100.865	98.632	98.609
20:02	ZZZZZZ	99.691	96.944	97.588	100.249	95.826	97.821
20:07	ZZZZZZ	100.216	97.123	98.184	100.725	97.913	99.704
20:12	ZZZZZZ	101.485	98.299	103.904	102.084	98.846	99.246
20:16	ZZZZZZ	102.867	100.955	101.724	103.128	94.79	96.46
20:21	ZZZZZZ	105.671	102.173	107.555	106.68	101.673	102.969
20:26	ZZZZZZ	108.461	104.8	111.287	109.155	106.988	108.14
20:30	ZZZZZZ	104.461	100.834	105.172	104.486	94.029	97.833
20:35	MA38002-CCVA11	110.563	103.489	112.707	110.934	106.101	108.335
20:39	MA38002-CCB11	110.43	101.83	111.455	110.884	107.476	110.253
20:44	ZZZZZZ	111.891	105.381	113.098	111.973	109.571	112.428
20:49	MA38002-CRIB5	111.808	106.038	113.931	112.985	109.38	112.592
20:53	MA38002-CCVA12	110.942	104.194	114.021	112.134	107.096	108.939
20:58	MA38002-CCB12	109.82	104.427	111.217	110.626	107.872	110.757
21:03	MP90189-MB1	110.401	104.269	112.614	110.888	108.031	109.819
21:07	MP90189-B1	110.506	103.596	111.79	110.669	107.89	109.485
21:12	MP90189-S1	108.78	101.108	112.586	110.028	104.688	106.191
21:16	MP90189-S2	110.024	100.789	111.121	111.251	103.76	106.806
21:21	JC7438-1	114.035	104.744	113.408	115.34	106.506	111.53
21:26	ZZZZZZ	107.818	104.798	114.147	108.411	106.481	104.501
21:31	ZZZZZZ	114.228	103.1	113.434	114.842	106.127	111.32
21:35	ZZZZZZ	113.884	103.886	113.314	114.759	104.647	111.014

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
Analyst: JO Run ID: MA38002
Parameters: Ca,Mg,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
21:40	ZZZZZZ	112.729	103.36	114.059	113.319	106.083	109.395
21:45	MA38002-CCVA13	110.345	102.549	111.383	110.702	105.148	108.065
21:49	MA38002-CCB13	106.33	103.711	112.406	107.092	108.034	106.421
21:54	ZZZZZZ	113.694	103	112.766	114.128	104.883	110.126
21:59	ZZZZZZ	112.836	102.261	113.319	113.487	104.632	109.711
22:03	ZZZZZZ	111.669	101.626	111.96	112.881	103.825	108.573
22:08	ZZZZZZ	112.118	102.108	111.995	113.045	103.957	109.104
22:12	ZZZZZZ	110.449	100.889	110.233	111.095	101.916	106.585
22:17	ZZZZZZ	109.714	101.775	110.584	110.842	106.874	110.028
22:22	MP90190-MB1	106.747	101.762	110.755	107.035	105.858	106.643
22:26	MP90190-B1	109.005	101.244	111.051	109.922	106.438	109.109
22:31	MP90190-S1	111.158	101.59	111.755	112.321	104.54	107.921
22:36	MP90190-S2	110.579	100.027	113.473	111.32	104.546	107.5
22:40	MA38002-CCVA14	109.68	101.34	109.981	110.083	102.956	107.13
22:45	MA38002-CCB14	106.246	101.25	110.094	106.981	105.968	106.9
22:49	JC7438-11	112.701	102.439	113.044	113.779	104.893	109.717
22:54	ZZZZZZ	112	101.405	112.563	113.134	103.47	108.418
22:59	ZZZZZZ	115.534	104.028	114.501	116.169	106.292	111.041
23:03	ZZZZZZ	114.014	103.464	114.487	114.578	105.62	110.183
23:08	ZZZZZZ	116.671	107.046	114.661	117.668	105.469	112.728
23:13	ZZZZZZ	117.657	105.607	118.199	118.906	108.686	113.942
23:17	ZZZZZZ	117.171	106.779	116.813	118.072	106.834	112.468
23:22	ZZZZZZ	120.599	108.843	120.476	121.127	110.387	115.431
23:26	ZZZZZZ	119.339	108.341	119.503	120.264	109.527	115.224
23:31	ZZZZZZ	117.667	106.335	119.372	118.454	109.629	113.678
23:36	MA38002-CCVA15	107.69	102.745	112.554	108.553	105.64	104.967
23:40	MA38002-CCB15	111.418	102.715	111.525	112.184	106.878	111.435

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %
Istd#18	Terbium (159-3)	60-125 %
Istd#19	Holmium (165-1)	60-125 %
Istd#20	Holmium (165-2)	60-125 %
Istd#21	Bismuth (209-1)	60-125 %
Istd#22	Bismuth (209-2)	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA38002 Units: ug/l

Time:				12:24		12:43		13:06	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.51	20						
Antimony	0.50	.042	0.50						
Arsenic	0.50	.025	0.45						
Barium	1.0	.038	0.50						
Beryllium	0.50	.0034	0.25						
Boron	25	.42	5.0						
Cadmium	0.50	.0082	0.30						
Calcium	250	4.7	50	-1.4	<250	-7.3	<250	-15	<250
Chromium	1.0	.033	0.50						
Cobalt	0.50	.003	0.25						
Copper	2.0	.12	0.50						
Iron	25	.45	13						
Lead	0.50	.0062	0.25						
Magnesium	250	.41	130	3.9	<250	0.38	<250	0.96	<250
Manganese	1.0	.028	0.50						
Molybdenum	1.0	.021	0.50						
Nickel	1.0	.024	1.0						
Potassium	250	5.1	50						
Selenium	0.50	.018	0.50						
Silver	0.50	.0035	0.25						
Sodium	250	1	50	4.6	<250	0.57	<250	5.2	<250
Strontium	5.0	.0068	2.5						
Thallium	0.50	.0057	0.35						
Tin	5.0	.02	2.5						
Titanium	1.0	.059	0.50						
Vanadium	1.0	.048	0.50						
Zinc	5.0	.09	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA38002 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	13:57 CCB3 raw	13:57 CCB3 final	14:44 CCB4 raw	14:44 CCB4 final	15:37 CCB5 raw	15:37 CCB5 final
Aluminum	25	.51	20						
Antimony	0.50	.042	0.50						
Arsenic	0.50	.025	0.45						
Barium	1.0	.038	0.50						
Beryllium	0.50	.0034	0.25						
Boron	25	.42	5.0						
Cadmium	0.50	.0082	0.30						
Calcium	250	4.7	50	-14	<250	-9.8	<250	-1.5	<250
Chromium	1.0	.033	0.50						
Cobalt	0.50	.003	0.25						
Copper	2.0	.12	0.50						
Iron	25	.45	13						
Lead	0.50	.0062	0.25						
Magnesium	250	.41	130	0.57	<250	6.3	<250	6.3	<250
Manganese	1.0	.028	0.50						
Molybdenum	1.0	.021	0.50						
Nickel	1.0	.024	1.0						
Potassium	250	5.1	50						
Selenium	0.50	.018	0.50						
Silver	0.50	.0035	0.25						
Sodium	250	1	50	1.1	<250	7.8	<250	7.8	<250
Strontium	5.0	.0068	2.5						
Thallium	0.50	.0057	0.35						
Tin	5.0	.02	2.5						
Titanium	1.0	.059	0.50						
Vanadium	1.0	.048	0.50						
Zinc	5.0	.09	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA38002 Units: ug/l

Time:				16:29		17:21		18:12	
Sample ID:				CCB6		CCB7		CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.51	20						
Antimony	0.50	.042	0.50						
Arsenic	0.50	.025	0.45						
Barium	1.0	.038	0.50						
Beryllium	0.50	.0034	0.25						
Boron	25	.42	5.0						
Cadmium	0.50	.0082	0.30						
Calcium	250	4.7	50	-7.8	<250	4.9	<250	2.1	<250
Chromium	1.0	.033	0.50						
Cobalt	0.50	.003	0.25						
Copper	2.0	.12	0.50						
Iron	25	.45	13						
Lead	0.50	.0062	0.25						
Magnesium	250	.41	130	0.46	<250	0.67	<250	0.68	<250
Manganese	1.0	.028	0.50						
Molybdenum	1.0	.021	0.50						
Nickel	1.0	.024	1.0						
Potassium	250	5.1	50						
Selenium	0.50	.018	0.50						
Silver	0.50	.0035	0.25						
Sodium	250	1	50	0.52	<250	3.3	<250	4.3	<250
Strontium	5.0	.0068	2.5						
Thallium	0.50	.0057	0.35						
Tin	5.0	.02	2.5						
Titanium	1.0	.059	0.50						
Vanadium	1.0	.048	0.50						
Zinc	5.0	.09	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38002 Units: ug/l

Time:		12:09			12:39			13:02	
Sample ID:	ICVA	ICVA1		CCVA	CCVA1		CCVA	CCVA2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron									
Cadmium									
Calcium	5500	5080	92.4	5000	5180	103.6	5000	5250	105.0
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium	5500	5260	95.6	5000	5440	108.8	5000	5250	105.0
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium	5500	5320	96.7	5000	5400	108.0	5000	5160	103.2
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38002 Units: ug/l

Time:		13:53			14:39			15:33	
Sample ID:	CCVA	CCVA3		CCVA	CCVA4		CCVA	CCVA5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron									
Cadmium									
Calcium	5000	5070	101.4	5000	5180	103.6	5000	5150	103.0
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium	5000	5230	104.6	5000	5140	102.8	5000	5170	103.4
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium	5000	5240	104.8	5000	5130	102.6	5000	5160	103.2
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38002 Units: ug/l

Time:		16:24			17:16			18:07	
Sample ID:	CCVA	CCVA6		CCVA	CCVA7		CCVA	CCVA8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron									
Cadmium									
Calcium	5000	5170	103.4	5000	5130	102.6	5000	5510	110.2*(a
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium	5000	5160	103.2	5000	5220	104.4	5000	5170	103.4
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium	5000	5140	102.8	5000	5200	104.0	5000	5130	102.6
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA38002 Units: ug/l

Time:		12:29		15:42		16:35		18:02	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3		CRIB4	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	25								
Antimony	0.50								
Arsenic	0.50								
Barium	1.0								
Beryllium	0.50								
Boron	25								
Cadmium	0.50								
Calcium	250	233	93.2	220	88.0	219	87.6	216	86.4
Chromium	1.0								
Cobalt	0.50								
Copper	2.0								
Iron	25								
Lead	0.50								
Magnesium	250	235	94.0	233	93.2	229	91.6	228	91.2
Manganese	0.50								
Molybdenum	1.0								
Nickel	1.0								
Potassium	250								
Selenium	0.50								
Silver	0.50								
Sodium	250	235	94.0	232	92.8	229	91.6	232	92.8
Strontium	5.0								
Thallium	0.50								
Tin	5.0								
Titanium	1.0								
Vanadium	1.0								
Zinc	5.0								

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA110915M2L.CSV Date Analyzed: 11/09/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA38002 Units: ug/l

Time:			12:48		12:53	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	92900	92.9	93100	93.1
Antimony			0.12		0.090	
Arsenic		20	0.039		19.9	99.5
Barium			0.099		0.14	
Beryllium			0.021		0.016	
Boron			1.8		0.99	
Cadmium		20	0.85		19.4	97.0
Calcium	100000	100000	92400	92.4	93200	93.2
Chromium		20	1.2		20.3	101.5
Cobalt		20	0.029		18.4	92.0
Copper		20	0.57		18.4	92.0
Iron	100000	100000	90900	90.9	90900	90.9
Lead			0.25		0.24	
Magnesium	100000	100000	90700	90.7	90800	90.8
Manganese		20	0.38		19.4	97.0
Molybdenum	2000	2000	2130	106.5	2130	106.5
Nickel		20	0.14		18.3	91.5
Potassium	100000	100000	91800	91.8	92100	92.1
Selenium		20	0.028		21.2	106.0
Silver		20	0.036		20.0	100.0
Sodium	100000	100000	91400	91.4	91400	91.4
Strontium			0.77		0.75	
Thallium			0.030		0.0061	
Tin			0.066		0.047	
Titanium	2000	2000	2020	101.0	2030	101.5
Vanadium		20	-0.018		20.7	103.5
Zinc		20	1.2		18.5	92.5

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:34	MA38011-STD1	1		STDA
09:39	MA38011-STD2	1		STDA
09:43	MA38011-STD3	1		STDB
09:48	MA38011-STD4	1		STDC
09:52	MA38011-STD5	1		STDD
09:57	MA38011-STD6	1		STDE
10:02	MA38011-STD7	1		STDF
10:06	MA38011-STD8	1		STDG
10:11	MA38011-STD9	1		STDH
10:16	MA38011-STD10	1		STDI
10:20	MA38011-STD11	1		STDJ
10:25	ZZZZZZ	1		
10:30	MA38011-ICVA1	1		
10:34	MA38011-ICV1	1		60ppb Al.
10:39	MA38011-ICB1	1		
10:43	MA38011-CRIB1	1		
10:48	MA38011-CRIA1	1		2ppb Sb and Pb
10:53	MA38011-CCVA1	1		
10:57	MA38011-CCB1	1		
11:02	MA38011-ICSA1	1		
11:07	MA38011-ICSAB1	1		
11:11	ZZZZZZ	1		
11:16	MA38011-CCVA2	1		
11:20	MA38011-CCB2	1		
11:25	ZZZZZZ	5		
11:30	MP90110-S1	50		Pb
11:34	MP90110-S1	100		Ba
11:39	MP90110-S2	50		
11:44	MP90110-S2	100		
11:48	ZZZZZZ	1		
11:53	FA28664-2	50		(sample used for QC only; not part of login FA28705)
11:57	ZZZZZZ	100		
12:02	MA38011-CCVA3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:07	MA38011-CCB3	1		
12:11	MP90110-SD1	250		
12:16	MP90110-PS1	50		
12:21	MP90110-PS1	100		
12:30	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:49	ZZZZZZ	2		
12:53	FA28705-1	25		
12:58	FA28705-1F	25		
---------->	Last reportable sample/prep for job FA28705			
13:03	MA38011-CCVA4	1		
13:08	MA38011-CCB4	1		
13:13	ZZZZZZ	1		
13:17	MA38011-CRIB2	1		Sb out for 0.5ppb
13:22	MA38011-CRIA2	1		2ppb Sb and Pb
13:27	MP90110-PS1	100		Not needed
13:31	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:41	ZZZZZZ	1		
13:45	MA38011-CCVA5	1		
13:51	MA38011-CCB5	1		
---------->	Last reportable CCB for job FA28705			
13:55	MP90187-MB1	5		Batch to rerun for Sb, low check out at 0.5ppb level.
14:00	MP90187-B1	10		
14:05	MP90187-S1	10		
14:09	MP90187-S2	10		
14:14	ZZZZZZ	1		
14:18	FA28991-21	5		(sample used for QC only; not part of login FA28705)
14:23	MP90187-SD1	25		
14:28	ZZZZZZ	5		
14:32	MA38011-CCVA6	1		
14:37	MA38011-CCB6	1		
14:42	MP90168-MB1	2		To reanalysis for Sb
14:46	MP90168-B1	10		To reanalysis for Sb

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:51	ZZZZZZ	2		
14:56	ZZZZZZ	1		
15:07	MP90187-S1	25		
15:15	MP90187-S2	25		
15:19	ZZZZZZ	1		
15:24	FA28991-21	25		(sample used for QC only; not part of login FA28705)
15:29	MP90187-SD1	125		
15:34	MA38011-CCVA7	1		
15:38	MA38011-CCB7	1		
15:43	ZZZZZZ	25		
15:48	ZZZZZZ	1		
15:52	FA28991-21	5		(sample used for QC only; not part of login FA28705)
15:57	ZZZZZZ	1		
16:02	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:11	ZZZZZZ	1		
16:15	MA38011-CRIB3	1		Ca out
16:20	ZZZZZZ	1		
16:28	MA38011-CCVA8	1		
16:33	MA38011-CCB8	1		
16:38	MP90186-MB1	5		
16:42	MP90186-B1	10		
16:47	MP90186-S1	10		
16:52	MP90186-S2	10		
16:56	ZZZZZZ	1		
17:01	FA28991-5	5		(sample used for QC only; not part of login FA28705)
17:05	MP90186-SD1	25		
17:10	ZZZZZZ	5		
17:15	ZZZZZZ	5		
17:19	MA38011-CCVA9	1		
17:24	MA38011-CCB9	1		
17:29	ZZZZZZ	1		
17:33	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:38	ZZZZZZ	5		
17:42	ZZZZZZ	5		
17:47	ZZZZZZ	5		
17:52	ZZZZZZ	5		
17:57	ZZZZZZ	5		
18:01	ZZZZZZ	1		
18:06	ZZZZZZ	5		
18:10	ZZZZZZ	5		
18:15	MA38011-CCVA10	1		
18:20	MA38011-CCB10	1		
18:24	ZZZZZZ	5		
18:29	ZZZZZZ	5		
18:34	ZZZZZZ	5		
18:38	ZZZZZZ	5		
18:43	ZZZZZZ	5		
18:48	ZZZZZZ	5		
18:52	ZZZZZZ	5		
18:57	ZZZZZZ	5		
19:02	ZZZZZZ	5		
19:06	ZZZZZZ	5		
19:11	MA38011-CCVA11	1		
19:16	MA38011-CCB11	1		
19:20	ZZZZZZ	25		
19:25	ZZZZZZ	25		
19:29	ZZZZZZ	25		
19:34	ZZZZZZ	25		
19:39	ZZZZZZ	25		
19:43	ZZZZZZ	25		
19:48	ZZZZZZ	25		
19:53	ZZZZZZ	25		
19:57	ZZZZZZ	25		
20:02	ZZZZZZ	25		
20:06	MA38011-CRIB4	1		Ca out

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:11	MA38011-CCVA12	1		
20:16	MA38011-CCB12	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:34	MA38011-STD1	100	100	100	100	100	100	100	100
09:39	MA38011-STD2	100	100	100	100	100	100	100	100
09:43	MA38011-STD3	100.982	101.079	99.814	99.668	100.776	99.7	100.006	101.07
09:48	MA38011-STD4	103.064	102.548	100.273	99.766	102.859	102.435	101.517	102.112
09:52	MA38011-STD5	101.443	100.957	99.669	100.125	101.351	100.411	100.832	100.775
09:57	MA38011-STD6	100.778	101.121	99.909	101.078	100.684	99.914	100.851	100.919
10:02	MA38011-STD7	98.808	99.114	97.899	98.19	99.411	100.263	99.202	100.331
10:06	MA38011-STD8	99.203	99.531	97.235	99.149	98.82	97.914	99.366	98.698
10:11	MA38011-STD9	99.795	100.189	98.325	99.351	99.025	97.686	99.191	99.635
10:16	MA38011-STD10	100.319	100.612	99.586	98.674	99.863	99.123	99.295	98.565
10:20	MA38011-STD11	101.69	102.967	102.116	101.494	101.529	102.359	100.908	101.284
10:25	ZZZZZZ	102.444	102.749	100.812	101.296	102.135	102.249	99.772	102.061
10:30	MA38011-ICVA1	99.686	100.231	99.136	98.016	100.001	99.917	98.238	99.479
10:34	MA38011-ICV1	99.08	100.096	97.926	98.922	98.121	98.767	99.34	98.838
10:39	MA38011-ICB1	99.857	100.584	99.202	99.074	99.455	99.782	98.794	100.47
10:43	MA38011-CRIB1	100.049	100.932	99.953	98.258	99.945	99.361	98.517	99.984
10:48	MA38011-CRIA1	101.489	101.272	99.923	99.881	100.305	99.686	100.411	100.588
10:53	MA38011-CCVA1	99.512	100.81	98.761	98.309	98.829	99.62	97.088	98.679
10:57	MA38011-CCB1	100.243	100.805	100.165	98.411	99.522	100.815	100.276	100.119
11:02	MA38011-ICSA1	97.043	98.612	96.761	96.387	98.026	97.423	97.28	94.932
11:07	MA38011-ICSAB1	93.531	97.382	98.947	100.627	96.808	100.249	101.232	93.49
11:11	ZZZZZZ	95.585	97.664	96.724	95.413	98.774	98.308	96.682	98.861
11:16	MA38011-CCVA2	95.008	97.31	95.154	96.979	96.82	98.246	96.228	97.869
11:20	MA38011-CCB2	98.53	99.433	95.201	94.442	98.661	97.62	95.137	99.024
11:25	ZZZZZZ	96.72	96.973	95.723	94.898	97.876	97.524	97.57	97.466
11:30	MP90110-S1	96.951	99.109	99.25	96.069	98.148	100.484	96.42	98.153
11:34	MP90110-S1	97.4	98.986	98.833	96.852	98.731	98.353	98.743	98.012
11:39	MP90110-S2	99.878	100.798	100.908	97.883	99.197	100.269	99.05	98.283
11:44	MP90110-S2	102.649	103.902	102.949	100.969	102.028	103.751	101.302	103.405
11:48	ZZZZZZ	101.182	100.747	98.725	98.667	100.32	101.633	98.873	100.509
11:53	FA28664-2	102.297	102.809	101.171	99.741	101.947	102.56	100.316	100.812
11:57	ZZZZZZ	104.401	103.176	102.033	100.86	102.313	105.036	100.998	101.855
12:02	MA38011-CCVA3	103.501	103.435	101.209	97.159	101.131	102.559	98.052	100.803

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:07	MA38011-CCB3	103.249	102.912	103.229	100.507	101.891	103.568	102.295	101.849
12:11	MP90110-SD1	105.82	105.227	105.453	102.308	103.59	106.67	102.926	104.092
12:16	MP90110-PS1	105.317	105.79	103.926	102.069	103.323	105.668	102.78	103.288
12:21	MP90110-PS1	106.304	106.251	104.525	102.838	104.242	105.15	102.703	104.914
12:30	ZZZZZZ	104.762	105.019	105.111	102.295	103.292	105.82	102.315	103.838
12:35	ZZZZZZ	103.447	104.529	101.137	100.832	101.88	101.63	99.487	101.476
12:44	ZZZZZZ	103.449	102.975	99.952	99.053	101.838	100.843	99.227	102.146
12:49	ZZZZZZ	102.004	99.652	98.993	100.263	105.046	107.309	107.147	103.873
12:53	FA28705-1	102.645	104.86	101.289	98.241	102.375	101.008	98.317	103.346
12:58	FA28705-1F	97.907	100.831	101.976	100.619	97.353	102.162	99.416	99.633
13:03	MA38011-CCVA4	102.088	104.946	102.551	100.667	103.882	102.97	101.9	103.293
13:08	MA38011-CCB4	105.814	108.39	106.227	104.134	106.338	105.993	103.933	106.607
13:13	ZZZZZZ	106.885	107.949	106.87	101.422	106.06	106.698	101.847	106.2
13:17	MA38011-CRIB2	104.539	105.56	104.996	102.647	104.233	106.176	103.473	104.456
13:22	MA38011-CRIA2	104.687	106.848	105.04	102.588	104.894	105.319	104.277	105.188
13:27	MP90110-PS1	No results reported for the elements associated with this internal standard.							
13:31	ZZZZZZ	108.08	108.583	106.596	103.787	107.173	106.856	103.919	105.82
13:36	ZZZZZZ	107.86	108.455	107.011	103.387	106.307	106.21	104.009	106.186
13:41	ZZZZZZ	108.472	108.564	107.386	104.207	104.758	106.466	104.449	106.526
13:45	MA38011-CCVA5	107.764	108.737	106.703	102.429	105.772	106.625	101.872	104.904
13:51	MA38011-CCB5	107.902	108.832	107.422	104.661	107.292	108.01	104.068	106.592
13:55	MP90187-MB1	109.525	111.607	109.569	106.84	106.966	110.155	106.377	107.622
14:00	MP90187-B1	109.363	111.627	108.844	105.77	108.029	107.803	103.662	108.393
14:05	MP90187-S1	104.413	136.853	!a134.411	!a129.464	106.215	106.26	103.352	102.329
14:09	MP90187-S2	103.668	134.128	!a125.956	125.705	104.289	105.371	101.506	101.439
14:14	ZZZZZZ	107.421	107.92	106.559	103.09	106.24	107.322	103.527	106.401
14:18	FA28991-21	105.542	162.42	!a 157.141	!a150.936	!a111.085	114.412	107.714	102.946
14:23	MP90187-SD1	112.961	127.156	125.703	117.427	112.373	113.762	104.886	109.599
14:28	ZZZZZZ	120.115	160.968	!a153.734	!a146.551	!a119.001	116.978	111.512	113.413
14:32	MA38011-CCVA6	115.412	116.747	113.313	109.191	112.535	114.622	109.49	112.288
14:37	MA38011-CCB6	115.289	116.24	109.265	106.374	113.52	112.135	106.044	114.64
14:42	MP90168-MB1	114.863	111.967	109.693	108.209	116.903	118.042	114.044	116.973
14:46	MP90168-B1	112.041	114.31	107.88	101.532	110.595	108.49	99.873	111.787

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:51	ZZZZZZ	102.389	102.513	100.459	100.867	105.497	108.394	108.263	105.99
14:56	ZZZZZZ	109.885	110.891	107.873	105.688	109.688	109.741	106.888	109.539
15:07	MP90187-S1	108.76	122.623	122.996	117.09	109.806	113.941	106.645	107.547
15:15	MP90187-S2	112.321	125.442	122.577	116.048	112.558	113.499	106.896	110.132
15:19	ZZZZZZ	111.662	112.023	111.008	105.188	109.748	110.521	105.717	109.564
15:24	FA28991-21	109.23	120.876	117.847	114.899	109.169	110.397	104.852	106.974
15:29	MP90187-SD1	110.275	112.817	113.51	109.351	108.86	112.798	109.14	107.765
15:34	MA38011-CCVA7	114.05	116.649	113.783	110.85	112.857	114.115	111.128	114.075
15:38	MA38011-CCB7	113.891	115.808	112.772	109.918	113.559	116.325	110.492	113.973
15:43	ZZZZZZ	113.565	122.218	118.855	113.994	113.004	112.798	106.625	111.284
15:48	ZZZZZZ	113.793	114.085	110.989	106.201	111.41	110.531	104.835	111.117
15:52	FA28991-21	No results reported for the elements associated with this internal standard.							
15:57	ZZZZZZ	114.704	116.364	113.147	107.626	113.649	114.381	108.85	113.739
16:02	ZZZZZZ	112.717	114.366	111.734	107.541	111.407	111.979	106.315	111.391
16:06	ZZZZZZ	113.903	116.246	112.251	107.191	113.699	113.617	107.438	112.88
16:11	ZZZZZZ	105.951	108.38	110.049	103.894	105.057	111.191	104.294	104.993
16:15	MA38011-CRIB3	107.878	110.678	107.534	102.558	106.721	106.946	100.167	106.894
16:20	ZZZZZZ	105.789	108.452	106.533	98.389	104.774	105.813	98.286	104.919
16:28	MA38011-CCVA8	103.643	106.314	102.493	100.919	102.135	103.651	99.397	103.333
16:33	MA38011-CCB8	106.387	107.972	105.887	101.154	105.317	107.682	101.229	105.895
16:38	MP90186-MB1	112.9	114.593	111.904	107.594	110.873	112.878	106.792	110.172
16:42	MP90186-B1	108.522	112.183	107.927	101.179	107.095	106.794	98.483	108.153
16:47	MP90186-S1	100.504	115.818	114.07	106.13	99.603	100.159	93.911	98.681
16:52	MP90186-S2	99.028	115.232	113.778	111.828	98.452	100.877	97.009	97.564
16:56	ZZZZZZ	104.361	106.859	103.989	99.788	103.949	104.338	98.861	103.135
17:01	FA28991-5	103.051	129.475	124.836	121.107	103.271	103.219	100.085	100.692
17:05	MP90186-SD1	103.994	111.799	109.17	103.648	103.607	103.509	98.148	102.237
17:10	ZZZZZZ	103.957	154.873	!a148.069	!a145.358	!a107.237	106.224	103.699	99.723
17:15	ZZZZZZ	110.337	163.061	!a154.479	!a146.903	!a114.01	115.869	106.803	106.168
17:19	MA38011-CCVA9	109.334	111.537	108.043	103.074	107.394	110.076	102.746	106.626
17:24	MA38011-CCB9	106.063	108.255	106.311	101.805	106.015	107.627	102.332	105.486
17:29	ZZZZZZ	108.679	110.963	107.558	102.655	107.368	109.15	102.63	107.717
17:33	ZZZZZZ	113.663	116.003	111.514	101.432	112.104	113.399	102.453	110.765

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:38	ZZZZZZ	111.011	154.613	!a144.915	!a135.04	!a 111.056	109.841	100.88	106.157
17:42	ZZZZZZ	100.949	140.693	!a136.31	!a 135.072	!a100.981	103.54	101.435	96.21
17:47	ZZZZZZ	107.114	148.649	!a143.316	!a138.43	!a 109.362	108.473	103.981	103.106
17:52	ZZZZZZ	109.142	158.031	!a148.74	!a 141.499	!a110.36	107.989	102.14	104.377
17:57	ZZZZZZ	100.335	159.517	!a152.215	!a145.501	!a106.602	109.026	100.626	98.279
18:01	ZZZZZZ	105.554	106.726	102.189	98.744	103.509	105.095	99.577	102.665
18:06	ZZZZZZ	112.809	139.858	!a130.17	!a 125.103	112.412	110.591	102.819	106.984
18:10	ZZZZZZ	108.594	135.462	!a129.41	124.11	107.267	107.948	102.732	103.457
18:15	MA38011-CCVA10	108.526	110.833	104.503	101.361	106.252	107.298	100.885	105.803
18:20	MA38011-CCB10	106.829	109.943	105.121	97.86	106.361	105.89	99.405	106.47
18:24	ZZZZZZ	108.787	123.542	117.136	111.809	107.649	105.62	99.419	104.874
18:29	ZZZZZZ	105.339	124.737	117.763	114.214	104.614	102.594	100.595	100.965
18:34	ZZZZZZ	102.942	142.517	!a136.196	!a132.253	!a104.227	105.63	100.874	98.417
18:38	ZZZZZZ	109.723	135.034	!a129.174	123.809	108.656	110.815	102.983	104.453
18:43	ZZZZZZ	106.037	142.171	!a131.356	!a128.382	107.279	106.677	99.586	100.275
18:48	ZZZZZZ	109.499	128.123	121.841	116.03	106.938	110.466	101.551	103.834
18:52	ZZZZZZ	106.37	121.374	112.516	109.624	104.929	103.617	97.53	100.717
18:57	ZZZZZZ	104.313	124.169	116.392	113.05	103.895	103.098	97.209	99.669
19:02	ZZZZZZ	106.871	128.112	121.372	115.833	106.422	106.203	99.786	101.136
19:06	ZZZZZZ	108.694	140.39	!a 131.53	!a 126.539	107.753	104.898	101.407	102.736
19:11	MA38011-CCVA11	105.019	107.069	101.819	94.779	103.575	103.285	96.228	101.732
19:16	MA38011-CCB11	101.418	103.923	99.15	96.157	101.615	103.191	96.575	100.359
19:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:25	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:02	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:06	MA38011-CRIB4	106.438	108.425	101.913	98.333	104.21	104.932	96.978	103.967

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
20:11	MA38011-CCVA12	102.489	106.069	100.809	96.446	101.83	102.922	97.192	101.76
20:16	MA38011-CCB12	107.667	110.613	106.198	99.27	107.985	107.678	99.696	106.982

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (72-1)	70-130 %	70-130 %
Istd#6	Germanium (72-2)	70-130 %	70-130 %
Istd#7	Germanium (72-3)	70-130 %	70-130 %
Istd#8	Germanium (74-1)	70-130 %	70-130 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:34	MA38011-STD1	100	100	100	100	100	100	100	100
09:39	MA38011-STD2	100	100	100	100	100	100	100	100
09:43	MA38011-STD3	98.253	99.914	101.238	100.178	100.474	101.425	100.753	100.686
09:48	MA38011-STD4	100.851	99.462	101.533	102.054	101.458	101.433	101.555	102.056
09:52	MA38011-STD5	100.092	98.467	101.2	100.324	100.648	101.212	100.825	101.522
09:57	MA38011-STD6	100.107	99.237	100.694	100.44	100.16	100.479	100.351	101.303
10:02	MA38011-STD7	98.554	97.946	98.812	98.708	98.713	99.273	99.105	99.377
10:06	MA38011-STD8	97.252	96.875	98.523	99.054	98.37	99.62	99.734	100.25
10:11	MA38011-STD9	97.868	97.012	99.099	99.151	98.752	99.707	99.518	100.4
10:16	MA38011-STD10	98.369	98.44	97.258	97.893	97.211	98.66	98.697	99.923
10:20	MA38011-STD11	100.846	99.246	98.652	99.157	97.861	100.252	100.271	102.441
10:25	ZZZZZZ	100.885	100.045	101.717	102.005	100.768	102.033	101.956	102.318
10:30	MA38011-ICVA1	98.668	98.174	97.771	97.936	96.703	98.126	98.426	100.016
10:34	MA38011-ICV1	98.844	97.927	99.198	100.208	99.88	99.209	99.721	100.076
10:39	MA38011-ICB1	97.701	98.452	100.051	99.874	99.647	100.183	99.98	100.376
10:43	MA38011-CRIB1	97.925	97.481	100.287	100.348	99.09	100.336	100.958	100.571
10:48	MA38011-CRIA1	99.697	97.942	100.88	101.325	99.639	101.26	100.745	101.482
10:53	MA38011-CCVA1	98.413	95.617	97.936	97.834	96.189	98.419	98.819	99.768
10:57	MA38011-CCB1	99.264	98.95	100.553	100.663	99.577	100.724	101.24	100.226
11:02	MA38011-ICSA1	92.741	92.605	88.729	87.892	86.829	92.205	91.472	98.206
11:07	MA38011-ICSAB1	96.139	98.329	86.322	89.511	89.186	92.303	94.656	97.719
11:11	ZZZZZZ	97.89	95.654	99.572	98.798	97.807	100.079	99.184	100.289
11:16	MA38011-CCVA2	96.137	95.751	96.585	96.731	95.932	97.877	97.812	99.982
11:20	MA38011-CCB2	96.107	93.999	100.263	98.197	96.841	100.621	97.847	100.546
11:25	ZZZZZZ	97.323	95.281	97.289	97.829	96.483	97.326	97.885	97.709
11:30	MP90110-S1	97.977	95.808	98.966	99.335	95.684	98.705	100.04	100.165
11:34	MP90110-S1	97.637	96.554	98.133	100.141	97.585	98.891	99.822	99.465
11:39	MP90110-S2	98.438	96.444	99.168	99.189	97.279	99.591	99.181	100.261
11:44	MP90110-S2	101.725	99.593	102.536	102.338	100.462	103.014	102.466	102.867
11:48	ZZZZZZ	100.787	97.479	101.537	101.199	99.735	101.902	101.661	100.933
11:53	FA28664-2	100.858	98.828	101.593	101.307	99.139	101.79	101.75	101.367
11:57	ZZZZZZ	102.176	99.831	102.45	102.011	100.325	102.951	102.819	101.76
12:02	MA38011-CCVA3	100.666	96.221	101.079	99.587	95.168	101.211	100.45	102.316

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:07	MA38011-CCB3	102.977	100.492	103.371	103.25	101.251	103.119	103.034	102.335
12:11	MP90110-SD1	103.741	101.861	104.334	103.801	101.5	104.956	105.32	103.858
12:16	MP90110-PS1	103.65	100.579	103.708	102.838	101.057	103.513	104.328	103.146
12:21	MP90110-PS1	103.613	101.508	104.447	103.506	101.241	104.603	103.691	103.466
12:30	ZZZZZZ	103.942	101.944	104.815	104.895	102.102	105.063	106.191	103.307
12:35	ZZZZZZ	99.932	97.87	100.634	98.136	97.267	101.306	99.355	103.407
12:44	ZZZZZZ	101.221	98.862	104.241	101.779	99.539	104.627	102.74	104.33
12:49	ZZZZZZ	104.604	104.983	98.14	99.737	99.149	98.81	99.074	98.395
12:53	FA28705-1	99.877	97.866	101.953	97.774	95.841	103.781	102.098	105.794
12:58	FA28705-1F	101.262	98.117	98.179	98.483	97.014	101.505	103.295	102.984
13:03	MA38011-CCVA4	102.304	99.974	103.644	101.465	99.525	104.764	102.793	106.484
13:08	MA38011-CCB4	106.164	103.095	107.928	107.292	105.036	108.613	108.706	108.021
13:13	ZZZZZZ	105.092	101.388	108.444	107.779	103.23	108.751	108.443	109.003
13:17	MA38011-CRIB2	104.184	101.578	106.666	105.149	103.748	106.372	106.04	106.564
13:22	MA38011-CRIA2	104.161	102.162	107.486	106.079	103.966	107.158	107.568	106.707
13:27	MP90110-PS1	No results reported for the elements associated with this internal standard.							
13:31	ZZZZZZ	106.513	102.612	108.361	106.732	104.51	108.117	108.143	107.314
13:36	ZZZZZZ	106.251	102.245	108.745	106.69	104.324	107.935	107.907	107.7
13:41	ZZZZZZ	104.916	102.14	108.717	106.827	104.136	108.568	108.062	107.694
13:45	MA38011-CCVA5	105.42	100.689	106.106	105.804	101.423	106.633	106.648	107.966
13:51	MA38011-CCB5	107.206	103.881	108.79	107.963	104.851	108.624	108.924	108.14
13:55	MP90187-MB1	108.261	105.252	110.713	109.612	107.167	108.626	110.154	109.372
14:00	MP90187-B1	106.625	102.031	109.444	108.176	104.892	109.766	109.205	111.117
14:05	MP90187-S1	101.24	97.275	101.976	100.064	95.876	104.209	102.342	108.165
14:09	MP90187-S2	97.216	94.946	101.828	96.164	95.791	104.689	98.855	110.095
14:14	ZZZZZZ	106.691	101.71	108.9	107.936	104.755	108.923	107.775	107.992
14:18	FA28991-21	100.686	97.443	101.368	98.836	94.428	104.851	101.172	110.906
14:23	MP90187-SD1	109.718	101.939	111.876	109.745	103.813	112.242	114.154	112.791
14:28	ZZZZZZ	111.179	104.114	112.839	108.33	102.721	113.785	112.182	116.767
14:32	MA38011-CCVA6	112.886	106.913	113.739	111.15	107.285	112.807	114.229	112.894
14:37	MA38011-CCB6	111.313	105.597	116.706	110.899	106.728	114.858	113.086	112.754
14:42	MP90168-MB1	116.331	112.056	110.689	108.935	105.748	109.807	109.57	106.672
14:46	MP90168-B1	107.597	98.447	112.74	106.604	100.486	111.957	108.541	111.719

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:51	ZZZZZZ	107.996	108.738	99.645	100.664	100.283	101.318	101.475	103.102
14:56	ZZZZZZ	108.958	105.1	111.696	110.104	108.01	111.757	110.984	111.408
15:07	MP90187-S1	109.992	103.524	107.965	106.828	100.769	108.06	109.618	108.93
15:15	MP90187-S2	108.584	103.787	110.024	106.545	101.605	110.38	109.544	111.397
15:19	ZZZZZZ	108.979	103.642	112.674	109.78	104.354	111.213	111.007	109.753
15:24	FA28991-21	106.463	101.499	106.551	104.56	99.928	107.415	106.445	107.772
15:29	MP90187-SD1	111.226	107.754	109.687	110.471	106.96	109.491	112.007	108.28
15:34	MA38011-CCVA7	112.805	108.801	113.542	111.039	108.15	113.305	114.101	112.896
15:38	MA38011-CCB7	113.921	108.751	116.324	113.34	109.152	115.582	114.991	113.471
15:43	ZZZZZZ	110.549	105.05	111.672	107.599	102.671	111.555	111.031	109.685
15:48	ZZZZZZ	110.229	104.445	112.48	109.887	104.559	111.602	112.607	108.947
15:52	FA28991-21	No results reported for the elements associated with this internal standard.							
15:57	ZZZZZZ	114.088	105.789	115.79	112.667	107.546	115.322	115.388	112.512
16:02	ZZZZZZ	111.092	105.852	113.85	110.817	106.157	111.902	113.192	108.968
16:06	ZZZZZZ	112.919	105.898	115.886	111.693	105.961	113.301	114.009	110.786
16:11	ZZZZZZ	109.412	102.903	106.897	108.132	102.397	104.462	110.351	102.231
16:15	MA38011-CRIB3	105.87	99.3	109.124	107.048	101.565	107.464	108.82	105.455
16:20	ZZZZZZ	104.98	96.68	108.164	105.066	97.549	106.393	106.629	103.12
16:28	MA38011-CCVA8	102.135	97.896	103.746	100.43	98.085	103.749	103.462	103.5
16:33	MA38011-CCB8	104.816	98.773	109.168	105.566	101.37	107.464	108.21	106.154
16:38	MP90186-MB1	111.005	105.168	113.583	110.747	105.72	112.731	113.185	110.942
16:42	MP90186-B1	105.649	96.07	111.259	105.738	99.599	110.54	108.526	110.478
16:47	MP90186-S1	96.732	91.124	101.38	98.66	91.241	101.603	101.005	105.075
16:52	MP90186-S2	99.136	94.51	100.588	99.429	96.404	101.629	101.189	104.799
16:56	ZZZZZZ	104.503	96.962	107.159	104.954	99.855	106.503	105.745	105.591
17:01	FA28991-5	98.433	94.992	102.044	99.442	95.936	103.991	101.076	107.858
17:05	MP90186-SD1	102.299	94.687	107.438	103.268	97.851	107.236	107.318	108.22
17:10	ZZZZZZ	99.097	95.431	101.515	98.175	93.693	103.486	102.414	107.094
17:15	ZZZZZZ	104.033	97.644	107.383	101.603	95.637	108.225	105.25	112.457
17:19	MA38011-CCVA9	106.99	101.154	108.899	105.807	101.371	108.701	110.254	109.321
17:24	MA38011-CCB9	105.785	99.901	109.093	106.551	101.751	108.081	109.469	106.167
17:29	ZZZZZZ	107.325	100.286	110.429	106.818	101.941	108.902	109.795	105.717
17:33	ZZZZZZ	111.122	101.164	115.705	111.356	101.544	114.095	114.12	110.983

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:38	ZZZZZZ	102.507	94.307	107.233	100.788	94.084	108.441	104.443	111.052
17:42	ZZZZZZ	97.382	94.935	98.667	96.628	95.825	101.191	99.369	106.607
17:47	ZZZZZZ	102.619	95.709	105.287	100.966	95.925	106.804	104.183	110.567
17:52	ZZZZZZ	100.456	95.335	105.628	99.669	95.031	107.426	102.724	111.296
17:57	ZZZZZZ	98.721	90.531	98.135	94.889	89.246	101.816	97.847	109.224
18:01	ZZZZZZ	103.358	97.177	107.207	104.036	98.952	107.136	105.689	105.941
18:06	ZZZZZZ	103.858	96.875	108.214	102.878	98.297	110.532	106.233	113.276
18:10	ZZZZZZ	100.904	96.706	105.631	100.884	96.899	106.953	104.109	111.684
18:15	MA38011-CCVA10	104.718	98.861	108.864	104.841	99.829	108.876	107.014	108.839
18:20	MA38011-CCB10	104.285	97.955	110.482	105.427	100.21	110.219	107.833	108.159
18:24	ZZZZZZ	101.714	96.872	107.403	102.227	97.083	107.494	104.686	108.063
18:29	ZZZZZZ	97.747	94.399	103.968	99.99	95.941	104.715	102.925	107.989
18:34	ZZZZZZ	98.123	93.474	100.439	98.285	94.708	103.484	100.857	109.772
18:38	ZZZZZZ	102.313	97.651	106.541	101.77	97.871	108.099	105.07	113.135
18:43	ZZZZZZ	96.953	92.347	102.646	96.206	91.809	105.092	98.487	109.957
18:48	ZZZZZZ	103.629	97.13	106.627	102.367	97.046	107.969	105.56	111.419
18:52	ZZZZZZ	98.573	93.001	103.685	98.22	94.546	104.702	100.25	106.82
18:57	ZZZZZZ	97.044	92.072	102.736	97.746	93.66	104.495	99.279	108.419
19:02	ZZZZZZ	99.663	94.67	104.303	99.77	94.069	106.279	102.321	108.577
19:06	ZZZZZZ	99.401	94.401	103.644	98.833	94.774	105.76	100.719	107.858
19:11	MA38011-CCVA11	100.951	93.472	104.721	100.651	94.613	104.454	102.361	105.275
19:16	MA38011-CCB11	101.063	95.42	104.519	101.045	96.447	102.851	102.132	101.772
19:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:25	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:02	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:06	MA38011-CRIB4	102.913	97.268	107.828	103.237	97.587	106.898	105.105	104.759

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
20:11	MA38011-CCVA12	100.685	96	104.466	100.22	94.941	103.897	102.286	103.24
20:16	MA38011-CCB12	107.417	98.02	111.76	106.397	100.943	110.381	108.856	108.978

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Germanium (74-2)	70-130 %	70-130 %
Istd#10	Germanium (74-3)	70-130 %	70-130 %
Istd#11	Rhodium (103-1)	70-130 %	70-130 %
Istd#12	Rhodium (103-2)	70-130 %	70-130 %
Istd#13	Rhodium (103-3)	70-130 %	70-130 %
Istd#14	Indium (115-1)	70-130 %	70-130 %
Istd#15	Indium (115-2)	70-130 %	70-130 %
Istd#16	Terbium (159-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
09:34	MA38011-STD1	100	100	100	100	100	100
09:39	MA38011-STD2	100	100	100	100	100	100
09:43	MA38011-STD3	100.882	100.662	101.085	100.419	101.044	100.807
09:48	MA38011-STD4	101.99	100.962	101.525	101.863	102.858	101.438
09:52	MA38011-STD5	101.857	100.363	101.701	101.178	101.906	101.499
09:57	MA38011-STD6	101.102	100.998	100.758	100.75	102.173	100.939
10:02	MA38011-STD7	99.718	99.602	99.217	99.624	100.934	99.673
10:06	MA38011-STD8	100.521	99.638	99.947	100.6	99.862	99.409
10:11	MA38011-STD9	101.106	99.307	100.316	100.284	99.562	98.936
10:16	MA38011-STD10	100.695	99.12	100.324	100.346	98.631	97.736
10:20	MA38011-STD11	103.39	100.41	102.674	103.132	99.281	98.537
10:25	ZZZZZZ	101.983	100.441	101.529	102.538	101.573	101.393
10:30	MA38011-ICVA1	100.322	98.447	99.711	99.973	98.164	97.225
10:34	MA38011-ICV1	100.741	99.79	99.704	100.721	99.203	99.833
10:39	MA38011-ICB1	100.803	99.124	99.942	100.655	100.11	99.58
10:43	MA38011-CRIB1	101.175	98.842	100.568	100.87	100.32	100.106
10:48	MA38011-CRIA1	101.344	99.028	101.274	100.673	100.783	99.728
10:53	MA38011-CCVA1	100.306	98.368	100.214	100.434	97.377	97.851
10:57	MA38011-CCB1	101.662	99.624	100.336	101.81	99.938	100.348
11:02	MA38011-ICSA1	97.457	95.006	98.41	97.562	90.257	88.486
11:07	MA38011-ICSAB1	98.832	96.517	97.26	98.949	88.94	89.071
11:11	ZZZZZZ	101.261	97.66	100.526	100.737	99.487	99.231
11:16	MA38011-CCVA2	100.358	98.143	100.212	100.253	98.115	97.922
11:20	MA38011-CCB2	99.728	96.694	100.442	99.553	101.136	98.465
11:25	ZZZZZZ	98.333	96.136	97.543	98.495	100.488	99.719
11:30	MP90110-S1	101.849	96.538	99.987	101.064	99.479	100.489
11:34	MP90110-S1	101.388	98.389	99.918	100.967	99.659	100.629
11:39	MP90110-S2	100.816	97.6	100.608	100.998	100.173	99.87
11:44	MP90110-S2	103.539	100.138	103.337	103.862	102.801	102.843
11:48	ZZZZZZ	101.607	98.546	101.015	101.639	99.648	100.36
11:53	FA28664-2	101.868	98.48	102.065	102.462	101.271	101.814
11:57	ZZZZZZ	102.544	98.505	101.809	102.175	101.325	101.904
12:02	MA38011-CCVA3	101.552	95.896	102.732	101.224	99.256	98.061

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:07	MA38011-CCB3	103.241	100.315	102.294	103.335	100.985	102.163
12:11	MP90110-SD1	104.737	100.37	104.067	104.521	104.283	104.505
12:16	MP90110-PS1	103.56	99.26	102.926	103.421	102.299	102.687
12:21	MP90110-PS1	103.617	100.241	103.315	103.475	102.249	102.199
12:30	ZZZZZZ	104.067	99.842	103.339	104.288	101.339	103.436
12:35	ZZZZZZ	101.844	99.391	103.81	101.647	99.089	97.057
12:44	ZZZZZZ	101.946	97.793	103.834	101.851	102.312	101.084
12:49	ZZZZZZ	98.337	97.369	98.421	97.877	109.436	101.718
12:53	FA28705-1	103.072	99.38	106.114	103.668	101.215	100.204
12:58	FA28705-1F	103.213	100.258	103.252	103.703	99.262	99.938
13:03	MA38011-CCVA4	103.965	101.263	105.916	104.24	102.877	100.828
13:08	MA38011-CCB4	108.018	103.359	108.43	108.316	105.829	106.619
13:13	ZZZZZZ	107.35	101.483	108.746	107.778	106.86	106.212
13:17	MA38011-CRIB2	106.062	102.104	106.087	105.692	104.933	104.552
13:22	MA38011-CRIA2	107	102.444	106.968	106.887	105.042	105.078
13:27	MP90110-PS1	No results reported for the elements associated with this internal standard.					
13:31	ZZZZZZ	107.056	102.664	107.205	106.981	105.457	105.436
13:36	ZZZZZZ	106.894	102.165	107.884	106.738	105.072	105.101
13:41	ZZZZZZ	107.028	102.395	108.145	107.179	105.539	106.329
13:45	MA38011-CCVA5	107.792	101.268	108.091	107.446	103.731	104.171
13:51	MA38011-CCB5	108.144	103.058	108.218	108.14	105.27	106.719
13:55	MP90187-MB1	108.912	105.03	109.748	108.779	108.358	108.601
14:00	MP90187-B1	110.291	105.981	111.319	110.585	108.848	108.198
14:05	MP90187-S1	107.425	102.362	108.199	107.886	101.335	100.896
14:09	MP90187-S2	104.789	102.213	110.323	105.179	103.733	99.304
14:14	ZZZZZZ	108.56	102.829	107.781	108.181	105.208	106.547
14:18	FA28991-21	108.734	101.743	111.502	109.602	102.897	100.535
14:23	MP90187-SD1	114.444	104.49	112.275	114.232	108.244	110.501
14:28	ZZZZZZ	114.883	106.372	116.895	114.467	108.841	107.491
14:32	MA38011-CCVA6	113.53	107.423	113.235	113.53	107.678	109.092
14:37	MA38011-CCB6	110.125	102.936	112.308	110.003	109.696	107.71
14:42	MP90168-MB1	106.509	101.286	107.239	106.17	111.427	108.069
14:46	MP90168-B1	108.981	100.971	112.226	108.8	107.718	106.739

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
14:51	ZZZZZZ	102.856	100.609	103.008	102.519	101.53	101.324
14:56	ZZZZZZ	110.103	106.075	111.466	110.375	109.114	108.407
15:07	MP90187-S1	109.924	101.202	108.971	110.414	103.908	104.988
15:15	MP90187-S2	110.59	103.477	111.151	110.882	105.25	106.195
15:19	ZZZZZZ	108.786	101.893	109.92	108.681	106.064	105.882
15:24	FA28991-21	107.248	101.596	107.946	107.492	103.802	103.436
15:29	MP90187-SD1	110.588	104.521	108.137	111.068	106.102	109.042
15:34	MA38011-CCVA7	112.809	107.485	112.852	112.698	107.642	108.235
15:38	MA38011-CCB7	112.698	105.89	112.945	112.526	110.143	110.516
15:43	ZZZZZZ	109.404	101.227	109.455	108.57	105.507	105.714
15:48	ZZZZZZ	108.981	100.123	108.681	108.464	104.448	105.547
15:52	FA28991-21	No results reported for the elements associated with this internal standard.					
15:57	ZZZZZZ	112.208	103.43	111.991	112.308	107.836	109.12
16:02	ZZZZZZ	109.657	101.473	108.476	109.3	103.643	106.28
16:06	ZZZZZZ	110.32	101.31	109.758	109.872	105.942	107.246
16:11	ZZZZZZ	106.77	98.772	102.393	106.693	98.109	104.79
16:15	MA38011-CRIB3	105.729	97.547	104.983	105.403	100.864	103.301
16:20	ZZZZZZ	104.062	93.875	102.897	103.531	99.277	101.281
16:28	MA38011-CCVA8	102.533	97.635	102.78	102.462	97.028	98.028
16:33	MA38011-CCB8	105.287	98.441	105.96	105.449	101.252	103.03
16:38	MP90186-MB1	109.475	101.715	110.557	109.042	107.524	107.997
16:42	MP90186-B1	107.991	100.342	110.462	108.29	105.841	105.707
16:47	MP90186-S1	103.836	94.851	104.867	104.494	99.503	99.783
16:52	MP90186-S2	105.347	99.976	105.337	106.24	99.637	101.822
16:56	ZZZZZZ	105.149	98.186	105.828	104.655	102.165	102.823
17:01	FA28991-5	105.766	100.173	107.771	106.418	101.429	100.943
17:05	MP90186-SD1	107.806	99.832	108.735	108.191	104.632	107.073
17:10	ZZZZZZ	103.991	97.258	106.825	104.59	99.341	99.185
17:15	ZZZZZZ	110.204	102.452	112.965	110.907	101.258	100.605
17:19	MA38011-CCVA9	108.421	101.205	109.363	108.802	102.748	103.965
17:24	MA38011-CCB9	106.651	99.017	105.635	105.885	101.479	103.549
17:29	ZZZZZZ	106.879	98.097	105.58	106.477	101.094	103.403
17:33	ZZZZZZ	110.308	97.338	110.936	109.956	106.071	107.436

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
17:38	ZZZZZZ	107.532	98.735	110.663	107.24	101.553	101.79
17:42	ZZZZZZ	105.402	102.394	106.644	105.629	98.807	98.891
17:47	ZZZZZZ	108.77	100.459	111.218	108.804	102.515	102.109
17:52	ZZZZZZ	107.462	100.212	111.478	107.825	101.909	100.826
17:57	ZZZZZZ	105.549	97.071	110.155	106.155	96.373	95.292
18:01	ZZZZZZ	104.333	97.325	105.506	104.206	101.155	101.349
18:06	ZZZZZZ	109.595	102.566	113.154	110.009	103.36	102.839
18:10	ZZZZZZ	107.82	101.77	111.598	108.069	102.071	101.141
18:15	MA38011-CCVA10	106.769	100.536	109.439	106.816	102.996	103.094
18:20	MA38011-CCB10	105.704	98.25	108.08	105.563	103.297	103.037
18:24	ZZZZZZ	105.71	99.261	108.756	106.045	102.374	102.533
18:29	ZZZZZZ	105.911	100.237	108.554	106.865	100.921	101.662
18:34	ZZZZZZ	107.045	100.783	110.034	107.733	100.198	99.642
18:38	ZZZZZZ	109.729	103.262	112.974	110.534	103.146	102.894
18:43	ZZZZZZ	104.296	98.153	110.826	105.113	100.302	97.445
18:48	ZZZZZZ	108.346	100.941	112.215	108.563	102.482	102.191
18:52	ZZZZZZ	103.446	98.054	107.294	103.543	100.101	99.513
18:57	ZZZZZZ	103.859	98.124	108.325	103.584	99.386	97.966
19:02	ZZZZZZ	104.889	98.243	108.465	105.503	101.139	100.097
19:06	ZZZZZZ	103.799	98.005	108.112	103.501	99.145	97.761
19:11	MA38011-CCVA11	102.579	94.97	105.525	103.019	98.88	98.674
19:16	MA38011-CCB11	100.247	94.492	101.876	100.591	96.584	98.708
19:20	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:25	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:29	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:34	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:39	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:43	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:02	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:06	MA38011-CRIB4	101.953	94.692	104.308	102.025	99.58	99.948

INTERNAL STANDARD SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
Analyst: JO Run ID: MA38011
Parameters: Ca

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
20:11	MA38011-CCVA12	102.508	94.874	103.093	102.312	96.503	98.034
20:16	MA38011-CCB12	106.809	98.297	108.6	106.511	103.629	104.406

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	70-130 %	70-130 %
Istd#18	Terbium (159-3)	70-130 %	70-130 %
Istd#19	Holmium (165-1)	70-130 %	70-130 %
Istd#20	Holmium (165-2)	70-130 %	70-130 %
Istd#21	Bismuth (209-1)	70-130 %	70-130 %
Istd#22	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA38011 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	10:39 ICB1 raw	final	10:57 CCB1 raw	final	11:20 CCB2 raw	final
Aluminum	25	.51	20						
Antimony	0.50	.042	0.50						
Arsenic	0.50	.025	0.45						
Barium	1.0	.038	0.50						
Beryllium	0.50	.0034	0.25						
Boron	25	.42	20						
Cadmium	0.50	.0082	0.30						
Calcium	250	4.7	50	-2.9	<250	-7.9	<250	8.4	<250
Chromium	1.0	.033	0.50						
Cobalt	0.50	.003	0.25						
Copper	2.0	.12	0.50						
Iron	25	.45	13						
Lead	0.50	.0062	0.25						
Magnesium	250	.41	130						
Manganese	1.0	.028	0.50						
Molybdenum	1.0	.021	0.50						
Nickel	1.0	.024	1.0						
Potassium	250	5.1	50						
Selenium	0.50	.018	0.50						
Silver	0.50	.0035	0.25						
Sodium	250	1	50						
Strontium	5.0	.0068	2.5						
Thallium	0.50	.0057	0.35						
Tin	5.0	.02	2.5						
Titanium	1.0	.059	0.50						
Vanadium	1.0	.048	0.50						
Zinc	5.0	.09	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA38011 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	12:07 CCB3 raw	12:07 CCB3 final	13:08 CCB4 raw	13:08 CCB4 final	13:51 CCB5 raw	13:51 CCB5 final
Aluminum	25	.51	20						
Antimony	0.50	.042	0.50						
Arsenic	0.50	.025	0.45						
Barium	1.0	.038	0.50						
Beryllium	0.50	.0034	0.25						
Boron	25	.42	20						
Cadmium	0.50	.0082	0.30						
Calcium	250	4.7	50	-16	<250	-7.2	<250	-16	<250
Chromium	1.0	.033	0.50						
Cobalt	0.50	.003	0.25						
Copper	2.0	.12	0.50						
Iron	25	.45	13						
Lead	0.50	.0062	0.25						
Magnesium	250	.41	130						
Manganese	1.0	.028	0.50						
Molybdenum	1.0	.021	0.50						
Nickel	1.0	.024	1.0						
Potassium	250	5.1	50						
Selenium	0.50	.018	0.50						
Silver	0.50	.0035	0.25						
Sodium	250	1	50						
Strontium	5.0	.0068	2.5						
Thallium	0.50	.0057	0.35						
Tin	5.0	.02	2.5						
Titanium	1.0	.059	0.50						
Vanadium	1.0	.048	0.50						
Zinc	5.0	.09	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38011 Units: ug/l

Time:		10:30			10:34			10:53	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	5500	5140	93.5				5000	5090	101.8
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38011 Units: ug/l

Time:		11:16			12:02			13:03	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	5000	5060	101.2	5000	5060	101.2	5000	5010	100.2
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA38011 Units: ug/l

Time:		13:45	
Sample ID:	CCVA	CCVA5	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	5000	5030	100.6
Chromium	anr		
Cobalt			
Copper	anr		
Iron			
Lead	anr		
Magnesium			
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium			
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 70 to 130 % Recovery Run ID: MA38011 Units: ug/l

Time:			10:48		13:22	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	25	25				
Antimony	0.50	2.0	anr			
Arsenic	0.50	0.50				
Barium	1.0	0.50				
Beryllium	0.50	0.25				
Boron	25	2.5				
Cadmium	0.50	0.25				
Calcium	250	125				
Chromium	1.0	2.0				
Cobalt	0.50	0.25				
Copper	2.0	2.0				
Iron	25	25				
Lead	0.50	2.0	anr			
Magnesium	250	125				
Manganese	0.50	0.25				
Molybdenum	1.0	0.50				
Nickel	1.0	2.0				
Potassium	250	125				
Selenium	0.50	0.50				
Silver	0.50	1.0				
Sodium	250	125				
Strontium	5.0	0.50				
Thallium	0.50	0.25				
Tin	5.0	0.50				
Titanium	1.0	0.50				
Vanadium	1.0	2.0				
Zinc	5.0	2.0				

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA38011 Units: ug/l

Time:		10:43		13:17	
Sample ID:	CRIB	CRIB1		CRIB2	
Metal	True	Results	% Rec	Results	% Rec
Aluminum	25				
Antimony	0.50				
Arsenic	0.50				
Barium	1.0				
Beryllium	0.50				
Boron	25				
Cadmium	0.50				
Calcium	250	225	90.0	213	85.2
Chromium	1.0				
Cobalt	0.50				
Copper	2.0				
Iron	25				
Lead	0.50				
Magnesium	250				
Manganese	0.50				
Molybdenum	1.0				
Nickel	1.0				
Potassium	250				
Selenium	0.50				
Silver	0.50				
Sodium	250				
Strontium	5.0				
Thallium	0.50				
Tin	5.0				
Titanium	1.0				
Vanadium	1.0				
Zinc	5.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA111015M1L.CSV Date Analyzed: 11/10/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA38011 Units: ug/l

Time:			11:02		11:07	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	89800	89.8	91400	91.4
Antimony			0.063		0.030	
Arsenic		20	0.078		19.7	98.5
Barium			0.091		0.13	
Beryllium			0.019		0.010	
Boron			2.3		1.3	
Cadmium		20	0.51		18.7	93.5
Calcium	100000	100000	90700	90.7	92000	92.0
Chromium		20	1.2		20.3	101.5
Cobalt		20	0.017		18.4	92.0
Copper		20	0.48		18.3	91.5
Iron	100000	100000	90800	90.8	91700	91.7
Lead			0.21		0.23	
Magnesium	100000	100000	89900	89.9	90300	90.3
Manganese		20	0.35		19.2	96.0
Molybdenum	2000	2000	2050	102.5	2110	105.5
Nickel		20	0.20		17.9	89.5
Potassium	100000	100000	90500	90.5	92500	92.5
Selenium		20	0.022		19.9	99.5
Silver		20	0.032		19.5	97.5
Sodium	100000	100000	95500	95.5	96500	96.5
Strontium			0.73		0.72	
Thallium			0.026		0.0064	
Tin			0.043		0.059	
Titanium	2000	2000	1960	98.0	1970	98.5
Vanadium		20	-0.12		20.5	102.5
Zinc		20	1.4		18.2	91.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.74	1.7	11.6	<50
Antimony	4.0	.085	.08	0.87	<4.0
Arsenic	3.0	.049	.081	0.54	<3.0
Barium	2.0	.03	.11	0.061	<2.0
Beryllium	1.0	.0068	.074	0.0088	<1.0
Boron	50	.85	1.9		
Cadmium	6.0	.016	.11	0.020	<6.0
Calcium	500	9.5	3.4	15.0	<500
Chromium	8.0	.04	.093	0.11	<8.0
Cobalt	1.0	.006	.073	0.00037	<1.0
Copper	10	.056	.1	-0.064	<10
Iron	50	.85	1.2	4.4	<50
Lead	3.0	.012	.023	0.072	<3.0
Magnesium	500	.79	2.1	1.6	<500
Manganese	4.0	.032	.1	0.062	<4.0
Molybdenum	2.0	.042	.072		
Nickel	8.0	.048	.12	-0.049	<8.0
Potassium	500	5.1	6	-4.4	<500
Selenium	2.0	.035	.12	0.077	<2.0
Silver	2.0	.007	.055	0.016	<2.0
Sodium	500	2.1	11	68.7	<500
Strontium	20	.0095	.057		
Thallium	2.0	.011	.026	0.049	<2.0
Tin	10	.04	.12		
Titanium	2.0	.1	.22		
Vanadium	3.0	.096	.23	1.2	<3.0
Zinc	20	.18	1	-0.48	<20

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	FA28742-3 Original	MS	Spikelot MPSPK1	% Rec	QC Limits
Aluminum	73.8	20300	25000	80.9	75-125
Antimony	2.0	1790	2000	89.4	75-125
Arsenic	1.1	2370	2000	118.4	75-125
Barium	45.2	1680	2000	81.7	75-125
Beryllium	0.11	2280	2000	114.0	75-125
Boron					
Cadmium	0.14	2320	2000	116.0	75-125
Calcium	20000	45100	25000	100.4	75-125
Chromium	0.46	2290	2000	114.5	75-125
Cobalt	0.42	2260	2000	113.0	75-125
Copper	0.37	2290	2000	114.5	75-125
Iron	1510	31400	25000	119.6	75-125
Lead	0.60	2310	2000	115.5	75-125
Magnesium	5030	25400	25000	81.5	75-125
Manganese	100	2390	2000	114.5	75-125
Molybdenum					
Nickel	1.6	2250	2000	112.4	75-125
Potassium	4340	24700	25000	81.4	75-125
Selenium	0.33	1800	2000	90.0	75-125
Silver	0.034	210	250	84.0	75-125
Sodium	19100	51100	25000	128.0N	75-125
Strontium					
Thallium	0.43	1680	2000	84.0	75-125
Tin					
Titanium					
Vanadium	2.2	2310	2000	115.4	75-125
Zinc	11.2	2370	2000	117.9	75-125

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	FA28742-3 Original	MSD	Spikelot MPSPK1	% Rec	MSD RPD	QC Limit
Aluminum	73.8	21200	25000	84.5	26.9 (a)	20
Antimony	2.0	1830	2000	91.4	2.2	20
Arsenic	1.1	2270	2000	113.4	4.3	20
Barium	45.2	1720	2000	83.7	2.4	20
Beryllium	0.11	2200	2000	110.0	3.6	20
Boron						
Cadmium	0.14	2220	2000	111.0	4.4	20
Calcium	20000	43300	25000	93.2	4.1	20
Chromium	0.46	2200	2000	110.0	4.0	20
Cobalt	0.42	2180	2000	109.0	3.6	20
Copper	0.37	2210	2000	110.5	3.6	20
Iron	1510	30400	25000	115.6	3.2	20
Lead	0.60	2240	2000	112.0	3.1	20
Magnesium	5030	26400	25000	85.5	3.9	20
Manganese	100	2320	2000	111.0	3.0	20
Molybdenum						
Nickel	1.6	2190	2000	109.4	2.7	20
Potassium	4340	25400	25000	84.2	2.8	20
Selenium	0.33	1860	2000	93.0	3.3	20
Silver	0.034	217	250	86.8	3.3	20
Sodium	19100	48500	25000	117.6	5.2	20
Strontium						
Thallium	0.43	1730	2000	86.5	2.9	20
Tin						
Titanium						
Vanadium	2.2	2220	2000	110.9	4.0	20
Zinc	11.2	2260	2000	112.4	4.8	20

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) High rpd due to possible sample nonhomogeneity.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	BSP Result	Spikelot MPSPK1	% Rec	QC Limits
Aluminum	20400	25000	81.6	80-120
Antimony	1770	2000	88.5	80-120
Arsenic	2300	2000	115.0	80-120
Barium	1620	2000	81.0	80-120
Beryllium	2220	2000	111.0	80-120
Boron				
Cadmium	2260	2000	113.0	80-120
Calcium	23300	25000	93.2	80-120
Chromium	2260	2000	113.0	80-120
Cobalt	2250	2000	112.5	80-120
Copper	2270	2000	113.5	80-120
Iron	29300	25000	117.2	80-120
Lead	2270	2000	113.5	80-120
Magnesium	21300	25000	85.2	80-120
Manganese	2250	2000	112.5	80-120
Molybdenum				
Nickel	2250	2000	112.5	80-120
Potassium	20800	25000	83.2	80-120
Selenium	1810	2000	90.5	80-120
Silver	209	250	83.6	80-120
Sodium	28000	25000	112.0	80-120
Strontium				
Thallium	1650	2000	82.5	80-120
Tin				
Titanium				
Vanadium	2280	2000	114.0	80-120
Zinc	2320	2000	116.0	80-120

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	FA28742-3 Original	SDL 2:10	%DIF	QC Limits
Aluminum	73.8	71.6	2.9	0-10
Antimony	1.96	0.00	100.0(a)	0-10
Arsenic	1.09	0.00	100.0(a)	0-10
Barium	45.2	44.3	2.2	0-10
Beryllium	0.109	0.115	5.9	0-10
Boron				
Cadmium	0.143	0.189	32.2 (a)	0-10
Calcium	20000	20100	0.8	0-10
Chromium	0.456	0.340	25.3 (a)	0-10
Cobalt	0.419	0.432	2.9	0-10
Copper	0.373	0.00	100.0(a)	0-10
Iron	1510	1490	1.2	0-10
Lead	0.603	0.579	4.0	0-10
Magnesium	5030	4860	3.2	0-10
Manganese	100	103	3.0	0-10
Molybdenum				
Nickel	1.58	1.11	30.0 (a)	0-10
Potassium	4340	4250	2.0	0-10
Selenium	0.333	0.00	100.0(a)	0-10
Silver	0.0338	0.00	100.0(a)	0-10
Sodium	19100	19800	3.9	0-10
Strontium				
Thallium	0.434	0.222	48.9 (a)	0-10
Tin				
Titanium				
Vanadium	2.24	0.00	100.0(a)	0-10
Zinc	11.2	5.40	51.6 (a)	0-10

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA28705
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP90028
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 11/02/15

Metal	Sample ml	Final ml	FA28742-3 Raw	FA28742-3 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.2	10	73.77942	67.87707	4768.287	0.2	250	5000	94.0	75-125
Antimony	9.2	10	1.961918	1.804964	53.52275	0.2	2.5	50	103.4	75-125
Arsenic	9.2	10		1.004128	43.8753	0.2	2.5	50	85.7	75-125
Barium	9.2	10	45.23617	41.61727	88.13617	0.2	2.5	50	93.0	75-125
Beryllium	9.2	10	.1089232	.1002093	48.50294	0.2	2.5	50	96.8	75-125
Boron										
Cadmium	9.2	10	.1433079	.1318432	49.35365	0.2	2.5	50	98.4	75-125
Calcium	9.2	10	19970.56	18372.92	23339.26	0.2	250	5000	99.3	75-125
Chromium	9.2	10	.4555177	.4190763	49.82907	0.2	2.5	50	98.8	75-125
Cobalt	9.2	10	.4193773	.3858272	49.72173	0.2	2.5	50	98.7	75-125
Copper	9.2	10	.3729139	.3430808	51.89723	0.2	2.5	50	103.1	75-125
Iron	9.2	10	1511.947	1390.991	6561.812	0.2	250	5000	103.4	75-125
Lead	9.2	10	.6034401	.5551649	48.53346	0.2	2.5	50	96.0	75-125
Magnesium	9.2	10	5025.883	4623.813	9402.178	0.2	250	5000	95.6	75-125
Manganese	9.2	10	100.0096	92.00881	143.0795	0.2	2.5	50	102.1	75-125
Molybdenum										
Nickel	9.2	10	1.578221	1.451963	51.52944	0.2	2.5	50	100.2	75-125
Potassium	9.2	10	4337.549	3990.545	8793.162	0.2	250	5000	96.1	75-125
Selenium	9.2	10	.332631	.3060205	46.26597	0.2	2.5	50	91.9	75-125
Silver	9.2	10	.03379104	.0310877	653.80572	0.2	2.5	50	107.5	75-125
Sodium	9.2	10	19087.91	17560.87	22629.14	0.2	250	5000	101.4	75-125
Strontium										
Thallium	9.2	10	.4344352	.3996804	46.7205	0.2	2.5	50	92.6	75-125
Tin										
Titanium										
Vanadium	9.2	10	2.235863	2.056994	52.00608	0.2	2.5	50	99.9	75-125
Zinc	9.2	10	11.17555	10.28151	108.3678	0.2	5	100	98.1	75-125

Associated samples MP90028: FA28705-1, FA28705-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

04/20/15

Technical Report for

Trinity Analysis & Development Corp

Melrose Air Force Range, NM

A012-113

Accutest Job Number: FA23355

Sampling Date: 04/03/15

Report to:

Trinity Analysis & Development Corp
1002 N Eglin Pkwy
Shalimar, FL 32579
jkramer@trinityadc.com; jbrown@trinityadc.com

ATTN: Jonathan Kramer

Total number of pages in report: **93**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (2937), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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9.3: Prep QC MP85824: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na, Tl,V,Zn 88

Sample Summary

Trinity Analysis & Development Corp

Job No: FA23355

Melrose Air Force Range, NM
Project No: A012-113

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA23355-1	04/03/15	14:20	BSRH	04/04/15	AQ	Ground Water	MWQ-2
FA23355-1F	04/03/15	14:20	BSRH	04/04/15	AQ	Ground Water	MWQ-2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: [illegible] **Job No:** [illegible]

Site: [illegible] **Report Date** [illegible]

[illegible]

[illegible]

Extractables by GCMS By Method SW846 6850

Matrix: [illegible] **Batch ID:** [illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

Metals By Method SW846 6020A

Matrix: [illegible] **Batch ID:** [illegible]

- [illegible]
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Metals By Method SW846 6020A

Matrix: [illegible] **Batch ID:** [illegible]

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[illegible]
[illegible]
[illegible]
[illegible]

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Wet Chemistry By Method EPA 335.4/SW 9012B

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Wet Chemistry By Method SM2320 B-11

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]
[illegible]
[illegible]

Wet Chemistry By Method SM2540 C-11

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

[illegible]

[illegible]

Wet Chemistry By Method SW846 7196A

Matrix: [illegible] **Batch ID:** [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Southeast, Inc.	**Job No**	FA23355
Site:	BBAFLFWB: Melrose Air Force Range, NM	**Report Date**	4/20/2015 9:24:38 AM

On 04/09/2015, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 3.7 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of FA23355 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP85824

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA23355-1MS, FA23355-1MSD, FA23355-1PS, FA23355-1SDL were used as the QC samples for metals.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Aluminum, Antimony, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Silver, Thallium, Vanadium are outside control limits for sample MP85824-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- FA23355-1F for Beryllium: Elevated detection limit due to dilution required for matrix interference.
- FA23355-1 for Beryllium: Elevated detection limit due to dilution required for matrix interference.
- MP85824-PS1 for Sodium: Spike amount low relative to the sample results.
- MP85824-PS1 for Magnesium: Spike amount low relative to the sample results.
- MP85824-PS1 for Calcium: Spike amount low relative to the sample results.
- MP85824-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP85824-SD1 for Iron: Serial dilution indicates possible matrix interference.
- MP85824-SD1 for Cobalt: Serial dilution indicates possible matrix interference.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: FA23355
Account: Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Collected: 04/03/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA23355-1	**MWQ-2**					
Barium [a]		25.1	2.0		ug/l	SW846 6020A
Calcium [a]		196000	6300		ug/l	SW846 6020A
Cobalt [a]		1.4	1.0		ug/l	SW846 6020A
Iron [a]		137	50		ug/l	SW846 6020A
Magnesium [a]		128000	6300		ug/l	SW846 6020A
Manganese [a]		497	10		ug/l	SW846 6020A
Potassium [a]		8330	500		ug/l	SW846 6020A
Sodium [a]		2230000	63000		ug/l	SW846 6020A
Zinc [a]		69.5	20		ug/l	SW846 6020A
Alkalinity, Total as CaCO3		85.5	5.0		mg/l	SM2320 B-11
Chloride		3740	200		mg/l	EPA 300/SW846 9056A
Cyanide, Total [b]		0.052	0.010		mg/l	EPA 335.4/SW 9012B
Solids, Total Dissolved		7420	1000		mg/l	SM2540 C-11
Sulfate		1510	200		mg/l	EPA 300/SW846 9056A
FA23355-1F	**MWQ-2**					
Barium [a]		25.2	2.0		ug/l	SW846 6020A
Calcium [a]		194000	6300		ug/l	SW846 6020A
Cobalt [a]		1.3	1.0		ug/l	SW846 6020A
Iron [a]		137	50		ug/l	SW846 6020A
Magnesium [a]		126000	6300		ug/l	SW846 6020A
Manganese [a]		492	10		ug/l	SW846 6020A
Potassium [a]		8250	500		ug/l	SW846 6020A
Sodium [a]		2170000	63000		ug/l	SW846 6020A

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Confirmed by reanalysis.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MWQ-2
Lab Sample ID: FA23355-1
Matrix: AQ - Ground Water
Method: SW846 6850 SW846 6850
Project: Melrose Air Force Range, NM

Date Sampled: 04/03/15
Date Received: 04/04/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q11733.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	ND	0.40	0.080	ug/l	

(a) Dilution required due to high conductivity.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MWQ-2
Lab Sample ID: FA23355-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 04/03/15
Date Received: 04/04/15
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Antimony [a]	< 4.0	4.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Arsenic [a]	< 3.0	3.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Barium [a]	25.1	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Beryllium [b]	< 2.5	2.5	ug/l	5	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Cadmium [a]	< 6.0	6.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Calcium [a]	196000	6300	ug/l	25	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Chromium [a]	< 8.0	8.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Cobalt [a]	1.4	1.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Copper [a]	< 10	10	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Iron [a]	137	50	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 3.0	3.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Magnesium [a]	128000	6300	ug/l	25	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Manganese [a]	497	10	ug/l	5	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	< 8.0	8.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Potassium [a]	8330	500	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Selenium [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Silver [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Sodium [a]	2230000	63000	ug/l	250	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Vanadium [a]	< 5.0	5.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	69.5	20	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: N:MA36446
(2) Instrument QC Batch: N:MA36451
(3) Prep QC Batch: N:MP85824

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Elevated detection limit due to dilution required for matrix interference. Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MWQ-2
Lab Sample ID: FA23355-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 04/03/15
Date Received: 04/04/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	85.5	5.0	mg/l	1	04/07/15 16:20	TF	SM2320 B-11
Chloride	3740	200	mg/l	100	04/04/15 12:00	VK	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	04/04/15 12:30	KC	SW846 7196A
Cyanide, Total [a]	0.052	0.010	mg/l	1	04/09/15 15:38	DM	EPA 335.4/SW 9012B
Nitrogen, Nitrate [b]	< 10	10	mg/l	100	04/04/15 12:00	VK	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 10	10	mg/l	100	04/04/15 12:00	VK	EPA 300/SW846 9056A
Solids, Total Dissolved	7420	1000	mg/l	1	04/07/15 08:45	KC	SM2540 C-11
Sulfate	1510	200	mg/l	100	04/04/15 12:00	VK	EPA 300/SW846 9056A

(a) Confirmed by reanalysis.
(b) Dilution required due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MWQ-2
Lab Sample ID: FA23355-1F
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 04/03/15
Date Received: 04/04/15
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Antimony [a]	< 4.0	4.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Arsenic [a]	< 3.0	3.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Barium [a]	25.2	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Beryllium [b]	< 2.5	2.5	ug/l	5	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Cadmium [a]	< 6.0	6.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Calcium [a]	194000	6300	ug/l	25	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Chromium [a]	< 8.0	8.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Cobalt [a]	1.3	1.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Copper [a]	< 10	10	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Iron [a]	137	50	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Lead [a]	< 3.0	3.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Magnesium [a]	126000	6300	ug/l	25	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Manganese [a]	492	10	ug/l	5	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Nickel [a]	< 8.0	8.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Potassium [a]	8250	500	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Selenium [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Silver [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Sodium [a]	2170000	63000	ug/l	250	04/15/15	04/17/15	ANJ	SW846 6020A [2]	SW846 3010A [3]
Thallium [a]	< 2.0	2.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Vanadium [a]	< 5.0	5.0	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]
Zinc [a]	< 20	20	ug/l	2	04/15/15	04/16/15	ANJ	SW846 6020A [1]	SW846 3010A [3]

(1) Instrument QC Batch: N:MA36446
(2) Instrument QC Batch: N:MA36451
(3) Prep QC Batch: N:MP85824

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Elevated detection limit due to dilution required for matrix interference. Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

FA23355

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Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 1504304

Project Name / Site Name: Melorse AFR Annual	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Robert Harrell	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Chromium (VI) 218.6	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C				Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
1 MWQ-2		04032015	1430		N	1	WG	5	X	X	X	X	X	X	X	X							D
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
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				-																			
				-																			
				-																			

Comments Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time
1.		4/3/15	1630	FX		
2.	FX	4/4/15	10:30	[illegible] ASE	4/4/15	10:30
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	1
Method of Shipment:	FedEx	Airbill Number:	
Analytical Lab:	Accutest	Delivery Location:	Orlando FL
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

1.8

5.1 5

FA23355: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA23355 CLIENT: TRINITY PROJECT: MELROSE AFR

DATE/TIME RECEIVED: 04/04/15 10:30 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 7804 5001 8243

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 2.0
- [ ] CORRECTED TEMPS: 1.8

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

pH PAPER LOT#s WIDE RANGE A036122 NARROW RANGE HC421754 OTHER (specify) 405-230010

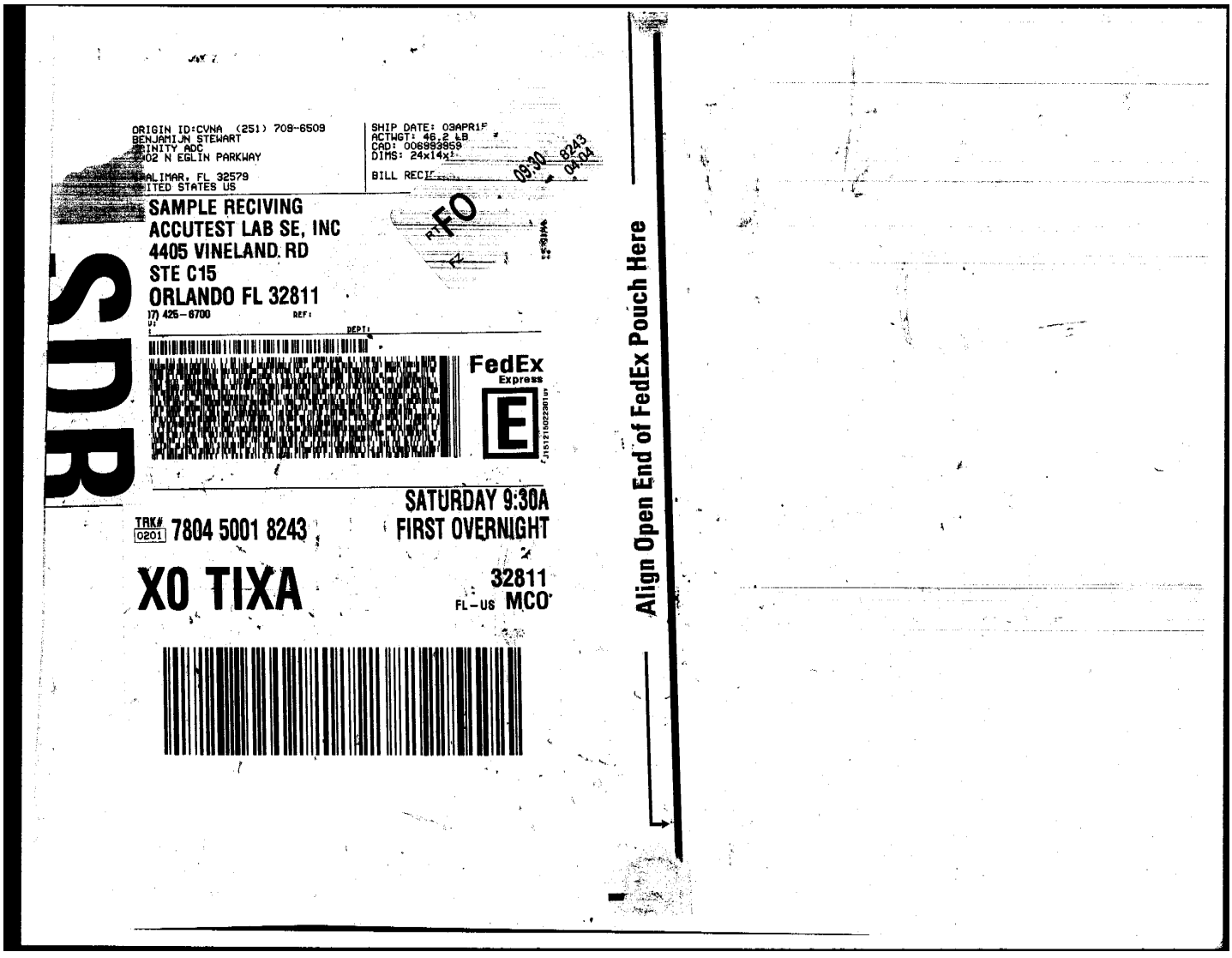
SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE BH Hill 04/04/15 REVIEWER SIGNATURE/DATE JC 4-4-15

NF 10/14 receipt confirmation 102914.xls

5.1 5

FA23355: Chain of Custody
Page 2 of 3



FA23355: Chain of Custody
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Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA23355
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-MB	Q11731.D	1	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23355-1

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	ND	0.20	0.040	ug/l	

Blank Spike Summary

Job Number: FA23355
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-BS	Q11730.D	1	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23355-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
14797-73-0	Perchlorate	0.2	0.20	100	80-120

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA23355
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-MS	Q11734.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366
OP55671-MSD	Q11735.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366
FA23355-1 [a]	Q11733.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23355-1

CAS No.	Compound	FA23355-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
14797-73-0	Perchlorate	ND		0.2	0.23	115	0.2	0.20	100	14	80-120/15

(a) Dilution required due to high conductivity.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: FA23355
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	SQ366-ICC366	**Injection Date:**	04/14/15
Lab File ID:	Q11719.D	**Injection Time:**	10:51
Instrument ID:	GCMSQ	**Method:**	SW846 6850

	IS 1 AREA	RT
Initial Cal [a]	17854	4.72
Check Std [b]	17686	4.72
Upper Limit [c]	26781	6.72
Lower Limit [d]	8927	2.72

Lab Sample ID	IS 1 AREA	RT
OP55671-BS	18570	4.73
OP55671-MB	18274	4.74
ZZZZZZ	16786	4.57
FA23355-1 [e]	15707	4.59
OP55671-MS	17783	4.59
OP55671-MSD	17047	4.60
OP55718-BS	17830	4.72
OP55718-MB	18058	4.72
ZZZZZZ	16952	4.67

IS 1 = Cl18O4 (ISTD)

(a) Initial Cal is: SQ366-ICC366 Q11719.D 04/14/15 10:51. Area is AVERAGE of initial cal points.
(b) Check Std Limit = -50 to + 50% of initial cal area.
(c) Upper Limit = + 50% of initial standard area; Retention time + 2 minutes of check standard.
(d) Lower Limit = -50% of initial standard area; Retention time -2 minutes of check standard.
(e) Dilution required due to high conductivity.

Initial Calibration Summary

Job Number: FA23355
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: SQ366-ICC366
Lab FileID: Q11719.D

Initial Calibration ReSponse Factors - D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

```
  Level ID : Calibration File
        1  : D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
        2  : D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
        3  : D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
        4  : D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
        5  : D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
        6  : D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
        7  : D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
        8  : D:\MassHunter\Data\0414_6850_SQ366\Q11723.d
```

Compound	1	2	3	4	5	6	7	8	AvgRF	%RSD	r^2
1) Cl18O4	----------ISTD----------										
3) Perchlorate	1.0583	1.1766	1.1245	1.1250	1.1029	1.1126	1.2324	1.2805	1.1516	6.383	0.9971

*(value) - Average RF below (value)

Initial Calibration Verification

Job Number: FA23355 **Sample:** SQ366-ICV366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11724.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11724
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.880	-6.0	94.0

CC Criteria: +/- 15%

Continuing Calibration Summary

Job Number: FA23355 **Sample:** SQ366-CC366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11740.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11740
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.914	-4.3	95.7

CC Criteria: +/- 15%

Continuing Calibration Summary

Job Number: FA23355 **Sample:** SQ366-CC366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11741.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11741
Type : QC
Level : 1

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	0.200	0.198	-1.2	98.8

CC Criteria: +/- 15%

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN65841	5.0	0.0	mg/l	250	253	101.3	90-113%
Chloride	GP25765/GN65815	2.0	0.0	mg/l	50	50.1	100.2	90-110%
Chromium, Hexavalent	GN65826	0.010	0.0	mg/l	0.10	0.10	103.0	85-115%
Cyanide, Total	GP25781/GN65873	0.010	0.0	mg/l	0.1	0.101	101.0	90-110%
Nitrogen, Nitrate	GP25765/GN65815	0.10	0.0	mg/l	2.5	2.45	98.0	90-110%
Nitrogen, Nitrite	GP25765/GN65815	0.10	0.0	mg/l	2.5	2.38	95.2	90-110%
Solids, Total Dissolved	GN65843	100	0.0	mg/l				
Sulfate	GP25765/GN65815	2.0	0.0	mg/l	50	49.8	99.6	90-110%

Associated Samples:
Batch GN65826: FA23355-1
Batch GN65841: FA23355-1
Batch GN65843: FA23355-1
Batch GP25765: FA23355-1
Batch GP25781: FA23355-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN65841	FA23132-1	mg/l	239	237	1.1	0-20%
Solids, Total Dissolved	GN65843	FA23355-1	mg/l	7420	7510	1.2	0-5%

Associated Samples:
Batch GN65841: FA23355-1
Batch GN65843: FA23355-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP25765/GN65815	FA23347-3	mg/l	16.3	50	62.3	92.0	90-110%
Chromium, Hexavalent	GN65826	FA23355-1	mg/l	0.0	0.10	0.098	95.5	85-115%
Cyanide, Total	GP25781/GN65873	FA23254-2	mg/l	0.0030 U	0.1	0.10	100.0	90-110%
Nitrogen, Nitrate	GP25765/GN65815	FA23347-3	mg/l	0.050 U	2.5	2.2	88.0N(a)	90-110%
Nitrogen, Nitrite	GP25765/GN65815	FA23347-3	mg/l	0.050 U	2.5	2.2	88.0N(a)	90-110%
Sulfate	GP25765/GN65815	FA23347-3	mg/l	0.60 U	50	46.9	93.8	90-110%

Associated Samples:
Batch GN65826: FA23355-1
Batch GP25765: FA23355-1
Batch GP25781: FA23355-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP25765/GN65815	FA23347-3	mg/l	16.3	50	66.9	7.1	20%
Chromium, Hexavalent	GN65826	FA23355-1	mg/l	0.0	0.10	0.10	3.2	20%
Cyanide, Total	GP25781/GN65873	FA23254-2	mg/l	0.0030 U	0.1	0.10	0.0	20%
Nitrogen, Nitrate	GP25765/GN65815	FA23347-3	mg/l	0.050 U	2.5	2.5	12.8	20%
Nitrogen, Nitrite	GP25765/GN65815	FA23347-3	mg/l	0.050 U	2.5	2.4	8.7	20%
Sulfate	GP25765/GN65815	FA23347-3	mg/l	0.60 U	50	51.6	9.5	20%

Associated Samples:
Batch GN65826: FA23355-1
Batch GP25765: FA23355-1
Batch GP25781: FA23355-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315040401.TXT Date Analyzed: 04/04/15 Methods: EPA 300/SW846 9056A
Analyst: VK Run ID: GN65815
Parameters: Chloride,Nitrogen, Nitrate,Nitrogen, Nitrite,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:07	GN65815-CCV1	1		
10:23	GP25765-MB1	1		
11:12	GP25765-B1	1		
11:44	FA23347-3	1		(sample used for QC only; not part of login FA23355)
12:00	FA23355-1	100		
12:16	GP25765-S1	1		
12:32	GP25765-S2	1		
12:49	GN65815-CCV2	1		
13:05	GN65815-CCB1	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315040401.TXT Date Analyzed: 04/04/15 Methods: EPA 300/SW846 9056A
Run ID: GN65815 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN65815-CCV1	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN65815-CCV1	Nitrogen, Nitrite	2.4	0.10	0.050	2.5	96.0	90-110
GN65815-CCV1	Nitrogen, Nitrate	2.5	0.10	0.050	2.5	100.0	90-110
GN65815-CCV1	Sulfate	51.5	2.0	0.60	50	103.0	90-110
GN65815-CCV2	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN65815-CCV2	Nitrogen, Nitrite	2.5	0.10	0.050	2.5	100.0	90-110
GN65815-CCV2	Nitrogen, Nitrate	2.6	0.10	0.050	2.5	104.0	90-110
GN65815-CCV2	Sulfate	50.6	2.0	0.60	50	101.2	90-110
GN65815-CCB1	Chloride	0.80 U	2.0	0.80			
GN65815-CCB1	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN65815-CCB1	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN65815-CCB1	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Analyst: DM Run ID: GN65873
Parameters: Cyanide, Total

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:24	GN65873-ICV1	1		
14:25	GN65873-CCV1	1		
14:26	GN65873-CCB1	1		
14:27	GN65873-CRI1	1		
14:28	ZZZZZZ	1		
14:29	GN65873-HSTD1	1		
14:29	GP25781-MB1	1		
14:30	GP25781-B1	1		
14:31	GP25781-S1	1		
14:32	GP25781-S2	1		
14:33	GP25781-S3	1		
14:34	GP25781-S4	1		
14:35	FA23254-2	1		(sample used for QC only; not part of login FA23355)
14:35	GN65873-CCV2	1		
14:36	GN65873-CCB2	1		
15:23	GN65873-CCV3	1		
15:24	GN65873-CCB3	1		
15:25	FA23369-1	1		(sample used for QC only; not part of login FA23355)
15:26	ZZZZZZ	1		
15:29	GN65873-CCV4	1		
15:30	GN65873-CCB4	1		
15:32	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:38	FA23355-1	1		
15:39	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:41	GN65873-CCV5	1		
15:42	GN65873-CCB5	1		
16:41	GN65873-CCV6	1		
16:42	GN65873-CCB6	1		
16:43	ZZZZZZ	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Analyst: DM Run ID: GN65873
Parameters: Cyanide, Total

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:43	ZZZZZZ	2000		
16:44	GN65873-CCV7	1		
16:45	GN65873-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA23355
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Run ID: GN65873 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN65873-ICV1	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCV1	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB1	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CRI1	Cyanide, Total	0.0078	0.010	0.0030	.01	78.0!	90-110
GN65873-HSTD1	Cyanide, Total	0.30	0.010	0.0030	.5	100.0	90-110
GN65873-CCV2	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB2	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV3	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB3	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV4	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB4	Cyanide, Total	-0.0031	0.010	0.0030			
GN65873-CCV5	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB5	Cyanide, Total	-0.0035	0.010	0.0030			
GN65873-CCV6	Cyanide, Total	0.23	0.010	0.0030	.25	92.0	90-110
GN65873-CCB6	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV7	Cyanide, Total	0.24	0.010	0.0030	.25	96.0	90-110
GN65873-CCB7	Cyanide, Total	0.0030 U	0.010	0.0030			

(!) Outside of QC limits

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.accutest.com

FED-EX Tracking # 6127 2752 7142 | Bottle Order Control #
Accutest Quote # | Accutest Job # FA23355

Client / Reporting Information	Project Information
Company Name: Accutest Laboratories	Project Name: Melrose Air Force Range, NM
Street Address: 4405 Vineland Rd, Suite C-15	Street
City: Orlando State: FL Zip: 32811	City State
Project Contact: jeans E-mail: jeans@accutest.com	Project #
Phone #: 407-425-6700 Fax #	Client Purchase Order #
Sampler(s) Name(s): BSRH Phone	Project Manager

Billing Information (if different from Report to)
Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	AGMS ,ALMS ,ASMS ,BAMS ,BEMS ,CAMS ,CDMS ,COMS ,CRMS ,CUMS ,FEMS ,KMS ,MGMS ,MNMS by 6020	NAMS, NIMS, PBMS, SBMS, SEMS, TLMS, VMS,ZNMS by 6020	LAB USE ONLY
1F	MWQ-2		4/3/15	2:20:00 PM	BSRH	AQ										X	X	
1	MWQ-2		4/3/15	2:20:00 PM	BSRH	AQ										X	X	FL

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] 10 Day (business)
- [ ] 5-7 Day
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [X] other 14

Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1, Results Only)
- [ ] Commercial "B" (Level 2, Results + QC summary)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] DOD FULT1 (Level 4)
- [X] Other REDT1
- [ ] EDD Format

Comments / Special Instructions

ALNJ

INITIAL ASESSMENT RAA
LABEL VERIFICATION NV

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Tir 1760 04-08-15	Received By: 1 Fedex	Relinquished By: 2 Fedex 4-9-15 10:00	Date Time:	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable AR	On Ice ☐ Cooler Temp. 3.7 C IP

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FA23355: Chain of Custody
Page 1 of 2
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: FA23355 **Client:** **Project:**

Date / Time Received: 4/9/2015 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.7/1.9); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

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FA23355: Chain of Custody
Page 2 of 2

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:35	MA36446-STD1	1		STDA
17:05	MA36446-STD2	1		STDA
17:09	MA36446-STD3	1		STDA
17:14	MA36446-STD4	1		STDB
17:18	MA36446-STD5	1		STDC
17:22	MA36446-STD6	1		STDD
17:27	MA36446-STD7	1		STDE
17:31	MA36446-STD8	1		STDF
17:36	MA36446-STD9	1		STDG
17:40	MA36446-STD10	1		STDH
17:45	MA36446-STD11	1		STDI
17:49	MA36446-STD12	1		STDJ
17:53	ZZZZZZ	1		
17:59	MA36446-ICV1	1		60ppb Al.
18:03	MA36446-ICVA1	1		
18:08	MA36446-ICB1	1		
18:12	MA36446-CRIB1	1		
18:17	MA36446-CCVA1	1		
18:21	MA36446-CCB1	1		
18:25	MA36446-ICSA1	1		
18:30	MA36446-ICSAB1	1		
18:35	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:43	MA36446-CCVA2	1		
18:48	MA36446-CCB2	1		
18:52	ZZZZZZ	1		
18:57	MP85759-PS1	5		Be
19:01	MP85759-PS1	10		Al
19:06	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:14	MA36446-CCVA3	1		
19:19	MA36446-CCB3	1		
19:26	MP85824-MB1	2		Batch to reanalysis for Be, Li out on CCV. CCB out for Na.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:31	MP85824-B1	25		CCB out for Na.
19:35	MP85824-S1	25		
19:39	MP85824-S2	25		
19:44	ZZZZZZ	1		
19:48	FA23355-1	2		Ca, Mg, Mn and Na over HSTD.
19:53	MP85824-SD1	10		
19:57	FA23355-1F	2		Ca, Mg, Mn and Na over HSTD.
20:02	ZZZZZZ	1		
20:06	MA36446-CCVA4	1		Li out
20:11	MA36446-CCB4	1		
20:15	MP85824-PS1	2		
---------->	Last reportable sample/prep for job FA23355			
20:20	ZZZZZZ	1		
20:24	ZZZZZZ	1		
20:29	ZZZZZZ	5		
20:33	MA36446-CCVA5	1		
20:37	MA36446-CCB5	1		
20:48	MA36446-CRIB2	1		
20:52	MP85641A-MB1	1		
20:56	MP85641A-B1	5		
21:01	MP85641A-S1	5		
21:05	MP85641A-S2	5		
21:10	ZZZZZZ	1		
21:14	MA36446-CCVA6	1		
21:18	MA36446-CCB6	1		
---------->	Last reportable CCB for job FA23355			
21:23	ZZZZZZ	1		
21:27	ZZZZZZ	1		
21:32	JB91376-3Q	1		(sample used for QC only; not part of login FA23355)
21:36	ZZZZZZ	1		
21:41	ZZZZZZ	1		
21:45	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:54	ZZZZZZ	1		
21:58	MA36446-CCVA7	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:03	MA36446-CCB7	1		
22:07	MP85650A-MB1	1		
22:12	MP85650A-B1	5		
22:16	MP85650A-S1	5		
22:20	MP85650A-S2	5		
22:25	ZZZZZZ	1		
22:29	ZZZZZZ	1		
22:34	ZZZZZZ	1		
22:38	JB91395-3R	1		(sample used for QC only; not part of login FA23355)
22:43	ZZZZZZ	1		
22:47	MA36446-CCVA8	1		
22:51	MA36446-CCB8	1		
22:56	ZZZZZZ	1		
23:00	ZZZZZZ	1		
23:05	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:18	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:27	MA36446-CCVA9	1		
23:31	MA36446-CCB9	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:35	MA36446-STD1	100	100	100	100	100	100	100	100
17:05	MA36446-STD2	100	100	100	100	100	100	100	100
17:09	MA36446-STD3	100	100	100	100	100	100	100	100
17:14	MA36446-STD4	98.782	99.807	98.484	100.725	98.739	98.418	99.845	98.907
17:18	MA36446-STD5	98.967	99.63	97.518	100.081	98.919	98.802	99.713	99.514
17:22	MA36446-STD6	98.161	98.01	97.46	100.053	98.031	98.326	99.643	98.747
17:27	MA36446-STD7	99.119	99.879	97.775	98.337	100.056	98.481	98.667	98.935
17:31	MA36446-STD8	97.098	97.277	96.419	98.159	97.161	97.493	99.544	97.82
17:36	MA36446-STD9	100.775	98.854	97.524	100.124	98.769	97.745	99.158	99.164
17:40	MA36446-STD10	96.916	98.108	97.169	99.133	97.766	97.935	98.055	97.21
17:45	MA36446-STD11	100.563	101.112	98.126	99.053	99.543	98.071	98.196	98.078
17:49	MA36446-STD12	101.674	99.71	98.588	98.588	97.505	98.042	97.496	95.781
17:53	ZZZZZZ	101.501	100.682	98.162	99.461	100.854	99.371	99.462	100.309
17:59	MA36446-ICV1	101.715	101.406	98.016	100.498	99.549	98.663	99.223	100.528
18:03	MA36446-ICVA1	101.11	100.252	96.391	97.907	100.394	96.923	98.362	96.859
18:08	MA36446-ICB1	101.24	100.377	98.181	98.014	99.056	98.849	98.324	100.304
18:12	MA36446-CRIB1	101.093	100.444	98.112	99.411	99.224	99.001	99.984	100.183
18:17	MA36446-CCVA1	101.913	99.693	97.638	97.91	99.214	96.407	97.573	98.045
18:21	MA36446-CCB1	100.651	100.009	98.064	98.859	99.89	98.82	99.906	100.322
18:25	MA36446-ICSA1	96.482	97.335	92.563	95.933	95.133	92.234	94.267	88.958
18:30	MA36446-ICSAB1	98.744	99.247	91.871	97.69	96.726	93.123	96.067	90.67
18:35	ZZZZZZ	107.797	102.371	93.751	97.587	102.172	97.579	99.48	103.293
18:39	ZZZZZZ	109.804	102.687	93.745	97.645	102.096	97.707	98.239	103.248
18:43	MA36446-CCVA2	109.586	103.664	94.803	97.506	101.877	97.283	98.697	101.541
18:48	MA36446-CCB2	105.823	103.427	95.56	98.042	102.083	98.155	99.138	103.691
18:52	ZZZZZZ	107.168	102.065	94.773	98.716	101.99	98.696	99.954	102.802
18:57	MP85759-PS1	110.864	104.898	95.144	98.141	101.772	97.169	97.762	101.58
19:01	MP85759-PS1	113.906	106.87	97.326	99.775	104.144	99.441	99.874	104.897
19:06	ZZZZZZ	108.975	103.498	95.865	98.599	101.469	99.012	100.339	102.868
19:10	ZZZZZZ	107.358	103.703	95.99	98.992	101.563	97.918	99.033	102.425
19:14	MA36446-CCVA3	107.719	103.634	95.71	96.884	102.71	98.115	97.386	100.78
19:19	MA36446-CCB3	105.812	102.748	96.353	99.128	101.23	97.93	99.218	102.343
19:26	MP85824-MB1	104.962	98.152	91.182	96.663	104.694	100.39	102.439	98.613

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:31	MP85824-B1	111.616	105.921	98.421	98.077	105.394	100.849	99.124	106.462
19:35	MP85824-S1	101.87	103.954	103.034	107.339	101.956	105.651	106.67	99.426
19:39	MP85824-S2	103.769	107.399	105.99	108.83	109.313	107.966	108.628	103.645
19:44	ZZZZZZ	106.369	104.324	100.757	102.348	106.037	103.67	104.08	106.59
19:48	FA23355-1	94.465	98.307	94.704	99.111	100.664	98.93	101.789	89.09
19:53	MP85824-SD1	112.131	111.496	107.409	110.369	109.565	107.025	108.738	104.239
19:57	FA23355-1F	99.575	100.72	95.916	101.621	102.793	100.017	103.799	89.627
20:02	ZZZZZZ	134.908 !	118.563	108.565	108.006	115.614	112.003	109.9	116.886
20:06	MA36446-CCVA4	131.261 !a	116.785	108.225	108.651	114.656	109.56	110.08	113.581
20:11	MA36446-CCB4	118.166	114.049	108.21	108.525	113.586	111.204	110.362	115.487
20:15	MP85824-PS1	96.632	101.061	96.652	103.56	102.001	102.138	104.766	91.59
20:20	ZZZZZZ	126.578	115.466	107.097	107.588	115.481	110.764	109.991	116.216
20:24	ZZZZZZ	126.742	114.568	105.108	105.128	113.542	108.324	105.945	114.766
20:29	ZZZZZZ	124.882	113.018	102.471	103.114	110.15	106.382	104.336	111.575
20:33	MA36446-CCVA5	121.436	110.87	100.683	102.071	109.142	104.63	102.73	108.311
20:37	MA36446-CCB5	118.574	109.919	101.783	101.583	109.76	105.559	103.064	109.8
20:48	MA36446-CRIB2	115.001	105.919	99.423	100.466	106.259	102.574	101.607	108.038
20:52	MP85641A-MB1	No results reported for the elements associated with this internal standard.							
20:56	MP85641A-B1	No results reported for the elements associated with this internal standard.							
21:01	MP85641A-S1	No results reported for the elements associated with this internal standard.							
21:05	MP85641A-S2	No results reported for the elements associated with this internal standard.							
21:10	ZZZZZZ	110.688	101.878	94.178	95.951	102.593	98.435	98.527	104.55
21:14	MA36446-CCVA6	109.671	104.08	94.917	97.565	104.194	99.368	98.718	104.116
21:18	MA36446-CCB6	110.948	103.519	94.876	98.042	102.99	99.501	99.129	104.71
21:23	ZZZZZZ	112.016	104.941	96.979	99.587	104.721	101.169	101.189	104.373
21:27	ZZZZZZ	112.333	106.903	98.044	99.41	105.37	102.154	101.794	105.54
21:32	JB91376-3Q	No results reported for the elements associated with this internal standard.							
21:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:45	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:54	ZZZZZZ	110.122	106.071	98.314	100.988	106.102	102.389	102.046	107.529
21:58	MA36446-CCVA7	111.213	105.967	96.998	97.982	105.461	99.824	98.637	105.102

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:03	MA36446-CCB7	112.251	105.246	96.489	97.901	104.101	99.57	99.338	106.804
22:07	MP85650A-MB1	No results reported for the elements associated with this internal standard.							
22:12	MP85650A-B1	No results reported for the elements associated with this internal standard.							
22:16	MP85650A-S1	No results reported for the elements associated with this internal standard.							
22:20	MP85650A-S2	No results reported for the elements associated with this internal standard.							
22:25	ZZZZZZ	111.62	102.558	92	94.133	101.967	96.679	95.667	104.18
22:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:38	JB91395-3R	No results reported for the elements associated with this internal standard.							
22:43	ZZZZZZ	113.063	103.991	94.445	95.751	103.231	97.786	98.32	105.626
22:47	MA36446-CCVA8	111.535	104.693	95.331	95.586	103.864	98.551	97.313	105.019
22:51	MA36446-CCB8	112.421	104.166	94.835	96.19	102.885	98.068	98.586	105.855
22:56	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:00	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:05	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:13	ZZZZZZ	111.61	103.169	94.272	95.619	102.68	97.718	99.052	105.431
23:18	ZZZZZZ	111.254	102.228	93.506	94.568	101.502	96.357	97.52	105.335
23:22	ZZZZZZ	110.686	102.094	92.64	93.831	100.773	96.233	96.546	104.283
23:27	MA36446-CCVA9	108.949	102.683	92.658	94.186	100.332	95.603	96.021	102.043
23:31	MA36446-CCB9	109.07	100.885	92.407	94.501	100.303	95.993	95.536	103.292

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (74-1)	70-130 %	70-130 %
Istd#6	Germanium (74-2)	70-130 %	70-130 %
Istd#7	Germanium (74-3)	70-130 %	70-130 %
Istd#8	Rhodium (103-1)	70-130 %	70-130 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:35	MA36446-STD1	100	100	100	100	100	100	100	100
17:05	MA36446-STD2	100	100	100	100	100	100	100	100
17:09	MA36446-STD3	100	100	100	100	100	100	100	100
17:14	MA36446-STD4	99.933	100.975	100.287	99.72	99.251	100.855	101.399	99.812
17:18	MA36446-STD5	99.258	100.486	100.456	99.234	100.737	99.442	100.675	101.394
17:22	MA36446-STD6	98.722	99.8	98.076	99.221	99.079	99.348	100.634	99.123
17:27	MA36446-STD7	98.542	100.033	99.859	99.228	99.731	99.451	100.59	100.282
17:31	MA36446-STD8	97.211	99.317	97.931	97.99	98.946	99.076	100.577	99.483
17:36	MA36446-STD9	99.034	100.382	101.599	100.203	101.374	100.832	101.648	101.934
17:40	MA36446-STD10	97.439	99.206	99.123	98.996	98.844	98.719	99.877	99.315
17:45	MA36446-STD11	96.606	97.933	100.175	98.487	100.328	99.304	99.96	101.311
17:49	MA36446-STD12	95.708	96.83	97.641	97.493	99.537	98.773	99.829	100.184
17:53	ZZZZZZ	98.786	99.941	101.257	99.099	100.77	99.639	99.96	101.078
17:59	MA36446-ICV1	100.108	101.515	100.758	99.92	101.763	100.167	100.928	101.299
18:03	MA36446-ICVA1	95.853	96.993	98.822	96.784	100.805	99.371	100.953	102.016
18:08	MA36446-ICB1	99.07	100.094	100.468	98.683	100.327	99.677	99.867	102.037
18:12	MA36446-CRIB1	100.134	100.48	100.846	100.218	101.604	100.656	101.226	102.106
18:17	MA36446-CCVA1	96.903	97.514	98.837	97.533	100.999	99.22	100.292	101.074
18:21	MA36446-CCB1	99.456	101.614	99.723	98.803	100.706	99.898	101.37	101.189
18:25	MA36446-ICSA1	83.604	88.319	94.363	91.715	98.319	95.005	95.751	98.264
18:30	MA36446-ICSAB1	84.714	90.093	97.382	92.489	101.212	96.392	98.149	101.959
18:35	ZZZZZZ	100.434	101	105.16	98.573	106.393	102.221	103.738	106.751
18:39	ZZZZZZ	100.574	101.379	104.817	98.206	105.999	101.949	103.388	106.98
18:43	MA36446-CCVA2	98.358	98.797	104.581	97.656	106.748	101.676	103.762	108.557
18:48	MA36446-CCB2	101.335	101.289	104.315	99.659	106.096	102.828	103.465	106.619
18:52	ZZZZZZ	99.923	102.097	103.389	98.483	105.688	101.411	104.074	105.092
18:57	MP85759-PS1	98.393	98.503	102.955	96.91	106.664	101.488	102.968	107.2
19:01	MP85759-PS1	101.106	101.747	106.555	100.309	108.638	104.085	105.094	108.644
19:06	ZZZZZZ	100.51	100.958	104.016	99.213	105.235	102.391	102.865	105.086
19:10	ZZZZZZ	100.553	101.569	103.001	98.599	103.795	101.28	102.191	104.768
19:14	MA36446-CCVA3	97.867	98.274	102.956	97.533	105.269	101.854	103.17	106.549
19:19	MA36446-CCB3	101.364	101.303	103.781	99.13	104.597	101.285	101.435	104.933
19:26	MP85824-MB1	97.768	98.573	100.075	95.679	101.49	98.713	100.707	102.331

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:31	MP85824-B1	102.356	101.773	107.353	102.147	108.562	105.292	105.458	109.022
19:35	MP85824-S1	100.085	102.839	103.348	103.921	105.445	105.861	108.158	106.975
19:39	MP85824-S2	103.819	104.641	108.632	107.302	111.236	109.126	109.54	111.577
19:44	ZZZZZZ	104.398	105.526	106.538	102.764	108.09	105.647	107.529	109.076
19:48	FA23355-1	83.425	88.119	94.895	90.518	98.004	93.002	92.657	98.754
19:53	MP85824-SD1	100.944	102.808	108.362	104.399	111.678	106.668	108.576	111.55
19:57	FA23355-1F	83.894	89.301	96.169	90.702	99.544	94.214	95.499	100.268
20:02	ZZZZZZ	112.606	111.415	118.977	111.713	121.106	115.218	115.685	122.406
20:06	MA36446-CCVA4	109.946	110.17	116.443	111.174	121.173	115.776	115.621	121.462
20:11	MA36446-CCB4	112.051	111.395	116.805	111.56	118.153	114.177	114.134	118.754
20:15	MP85824-PS1	86.002	91.707	97.158	93.198	101.154	96.971	99.146	101.968
20:20	ZZZZZZ	111.951	110.649	116.855	110.082	118.977	112.606	113.913	119.158
20:24	ZZZZZZ	109.71	108.388	115.18	107.958	118.356	111.818	111.843	119.485
20:29	ZZZZZZ	107.319	106.007	112.885	106.58	115.528	109.599	109.952	115.487
20:33	MA36446-CCVA5	103.363	102.391	110.781	104.256	115.288	108.855	108.814	115.16
20:37	MA36446-CCB5	107.503	105.52	111.533	105.825	113.68	109.193	109.609	114.231
20:48	MA36446-CRIB2	104.696	103.804	109.397	103.775	111.329	107.469	108.044	112.421
20:52	MP85641A-MB1	No results reported for the elements associated with this internal standard.							
20:56	MP85641A-B1	No results reported for the elements associated with this internal standard.							
21:01	MP85641A-S1	No results reported for the elements associated with this internal standard.							
21:05	MP85641A-S2	No results reported for the elements associated with this internal standard.							
21:10	ZZZZZZ	101.697	101.947	106.672	99.753	110.709	105.483	107.556	111.972
21:14	MA36446-CCVA6	100.775	99.12	106.914	100.184	110.999	106.159	106.952	111.306
21:18	MA36446-CCB6	101.741	101.66	106.535	100.127	110.083	105.181	107.343	111.016
21:23	ZZZZZZ	101.783	101.552	107.835	101.828	110.629	106.103	107.992	111.217
21:27	ZZZZZZ	102.319	101.762	109.077	103.11	110.65	106.641	114.926	111.527
21:32	JB91376-3Q	No results reported for the elements associated with this internal standard.							
21:36	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:45	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:54	ZZZZZZ	103.771	103.876	109.045	102.482	110.928	107.038	107.042	111.902
21:58	MA36446-CCVA7	100.582	98.924	107.676	99.891	111.103	105.398	106.07	111.714

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:03	MA36446-CCB7	102.218	101.019	108.683	100.169	110.519	105.067	106.296	111.325
22:07	MP85650A-MB1	No results reported for the elements associated with this internal standard.							
22:12	MP85650A-B1	No results reported for the elements associated with this internal standard.							
22:16	MP85650A-S1	No results reported for the elements associated with this internal standard.							
22:20	MP85650A-S2	No results reported for the elements associated with this internal standard.							
22:25	ZZZZZZ	100.507	100.136	106.554	97.781	110.844	104.464	106.789	111.768
22:29	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
22:38	JB91395-3R	No results reported for the elements associated with this internal standard.							
22:43	ZZZZZZ	101.803	101.114	108.058	99.031	111.463	104.947	106.842	111.077
22:47	MA36446-CCVA8	100.039	98.768	107.226	98.255	111.938	105.396	106.557	113.024
22:51	MA36446-CCB8	101.875	101.676	107.628	99.141	111.417	105.208	107.467	112.122
22:56	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:00	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:05	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
23:13	ZZZZZZ	101.879	100.776	106.627	98.726	110.538	105.091	106.39	111.225
23:18	ZZZZZZ	100.605	99.757	106.31	97.852	110.277	104.359	105.992	111.764
23:22	ZZZZZZ	100.148	99.097	105.999	97.468	110.496	103.404	105.716	111.035
23:27	MA36446-CCVA9	97.197	97.296	104.951	95.741	109.869	103.652	105.511	110.761
23:31	MA36446-CCB9	100.104	98.766	104.804	96.023	109.06	103.161	104.885	109.783

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Rhodium (103-2)	70-130 %	70-130 %
Istd#10	Rhodium (103-3)	70-130 %	70-130 %
Istd#11	Indium (115-1)	70-130 %	70-130 %
Istd#12	Indium (115-2)	70-130 %	70-130 %
Istd#13	Terbium (159-1)	70-130 %	70-130 %
Istd#14	Terbium (159-2)	70-130 %	70-130 %
Istd#15	Terbium (159-3)	70-130 %	70-130 %
Istd#16	Holmium (165-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
16:35	MA36446-STD1	100	100	100
17:05	MA36446-STD2	100	100	100
17:09	MA36446-STD3	100	100	100
17:14	MA36446-STD4	100.305	99.244	100.844
17:18	MA36446-STD5	99.017	100.224	99.741
17:22	MA36446-STD6	98.337	98.765	99.65
17:27	MA36446-STD7	98.981	100.414	101.17
17:31	MA36446-STD8	98.59	99.628	100.428
17:36	MA36446-STD9	100.372	101.179	100.625
17:40	MA36446-STD10	98.373	97.757	99.043
17:45	MA36446-STD11	98.604	98.337	97.953
17:49	MA36446-STD12	98.258	97.063	96.018
17:53	ZZZZZZ	98.599	99.573	99.528
17:59	MA36446-ICV1	99.869	100.848	101.18
18:03	MA36446-ICVA1	99.084	99.224	98.531
18:08	MA36446-ICB1	98.968	101.813	100.29
18:12	MA36446-CRIB1	99.948	101.391	100.994
18:17	MA36446-CCVA1	99.398	99.94	99.203
18:21	MA36446-CCB1	99.722	102.327	101.39
18:25	MA36446-ICSA1	95.466	91.517	89.672
18:30	MA36446-ICSAB1	96.261	93.926	89.822
18:35	ZZZZZZ	101.705	106.269	103.6
18:39	ZZZZZZ	101.854	106.974	103.801
18:43	MA36446-CCVA2	102.262	105.724	102.215
18:48	MA36446-CCB2	103.065	106.277	103.77
18:52	ZZZZZZ	101.408	107.683	105.277
18:57	MP85759-PS1	101.823	106.079	103.25
19:01	MP85759-PS1	103.461	108.412	105.45
19:06	ZZZZZZ	101.554	105.131	102.495
19:10	ZZZZZZ	100.703	104.713	101.616
19:14	MA36446-CCVA3	101.383	104.716	101.425
19:19	MA36446-CCB3	101.472	104.749	101.843
19:26	MP85824-MB1	98.721	106.702	102.332

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
19:31	MP85824-B1	105.514	110.81	107.507
19:35	MP85824-S1	106.059	105.181	104.211
19:39	MP85824-S2	109.083	107.733	106.785
19:44	ZZZZZZ	105.001	108.222	106.35
19:48	FA23355-1	93.316	88.754	84.435
19:53	MP85824-SD1	106.808	105.284	100.56
19:57	FA23355-1F	94.148	88.75	84.377
20:02	ZZZZZZ	115.432	122.174	117.095
20:06	MA36446-CCVA4	115.902	119.838	115.955
20:11	MA36446-CCB4	114.319	117.824	115.467
20:15	MP85824-PS1	97.059	91.529	86.819
20:20	ZZZZZZ	113.798	119.037	115.375
20:24	ZZZZZZ	112.379	118.864	113.693
20:29	ZZZZZZ	109.631	117.361	112.755
20:33	MA36446-CCVA5	109.071	114.603	109.233
20:37	MA36446-CCB5	109.23	115.282	110.574
20:48	MA36446-CRIB2	107.795	112.802	110.412
20:52	MP85641A-MB1	No results reported for the elements associated with this internal standard.		
20:56	MP85641A-B1	No results reported for the elements associated with this internal standard.		
21:01	MP85641A-S1	No results reported for the elements associated with this internal standard.		
21:05	MP85641A-S2	No results reported for the elements associated with this internal standard.		
21:10	ZZZZZZ	105.894	112.963	108.194
21:14	MA36446-CCVA6	106.6	110.857	106.212
21:18	MA36446-CCB6	105.396	112.013	107.429
21:23	ZZZZZZ	106.083	113.273	109.203
21:27	ZZZZZZ	106.464	114.791	108.643
21:32	JB91376-3Q	No results reported for the elements associated with this internal standard.		
21:36	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:41	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:45	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:54	ZZZZZZ	106.16	111.552	106.171
21:58	MA36446-CCVA7	106.066	110.178	104.861

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
Analyst: AP Run ID: MA36446
Parameters: Al,Sb,As,Ba,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19
22:03	MA36446-CCB7	104.847	111.944	106.317
22:07	MP85650A-MB1	No results reported for the elements associated with this internal standard.		
22:12	MP85650A-B1	No results reported for the elements associated with this internal standard.		
22:16	MP85650A-S1	No results reported for the elements associated with this internal standard.		
22:20	MP85650A-S2	No results reported for the elements associated with this internal standard.		
22:25	ZZZZZZ	104.565	114.386	107.249
22:29	ZZZZZZ	No results reported for the elements associated with this internal standard.		
22:34	ZZZZZZ	No results reported for the elements associated with this internal standard.		
22:38	JB91395-3R	No results reported for the elements associated with this internal standard.		
22:43	ZZZZZZ	105.85	113.05	106.484
22:47	MA36446-CCVA8	106.051	111.515	105.268
22:51	MA36446-CCB8	106	113.181	107.333
22:56	ZZZZZZ	No results reported for the elements associated with this internal standard.		
23:00	ZZZZZZ	No results reported for the elements associated with this internal standard.		
23:05	ZZZZZZ	No results reported for the elements associated with this internal standard.		
23:09	ZZZZZZ	No results reported for the elements associated with this internal standard.		
23:13	ZZZZZZ	105.655	111.76	106.604
23:18	ZZZZZZ	105.042	112.619	106.664
23:22	ZZZZZZ	103.911	111.983	104.758
23:27	MA36446-CCVA9	103.738	110.063	103.292
23:31	MA36446-CCB9	103.875	110.863	104.548

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Holmium (165-2)	70-130 %	70-130 %
Istd#18	Bismuth (209-1)	70-130 %	70-130 %
Istd#19	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36446 Units: ug/l

Time:				18:08		18:21		18:48	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20	0.39	<25	0.45	<25	1.4	<25
Antimony	0.50	.048	0.50	-0.038	<0.50	0.34	<0.50	0.49	<2.0
Arsenic	0.50	.042	0.45	-0.0094	<0.50	-0.0018	<0.50	-0.0016	<1.5
Barium	1.0	.0063	0.50	0.0057	<1.0	0.0071	<1.0	0.00085	<1.0
Beryllium	0.50	.0053	0.25						
Boron	25	.87	20						
Cadmium	0.50	.014	0.30	-0.0011	<0.50	0.00081	<0.50	-0.0063	<3.0
Calcium	250	6.1	50	-4.5	<250	-6.2	<250	-23	<250
Chromium	1.0	.019	0.50	0.0093	<1.0	0.022	<1.0	0.022	<4.0
Cobalt	0.50	.0044	0.25	0.0032	<0.50	0.0038	<0.50	0.0032	<0.50
Copper	2.0	.036	0.50	0.0095	<2.0	-0.0046	<2.0	0.0075	<5.0
Iron	25	.73	13	1.2	<25	1.2	<25	2.6	<25
Lead	0.50	.0071	0.25	0.012	<0.50	0.012	<0.50	0.014	<1.5
Magnesium	250	.62	130	0.33	<250	0.48	<250	1.8	<250
Manganese	1.0	.016	0.50	0.017	<1.0	0.0097	<1.0	0.012	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0	0.050	<1.0	0.048	<1.0	0.052	<4.0
Potassium	250	3.2	50	1.0	<250	1.8	<250	1.0	<250
Selenium	0.50	.024	0.50	0.029	<0.50	0.013	<0.50	0.020	<1.0
Silver	0.50	.0073	0.25	0.013	<0.50	0.015	<0.50	0.013	<1.0
Sodium	250	2.6	50						
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35	0.057	<0.50	0.021	<0.50	0.016	<1.0
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50	-0.029	<1.0	-0.057	<1.0	-0.055	<1.5
Zinc	5.0	.075	1.5	0.034	<5.0	0.0096	<5.0	0.019	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36446 Units: ug/l

Time:				19:19		20:11		20:37	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20	0.76	<25	0.37	<25	0.56	<25
Antimony	0.50	.048	0.50	0.44	<2.0	0.27	<2.0	0.24	<2.0
Arsenic	0.50	.042	0.45	0.0071	<1.5	0.023	<1.5	-0.0055	<1.5
Barium	1.0	.0063	0.50	0.013	<1.0	0.0090	<1.0	0.010	<1.0
Beryllium	0.50	.0053	0.25						
Boron	25	.87	20						
Cadmium	0.50	.014	0.30	0.0016	<3.0	-0.0040	<3.0	0.0027	<3.0
Calcium	250	6.1	50	-22	<250	-19	<250	-19	<250
Chromium	1.0	.019	0.50	0.0099	<4.0	-0.023	<4.0	-0.014	<4.0
Cobalt	0.50	.0044	0.25	0.0031	<0.50	0.0025	<0.50	0.0026	<0.50
Copper	2.0	.036	0.50	0.0093	<5.0	0.024	<5.0	0.011	<5.0
Iron	25	.73	13	1.5	<25	1.2	<25	1.3	<25
Lead	0.50	.0071	0.25	0.020	<1.5	0.021	<1.5	0.013	<1.5
Magnesium	250	.62	130	0.49	<250	0.76	<250	0.60	<250
Manganese	1.0	.016	0.50	0.0076	<2.0	0.012	<2.0	0.010	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0	0.057	<4.0	0.060	<4.0	0.065	<4.0
Potassium	250	3.2	50	-0.046	<250	10.1	<250	12.6	<250
Selenium	0.50	.024	0.50	0.022	<1.0	0.019	<1.0	0.026	<1.0
Silver	0.50	.0073	0.25	0.013	<1.0	0.013	<1.0	0.0092	<1.0
Sodium	250	2.6	50						
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35	0.017	<1.0	0.024	<1.0	0.021	<1.0
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50	-0.032	<1.5	-0.045	<1.5	-0.062	<1.5
Zinc	5.0	.075	1.5	-0.00075	<10	-0.0062	<10	-0.019	<10

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36446 Units: ug/l

Time:				21:18	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Aluminum	25	.55	20	0.52	<25
Antimony	0.50	.048	0.50	0.58	<2.0
Arsenic	0.50	.042	0.45	0.034	<1.5
Barium	1.0	.0063	0.50	0.033	<1.0
Beryllium	0.50	.0053	0.25		
Boron	25	.87	20		
Cadmium	0.50	.014	0.30	0.012	<3.0
Calcium	250	6.1	50	-19	<250
Chromium	1.0	.019	0.50	0.017	<4.0
Cobalt	0.50	.0044	0.25	0.014	<0.50
Copper	2.0	.036	0.50	0.048	<5.0
Iron	25	.73	13	1.4	<25
Lead	0.50	.0071	0.25	0.078	<1.5
Magnesium	250	.62	130	0.52	<250
Manganese	1.0	.016	0.50	0.021	<2.0
Molybdenum	1.0	.052	0.50		
Nickel	1.0	.02	1.0	0.060	<4.0
Potassium	250	3.2	50	9.8	<250
Selenium	0.50	.024	0.50	0.043	<1.0
Silver	0.50	.0073	0.25	0.011	<1.0
Sodium	250	2.6	50		
Strontium	5.0	.0094	2.5		
Thallium	0.50	.019	0.35	0.064	<1.0
Tin	5.0	.046	2.5		
Titanium	1.0	.052	0.50		
Vanadium	1.0	.14	0.50	-0.050	<1.5
Zinc	5.0	.075	1.5	0.036	<10

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36446 Units: ug/l

Time:		17:59			18:03			18:17	
Sample ID:	ICV	ICV1		ICVA	ICVA1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	60	60.7	101.2	5500	5440	98.9	5000	5110	102.2
Antimony				60	64.1	106.8	50	50.1	100.2
Arsenic				60	61.1	101.8	50	49.6	99.2
Barium				60	59.7	99.5	50	48.9	97.8
Beryllium									
Boron									
Cadmium				60	59.1	98.5	50	50.0	100.0
Calcium				5500	5320	96.7	5000	5130	102.6
Chromium				60	59.3	98.8	50	49.6	99.2
Cobalt				60	59.3	98.8	50	48.6	97.2
Copper				60	58.9	98.2	50	48.8	97.6
Iron				5500	5480	99.6	5000	5150	103.0
Lead				60	59.6	99.3	50	49.9	99.8
Magnesium				5500	5490	99.8	5000	5150	103.0
Manganese				60	59.0	98.3	50	49.1	98.2
Molybdenum									
Nickel				60	59.6	99.3	50	49.0	98.0
Potassium				5500	5420	98.5	5000	5130	102.6
Selenium				60	59.8	99.7	50	50.3	100.6
Silver				60	60.1	100.2	50	49.2	98.4
Sodium									
Strontium									
Thallium				60	62.7	104.5	50	48.3	96.6
Tin									
Titanium									
Vanadium				60	60.5	100.8	50	50.0	100.0
Zinc				60	60.0	100.0	50	49.4	98.8

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36446 Units: ug/l

Time:		18:43			19:14			20:06	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	5030	100.6	5000	5100	102.0	5000	5100	102.0
Antimony	50	51.1	102.2	50	50.6	101.2	50	50.6	101.2
Arsenic	50	50.5	101.0	50	50.6	101.2	50	50.4	100.8
Barium	50	48.9	97.8	50	48.6	97.2	50	48.2	96.4
Beryllium	anr								
Boron									
Cadmium	50	50.1	100.2	50	49.9	99.8	50	50.1	100.2
Calcium	5000	5150	103.0	5000	5130	102.6	5000	5130	102.6
Chromium	50	50.6	101.2	50	50.6	101.2	50	49.6	99.2
Cobalt	50	50.1	100.2	50	49.8	99.6	50	49.0	98.0
Copper	50	50.1	100.2	50	49.6	99.2	50	48.8	97.6
Iron	5000	5270	105.4	5000	5240	104.8	5000	5200	104.0
Lead	50	50.0	100.0	50	49.6	99.2	50	49.6	99.2
Magnesium	5000	5180	103.6	5000	5200	104.0	5000	5170	103.4
Manganese	50	49.8	99.6	50	49.6	99.2	50	49.4	98.8
Molybdenum									
Nickel	50	50.0	100.0	50	50.2	100.4	50	48.9	97.8
Potassium	5000	5090	101.8	5000	5140	102.8	5000	5100	102.0
Selenium	50	49.7	99.4	50	50.2	100.4	50	50.5	101.0
Silver	50	48.7	97.4	50	48.7	97.4	50	48.5	97.0
Sodium	anr								
Strontium									
Thallium	50	48.9	97.8	50	48.1	96.2	50	50.8	101.6
Tin									
Titanium									
Vanadium	50	50.9	101.8	50	50.7	101.4	50	50.7	101.4
Zinc	50	49.8	99.6	50	49.8	99.6	50	49.5	99.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36446 Units: ug/l

Time:		20:33			21:14	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	5110	102.2	5000	5190	103.8
Antimony	50	50.7	101.4	50	50.9	101.8
Arsenic	50	50.8	101.6	50	51.6	103.2
Barium	50	48.3	96.6	50	47.8	95.6
Beryllium	anr					
Boron						
Cadmium	50	49.9	99.8	50	50.3	100.6
Calcium	5000	5110	102.2	5000	5150	103.0
Chromium	50	50.2	100.4	50	50.4	100.8
Cobalt	50	49.3	98.6	50	50.4	100.8
Copper	50	49.1	98.2	50	50.0	100.0
Iron	5000	5200	104.0	5000	5290	105.8
Lead	50	49.7	99.4	50	49.2	98.4
Magnesium	5000	5210	104.2	5000	5250	105.0
Manganese	50	49.9	99.8	50	50.3	100.6
Molybdenum						
Nickel	50	49.3	98.6	50	49.7	99.4
Potassium	5000	5150	103.0	5000	5190	103.8
Selenium	50	50.1	100.2	50	50.3	100.6
Silver	50	48.5	97.0	50	47.9	95.8
Sodium	anr					
Strontium						
Thallium	50	48.1	96.2	50	47.9	95.8
Tin						
Titanium						
Vanadium	50	50.9	101.8	50	51.0	102.0
Zinc	50	49.8	99.6	50	50.5	101.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36446 Units: ug/l

Time:		18:12		20:48	
Sample ID:	CRIB	CRIB1		CRIB2	
Metal	True	Results	% Rec	Results	% Rec
Aluminum	25	24.0	96.0	23.8	95.2
Antimony	0.50	0.57	114.0	0.54	108.0
Arsenic	0.50	0.51	102.0	0.52	104.0
Barium	1.0	1.1	110.0	1.0	100.0
Beryllium	0.50				
Boron	25				
Cadmium	0.50	0.48	96.0	0.47	94.0
Calcium	250	240	96.0	227	90.8
Chromium	1.0	1.0	100.0	1.0	100.0
Cobalt	0.50	0.52	104.0	0.52	104.0
Copper	2.0	2.1	105.0	2.2	110.0
Iron	25	25.6	102.4	25.7	102.8
Lead	0.50	0.49	98.0	0.50	100.0
Magnesium	250	247	98.8	244	97.6
Manganese	0.50	0.51	102.0	0.53	106.0
Molybdenum	1.0				
Nickel	1.0	1.1	110.0	1.1	110.0
Potassium	250	247	98.8	253	101.2
Selenium	0.50	0.56	112.0	0.54	108.0
Silver	0.50	0.51	102.0	0.50	100.0
Sodium	250				
Strontium	5.0				
Thallium	0.50	0.49	98.0	0.48	96.0
Tin	5.0				
Titanium	1.0				
Vanadium	1.0	1.1	110.0	1.0	100.0
Zinc	5.0	5.3	106.0	5.5	110.0

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041615M3L.CSV Date Analyzed: 04/16/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36446 Units: ug/l

Time:			18:25		18:30	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95500	95.5	93800	93.8
Antimony			0.26		0.16	
Arsenic		20	0.068		21.1	105.5
Barium			0.12		0.16	
Beryllium			0.013		0.024	
Boron			2.3		1.6	
Cadmium		20	1.1		20.7	103.5
Calcium	100000	100000	95100	95.1	96100	96.1
Chromium		20	1.3		21.5	107.5
Cobalt		20	0.018		19.9	99.5
Copper		20	0.75		19.9	99.5
Iron	100000	100000	97100	97.1	97900	97.9
Lead			0.21		0.21	
Magnesium	100000	100000	97000	97.0	96500	96.5
Manganese		20	0.41		20.8	104.0
Molybdenum	2000	2000	2120	106.0	2110	105.5
Nickel		20	0.33		19.6	98.0
Potassium	100000	100000	96800	96.8	96200	96.2
Selenium		20	0.044		21.8	109.0
Silver		20	0.019		18.6	93.0
Sodium	100000	100000	97700	97.7	97800	97.8
Strontium			0.70		0.74	
Thallium			0.012		0.010	
Tin			0.15		0.18	
Titanium	2000	2000	1970	98.5	1970	98.5
Vanadium		20	0.011		21.5	107.5
Zinc		20	1.6		20.7	103.5

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:39	MA36451-STD1	1		STDA
09:44	MA36451-STD2	1		STDA
09:48	MA36451-STD3	1		STDA
09:53	MA36451-STD4	1		STDB
09:57	MA36451-STD5	1		STDC
10:02	MA36451-STD6	1		STDD
10:06	MA36451-STD7	1		STDE
10:10	MA36451-STD8	1		STDF
10:15	MA36451-STD9	1		STDG
10:19	MA36451-STD10	1		STDH
10:24	MA36451-STD11	1		STDI
10:28	MA36451-STD12	1		STDJ
10:33	ZZZZZZ	1		
10:46	MA36451-ICV1	1		60ppb Al.
10:50	MA36451-ICVA1	1		
10:55	MA36451-ICB1	1		
10:59	MA36451-CRIB1	1		
11:04	MA36451-CCVA1	1		
11:08	MA36451-CCB1	1		
11:12	MA36451-ICSA1	1		
11:17	MA36451-ICSAB1	1		
11:21	ZZZZZZ	1		
11:26	MA36451-CCVA2	1		
11:35	MA36451-CCB2	1		
11:40	ZZZZZZ	2		
11:49	ZZZZZZ	25		
11:53	ZZZZZZ	25		
11:57	ZZZZZZ	25		
12:02	ZZZZZZ	1		
12:06	ZZZZZZ	2		
12:11	ZZZZZZ	10		
12:17	ZZZZZZ	1		
12:21	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:26	MA36451-CCVA3	1		
12:52	MA36451-CCB3	1		
12:56	ZZZZZZ	2		
13:03	ZZZZZZ	1		
13:07	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:16	MA36451-CCVA4	1		
13:21	MA36451-CCB4	1		
13:25	ZZZZZZ	2		
13:30	ZZZZZZ	25		
13:34	ZZZZZZ	25		
13:38	ZZZZZZ	25		
13:43	ZZZZZZ	1		
13:47	FA23355-1	25		Ca, Mg
13:52	FA23355-1F	25		Ca, Mg
13:56	MP85824-SD1	125		
14:04	ZZZZZZ	1		
14:08	MA36451-CCVA5	1		
14:13	MA36451-CCB5	1		
14:17	MP85824-MB1	2		
14:22	MP85824-B1	25		
14:26	MP85824-S1	25		
14:31	MP85824-S2	25		
14:35	ZZZZZZ	1		
14:39	MP85824-S1	250		
14:44	MP85824-S2	250		
14:48	MP85824-SD1	1250		
14:53	ZZZZZZ	1		
14:57	MA36451-CCVA6	1		
15:02	MA36451-CCB6	1		
15:06	FA23355-1	5		Be and Mn
15:11	FA23355-1F	5		Be and Mn
15:15	MP85824-SD1	25		Be and Mn

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:20	ZZZZZZ	1		
15:24	FA23355-1	250		Na
15:28	FA23355-1F	250		Na
15:33	MP85824-PS1	250		
15:37	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:46	MA36451-CCVA7	1		
15:51	MA36451-CCB7	1		
15:55	MP85824-PS1	5		
16:00	MP85824-PS1	25		
---------->	Last reportable sample/prep for job FA23355			
16:04	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:22	MA36451-CCVA8	1		
16:26	MA36451-CCB8	1		
16:31	MA36451-CRIB2	1		
16:35	ZZZZZZ	1		
16:39	MP85840-MB1	2		
16:44	MP85840-B1	10		
16:48	MP85840-S1	10		
16:53	MP85840-S2	10		
16:57	ZZZZZZ	1		
17:02	JB92345-1	2		(sample used for QC only; not part of login FA23355)
17:06	MP85840-SD1	10		
17:11	ZZZZZZ	1		
17:15	MA36451-CCVA9	1		
17:20	MA36451-CCB9	1		
17:24	ZZZZZZ	2		
17:29	ZZZZZZ	2		
17:33	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:43	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:47	MA36451-CRIB3	1		
17:52	MA36451-CCVA10	1		
17:56	MA36451-CCB10	1		
18:01	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:14	MA36451-CRIB4	1		
18:18	MA36451-ICSA2	1		
18:23	MA36451-ICSAB2	1		
18:27	ZZZZZZ	1		
18:32	MA36451-CCVA11	1		
18:36	MA36451-CCB11	1		
---------->	Last reportable CCB for job FA23355			
19:07	ZZZZZZ	1		
19:11	ZZZZZZ	1		
19:16	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:39	MA36451-STD1	100	100	100	100	100	100	100	100
09:44	MA36451-STD2	100	100	100	100	100	100	100	100
09:48	MA36451-STD3	100	100	100	100	100	100	100	100
09:53	MA36451-STD4	99.78	100.347	100.342	98.723	100.381	100.145	99.39	100.527
09:57	MA36451-STD5	99.674	99.726	100.242	99.329	99.874	101.075	100.7	100.367
10:02	MA36451-STD6	100.441	99.897	99.266	99.531	100.233	99.896	100.651	100.841
10:06	MA36451-STD7	101.888	98.992	99.412	99.124	100.57	100.252	100.258	99.776
10:10	MA36451-STD8	102.278	99.559	100.016	98.01	101.479	100.817	99.023	101.377
10:15	MA36451-STD9	103.333	101.039	100.634	99.055	101.488	100.611	99.619	101.291
10:19	MA36451-STD10	102.305	101.503	100.944	99.993	101.012	101.462	100.761	100.953
10:24	MA36451-STD11	102.138	101.596	101.763	100.206	101.727	100.338	99.623	100.109
10:28	MA36451-STD12	102.538	102.476	101.794	100.582	100.017	100.675	99.955	98.758
10:33	ZZZZZZ	103.722	102.102	102.264	101.22	102.598	102.191	101.623	103.229
10:46	MA36451-ICV1	97.815	99.056	100.321	101.304	101.027	100.957	100.981	101.399
10:50	MA36451-ICVA1	98.783	100.752	100.135	99.493	101.693	100.304	100.179	99.159
10:55	MA36451-ICB1	100.461	100.547	101.434	100.898	100.305	101.23	101.262	100.845
10:59	MA36451-CRIB1	99.861	100.931	101.578	100.319	101.005	101.606	101.244	102.274
11:04	MA36451-CCVA1	100.248	101.396	101.395	100.863	101.616	101.948	100.443	100.297
11:08	MA36451-CCB1	101.946	100.85	101.616	100.666	101.995	102.017	101.665	101.744
11:12	MA36451-ICSA1	95.998	99.267	95.967	98.603	96.312	95.694	96.801	91.236
11:17	MA36451-ICSAB1	98.042	101.071	96.22	100.763	98.791	96.693	98.511	93.416
11:21	ZZZZZZ	106.345	104.034	99.129	102.259	106.149	101.894	103.344	106.231
11:26	MA36451-CCVA2	104.845	105.407	100.067	102.661	105.767	102.929	103.015	104.535
11:35	MA36451-CCB2	102.66	104.697	102.443	104.653	106.594	103.92	105.55	106.845
11:40	ZZZZZZ	99.81	102.147	97.368	103.445	105.537	103.187	107.263	102.663
11:49	ZZZZZZ	105.133	107.711	105.142	104.259	109.302	106.267	106.206	108.429
11:53	ZZZZZZ	99.806	105.235	106.905	109.792	106.289	107.958	109.368	102.786
11:57	ZZZZZZ	98	108.545	111.933	115.029	109.738	111.718	114.712	104.896
12:02	ZZZZZZ	100.949	107.543	106.649	108.559	109.417	108.596	108.673	109.561
12:06	ZZZZZZ	90.074	101.038	103.766	110.873	103.653	105.243	109.764	93.414
12:11	ZZZZZZ	104.286	115.502	119.092	122.125	116.939	118.028	119.648	109.986
12:17	ZZZZZZ	113.784	114.93	115.29	116.542	117.707	115.835	116.6	116.159
12:21	ZZZZZZ	111.704	114.378	113.268	114.824	114.015	114.579	114.946	115.498

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:26	MA36451-CCVA3	109.713	112.41	111.032	113.344	112.455	111.945	112.768	111.154
12:52	MA36451-CCB3	106.171	108.853	109.446	110.977	110.996	110.209	112.002	111.017
12:56	ZZZZZZ	92.729	102.766	103.742	110.105	103.981	106.796	110.048	92.907
13:03	ZZZZZZ	117.884	115.522	114.712	114.672	116.776	114.775	115.022	117.007
13:07	ZZZZZZ	114.068	113.077	111.651	112.613	113.578	112.92	113.346	113.424
13:12	ZZZZZZ	113.156	111.604	110.56	111.669	111.815	110.972	111.674	112.761
13:16	MA36451-CCVA4	112.021	110.155	108.545	107.723	110.413	108.498	108.443	108.1
13:21	MA36451-CCB4	108.251	108.647	108.462	108.652	110.252	110.008	109.208	110.007
13:25	ZZZZZZ	108.224	105.812	102.922	106.753	111.987	109.819	113.065	109.028
13:30	ZZZZZZ	112.028	114.275	111.824	110.372	114.972	113.348	112.303	114.891
13:34	ZZZZZZ	113.646	114.415	114.101	111.958	116.113	116.007	113.455	115.145
13:38	ZZZZZZ	113.842	114.49	114.612	112.312	115.828	115.933	113.646	113.94
13:43	ZZZZZZ	105.302	107.222	107.31	108.678	107.057	109.517	108.856	108.85
13:47	FA23355-1	104.151	110.909	116.646	117.222	110.473	116.094	116.619	106.828
13:52	FA23355-1F	104.736	113.292	118.338	120.073	114.332	118.398	118.743	110.554
13:56	MP85824-SD1	111.526	116.396	120.863	120.362	117.646	120.118	119.504	115.809
14:04	ZZZZZZ	107.957	109.419	109.958	111.606	111.382	110.457	111.999	111.464
14:08	MA36451-CCVA5	108.907	109.663	107.33	108.24	108.626	107.425	108.434	107.756
14:13	MA36451-CCB5	109.825	108.699	108.183	109.702	110.037	110.032	109.965	109.955
14:17	MP85824-MB1	108.993	106.114	102.684	106.891	112.763	109.568	113.641	107.85
14:22	MP85824-B1	111.121	113.14	112.77	111.193	115.45	114.21	112.476	115.598
14:26	MP85824-S1	103.979	110.612	113.736	115.841	110.463	113.676	114.873	107.399
14:31	MP85824-S2	104.399	112.025	116.221	116.151	112.252	115.742	115.462	108.884
14:35	ZZZZZZ	108.776	109.994	111.842	112.715	112.336	111.834	112.628	112.908
14:39	MP85824-S1	114.871	115.516	116.931	113.886	116.99	117.759	115.033	115.755
14:44	MP85824-S2	115.298	113.497	114.188	113.191	115.469	115	113.477	115.316
14:48	MP85824-SD1	111.647	113.524	113.576	112.005	114.469	114.581	113.681	113.781
14:53	ZZZZZZ	106.548	107.67	107.61	108.838	108.742	108.112	109.473	110.347
14:57	MA36451-CCVA6	106.92	107.619	107.036	107.117	107.846	107.262	107.114	107.513
15:02	MA36451-CCB6	109.473	107.978	105.784	106.253	108.979	106.292	107.412	110.601
15:06	FA23355-1	94.709	105.623	107.989	113.247	104.759	106.215	110.703	98.893
15:11	FA23355-1F	96.825	107.068	109.433	116.163	106.385	108.147	112.941	101.979
15:15	MP85824-SD1	112.232	118.681	119.876	121.15	117.307	120.105	120.084	114.648

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:20	ZZZZZZ	115.593	115.328	115.354	115.057	115.341	115.125	115.298	116.873
15:24	FA23355-1	121.206	118.353	118.877	117.626	119.94	118.737	118.339	118.845
15:28	FA23355-1F	117.063	116.35	118.392	117.001	117.954	118.796	117.743	117.424
15:33	MP85824-PS1	119.386	118.146	118.905	116.461	118.451	118.799	117.991	118.741
15:37	ZZZZZZ	114.063	111.691	110.212	111.389	112.332	110.836	111.194	113.857
15:42	ZZZZZZ	114.069	112.701	109.888	110.463	112.002	110.43	111.116	114.138
15:46	MA36451-CCVA7	114.006	109.117	107.196	108.197	109.783	107.809	108.28	110.503
15:51	MA36451-CCB7	111.322	110.152	107.436	108.001	109.787	108.269	109.89	111.943
15:55	MP85824-PS1	100.396	107.756	109.501	113.816	105.899	108.053	110.525	101.322
16:00	MP85824-PS1	113.713	118.345	118.907	118.844	117.908	117.933	117.693	115.123
16:04	ZZZZZZ	113.552	113.963	112.279	113.418	113.116	113.048	113.975	114.907
16:08	ZZZZZZ	113.073	112.297	112.137	112.892	112.705	112.201	113.579	114.179
16:13	ZZZZZZ	113.755	112.37	111.145	111.422	113.173	111.143	111.589	114.838
16:17	ZZZZZZ	113.358	112.747	110.194	110.361	112.619	110.857	111.513	114.302
16:22	MA36451-CCVA8	114.543	112.677	107.861	108.144	111.547	108.502	108.291	111.992
16:26	MA36451-CCB8	113.897	111.017	108.006	107.331	111.339	108.166	109.302	112.569
16:31	MA36451-CRIB2	112.652	110.083	108.262	108.923	111.192	109.433	108.892	113.64
16:35	ZZZZZZ	115.15	111.54	108.56	109.338	110.953	108.935	109.758	113.874
16:39	MP85840-MB1	113.536	108.457	103.752	105.798	112.196	108.566	111.177	111.376
16:44	MP85840-B1	114.604	112.316	107.707	108.087	111.76	108.915	108.616	112.951
16:48	MP85840-S1	106.577	110.792	109.639	111.538	106.541	108.494	109.063	103.932
16:53	MP85840-S2	108.861	112.515	111.663	112.861	109.684	110.163	110.956	107.098
16:57	ZZZZZZ	118.295	114.373	112.303	110.765	114.935	112.842	111.387	117.369
17:02	JB92345-1	109.485	108.239	102.467	104.543	107.077	106.343	107.343	95.704
17:06	MP85840-SD1	114.915	121.885	115.038	113.673	116.144	115.087	112.438	112.631
17:11	ZZZZZZ	118.381	117.742	113.546	111.603	116.934	115.625	112.627	119.068
17:15	MA36451-CCVA9	119.351	116.184	111.865	108.537	115.433	113.521	111.27	114.789
17:20	MA36451-CCB9	118.648	115.309	109.756	108.417	116.23	112.048	111.045	116.941
17:24	ZZZZZZ	113.91	111.134	103.685	104.011	113.872	110.579	110.021	106.01
17:29	ZZZZZZ	85.714	100.156	101.122	111.64	99.456	103.474	109.653	87.71
17:33	ZZZZZZ	117.008	124.019	120.965	117.799	124.604	124.703	120.051	125.794
17:39	ZZZZZZ	120.278	120.755	117.348	113.681	119.891	120.097	115.818	122.678
17:43	ZZZZZZ	118.457	118.932	114.403	110.971	118.603	116.643	112.735	120.543

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:47	MA36451-CRIB3	115.715	115.952	111.493	109.856	115.361	113.685	111.037	117.252
17:52	MA36451-CCVA10	115.329	114.261	109.186	108.122	112.773	111.6	108.793	113.181
17:56	MA36451-CCB10	115.434	112.95	110.317	109.38	113.034	112.632	110.499	115.765
18:01	ZZZZZZ	114.413	113.958	111.285	108.917	112.911	112.573	111.335	115.364
18:05	ZZZZZZ	115.487	114.48	110.731	107.463	112.668	112.505	108.824	116.113
18:10	ZZZZZZ	114.229	112.488	108.944	106.53	112.017	110.325	106.904	113.579
18:14	MA36451-CRIB4	114.053	112.761	108.966	106.863	110.577	109.22	106.434	113.387
18:18	MA36451-ICSA2	106.88	106.773	99.421	100.578	103.624	99.968	100.153	100.057
18:23	MA36451-ICSAB2	107.862	108.978	98.648	103.921	105.336	99.658	102.152	102.591
18:27	ZZZZZZ	113.022	110.795	102.464	103.43	111.707	105.841	106.203	114.781
18:32	MA36451-CCVA11	113.036	112.198	104.089	104.182	111.976	107.556	104.841	112.879
18:36	MA36451-CCB11	113.808	111.712	104.447	104.738	111.247	107.475	106.473	114.511
19:07	ZZZZZZ	113.295	110.527	104.694	104.016	110.541	107.692	105.28	112.524
19:11	ZZZZZZ	112.137	109.631	103.641	103.308	109.182	107.265	104.938	110.816
19:16	ZZZZZZ	111.401	110.209	104.935	103.472	109.903	106.665	105.095	111.678

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (74-1)	70-130 %	70-130 %
Istd#6	Germanium (74-2)	70-130 %	70-130 %
Istd#7	Germanium (74-3)	70-130 %	70-130 %
Istd#8	Rhodium (103-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:39	MA36451-STD1	100	100	100	100	100	100	100	100
09:44	MA36451-STD2	100	100	100	100	100	100	100	100
09:48	MA36451-STD3	100	100	100	100	100	100	100	100
09:53	MA36451-STD4	100.358	99.223	101.397	100.916	100.77	101.98	99.95	101.06
09:57	MA36451-STD5	101.254	99.812	100.242	100.723	100.502	101.334	100.499	101.03
10:02	MA36451-STD6	100.439	100.445	99.883	100.579	100.874	101.554	101.256	100.615
10:06	MA36451-STD7	100.661	99.444	100.208	99.849	100.968	101.279	100.913	101.574
10:10	MA36451-STD8	100.274	98.273	101.056	100.298	101.625	102.044	99.817	101.586
10:15	MA36451-STD9	99.99	98.749	102.54	100.969	102.918	102.212	100.385	103.166
10:19	MA36451-STD10	100.653	99.949	102.188	101.632	102.349	102.823	101.601	101.943
10:24	MA36451-STD11	99.463	98.411	101.744	100.162	101.812	101.969	101.533	101.38
10:28	MA36451-STD12	98.859	97.223	100.453	99.709	101.963	101.967	100.767	102.884
10:33	ZZZZZZ	102.45	100.325	102.978	101.829	103.322	101.861	101.358	102.909
10:46	MA36451-ICV1	101.104	100.997	100.58	100.498	101.203	100.942	100.954	101.199
10:50	MA36451-ICVA1	98.426	97.679	98.752	98.653	101.096	100.137	100.065	100.645
10:55	MA36451-ICB1	101.573	100.696	101.267	100.882	100.103	101.7	100.814	101.496
10:59	MA36451-CRIB1	101.339	100.546	101.445	100.785	100.094	101.244	100.193	101.267
11:04	MA36451-CCVA1	99.885	98.204	100.443	100.576	101.679	101.466	101.312	101.497
11:08	MA36451-CCB1	101.792	100.69	101.443	100.526	101.341	101.318	100.748	101.762
11:12	MA36451-ICSA1	88.531	90.27	96.909	93.322	99.158	96.334	96.785	99.648
11:17	MA36451-ICSAB1	90.422	91.061	99.133	94.226	101.603	97.443	97.717	102.61
11:21	ZZZZZZ	104.65	102.843	106.769	101.244	106.748	103.777	103.602	106.871
11:26	MA36451-CCVA2	102.433	100.922	105.588	100.861	107.225	104.434	103.201	106.965
11:35	MA36451-CCB2	105.316	104.688	106.662	103.059	106.722	104.962	104.756	106.224
11:40	ZZZZZZ	102.594	102.711	104.17	98.907	104.157	102.421	103.412	104.052
11:49	ZZZZZZ	107.204	105.343	107.78	105.802	109.192	107.854	107.063	109.516
11:53	ZZZZZZ	102.975	103.301	105.04	104.599	106.037	105.912	106.743	105.881
11:57	ZZZZZZ	106.093	106.7	107.462	108.404	108.742	109.416	110.121	108.251
12:02	ZZZZZZ	108.986	107.508	109.105	106.992	108.033	107.276	107.427	107.974
12:06	ZZZZZZ	93.332	94.364	98.201	97.14	99.151	97.668	99.91	99.249
12:11	ZZZZZZ	110.108	108.882	113.448	114.322	112.704	113.009	111.405	113.26
12:17	ZZZZZZ	115.618	113.503	116.354	113.659	115.382	113.527	113.344	114.393
12:21	ZZZZZZ	114.517	112.75	114.08	112.334	114.948	113.224	112.553	113.847

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:26	MA36451-CCVA3	109.909	108.328	111.53	109.625	112.881	111.588	110.312	113.188
12:52	MA36451-CCB3	110.818	109.133	110.946	108.875	110.463	110.294	109.124	109.621
12:56	ZZZZZZ	92.954	93.882	97.64	97.531	99.028	98.095	99.181	99.055
13:03	ZZZZZZ	114.492	111.999	116.377	112.452	115.23	113.812	112.615	115.535
13:07	ZZZZZZ	112.963	111.122	113.465	110.88	113.319	112.794	112.201	113.04
13:12	ZZZZZZ	111.267	109.617	112.806	110.375	111.993	111.207	110.351	112.674
13:16	MA36451-CCVA4	107.184	104.796	109.834	106.94	111.747	109.345	108.106	112.396
13:21	MA36451-CCB4	110.134	108.108	110.352	107.956	109.847	109.635	108.75	110.989
13:25	ZZZZZZ	106.654	106.413	109.067	103.536	110.122	107.297	108.692	110.377
13:30	ZZZZZZ	112.859	110.043	115.325	113.115	115.579	113.691	111.848	116.208
13:34	ZZZZZZ	113.147	111.003	116.603	114.407	116.057	114.275	112.685	116.416
13:38	ZZZZZZ	113.35	110.593	115.774	114.798	115.165	114.686	112.26	114.728
13:43	ZZZZZZ	107.918	107.378	109.344	106.373	109.919	108.347	108.675	109.554
13:47	FA23355-1	110.164	109.776	109.821	113.021	111.172	113.306	112.451	111.392
13:52	FA23355-1F	111.465	109.654	113.714	114.352	113.131	113.77	113.246	113.102
13:56	MP85824-SD1	115.3	114.534	117.512	117.466	116.67	116.033	115.442	116.32
14:04	ZZZZZZ	110.61	109.351	112.073	108.833	112.517	110.396	111.403	112.43
14:08	MA36451-CCVA5	106.895	104.908	110.178	105.521	112.205	109.115	109.595	112.35
14:13	MA36451-CCB5	110.532	108.612	110.988	107.864	111.71	110.644	110.955	111.78
14:17	MP85824-MB1	106.989	106.615	109.418	103.645	111.031	108.579	109.255	110.807
14:22	MP85824-B1	114.005	110.796	116.729	112.775	117.451	114.666	114.371	117.691
14:26	MP85824-S1	108.507	107.231	110.488	110.126	112.358	112.068	112.761	112.057
14:31	MP85824-S2	109.819	107.385	111.536	111.263	113.318	113.67	112.905	113.348
14:35	ZZZZZZ	112.593	110.572	113.071	109.683	113.046	112.715	112.47	114.173
14:39	MP85824-S1	115.507	112.395	118.862	115.843	116.867	116.531	115.403	117.552
14:44	MP85824-S2	114.084	111.242	116.366	113.852	115.991	115.595	114.083	117.323
14:48	MP85824-SD1	113.145	111.286	115.133	112.552	115.252	114.37	113.026	115.058
14:53	ZZZZZZ	109.119	107.156	109.146	105.703	110.824	109.282	109.847	111.412
14:57	MA36451-CCVA6	105.881	104.055	109.787	104.81	110.894	108.984	108.658	111.864
15:02	MA36451-CCB6	108.618	104.487	110.905	105.692	111.202	108.471	107.617	112.121
15:06	FA23355-1	100.124	99.574	103.955	102.223	105.667	104.748	106.206	106.228
15:11	FA23355-1F	100.401	101.99	104.77	103.236	107.499	105.192	108.268	106.894
15:15	MP85824-SD1	114.946	112.005	117.404	116.274	118.55	116.964	115.962	117.893

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:20	ZZZZZZ	115.412	112.152	117.183	112.586	116.054	114.903	113.961	116.724
15:24	FA23355-1	117.852	113.969	121.056	118.332	120.392	119.212	117.128	121.189
15:28	FA23355-1F	115.971	113.337	118.758	116.217	118.099	117.21	116.912	118.751
15:33	MP85824-PS1	117.17	113.893	120.49	117.133	120.16	118.479	117.822	119.591
15:37	ZZZZZZ	112.535	110.662	114.782	109.153	114.938	112.815	113.475	115.522
15:42	ZZZZZZ	112.41	109.502	114.997	109.244	115.556	112.799	113.455	115.578
15:46	MA36451-CCVA7	107.862	104.679	111.938	106.137	113.779	111.502	110.918	115.328
15:51	MA36451-CCB7	109.917	108.24	111.773	106.831	113.692	111	111.8	113.992
15:55	MP85824-PS1	100.917	100.162	106.399	103.304	108.868	106.952	108.229	109.216
16:00	MP85824-PS1	112.897	109.484	117.769	114.815	119.039	116.834	115.251	119.278
16:04	ZZZZZZ	114.137	111.161	115.334	110.926	115.423	113.684	113.842	115.492
16:08	ZZZZZZ	113.021	111.276	114.429	109.836	115.526	113.579	113.826	116.109
16:13	ZZZZZZ	112.851	110.633	116.357	109.533	116.71	113.782	114.632	116.349
16:17	ZZZZZZ	112.886	109.996	115.48	109.397	116.361	113.835	113.696	116.927
16:22	MA36451-CCVA8	108.894	106.13	114.062	106.672	117.15	112.629	112.367	117.291
16:26	MA36451-CCB8	110.579	107.756	113.875	107.41	116.174	112.402	111.922	115.459
16:31	MA36451-CRIB2	111.856	108.828	113.668	108.594	114.511	113.22	113.227	115.515
16:35	ZZZZZZ	111.415	107.961	114.913	107.588	115.733	112.519	112.769	116.146
16:39	MP85840-MB1	108.392	105.752	112.433	104.14	115.494	110.924	111.246	115.54
16:44	MP85840-B1	110.167	106.78	115.188	107.806	116.786	113.61	113.16	117.514
16:48	MP85840-S1	103.64	101.078	108.672	105.711	112.941	111.362	111.616	113.073
16:53	MP85840-S2	105.455	102.679	110.579	107.063	115.582	113.044	112.473	114.858
16:57	ZZZZZZ	114.631	110.131	117.812	111.351	118.293	116.249	115.229	118.927
17:02	JB92345-1	89.405	90.234	100.825	94.304	106.875	101.576	102.514	108.071
17:06	MP85840-SD1	109.244	103.666	116.867	111.048	119.694	117.093	114.06	120.092
17:11	ZZZZZZ	116.715	111.291	118.553	113.897	119.941	117.928	115.721	119.496
17:15	MA36451-CCVA9	112.106	107.004	117.315	110.823	118.917	116.845	113.886	118.683
17:20	MA36451-CCB9	113.723	108.362	118.007	110.927	118.816	115.443	113.689	118.984
17:24	ZZZZZZ	102.54	97.943	110.602	102.524	114.898	110.433	109.581	115.284
17:29	ZZZZZZ	80.739	84.793	92.784	89.053	96.356	90.705	89.945	96.709
17:33	ZZZZZZ	124.15	116.319	125.539	123.316	123.385	124.826	120.629	123.134
17:39	ZZZZZZ	120.541	112.955	123.988	118.716	123.623	121.592	118.016	122.832
17:43	ZZZZZZ	117.383	110.91	120.833	115.284	121.322	118.904	115.549	121.379

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:47	MA36451-CRIB3	115.574	107.968	117.322	112.92	117.687	116.899	113.14	118.323
17:52	MA36451-CCVA10	110.822	105.382	114.309	109.706	117.776	115.096	112.973	117.248
17:56	MA36451-CCB10	114.168	108.708	116.145	110.995	117.286	115.155	112.771	117.687
18:01	ZZZZZZ	114.209	107.913	116.146	111.19	116.236	115.092	112.12	116.323
18:05	ZZZZZZ	112.552	107.242	116.787	110.425	116.339	113.334	111.494	116.181
18:10	ZZZZZZ	111.249	105.619	114.384	108.749	115.114	113.006	110.453	115.104
18:14	MA36451-CRIB4	111.282	104.939	114.094	108.846	114.498	112.609	110.081	114.798
18:18	MA36451-ICSA2	96.356	92.687	106.244	98.362	110.831	106.641	105.591	111.769
18:23	MA36451-ICSAB2	97.737	94.004	109.711	98.865	112.784	107.016	106.046	113.829
18:27	ZZZZZZ	110.559	104.604	117.244	105.63	118.645	113.519	110.477	119.361
18:32	MA36451-CCVA11	108.594	102.342	114.718	105.751	118.123	112.865	109.885	118.807
18:36	MA36451-CCB11	111.341	104.77	115.981	107.101	116.746	113.78	110.403	116.272
19:07	ZZZZZZ	109.926	104.182	113.432	106.319	113.903	110.981	108.763	114.505
19:11	ZZZZZZ	109.269	103.714	112.683	105.493	112.978	109.934	108.674	113.046
19:16	ZZZZZZ	109.609	103.883	112.824	105.715	114.373	110.892	108.797	113.735

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Rhodium (103-2)	70-130 %	70-130 %
Istd#10	Rhodium (103-3)	70-130 %	70-130 %
Istd#11	Indium (115-1)	70-130 %	70-130 %
Istd#12	Indium (115-2)	70-130 %	70-130 %
Istd#13	Terbium (159-1)	70-130 %	70-130 %
Istd#14	Terbium (159-2)	70-130 %	70-130 %
Istd#15	Terbium (159-3)	70-130 %	70-130 %
Istd#16	Holmium (165-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19
09:39	MA36451-STD1	100	100	100
09:44	MA36451-STD2	100	100	100
09:48	MA36451-STD3	100	100	100
09:53	MA36451-STD4	100.842	100.948	100.665
09:57	MA36451-STD5	100.736	101.234	100.566
10:02	MA36451-STD6	101.049	101.593	101.014
10:06	MA36451-STD7	100.125	102.192	101.133
10:10	MA36451-STD8	101.313	101.77	101.065
10:15	MA36451-STD9	101.288	102.987	100.563
10:19	MA36451-STD10	101.91	101.685	101.207
10:24	MA36451-STD11	101.442	99.88	99.08
10:28	MA36451-STD12	101.222	99.427	98.33
10:33	ZZZZZZ	101.327	101.962	100.033
10:46	MA36451-ICV1	100.133	100.044	100.109
10:50	MA36451-ICVA1	99.862	98.246	98.176
10:55	MA36451-ICB1	101.913	100.762	100.601
10:59	MA36451-CRIB1	100.759	101.03	100.403
11:04	MA36451-CCVA1	101.413	99.191	98.82
11:08	MA36451-CCB1	100.805	101.67	101.056
11:12	MA36451-ICSA1	95.497	91.971	89.35
11:17	MA36451-ICSAB1	97.587	93.891	89.945
11:21	ZZZZZZ	103.523	104.905	103.503
11:26	MA36451-CCVA2	103.794	104.801	102.233
11:35	MA36451-CCB2	104.3	104.664	103.675
11:40	ZZZZZZ	101.797	106.81	102.803
11:49	ZZZZZZ	106.677	108.789	107.375
11:53	ZZZZZZ	105.692	102.612	102.191
11:57	ZZZZZZ	108.704	103.829	103.972
12:02	ZZZZZZ	106.591	107.773	104.929
12:06	ZZZZZZ	98.026	87.826	85.774
12:11	ZZZZZZ	112.254	104.222	103.139
12:17	ZZZZZZ	113.329	111.885	111.457
12:21	ZZZZZZ	113.092	111.725	110.936

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19
12:26	MA36451-CCVA3	110.294	109.143	106.991
12:52	MA36451-CCB3	109.087	108.32	107.672
12:56	ZZZZZZ	97.394	88.594	85.889
13:03	ZZZZZZ	113.155	113.338	111.229
13:07	ZZZZZZ	111.232	111.713	109.819
13:12	ZZZZZZ	111.194	111.135	109.46
13:16	MA36451-CCVA4	109.584	109.874	106.58
13:21	MA36451-CCB4	109.271	108.932	107.905
13:25	ZZZZZZ	107.264	111.149	107.412
13:30	ZZZZZZ	113.372	115.497	112.02
13:34	ZZZZZZ	113.576	112.842	112.644
13:38	ZZZZZZ	113.698	110.742	112.555
13:43	ZZZZZZ	107.568	107.519	105.424
13:47	FA23355-1	113.343	107.562	107.045
13:52	FA23355-1F	113.191	107.904	106.377
13:56	MP85824-SD1	115.685	112.446	113.041
14:04	ZZZZZZ	110.021	110.531	107.881
14:08	MA36451-CCVA5	109.251	108.635	105.164
14:13	MA36451-CCB5	109.786	110.491	107.614
14:17	MP85824-MB1	107.702	112.819	107.842
14:22	MP85824-B1	114.252	116.165	113.169
14:26	MP85824-S1	111.164	107.69	106.691
14:31	MP85824-S2	113.233	109.28	107.197
14:35	ZZZZZZ	112.447	112.791	109.059
14:39	MP85824-S1	116.059	114.37	115.305
14:44	MP85824-S2	114.772	114.31	113.63
14:48	MP85824-SD1	113.7	111.54	112.25
14:53	ZZZZZZ	109.14	110.236	106.798
14:57	MA36451-CCVA6	108.2	108.497	103.244
15:02	MA36451-CCB6	107.875	110.695	105.913
15:06	FA23355-1	104.242	97.245	94.244
15:11	FA23355-1F	105.333	97.05	94.528
15:15	MP85824-SD1	116.144	111.867	109.756

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19
15:20	ZZZZZZ	114.07	114.366	111.563
15:24	FA23355-1	118.21	116.203	117.124
15:28	FA23355-1F	116.663	114.136	115.047
15:33	MP85824-PS1	117.828	115.824	116.354
15:37	ZZZZZZ	111.672	114.505	109.582
15:42	ZZZZZZ	112.249	114.608	109.631
15:46	MA36451-CCVA7	110.831	112.045	106.673
15:51	MA36451-CCB7	110.793	113.649	108.376
15:55	MP85824-PS1	106.764	99.9	95.606
16:00	MP85824-PS1	115.655	114.391	108.254
16:04	ZZZZZZ	112.992	113.543	109.448
16:08	ZZZZZZ	113.126	114.532	109.863
16:13	ZZZZZZ	113.697	115.701	110.061
16:17	ZZZZZZ	113.309	115.456	110.9
16:22	MA36451-CCVA8	112.723	114.725	107.687
16:26	MA36451-CCB8	111.923	115.375	109.219
16:31	MA36451-CRIB2	112.535	114.325	109.995
16:35	ZZZZZZ	112.118	115.883	109.165
16:39	MP85840-MB1	110.418	116.005	109.639
16:44	MP85840-B1	113.091	116.343	110.969
16:48	MP85840-S1	110.768	106.637	101.945
16:53	MP85840-S2	112.427	108.266	102.645
16:57	ZZZZZZ	115.319	117.795	112.009
17:02	JB92345-1	101.335	95.922	88.099
17:06	MP85840-SD1	116.266	111.144	105.578
17:11	ZZZZZZ	117.383	117.499	112.975
17:15	MA36451-CCVA9	116.703	116.062	110.714
17:20	MA36451-CCB9	114.803	117.587	111.818
17:24	ZZZZZZ	110.976	109.496	101.996
17:29	ZZZZZZ	90.189	81.347	72.533
17:33	ZZZZZZ	123.767	119.134	117.648
17:39	ZZZZZZ	121.739	120.65	116.464
17:43	ZZZZZZ	118.922	120.242	114.01

INTERNAL STANDARD SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36451
Parameters: Be,Ca,Mg,Mn,Na

Time	Sample Description	Istd#17	Istd#18	Istd#19
17:47	MA36451-CRIB3	115.961	117.338	111.923
17:52	MA36451-CCVA10	115.249	114.026	109.064
17:56	MA36451-CCB10	114.837	115.557	111.541
18:01	ZZZZZZ	114.638	115.191	110.46
18:05	ZZZZZZ	113.755	114.792	109.466
18:10	ZZZZZZ	112.826	114.671	108.632
18:14	MA36451-CRIB4	112.233	114.491	107.38
18:18	MA36451-ICSA2	106.496	102.771	95.154
18:23	MA36451-ICSAB2	107.486	104.037	95.638
18:27	ZZZZZZ	113.782	117.106	109.818
18:32	MA36451-CCVA11	113.139	115.15	106.896
18:36	MA36451-CCB11	113.596	115.643	109.479
19:07	ZZZZZZ	110.446	113.436	106.798
19:11	ZZZZZZ	109.705	111.524	106.237
19:16	ZZZZZZ	109.803	113.305	106.688

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Holmium (165-2)	70-130 %	70-130 %
Istd#18	Bismuth (209-1)	70-130 %	70-130 %
Istd#19	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36451 Units: ug/l

Time:				10:55		11:08		11:35	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	0.50	.048	0.50						
Arsenic	0.50	.042	0.45						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25	0.0011	<0.50	0.0073	<0.50	0.0024	<0.50
Boron	25	.87	20						
Cadmium	0.50	.014	0.30						
Calcium	250	6.1	50	-8.1	<250	-8.1	<250	-30	<250
Chromium	1.0	.019	0.50						
Cobalt	0.50	.0044	0.25						
Copper	2.0	.036	0.50						
Iron	25	.73	13						
Lead	0.50	.0071	0.25						
Magnesium	250	.62	130	0.32	<250	0.30	<250	1.3	<250
Manganese	1.0	.016	0.50	-0.0033	<1.0	-0.0045	<2.0	0.0057	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0						
Potassium	250	3.2	50						
Selenium	0.50	.024	0.50						
Silver	0.50	.0073	0.25						
Sodium	250	2.6	50	-3.5	<250	-3.6	<250	4.1	<250
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50						
Zinc	5.0	.075	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36451 Units: ug/l

Time: / Sample ID:				12:52 CCB3		13:21 CCB4		14:13 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	0.50	.048	0.50						
Arsenic	0.50	.042	0.45						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25	-0.0020	<0.50	0.00012	<0.50	0.0011	<0.50
Boron	25	.87	20						
Cadmium	0.50	.014	0.30						
Calcium	250	6.1	50	-27	<250	-26	<250	-28	<250
Chromium	1.0	.019	0.50						
Cobalt	0.50	.0044	0.25						
Copper	2.0	.036	0.50						
Iron	25	.73	13						
Lead	0.50	.0071	0.25						
Magnesium	250	.62	130	0.37	<250	0.56	<250	0.51	<250
Manganese	1.0	.016	0.50	0.0019	<2.0	0.000054	<2.0	-0.0028	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0						
Potassium	250	3.2	50						
Selenium	0.50	.024	0.50						
Silver	0.50	.0073	0.25						
Sodium	250	2.6	50	19.7	<250	53.7	<250*(a)	20.3	<250
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50						
Zinc	5.0	.075	1.5						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36451 Units: ug/l

Time:				15:02		15:51		16:26	
Sample ID:				CCB6		CCB7		CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	0.50	.048	0.50						
Arsenic	0.50	.042	0.45						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25	0.013	<0.50	0.0057	<0.50	0.0043	<0.50
Boron	25	.87	20						
Cadmium	0.50	.014	0.30						
Calcium	250	6.1	50	-28	<250	-28	<250	-31	<250
Chromium	1.0	.019	0.50						
Cobalt	0.50	.0044	0.25						
Copper	2.0	.036	0.50						
Iron	25	.73	13						
Lead	0.50	.0071	0.25						
Magnesium	250	.62	130	0.58	<250	0.59	<250	0.58	<250
Manganese	1.0	.016	0.50	0.0052	<2.0	0.0043	<2.0	-0.00072	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0						
Potassium	250	3.2	50						
Selenium	0.50	.024	0.50						
Silver	0.50	.0073	0.25						
Sodium	250	2.6	50	15.5	<250	38.0	<250	40.5	<250
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50						
Zinc	5.0	.075	1.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36451 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	17:20 CCB9 raw	final	17:56 CCB10 raw	final	18:36 CCB11 raw	final
Aluminum	25	.55	20						
Antimony	0.50	.048	0.50						
Arsenic	0.50	.042	0.45						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25	0.012	<0.50	0.0082	<0.50	0.0093	<0.50
Boron	25	.87	20						
Cadmium	0.50	.014	0.30						
Calcium	250	6.1	50	-32	<250	-36	<250	-43	<250
Chromium	1.0	.019	0.50						
Cobalt	0.50	.0044	0.25						
Copper	2.0	.036	0.50						
Iron	25	.73	13						
Lead	0.50	.0071	0.25						
Magnesium	250	.62	130	0.99	<250	0.49	<250	2.2	<250
Manganese	1.0	.016	0.50	0.027	<1.0	0.0090	<1.0	0.0055	<2.0
Molybdenum	1.0	.052	0.50						
Nickel	1.0	.02	1.0						
Potassium	250	3.2	50						
Selenium	0.50	.024	0.50						
Silver	0.50	.0073	0.25						
Sodium	250	2.6	50	96.7	<250*(a)	131	<250*(a)	37.7	<250
Strontium	5.0	.0094	2.5						
Thallium	0.50	.019	0.35						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.0	.14	0.50						
Zinc	5.0	.075	1.5						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36451 Units: ug/l

Time:		10:46			10:50			11:04	
Sample ID:	ICV	ICV1		ICVA	ICVA1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic									
Barium									
Beryllium				60	60.2	100.3	50	51.3	102.6
Boron									
Cadmium									
Calcium				5500	5410	98.4	5000	5140	102.8
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium				5500	5400	98.2	5000	5060	101.2
Manganese				60	58.5	97.5	50	49.7	99.4
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium				5500	5440	98.9	5000	5090	101.8
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36451 Units: ug/l

Time:		11:26			12:26			13:16	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	50	51.1	102.2	50	51.2	102.4	50	50.2	100.4
Boron	anr								
Cadmium									
Calcium	5000	5140	102.8	5000	5190	103.8	5000	5170	103.4
Chromium									
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium	5000	5090	101.8	5000	5050	101.0	5000	5070	101.4
Manganese	50	49.8	99.6	50	49.2	98.4	50	48.8	97.6
Molybdenum	anr								
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium	5000	5170	103.4	5000	5150	103.0	5000	5190	103.8
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36451 Units: ug/l

Time:		14:08			14:57			15:46	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	50	50.5	101.0	50	50.8	101.6	50	49.3	98.6
Boron	anr								
Cadmium									
Calcium	5000	5110	102.2	5000	5140	102.8	5000	5160	103.2
Chromium									
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium	5000	5150	103.0	5000	5080	101.6	5000	5190	103.8
Manganese	50	49.1	98.2	50	48.6	97.2	50	49.5	99.0
Molybdenum	anr								
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium	5000	5190	103.8	5000	5140	102.8	5000	5270	105.4
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36451 Units: ug/l

Time:		16:22			17:15			17:52	
Sample ID:	CCVA	CCVA8		CCVA	CCVA9		CCVA	CCVA10	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	50	50.1	100.2	50	48.6	97.2	50	49.0	98.0
Boron	anr								
Cadmium									
Calcium	5000	5140	102.8	5000	5120	102.4	5000	5140	102.8
Chromium									
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium	5000	5160	103.2	5000	5120	102.4	5000	5130	102.6
Manganese	50	49.2	98.4	50	49.4	98.8	50	49.5	99.0
Molybdenum	anr								
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium	5000	5250	105.0	5000	5260	105.2	5000	5310	106.2
Strontium									
Thallium									
Tin	anr								
Titanium	anr								
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36451 Units: ug/l

Time:		18:32	
Sample ID:	CCVA	CCVA11	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony			
Arsenic	anr		
Barium			
Beryllium	50	49.4	98.8
Boron	anr		
Cadmium			
Calcium	5000	5150	103.0
Chromium			
Cobalt			
Copper			
Iron			
Lead	anr		
Magnesium	5000	5090	101.8
Manganese	50	49.2	98.4
Molybdenum	anr		
Nickel			
Potassium			
Selenium			
Silver	anr		
Sodium	5000	5180	103.6
Strontium			
Thallium			
Tin	anr		
Titanium	anr		
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36451 Units: ug/l

Time:		10:59		16:31		17:47		18:14	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3		CRIB4	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	25								
Antimony	0.50								
Arsenic	0.50								
Barium	1.0								
Beryllium	0.50	0.51	102.0	0.50	100.0	0.51	102.0	0.51	102.0
Boron	25								
Cadmium	0.50								
Calcium	250	240	96.0	222	88.8	219	87.6	216	86.4
Chromium	1.0								
Cobalt	0.50								
Copper	2.0								
Iron	25								
Lead	0.50								
Magnesium	250	242	96.8	246	98.4	245	98.0	243	97.2
Manganese	0.50	0.50	100.0	0.51	102.0	0.52	104.0	0.54	108.0
Molybdenum	1.0								
Nickel	1.0								
Potassium	250								
Selenium	0.50								
Silver	0.50								
Sodium	250	236	94.4	284	113.6	463	185.2*(a	311	124.4*(a
Strontium	5.0								
Thallium	0.50								
Tin	5.0								
Titanium	1.0								
Vanadium	1.0								
Zinc	5.0								

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041715M1L.CSV Date Analyzed: 04/17/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36451 Units: ug/l

Time:			11:12		11:17		18:18		18:23	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	100000	100000	93800	93.8	93700	93.7	94300	94.3	94000	94.0
Antimony			0.046		-0.034		-0.053		-0.070	
Arsenic		20	0.058		20.7	103.5	0.059		20.5	102.5
Barium			0.12		0.15		0.13		0.16	
Beryllium			0.011		0.014		0.0096		0.0092	
Boron			2.1		1.4		3.3		2.3	
Cadmium		20	1.0		20.3	101.5	0.99		20.4	102.0
Calcium	100000	100000	96000	96.0	96000	96.0	96600	96.6	96300	96.3
Chromium		20	1.3		21.4	107.0	1.3		21.2	106.0
Cobalt		20	0.014		19.8	99.0	0.012		19.9	99.5
Copper		20	0.38		19.6	98.0	0.012		19.2	96.0
Iron	100000	100000	96900	96.9	97800	97.8	98100	98.1	99800	99.8
Lead			0.20		0.23		0.21		0.21	
Magnesium	100000	100000	94400	94.4	95100	95.1	94900	94.9	96200	96.2
Manganese		20	0.46		20.7	103.5	0.44		20.7	103.5
Molybdenum	2000	2000	2070	103.5	2060	103.0	2050	102.5	2060	103.0
Nickel		20	0.23		19.4	97.0	0.21		19.5	97.5
Potassium	100000	100000	96100	96.1	96400	96.4	97100	97.1	97100	97.1
Selenium		20	0.074		21.6	108.0	0.055		21.2	106.0
Silver		20	0.021		19.0	95.0	0.029		18.3	91.5
Sodium	100000	100000	96500	96.5	97400	97.4	96800	96.8	97500	97.5
Strontium			0.69		0.72		0.70		0.72	
Thallium			0.012		0.012		0.0048		0.0069	
Tin			0.057		0.041		0.016		0.059	
Titanium	2000	2000	1960	98.0	1970	98.5	1940	97.0	1960	98.0
Vanadium		20	0.016		21.4	107.0	0.021		21.2	106.0
Zinc		20	1.7		20.9	104.5	1.5		21.3	106.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	1.1	1.7	8.3	<50
Antimony	4.0	.096	.08	0.83	<4.0
Arsenic	3.0	.084	.081	0.34	<3.0
Barium	2.0	.013	.11	0.24	<2.0
Beryllium	1.0	.011	.074	0.012	<1.0
Boron	50	1.7	1.9		
Cadmium	6.0	.027	.11	0.0066	<6.0
Calcium	500	12	3.4	3.5	<500
Chromium	8.0	.037	.093	0.38	<8.0
Cobalt	1.0	.0088	.073	0.025	<1.0
Copper	10	.071	.1	0.83	<10
Iron	50	1.5	1.2	7.4	<50
Lead	3.0	.014	.023	0.075	<3.0
Magnesium	500	1.2	2.1	2.5	<500
Manganese	4.0	.032	.1	0.14	<4.0
Molybdenum	2.0	.1	.072		
Nickel	8.0	.04	.12	0.24	<8.0
Potassium	500	6.5	6	7.2	<500
Selenium	2.0	.047	.12	0.097	<2.0
Silver	2.0	.015	.055	0.029	<2.0
Sodium	500	5.2	11	91.6	<500
Strontium	20	.019	.057		
Thallium	2.0	.039	.026	0.030	<2.0
Tin	10	.092	.12		
Titanium	2.0	.1	.22		
Vanadium	3.0	.29	.23	1.8	<5.0
Zinc	20	.15	1	6.0	<20

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	FA23355-1 Original	MS	Spikelot MPSPK	% Rec	QC Limits
Aluminum	20.9	23700	25000	94.7	75-125
Antimony	0.58	2140	2000	107.0	75-125
Arsenic	1.3	2020	2000	100.9	75-125
Barium	25.1	1990	2000	98.2	75-125
Beryllium	0.0	2050	2000	102.5	75-125
Boron					
Cadmium	0.044	1950	2000	97.5	75-125
Calcium	196000	227000	25000	124.0	75-125
Chromium	0.33	1950	2000	97.5	75-125
Cobalt	1.4	1930	2000	96.4	75-125
Copper	1.1	1910	2000	95.4	75-125
Iron	137	24700	25000	98.3	75-125
Lead	0.19	1960	2000	98.0	75-125
Magnesium	128000	156000	25000	112.0	75-125
Manganese	497	2450	2000	97.7	75-125
Molybdenum					
Nickel	1.7	1910	2000	95.4	75-125
Potassium	8330	32600	25000	97.1	75-125
Selenium	0.23	2010	2000	100.5	75-125
Silver	0.11	233	250	93.2	75-125
Sodium	2230000	2220000	25000	-40.0(a)	75-125
Strontium					
Thallium	0.15	1970	2000	98.5	75-125
Tin					
Titanium					
Vanadium	2.0	2010	2000	100.4	75-125
Zinc	69.5	2030	2000	98.0	75-125

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	FA23355-1 Original	MSD	Spikelot MPSPK	% Rec	MSD RPD	QC Limit
Aluminum	20.9	22800	25000	91.1	3.9	20
Antimony	0.58	2060	2000	103.0	3.8	20
Arsenic	1.3	1970	2000	98.4	2.5	20
Barium	25.1	1920	2000	94.7	3.6	20
Beryllium	0.0	1970	2000	98.5	4.0	20
Boron						
Cadmium	0.044	1890	2000	94.5	3.1	20
Calcium	196000	217000	25000	84.0	4.5	20
Chromium	0.33	1890	2000	94.5	3.1	20
Cobalt	1.4	1860	2000	92.9	3.7	20
Copper	1.1	1860	2000	92.9	2.7	20
Iron	137	23800	25000	94.7	3.7	20
Lead	0.19	1900	2000	95.0	3.1	20
Magnesium	128000	148000	25000	80.0	5.3	20
Manganese	497	2340	2000	92.2	4.6	20
Molybdenum						
Nickel	1.7	1850	2000	92.4	3.2	20
Potassium	8330	31900	25000	94.3	2.2	20
Selenium	0.23	1950	2000	97.5	3.0	20
Silver	0.11	225	250	90.0	3.5	20
Sodium	2230000	2190000	25000	-160.0(a	1.4	20
Strontium						
Thallium	0.15	1910	2000	95.5	3.1	20
Tin						
Titanium						
Vanadium	2.0	1950	2000	97.4	3.0	20
Zinc	69.5	1970	2000	95.0	3.0	20

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	BSP Result	Spikelot MPSPK	% Rec	QC Limits
Aluminum	24600	25000	98.4	80-120
Antimony	2160	2000	108.0	80-120
Arsenic	2050	2000	102.5	80-120
Barium	2020	2000	101.0	80-120
Beryllium	2030	2000	101.5	80-120
Boron				
Cadmium	2080	2000	104.0	80-120
Calcium	25200	25000	100.8	80-120
Chromium	2060	2000	103.0	80-120
Cobalt	2050	2000	102.5	80-120
Copper	2080	2000	104.0	80-120
Iron	25700	25000	102.8	80-120
Lead	2030	2000	101.5	80-120
Magnesium	26000	25000	104.0	80-120
Manganese	2030	2000	101.5	80-120
Molybdenum				
Nickel	2070	2000	103.5	80-120
Potassium	24800	25000	99.2	80-120
Selenium	2120	2000	106.0	80-120
Silver	241	250	96.4	80-120
Sodium	25700	25000	102.8	80-120
Strontium				
Thallium	2030	2000	101.5	80-120
Tin				
Titanium				
Vanadium	2060	2000	103.0	80-120
Zinc	2120	2000	106.0	80-120

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	FA23355-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	20.9	29.3	40.6 (a)	0-10
Antimony	0.583	0.00	100.0(a)	0-10
Arsenic	1.27	1.19	6.6	0-10
Barium	25.1	27.2	8.5	0-10
Beryllium	0.00	0.00	NC	0-10
Boron				
Cadmium	0.0439	0.00	100.0(a)	0-10
Calcium	196000	199000	1.3	0-10
Chromium	0.329	0.00	100.0(a)	0-10
Cobalt	1.42	1.60	12.4*(b)	0-10
Copper	1.13	1.39	22.3 (a)	0-10
Iron	137	151	10.3*(b)	0-10
Lead	0.194	0.307	58.5 (a)	0-10
Magnesium	128000	130000	1.4	0-10
Manganese	497	503	1.3	0-10
Molybdenum				
Nickel	1.66	2.21	32.7 (a)	0-10
Potassium	8330	8980	7.8	0-10
Selenium	0.229	0.325	41.6 (a)	0-10
Silver	0.107	0.00	100.0(a)	0-10
Sodium	2230000	2210000	1.1	0-10
Strontium				
Thallium	0.154	0.00	100.0(a)	0-10
Tin				
Titanium				
Vanadium	2.04	0.00	100.0(a)	0-10
Zinc	69.5	80.2	15.4*(b)	0-10

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FA23355
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85824
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/15/15

Metal	Sample ml	Final ml	FA23355-1 Raw	FA23355-1 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.2	10	20.85725	19.18867	4548.801	0.2	250	5000	90.6	75-125
Antimony	9.2	10	.5826126	.5360036	58.97493	0.2	2.5	50	116.9	75-125
Arsenic	9.2	10	1.270008	1.168407	56.45732	0.2	2.5	50	110.6	75-125
Barium	9.2	10	25.1213	23.1116	70.74902	0.2	2.5	50	95.3	75-125
Beryllium	9.2	10			52.30821	0.2	2.5	50	104.6	75-125
Boron										
Cadmium	9.2	10	.04389395	.0403824349	.04727	0.2	2.5	50	98.0	75-125
Calcium	9.2	10	196244.6	180545	174795.6	0.2	250	5000	-115.0*a	75-125
Chromium	9.2	10	.3287319	.3024334	50.17347	0.2	2.5	50	99.7	75-125
Cobalt	9.2	10	1.422097	1.308329	48.71299	0.2	2.5	50	94.8	75-125
Copper	9.2	10	1.134829	1.044043	48.11274	0.2	2.5	50	94.1	75-125
Iron	9.2	10	136.8378	125.8908	4847.478	0.2	250	5000	94.4	75-125
Lead	9.2	10	.1937165	.1782191	50.39267	0.2	2.5	50	100.4	75-125
Magnesium	9.2	10	128054.1	117809.8	121533.5	0.2	250	5000	74.5*(a)	75-125
Manganese	9.2	10	496.5101	456.7893	502.3937	0.2	2.5	50	91.2	75-125
Molybdenum										
Nickel	9.2	10	1.663686	1.530591	47.48459	0.2	2.5	50	91.9	75-125
Potassium	9.2	10	8332.063	7665.498	12470.08	0.2	250	5000	96.1	75-125
Selenium	9.2	10	.2291788	.2108445	50.81725	0.2	2.5	50	101.2	75-125
Silver	9.2	10	.1065871	.0980601249	.25074	0.2	2.5	50	98.3	75-125
Sodium	9.2	10	2234468	2055711	1959900	0.2	250	5000	-1916.2*a	75-125
Strontium										
Thallium	9.2	10	.1539148	.1416016	51.34609	0.2	2.5	50	102.4	75-125
Tin										
Titanium										
Vanadium	9.2	10	2.042755	1.879334	56.84045	0.2	2.5	50	109.9	75-125
Zinc	9.2	10	69.52447	63.96252	159.0494	0.2	5	100	95.1	75-125

Associated samples MP85824: FA23355-1, FA23355-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike amount low relative to the sample results.

Southeast
ACCUTEST LABORATORIES

01/18/16

Effective January 1, 2016, SGS has acquired all of the assets of Accutest Laboratories and will continue to operate as SGS-Accutest. SGS-Accutest is part of SGS, the world's leading inspection, verification, testing and certification company.

Technical Report for

Trinity Analysis & Development Corp

Melrose Air Force Range, NM

A012-113

Accutest Job Number: FA23309

Sampling Date: 04/02/15

Report to:

Trinity Analysis & Development Corp

bstewart@trinityadc.com

ATTN: Alec Macbeth

Total number of pages in report: **158**

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Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Jean Dent-Smith 407-425-6700

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Accutest Laboratories

Sample Summary

Trinity Analysis & Development Corp

Job No: FA23309

Melrose Air Force Range, NM
Project No: A012-113

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA23309-1	04/02/15	14:06	BSRH	04/03/15	AQ	Ground Water	MA02MW001D
FA23309-1F	04/02/15	14:06	BSRH	04/03/15	AQ	Groundwater Filtered	MA02MW001D
FA23309-2	04/02/15	14:06	BSRH	04/03/15	AQ	Trip Blank Water	TB-1

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Trinity Analysis & Development Corp **Job No:** FA23309

Site: Melrose Air Force Range, NM **Report Date:** 4/28/2015 1:25:06 PM

1 Sample(s) and 1 Trip Blank(s) were collected on 04/02/2015 and were received at Accutest SE on 04/03/2015 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of FA23309. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VC4253

All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23327-21MS, FA23327-21MSD were used as the QC samples indicated.

Matrix Spike/Matrix Spike Duplicate Recovery(s) for Tetrachloroethylene are outside control limits. Outside control limits due to high level in sample relative to spike amount. % RPD was within control limits in MS/MSD.

Extractables by GCMS By Method SW846 6850

Matrix: AQ **Batch ID:** OP55671

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.

Sample(s) FA23355-1MS, FA23355-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8330A

Matrix: AQ **Batch ID:** OP55665

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.

Sample(s) FA23309-1MS, FA23309-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,3,5-Trinitrobenzene, 1,3-Dinitrobenzene, 2,4,6-Trinitrotoluene, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-amino-4,6-Dinitrotoluene, 4-amino-2,6-Dinitrotoluene, m-Nitrotoluene, Nitrobenzene, o-Nitrotoluene, p-Nitrotoluene are outside control limits. % Recoveries were within control limits in MS and MSD.

FA23309-1: Associated BS recoveries outside control limits. Insufficient sample to re-extract.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** N: MP85639

FA23309-1 for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Cobalt: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.

FA23309-1 for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** N: MP85639

FA23309-1 for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Potassium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Barium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Aluminum: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Magnesium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Calcium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Vanadium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1 for Sodium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Iron: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Cobalt: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Aluminum: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Sodium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Magnesium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Zinc: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Lead: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Vanadium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Copper: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Thallium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Silver: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Potassium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Nickel: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Manganese: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Chromium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Antimony: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Arsenic: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Barium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Beryllium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Cadmium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Calcium: Analysis performed at Accutest Laboratories, Dayton, NJ.
FA23309-1F for Selenium: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method SW846 7470A

Matrix: AQ **Batch ID:** MP28777

All samples were digested within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23309-1DUP, FA23309-1MS, FA23309-1MSD, FA23309-1SDL were used as the QC samples for metals.

Wet Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP25762

All samples were prepped within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Samples FA23299-3MS, FA23299-3MSD were used as the QC samples for Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate.
FA23309-1 for Nitrogen, Nitrate: Dilution required due to matrix interference.
FA23309-1 for Nitrogen, Nitrite: Dilution required due to matrix interference.

Wet Chemistry By Method EPA 335.4/SW 9012B

Matrix: AQ **Batch ID:** GP25781

All samples were prepped within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23254-2MS, FA23254-2MSD were used as the QC samples for Cyanide, Total.
FA23309-1 for Cyanide, Total: Confirmed by reanalysis.

Wet Chemistry By Method SM2320 B-11

Matrix: AQ **Batch ID:** GN65841

All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23132-1DUP was used as the QC sample for Alkalinity, Total as CaCO3.

Wet Chemistry By Method SM2540 C-11

Matrix: AQ **Batch ID:** GN65843

All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23355-1DUP was used as the QC sample for Solids, Total Dissolved.

Wet Chemistry By Method SW846 7196A

Matrix: AQ **Batch ID:** GN65801

All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA23309-1MS, FA23309-1MSD were used as the QC samples for Chromium, Hexavalent.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____ Date: April 28, 2015
Kim Benham, Client Services (signature on file)

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Southeast, Inc.	**Job No**	FA23309
Site:	BBAFLFWB: Melrose Air Force Range, NM	**Report Date**	4/28/2015 3:23:57 PM

On 04/04/2015, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 3.5 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of FA23309 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6020A

Matrix: AQ **Batch ID:** MP85639

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB91480-4MS, JB91480-4MSD, JB91480-4PS, JB91480-4SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Selenium, Antimony, Beryllium, Cadmium, Thallium are outside control limits for sample MP85639-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP85639-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP85639-SD1 for Vanadium: Serial dilution indicates possible matrix interference.
- MP85639-SD1 for Cobalt: Serial dilution indicates possible matrix interference.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: FA23309
Account: Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Collected: 04/02/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA23309-1	**MA02MW001D**					
Perchlorate		17.5	0.20	0.040	ug/l	SW846 6850
Barium [a]		7.5	2.0		ug/l	SW846 6020A
Calcium [a]		119000	6300		ug/l	SW846 6020A
Magnesium [a]		52900	2500		ug/l	SW846 6020A
Manganese [a]		166	4.0		ug/l	SW846 6020A
Potassium [a]		6890	500		ug/l	SW846 6020A
Selenium [a]		46.7	2.0		ug/l	SW846 6020A
Sodium [a]		2050000	63000		ug/l	SW846 6020A
Vanadium [a]		5.0	3.0		ug/l	SW846 6020A
Alkalinity, Total as CaCO3		130	5.0		mg/l	SM2320 B-11
Chloride		2110	200		mg/l	EPA 300/SW846 9056A
Cyanide, Total [b]		0.012	0.010		mg/l	EPA 335.4/SW 9012B
Solids, Total Dissolved		5980	1000		mg/l	SM2540 C-11
Sulfate		2080	200		mg/l	EPA 300/SW846 9056A
FA23309-1F	**MA02MW001D**					
Barium [a]		8.0	2.0		ug/l	SW846 6020A
Calcium [a]		120000	6300		ug/l	SW846 6020A
Magnesium [a]		50900	2500		ug/l	SW846 6020A
Manganese [a]		159	4.0		ug/l	SW846 6020A
Potassium [a]		6800	500		ug/l	SW846 6020A
Selenium [a]		50.1	2.0		ug/l	SW846 6020A
Sodium [a]		1990000	63000		ug/l	SW846 6020A
Vanadium [a]		4.8	3.0		ug/l	SW846 6020A
FA23309-2	**TB-1**					

No hits reported in this sample.

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Confirmed by reanalysis.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0106403.D	1	04/14/15	EP	n/a	n/a	VC4253
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MA02MW001D		
Lab Sample ID:	FA23309-1	**Date Sampled:**	04/02/15
Matrix:	AQ - Ground Water	**Date Received:**	04/03/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Melrose Air Force Range, NM		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.25	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		83-118%
17060-07-0	1,2-Dichloroethane-D4	123%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	97%		83-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1
Matrix: AQ - Ground Water
Method: SW846 6850 SW846 6850
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q11732.D	1	04/14/15	NAF	04/09/15	OP55671	SQ366
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	17.5	0.20	0.040	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1
Matrix: AQ - Ground Water
Method: SW846 8330A SW846 3535A
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB046419.D	1	04/13/15	KL	04/09/15	OP55665	GBB1264
Run #2							

	Initial Volume	Final Volume
Run #1	240 ml	2.5 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.21	0.083	ug/l	
121-82-4	RDX	ND	0.21	0.083	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	0.21	0.083	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.21	0.083	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.21	0.083	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.21	0.083	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.21	0.083	ug/l	
98-95-3	Nitrobenzene	ND	0.21	0.083	ug/l	
88-72-2	o-Nitrotoluene	ND	0.21	0.083	ug/l	
99-08-1	m-Nitrotoluene	ND	0.21	0.083	ug/l	
99-99-0	p-Nitrotoluene	ND	0.21	0.083	ug/l	
479-45-8	Tetryl	ND	0.21	0.083	ug/l	
99-35-4	1,3,5-Trinitrobenzene	ND	0.21	0.083	ug/l	
118-96-7	2,4,6-Trinitrotoluene	ND	0.21	0.083	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	91%		70-136%

(a) Associated BS recovery outside control limits. Insufficient sample to re-extract.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Antimony [a]	< 4.0	4.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Arsenic [a]	< 3.0	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Barium [a]	7.5	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Beryllium [a]	< 1.0	1.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Cadmium [a]	< 6.0	6.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Calcium [a]	119000	6300	ug/l	25	04/08/15	04/14/15	ANJ	SW846 6020A [3]	SW846 3010A [5]
Chromium [a]	< 8.0	8.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Cobalt [a]	< 1.0	1.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Copper [a]	< 10	10	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Iron [a]	< 50	50	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Lead [a]	< 3.0	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Magnesium [a]	52900	2500	ug/l	10	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Manganese [a]	166	4.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Mercury	< 0.50	0.50	ug/l	1	04/09/15	04/09/15	JL	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	< 8.0	8.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Potassium [a]	6890	500	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Selenium [a]	46.7	2.0	ug/l	2	04/08/15	04/14/15	ANJ	SW846 6020A [3]	SW846 3010A [5]
Silver [a]	< 2.0	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Sodium [a]	2050000	63000	ug/l	250	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Thallium [a]	< 2.0	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Vanadium [a]	5.0	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Zinc [a]	< 20	20	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA12327
(2) Instrument QC Batch: N:MA36411
(3) Instrument QC Batch: N:MA36424
(4) Prep QC Batch: MP28777
(5) Prep QC Batch: N:MP85639

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1
Matrix: AQ - Ground Water
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	130	5.0	mg/l	1	04/07/15 16:20	TF	SM2320 B-11
Chloride	2110	200	mg/l	100	04/03/15 12:51	VK	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	04/03/15 11:30	LE	SW846 7196A
Cyanide, Total [a]	0.012	0.010	mg/l	1	04/09/15 15:39	DM	EPA 335.4/SW 9012B
Nitrogen, Nitrate [b]	< 10	10	mg/l	100	04/03/15 12:51	VK	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 10	10	mg/l	100	04/03/15 12:51	VK	EPA 300/SW846 9056A
Solids, Total Dissolved	5980	1000	mg/l	1	04/07/15 08:45	KC	SM2540 C-11
Sulfate	2080	200	mg/l	100	04/03/15 12:51	VK	EPA 300/SW846 9056A

(a) Confirmed by reanalysis.
(b) Dilution required due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MA02MW001D
Lab Sample ID: FA23309-1F
Matrix: AQ - Groundwater Filtered
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	< 50	50	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Antimony [a]	< 4.0	4.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Arsenic [a]	< 3.0	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Barium [a]	8.0	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Beryllium [a]	< 1.0	1.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Cadmium [a]	< 6.0	6.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Calcium [a]	120000	6300	ug/l	25	04/08/15	04/14/15	ANJ	SW846 6020A [3]	SW846 3010A [5]
Chromium [a]	< 8.0	8.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Cobalt [a]	< 1.0	1.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Copper [a]	< 10	10	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Iron [a]	< 50	50	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Lead [a]	< 3.0	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Magnesium [a]	50900	2500	ug/l	10	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Manganese [a]	159	4.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Mercury	< 0.50	0.50	ug/l	1	04/09/15	04/09/15	JL	SW846 7470A [1]	SW846 7470A [4]
Nickel [a]	< 8.0	8.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Potassium [a]	6800	500	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Selenium [a]	50.1	2.0	ug/l	2	04/08/15	04/14/15	ANJ	SW846 6020A [3]	SW846 3010A [5]
Silver [a]	< 2.0	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Sodium [a]	1990000	63000	ug/l	250	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Thallium [a]	< 2.0	2.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Vanadium [a]	4.8	3.0	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]
Zinc [a]	< 20	20	ug/l	2	04/08/15	04/13/15	ANJ	SW846 6020A [2]	SW846 3010A [5]

(1) Instrument QC Batch: MA12327
(2) Instrument QC Batch: N:MA36411
(3) Instrument QC Batch: N:MA36424
(4) Prep QC Batch: MP28777
(5) Prep QC Batch: N:MP85639

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID: TB-1
Lab Sample ID: FA23309-2
Matrix: AQ - Trip Blank Water
Method: SW846 8260B
Project: Melrose Air Force Range, NM

Date Sampled: 04/02/15
Date Received: 04/03/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0106404.D	1	04/14/15	EP	n/a	n/a	VC4253
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-1		
Lab Sample ID:	FA23309-2	**Date Sampled:**	04/02/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/03/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Melrose Air Force Range, NM		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl Chloride	ND	1.0	0.25	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		83-118%
17060-07-0	1,2-Dichloroethane-D4	123%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

FA23309

Chain of Custody and Analytical Request

Page 1 of 1
Project Number: A012-113
Chain of Custody Number (1): 1540205

Project Name / Site Name: Melrose AFR Semiannual
Facility: Melrose AFR
Client Name: Trinity (850) 613-6800
Project Manager: Jonathan Kramer
Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time: 24 Hour; 5 Day; Standard X; Other

	Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Chromium (VI) 218.6	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
1	MA02MW001D		04022015	1406		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X				E
2	TB-1		04022015	1406		TB	1	WQ	3	X														E
					-																				
					-																				
					-																				
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					-																				
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					-																				
					-																				
					-																				
					-																				

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1700			
2.		04-03-15	945			
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:
Method of Shipment:
Analytical Lab: Accutest
Lab Recipient:
Shipped: No.: 1
Airbill Number:
Delivery Location: Orlando, FL
Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)
4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.
6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).
7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

30

5.1 5

FA23309: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA23309 CLIENT: Trinity PROJECT: Melrose

DATE/TIME RECEIVED: 04-03-15 945 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER DELIVERY OTHER: _____

AIRBILL NUMBERS: 8066 1758 1823

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 3.0

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#_____

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

pH PAPER LOT#s WIDE RANGE A0361222 NARROW RANGE HC421754 OTHER (specify) 405-230010

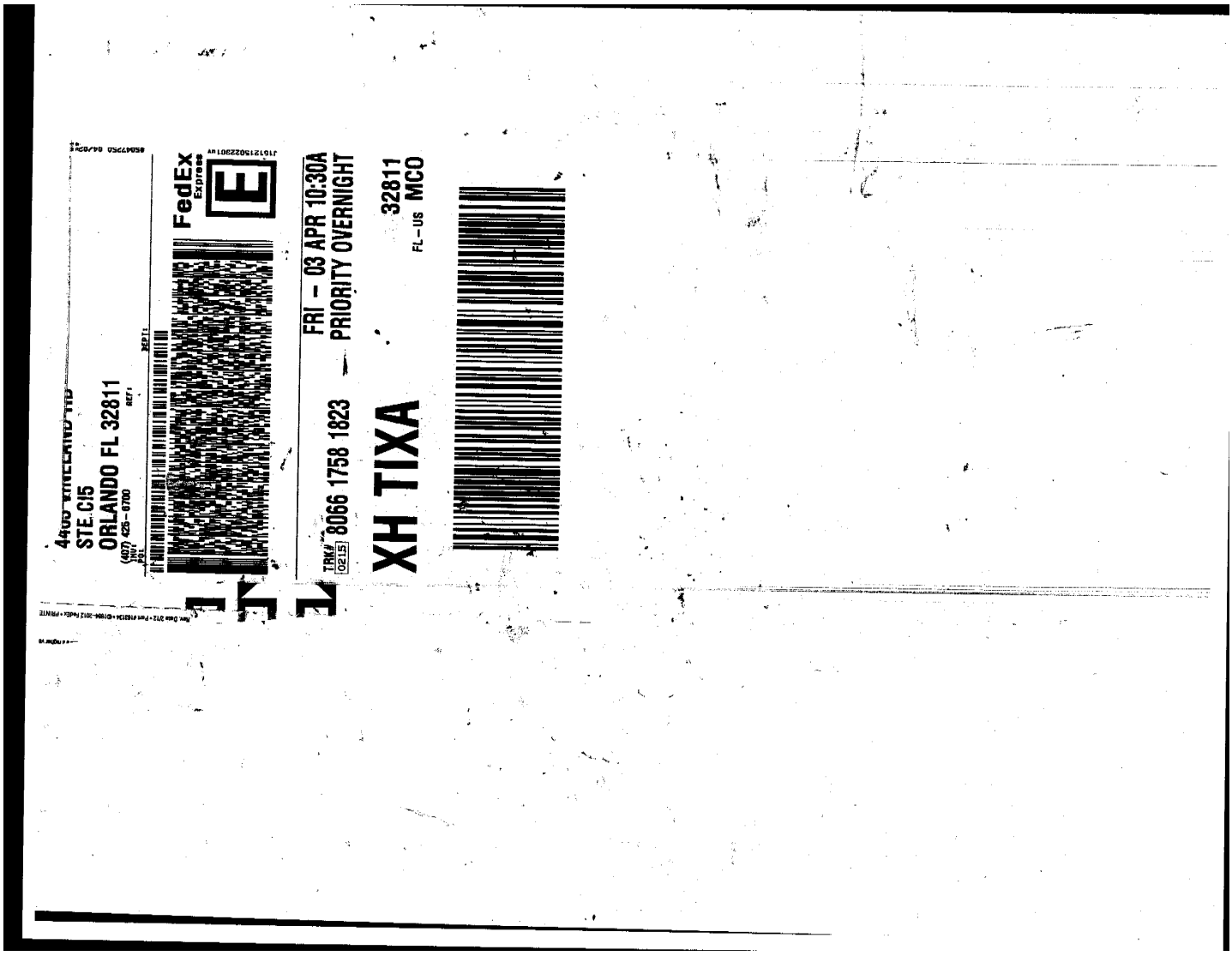
SUMMARY OF COMMENTS: 250 mL (8330)

TECHNICIAN SIGNATURE/DATE 04-03-15 REVIEWER SIGNATURE/DATE 4-2-15

NF 10/14 receipt confirmation 102914.xls

5.1 5

FA23309: Chain of Custody
Page 2 of 3



FA23309: Chain of Custody
Page 3 of 3

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC4253-MB	C0106397.D	1	04/14/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.2	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.29	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.27	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.21	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.22	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.40	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.26	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.31	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.25	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.51	ug/l	

Method Blank Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC4253-MB	C0106397.D	1	04/14/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	111%	83-118%
17060-07-0	1,2-Dichloroethane-D4	117%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile [a]		0	ug/l	

(a) No TICs detected.

Blank Spike Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC4253-BS	C0106395.D	1	04/14/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	133	106	50-147
71-43-2	Benzene	25	24.5	98	81-122
75-27-4	Bromodichloromethane	25	27.9	112	79-123
75-25-2	Bromoform	25	21.4	86	66-123
78-93-3	2-Butanone (MEK)	125	135	108	56-143
75-15-0	Carbon Disulfide	25	24.6	98	66-148
56-23-5	Carbon Tetrachloride	25	25.9	104	76-136
108-90-7	Chlorobenzene	25	24.9	100	82-124
75-00-3	Chloroethane	25	29.5	118	62-144
67-66-3	Chloroform	25	25.5	102	80-124
124-48-1	Dibromochloromethane	25	24.5	98	78-122
75-34-3	1,1-Dichloroethane	25	25.6	102	81-122
107-06-2	1,2-Dichloroethane	25	26.6	106	75-125
75-35-4	1,1-Dichloroethylene	25	29.0	116	78-137
156-59-2	cis-1,2-Dichloroethylene	25	24.5	98	78-120
156-60-5	trans-1,2-Dichloroethylene	25	25.4	102	76-127
78-87-5	1,2-Dichloropropane	25	24.5	98	76-124
10061-01-5	cis-1,3-Dichloropropene	25	25.3	101	75-118
10061-02-6	trans-1,3-Dichloropropene	25	28.0	112	80-120
100-41-4	Ethylbenzene	25	25.9	104	81-121
591-78-6	2-Hexanone	125	139	111	61-129
74-83-9	Methyl Bromide	25	30.4	122	59-143
74-87-3	Methyl Chloride	25	26.2	105	50-159
75-09-2	Methylene Chloride	25	25.1	100	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	141	113	66-122
100-42-5	Styrene	25	22.9	92	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	22.9	92	72-120
127-18-4	Tetrachloroethylene	25	23.2	93	76-135
108-88-3	Toluene	25	24.8	99	80-120
71-55-6	1,1,1-Trichloroethane	25	26.0	104	75-130
79-00-5	1,1,2-Trichloroethane	25	23.7	95	76-119
79-01-6	Trichloroethylene	25	25.4	102	81-126
75-01-4	Vinyl Chloride	25	28.6	114	69-159
1330-20-7	Xylene (total)	75	74.8	100	80-126

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC4253-BS	C0106395.D	1	04/14/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	109%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	95%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA23327-21MS	C0106418.D	50	04/15/15	EP	n/a	n/a	VC4253
FA23327-21MSD	C0106419.D	50	04/15/15	EP	n/a	n/a	VC4253
FA23327-21	C0106406.D	50	04/15/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Compound	FA23327-21 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		6250	6570	105	6250	6540	105	0	50-147/21
71-43-2	Benzene	ND		1250	1290	103	1250	1260	101	2	81-122/14
75-27-4	Bromodichloromethane	ND		1250	1520	122	1250	1480	118	3	79-123/19
75-25-2	Bromoform	ND		1250	934	75	1250	947	76	1	66-123/21
78-93-3	2-Butanone (MEK)	ND		6250	6530	104	6250	6530	104	0	56-143/18
75-15-0	Carbon Disulfide	ND		1250	1290	103	1250	1250	100	3	66-148/23
56-23-5	Carbon Tetrachloride	ND		1250	1440	115	1250	1360	109	6	76-136/23
108-90-7	Chlorobenzene	ND		1250	1220	98	1250	1210	97	1	82-124/14
75-00-3	Chloroethane	ND		1250	1410	113	1250	1460	117	3	62-144/20
67-66-3	Chloroform	ND		1250	1460	117	1250	1410	113	3	80-124/15
124-48-1	Dibromochloromethane	ND		1250	1190	95	1250	1150	92	3	78-122/19
75-34-3	1,1-Dichloroethane	31.3	J	1250	1420	111	1250	1360	106	4	81-122/15
107-06-2	1,2-Dichloroethane	ND		1250	1550	124	1250	1460	117	6	75-125/14
75-35-4	1,1-Dichloroethylene	ND		1250	1550	124	1250	1490	119	4	78-137/18
156-59-2	cis-1,2-Dichloroethylene	604		1250	1720	89	1250	1700	88	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		1250	1350	108	1250	1310	105	3	76-127/17
78-87-5	1,2-Dichloropropane	ND		1250	1300	104	1250	1230	98	6	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		1250	1220	98	1250	1230	98	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		1250	1230	98	1250	1220	98	1	80-120/22
100-41-4	Ethylbenzene	ND		1250	1420	114	1250	1370	110	4	81-121/14
591-78-6	2-Hexanone	ND		6250	7100	114	6250	7060	113	1	61-129/18
74-83-9	Methyl Bromide	ND		1250	1420	114	1250	1510	121	6	59-143/19
74-87-3	Methyl Chloride	ND		1250	1040	83	1250	1190	95	13	50-159/19
75-09-2	Methylene Chloride	ND		1250	1380	110	1250	1350	108	2	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		6250	7210	115	6250	7080	113	2	66-122/16
100-42-5	Styrene	ND		1250	1190	95	1250	1170	94	2	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	ND		1250	1250	100	1250	1240	99	1	72-120/14
127-18-4	Tetrachloroethylene	4610		1250	4820	17* [a]	1250	4660	4* [a]	3	76-135/16
108-88-3	Toluene	ND		1250	1300	104	1250	1270	102	2	80-120/14
71-55-6	1,1,1-Trichloroethane	ND		1250	1570	126	1250	1460	117	7	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		1250	1280	102	1250	1240	99	3	76-119/14
79-01-6	Trichloroethylene	379		1250	1750	110	1250	1650	102	6	81-126/15
75-01-4	Vinyl Chloride	ND		1250	1160	93	1250	1370	110	17	69-159/18
1330-20-7	Xylene (total)	ND		3750	3840	102	3750	3720	99	3	80-126/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA23327-21MS	C0106418.D	50	04/15/15	EP	n/a	n/a	VC4253
FA23327-21MSD	C0106419.D	50	04/15/15	EP	n/a	n/a	VC4253
FA23327-21	C0106406.D	50	04/15/15	EP	n/a	n/a	VC4253

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA23309-1, FA23309-2

CAS No.	Surrogate Recoveries	MS	MSD	FA23327-21	Limits
1868-53-7	Dibromofluoromethane	108%	105%	115%	83-118%
17060-07-0	1,2-Dichloroethane-D4	125%	119%	124%	79-125%
2037-26-5	Toluene-D8	99%	99%	101%	85-112%
460-00-4	4-Bromofluorobenzene	94%	93%	99%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample:	VC4247-BFB	**Injection Date:**	04/11/15
Lab File ID:	C0106275.D	**Injection Time:**	10:39
Instrument ID:	GCMSC		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	55579	21.7		Pass
75	30.0 - 60.0% of mass 95	148157	57.9		Pass
95	Base peak, 100% relative abundance	255915	100.0		Pass
96	5.0 - 9.0% of mass 95	17842	6.97		Pass
173	Less than 2.0% of mass 174	861	0.34	(0.57) [a]	Pass
174	50.0 - 100.0% of mass 95	151253	59.1		Pass
175	5.0 - 9.0% of mass 174	10996	4.30	(7.27) [a]	Pass
176	95.0 - 101.0% of mass 174	149205	58.3	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	9793	3.83	(6.56) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VC4247-IC4247	C0106276.D	04/11/15	11:05	00:26	Initial cal 1
VC4247-IC4247	C0106277.D	04/11/15	11:30	00:51	Initial cal 2
VC4247-IC4247	C0106278.D	04/11/15	11:57	01:18	Initial cal 3
VC4247-ICC4247	C0106279.D	04/11/15	12:23	01:44	Initial cal 4
VC4247-IC4247	C0106280.D	04/11/15	12:49	02:10	Initial cal 5
VC4247-IC4247	C0106281.D	04/11/15	13:15	02:36	Initial cal 6
VC4247-ICV4247	C0106283.D	04/11/15	14:07	03:28	Initial cal verification 4

Instrument Performance Check (BFB)

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample:	VC4253-BFB	**Injection Date:**	04/14/15
Lab File ID:	C0106394.D	**Injection Time:**	19:28
Instrument ID:	GCMSC		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	56784	22.4		Pass
75	30.0 - 60.0% of mass 95	148032	58.5		Pass
95	Base peak, 100% relative abundance	253056	100.0		Pass
96	5.0 - 9.0% of mass 95	17448	6.89		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	148416	58.6		Pass
175	5.0 - 9.0% of mass 174	10638	4.20	(7.17) [a]	Pass
176	95.0 - 101.0% of mass 174	146176	57.8	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	9760	3.86	(6.68) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VC4253-CC4247	C0106394.D	04/14/15	19:28	00:00	Continuing cal 4
VC4253-BS	C0106395.D	04/14/15	19:53	00:25	Blank Spike
VC4253-MB	C0106397.D	04/14/15	20:45	01:17	Method Blank
ZZZZZZ	C0106398.D	04/14/15	21:11	01:43	(unrelated sample)
ZZZZZZ	C0106399.D	04/14/15	21:37	02:09	(unrelated sample)
ZZZZZZ	C0106400.D	04/14/15	22:02	02:34	(unrelated sample)
ZZZZZZ	C0106401.D	04/14/15	22:28	03:00	(unrelated sample)
FA23309-1	C0106403.D	04/14/15	23:20	03:52	MA02MW001D
FA23309-2	C0106404.D	04/14/15	23:46	04:18	TB-1
ZZZZZZ	C0106405.D	04/15/15	00:12	04:44	(unrelated sample)
FA23327-21	C0106406.D	04/15/15	00:38	05:10	(used for QC only; not part of job FA23309)
ZZZZZZ	C0106407.D	04/15/15	01:04	05:36	(unrelated sample)
ZZZZZZ	C0106409.D	04/15/15	01:56	06:28	(unrelated sample)
ZZZZZZ	C0106411.D	04/15/15	02:47	07:19	(unrelated sample)
ZZZZZZ	C0106412.D	04/15/15	03:13	07:45	(unrelated sample)
ZZZZZZ	C0106417.D	04/15/15	05:24	09:56	(unrelated sample)
FA23327-21MS	C0106418.D	04/15/15	05:52	10:24	Matrix Spike
FA23327-21MSD	C0106419.D	04/15/15	06:18	10:50	Matrix Spike Duplicate
VC4253-ECC4247	C0106420.D	04/15/15	06:44	11:16	Ending cal 4

Volatile Internal Standard Area Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	VC4253-CC4247	**Injection Date:**	04/14/15
Lab File ID:	C0106394.D	**Injection Time:**	19:28
Instrument ID:	GCMSC	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	865181	8.08	654735	11.21	391227	13.59	77990	5.57
Check Std [b]	648514	8.08	504631	11.21	297688	13.59	61067	5.57
Upper Limit [c]	1297028	8.58	1009262	11.71	595376	14.09	122134	6.07
Lower Limit [d]	324257	7.58	252316	10.71	148844	13.09	30534	5.07

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VC4253-BS	662962	8.08	515399	11.21	301334	13.59	61332	5.57
VC4253-MB	644110	8.08	480379	11.21	254189	13.59	61562	5.57
ZZZZZZ	606179	8.08	472150	11.21	255137	13.59	55124	5.57
ZZZZZZ	602658	8.08	451769	11.21	242131	13.59	54548	5.57
ZZZZZZ	598416	8.08	450247	11.21	234719	13.59	52386	5.57
ZZZZZZ	591922	8.08	442781	11.21	230531	13.59	58152	5.57
FA23309-1	567579	8.08	429861	11.21	227652	13.59	57995	5.57
FA23309-2	565912	8.08	429748	11.21	227225	13.59	49888	5.56
ZZZZZZ	552784	8.08	418859	11.21	219290	13.59	48507	5.57
FA23327-21	558308	8.08	422845	11.21	217948	13.59	49325	5.57
ZZZZZZ	550397	8.08	410188	11.21	218051	13.59	48894	5.57
ZZZZZZ	538650	8.08	401200	11.21	207933	13.59	48930	5.57
ZZZZZZ	521453	8.08	390773	11.21	202295	13.59	44450	5.57
ZZZZZZ	512641	8.08	387219	11.21	205750	13.59	44264	5.57
ZZZZZZ	491548	8.08	375920	11.21	199962	13.59	44692	5.57
FA23327-21MS	524495	8.08	421013	11.21	246788	13.59	48821	5.57
FA23327-21MSD	558100	8.08	437447	11.21	257385	13.59	51566	5.57
VC4253-ECC4247	591681	8.08	461573	11.21	271167	13.59	57890	5.57

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VC4247-ICC4247 C0106279.D 04/11/15 12:23
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA23309-1	C0106403.D	115	123	99	97
FA23309-2	C0106404.D	115	123	101	98
FA23327-21MS	C0106418.D	108	125	99	94
FA23327-21MSD	C0106419.D	105	119	99	93
VC4253-BS	C0106395.D	102	109	98	95
VC4253-MB	C0106397.D	111	117	102	98

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FA23309 **Sample:** VC4247-ICC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106279.D
Project: Melrose Air Force Range, NM

Response Factor Report MSVOA5

Method : C:\msdchem\2\MET...115APP9-CWater.m (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Sat Apr 11 14:29:08 2015
Response via : Initial Calibration

Calibration Files
1 =C0106276.D 2 =C0106277.D 3 =C0106278.D 4 =C0106279.D
5 =C0106280.D 6 =C0106281.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Dichlorodifluoromet	0.334	0.484	0.470	0.504	0.512	0.459	0.460	14.18
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9977								
		Response Ratio = 0.00000 + 0.54927 *A + -0.04215 *A^2								
3)	P	Chloromethane	0.389	0.414	0.404	0.441	0.448	0.416	0.419	5.35
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9972								
		Response Ratio = 0.00000 + 0.42728 *A								
4)	C	Vinyl Chloride	0.363	0.420	0.424	0.460	0.469	0.440	0.429	8.83
5)		Bromomethane	0.269	0.302	0.275	0.275	0.274	0.237	0.272	7.68
6)		Chloroethane	0.194	0.227	0.224	0.235	0.227	0.190	0.216	8.88
7)		Trichlorofluorometh	0.516	0.647	0.649	0.680	0.682	0.603	0.630	9.97
8)		Ethyl Ether	0.206	0.247	0.277	0.261	0.258	0.257	0.251	9.62
9)		1,2-Dichlorotrifluo	0.278	0.426	0.421	0.382	0.355	0.345	0.368	14.93
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994								
		Response Ratio = 0.00000 + 0.40619 *A + -0.03143 *A^2								
10)	C	1,1-Dichloroethene	0.452	0.622	0.635	0.564	0.512	0.485	0.545	13.64
11)		Freon 113	0.209	0.333	0.348	0.296	0.284	0.276	0.291	16.91
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9973								
		Response Ratio = 0.00000 + 0.28203 *A								
12)		Carbon Disulfide	0.839	0.974	1.029	0.939	0.865	0.839	0.914	8.63
13)		Iodomethane	0.465	0.570	0.591	0.531	0.503	0.506	0.528	8.86
14)		Allyl chloride	0.111	0.146	0.191	0.180	0.178	0.176	0.164	18.17
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9994								
		Response Ratio = 0.00000 + 0.17716 *A								
15)		Methylene Chloride	0.451	0.478	0.490	0.434	0.385	0.378	0.436	10.72
16)		Acetone	0.098	0.083	0.079	0.075	0.068	0.063	0.078	16.06
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998								
		Response Ratio = 0.00000 + 0.08231 *A + -0.00200 *A^2								
17)		Methyl acetate	0.165	0.164	0.174	0.152	0.133	0.128	0.153	12.23
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.16603 *A + -0.00399 *A^2								
18)		trans-1,2-Dichloroe	0.521	0.561	0.592	0.524	0.478	0.461	0.523	9.41
19)		Hexane	0.169	0.239	0.270	0.227	0.211	0.203	0.220	15.66
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984								
		Response Ratio = 0.00000 + 0.24925 *A + -0.02408 *A^2								
20)		Methyl Tert Butyl E	0.931	1.034	1.100	0.990	0.895	0.850	0.967	9.58
21)		Acetonitrile	0.023	0.022	0.023	0.022	0.020	0.021	0.022	4.82
22)		Di-isopropyl ether	0.776	0.927	1.002	0.906	0.831	0.802	0.874	9.82

Initial Calibration Summary

Job Number: FA23309 **Sample:** VC4247-ICC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106279.D
Project: Melrose Air Force Range, NM

23)		Chloroprene	0.273	0.280	0.320	0.314	0.294	0.295	0.296	6.20
24)	P	1,1-Dichloroethane	0.590	0.720	0.733	0.649	0.589	0.564	0.641	11.25
25)		Acrylonitrile	0.069	0.076	0.072	0.076	0.073	0.070	0.073	4.26
26)		ETBE	0.924	1.056	1.172	1.067	0.969	0.923	1.018	9.61
27)		Vinyl acetate	0.438	0.514	0.474	0.478	0.410	0.347	0.443	13.41
28)		cis-1,2-Dichloroeth	0.330	0.371	0.393	0.356	0.341	0.344	0.356	6.47
29)		2,2-Dichloropropane	0.535	0.616	0.619	0.572	0.514	0.474	0.555	10.45
30)		Bromochloromethane	0.154	0.174	0.190	0.169	0.160	0.162	0.168	7.52
31)		Cyclohexane	0.307	0.433	0.498	0.448	0.419	0.419	0.421	14.96

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9989
Response Ratio = 0.00000 + 0.46422 *A + -0.02442 *A^2

32)	C	Chloroform	0.710	0.836	0.831	0.737	0.664	0.629	0.735	11.59
33)		Ethyl acetate	0.184	0.199	0.190	0.203	0.182	0.168	0.188	6.62
34)		Tetrahydrofuran	0.047	0.053	0.057	0.054	0.051	0.051	0.052	6.82
35)	S	Dibromofluoromethan	0.327	0.319	0.307	0.294	0.274	0.267	0.298	8.04
36)		Carbon Tetrachlorid	0.394	0.541	0.597	0.546	0.498	0.471	0.508	13.88

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9996
Response Ratio = 0.00000 + 0.59252 *A + -0.06190 *A^2

37)		1,1,1-Trichloroetha	0.606	0.758	0.790	0.706	0.639	0.605	0.684	11.63
38)		2-Butanone	0.083	0.091	0.094	0.092	0.088	0.083	0.088	5.24
39)		1,1-Dichloropropene	0.432	0.519	0.553	0.509	0.470	0.457	0.490	9.08

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 0.53720 *A + -0.04134 *A^2

40)		Propionitrile	0.031	0.030	0.030	0.028	0.026	0.026	0.029	8.41
41)		Methacrylonitrile	0.144	0.148	0.152	0.138	0.119	0.109	0.135	12.82
42)		Benzene	1.162	1.343	1.355	1.221	1.113	1.066	1.210	9.87
43)		TAME	0.852	0.943	1.027	0.946	0.876	0.833	0.913	8.00
44)	S	1,2-Dichloroethane-	0.481	0.478	0.457	0.447	0.417	0.392	0.445	7.83
45)		1,2-Dichloroethane	0.696	0.659	0.685	0.624	0.565	0.526	0.626	10.88
46)		Trichloroethene	0.387	0.411	0.420	0.393	0.356	0.341	0.385	7.99
47)		Methylcyclohexane	0.322	0.453	0.531	0.486	0.457	0.450	0.450	15.50

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994
Response Ratio = 0.00000 + 0.50771 *A + -0.03020 *A^2

48)		Dibromomethane	0.198	0.216	0.241	0.223	0.214	0.212	0.217	6.53
49)	C	1,2-Dichloropropane	0.261	0.299	0.331	0.308	0.292	0.298	0.298	7.70
50)		Bromodichloromethan	0.416	0.511	0.596	0.536	0.497	0.482	0.507	11.77
51)		Methyl methacrylate	0.040	0.048	0.058	0.060	0.062	0.068	0.056	17.82

---- Linear regr., Force(0,0) ---- Coefficient = 0.9965
Response Ratio = 0.00000 + 0.06493 *A

52)		2-Chloroethyl vinyl	0.095	0.139	0.163	0.163	0.147	0.138	0.141	17.74

---- Linear regr., Force(0,0) ---- Coefficient = 0.9941
Response Ratio = 0.00000 + 0.14369 *A

53)		cis-1,3-Dichloropro	0.343	0.516	0.601	0.570	0.545	0.543	0.520	17.57

---- Linear regr., Force(0,0) ---- Coefficient = 0.9992
Response Ratio = 0.00000 + 0.54778 *A

54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.319	1.322	1.307	1.318	1.328	1.336	1.322	0.75
56)	C	Toluene	1.572	1.740	1.842	1.692	1.545	1.428	1.637	9.15
57)		2-Nitropropane	0.071	0.092	0.120	0.118	0.111	0.105	0.103	18.17

---- Linear regr., Force(0,0) ---- Coefficient = 0.9965
Response Ratio = 0.00000 + 0.10867 *A

Initial Calibration Summary

Job Number: FA23309 **Sample:** VC4247-ICC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106279.D
Project: Melrose Air Force Range, NM

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58)      4-Methyl-2-pentanon 0.196 0.257 0.267 0.273 0.242 0.214 0.241  12.72
59)      trans-1,3-Dichlorop 0.442 0.604 0.679 0.659 0.613 0.585 0.597  14.02
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9968
               Response Ratio = 0.00000 + 0.60243 *A

60)      Tetrachloroethene   0.364 0.444 0.433 0.407 0.387 0.388 0.404   7.52
61)      Ethyl methacrylate  0.355 0.341 0.426 0.452 0.435 0.441 0.408  11.69
62)      1,1,2-Trichloroetha 0.275 0.295 0.312 0.296 0.278 0.279 0.289   4.96
63)      Dibromochloromethan 0.262 0.345 0.431 0.440 0.426 0.429 0.389  18.36
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 0.42930 *A

64)      1,3-Dichloropropane 0.508 0.594 0.647 0.634 0.610 0.597 0.598   8.13
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.60508 *A

65)      1,2-Dibromoethane   0.295 0.342 0.376 0.372 0.352 0.365 0.350   8.49
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.36189 *A

66)      2-hexanone          0.137 0.159 0.182 0.190 0.173 0.158 0.167  11.56
67)      1-Chlorohexane      0.447 0.520 0.629 0.619 0.598 0.587 0.567  12.40
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.59404 *A

68) C    Ethylbenzene        1.883 2.072 2.131 1.935 1.722 1.511 1.876  12.26
69) P    Chlorobenzene       0.961 1.040 1.108 1.032 0.964 0.910 1.003   7.10
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 1.11539 *A + -0.10378 *A^2

70)      1,1,1,2-Tetrachloro 0.291 0.407 0.463 0.437 0.432 0.414 0.407  14.76
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 0.42250 *A

71)      m,p-Xylene          1.253 1.576 1.651 1.467 1.241 1.029 1.370  17.20
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 1.76009 *A + -0.18327 *A^2

72)      o-Xylene            1.234 1.545 1.807 1.685 1.529 1.372 1.529  13.52
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 1.89173 *A + -0.25982 *A^2

73)      Styrene             0.763 1.131 1.307 1.268 1.175 1.107 1.125  17.23
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 1.35503 *A + -0.12471 *A^2

74) P    Bromoform           0.139 0.147 0.200 0.209 0.218 0.226 0.190  19.75
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 0.22124 *A

75)      Isopropylbenzene    1.390 1.861 2.142 2.001 1.790 1.577 1.793  15.36
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 2.27624 *A + -0.34922 *A^2


76) I    1,4-Dichlorobenzene-d ----------------ISTD---------------------
77) S    4-Bromofluorobenzen 0.703 0.674 0.679 0.687 0.692 0.723 0.693   2.59
78)      cis-1,4-Dichloro-2- 0.030 0.089 0.154 0.183 0.182 0.209 0.141  48.39
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9983
               Response Ratio = 0.00000 + 0.14478 *A + 0.03146 *A^2
```

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79)     n-Propylbenzene     3.297 4.093 4.266 3.781 3.309 2.895 3.607  14.64
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 4.39167 *A + -0.75299 *A^2

80)     Bromobenzene        0.819 0.847 0.860 0.803 0.770 0.773 0.812   4.56
81) P   1,1,2,2-Tetrachloro 0.685 0.775 0.787 0.755 0.721 0.729 0.742   5.09
82)     1,3,5-Trimethylbenz 2.555 3.415 3.583 3.166 2.806 2.468 2.999  15.34
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 3.66707 *A + -0.60244 *A^2

83)     2-Chlorotoluene     2.601 3.129 3.235 2.861 2.538 2.282 2.774  13.23
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 3.26290 *A + -0.49523 *A^2

84)     trans-1,4-Dichloro- 0.037 0.121 0.186 0.190 0.197 0.224 0.159  43.13
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.15922 *A + 0.03157 *A^2

85)     1,2,3-Trichloroprop 0.232 0.267 0.258 0.242 0.231 0.231 0.243   6.35
86)     Cyclohexanone       0.007 0.016 0.015 0.018 0.020 0.018 0.016  28.02
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9947
              Response Ratio = 0.00000 + 0.01832 *A + 0.00005 *A^2

87)     4-Chlorotoluene     2.235 2.669 2.956 2.674 2.413 2.210 2.526  11.54
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 2.98453 *A + -0.39081 *A^2

88)     tert-Butylbenzene   1.311 1.966 2.219 2.015 1.851 1.705 1.845  16.95
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 2.23622 *A + -0.26738 *A^2

89)     1,2,4-Trimethylbenz 2.432 3.401 3.645 3.264 2.863 2.544 3.025  16.15
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 3.73761 *A + -0.60164 *A^2

90)     Pentachloroethane   0.406 0.434 0.506 0.503 0.498 0.506 0.476   9.21
91)     sec-Butylbenzene    2.539 3.599 4.045 3.643 3.230 2.863 3.320  16.69
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 4.16843 *A + -0.65594 *A^2

92)     4-Isopropyltoluene  2.067 3.076 3.522 3.182 2.847 2.535 2.871  17.91
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 3.62448 *A + -0.54650 *A^2

93)     1,3-Dichlorobenzene 1.449 1.629 1.743 1.568 1.465 1.418 1.545   8.11
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9994
              Response Ratio = 0.00000 + 1.67543 *A + -0.13266 *A^2

94)     1,4-Dichlorobenzene 1.651 1.614 1.780 1.658 1.543 1.470 1.619   6.56
95)     n-Butylbenzene      1.283 1.887 2.220 2.063 1.909 1.754 1.853  17.37
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 2.27560 *A + -0.26074 *A^2

96)     Benzyl Chloride     0.198 0.268 0.348 0.359 0.344 0.346 0.311  20.63
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.34658 *A

97)     1,2-Dichlorobenzene 1.292 1.527 1.670 1.556 1.457 1.382 1.481   9.02
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
```

Initial Calibration Summary

Job Number: FA23309 **Sample:** VC4247-ICC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106279.D
Project: Melrose Air Force Range, NM

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                Response Ratio = 0.00000 + 1.67277 *A + -0.14682 *A^2

 98)     1,2-Dibromo-3-Chlor 0.150 0.162 0.205 0.199 0.191 0.194 0.184  12.15
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 0.19405 *A

 99)     Hexachlorobutadiene 0.398 0.482 0.521 0.503 0.490 0.492 0.481   8.93
100)     1,2,4-Trichlorobenz 1.021 1.041 1.197 1.115 1.086 1.060 1.087   5.83
101)     Naphthalene         2.018 2.356 2.798 2.661 2.466 2.283 2.430  11.45
102)     1,2,3-Trichlorobenz 0.934 0.953 1.139 1.074 1.032 1.014 1.024   7.44

103) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
104)     Ethanol             0.013 0.011 0.011 0.018 0.018 0.019 0.015  24.68
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9959
               Response Ratio = 0.00000 + 0.01544 *A + 0.00008 *A^2

105)     Acrolein            0.376 0.429 0.417 0.461 0.443 0.454 0.430   7.14
106)     Tert Butyl Alcohol  0.236 0.233 0.259 0.249 0.249 0.253 0.247   4.07
107)     Isobutyl alcohol    0.038 0.037 0.047 0.047 0.049 0.052 0.045  13.16
108)     Tert Amyl Alcohol   0.114 0.140 0.174 0.177 0.188 0.200 0.165  19.56
             ---- Linear regr., Force(0,0) ----  Coefficient =  0.9977
               Response Ratio = 0.00000 + 0.19361 *A

109)     1,4-Dioxane               0.018 0.021 0.021 0.022 0.025 0.021  11.78
 ---------------------------------------------------------------------------
 (#) = Out of Range

           041115APP9-CWater.m        Mon Apr 13 07:03:33 2015
```

Initial Calibration Verification

Job Number: FA23309 **Sample:** VC4247-ICV4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106283.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\041115\C0106283.D Vial: 13
Acq On : 11 Apr 2015 2:07 pm Operator: ericp
Sample : ICV4247-4 Inst : MSVOA5
Misc : ms30186,vc4247,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\2\MET...115APP9-CWater.m (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Sat Apr 11 14:29:08 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	121	0.00	8.08
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	42.751	-6.9	132	0.00	2.70
3 P	Chloromethane	40.000	43.685	-9.2	128	0.00	2.96
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.429	0.476	-11.0	126	0.00	3.10
5	Bromomethane	0.272	0.255	6.3	113	0.00	3.57
6	Chloroethane	0.216	0.214	0.9	110	0.00	3.75
7	Trichlorofluoromethane	0.630	0.611	3.0	109	0.00	3.90
8	Ethyl Ether	0.251	0.254	-1.2	118	0.00	4.30
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	43.016	-7.5	129	0.00	4.53
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.545	0.575	-5.5	124	0.00	4.56
		Amount	Calc.	%Drift			
11	Freon 113	40.000	42.898	-7.2	124	0.00	4.63
		AvgRF	CCRF	%Dev			
12	Carbon Disulfide	0.914	0.860	5.9	111	0.00	4.60
13	Iodomethane	0.528	0.491	7.0	112	0.00	4.74
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	35.905	10.2	107	0.00	5.13
		AvgRF	CCRF	%Dev			
15	Methylene Chloride	0.436	0.442	-1.4	123	0.00	5.25
		Amount	Calc.	%Drift			
16	Acetone	200.000	203.639	-1.8	122	0.00	5.31
17	Methyl acetate	200.000	275.093	-37.5#	158	0.00	5.45
		AvgRF	CCRF	%Dev			
18	trans-1,2-Dichloroethene	0.523	0.527	-0.8	122	0.00	5.44
		Amount	Calc.	%Drift			
19	Hexane	40.000	41.099	-2.7	126	0.00	5.52

Initial Calibration Verification

Job Number: FA23309 **Sample:** VC4247-ICV4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106283.D
Project: Melrose Air Force Range, NM

			AvgRF	CCRF	%Dev			
20		Methyl Tert Butyl Ether	0.967	0.959	0.8	117	0.00	5.56
21		Acetonitrile	0.022	0.021	4.5	115	0.00	5.87
22		Di-isopropyl ether	0.874	0.920	-5.3	123	0.00	5.98
23		Chloroprene	0.296	0.325	-9.8	126	0.00	6.12
24	P	1,1-Dichloroethane	0.641	0.644	-0.5	120	0.00	6.15
25		Acrylonitrile	0.073	0.079	-8.2	126	0.00	6.21
26		ETBE	1.018	1.032	-1.4	117	0.00	6.39
27		Vinyl acetate	0.443	0.381	14.0	97	0.00	6.41
28		cis-1,2-Dichloroethene	0.356	0.381	-7.0	130	0.00	6.75
29		2,2-Dichloropropane	0.555	0.566	-2.0	120	0.00	6.88
30		Bromochloromethane	0.168	0.170	-1.2	122	0.00	6.97

			Amount	Calc.	%Drift			
31		Cyclohexane	40.000	44.259	-10.6	133	0.00	6.98

			AvgRF	CCRF	%Dev			
32	C	Chloroform	0.735	0.721	1.9	119	0.00	7.03
33		Ethyl acetate	0.188	0.194	-3.2	116	0.00	7.14
34		Tetrahydrofuran	0.052	0.057	-9.6	127	0.00	7.22
35	S	Dibromofluoromethane	0.298	0.285	4.4	117	0.00	7.23

			Amount	Calc.	%Drift			
36		Carbon Tetrachloride	40.000	39.794	0.5	120	0.00	7.20

			AvgRF	CCRF	%Dev			
37		1,1,1-Trichloroethane	0.684	0.672	1.8	115	0.00	7.27
38		2-Butanone	0.088	0.094	-6.8	125	0.00	7.36

			Amount	Calc.	%Drift			
39		1,1-Dichloropropene	40.000	42.947	-7.4	128	0.00	7.39

			AvgRF	CCRF	%Dev			
40		Propionitrile	0.029	0.028	3.4	122	0.00	7.68
41		Methacrylonitrile	0.135	0.132	2.2	116	0.00	7.70
42		Benzene	1.210	1.266	-4.6	126	0.00	7.66
43		TAME	0.913	0.934	-2.3	120	0.00	7.75
44	S	1,2-Dichloroethane-d4	0.445	0.408	8.3	111	0.00	7.80
45		1,2-Dichloroethane	0.626	0.594	5.1	115	0.00	7.87
46		Trichloroethene	0.385	0.396	-2.9	122	0.00	8.25

			Amount	Calc.	%Drift			
47		Methylcyclohexane	40.000	44.428	-11.1	133	0.00	8.25

			AvgRF	CCRF	%Dev			
48		Dibromomethane	0.217	0.232	-6.9	126	0.00	8.69
49	C	1,2-Dichloropropane	0.298	0.325	-9.1	128	0.00	8.79
50		Bromodichloromethane	0.507	0.534	-5.3	121	0.00	8.83

			Amount	Calc.	%Drift			
51		Methyl methacrylate	40.000	38.767	3.1	126	0.00	8.96
52		2-Chloroethyl vinyl ether	200.000	224.775	-12.4	120	0.00	9.38
53		cis-1,3-Dichloropropene	40.000	42.532	-6.3	124	0.00	9.47

			AvgRF	CCRF	%Dev			
54	I	Chlorobenzene-d5	1.000	1.000	0.0	122	0.00	11.21
55	S	Toluene-d8	1.322	1.310	0.9	122	0.00	9.66
56	C	Toluene	1.637	1.697	-3.7	123	0.00	9.71

Initial Calibration Verification

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: VC4247-ICV4247
Lab FileID: C0106283.D

			Amount	Calc.	%Drift			
57		2-Nitropropane	200.000	199.353	0.3	112	0.00	9.94
			AvgRF	CCRF	%Dev			
58		4-Methyl-2-pentanone	0.241	0.261	-8.3	117	0.00	10.06
			Amount	Calc.	%Drift			
59		trans-1,3-Dichloropropene	40.000	44.620	-11.5	125	0.00	10.11
			AvgRF	CCRF	%Dev			
60		Tetrachloroethene	0.404	0.425	-5.2	128	0.00	10.10
61		Ethyl methacrylate	0.408	0.424	-3.9	115	0.00	10.23
62		1,1,2-Trichloroethane	0.289	0.307	-6.2	127	0.00	10.28
			Amount	Calc.	%Drift			
63		Dibromochloromethane	40.000	42.445	-6.1	127	0.00	10.46
64		1,3-Dichloropropane	40.000	43.472	-8.7	127	0.00	10.56
65		1,2-Dibromoethane	40.000	43.401	-8.5	129	0.00	10.73
			AvgRF	CCRF	%Dev			
66		2-hexanone	0.167	0.182	-9.0	117	0.00	10.88
			Amount	Calc.	%Drift			
67		1-Chlorohexane	40.000	42.409	-6.0	125	0.00	11.18
			AvgRF	CCRF	%Dev			
68	C	Ethylbenzene	1.876	1.914	-2.0	121	0.00	11.24
			Amount	Calc.	%Drift			
69	P	Chlorobenzene	40.000	43.339	-8.3	132	0.00	11.23
70		1,1,1,2-Tetrachloroethane	40.000	43.367	-8.4	128	0.00	11.29
71		m,p-Xylene	80.000	78.152	2.3	120	0.00	11.38
72		o-Xylene	40.000	42.410	-6.0	129	0.00	11.82
73		Styrene	40.000	40.730	-1.8	123	0.00	11.87
74	P	Bromoform	40.000	39.407	1.5	128	0.00	11.92
75		Isopropylbenzene	40.000	42.484	-6.2	129	0.00	12.13
			AvgRF	CCRF	%Dev			
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	124	0.00	13.59
77	S	4-Bromofluorobenzene	0.693	0.693	0.0	125	0.00	12.44
			Amount	Calc.	%Drift			
78		cis-1,4-Dichloro-2-butene	40.000	39.154	2.1	112	0.00	12.48
79		n-Propylbenzene	40.000	42.103	-5.3	130	0.00	12.55
			AvgRF	CCRF	%Dev			
80		Bromobenzene	0.812	0.830	-2.2	128	0.00	12.56
81	P	1,1,2,2-Tetrachloroethane	0.742	0.782	-5.4	128	0.00	12.62
			Amount	Calc.	%Drift			
82		1,3,5-Trimethylbenzene	40.000	37.475	6.3	118	0.00	12.74
83		2-Chlorotoluene	40.000	40.044	-0.1	124	0.00	12.73
84		trans-1,4-Dichloro-2-Bute	40.000	41.204	-3.0	124	0.00	12.80
			AvgRF	CCRF	%Dev			
85		1,2,3-Trichloropropane	0.243	0.248	-2.1	127	0.00	12.78
			Amount	Calc.	%Drift			
86		Cyclohexanone	200.000	196.174	1.9	128	0.00	12.84

Initial Calibration Verification

Job Number: FA23309 **Sample:** VC4247-ICV4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106283.D
Project: Melrose Air Force Range, NM

87	4-Chlorotoluene	40.000	42.080	-5.2	129	0.00	12.90
88	tert-Butylbenzene	40.000	40.699	-1.7	126	0.00	13.08
89	1,2,4-Trimethylbenzene	40.000	37.903	5.2	118	0.00	13.15
		AvgRF	CCRF	%Dev			
90	Pentachloroethane	0.476	0.482	-1.3	118	0.00	13.12
		Amount	Calc.	%Drift			
91	sec-Butylbenzene	40.000	42.360	-5.9	130	0.00	13.26
92	4-Isopropyltoluene	40.000	40.954	-2.4	127	0.00	13.40
93	1,3-Dichlorobenzene	40.000	44.408	-11.0	137	0.00	13.52
		AvgRF	CCRF	%Dev			
94	1,4-Dichlorobenzene	1.619	1.679	-3.7	125	0.00	13.60
		Amount	Calc.	%Drift			
95	n-Butylbenzene	40.000	39.435	1.4	123	0.00	13.83
96	Benzyl Chloride	40.000	38.412	4.0	115	0.00	13.85
97	1,2-Dichlorobenzene	40.000	43.774	-9.4	135	0.00	14.04
98	1,2-Dibromo-3-Chloropropa	40.000	40.044	-0.1	121	0.00	14.78
		AvgRF	CCRF	%Dev			
99	Hexachlorobutadiene	0.481	0.503	-4.6	124	0.00	15.34
100	1,2,4-Trichlorobenzene	1.087	1.150	-5.8	128	0.00	15.38
101	Naphthalene	2.430	2.666	-9.7	124	0.00	15.67
102	1,2,3-Trichlorobenzene	1.024	1.088	-6.3	125	0.00	15.83
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	125	0.00	5.57
		Amount	Calc.	%Drift			
104	Ethanol	800.000	920.085	-15.0	139	0.02	4.48
		AvgRF	CCRF	%Dev			
105	Acrolein	0.430	0.482	-12.1	130	0.00	4.96
106	Tert Butyl Alcohol	0.247	0.253	-2.4	126	0.00	5.65
107	Isobutyl alcohol	0.045	0.048	-6.7	125	0.00	7.82
		Amount	Calc.	%Drift			
108	Tert Amyl Alcohol	400.000	368.331	7.9	125	0.00	7.93
		AvgRF	CCRF	%Dev			
109	1,4-Dioxane	0.021	0.024	-14.3	145	0.00	9.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

C0106279.D 041115APP9-CWater.m Mon Apr 13 07:03:18 2015

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-CC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106394.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\041415\C0106394.D Vial: 34
Acq On : 14 Apr 2015 7:28 pm Operator: ericp
Sample : CC4247-4,BFB Inst : MSVOA5
Misc : ms30222,vc4253,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\2\MET...115APP9-CWater.m (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Sat Apr 11 14:29:08 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	75	0.00	8.08
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	35.078	12.3	68	0.00	2.70
3 P	Chloromethane	40.000	32.639	18.4	59	0.00	2.96
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.429	0.395	7.9	64	0.00	3.11
5	Bromomethane	0.272	0.288	-5.9	78	0.00	3.57
6	Chloroethane	0.216	0.235	-8.8	75	0.00	3.75
7	Trichlorofluoromethane	0.630	0.731	-16.0	81	0.00	3.91
8	Ethyl Ether	0.251	0.268	-6.8	77	0.00	4.30
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	43.286	-8.2	80	0.00	4.54
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.545	0.614	-12.7	82	0.00	4.56
		Amount	Calc.	%Drift			
11	Freon 113	40.000	44.127	-10.3	79	0.00	4.63
		AvgRF	CCRF	%Dev			
12	Carbon Disulfide	0.914	0.970	-6.1	77	0.00	4.60
13	Iodomethane	0.528	0.548	-3.8	77	0.00	4.74
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	43.460	-8.7	80	0.00	5.13
		AvgRF	CCRF	%Dev			
15	Methylene Chloride	0.436	0.471	-8.0	81	0.00	5.25
		Amount	Calc.	%Drift			
16	Acetone	200.000	213.952	-7.0	78	0.00	5.32
17	Methyl acetate	200.000	201.808	-0.9	74	0.00	5.45
		AvgRF	CCRF	%Dev			
18	trans-1,2-Dichloroethene	0.523	0.542	-3.6	78	0.00	5.44
		Amount	Calc.	%Drift			
19	Hexane	40.000	37.898	5.3	72	0.00	5.52

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-CC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106394.D
Project: Melrose Air Force Range, NM

			AvgRF	CCRF	%Dev			
20		Methyl Tert Butyl Ether	0.967	1.041	-7.7	79	0.00	5.56
21		Acetonitrile	0.022	0.020	9.1	67	0.00	5.87
22		Di-isopropyl ether	0.874	0.898	-2.7	74	0.00	5.98
23		Chloroprene	0.296	0.309	-4.4	74	0.00	6.12
24	P	1,1-Dichloroethane	0.641	0.681	-6.2	79	0.00	6.15
25		Acrylonitrile	0.073	0.073	0.0	72	0.00	6.21
26		ETBE	1.018	1.103	-8.3	78	0.00	6.39
27		Vinyl acetate	0.443	0.494	-11.5	78	0.00	6.41
28		cis-1,2-Dichloroethene	0.356	0.359	-0.8	76	0.00	6.75
29		2,2-Dichloropropane	0.555	0.607	-9.4	80	0.00	6.87
30		Bromochloromethane	0.168	0.166	1.2	74	0.00	6.97

			Amount	Calc.	%Drift			
31		Cyclohexane	40.000	38.148	4.6	71	0.00	6.98

			AvgRF	CCRF	%Dev			
32	C	Chloroform	0.735	0.794	-8.0	81	0.00	7.03
33		Ethyl acetate	0.188	0.198	-5.3	73	0.00	7.14
34		Tetrahydrofuran	0.052	0.052	0.0	71	0.00	7.22
35	S	Dibromofluoromethane	0.298	0.299	-0.3	76	0.00	7.23

			Amount	Calc.	%Drift			
36		Carbon Tetrachloride	40.000	43.755	-9.4	81	0.00	7.20

			AvgRF	CCRF	%Dev			
37		1,1,1-Trichloroethane	0.684	0.764	-11.7	81	0.00	7.27
38		2-Butanone	0.088	0.089	-1.1	73	0.00	7.36

			Amount	Calc.	%Drift			
39		1,1-Dichloropropene	40.000	41.610	-4.0	77	0.00	7.40

			AvgRF	CCRF	%Dev			
40		Propionitrile	0.029	0.026	10.3	70	0.00	7.68
41		Methacrylonitrile	0.135	0.141	-4.4	77	0.00	7.70
42		Benzene	1.210	1.231	-1.7	76	0.00	7.66
43		TAME	0.913	0.977	-7.0	77	0.00	7.75
44	S	1,2-Dichloroethane-d4	0.445	0.483	-8.5	81	0.00	7.80
45		1,2-Dichloroethane	0.626	0.681	-8.8	82	0.00	7.87
46		Trichloroethene	0.385	0.398	-3.4	76	0.00	8.25

			Amount	Calc.	%Drift			
47		Methylcyclohexane	40.000	37.337	6.7	70	0.00	8.25

			AvgRF	CCRF	%Dev			
48		Dibromomethane	0.217	0.229	-5.5	77	0.00	8.69
49	C	1,2-Dichloropropane	0.298	0.300	-0.7	73	0.00	8.79
50		Bromodichloromethane	0.507	0.569	-12.2	80	0.00	8.83

			Amount	Calc.	%Drift			
51		Methyl methacrylate	40.000	36.317	9.2	73	0.00	8.96
52		2-Chloroethyl vinyl ether	200.000	223.317	-11.7	74	0.00	9.38
53		cis-1,3-Dichloropropene	40.000	42.788	-7.0	77	0.00	9.47

			AvgRF	CCRF	%Dev			
54	I	Chlorobenzene-d5	1.000	1.000	0.0	77	0.00	11.21
55	S	Toluene-d8	1.322	1.305	1.3	76	0.00	9.66
56	C	Toluene	1.637	1.671	-2.1	76	0.00	9.71

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-CC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106394.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
57		2-Nitropropane	200.000	222.777	-11.4	79	0.00	9.94
			AvgRF	CCRF	%Dev			
58		4-Methyl-2-pentanone	0.241	0.262	-8.7	74	0.00	10.06
			Amount	Calc.	%Drift			
59		trans-1,3-Dichloropropene	40.000	44.490	-11.2	78	0.00	10.11
			AvgRF	CCRF	%Dev			
60		Tetrachloroethene	0.404	0.381	5.7	72	0.00	10.10
61		Ethyl methacrylate	0.408	0.418	-2.5	71	0.00	10.23
62		1,1,2-Trichloroethane	0.289	0.286	1.0	74	0.00	10.28
			Amount	Calc.	%Drift			
63		Dibromochloromethane	40.000	41.077	-2.7	77	0.00	10.46
64		1,3-Dichloropropane	40.000	40.470	-1.2	74	0.00	10.56
65		1,2-Dibromoethane	40.000	38.805	3.0	73	0.00	10.73
			AvgRF	CCRF	%Dev			
66		2-hexanone	0.167	0.179	-7.2	73	0.00	10.88
			Amount	Calc.	%Drift			
67		1-Chlorohexane	40.000	38.716	3.2	72	0.00	11.17
			AvgRF	CCRF	%Dev			
68	C	Ethylbenzene	1.876	1.970	-5.0	78	0.00	11.24
			Amount	Calc.	%Drift			
69	P	Chlorobenzene	40.000	39.701	0.7	77	0.00	11.23
70		1,1,1,2-Tetrachloroethane	40.000	42.135	-5.3	78	0.00	11.29
71		m,p-Xylene	80.000	82.973	-3.7	79	0.00	11.38
72		o-Xylene	40.000	40.592	-1.5	78	0.00	11.82
73		Styrene	40.000	39.446	1.4	75	0.00	11.87
74	P	Bromoform	40.000	37.886	5.3	77	0.00	11.92
75		Isopropylbenzene	40.000	39.782	0.5	77	0.00	12.13
			AvgRF	CCRF	%Dev			
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	76	0.00	13.59
77	S	4-Bromofluorobenzene	0.693	0.665	4.0	74	0.00	12.44
			Amount	Calc.	%Drift			
78		cis-1,4-Dichloro-2-butene	40.000	47.387	-18.5	86	0.00	12.48
79		n-Propylbenzene	40.000	40.767	-1.9	77	0.00	12.55
			AvgRF	CCRF	%Dev			
80		Bromobenzene	0.812	0.794	2.2	75	0.00	12.56
81	P	1,1,2,2-Tetrachloroethane	0.742	0.727	2.0	73	0.00	12.62
			Amount	Calc.	%Drift			
82		1,3,5-Trimethylbenzene	40.000	41.216	-3.0	79	0.00	12.73
83		2-Chlorotoluene	40.000	41.721	-4.3	79	0.00	12.73
84		trans-1,4-Dichloro-2-Bute	40.000	46.876	-17.2	89	0.00	12.80
			AvgRF	CCRF	%Dev			
85		1,2,3-Trichloropropane	0.243	0.247	-1.6	78	0.00	12.78
			Amount	Calc.	%Drift			
86		Cyclohexanone	200.000	184.578	7.7	74	0.00	12.84

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-CC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106394.D
Project: Melrose Air Force Range, NM

87	4-Chlorotoluene	40.000	41.302	-3.3	78	0.00	12.90
88	tert-Butylbenzene	40.000	41.505	-3.8	79	0.00	13.07
89	1,2,4-Trimethylbenzene	40.000	41.155	-2.9	78	0.00	13.15
		AvgRF	CCRF	%Dev			
90	Pentachloroethane	0.476	0.508	-6.7	77	0.00	13.12
		Amount	Calc.	%Drift			
91	sec-Butylbenzene	40.000	39.716	0.7	76	0.00	13.26
92	4-Isopropyltoluene	40.000	39.415	1.5	75	0.00	13.40
93	1,3-Dichlorobenzene	40.000	39.096	2.3	75	0.00	13.51
		AvgRF	CCRF	%Dev			
94	1,4-Dichlorobenzene	1.619	1.628	-0.6	75	0.00	13.60
		Amount	Calc.	%Drift			
95	n-Butylbenzene	40.000	38.826	2.9	74	0.00	13.83
96	Benzyl Chloride	40.000	36.930	7.7	68	0.00	13.85
97	1,2-Dichlorobenzene	40.000	39.043	2.4	74	0.00	14.04
98	1,2-Dibromo-3-Chloropropa	40.000	41.581	-4.0	77	0.00	14.79
		AvgRF	CCRF	%Dev			
99	Hexachlorobutadiene	0.481	0.473	1.7	72	0.00	15.33
100	1,2,4-Trichlorobenzene	1.087	1.058	2.7	72	0.00	15.38
101	Naphthalene	2.430	2.602	-7.1	74	0.00	15.67
102	1,2,3-Trichlorobenzene	1.024	1.030	-0.6	73	0.00	15.83
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	78	0.00	5.57
		Amount	Calc.	%Drift			
104	Ethanol	800.000	938.001	-17.3	89	0.01	4.47
		AvgRF	CCRF	%Dev			
105	Acrolein	0.430	0.435	-1.2	74	0.00	4.97
106	Tert Butyl Alcohol	0.247	0.240	2.8	76	0.00	5.66
107	Isobutyl alcohol	0.045	0.043	4.4	71	0.00	7.82
		Amount	Calc.	%Drift			
108	Tert Amyl Alcohol	400.000	338.849	15.3	72	0.00	7.93
		AvgRF	CCRF	%Dev			
109	1,4-Dioxane	0.021	0.020	4.8	77	0.00	9.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
C0106279.D 041115APP9-CWater.m Wed Apr 15 07:41:20 2015

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-ECC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106420.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\DATA\041415\C0106420.D Vial: 9
Acq On : 15 Apr 2015 6:44 am Operator: ericp
Sample : ECC4247-4 Inst : MSVOA5
Misc : ms30233,vc4253,,,,, Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\2\MET...115APP9-CWater.m (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Sat Apr 11 14:29:08 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	68	0.00	8.08
		Amount	Calc.	%Drift			
2	Dichlorodifluoromethane	40.000	23.731	40.7	43	0.00	2.70
3 P	Chloromethane	40.000	34.566	13.6	57	0.00	2.96
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride	0.429	0.370	13.8	55	0.00	3.11
5	Bromomethane	0.272	0.278	-2.2	69	0.00	3.57
6	Chloroethane	0.216	0.214	0.9	62	0.00	3.75
7	Trichlorofluoromethane	0.630	0.532	15.6	53	0.00	3.91
8	Ethyl Ether	0.251	0.262	-4.4	69	0.00	4.30
		Amount	Calc.	%Drift			
9	1,2-Dichlorotrifluoroetha	40.000	32.588	18.5	56	0.00	4.54
		AvgRF	CCRF	%Dev			
10 C	1,1-Dichloroethene	0.545	0.485	11.0	59	0.00	4.56
		Amount	Calc.	%Drift			
11	Freon 113	40.000	29.221	26.9	48	0.00	4.63
		AvgRF	CCRF	%Dev			
12	Carbon Disulfide	0.914	0.752	17.7	55	0.00	4.60
13	Iodomethane	0.528	0.484	8.3	62	0.00	4.74
		Amount	Calc.	%Drift			
14	Allyl chloride	40.000	32.586	18.5	55	0.00	5.13
		AvgRF	CCRF	%Dev			
15	Methylene Chloride	0.436	0.416	4.6	66	0.00	5.25
		Amount	Calc.	%Drift			
16	Acetone	200.000	211.485	-5.7	71	0.00	5.32
17	Methyl acetate	200.000	210.174	-5.1	70	0.00	5.45
		AvgRF	CCRF	%Dev			
18	trans-1,2-Dichloroethene	0.523	0.438	16.3	57	0.00	5.44
		Amount	Calc.	%Drift			
19	Hexane	40.000	24.282	39.3	43	0.00	5.52

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-ECC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106420.D
Project: Melrose Air Force Range, NM

			AvgRF	CCRF	%Dev			
20		Methyl Tert Butyl Ether	0.967	0.994	-2.8	69	0.00	5.56
21		Acetonitrile	0.022	0.020	9.1	62	0.00	5.87
22		Di-isopropyl ether	0.874	0.811	7.2	61	0.00	5.98
23		Chloroprene	0.296	0.217	26.7	47#	0.00	6.12
24	P	1,1-Dichloroethane	0.641	0.582	9.2	61	0.00	6.15
25		Acrylonitrile	0.073	0.070	4.1	63	0.00	6.21
26		ETBE	1.018	1.042	-2.4	67	0.00	6.39
27		Vinyl acetate	0.443	0.455	-2.7	65	0.00	6.41
28		cis-1,2-Dichloroethene	0.356	0.300	15.7	57	0.00	6.75
29		2,2-Dichloropropane	0.555	0.384	30.8	46#	0.00	6.88
30		Bromochloromethane	0.168	0.154	8.3	62	0.00	6.97

			Amount	Calc.	%Drift			
31		Cyclohexane	40.000	22.286	44.3	39	0.00	6.98

			AvgRF	CCRF	%Dev			
32	C	Chloroform	0.735	0.688	6.4	64	0.00	7.03
33		Ethyl acetate	0.188	0.195	-3.7	66	0.00	7.14
34		Tetrahydrofuran	0.052	0.052	0.0	65	0.00	7.22
35	S	Dibromofluoromethane	0.298	0.311	-4.4	72	0.00	7.23

			Amount	Calc.	%Drift			
36		Carbon Tetrachloride	40.000	29.617	26.0	52	0.00	7.20

			AvgRF	CCRF	%Dev			
37		1,1,1-Trichloroethane	0.684	0.594	13.2	58	0.00	7.27
38		2-Butanone	0.088	0.087	1.1	65	0.00	7.36

			Amount	Calc.	%Drift			
39		1,1-Dichloropropene	40.000	27.728	30.7	48	0.00	7.40

			AvgRF	CCRF	%Dev			
40		Propionitrile	0.029	0.027	6.9	66	0.00	7.68
41		Methacrylonitrile	0.135	0.129	4.4	64	0.00	7.70
42		Benzene	1.210	0.996	17.7	56	0.00	7.66
43		TAME	0.913	0.913	0.0	66	0.00	7.75
44	S	1,2-Dichloroethane-d4	0.445	0.516	-16.0	79	0.00	7.80
45		1,2-Dichloroethane	0.626	0.648	-3.5	71	0.00	7.87
46		Trichloroethene	0.385	0.301	21.8	52	0.00	8.25

			Amount	Calc.	%Drift			
47		Methylcyclohexane	40.000	21.685	45.8	38	0.00	8.25

			AvgRF	CCRF	%Dev			
48		Dibromomethane	0.217	0.211	2.8	65	0.00	8.69
49	C	1,2-Dichloropropane	0.298	0.257	13.8	57	0.00	8.79
50		Bromodichloromethane	0.507	0.509	-0.4	65	0.00	8.83

			Amount	Calc.	%Drift			
51		Methyl methacrylate	40.000	32.552	18.6	60	0.00	8.96
52		2-Chloroethyl vinyl ether	200.000	205.670	-2.8	62	0.00	9.38
53		cis-1,3-Dichloropropene	40.000	34.539	13.7	57	0.00	9.47

			AvgRF	CCRF	%Dev			
54	I	Chlorobenzene-d5	1.000	1.000	0.0	70	0.00	11.21
55	S	Toluene-d8	1.322	1.294	2.1	69	0.00	9.66
56	C	Toluene	1.637	1.242	24.1#	52	0.00	9.71

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-ECC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106420.D
Project: Melrose Air Force Range, NM

			Amount	Calc.	%Drift			
57		2-Nitropropane	200.000	228.427	-14.2	74	0.00	9.94
			AvgRF	CCRF	%Dev			
58		4-Methyl-2-pentanone	0.241	0.252	-4.6	65	0.00	10.06
			Amount	Calc.	%Drift			
59		trans-1,3-Dichloropropene	40.000	36.184	9.5	58	0.00	10.11
			AvgRF	CCRF	%Dev			
60		Tetrachloroethene	0.404	0.266	34.2	46#	0.00	10.10
61		Ethyl methacrylate	0.408	0.374	8.3	58	0.00	10.23
62		1,1,2-Trichloroethane	0.289	0.254	12.1	60	0.00	10.28
			Amount	Calc.	%Drift			
63		Dibromochloromethane	40.000	34.406	14.0	59	0.00	10.46
64		1,3-Dichloropropane	40.000	36.325	9.2	61	0.00	10.56
65		1,2-Dibromoethane	40.000	34.760	13.1	60	0.00	10.73
			AvgRF	CCRF	%Dev			
66		2-hexanone	0.167	0.175	-4.8	65	0.00	10.88
			Amount	Calc.	%Drift			
67		1-Chlorohexane	40.000	20.982	47.5	35	0.00	11.18
			AvgRF	CCRF	%Dev			
68	C	Ethylbenzene	1.876	1.372	26.9#	50#	0.00	11.24
			Amount	Calc.	%Drift			
69	P	Chlorobenzene	40.000	28.847	27.9	52	0.00	11.23
70		1,1,1,2-Tetrachloroethane	40.000	33.276	16.8	57	0.00	11.29
71		m,p-Xylene	80.000	55.049	31.2	52	0.00	11.38
72		o-Xylene	40.000	27.747	30.6	51	0.00	11.82
73		Styrene	40.000	28.069	29.8	50	0.00	11.87
74	P	Bromoform	40.000	29.565	26.1	55	0.00	11.92
75		Isopropylbenzene	40.000	24.514	38.7	45	0.00	12.13
			AvgRF	CCRF	%Dev			
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	69	0.00	13.59
77	S	4-Bromofluorobenzene	0.693	0.671	3.2	68	0.00	12.44
			Amount	Calc.	%Drift			
78		cis-1,4-Dichloro-2-butene	40.000	17.525	56.2#	26	0.00	12.48
79		n-Propylbenzene	40.000	24.487	38.8	45	0.00	12.55
			AvgRF	CCRF	%Dev			
80		Bromobenzene	0.812	0.600	26.1	52	0.00	12.56
81	P	1,1,2,2-Tetrachloroethane	0.742	0.661	10.9	61	0.00	12.62
			Amount	Calc.	%Drift			
82		1,3,5-Trimethylbenzene	40.000	26.521	33.7	49	0.00	12.73
83		2-Chlorotoluene	40.000	28.039	29.9	51	0.00	12.73
84		trans-1,4-Dichloro-2-Bute	40.000	19.251	51.9#	30	0.00	12.80
			AvgRF	CCRF	%Dev			
85		1,2,3-Trichloropropane	0.243	0.226	7.0	65	0.00	12.78
			Amount	Calc.	%Drift			
86		Cyclohexanone	200.000	170.773	14.6	62	0.00	12.84

Continuing Calibration Summary

Job Number: FA23309 **Sample:** VC4253-ECC4247
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** C0106420.D
Project: Melrose Air Force Range, NM

87	4-Chlorotoluene	40.000	26.647	33.4	48	0.00	12.90
88	tert-Butylbenzene	40.000	25.982	35.0	47	0.00	13.07
89	1,2,4-Trimethylbenzene	40.000	26.996	32.5	49	0.00	13.15
		AvgRF	CCRF	%Dev			
90	Pentachloroethane	0.476	0.329	30.9	45#	0.00	13.12
		Amount	Calc.	%Drift			
91	sec-Butylbenzene	40.000	23.537	41.2	43	0.00	13.26
92	4-Isopropyltoluene	40.000	23.630	40.9	43	0.00	13.40
93	1,3-Dichlorobenzene	40.000	26.683	33.3	47	0.00	13.51
		AvgRF	CCRF	%Dev			
94	1,4-Dichlorobenzene	1.619	1.144	29.3	48#	0.00	13.60
		Amount	Calc.	%Drift			
95	n-Butylbenzene	40.000	22.450	43.9	41	0.00	13.83
96	Benzyl Chloride	40.000	20.898	47.8	35	0.00	13.85
97	1,2-Dichlorobenzene	40.000	28.007	30.0	50	0.00	14.04
98	1,2-Dibromo-3-Chloropropa	40.000	37.615	6.0	64	0.00	14.78
		AvgRF	CCRF	%Dev			
99	Hexachlorobutadiene	0.481	0.280	41.8	39#	0.00	15.33
100	1,2,4-Trichlorobenzene	1.087	0.762	29.9	47#	0.00	15.38
101	Naphthalene	2.430	2.194	9.7	57	0.00	15.67
102	1,2,3-Trichlorobenzene	1.024	0.737	28.0	48#	0.00	15.83
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	74	0.00	5.57
		Amount	Calc.	%Drift			
104	Ethanol	800.000	623.492	22.1	54	0.01	4.47
		AvgRF	CCRF	%Dev			
105	Acrolein	0.430	0.366	14.9	59	0.00	4.97
106	Tert Butyl Alcohol	0.247	0.231	6.5	69	0.00	5.66
107	Isobutyl alcohol	0.045	0.041	8.9	65	0.00	7.82
		Amount	Calc.	%Drift			
108	Tert Amyl Alcohol	400.000	316.576	20.9	64	0.00	7.93
		AvgRF	CCRF	%Dev			
109	1,4-Dioxane	0.021	0.019	9.5	69	0.00	9.03

(#) = Out of Range SPCC's out = 0 CCC's out = 2
C0106279.D 041115APP9-CWater.m Wed Apr 15 07:59:47 2015

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-MB	Q11731.D	1	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23309-1

CAS No.	Compound	Result	RL	MDL	Units	Q
14797-73-0	Perchlorate	ND	0.20	0.040	ug/l	

Blank Spike Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-BS	Q11730.D	1	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23309-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
14797-73-0	Perchlorate	0.2	0.20	100	80-120

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55671-MS	Q11734.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366
OP55671-MSD	Q11735.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366
FA23355-1 [a]	Q11733.D	2	04/14/15	NAF	04/09/15	OP55671	SQ366

The QC reported here applies to the following samples: **Method:** SW846 6850

FA23309-1

CAS No.	Compound	FA23355-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
14797-73-0	Perchlorate	ND		0.2	0.23	115	0.2	0.20	100	14	80-120/15

(a) Dilution required due to high conductivity.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	SQ366-ICC366	**Injection Date:**	04/14/15
Lab File ID:	Q11719.D	**Injection Time:**	10:51
Instrument ID:	GCMSQ	**Method:**	SW846 6850

	IS 1 AREA	RT
Initial Cal [a]	17854	4.72
Check Std [b]	17686	4.72
Upper Limit [c]	26781	6.72
Lower Limit [d]	8927	2.72

Lab Sample ID	IS 1 AREA	RT
OP55671-BS	18570	4.73
OP55671-MB	18274	4.74
FA23309-1	16786	4.57
FA23355-1	15707	4.59
OP55671-MS	17783	4.59
OP55671-MSD	17047	4.60
OP55718-BS	17830	4.72
OP55718-MB	18058	4.72
ZZZZZZ	16952	4.67

IS 1 = Cl18O4 (ISTD)

(a) Initial Cal is: SQ366-ICC366 Q11719.D 04/14/15 10:51. Area is AVERAGE of initial cal points.
(b) Check Std Limit = -50 to + 50% of initial cal area.
(c) Upper Limit = + 50% of initial standard area; Retention time + 2 minutes of check standard.
(d) Lower Limit = -50% of initial standard area; Retention time -2 minutes of check standard.

Initial Calibration Summary

Job Number: FA23309 **Sample:** SQ366-ICC366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11719.D
Project: Melrose Air Force Range, NM

Initial Calibration ReSponse Factors - D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID : Calibration File
1 : D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2 : D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3 : D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4 : D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5 : D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6 : D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7 : D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8 : D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Compound	1	2	3	4	5	6	7	8	AvgRF	%RSD	r^2
1) Cl18O4	----------ISTD----------										
3) Perchlorate	1.0583	1.1766	1.1245	1.1250	1.1029	1.1126	1.2324	1.2805	1.1516	6.383	0.9971

*(value) - Average RF below (value)

7.5.1

7

Initial Calibration Verification

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: SQ366-ICV366
Lab FileID: Q11724.D

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11724
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.880	-6.0	94.0

CC Criteria: +/- 15%

7.5.2

7

Continuing Calibration Summary

Job Number: FA23309 **Sample:** SQ366-CC366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11740.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11740
Type : QC
Level : 4

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	2.000	1.914	-4.3	95.7

CC Criteria: +/- 15%

Continuing Calibration Summary

Job Number: FA23309 **Sample:** SQ366-CC366
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** Q11741.D
Project: Melrose Air Force Range, NM

Continuing Calibration Report

Batch: D:\MassHunter\Data\0414_6850_SQ366\SQ366.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0414_6850_SQ366\Q11716.d
2:D:\MassHunter\Data\0414_6850_SQ366\Q11717.d
3:D:\MassHunter\Data\0414_6850_SQ366\Q11718.d
4:D:\MassHunter\Data\0414_6850_SQ366\Q11719.d
5:D:\MassHunter\Data\0414_6850_SQ366\Q11720.d
6:D:\MassHunter\Data\0414_6850_SQ366\Q11721.d
7:D:\MassHunter\Data\0414_6850_SQ366\Q11722.d
8:D:\MassHunter\Data\0414_6850_SQ366\Q11723.d

Data File: Q11741
Type : QC
Level : 1

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
Cl18O4	---	--ISTD--		
Perchlorate	0.200	0.198	-1.2	98.8

CC Criteria: +/- 15%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55665-MB	BB046418.D	1	04/13/15	KL	04/09/15	OP55665	GBB1264

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA23309-1

CAS No.	Compound	Result	RL	MDL	Units	Q
2691-41-0	HMX	ND	0.20	0.080	ug/l	
121-82-4	RDX	ND	0.20	0.080	ug/l	
99-65-0	1,3-Dinitrobenzene	ND	0.20	0.080	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.20	0.080	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	ND	0.20	0.080	ug/l	
98-95-3	Nitrobenzene	ND	0.20	0.080	ug/l	
88-72-2	o-Nitrotoluene	ND	0.20	0.080	ug/l	
99-08-1	m-Nitrotoluene	ND	0.20	0.080	ug/l	
99-99-0	p-Nitrotoluene	ND	0.20	0.080	ug/l	
479-45-8	Tetryl	ND	0.20	0.080	ug/l	
99-35-4	1,3,5-Trinitrobenzene	ND	0.20	0.080	ug/l	
118-96-7	2,4,6-Trinitrotoluene	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries		Limits
610-39-9	3,4-Dinitrotoluene	77%	70-136%

Blank Spike Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55665-BS	BB046417.D	2	04/13/15	KL	04/09/15	OP55665	GBB1264

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA23309-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
2691-41-0	HMX	5	4.1	82	77-144
121-82-4	RDX	5	4.0	80	77-125
99-65-0	1,3-Dinitrobenzene	5	3.3	66*	79-122
606-20-2	2,6-Dinitrotoluene	5	3.8	76*	81-131
121-14-2	2,4-Dinitrotoluene	5	3.7	74*	80-123
35572-78-2	2-amino-4,6-Dinitrotoluene	5	3.6	72*	81-120
19406-51-0	4-amino-2,6-Dinitrotoluene	5	3.4	68*	79-119
98-95-3	Nitrobenzene	5	3.6	72*	78-130
88-72-2	o-Nitrotoluene	5	3.5	70*	76-131
99-08-1	m-Nitrotoluene	5	3.4	68*	78-122
99-99-0	p-Nitrotoluene	5	3.3	66*	79-124
479-45-8	Tetryl	5	3.6	72	65-124
99-35-4	1,3,5-Trinitrobenzene	5	3.8	76*	79-128
118-96-7	2,4,6-Trinitrotoluene	5	3.3	66*	72-112

CAS No.	Surrogate Recoveries	BSP	Limits
610-39-9	3,4-Dinitrotoluene	75%	70-136%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP55665-MS	BB046420.D	1	04/13/15	KL	04/09/15	OP55665	GBB1264
OP55665-MSD	BB046421.D	1	04/13/15	KL	04/09/15	OP55665	GBB1264
FA23309-1 [a]	BB046419.D	1	04/13/15	KL	04/09/15	OP55665	GBB1264

The QC reported here applies to the following samples: **Method:** SW846 8330A

FA23309-1

CAS No.	Compound	FA23309-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
2691-41-0	HMX	ND		10.4	9.4	90	10.4	9.7	93	3	77-144/21
121-82-4	RDX	ND		10.4	9.7	93	10.4	9.8	94	1	77-125/19
99-65-0	1,3-Dinitrobenzene	ND		10.4	9.2	88	10.4	9.1	87	1	79-122/17
606-20-2	2,6-Dinitrotoluene	ND		10.4	10.3	99	10.4	10.7	103	4	81-131/17
121-14-2	2,4-Dinitrotoluene	ND		10.4	9.9	95	10.4	10.1	97	2	80-123/19
35572-78-2	2-amino-4,6-Dinitrotoluene	ND		10.4	9.9	95	10.4	10.1	97	2	81-120/19
19406-51-0	4-amino-2,6-Dinitrotoluene	ND		10.4	9.5	91	10.4	9.5	91	0	79-119/20
98-95-3	Nitrobenzene	ND		10.4	10.1	97	10.4	9.8	94	3	78-130/19
88-72-2	o-Nitrotoluene	ND		10.4	9.6	92	10.4	9.4	90	2	76-131/20
99-08-1	m-Nitrotoluene	ND		10.4	10	96	10.4	10.1	97	1	78-122/18
99-99-0	p-Nitrotoluene	ND		10.4	9.5	91	10.4	9.5	91	0	79-124/18
479-45-8	Tetryl	ND		10.4	9.8	94	10.4	9.9	95	1	65-124/20
99-35-4	1,3,5-Trinitrobenzene	ND		10.4	10.0	96	10.4	10	96	0	79-128/16
118-96-7	2,4,6-Trinitrotoluene	ND		10.4	9.1	87	10.4	9.2	88	1	72-112/16

CAS No.	Surrogate Recoveries	MS	MSD	FA23309-1	Limits
610-39-9	3,4-Dinitrotoluene	88%	90%	91%	70-136%

(a) Associated BS recovery outside control limits. Insufficient sample to re-extract.

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Method: SW846 8330A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
FA23309-1	BB046419.D	91
OP55665-BS	BB046417.D	75
OP55665-MB	BB046418.D	77
OP55665-MS	BB046420.D	88
OP55665-MSD	BB046421.D	90

Surrogate Compounds	Recovery Limits
S1 = 3,4-Dinitrotoluene	70-136%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Check Std:	GBB1264-CC1235	**Injection Date:**	04/13/15
Lab File ID:	BB046413.D	**Injection Time:**	12:37
Instrument ID:	GCBB	**Method:**	SW846 8330A

	S1 [a] **RT**
Check Std	11.34

Lab Sample ID	**Lab File ID**	**Date Analyzed**	**Time Analyzed**	**S1** [a] **RT**
ZZZZZZ	BB046415.D	04/13/15	13:27	11.32
ZZZZZZ	BB046416.D	04/13/15	13:58	0.00
OP55665-BS	BB046417.D	04/13/15	14:23	11.32
OP55665-MB	BB046418.D	04/13/15	14:52	11.30
FA23309-1	BB046419.D	04/13/15	15:17	11.29
OP55665-MS	BB046420.D	04/13/15	15:42	11.30
OP55665-MSD	BB046421.D	04/13/15	16:07	11.30
ZZZZZZ	BB046422.D	04/13/15	16:32	11.32
ZZZZZZ	BB046423.D	04/13/15	16:57	11.31
ZZZZZZ	BB046424.D	04/13/15	17:22	11.31

Surrogate Compounds

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: FA23309 **Sample:** GBB1235-ICC1235
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB045818.D
Project: Melrose Air Force Range, NM

Response Factor Report G1315B

Method : D:\MSDCHEM\1\METHODS\8330B_0107.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Fri Jan 23 14:37:34 2015
Response via : Initial Calibration

Calibration Files
20 =BB045814.D 50 =BB045815.D 100 =BB045816.D 200 =BB045817.D
500 =BB045818.D 1000=BB045819.D 2000=BB045820.D

	Compound	20	50	100	200	500	1000	2000	Avg		%RSD
1)	TNX	3.070	3.275	3.420	3.229	3.160	3.152	3.271	3.225	E3	3.49
2)	HMX	1.843	1.499	1.516	1.645	1.591	1.550	1.627	1.610	E3	7.22
3)	DNX	2.867	2.618	2.870	2.755	2.713	2.693	2.820	2.762	E3	3.43
4)	MNX	2.627	2.684	2.508	2.428	2.364	2.327	2.443	2.483	E3	5.33
5)	RDX	2.040	2.072	1.814	1.896	1.790	1.753	1.838	1.886	E3	6.60
6)	1,3,5-Trinitroben	4.263	4.171	4.099	4.076	3.940	3.925	4.083	4.080	E3	2.93
7)	1,3-Dinitrobenzen	5.676	5.476	5.497	5.233	5.119	5.122	5.291	5.345	E3	3.94
8)	3,5-Dinitroanilin	5.015	4.519	4.801	4.435	4.273	4.384	4.507	4.562	E3	5.65
9)	Nitrobenzene	2.736	3.629	3.077	2.939	2.997	3.029	3.063	3.067	E3	8.92
10)	Nitroglycerin								0.000		-1.00
11)	Tetryl	2.533	2.951	2.847	2.657	2.581	2.590	2.786	2.706	E3	5.80
12)	2,4,6-Trinitrotol	3.672	3.814	3.618	3.555	3.532	3.618	3.763	3.653	E3	2.85
13)	2-Amino-4,6-Dinit	2.552	3.316	2.944	2.980	3.024	3.132	3.281	3.033	E3	8.45
14)	4-Amino-2,6-Dinit	1.741	2.041	2.037	2.095	2.173	2.270	2.387	2.106	E3	9.74
15)S	3,4-Dinitrotoluen	2.389	2.541	2.235	2.095	2.036	2.093	2.170	2.223	E3	8.21
16)	2,4-Dinitrotoluen	4.109	4.720	4.937	4.585	4.576	4.632	4.774	4.619	E3	5.58
17)	2,6-Dinitrotoluen	2.235	2.518	2.691	2.646	2.567	2.636	2.700	2.570	E3	6.28
18)	o-Nitrotoluene	2.239	2.334	2.370	2.291	2.248	2.252	2.260	2.285	E3	2.17
19)	p-Nitrotoluene	3.908	3.692	3.593	3.493	3.503	3.509	3.545	3.606	E3	4.16
20)	m-Nitrotoluene	3.655	3.142	3.192	3.130	3.136	3.138	3.164	3.222	E3	5.96
21)	PETN								0.000		-1.00

Signal #2

1)	TNX	5.130	5.086	5.148	4.922	4.828	4.809	4.989	4.987	E3	2.80
2)	HMX	4.749	4.161	4.204	4.539	4.469	4.251	4.447	4.403	E3	4.78
3)	DNX	5.133	5.013	5.025	4.485	4.411	4.269	4.485	4.689	E3	7.56
4)	MNX	3.635	3.825	3.797	3.770	3.654	3.610	3.787	3.725	E3	2.39
5)	RDX	3.353	3.086	3.134	2.973	2.838	2.810	2.942	3.019	E3	6.25
6)	1,3,5-Trinitroben	7.890	7.835	7.829	7.813	7.591	7.637	7.946	7.792	E3	1.67
7)	1,3-Dinitrobenzen	3.623	3.548	3.616	3.572	3.483	3.529	3.629	3.571	E3	1.53
8)	3,5-Dinitroanilin	7.959	7.717	7.652	7.463	7.289	7.279	7.562	7.560	E3	3.21
9)	Nitrobenzene	2.762	3.229	3.045	2.904	2.911	2.956	2.973	2.969	E3	4.84
10)	Nitroglycerin	1.243	1.278	1.254	1.228	1.222	1.225	1.279	1.247	E3	1.92
11)	Tetryl	4.175	4.586	4.380	4.244	4.179	4.190	4.543	4.328	E3	4.08
12)	2,4,6-Trinitrotol	3.675	4.464	4.332	4.165	4.151	4.290	4.520	4.228	E3	6.63
13)	2-Amino-4,6-Dinit	4.308	4.728	4.489	4.419	4.399	4.598	4.939	4.554	E3	4.81
14)	4-Amino-2,6-Dinit	3.230	3.120	3.714	4.009	4.242	4.468	4.814	3.942	E3	15.93
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9987										
	Response Ratio = 0.00000 + 4712.50791 *A										
15)S	3,4-Dinitrotoluen	2.354	2.818	3.204	3.310	3.549	3.597	3.826	3.237	E3	15.63
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9992										
	Response Ratio = 0.00000 + 3764.18145 *A										
16)	2,4-Dinitrotoluen	2.613	2.678	2.774	2.933	3.047	3.017	3.152	2.888	E3	7.01
17)	2,6-Dinitrotoluen	3.431	2.825	3.254	3.396	3.336	3.397	3.550	3.313	E3	7.04

Initial Calibration Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM
Sample: GBB1235-ICC1235
Lab FileID: BB045818.D

18)	o-Nitrotoluene	2.494	3.233	3.033	3.063	3.020	3.041	3.184	3.010	E3	8.03
19)	p-Nitrotoluene	3.232	2.824	2.822	2.870	2.834	2.929	3.025	2.934	E3	5.12
20)	m-Nitrotoluene	3.694	3.661	3.432	3.533	3.571	3.649	3.769	3.615	E3	3.10
21)	PETN	1.463	1.477	1.451	1.415	1.410	1.396	1.449	1.437	E3	2.10

(#) = Out of Range

8330B_0107.M Fri Jan 23 14:49:15 2015

Initial Calibration Verification

Job Number: FA23309 **Sample:** GBB1235-ICV1235
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB045821.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0123BPL\BB045821.D\dad1B.ch Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\0123BPL\BB045821.D\dad1A.ch
Acq On : 23-Jan-2015, 11:10:47 Operator: KISMETL
Sample : icv1235-500 Inst : G1315B
Misc : OP54642,GBB1235,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0107.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Fri Jan 23 14:37:34 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	500.000	529.286	-5.9	108	0.00	1.08- 1.68
2	HMX	500.000	573.328	-14.7	116	0.00	1.19- 1.79
3	DNX	500.000	537.360	-7.5	109	0.00	1.46- 2.06
4	MNX	500.000	509.783	-2.0	107	0.00	2.04- 2.64
5	RDX	500.000	491.716	1.7	104	0.00	2.53- 3.33
6	1,3,5-Trinitrobenzene	500.000	520.053	-4.0	108	0.00	4.23- 5.03
7	1,3-Dinitrobenzene	500.000	457.959	8.4	96	0.00	5.51- 6.31
8	3,5-Dinitroaniline	500.000	468.838	6.2	100	0.00	5.96- 6.76
9	Nitrobenzene	500.000	524.094	-4.8	107	0.00	7.12- 7.92
10	Nitroglycerin	----------	NA	----------			
11	Tetryl	500.000	451.877	9.6	95	0.00	9.14- 9.94
12	2,4,6-Trinitrotoluene	500.000	463.147	7.4	96	0.00	9.56-10.36
13	2-Amino-4,6-Dinitrotol	500.000	541.123	-8.2	109	0.00	10.03-10.83
14	4-Amino-2,6-Dinitrotol	500.000	555.255	-11.1	108	0.00	10.52-11.32
15 S	3,4-Dinitrotoluene	----------	NA	----------			
16	2,4-Dinitrotoluene	500.000	525.910	-5.2	106	0.00	11.49-12.29
17	2,6-Dinitrotoluene	500.000	547.381	-9.5	110	0.00	11.89-12.69
18	o-Nitrotoluene	500.000	515.628	-3.1	105	0.00	14.10-14.98
19	p-Nitrotoluene	500.000	502.087	-0.4	103	0.00	14.36-15.36
20	m-Nitrotoluene	500.000	543.666	-8.7	112	0.00	14.90-15.90
21	PETN	----------	NA	----------			

***** Signal #2 *****

1	TNX	500.000	519.029	-3.8	107	0.00	1.08- 1.68
2	HMX	500.000	565.918	-13.2	112	0.00	1.19- 1.79
3	DNX	500.000	499.130	0.2	106	0.00	1.46- 2.06
4	MNX	500.000	520.625	-4.1	106	0.00	2.04- 2.64
5	RDX	500.000	497.299	0.5	106	0.00	2.53- 3.33
6	1,3,5-Trinitrobenzene	500.000	526.624	-5.3	108	0.00	4.23- 5.03
7	1,3-Dinitrobenzene	500.000	469.936	6.0	96	0.00	5.51- 6.31
8	3,5-Dinitroaniline	500.000	482.526	3.5	100	0.00	5.96- 6.76
9	Nitrobenzene	500.000	530.075	-6.0	108	0.00	7.12- 7.92
10	Nitroglycerin	2500.000	2533.654	-1.3	103	0.00	8.67- 9.67
11	Tetryl	500.000	457.633	8.5	95	0.00	9.14- 9.94
12	2,4,6-Trinitrotoluene	500.000	496.730	0.7	101	0.00	9.56-10.36
13	2-Amino-4,6-Dinitrotol	500.000	546.801	-9.4	113	0.00	10.03-10.83

	----------	Amount	Calc.	%Drift	----------		
14	4-Amino-2,6-Dinitrotol	500.000	495.904	0.8	110	0.00	10.52-11.32
15 S	3,4-Dinitrotoluene	----------	NA	----------			

8.6.2

8

Initial Calibration Verification

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: GBB1235-ICV1235
Lab FileID: BB045821.D

		Amount	Calc.	%Drift			
16	2,4-Dinitrotoluene	500.000	534.743	-6.9	101	0.00	11.50-12.30
17	2,6-Dinitrotoluene	500.000	537.287	-7.5	107	0.00	11.89-12.69
18	o-Nitrotoluene	500.000	534.800	-7.0	107	0.00	13.98-14.98
19	p-Nitrotoluene	500.000	500.973	-0.2	104	0.00	14.36-15.36
20	m-Nitrotoluene	500.000	562.797	-12.6	114	0.00	14.90-15.90
21	PETN	2500.000	2629.624	-5.2	107	0.00	16.32-17.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB045818.D 8330B_0107.M Fri Jan 23 14:49:38 2015

8.6.2

8

Continuing Calibration Summary

Job Number: FA23309 **Sample:** GBB1264-CC1235
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB046413.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0413BPL\BB046413.D\dad1B.ch Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\0413BPL\BB046413.D\dad1A.ch
Acq On : 13-Apr-2015, 12:37:29 Operator: KISMETL
Sample : cc1235-1000 Inst : G1315B
Misc : OP55664,GBB1264,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0107.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Thu Apr 09 11:56:08 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	1004.195	-0.4	103	0.00	1.08- 1.68
2	HMX	1000.000	977.454	2.3	102	0.01	1.19- 1.79
3	DNX	1000.000	999.232	0.1	102	0.01	1.46- 2.06
4	MNX	1000.000	959.811	4.0	102	0.01	2.03- 2.63
5	RDX	1000.000	966.458	3.4	104	0.01	2.53- 3.33
6	1,3,5-Trinitrobenzene	1000.000	974.218	2.6	101	0.02	4.23- 5.03
7	1,3-Dinitrobenzene	1000.000	953.846	4.6	100	0.03	5.51- 6.31
8	3,5-Dinitroaniline	1000.000	922.171	7.8	96	0.02	5.97- 6.77
9	Nitrobenzene	1000.000	968.623	3.1	98	0.03	7.11- 7.91
10	Nitroglycerin		----------NA----------				
11	Tetryl	1000.000	960.541	3.9	100	0.03	9.14- 9.94
12	2,4,6-Trinitrotoluene	1000.000	982.958	1.7	99	0.04	9.56-10.36
13	2-Amino-4,6-Dinitrotol	1000.000	1043.722	-4.4	101	0.02	10.05-10.85
14	4-Amino-2,6-Dinitrotol	1000.000	1097.856	-9.8	102	0.02	10.54-11.34
15 S	3,4-Dinitrotoluene	1000.000	950.632	4.9	101	0.05	10.89-11.69
16	2,4-Dinitrotoluene	1000.000	1009.885	-1.0	101	0.04	11.49-12.29
17	2,6-Dinitrotoluene	1000.000	1036.809	-3.7	101	0.04	11.89-12.69
18	o-Nitrotoluene	1000.000	982.810	1.7	100	0.04	14.08-14.96
19	p-Nitrotoluene	1000.000	941.387	5.9	97	0.03	14.34-15.34
20	m-Nitrotoluene	1000.000	955.682	4.4	98	0.03	14.88-15.88
21	PETN		----------NA----------				

***** Signal #2 *****

1	TNX	1000.000	991.256	0.9	103	0.00	1.08- 1.68
2	HMX	1000.000	980.554	1.9	102	0.01	1.19- 1.79
3	DNX	1000.000	932.640	6.7	102	0.01	1.46- 2.06
4	MNX	1000.000	993.561	0.6	103	0.01	2.03- 2.63
5	RDX	1000.000	954.355	4.6	103	0.01	2.53- 3.33
6	1,3,5-Trinitrobenzene	1000.000	986.901	1.3	101	0.02	4.23- 5.03
7	1,3-Dinitrobenzene	1000.000	967.358	3.3	98	0.02	5.51- 6.31
8	3,5-Dinitroaniline	1000.000	946.660	5.3	98	0.01	5.97- 6.77
9	Nitrobenzene	1000.000	974.920	2.5	98	0.03	7.11- 7.91
10	Nitroglycerin	5000.000	5001.214	-0.0	102	0.04	8.66- 9.66
11	Tetryl	1000.000	970.658	2.9	100	0.03	9.14- 9.94
12	2,4,6-Trinitrotoluene	1000.000	1001.717	-0.2	99	0.04	9.56-10.36
13	2-Amino-4,6-Dinitrotol	1000.000	1018.270	-1.8	101	0.02	10.06-10.86

		---------- Amount	Calc.	%Drift	----------		
14	4-Amino-2,6-Dinitrotol	1000.000	957.750	4.2	101	0.03	10.54-11.34
15 S	3,4-Dinitrotoluene	1000.000	969.905	3.0	101	0.05	10.89-11.69

8.6.3

8

Continuing Calibration Summary

Job Number: FA23309 **Sample:** GBB1264-CC1235
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB046413.D
Project: Melrose Air Force Range, NM

		Amount	Calc.	%Drift			
16	2,4-Dinitrotoluene	1000.000	1070.306	-7.0	102	0.04	11.49-12.29
17	2,6-Dinitrotoluene	1000.000	1041.069	-4.1	102	0.04	11.89-12.69
18	o-Nitrotoluene	1000.000	1017.695	-1.8	101	0.04	13.96-14.96
19	p-Nitrotoluene	1000.000	992.599	0.7	99	0.04	14.34-15.34
20	m-Nitrotoluene	1000.000	1011.336	-1.1	100	0.03	14.88-15.88
21	PETN	5000.000	4701.821	6.0	97	0.04	16.30-17.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB045819.D 8330B_0107.M Tue Apr 14 09:10:29 2015

8.6.3

8

Continuing Calibration Summary

Job Number: FA23309 **Sample:** GBB1264-CC1235
Account: BBAFLFWB Trinity Analysis & Development Corp **Lab FileID:** BB046425.D
Project: Melrose Air Force Range, NM

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0413BPL\BB046425.D\dad1B.ch Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\0413BPL\BB046425.D\dad1A.ch
Acq On : 13-Apr-2015, 17:47:40 Operator: KISMETL
Sample : cc1235-1000 Inst : G1315B
Misc : OP55664,GBB1264,1000,,,10,,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : D:\MSDCHEM\1\METHODS\8330B_0107.M (Chemstation Integrator)
Title : Explosives by 8330A,8330B,8332
Last Update : Thu Apr 09 11:56:08 2015
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	TNX	1000.000	1009.463	-0.9	103	0.00	1.08- 1.68
2	HMX	1000.000	984.627	1.5	102	0.00	1.19- 1.79
3	DNX	1000.000	1005.456	-0.5	103	0.00	1.46- 2.06
4	MNX	1000.000	965.288	3.5	103	0.00	2.03- 2.63
5	RDX	1000.000	960.211	4.0	103	0.00	2.53- 3.33
6	1,3,5-Trinitrobenzene	1000.000	979.439	2.1	102	0.01	4.23- 5.03
7	1,3-Dinitrobenzene	1000.000	970.405	3.0	101	0.02	5.51- 6.31
8	3,5-Dinitroaniline	1000.000	931.850	6.8	97	0.00	5.97- 6.77
9	Nitrobenzene	1000.000	980.320	2.0	99	0.02	7.11- 7.91
10	Nitroglycerin			NA			
11	Tetryl	1000.000	963.457	3.7	101	0.02	9.14- 9.94
12	2,4,6-Trinitrotoluene	1000.000	985.139	1.5	99	0.03	9.56-10.36
13	2-Amino-4,6-Dinitrotol	1000.000	1047.943	-4.8	101	0.00	10.05-10.85
14	4-Amino-2,6-Dinitrotol	1000.000	1099.387	-9.9	102	0.01	10.54-11.34
15 S	3,4-Dinitrotoluene	1000.000	943.880	5.6	100	0.04	10.89-11.69
16	2,4-Dinitrotoluene	1000.000	1009.684	-1.0	101	0.03	11.49-12.29
17	2,6-Dinitrotoluene	1000.000	1019.215	-1.9	99	0.03	11.89-12.69
18	o-Nitrotoluene	1000.000	965.331	3.5	98	0.04	14.08-14.96
19	p-Nitrotoluene	1000.000	962.498	3.8	99	0.04	14.34-15.34
20	m-Nitrotoluene	1000.000	959.278	4.1	99	0.04	14.88-15.88
21	PETN			NA			

***** Signal #2 *****

1	TNX	1000.000	998.409	0.2	104	0.00	1.08- 1.68
2	HMX	1000.000	987.935	1.2	102	0.00	1.19- 1.79
3	DNX	1000.000	939.996	6.0	103	0.00	1.46- 2.06
4	MNX	1000.000	1000.182	-0.0	103	0.00	2.03- 2.63
5	RDX	1000.000	957.657	4.2	103	0.00	2.53- 3.33
6	1,3,5-Trinitrobenzene	1000.000	998.890	0.1	102	0.01	4.23- 5.03
7	1,3-Dinitrobenzene	1000.000	1001.574	-0.2	101	0.01	5.51- 6.31
8	3,5-Dinitroaniline	1000.000	954.554	4.5	99	0.00	5.97- 6.77
9	Nitrobenzene	1000.000	973.084	2.7	98	0.02	7.11- 7.91
10	Nitroglycerin	5000.000	5038.143	-0.8	103	0.03	8.66- 9.66
11	Tetryl	1000.000	972.244	2.8	100	0.02	9.14- 9.94
12	2,4,6-Trinitrotoluene	1000.000	1007.332	-0.7	99	0.03	9.56-10.36
13	2-Amino-4,6-Dinitrotol	1000.000	1021.309	-2.1	101	0.00	10.06-10.86

		Amount	Calc.	%Drift			
14	4-Amino-2,6-Dinitrotol	1000.000	963.061	3.7	102	0.01	10.54-11.34
15 S	3,4-Dinitrotoluene	1000.000	967.293	3.3	101	0.04	10.89-11.69

Continuing Calibration Summary

Job Number: FA23309
Account: BBAFLFWB Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Sample: GBB1264-CC1235
Lab FileID: BB046425.D

		Amount	Calc.	%Drift			
16	2,4-Dinitrotoluene	1000.000	1070.577	-7.1	102	0.03	11.49-12.29
17	2,6-Dinitrotoluene	1000.000	1033.822	-3.4	101	0.04	11.89-12.69
18	o-Nitrotoluene	1000.000	1040.115	-4.0	103	0.04	13.96-14.96
19	p-Nitrotoluene	1000.000	993.905	0.6	100	0.04	14.34-15.34
20	m-Nitrotoluene	1000.000	1008.551	-0.9	100	0.04	14.88-15.88
21	PETN	5000.000	4840.692	3.2	100	0.04	16.30-17.50

(#) = Out of Range SPCC's out = 0 CCC's out = 0
BB045819.D 8330B_0107.M Tue Apr 14 09:10:30 2015

8.6.4

8

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
Analyst: JL Run ID: MA12327
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:01	MA12327-STD1	1		STD1
11:02	MA12327-STD2	1		STD2
11:03	MA12327-STD3	1		STD3
11:05	MA12327-STD4	1		STD4
11:06	MA12327-STD5	1		STD5
11:08	MA12327-STD6	1		STD6
11:10	MA12327-HSTD1	1		
11:15	MA12327-ICV1	1		
11:16	MA12327-ICB1	1		
11:18	MA12327-CRI1	1		
11:20	MA12327-CCV1	1		
11:21	MA12327-CCB1	1		
11:23	MP28776-MB1	1		
11:24	MP28776-B1	1		
11:25	FA23270-1	1		(sample used for QC only; not part of login FA23309)
11:27	MP28776-D1	1		
11:29	MP28776-SD1	5		
11:30	MP28776-S1	1		
11:31	MP28776-S2	1		
11:33	MP28776-MB2	1		
11:35	MP28776-B2	1		
11:36	MP28777-MB1	1		
11:38	MA12327-CCV2	1		
11:39	MA12327-CCB2	1		
11:41	MP28777-B1	1		
11:42	FA23309-1	1		
11:44	MP28777-D1	1		
11:46	MP28777-SD1	5		
11:47	MP28777-S1	1		
11:48	MP28777-S2	1		
11:50	FA23309-1F	1		
---------->	Last reportable sample/prep for job FA23309			
11:52	ZZZZZZ	1		
11:53	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
Analyst: JL Run ID: MA12327
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:55	ZZZZZZ	1		
11:56	MA12327-CCV3	1		
11:57	MA12327-CCB3	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:02	MP28778-MB1	1		
12:02	MP28786-MB1	1		
12:03	MP28778-B1	1		
12:03	MP28786-B1	1		
12:05	MP28778-B2	1		
12:05	MP28786-B2	1		
12:06	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:12	MA12327-CRI2	1		
12:14	MA12327-CCV4	1		
12:15	MA12327-CCB4	1		

----------> Last reportable CCB for job FA23309
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA12327 Units: ug/l

Time:			11:16		11:21		11:39		11:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	-0.0062	<0.50	-0.0048	<0.50	-0.0065	<0.50	-0.0051	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA12327 Units: ug/l

Time:			12:15	
Sample ID:			CCB4	
Metal	RL	IDL	raw	final
Mercury	0.50	.03	-0.0050	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA12327 Units: ug/l

Time:		11:15			11:20			11:38	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA12327 Units: ug/l

Time:		11:56			12:14	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	3.0	3.0	100.0	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA12327 Units: ug/l

Time:		11:10	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6.0	6.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: H50409W2.CSV Date Analyzed: 04/09/15 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA12327 Units: ug/l

Time:			11:18		12:12	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.17	85.0	0.17	85.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP28777
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/09/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	-0.0062	<0.50

Associated samples MP28777: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP28777
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/09/15 04/09/15

Metal	FA23309-1 Original	DUP	RPD	QC Limits	FA23309-1 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.4	3	80.0	80-120

Associated samples MP28777: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP28777
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/09/15

Metal	FA23309-1 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.5	3	83.3	4.1	20

Associated samples MP28777: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP28777
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/09/15

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	3.0	3	100.0	80-120

Associated samples MP28777: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

QC Batch ID: MP28777
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 04/09/15

Metal	FA23309-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP28777: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN65841	5.0	0.0	mg/l	250	253	101.3	90-113%
Chloride	GP25762/GN65812	2.0	0.0	mg/l	50	51.2	102.4	90-110%
Chromium, Hexavalent	GN65801	0.010	0.0	mg/l	0.10	0.10	101.0	85-115%
Cyanide, Total	GP25781/GN65873	0.010	0.0	mg/l	0.1	0.101	101.0	90-110%
Nitrogen, Nitrate	GP25762/GN65812	0.10	0.0	mg/l	2.5	2.47	98.8	90-110%
Nitrogen, Nitrite	GP25762/GN65812	0.10	0.0	mg/l	2.5	2.42	96.8	90-110%
Solids, Total Dissolved	GN65843	100	0.0	mg/l				
Sulfate	GP25762/GN65812	2.0	0.0	mg/l	50	51.2	102.4	90-110%

Associated Samples:
Batch GN65801: FA23309-1
Batch GN65841: FA23309-1
Batch GN65843: FA23309-1
Batch GP25762: FA23309-1
Batch GP25781: FA23309-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN65841	FA23132-1	mg/l	239	237	1.1	0-20%
Solids, Total Dissolved	GN65843	FA23355-1	mg/l	7420	7510	1.2	0-5%

Associated Samples:
Batch GN65841: FA23309-1
Batch GN65843: FA23309-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP25762/GN65812	FA23299-3	mg/l	9.5	50	60.3	101.6	90-110%
Chromium, Hexavalent	GN65801	FA23309-1	mg/l	0.0	0.10mg/l	0.086	86.0	85-115%
Cyanide, Total	GP25781/GN65873	FA23254-2	mg/l	0.0030 U	0.1	0.10	100.0	90-110%
Nitrogen, Nitrate	GP25762/GN65812	FA23299-3	mg/l	0.050 U	2.5	2.3	92.0	90-110%
Nitrogen, Nitrite	GP25762/GN65812	FA23299-3	mg/l	0.050 U	2.5	2.3	92.0	90-110%
Sulfate	GP25762/GN65812	FA23299-3	mg/l	0.74	50	52.2	102.9	90-110%

Associated Samples:
Batch GN65801: FA23309-1
Batch GP25762: FA23309-1
Batch GP25781: FA23309-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP25762/GN65812	FA23299-3	mg/l	9.5	50	60.3	0.0	20%
Chromium, Hexavalent	GN65801	FA23309-1	mg/l	0.0	0.10	0.088	2.4	20%
Cyanide, Total	GP25781/GN65873	FA23254-2	mg/l	0.0030 U	0.1	0.10	0.0	20%
Nitrogen, Nitrate	GP25762/GN65812	FA23299-3	mg/l	0.050 U	2.5	2.3	0.0	20%
Nitrogen, Nitrite	GP25762/GN65812	FA23299-3	mg/l	0.050 U	2.5	2.4	4.3	20%
Sulfate	GP25762/GN65812	FA23299-3	mg/l	0.74	50	52.5	0.6	20%

Associated Samples:
Batch GN65801: FA23309-1
Batch GP25762: FA23309-1
Batch GP25781: FA23309-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315030401.TXT Date Analyzed: 04/03/15 Methods: EPA 300/SW846 9056A
Analyst: VK Run ID: GN65812
Parameters: Chloride,Nitrogen, Nitrate,Nitrogen, Nitrite,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:14	GN65812-CCV1	1		
11:30	GP25762-MB1	1		
11:46	GP25762-B1	1		
12:35	FA23299-3	1		(sample used for QC only; not part of login FA23309)
12:51	FA23309-1	100		
13:07	ZZZZZZ	1		
13:23	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:56	ZZZZZZ	1		
14:12	GN65812-CCV2	1		
14:28	GN65812-CCB1	1		
14:44	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:49	ZZZZZZ	10		
16:37	FA22816-5	1		(sample used for QC only; not part of login FA23309)
16:53	ZZZZZZ	10		
17:09	ZZZZZZ	1		
17:25	GN65812-CCV3	1		
17:42	GN65812-CCB2	1		
17:58	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:46	ZZZZZZ	1		
19:02	GP25762-S1	1		
19:19	GP25762-S2	1		
19:35	GP25762-S3	1		
19:51	GP25762-S4	1		
20:07	ZZZZZZ	1000		
20:23	ZZZZZZ	50		
20:39	GN65812-CCV4	1		
20:55	GN65812-CCB3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315030401.TXT Date Analyzed: 04/03/15 Methods: EPA 300/SW846 9056A
Analyst: VK Run ID: GN65812
Parameters: Chloride,Nitrogen, Nitrate,Nitrogen, Nitrite,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:12	ZZZZZZ	25		
21:28	GN65812-CCV5	1		
21:44	GN65812-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: 315030401.TXT Date Analyzed: 04/03/15 Methods: EPA 300/SW846 9056A
Run ID: GN65812 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN65812-CCV1	Chloride	49.3	2.0	0.80	50	98.6	90-110
GN65812-CCV1	Nitrogen, Nitrite	2.3	0.10	0.050	2.5	92.0	90-110
GN65812-CCV1	Nitrogen, Nitrate	2.3	0.10	0.050	2.5	92.0	90-110
GN65812-CCV1	Sulfate	49.1	2.0	0.60	50	98.2	90-110
GN65812-CCV2	Chloride	49.4	2.0	0.80	50	98.8	90-110
GN65812-CCV2	Nitrogen, Nitrite	2.3	0.10	0.050	2.5	92.0	90-110
GN65812-CCV2	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV2	Sulfate	48.7	2.0	0.60	50	97.4	90-110
GN65812-CCB1	Chloride	0.80 U	2.0	0.80			
GN65812-CCB1	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN65812-CCB1	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN65812-CCB1	Sulfate	0.60 U	2.0	0.60			
GN65812-CCV3	Chloride	51.2	2.0	0.80	50	102.4	90-110
GN65812-CCV3	Nitrogen, Nitrite	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV3	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV3	Sulfate	51.7	2.0	0.60	50	103.4	90-110
GN65812-CCB2	Chloride	0.80 U	2.0	0.80			
GN65812-CCB2	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN65812-CCB2	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN65812-CCB2	Sulfate	0.60 U	2.0	0.60			
GN65812-CCV4	Chloride	51.2	2.0	0.80	50	102.4	90-110
GN65812-CCV4	Nitrogen, Nitrite	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV4	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV4	Sulfate	51.8	2.0	0.60	50	103.6	90-110
GN65812-CCB3	Chloride	0.80 U	2.0	0.80			
GN65812-CCB3	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN65812-CCB3	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN65812-CCB3	Sulfate	0.60 U	2.0	0.60			
GN65812-CCV5	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN65812-CCV5	Nitrogen, Nitrite	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV5	Nitrogen, Nitrate	2.4	0.10	0.050	2.5	96.0	90-110
GN65812-CCV5	Sulfate	52.0	2.0	0.60	50	104.0	90-110
GN65812-CCB4	Chloride	0.80 U	2.0	0.80			
GN65812-CCB4	Nitrogen, Nitrite	0.050 U	0.10	0.050			
GN65812-CCB4	Nitrogen, Nitrate	0.050 U	0.10	0.050			
GN65812-CCB4	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Analyst: DM Run ID: GN65873
Parameters: Cyanide, Total

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:24	GN65873-ICV1	1		
14:25	GN65873-CCV1	1		
14:26	GN65873-CCB1	1		
14:27	GN65873-CRI1	1		
14:28	ZZZZZZ	1		
14:29	GN65873-HSTD1	1		
14:29	GP25781-MB1	1		
14:30	GP25781-B1	1		
14:31	GP25781-S1	1		
14:32	GP25781-S2	1		
14:33	GP25781-S3	1		
14:34	GP25781-S4	1		
14:35	FA23254-2	1		(sample used for QC only; not part of login FA23309)
14:35	GN65873-CCV2	1		
14:36	GN65873-CCB2	1		
15:23	GN65873-CCV3	1		
15:24	GN65873-CCB3	1		
15:25	FA23369-1	1		(sample used for QC only; not part of login FA23309)
15:26	ZZZZZZ	1		
15:29	GN65873-CCV4	1		
15:30	GN65873-CCB4	1		
15:32	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:39	FA23309-1	1		
15:39	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:41	GN65873-CCV5	1		
15:42	GN65873-CCB5	1		
16:41	GN65873-CCV6	1		
16:42	GN65873-CCB6	1		
16:43	ZZZZZZ	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Analyst: DM Run ID: GN65873
Parameters: Cyanide, Total

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:43	ZZZZZZ	2000		
16:44	GN65873-CCV7	1		
16:45	GN65873-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FA23309
Account: BBAFLFWB - Trinity Analysis & Development Corp
Project: Melrose Air Force Range, NM

File ID: A040915CN1.CSV Date Analyzed: 04/09/15 Methods: EPA 335.4/SW 9012B
Run ID: GN65873 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN65873-ICV1	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCV1	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB1	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CRI1	Cyanide, Total	0.0078	0.010	0.0030	.01	78.0!	90-110
GN65873-HSTD1	Cyanide, Total	0.30	0.010	0.0030	.5	100.0	90-110
GN65873-CCV2	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB2	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV3	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB3	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV4	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB4	Cyanide, Total	-0.0031	0.010	0.0030			
GN65873-CCV5	Cyanide, Total	0.25	0.010	0.0030	.25	100.0	90-110
GN65873-CCB5	Cyanide, Total	-0.0035	0.010	0.0030			
GN65873-CCV6	Cyanide, Total	0.23	0.010	0.0030	.25	92.0	90-110
GN65873-CCB6	Cyanide, Total	0.0030 U	0.010	0.0030			
GN65873-CCV7	Cyanide, Total	0.24	0.010	0.0030	.25	96.0	90-110
GN65873-CCB7	Cyanide, Total	0.0030 U	0.010	0.0030			

(!) Outside of QC limits

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

4405 Vineland Rd, Suite C-15, Orlando, FL 32811
TEL. 407-425-6700 FAX 407-425-0707
www.accutest.com

FED-EX Tracking # 6127 2752 5952 | Bottle Order Control #
Accutest Quote # | Accutest Job # FA23309

Client / Reporting Information
Company Name: Accutest Laboratories
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: jeans E-mail: jeans@accutest.com
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): BSRH Phone:

Project Information
Project Name: Melrose Air Force Range, NM
Street: City: State:
Project #: Client Purchase Order #: Project Manager:

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)
ACOMS ,ALMS ,ASMS ,BAMS ,BEMS ,CAMS ,CDMS ,COMS ,CRMS ,CUMS ,FEMS ,KMS ,MGMS ,MNMS ,NAMS ,NIMS ,PBMS ,SBMS ,SEMS ,TLMS ,VMS

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE		LAB USE ONLY
1F	MA02MW001D		4/2/15	2:06:00 PM	BSRH	AQ	1			1						X	
1	MA02MW001D		4/2/15	2:06:00 PM	BSRH	AQ	1			1						X	

Number of preserved Bottles

INITIAL ASESSMENT 3 of 4
LABEL VERIFICATION JJS

Turnaround Time (Business days)
Approved By (Accutest PM): / Date:
- [ ] 10 Day (business)
- [ ] 5-7 Day
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [X] other 14

Rush T/A data available VIA Lablink

Data Deliverable Information
- [ ] Commercial "A" (Level 1, Results Only)
- [ ] Commercial "B" (Level 2, Results + QC summary)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] DOD FULT1 (Level 4)
- [X] Other REDT1
- [ ] EDD Format

Comments / Special Instructions
ALNJ

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 J-Conne ALS/E	Date Tir 4-3-15 17:00	Received By: 1 FX	Relinquished By: 2 FX	Date Time: 4-4-15 9:50	Received By: 2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 3.5°C

11.1 11

FA23309: Chain of Custody
Page 1 of 2
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: FA23309 **Client:** **Project:**

Date / Time Received: 4/4/2015 9:50:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.5/1.7); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:17	MA36411-STD1	1		STDA
09:22	MA36411-STD2	1		STDA
09:26	MA36411-STD3	1		STDA
09:31	MA36411-STD4	1		STDB
09:35	MA36411-STD5	1		STDC
09:40	MA36411-STD6	1		STDD
09:45	MA36411-STD7	1		STDE
09:49	MA36411-STD8	1		STDF
09:54	MA36411-STD9	1		STDG
09:58	MA36411-STD10	1		STDH
10:03	MA36411-STD11	1		STDI
10:09	MA36411-STD12	1		STDJ
10:13	MA36411-STD13	1		STDA
10:18	MA36411-STD14	1		STDA
10:28	MA36411-STD15	1		STDH
10:33	ZZZZZZ	1		
10:38	MA36411-ICV1	1		60ppm Al.
10:42	MA36411-ICVA1	1		
10:47	MA36411-ICB1	1		
10:51	MA36411-CRIB1	1		
10:56	MA36411-CCVA1	1		
11:01	MA36411-CCB1	1		
11:05	MA36411-ICSA1	1		
11:12	MA36411-ICSAB1	1		
11:16	ZZZZZZ	1		
11:21	MA36411-CCVA2	1		
11:25	MA36411-CCB2	1		
11:30	MP85639-MB1	2		CCV high RSD on Se.
11:35	ZZZZZZ	2		
11:39	MP85639-B1	25		CCV high RSD on Se.
11:44	MP85639-S1	25		High RSD.
11:49	MP85639-S2	25		CCV high RSD on Se.
11:53	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:58	JB91480-4	2		(sample used for QC only; not part of login FA23309)
12:02	MP85639-SD1	10		CCV high RSD on Se.
12:07	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:21	MA36411-CCVA3	1		Se RSD>10%.
12:27	MA36411-CCB3	1		
12:31	MP85639-S1	25		CCV high RSD on Se.
12:36	ZZZZZZ	250		
12:40	ZZZZZZ	250		
12:45	FA23309-1	10		Mg
12:50	FA23309-1F	10		Mg
12:54	FA23309-1	2		CCV high RSD on Se.
12:59	FA23309-1F	2		CCV high RSD on Se.
13:04	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:13	MA36411-CCVA4	1		
13:20	MA36411-CCB4	1		
13:25	JB91480-4	10		(sample used for QC only; not part of login FA23309)
13:29	MP85639-SD1	50		Ca.
13:34	MP85639-PS1	2		
13:39	MP85639-PS1	10		Ca and Na.
13:43	ZZZZZZ	1		
13:48	ZZZZZZ	2		
13:52	ZZZZZZ	2		
13:57	ZZZZZZ	2		
14:02	ZZZZZZ	1		
14:06	MA36411-CCVA5	1		
14:12	MA36411-CCB5	1		
14:17	FA23309-1	250		Na. To lower dilution for Ca.
14:21	FA23309-1F	250		Na. To lower dilution for Ca.
---------->	Last reportable sample/prep for job FA23309			
14:29	ZZZZZZ	1		
14:33	ZZZZZZ	1		
14:38	MA36411-CRIB2	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	14:43	ZZZZZZ	1		
	14:47	MP85655A-MB1	2		
	14:52	MP85655A-B1	25		
	14:56	ZZZZZZ	1		
	15:01	MA36411-CCVA6	1		
	15:06	MA36411-CCB6	1		
---------->		Last reportable CCB for job FA23309			
	15:10	MP85655A-S1	25		
	15:15	MP85655A-S2	25		
	15:19	ZZZZZZ	1		
	15:24	JB91620-6	2		(sample used for QC only; not part of login FA23309)
	15:29	MP85655A-SD1	10		
	15:33	ZZZZZZ	2		
	15:38	ZZZZZZ	2		
	15:43	ZZZZZZ	2		
	15:47	ZZZZZZ	1		
	15:52	MA36411-CCVA7	1		
	15:56	MA36411-CCB7	1		
	16:01	ZZZZZZ	2		
	16:06	ZZZZZZ	2		
	16:10	ZZZZZZ	2		
	16:15	ZZZZZZ	2		
	16:20	ZZZZZZ	2		
	16:24	ZZZZZZ	2		
	16:29	MP85655A-PS1	2		
	16:33	ZZZZZZ	1		
	16:38	MA36411-CCVA8	1		
	16:43	MA36411-CCB8	1		
	16:47	MA36411-CRIB3	1		
	16:52	ZZZZZZ	1		
	16:56	MA36411-CCVA9	1		
	17:01	MA36411-CCB9	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:17	MA36411-STD1	100	100	100	100	100	100	100	100
09:22	MA36411-STD2	100	100	100	100	100	100	100	100
09:26	MA36411-STD3	100	100	100	100	100	100	100	100
09:31	MA36411-STD4	100.069	101.522	101.878	101.858	100.517	101.126	100.95	100.536
09:35	MA36411-STD5	101.614	101.397	102.608	101.843	102.06	103.333	101.84	102.662
09:40	MA36411-STD6	101.792	101.918	101.377	100.89	101.227	103.106	101.351	101.293
09:45	MA36411-STD7	100.85	100.062	100.937	100.539	100.4	101.724	100.255	100.623
09:49	MA36411-STD8	100.267	100.391	99.289	96.946	99.687	101.252	98.326	100.073
09:54	MA36411-STD9	98.31	98.69	99.346	99.25	97.117	98.998	99.094	97.033
09:58	MA36411-STD10	100.04	100.701	100.929	101.57	98.9	100.168	100.142	98.882
10:03	MA36411-STD11	103.245	103.62	104.965	104.348	100.797	102.916	102.763	100.29
10:09	MA36411-STD12	106.172	105.208	105.62	105.574	102.784	104.911	103.866	101.697
10:13	MA36411-STD13	106.977	105.015	109.603	104.511	103.001	108.685	103.787	103.74
10:18	MA36411-STD14	100	100	100	100	100	100	100	100
10:28	MA36411-STD15	101.266	101.383	103.225	101.667	99.141	99.666	101.096	100.307
10:33	ZZZZZZ	100.917	101.229	91.257	100.364	100.993	90.434	101.471	101.373
10:38	MA36411-ICV1	100.71	100.612	106.283	97.81	100	103.735	99.736	101.055
10:42	MA36411-ICVA1	102.303	103.076	101.069	98.348	101.618	99.689	99.303	102.658
10:47	MA36411-ICB1	98.772	98.81	98.383	97.872	97.03	96.72	99.199	97.873
10:51	MA36411-CRIB1	98.787	99.271	98.349	98.094	97.899	96.817	98.499	98.044
10:56	MA36411-CCVA1	100.054	100.998	100.697	98.595	97.815	97.501	98.346	99
11:01	MA36411-CCB1	98.089	98.617	98.997	98.24	96.337	97.625	98.265	97.327
11:05	MA36411-ICSA1	100.24	98.038	99.736	96.741	92.814	97.61	102.321	91.269
11:12	MA36411-ICSAB1	103.816	103.755	102.899	100.726	97.788	102.033	107.177	95.475
11:16	ZZZZZZ	98.43	100.723	100.066	101.639	98.613	99.35	100.856	99.608
11:21	MA36411-CCVA2	98.702	101.239	102.314	105.869	97.724	99.973	103.352	98.358
11:25	MA36411-CCB2	94.86	92.598	100.289	106.006	93.302	99.602	104.256	94.817
11:30	MP85639-MB1	101.494	101.021	101.721	105.154	105.093	106.504	107.735	106.269
11:35	ZZZZZZ	103.638	103.938	101.663	109.212	108.662	107.879	115.785	109.501
11:39	MP85639-B1	100.294	102.783	100.817	98.031	100.134	99.323	97.825	101.878
11:44	MP85639-S1	No results reported for the elements associated with this internal standard.							
11:49	MP85639-S2	95.367	98.266	97.763	98.008	96.918	97.212	96.178	98.972
11:53	ZZZZZZ	97	97.086	99.636	104.742	96.209	98.369	103.421	96.903

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:58	JB91480-4	99.388	100.125	100.991	109.787	103.443	106.726	115.711	104.168
12:02	MP85639-SD1	101.54	101.745	103.015	106.473	100.773	102.354	105.27	101.122
12:07	ZZZZZZ	101.046	100.104	101.866	106.26	98.607	100.377	106.229	99.699
12:12	ZZZZZZ	102.032	102.827	91.504	44.649 !	100.311	89.774	42.796 !	101.086
12:21	MA36411-CCVA3	103.844	102.284	107.038	110.598	100.313	104.248	108.933	101.158
12:27	MA36411-CCB3	102.782	100.273	103.691	107.037	98.723	102.254	105.052	99.243
12:31	MP85639-S1	100.078	101.931	101.053	98.832	98.889	99.172	97.276	100.824
12:36	ZZZZZZ	95.865	97.483	97.968	93.287	96.956	96.402	92.88	96.534
12:40	ZZZZZZ	96.223	97.129	97.451	93.62	96.179	96.788	93.888	96.677
12:45	FA23309-1	102.155	105.108	106.533	108.506	97.688	101.37	103.289	98.344
12:50	FA23309-1F	108.688	111.473	114.702	115.892	103.368	107.781	108.585	103.849
12:54	FA23309-1	117.878	118.695	114.005	107.465	108.621	110.435	103.582	108.357
12:59	FA23309-1F	123.124	119.938	119.966	124.011	107.831	112.489	115.541	108.431
13:04	ZZZZZZ	144.924 !	136.899 !	131.054 !	136.643 !	129.659	127.482	133.691 !	128.482
13:08	ZZZZZZ	117.31	115.967	115.543	124.831	113.748	116.765	122.888	114.3
13:13	MA36411-CCVA4	112.546	112.811	115.535	123.892	109.259	114.438	122.142	110.805
13:20	MA36411-CCB4	114.413	113.931	116.289	125.178	111.511	116.569	123.885	112.887
13:25	JB91480-4	115.661	116.259	118.48	122.887	113.925	116.916	122.163	115.583
13:29	MP85639-SD1	119.305	118.464	119.941	124.188	115.399	119.542	123.287	117.787
13:34	MP85639-PS1	115.271	115.885	113.276	124.855	117.415	118.334	127.626	118.616
13:39	MP85639-PS1	118.309	118.318	117.55	124.086	114.725	116.966	121.926	116.004
13:43	ZZZZZZ	109.503	105.264	116.626	124.724	105.942	115.399	122.457	106.458
13:48	ZZZZZZ	114.904	117.895	111.655	117.296	115.602	115.281	119.08	116.523
13:52	ZZZZZZ	112.474	118.038	107.123	113.394	112.913	109.904	113.912	114.105
13:57	ZZZZZZ	97.26	100.352	104.153	113.054	102.509	108.926	116.656	103.149
14:02	ZZZZZZ	104.138	104.097	107.392	115.428	103.415	107.598	113.91	104.728
14:06	MA36411-CCVA5	98.333	99.563	103.115	110.907	97.411	102.168	110.029	98.49
14:12	MA36411-CCB5	100.733	101.495	105.014	113.701	100.284	106.496	111.771	101.954
14:17	FA23309-1	105.396	106.49	109.175	112.13	105.87	109.143	112.11	107.19
14:21	FA23309-1F	105.387	106.881	108.287	111.109	105.029	108.199	110.689	106.444
14:29	ZZZZZZ	101.704	101.903	105.832	110.488	101.237	105.139	110.715	102.629
14:33	ZZZZZZ	101.313	102.774	105.609	110.678	101.998	104.728	110.483	102.52
14:38	MA36411-CRIB2	100.81	101.792	105.244	109.139	100.247	105.657	108.799	101.597

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:43	ZZZZZZ	100.58	101.209	102.758	108.591	99.804	103.971	107.499	100.504
14:47	MP85655A-MB1	102.587	103.897	103.293	110.466	109.197	110.641	116.281	109.841
14:52	MP85655A-B1	97.203	101.723	101.739	99.905	98.504	101.054	97.239	100.293
14:56	ZZZZZZ	96.337	98.088	100.166	105.801	96.733	101.294	104.978	98.178
15:01	MA36411-CCVA6	98.366	99.937	102.836	106.291	96.914	101.911	105.291	98.786
15:06	MA36411-CCB6	99.396	100.167	103.119	107.215	97.964	103.298	106.276	99.855
15:10	MP85655A-S1	98.973	102.155	102.922	102.7	98.553	100.802	100.702	100.935
15:15	MP85655A-S2	99.143	102.132	102.06	102.625	98.692	99.633	100.811	100.959
15:19	ZZZZZZ	98.511	100.322	102.969	106.008	98.275	103.069	106.113	100.969
15:24	JB91620-6	98.242	100.24	100.54	109.502	96.893	102.593	108.28	97.78
15:29	MP85655A-SD1	100.133	101.587	104.291	108.214	98.674	103.878	107.1	99.563
15:33	ZZZZZZ	95.416	98.111	102.308	111.009	97.409	103.815	111.25	97.392
15:38	ZZZZZZ	94.68	98.559	99.365	107.664	96.306	101.513	108.064	97.808
15:43	ZZZZZZ	92.69	98.306	99.011	107.1	95.624	101.732	106.593	96.108
15:47	ZZZZZZ	95.952	97.988	100.608	107.048	98.083	103.147	107.142	98.978
15:52	MA36411-CCVA7	90.585	93.909	97.448	106.624	93.422	98.569	105.743	94.507
15:56	MA36411-CCB7	94.439	96.614	100.381	110.504	95.883	101.878	109.144	96.839
16:01	ZZZZZZ	97.061	101.78	98.509	105.321	100.039	101.137	105.868	101.069
16:06	ZZZZZZ	99.204	101.377	101.954	110.205	107.912	110.073	114.536	108.111
16:10	ZZZZZZ	91.652	96.468	98.58	102.689	97.852	103.471	105.301	98.735
16:15	ZZZZZZ	94.584	99.681	97.149	106.91	100.858	101.37	107.985	102.324
16:20	ZZZZZZ	90.509	95.483	97.177	106.028	97.672	102.684	109.385	98.705
16:24	ZZZZZZ	90.582	95.979	96.078	103.392	94.959	99.641	103.75	95.52
16:29	MP85655A-PS1	85.346	89.822	93.957	102.257	87.13	94.343	99.599	88.005
16:33	ZZZZZZ	90.647	94.821	92.335	100.488	95.165	94.167	100.396	96.278
16:38	MA36411-CCVA8	83.038	87.488	92.638	100.833	86.576	94.752	99.914	87.909
16:43	MA36411-CCB8	88.691	91.875	95.321	103.364	92.233	97.051	102.507	93.504
16:47	MA36411-CRIB3	90.14	93.389	94.919	101.961	92.946	97.536	101.652	94.07
16:52	ZZZZZZ	89.213	92.082	95.193	101.364	92.552	97.703	100.714	94.219
16:56	MA36411-CCVA9	86.792	90.535	93.508	100.472	89.833	95.402	98.719	91.191
17:01	MA36411-CCB9	90.368	93.606	97.167	103.787	94.203	98.996	103.438	94.807

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
Istd#8	Scandium (45-1)		60-125 %	60-125 %					
Istd#3	Scandium (45-2)		60-125 %	60-125 %					
Istd#4	Scandium (45-3)		60-125 %	60-125 %					
Istd#5	Germanium (72-1)		60-125 %	60-125 %					
Istd#6	Germanium (72-2)		60-125 %	60-125 %					
Istd#7	Germanium (72-3)		60-125 %	60-125 %					
Istd#8	Germanium (74-1)		60-125 %	60-125 %					

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:17	MA36411-STD1	100	100	100	100	100	100	100	100
09:22	MA36411-STD2	100	100	100	100	100	100	100	100
09:26	MA36411-STD3	100	100	100	100	100	100	100	100
09:31	MA36411-STD4	100.969	101.197	101.055	101.465	101.029	100.289	101.23	100.807
09:35	MA36411-STD5	102.579	102.719	100.947	102.575	101.055	101.005	101.949	100.589
09:40	MA36411-STD6	101.927	101.58	100.726	101.803	100.2	101.381	101.292	101.905
09:45	MA36411-STD7	100.739	100.612	100.032	100.215	98.876	99.841	100.617	100.546
09:49	MA36411-STD8	99.445	99.418	99.864	100.1	96.916	99.199	99.423	99.943
09:54	MA36411-STD9	98.322	99.901	97.638	98.843	98.01	97.827	100.139	98.995
09:58	MA36411-STD10	99.152	100.889	98.857	100.245	99.254	99.34	100.456	100.094
10:03	MA36411-STD11	102.459	102.275	100.003	100.634	97.946	100.908	101.8	101.253
10:09	MA36411-STD12	103.269	101.484	99.971	100.743	97.854	100.932	101.59	102.76
10:13	MA36411-STD13	107.916	105.194	104.728	108.782	102.405	103.875	107.111	102.412
10:18	MA36411-STD14	100	100	100	100	100	100	100	100
10:28	MA36411-STD15	99.982	99.553	101.063	99.115	99.528	101.085	102.683	101.354
10:33	ZZZZZZ	90.679	99.376	100.731	90.828	100.141	100.142	91.363	100.681
10:38	MA36411-ICV1	104.847	97.751	100.574	105.085	98.117	99.816	105.608	100.681
10:42	MA36411-ICVA1	99.452	97.396	98.378	97.365	96.05	99.203	98.908	101.034
10:47	MA36411-ICB1	97.1	97.353	98.651	97.798	98.941	98.258	98.42	98.512
10:51	MA36411-CRIB1	97.347	96.045	98.48	97.359	98.455	99.422	98.933	99.674
10:56	MA36411-CCVA1	98.329	95.968	97.334	96.496	95.749	98.268	98.723	100.25
11:01	MA36411-CCB1	97.79	96.029	98.44	97.148	97.918	97.578	98.546	98.998
11:05	MA36411-ICSA1	91.867	88.962	86.316	85.942	83.335	93.344	94.037	95.865
11:12	MA36411-ICSAB1	97.058	92.451	90.859	89.204	86.724	97.869	98.347	100.858
11:16	ZZZZZZ	100.007	100.282	102.378	101.483	103.474	103.645	102.846	105.663
11:21	MA36411-CCVA2	99.83	101.427	100.01	100.228	101.849	102.772	101.585	106.26
11:25	MA36411-CCB2	100.429	102.616	95.412	102.061	105.976	97.039	101.639	97.677
11:30	MP85639-MB1	108.264	106.094	103.27	103.557	103.974	104.704	102.924	106.842
11:35	ZZZZZZ	109.372	114.19	105.887	102.571	107.523	107.933	102.514	110.678
11:39	MP85639-B1	100.059	96.448	104.444	100.362	97.941	106.022	102.083	108.094
11:44	MP85639-S1	No results reported for the elements associated with this internal standard.							
11:49	MP85639-S2	97.362	95.845	99.286	98.791	97.237	101.646	100.604	102.705
11:53	ZZZZZZ	98.629	101.575	100.307	100.356	103.865	101.34	99.852	103.956

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:58	JB91480-4	108.563	113.392	96.534	98.46	103.76	100.918	99.345	104.967
12:02	MP85639-SD1	103.793	104.754	102.69	101.687	104.523	105.733	103.788	106.826
12:07	ZZZZZZ	102.512	103.113	101.95	102.847	106.169	103.979	102.582	105.753
12:12	ZZZZZZ	91.163	42.425 !	101.969	91.335	41.37 !	104.705	90.91	108.781
12:21	MA36411-CCVA3	104.775	105.303	102.432	102.936	105.576	105.26	104.467	109.186
12:27	MA36411-CCB3	103.757	104.018	103.064	104.172	106.64	104.696	104.238	107.274
12:31	MP85639-S1	100.08	96.059	102.756	99.275	98.178	105.243	101.932	106.312
12:36	ZZZZZZ	96.252	90.93	101.561	96.441	94.638	102.055	99.401	103.885
12:40	ZZZZZZ	96.071	91.945	101.321	96.506	95.102	101.644	99.776	102.86
12:45	FA23309-1	101.668	101.238	96.878	94.984	97.338	101.384	100.828	105.699
12:50	FA23309-1F	108.102	107.452	101.18	99.647	102.316	106.443	106.221	110.483
12:54	FA23309-1	108.57	101.908	94.418	86.442	81.551	100.803	94.364	106.78
12:59	FA23309-1F	112.325	113.692	92.915	89.552	93.59	99.67	97.883	103.91
13:04	ZZZZZZ	128.32	132.131 !	128.901	129.321	130.302 !	129.157	123.207	127.538
13:08	ZZZZZZ	116.85	120.583	116.848	115.84	122.933	118.954	115.807	120.28
13:13	MA36411-CCVA4	114.652	118.156	111.642	111.617	117.619	115.362	112.66	119.539
13:20	MA36411-CCB4	116.655	122.488	117.013	116.347	123.041	118.561	116.039	121.497
13:25	JB91480-4	117.091	120.988	116.507	114.729	119.377	120.456	117.169	121.582
13:29	MP85639-SD1	118.538	121.823	119.672	116.893	121.641	122.998	119.494	123.608
13:34	MP85639-PS1	118.565	125.931	111.297	108.375	114.435	115.973	110.072	120.907
13:39	MP85639-PS1	117.446	119.303	117.635	114.194	119.135	119.968	116.489	121.262
13:43	ZZZZZZ	115.787	119.932	105.949	115.597	121.548	108.519	114.458	109.208
13:48	ZZZZZZ	116.561	118.492	105.691	100.515	103.279	113.933	104.987	119.297
13:52	ZZZZZZ	108.911	111.491	109.813	98.799	103.239	117.695	102.987	124.439
13:57	ZZZZZZ	109.438	115.653	96.963	99.664	104.806	103.323	101.342	110.116
14:02	ZZZZZZ	108.705	112.322	109.97	109.593	114.514	111.954	108.25	115.76
14:06	MA36411-CCVA5	102.531	107.148	101.339	102.578	107.223	105.81	102.9	111.586
14:12	MA36411-CCB5	107.218	110.495	105.91	107.147	112.486	108.936	106.982	113.307
14:17	FA23309-1	110.173	109.88	110.304	107.519	110.864	113.796	111.167	115.879
14:21	FA23309-1F	108.845	108.759	110.01	105.681	109.718	113.3	109.497	113.862
14:29	ZZZZZZ	106.301	107.816	106.635	105.077	109.468	108.658	106.491	111.07
14:33	ZZZZZZ	106.677	107.398	106.55	105.155	110.562	108.891	106.052	111.864
14:38	MA36411-CRIB2	105.74	106.557	106.566	104.758	108.619	108.437	105.29	110.93

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:43	ZZZZZZ	104.921	105.473	105.536	103.993	108.216	108.046	104.354	110.255
14:47	MP85655A-MB1	111.937	113.595	107.533	103.773	109.141	110.036	103.85	113.921
14:52	MP85655A-B1	101.032	96.16	104.764	100.463	100.021	107.098	102.797	109.12
14:56	ZZZZZZ	101.965	102.823	102.955	101.832	105.884	105.218	102.455	106.966
15:01	MA36411-CCVA6	102.036	102.794	101.344	99.694	102.864	103.728	101.479	108.313
15:06	MA36411-CCB6	102.703	104.735	104.376	104.712	106.623	105.982	103.176	108.419
15:10	MP85655A-S1	100.86	99.251	102.775	98.149	99.506	106.13	102.538	108.588
15:15	MP85655A-S2	101.139	98.689	102.731	98.717	99.166	107.088	102.108	109.555
15:19	ZZZZZZ	103.112	103.923	104.13	102.991	106.065	106.005	102.666	108.133
15:24	JB91620-6	102.302	106.036	91.318	90.3	95.301	98.565	96.499	104.364
15:29	MP85655A-SD1	103.995	104.029	101.28	101.362	102.628	107.674	104.618	111.556
15:33	ZZZZZZ	104.344	109.003	93.473	96.325	99.298	100.361	98.867	105.554
15:38	ZZZZZZ	102.651	105.686	91.582	91.05	96.384	99.35	95.557	105.669
15:43	ZZZZZZ	102.018	105.439	91.018	90.425	95.569	98.654	95.529	105.916
15:47	ZZZZZZ	103.251	106.316	104.12	102.615	108.558	106.746	103.161	110.755
15:52	MA36411-CCVA7	99.349	102.944	97.077	98.515	104.301	102.715	99.014	108.536
15:56	MA36411-CCB7	102.432	107.426	102.807	102.482	111.004	106.325	102.173	109.837
16:01	ZZZZZZ	102.691	102.757	96.765	91.309	96.215	104.804	96.55	111.943
16:06	ZZZZZZ	110.834	115.061	108.248	104.104	109.824	111.799	103.75	116.3
16:10	ZZZZZZ	104.707	104.21	98.078	97.036	97.925	103.378	98.806	110.887
16:15	ZZZZZZ	102.935	107.173	99.401	93.086	98.823	105.499	95.707	112.451
16:20	ZZZZZZ	102.464	106.817	98.759	95.741	100.926	103.95	96.909	110.278
16:24	ZZZZZZ	100.413	100.789	90.853	88.898	92.431	97.935	94.017	105.042
16:29	MP85655A-PS1	95.094	98.808	85.838	87.01	92.303	93.746	93.08	100.725
16:33	ZZZZZZ	94.041	98.596	102.362	95.256	101.886	106.005	94.565	110.654
16:38	MA36411-CCVA8	94.933	97.018	92.136	93.816	98.712	96.539	94.69	102.218
16:43	MA36411-CCB8	97.916	100.14	99.577	98.233	103.22	102.217	97.839	106.69
16:47	MA36411-CRIB3	97.555	99.959	99.712	97.461	101.846	102.723	98.684	106.544
16:52	ZZZZZZ	97.488	99.861	100.622	97.486	102.093	102.62	97.916	105.942
16:56	MA36411-CCVA9	96.138	97.675	94.939	93.852	98.681	99.356	95.725	104.556
17:01	MA36411-CCB9	98.411	101.933	100.02	99.049	104.098	102.599	99.36	106.305

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

Istd#16 Germanium (74-3)	60-125 %	60-125 %
Istd#11 Rhodium (103-1)	60-125 %	60-125 %
Istd#12 Rhodium (103-2)	60-125 %	60-125 %
Istd#13 Rhodium (103-3)	60-125 %	60-125 %
Istd#14 Indium (115-1)	60-125 %	60-125 %
Istd#15 Indium (115-2)	60-125 %	60-125 %
Istd#16 Terbium (159-1)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
09:17	MA36411-STD1	100	100	100	100	100	100
09:22	MA36411-STD2	100	100	100	100	100	100
09:26	MA36411-STD3	100	100	100	100	100	100
09:31	MA36411-STD4	102.07	101.07	100.784	101.679	100.334	101.879
09:35	MA36411-STD5	102.338	101.272	100.937	102.458	100.524	102.111
09:40	MA36411-STD6	101.869	100.181	101.524	101.811	102.134	101.82
09:45	MA36411-STD7	101.549	98.82	100.391	101.351	100.463	100.996
09:49	MA36411-STD8	100.603	97.52	100.157	100.69	100.917	100.709
09:54	MA36411-STD9	100.604	97.963	99.167	100.819	98.72	98.914
09:58	MA36411-STD10	101.526	99.117	100.586	101.372	99.315	99.434
10:03	MA36411-STD11	102.861	100.367	101.604	103.162	98.194	98.609
10:09	MA36411-STD12	104.725	100.295	103.029	104.318	97.055	97.77
10:13	MA36411-STD13	108.386	101.672	103.025	108.134	102.127	107.078
10:18	MA36411-STD14	100	100	100	100	100	100
10:28	MA36411-STD15	102.21	100.719	101.455	102.136	101.666	100.321
10:33	ZZZZZZ	89.662	100.027	100.547	90.939	100.75	90.669
10:38	MA36411-ICV1	104.502	97.662	100.325	105.876	100.038	105.936
10:42	MA36411-ICVA1	99.242	99.105	101.125	100.533	98.47	96.653
10:47	MA36411-ICB1	98.485	99.045	99.126	99.874	99.117	98.735
10:51	MA36411-CRIB1	97.183	98.411	99.565	99.166	99.952	98.012
10:56	MA36411-CCVA1	99.677	98.303	100.257	100.902	97.619	96.337
11:01	MA36411-CCB1	96.805	98.502	98.913	99.098	99.159	97.863
11:05	MA36411-ICSA1	93.349	89.592	95.915	95.141	87.216	85.315
11:12	MA36411-ICSAB1	95.695	93.194	100.297	98.269	91.415	87.968
11:16	ZZZZZZ	104.108	103.18	105.469	103.902	104.712	102.167
11:21	MA36411-CCVA2	106.094	104.558	106.448	105.493	102.985	99.533
11:25	MA36411-CCB2	105.366	105.552	97.631	104.319	99.299	102.086
11:30	MP85639-MB1	106.592	103.536	106.954	106.079	105.984	102.951
11:35	ZZZZZZ	106.22	107.775	110.664	105.627	107.649	101.781
11:39	MP85639-B1	105.072	99.162	107.649	104.515	108.161	102.581
11:44	MP85639-S1	No results reported for the elements associated with this internal standard.					
11:49	MP85639-S2	101.772	99.774	103.514	102.072	103.202	100.679
11:53	ZZZZZZ	103.178	103.434	103.456	102.81	103.215	100.762

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
11:58	JB91480-4	105.423	107.677	105.247	105.631	100.078	98.295
12:02	MP85639-SD1	106.852	106.918	107.638	105.937	107.6	103.248
12:07	ZZZZZZ	106.307	105.899	105.937	105.783	106.23	103.455
12:12	ZZZZZZ	95.248	42.227 !	108.992	94.363	105.45	92.114
12:21	MA36411-CCVA3	108.855	107.947	109.766	108.273	105.76	102.503
12:27	MA36411-CCB3	107.11	106.135	107.384	107.06	107.382	104.72
12:31	MP85639-S1	104.619	100.786	107.072	104.49	107.356	102.504
12:36	ZZZZZZ	100.374	96.939	104.456	101.883	100.952	98.756
12:40	ZZZZZZ	100.74	96.825	102.874	101.742	97.783	98.977
12:45	FA23309-1	105.859	103.901	106.354	106.571	97.027	94.986
12:50	FA23309-1F	109.923	109.408	110.397	109.537	100.817	97.547
12:54	FA23309-1	93.225	89.127	107.657	96.452	88.484	77.126
12:59	FA23309-1F	95.836	100.967	104.423	98.545	85.001	78.163
13:04	ZZZZZZ	122.561	127.12	128.156	122.072	124.049	116.788
13:08	ZZZZZZ	117.452	121.96	120.772	117.555	119.225	113.481
13:13	MA36411-CCVA4	117.287	120.15	119.841	116.985	115.456	109.812
13:20	MA36411-CCB4	119.029	122.4	121.672	118.35	119.952	115.037
13:25	JB91480-4	119.306	119.692	121.603	118.55	120.652	114.182
13:29	MP85639-SD1	120.338	120.811	122.982	119.693	117.642	116.161
13:34	MP85639-PS1	116.698	119.294	122.172	116.115	113.655	105.953
13:39	MP85639-PS1	119.39	120.317	121.528	118.967	119.84	113.642
13:43	ZZZZZZ	117.375	120.298	109.535	117.1	109.518	113.27
13:48	ZZZZZZ	111.95	111.898	121.016	112.461	108.504	98.316
13:52	ZZZZZZ	110.41	110.212	125.933	110.689	114.797	98.037
13:57	ZZZZZZ	109.532	111.858	111.096	109.699	103.523	98.317
14:02	ZZZZZZ	113.517	115.309	115.777	113.185	115.231	109.706
14:06	MA36411-CCVA5	110.36	111.497	112.722	110.596	107.817	103.423
14:12	MA36411-CCB5	111.37	113.96	113.395	111.685	112.813	107.358
14:17	FA23309-1	113.759	113.186	116.39	113.826	109.49	109.197
14:21	FA23309-1F	112.02	111.493	115.613	111.609	108.245	107.333
14:29	ZZZZZZ	110.459	109.589	111.464	110.092	111.179	106.328
14:33	ZZZZZZ	110.141	110.862	112.248	109.765	111.982	106.205
14:38	MA36411-CRIB2	110.055	109.169	111.614	109.77	111.116	105.237

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
14:43	ZZZZZZ	108.667	109.657	110.807	108.44	110.508	104.557
14:47	MP85655A-MB1	109.339	110.915	113.937	109.567	112.776	104.148
14:52	MP85655A-B1	106.216	102.995	109.59	106.324	110.554	103.577
14:56	ZZZZZZ	107.148	108.12	107.028	106.707	108.141	102.65
15:01	MA36411-CCVA6	107.882	106.748	108.725	107.503	105.439	100.546
15:06	MA36411-CCB6	107.546	107.61	108.648	107.344	108.487	105.788
15:10	MP85655A-S1	107.387	104.649	109.41	107.234	108.008	102.173
15:15	MP85655A-S2	106.632	104.021	110.385	106.538	109.198	101.156
15:19	ZZZZZZ	107.279	106.988	108.891	106.971	109.343	102.283
15:24	JB91620-6	103.839	105.039	105.513	103.537	94.416	89.268
15:29	MP85655A-SD1	110.739	108.556	111.693	110.133	109.225	102.824
15:33	ZZZZZZ	106.475	107.265	107.1	106.732	98.659	97.43
15:38	ZZZZZZ	104.087	106.244	106.471	104.426	96.106	90.907
15:43	ZZZZZZ	104.478	106.17	106.981	105.536	95.822	91.183
15:47	ZZZZZZ	109.047	110.21	111.27	109.053	112.042	104.424
15:52	MA36411-CCVA7	107.182	109.641	110.341	107.275	106.261	99.718
15:56	MA36411-CCB7	109.199	112.79	110.765	109.071	111.121	103.847
16:01	ZZZZZZ	105.52	106.061	112.984	106.008	103.135	92.538
16:06	ZZZZZZ	110.997	112.677	116.9	111.593	116.085	105.316
16:10	ZZZZZZ	108.677	104.752	111.627	108.944	106.409	98.854
16:15	ZZZZZZ	105.02	107.137	113.882	105.491	105.643	93.59
16:20	ZZZZZZ	105.654	107.281	111.356	105.841	105.745	96.172
16:24	ZZZZZZ	100.99	102.755	105.766	103.833	94.883	89.16
16:29	MP85655A-PS1	99.96	102.454	101.931	102.447	92.944	88.445
16:33	ZZZZZZ	98.95	104.453	110.881	101.517	110.943	97.533
16:38	MA36411-CCVA8	98.539	103.436	103.001	102.878	100.918	95.429
16:43	MA36411-CCB8	104.645	105.066	106.735	104.565	107.517	99.887
16:47	MA36411-CRIB3	104.227	104.426	107.163	104.314	106.953	99.213
16:52	ZZZZZZ	101.79	104.371	106.721	104.287	107.317	99.123
16:56	MA36411-CCVA9	100.996	103.917	105.429	102.784	103.168	95.177
17:01	MA36411-CCB9	104.924	105.648	107.153	104.583	107.366	99.881

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
Analyst: GT Run ID: MA36411
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
Istd#22 Terbium (159-3)			60-125 %	60-125 %			
Istd#19 Holmium (165-1)			60-125 %	60-125 %			
Istd#20 Holmium (165-2)			60-125 %	60-125 %			
Istd#21 Bismuth (209-1)			60-125 %	60-125 %			
Istd#22 Bismuth (209-2)			60-125 %	60-125 %			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA36411 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	10:47 ICB1 raw	final	11:01 CCB1 raw	final	11:25 CCB2 raw	final
Aluminum	25	.26	20	0.10	<50	0.19	<25	0.44	<25
Antimony	0.50	.16	0.50	-0.065	<0.50	-0.066	<2.0	-0.027	<2.0
Arsenic	1.0	.025	0.50	-0.0091	<1.0	-0.0094	<1.5	-0.0019	<1.5
Barium	1.0	.02	0.50	0.010	<1.0	0.017	<1.0	0.014	<1.0
Beryllium	0.50	.014	0.25	0.0066	<0.50	0.0063	<0.50	0.00081	<0.50
Boron	25	1.6	5.0						
Cadmium	0.50	.0086	0.50	0.0040	<0.50	0.0014	<3.0	0.018	<3.0
Calcium	250	1.5	50	0.42	<250	0.94	<250	1.7	<250
Chromium	4.0	.013	1.0	-0.025	<4.0	-0.031	<4.0	-0.028	<4.0
Cobalt	0.50	.0021	0.25	0.0025	<0.50	0.0017	<0.50	-0.0012	<0.50
Copper	4.0	.03	1.0	-0.016	<4.0	-0.029	<5.0	-0.0045	<5.0
Iron	25	.47	13	0.28	<50	0.28	<25	0.83	<25
Lead	0.50	.004	0.50	0.0071	<0.50	0.0052	<1.5	0.0047	<1.5
Magnesium	250	.26	130	0.12	<250	0.089	<250	0.69	<250
Manganese	1.0	.012	0.60	0.0018	<1.0	-0.00067	<2.0	0.0037	<2.0
Molybdenum	1.0	.025	0.50						
Nickel	4.0	.012	2.0	-0.0062	<4.0	-0.0076	<4.0	0.0013	<4.0
Potassium	250	1.8	50	-0.10	<250	-0.49	<250	1.1	<250
Selenium	1.0	.028	0.50						
Silver	1.0	.3	0.50	0.0056	<2.0	0.0076	<1.0	0.0053	<1.0
Sodium	250	1.3	50	0.22	<250	0.19	<250	2.6	<250
Strontium	5.0	.0063	5.0						
Thallium	0.50	.013	0.50	0.053	<0.50	0.079	<1.0	0.073	<1.0
Tin	5.0	.039	2.5						
Titanium	1.0	.029	0.50						
Vanadium	1.5	.031	1.0	0.0075	<4.0	-0.00094	<1.5	-0.026	<1.5
Zinc	10	.056	3.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA36411 Units: ug/l

Time: / Sample ID:				12:27 CCB3		13:20 CCB4		14:12 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.26	20	-0.017	<25	0.0022	<25	-0.027	<25
Antimony	0.50	.16	0.50	-0.0050	<2.0	-0.083	<2.0	-0.064	<2.0
Arsenic	1.0	.025	0.50	0.00089	<1.5	-0.0053	<1.5	-0.0023	<1.5
Barium	1.0	.02	0.50	0.0069	<1.0	0.0062	<1.0	0.0036	<1.0
Beryllium	0.50	.014	0.25	0.0021	<0.50	-0.00079	<0.50	-0.00038	<0.50
Boron	25	1.6	5.0						
Cadmium	0.50	.0086	0.50	-0.00028	<3.0	0.0031	<3.0	0.00061	<3.0
Calcium	250	1.5	50	0.69	<250	1.8	<250	2.1	<250
Chromium	4.0	.013	1.0	-0.045	<4.0	-0.045	<4.0	-0.033	<4.0
Cobalt	0.50	.0021	0.25	0.0014	<0.50	0.0013	<0.50	-0.000050	<0.50
Copper	4.0	.03	1.0	0.0058	<5.0	0.040	<5.0	0.035	<5.0
Iron	25	.47	13	0.46	<25	0.25	<25	0.35	<25
Lead	0.50	.004	0.50	0.00097	<1.5	0.0011	<1.5	0.0013	<1.5
Magnesium	250	.26	130	0.26	<250	0.12	<250	0.22	<250
Manganese	1.0	.012	0.60	0.0066	<2.0	0.0028	<2.0	0.0068	<2.0
Molybdenum	1.0	.025	0.50						
Nickel	4.0	.012	2.0	0.00061	<4.0	-0.0041	<4.0	0.0010	<4.0
Potassium	250	1.8	50	-0.076	<250	-0.16	<250	-0.15	<250
Selenium	1.0	.028	0.50						
Silver	1.0	.3	0.50	0.0055	<1.0	0.0040	<1.0	0.0027	<1.0
Sodium	250	1.3	50	1.0	<250	12.9	<250	6.2	<250
Strontium	5.0	.0063	5.0						
Thallium	0.50	.013	0.50	0.054	<1.0	0.026	<1.0	0.030	<1.0
Tin	5.0	.039	2.5						
Titanium	1.0	.029	0.50						
Vanadium	1.5	.031	1.0	-0.038	<1.5	-0.019	<1.5	-0.036	<1.5
Zinc	10	.056	3.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: result < LOD Run ID: MA36411 Units: ug/l

Time:				15:06	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Aluminum	25	.26	20	0.12	<25
Antimony	0.50	.16	0.50	-0.050	<2.0
Arsenic	1.0	.025	0.50	-0.0033	<1.5
Barium	1.0	.02	0.50	0.011	<1.0
Beryllium	0.50	.014	0.25	0.0063	<0.50
Boron	25	1.6	5.0		
Cadmium	0.50	.0086	0.50	-0.0063	<3.0
Calcium	250	1.5	50	0.92	<250
Chromium	4.0	.013	1.0	-0.044	<4.0
Cobalt	0.50	.0021	0.25	0.0012	<0.50
Copper	4.0	.03	1.0	-0.012	<5.0
Iron	25	.47	13	0.35	<25
Lead	0.50	.004	0.50	0.0060	<1.5
Magnesium	250	.26	130	0.22	<250
Manganese	1.0	.012	0.60	0.0043	<2.0
Molybdenum	1.0	.025	0.50		
Nickel	4.0	.012	2.0	0.0035	<4.0
Potassium	250	1.8	50	-0.46	<250
Selenium	1.0	.028	0.50		
Silver	1.0	.3	0.50	0.0057	<1.0
Sodium	250	1.3	50	3.3	<250
Strontium	5.0	.0063	5.0		
Thallium	0.50	.013	0.50	0.061	<1.0
Tin	5.0	.039	2.5		
Titanium	1.0	.029	0.50		
Vanadium	1.5	.031	1.0	-0.023	<1.5
Zinc	10	.056	3.0		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36411 Units: ug/l

Time:		10:38			10:42			10:56	
Sample ID:	ICV	ICV1		ICVA	ICVA1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	60	57.5	95.8	5500	5570	101.3	5000	5050	101.0
Antimony				60	64.2	107.0	50	52.7	105.4
Arsenic				60	61.1	101.8	50	49.4	98.8
Barium				60	61.3	102.2	50	50.0	100.0
Beryllium				60	59.2	98.7	50	50.4	100.8
Boron									
Cadmium				60	59.7	99.5	50	49.9	99.8
Calcium				5500	5590	101.6	5000	5130	102.6
Chromium				60	58.7	97.8	50	49.1	98.2
Cobalt				60	59.6	99.3	50	48.6	97.2
Copper				60	59.9	99.8	50	48.3	96.6
Iron				5500	5620	102.2	5000	5170	103.4
Lead				60	60.2	100.3	50	49.8	99.6
Magnesium				5500	5670	103.1	5000	5210	104.2
Manganese				60	59.1	98.5	50	49.2	98.4
Molybdenum									
Nickel				60	59.2	98.7	50	48.6	97.2
Potassium				5500	5600	101.8	5000	5150	103.0
Selenium									
Silver				60	59.6	99.3	50	48.7	97.4
Sodium				5500	5630	102.4	5000	5180	103.6
Strontium									
Thallium				60	65.0	108.3	50	49.3	98.6
Tin									
Titanium									
Vanadium				60	60.1	100.2	50	49.5	99.0
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36411 Units: ug/l

Time:		11:21			12:21			13:13	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4960	99.2	5000	4830	96.6	5000	4750	95.0
Antimony	50	52.7	105.4	50	51.0	102.0	50	51.5	103.0
Arsenic	50	50.6	101.2	50	49.0	98.0	50	49.6	99.2
Barium	50	49.5	99.0	50	47.1	94.2	50	48.2	96.4
Beryllium	50	49.1	98.2	50	47.5	95.0	50	46.8	93.6
Boron									
Cadmium	50	51.0	102.0	50	49.3	98.6	50	49.7	99.4
Calcium	5000	5140	102.8	5000	5080	101.6	5000	5050	101.0
Chromium	50	49.3	98.6	50	48.4	96.8	50	48.9	97.8
Cobalt	50	49.2	98.4	50	47.4	94.8	50	48.1	96.2
Copper	50	48.7	97.4	50	47.5	95.0	50	47.3	94.6
Iron	5000	5230	104.6	5000	5110	102.2	5000	5120	102.4
Lead	50	49.9	99.8	50	48.7	97.4	50	48.1	96.2
Magnesium	5000	5180	103.6	5000	5070	101.4	5000	5020	100.4
Manganese	50	49.4	98.8	50	48.0	96.0	50	47.9	95.8
Molybdenum									
Nickel	50	48.8	97.6	50	47.4	94.8	50	47.6	95.2
Potassium	5000	5160	103.2	5000	5050	101.0	5000	5040	100.8
Selenium	anr								
Silver	50	48.1	96.2	50	46.5	93.0	50	46.7	93.4
Sodium	5000	5160	103.2	5000	5070	101.4	5000	5070	101.4
Strontium									
Thallium	50	49.6	99.2	50	47.9	95.8	50	47.4	94.8
Tin									
Titanium									
Vanadium	50	49.9	99.8	50	49.1	98.2	50	49.0	98.0
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36411 Units: ug/l

Time:		14:06			15:01	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4750	95.0	5000	4780	95.6
Antimony	50	50.2	100.4	50	50.6	101.2
Arsenic	50	50.1	100.2	50	49.4	98.8
Barium	50	46.8	93.6	50	47.5	95.0
Beryllium	50	46.9	93.8	50	47.1	94.2
Boron						
Cadmium	50	49.7	99.4	50	49.5	99.0
Calcium	5000	5040	100.8	5000	5060	101.2
Chromium	50	49.0	98.0	50	48.6	97.2
Cobalt	50	48.3	96.6	50	47.6	95.2
Copper	50	48.5	97.0	50	47.1	94.2
Iron	5000	5170	103.4	5000	5180	103.6
Lead	50	48.3	96.6	50	47.7	95.4
Magnesium	5000	5050	101.0	5000	5030	100.6
Manganese	50	48.2	96.4	50	48.5	97.0
Molybdenum						
Nickel	50	48.2	96.4	50	47.4	94.8
Potassium	5000	5040	100.8	5000	5080	101.6
Selenium	anr					
Silver	50	46.0	92.0	50	46.6	93.2
Sodium	5000	5090	101.8	5000	5040	100.8
Strontium						
Thallium	50	47.6	95.2	50	46.7	93.4
Tin						
Titanium						
Vanadium	50	49.6	99.2	50	49.0	98.0
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36411 Units: ug/l

Time:		10:51		14:38	
Sample ID:	CRIB	CRIB1		CRIB2	
Metal	True	Results	% Rec	Results	% Rec
Aluminum	25	23.6	94.4	23.5	94.0
Antimony	0.50	0.50	100.0	0.47	94.0
Arsenic	0.50	0.48	96.0	0.52	104.0
Barium	1.0	1.1	110.0	1.0	100.0
Beryllium	0.50	0.50	100.0	0.48	96.0
Boron	25				
Cadmium	0.50	0.51	102.0	0.53	106.0
Calcium	250	240	96.0	237	94.8
Chromium	1.0	1.1	110.0	1.0	100.0
Cobalt	0.50	0.52	104.0	0.51	102.0
Copper	2.0	2.2	110.0	2.1	105.0
Iron	25	26.9	107.6	26.1	104.4
Lead	0.50	0.49	98.0	0.48	96.0
Magnesium	250	243	97.2	230	92.0
Manganese	0.50	0.53	106.0	0.52	104.0
Molybdenum	1.0				
Nickel	1.0	0.95	95.0	0.95	95.0
Potassium	250	241	96.4	227	90.8
Selenium	0.50				
Silver	0.50	0.50	100.0	0.48	96.0
Sodium	250	243	97.2	235	94.0
Strontium	5.0				
Thallium	0.50	0.52	104.0	0.45	90.0
Tin	5.0				
Titanium	1.0				
Vanadium	1.0	1.0	100.0	1.0	100.0
Zinc	5.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XA041315M1L.CSV Date Analyzed: 04/13/15 Methods: EPA 200.8, SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36411 Units: ug/l

Time:			11:05		11:12	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95000	95.0	95500	95.5
Antimony			-0.012		-0.0038	
Arsenic		20	0.065		19.6	98.0
Barium			0.12		0.14	
Beryllium			0.013		0.015	
Boron			1.6		0.33	
Cadmium		20	0.60		18.8	94.0
Calcium	100000	100000	95300	95.3	95300	95.3
Chromium		20	1.3		21.0	105.0
Cobalt		20	0.022		19.2	96.0
Copper		20	0.57		18.7	93.5
Iron	100000	100000	93400	93.4	94600	94.6
Lead			0.20		0.21	
Magnesium	100000	100000	94900	94.9	95200	95.2
Manganese		20	0.51		20.2	101.0
Molybdenum	2000	2000	2150	107.5	2140	107.0
Nickel		20	0.16		18.3	91.5
Potassium	100000	100000	95400	95.4	97100	97.1
Selenium		20	0.016		21.3	106.5
Silver		20	0.016		17.4	87.0
Sodium	100000	100000	97100	97.1	97200	97.2
Strontium			0.72		0.73	
Thallium			0.017		0.013	
Tin			0.11		0.098	
Titanium	2000	2000	2030	101.5	2030	101.5
Vanadium		20	-0.028		21.2	106.0
Zinc		20	1.2		18.5	92.5

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:30	MA36424-STD1	1		STDA
09:34	MA36424-STD2	1		STDA
09:39	MA36424-STD3	1		STDA
09:43	MA36424-STD4	1		STDA
09:47	MA36424-STD5	1		STDB
09:52	MA36424-STD6	1		STDC
09:56	MA36424-STD7	1		STDD
10:01	MA36424-STD8	1		STDE
10:05	MA36424-STD9	1		STDF
10:10	MA36424-STD10	1		STDG
10:14	MA36424-STD11	1		STDH
10:19	MA36424-STD12	1		STDI
10:23	MA36424-STD13	1		STDJ
10:29	ZZZZZZ	1		
10:34	MA36424-ICV1	1		60ppb Al.
10:39	MA36424-ICVA1	1		
10:43	MA36424-ICB1	1		
10:48	MA36424-CRIB1	1		Sb out.
10:52	MA36424-CCVA1	1		
10:56	MA36424-CCB1	1		
11:01	MA36424-ICSA1	1		
11:05	MA36424-ICSAB1	1		
11:10	ZZZZZZ	1		
11:17	MA36424-CCVA2	1		
11:21	MA36424-CCB2	1		
11:32	MA36424-CRIB2	1		Sb out.
11:36	MP85639-B1	25		
11:41	MP85639-MB1	2		
11:45	MP85639-S1	25		
11:50	MP85639-S2	25		
11:54	ZZZZZZ	1		
11:59	JB91480-4	2		(sample used for QC only; not part of login FA23309)
12:03	MP85639-SD1	10		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:08	ZZZZZZ	1		
12:13	MA36424-CCVA3	1		
12:17	MA36424-CCB3	1		
12:22	ZZZZZZ	2		
12:26	MP85639-PS1	2		
12:31	FA23309-1	2		
12:35	FA23309-1F	2		
12:40	FA23309-1	25		Sc-2 out.
12:44	FA23309-1F	25		
12:49	ZZZZZZ	1		
12:53	ZZZZZZ	1		
12:57	MA36424-CCVA4	1		
13:02	MA36424-CCB4	1		
13:06	ZZZZZZ	5		
13:11	ZZZZZZ	25		
13:15	ZZZZZZ	25		
13:20	ZZZZZZ	25		
13:24	ZZZZZZ	1		
13:28	FA23309-1	25		
---------->	Last reportable sample/prep for job FA23309			
13:33	ZZZZZZ	5		
13:37	ZZZZZZ	1		
13:42	MA36424-CCVA5	1		
13:47	MA36424-CCB5	1		
13:52	ZZZZZZ	1		
13:56	ZZZZZZ	1		
14:01	ZZZZZZ	5		
14:05	ZZZZZZ	5		
14:09	ZZZZZZ	5		
14:14	ZZZZZZ	1		
14:18	MA36424-CCVA6	1		
14:24	MA36424-CCB6	1		
14:28	MP85759-MB1	5		CRIB2 out for Sb.
14:33	MP85759-B1	25		CRIB2 out for Sb.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:37	MP85759-S1	25		CRIB2 out for Sb.
14:41	MP85759-S2	25		CRIB2 out for Sb.
14:46	ZZZZZZ	1		
14:50	FA23434-2	5		(sample used for QC only; not part of login FA23309)
14:55	MP85759-SD1	25		CRIB2 out for Sb.
14:59	ZZZZZZ	5		
15:04	ZZZZZZ	1		
15:08	MA36424-CCVA7	1		
15:13	MA36424-CCB7	1		
15:17	MP85759-PS1	5		Wrong spiking levels
15:21	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:30	ZZZZZZ	2		
15:35	ZZZZZZ	1		
15:39	MA36424-CRIB3	1		
15:44	MA36424-CCVA8	1		
15:49	MA36424-CCB8	1		
---------->	Last reportable CCB for job FA23309			
15:59	MP85759-MB1	5		
16:03	MP85759-B1	25		
16:07	MP85759-S1	25		
16:12	MP85759-S2	25		
16:16	ZZZZZZ	1		
16:21	FA23434-2	5		(sample used for QC only; not part of login FA23309)
16:25	MP85759-SD1	25		Li out, to reanalysis for Be.
16:30	ZZZZZZ	1		
16:34	MA36424-CCVA9	1		
16:38	MA36424-CCB9	1		
16:43	ZZZZZZ	5		
16:47	ZZZZZZ	5		
16:52	ZZZZZZ	5		
16:56	ZZZZZZ	5		
17:01	ZZZZZZ	10		
17:05	ZZZZZZ	25		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:09	MP85759-PS1	5		Wrong spiking levels
17:14	ZZZZZZ	1		
17:18	MA36424-CCVA10	1		
17:23	MA36424-CCB10	1		
17:27	ZZZZZZ	2		
17:32	MA36424-CRIB4	1		
17:36	ZZZZZZ	2		
17:41	ZZZZZZ	1		
17:45	ZZZZZZ	1		
17:50	ZZZZZZ	5		
17:54	ZZZZZZ	5		
17:59	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:08	MA36424-CCVA11	1		
18:12	MA36424-CCB11	1		
18:16	ZZZZZZ	1		
18:21	ZZZZZZ	1		
18:25	ZZZZZZ	2		
18:30	ZZZZZZ	10		
18:34	ZZZZZZ	5		
18:39	ZZZZZZ	10		
18:43	ZZZZZZ	1		
18:47	ZZZZZZ	1		
18:52	ZZZZZZ	1		
18:56	MA36424-CRIB5	1		
19:01	MA36424-CCVA12	1		
19:05	MA36424-CCB12	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:30	MA36424-STD1	100	100	100	100	100	100	100	100
09:34	MA36424-STD2	100	100	100	100	100	100	100	100
09:39	MA36424-STD3	100	100	100	100	100	100	100	100
09:43	MA36424-STD4	100	100	100	100	100	100	100	100
09:47	MA36424-STD5	99.608	100.412	100.045	98.797	99.324	98.995	99.56	100.601
09:52	MA36424-STD6	99.23	98.797	97.902	98.991	98.141	98.364	99.923	98.585
09:56	MA36424-STD7	100.194	99.485	98.434	98.511	99.38	99.338	99.542	98.991
10:01	MA36424-STD8	100.242	98.083	97.716	97.485	98.922	99.066	100.008	97.45
10:05	MA36424-STD9	99.227	96.875	95.893	96.749	98.45	97.4	100.075	96.968
10:10	MA36424-STD10	100.272	96.087	96.12	96.815	95.171	94.958	95.849	96.309
10:14	MA36424-STD11	100.767	96.598	97.702	96.772	96.124	95.202	96.505	96.516
10:19	MA36424-STD12	101.155	97.606	96.972	96.817	96.8	96.272	96.847	95.683
10:23	MA36424-STD13	100.653	96.825	95.118	96.49	96.674	95.233	97.174	94.3
10:29	ZZZZZZ	100.274	96.744	96.028	97.088	96.554	96.478	97.93	97.279
10:34	MA36424-ICV1	100.885	97.819	96.584	98.511	96.98	95.756	98.23	97.483
10:39	MA36424-ICVA1	100.579	97.931	97.876	98.047	98.331	98.679	99.205	95.774
10:43	MA36424-ICB1	101.689	97.725	97.639	97.448	96.987	97.201	96.432	97.476
10:48	MA36424-CRIB1	102.014	98.487	98.169	97.849	96.503	96.529	97.375	97.782
10:52	MA36424-CCVA1	102.739	99.301	98.235	98.756	99.064	98.711	98.71	97.273
10:56	MA36424-CCB1	102.702	98.696	97.901	99.502	98.427	98.341	100.425	101.018
11:01	MA36424-ICSA1	94.303	96.497	96.245	100.561	94.665	95.043	100.223	89.173
11:05	MA36424-ICSAB1	88.971	99.09	98.908	103.917	97.618	98.779	102.822	91.685
11:10	ZZZZZZ	90.939	100.17	99.476	104.269	101.584	100.87	105.101	103.179
11:17	MA36424-CCVA2	92.669	101.37	99.436	104.563	101.733	101.778	104.99	101.816
11:21	MA36424-CCB2	91.893	101.39	101.088	105.848	101.47	101.075	106.903	103.859
11:32	MA36424-CRIB2	90.467	102.259	103.701	107.537	102.512	103.911	105.985	105.546
11:36	MP85639-B1	104.364	110.787	108.986	110.064	112.388	110.391	110.501	111.456
11:41	MP85639-MB1	82.752	96.353	97.333	104.267	102.536	102.573	108.271	99.575
11:45	MP85639-S1	103.769	109.804	107.312	110.247	112.241	109.442	111.061	109.963
11:50	MP85639-S2	104.123	108.625	106.539	109.931	109.76	108.792	111.443	108.61
11:54	ZZZZZZ	91.156	99.897	100.077	105.418	99.394	99.853	104.66	101.906
11:59	JB91480-4	80.617	95.282	96.179	105.86	101.022	103.204	110.979	94.524
12:03	MP85639-SD1	99.664	109.845	108.456	112.339	111.319	111.711	115.468	110.034

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:08	ZZZZZZ	92.7	103.987	104.266	109.246	103.574	104.246	108.739	105.614
12:13	MA36424-CCVA3	92.422	104.326	104.754	110.563	104.704	105.411	109.818	104.494
12:17	MA36424-CCB3	94.386	105.671	104.234	109.939	105.566	104.147	111.544	107.75
12:22	ZZZZZZ	83.842	97.869	98.426	105.977	104.375	105.138	112.262	100.884
12:26	MP85639-PS1	82.973	97.131	97.522	105.427	101.865	101.909	110.325	96.612
12:31	FA23309-1	75.209	96.125	100.338	106.958	97.678	100.787	106.681	87.713
12:35	FA23309-1F	73.915	100.354	106.932	119.168	99.677	105.06	115.014	89.194
12:40	FA23309-1	No results reported for the elements associated with this internal standard.							
12:44	FA23309-1F	101.914	114.138	119.648	125.417	113.995	119.607	124.224	109.313
12:49	ZZZZZZ	90.936	106.33	108.369	116.469	103.955	108.303	115.145	106.2
12:53	ZZZZZZ	89.908	106.771	107.341	113.137	105.062	105.27	110.817	107.3
12:57	MA36424-CCVA4	88.441	103.264	102.703	112.242	101.547	102.437	109.035	102.619
13:02	MA36424-CCB4	89.728	102.867	104.129	113.565	101.475	103.867	111.757	105.858
13:06	ZZZZZZ	90.247	105.645	106.158	112.97	108.661	108.866	113.652	107.615
13:11	ZZZZZZ	105.027	116.156	115.575	121.413	115.625	114.892	120.526	114.833
13:15	ZZZZZZ	103.964	114.126	111.615	117.291	113.197	111.309	116.824	113.694
13:20	ZZZZZZ	102.491	112.49	112.064	116.492	110.833	111.539	116.253	111.354
13:24	ZZZZZZ	89.563	103.443	105.144	113.825	101.237	104.216	110.969	105.304
13:28	FA23309-1	105.492	117.013	118.484	125.089	116.828	117.443	125.152	113.085
13:33	ZZZZZZ	92.262	107.153	107.931	116.881	106.741	107.841	114.515	106.73
13:37	ZZZZZZ	93.893	105.742	106.051	113.427	104.45	105.108	110.832	107.488
13:42	MA36424-CCVA5	95.428	107.949	106.972	113.972	106.056	106.672	112.529	107.255
13:47	MA36424-CCB5	96.174	106.018	105.824	114.17	103.298	104.245	110.907	107.085
13:52	ZZZZZZ	98.708	110.018	107.774	113.812	107.946	107.469	112.165	109.083
13:56	ZZZZZZ	97.446	108.934	106.321	114.62	105.319	105.28	111.334	110.166
14:01	ZZZZZZ	90.493	106.256	105.353	115.183	107.225	107.374	115.516	106.033
14:05	ZZZZZZ	94.924	109.005	107.1	114.893	108.648	108.465	114.559	108.61
14:09	ZZZZZZ	100.478	114.797	114.961	120.285	110.425	110.884	117.036	111.9
14:14	ZZZZZZ	102.045	111.966	111.15	116.578	108.937	108.668	115.197	113.201
14:18	MA36424-CCVA6	102.915	112.639	111.676	117.535	109.863	111.728	115.361	112.036
14:24	MA36424-CCB6	102.381	112.847	112.02	117.504	109.534	110.89	115.753	113.222
14:28	MP85759-MB1	No results reported for the elements associated with this internal standard.							
14:33	MP85759-B1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:37	MP85759-S1	No results reported for the elements associated with this internal standard.							
14:41	MP85759-S2	No results reported for the elements associated with this internal standard.							
14:46	ZZZZZZ	104.827	112.408	110.456	116.019	107.531	108.236	112.924	112.864
14:50	FA23434-2	No results reported for the elements associated with this internal standard.							
14:55	MP85759-SD1	No results reported for the elements associated with this internal standard.							
14:59	ZZZZZZ	104.949	113.292	109.094	112.903	110.691	109.836	113.171	111.251
15:04	ZZZZZZ	108.956	111.794	110.408	114.36	107.923	107.859	111.349	113.12
15:08	MA36424-CCVA7	107.953	112.494	111.608	115.819	108.499	109.381	112.307	110.702
15:13	MA36424-CCB7	110.214	112.785	111.543	115.107	109.147	109.261	114.031	112.524
15:17	MP85759-PS1	No results reported for the elements associated with this internal standard.							
15:21	ZZZZZZ	111.154	115.752	113.055	116.215	111.456	111.033	114.65	115.581
15:26	ZZZZZZ	110.816	117.382	114.654	117.725	112.71	111.372	115.502	117.359
15:30	ZZZZZZ	109.963	115.767	113.269	115.919	110.56	109.043	112.816	115.415
15:35	ZZZZZZ	111.972	116.592	112.509	117.76	111.69	111.165	115.556	115.944
15:39	MA36424-CRIB3	110.119	114.839	112.219	114.745	108.994	107.498	111.526	114.877
15:44	MA36424-CCVA8	113.448	115.464	113.236	115.919	111.306	109.995	115.518	113.159
15:49	MA36424-CCB8	113.626	116.203	113.214	115.79	110.325	110.849	113.712	115.566
15:59	MP85759-MB1	113.784	116.47	113.39	116.42	115.081	114.863	117.831	116.411
16:03	MP85759-B1	127.05	123.866	120.1	119.518	119.446	119.08	120.055	120.124
16:07	MP85759-S1	126.358	121.052	116.092	117.996	117.376	115.304	117.881	119.167
16:12	MP85759-S2	126.278	121.38	117.533	116.145	117.381	115.727	117.552	118.273
16:16	ZZZZZZ	114.327	113.587	111.43	114.623	109.389	108.915	112.262	113.617
16:21	FA23434-2	114.506	116.835	113.131	115.863	113.635	110.963	114.799	114.359
16:25	MP85759-SD1	132.734	!a125.671	122.018	119.388	119.974	120.678	118.371	123.397
16:30	ZZZZZZ	116.385	117.034	113.113	117.488	112.412	111.066	114.248	117.098
16:34	MA36424-CCVA9	116.59	116.483	113.018	114.675	110.778	110.15	112.405	113.164
16:38	MA36424-CCB9	115.28	113.938	112.048	115.101	108.676	108.049	113.229	113.237
16:43	ZZZZZZ	112.269	114.537	110.853	113.506	112.559	111.416	114.963	112.017
16:47	ZZZZZZ	112.934	114.931	109.687	114.83	113.287	111.772	116.407	112.147
16:52	ZZZZZZ	118.401	118.488	114.522	118.867	113.04	110.424	115.308	113.504
16:56	ZZZZZZ	115.32	115.386	112.449	114.018	112.351	111.597	111.88	113.336
17:01	ZZZZZZ	123.287	119.552	114.444	118.505	114.506	112.968	118.052	117.88
17:05	ZZZZZZ	132.794	! 123.829	118.465	118.719	119.389	116.387	118.322	122.244

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:09	MP85759-PS1	No results reported for the elements associated with this internal standard.							
17:14	ZZZZZZ	118.78	117.896	113.245	116.106	111.426	109.571	113.386	116.05
17:18	MA36424-CCVA10	118.573	116.923	111.525	114.559	111.794	109.525	112.882	114.707
17:23	MA36424-CCB10	118.549	116.897	113.693	115.735	110.49	110.271	112.865	116.079
17:27	ZZZZZZ	115.976	116.86	112.392	115.897	110.052	108.556	112.11	115.951
17:32	MA36424-CRIB4	118.115	117.701	112.766	114.537	110.78	108.097	110.68	116.971
17:36	ZZZZZZ	120.716	119.566	114.989	117.235	114.06	112.774	116.535	118.213
17:41	ZZZZZZ	110.913	112.898	110.915	114.174	109.323	108.601	112.567	112.333
17:45	ZZZZZZ	115.884	115.573	113.144	113.477	109.964	109.322	111.905	114.571
17:50	ZZZZZZ	137.782 !	125.827	123.914	126.117	122.643	120.446	125.351	124.463
17:54	ZZZZZZ	148.906 !	131.491 !	127.731	127.95	127.418	123.549	126.308	128.974
17:59	ZZZZZZ	130.605 !	122.153	116.86	114.918	114.022	112.911	111.789	121.06
18:03	ZZZZZZ	123.205	119.613	115.333	120.218	112.393	111.707	116.996	115.353
18:08	MA36424-CCVA11	129.599	120.839	113.064	118.094	113.867	109.972	116.388	117.387
18:12	MA36424-CCB11	124.611	117.37	112.009	115.732	110.85	108.333	112.971	117.444
18:16	ZZZZZZ	328.938 !	254.062 !	214.75 !	179.898 !	227.118 !	196.563 !	171.589 !	244.544 !
18:21	ZZZZZZ	275.68 !	210.247 !	224.188 !	270.568 !	184.602 !	208.636 !	250.173 !	202.8 !
18:25	ZZZZZZ	126.972	119.848	116.408	117.073	115.269	113.98	116.306	117.781
18:30	ZZZZZZ	123.246	116.96	112.748	113.924	112.36	110.619	113.97	113.165
18:34	ZZZZZZ	132.387 !	120.815	117.257	115.648	116.411	116.621	116.468	119.86
18:39	ZZZZZZ	122.125	115.008	113.109	113.296	112.263	110.18	113.854	112.353
18:43	ZZZZZZ	119.114	111.637	107.913	109.712	110.167	108.415	110.883	109.759
18:47	ZZZZZZ	115.097	110.308	107.671	110.972	105.721	105.848	110.431	109.598
18:52	ZZZZZZ	115.836	111.811	108.325	112.121	106.185	106.553	110.399	111.665
18:56	MA36424-CRIB5	114.588	110.583	109.375	111.879	105.365	105.753	108.874	110.715
19:01	MA36424-CCVA12	117.485	114.026	111.38	112.987	108.77	108.198	111.984	111.216
19:05	MA36424-CCB12	115.688	112.031	109.115	110.959	106.582	107.547	109.224	112.395

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium (45-1)	70-130 %	70-130 %
Istd#3	Scandium (45-2)	70-130 %	70-130 %
Istd#4	Scandium (45-3)	70-130 %	70-130 %
Istd#5	Germanium (74-1)	70-130 %	70-130 %
Istd#6	Germanium (74-2)	70-130 %	70-130 %
Istd#7	Germanium (74-3)	70-130 %	70-130 %
Istd#8	Rhodium (103-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:30	MA36424-STD1	100	100	100	100	100	100	100	100
09:34	MA36424-STD2	100	100	100	100	100	100	100	100
09:39	MA36424-STD3	100	100	100	100	100	100	100	100
09:43	MA36424-STD4	100	100	100	100	100	100	100	100
09:47	MA36424-STD5	99.802	99.416	100.041	99.807	100.547	99.908	99.71	101.594
09:52	MA36424-STD6	98.78	99.307	98.157	98.313	99.05	98.899	100.119	99.813
09:56	MA36424-STD7	98.627	98.593	99.104	98.109	100.622	99.228	99.022	101.262
10:01	MA36424-STD8	97.932	98.182	98.153	97.765	99.837	98.916	99.805	99.836
10:05	MA36424-STD9	97.186	97.75	98.141	97.082	98.928	98.546	99.586	100.121
10:10	MA36424-STD10	96.599	97.474	97.612	97.311	99.821	98.473	99.259	100.212
10:14	MA36424-STD11	96.771	97.145	97.886	96.945	99.665	98.498	99.51	99.956
10:19	MA36424-STD12	95.794	95.984	97.354	96.081	99.781	99.157	99.373	100.618
10:23	MA36424-STD13	94.149	94.539	95.625	95.209	99.276	97.949	98.14	100.254
10:29	ZZZZZZ	97.739	98.209	97.593	97.255	99.56	98.297	99.258	100.077
10:34	MA36424-ICV1	97.28	99.417	97.492	97.398	99.578	98.406	99.1	99.547
10:39	MA36424-ICVA1	95.909	95.989	97.445	97.044	100.18	98.815	98.905	100.404
10:43	MA36424-ICB1	97.891	97.999	98.21	97.33	99.477	97.869	98.409	99.44
10:48	MA36424-CRIB1	97.826	98.453	98.679	97.916	99.377	97.928	98.736	99.595
10:52	MA36424-CCVA1	96.886	97.062	98.227	97.615	100.712	99.335	99.547	101.681
10:56	MA36424-CCB1	100.423	100.917	100.283	97.307	102.854	99.815	103.26	104.02
11:01	MA36424-ICSA1	87.749	91.141	93.764	91.815	99.657	95.889	101.369	101.434
11:05	MA36424-ICSAB1	90.264	93.004	96.858	94.207	102.16	97.451	102.463	104.024
11:10	ZZZZZZ	102.812	104.453	103.058	99.583	104.602	101.116	106.377	106.393
11:17	MA36424-CCVA2	100.846	102.631	103.739	99.181	106.373	101.742	106.11	108.304
11:21	MA36424-CCB2	103.393	105.295	104.423	100.55	106.774	103.236	107.43	108.108
11:32	MA36424-CRIB2	104.795	106.869	105.688	101.113	107.83	102.749	107.432	109.203
11:36	MP85639-B1	108.766	108.175	111.835	106.456	113.189	107.872	109.92	114.377
11:41	MP85639-MB1	99.529	103.176	100.241	95.957	103.263	99.128	105.365	104.171
11:45	MP85639-S1	108.312	108.909	112.016	106.01	113.04	108.495	111.244	114.444
11:50	MP85639-S2	106.876	108.296	109.744	105.076	111.369	107.522	110.943	112.741
11:54	ZZZZZZ	102.086	104.981	102.581	98.622	105.859	101.369	106.298	107.299
11:59	JB91480-4	97.351	101.281	98.365	95.37	102.023	99.233	107.357	103.241
12:03	MP85639-SD1	108.727	110.391	112.369	106.833	114.309	108.866	113.254	114.885

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:08	ZZZZZZ	105.236	107.729	106.461	101.574	109.662	104.552	109.529	111.489
12:13	MA36424-CCVA3	104.691	106.907	106.626	101.492	110.222	104.723	110.636	111.934
12:17	MA36424-CCB3	107.267	109.898	108.361	103.09	110.766	106.155	110.778	112.428
12:22	ZZZZZZ	101.147	105.357	102.266	96.973	105.495	100.421	107.897	107.059
12:26	MP85639-PS1	96.986	101.534	100.169	95.387	105.584	100.069	108.074	107.213
12:31	FA23309-1	86.574	89.797	92.549	89.91	97.083	91.205	95.987	98.846
12:35	FA23309-1F	89.873	97.397	94.687	93.022	98.574	93.372	103.574	99.346
12:40	FA23309-1	No results reported for the elements associated with this internal standard.							
12:44	FA23309-1F	111.012	114.485	112.777	111.604	113.465	112.523	117.257	114.976
12:49	ZZZZZZ	108.198	112.063	108.368	104.914	109.598	105.795	112.913	110.562
12:53	ZZZZZZ	107.058	109.518	108.843	104.118	111.395	105.196	111.737	112.887
12:57	MA36424-CCVA4	102.037	107.146	106.049	99.011	109.441	103.304	111.801	111.362
13:02	MA36424-CCB4	105.541	109.655	107.759	101.909	112.207	105.106	111.532	113.247
13:06	ZZZZZZ	106.983	109.741	109.732	103.611	112.846	106.549	112.127	113.805
13:11	ZZZZZZ	112.847	117.032	117.573	110.922	119.577	114.549	118.655	120.062
13:15	ZZZZZZ	109.153	112.623	115.753	106.531	119.127	111.87	115.381	120.523
13:20	ZZZZZZ	109.987	112.924	114.211	107.335	117.691	112.58	116.392	119.684
13:24	ZZZZZZ	105.961	111.392	107.831	102.857	110.295	107.638	113.295	111.433
13:28	FA23309-1	112.063	115.406	117.046	112.182	119.425	115.905	119.497	121.475
13:33	ZZZZZZ	106.276	110.373	110.053	103.646	113.761	108.748	114.134	114.881
13:37	ZZZZZZ	107.605	110.797	109.568	104.388	112.394	108.609	112.939	114.329
13:42	MA36424-CCVA5	106.467	109.712	110.169	103.816	114.497	110.189	113.653	115.952
13:47	MA36424-CCB5	106.435	111.094	109.033	102.364	111.821	107.445	112.508	114.108
13:52	ZZZZZZ	107.058	109.575	111.729	104.311	115.336	108.813	113.982	117.018
13:56	ZZZZZZ	108.189	111.048	111.57	104.408	114.769	109.812	113.177	116.935
14:01	ZZZZZZ	105.527	109.367	109.357	102.704	112.675	108.447	114.42	113.689
14:05	ZZZZZZ	106.896	110.549	111.582	104.134	116.099	109.988	113.507	117.677
14:09	ZZZZZZ	110.474	112.58	113.294	107.313	117.029	113.61	115.617	118.934
14:14	ZZZZZZ	111.24	114.566	114.375	108.112	116.181	112.225	114.155	116.759
14:18	MA36424-CCVA6	109.359	112.902	113.213	107.35	117.155	113.902	115.979	119.205
14:24	MA36424-CCB6	112.655	114.887	114.464	108.953	116.225	114.514	115.875	117.135
14:28	MP85759-MB1	No results reported for the elements associated with this internal standard.							
14:33	MP85759-B1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:37	MP85759-S1	No results reported for the elements associated with this internal standard.							
14:41	MP85759-S2	No results reported for the elements associated with this internal standard.							
14:46	ZZZZZZ	110.591	113.911	113.109	107.096	115.027	113.026	114.29	116.523
14:50	FA23434-2	No results reported for the elements associated with this internal standard.							
14:55	MP85759-SD1	No results reported for the elements associated with this internal standard.							
14:59	ZZZZZZ	108.34	109.382	112.198	105.152	115.917	111.899	112.05	117.003
15:04	ZZZZZZ	110.23	112.407	114.164	107.441	117.06	113.006	113.688	118.101
15:08	MA36424-CCVA7	108.446	110.856	111.997	106.41	116.151	113.743	114.659	117.225
15:13	MA36424-CCB7	110.533	112.6	113.185	107.312	115.376	113.563	113.329	117.549
15:17	MP85759-PS1	No results reported for the elements associated with this internal standard.							
15:21	ZZZZZZ	113.202	114.402	115.842	109.191	117.782	115.273	114.624	118.711
15:26	ZZZZZZ	114.009	115.711	116.682	110.409	118.709	115.57	115.812	120.61
15:30	ZZZZZZ	111.851	114.194	115.968	109.493	117.006	114.686	114.176	118.437
15:35	ZZZZZZ	113.103	115.331	116.578	109.262	118.769	115.248	115.543	120.337
15:39	MA36424-CRIB3	111.867	112.656	115.228	108.156	116.828	114.17	113.958	117.415
15:44	MA36424-CCVA8	110.505	112.819	113.804	108.883	117.856	116.671	116.447	118.753
15:49	MA36424-CCB8	113.144	115.335	115.867	110.033	118.727	116.715	116.124	119.71
15:59	MP85759-MB1	113.016	114.51	116.848	109.5	118.385	115.235	115.079	119.344
16:03	MP85759-B1	116.21	116.413	121.79	114.95	123.013	119.692	118.138	124.289
16:07	MP85759-S1	113.564	114.844	119.397	111.799	121.873	117.576	116.772	123.398
16:12	MP85759-S2	113.409	113.975	119.509	111.532	121.95	118.281	116.32	123.039
16:16	ZZZZZZ	110.807	113.208	113.757	107.68	116.054	113.652	113.993	117.358
16:21	FA23434-2	110.302	111.033	116.131	108.363	118.608	114.554	114.203	119.966
16:25	MP85759-SD1	118.729	116.929	123.763	117.698	124.152	121.452	117.506	125.675
16:30	ZZZZZZ	111.884	114.886	116.153	108.911	118.331	114.371	115.137	119.344
16:34	MA36424-CCVA9	109.112	110.062	114.589	107.611	118.556	115.57	113.652	119.749
16:38	MA36424-CCB9	110.936	112.863	113.753	107.29	115.49	113.858	113.895	116.62
16:43	ZZZZZZ	108.379	109.439	113.696	106.569	117.321	113.55	112.574	118.831
16:47	ZZZZZZ	108.308	110.254	114.404	105.692	117.105	114.013	113.123	119.008
16:52	ZZZZZZ	109.34	111.294	115.162	107.185	118.58	115.04	114.445	119.965
16:56	ZZZZZZ	109.863	110.364	114.338	107.034	117.786	114.729	113.771	119.009
17:01	ZZZZZZ	112.848	115.882	118.658	110.447	121.514	117.623	117.385	123.036
17:05	ZZZZZZ	115.699	116.939	122.403	113.503	124.092	119.299	117.058	124.659

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:09	MP85759-PS1	No results reported for the elements associated with this internal standard.							
17:14	ZZZZZZ	111.48	114.189	116.147	109.218	117.623	115.64	114.31	118.816
17:18	MA36424-CCVA10	108.841	110.574	115.589	107.369	118.644	113.639	113.597	120.064
17:23	MA36424-CCB10	111.115	114.263	115.787	108.761	118.818	115.162	114.688	120.047
17:27	ZZZZZZ	111.49	114.213	115.4	109.036	116.84	114.685	114.374	118.208
17:32	MA36424-CRIB4	111.29	112.539	116.381	108.579	117.59	115.062	112.914	119.228
17:36	ZZZZZZ	113.617	115.275	117.139	111.04	118.643	116.822	115.299	120.11
17:41	ZZZZZZ	109.21	111.942	112.554	105.929	114.154	111.99	112.564	116.116
17:45	ZZZZZZ	111.226	112.036	114.685	106.882	115.938	113.615	112.551	117.353
17:50	ZZZZZZ	119.154	122.719	124.232	118.146	123.982	121.52	124.508	125.278
17:54	ZZZZZZ	123.352	124.712	129.854	120.469	129.322	125.138	125.901	130.213 !
17:59	ZZZZZZ	116.615	112.249	119.479	111.369	122.758	118.215	112.858	123.791
18:03	ZZZZZZ	111.108	115.517	116.314	109.23	119.8	116.848	121.463	121.328
18:08	MA36424-CCVA11	108.997	114.213	119.001	108.387	123.23	115.559	119.857	125.318
18:12	MA36424-CCB11	110.784	113.397	116.613	107.068	119.985	115.875	116.493	121.522
18:16	ZZZZZZ	222.844 !	180.658 !	247.737 !	211.69 !	257.8 !	225.887 !	191.235 !	264.229 !
18:21	ZZZZZZ	234.82 !	273.708 !	206.469 !	226.904 !	216.258 !	239.338 !	288.499 !	219.522 !
18:25	ZZZZZZ	113.196	114.159	118.155	110.755	118.699	116.942	114.358	120.246
18:30	ZZZZZZ	108.463	110.826	113.837	106.24	116.087	113.263	112.587	117.692
18:34	ZZZZZZ	114.27	113.702	118.628	112.616	119.14	118.548	114.424	121.072
18:39	ZZZZZZ	108.331	109.894	112.573	106.305	115.683	113.059	112.254	117.412
18:43	ZZZZZZ	104.676	106.593	110.405	103.656	113.063	110.395	108.682	114.311
18:47	ZZZZZZ	106.921	109.304	110.489	104.393	112.347	110.877	110.88	113.933
18:52	ZZZZZZ	108.066	110.77	110.865	104.193	113.579	111.464	111.822	114.824
18:56	MA36424-CRIB5	107.753	110.25	110.108	105.175	112.36	111.712	111.967	113.512
19:01	MA36424-CCVA12	107.25	109.816	111.983	105.137	115.621	112.474	112.535	116.57
19:05	MA36424-CCB12	108.665	109.961	111.511	105.366	114.11	112.552	110.48	115.04

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#9	Rhodium (103-2)	70-130 %	70-130 %
Istd#10	Rhodium (103-3)	70-130 %	70-130 %
Istd#11	Indium (115-1)	70-130 %	70-130 %
Istd#12	Indium (115-2)	70-130 %	70-130 %
Istd#13	Terbium (159-1)	70-130 %	70-130 %
Istd#14	Terbium (159-2)	70-130 %	70-130 %
Istd#15	Terbium (159-3)	70-130 %	70-130 %
Istd#16	Holmium (165-1)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#17	Istd#18	Istd#19
09:30	MA36424-STD1	100	100	100
09:34	MA36424-STD2	100	100	100
09:39	MA36424-STD3	100	100	100
09:43	MA36424-STD4	100	100	100
09:47	MA36424-STD5	99.772	101.538	100.659
09:52	MA36424-STD6	99.004	100.111	99.521
09:56	MA36424-STD7	99.152	101.436	99.857
10:01	MA36424-STD8	99.588	101.484	100.579
10:05	MA36424-STD9	98.79	101.412	101.017
10:10	MA36424-STD10	98.724	100.92	99.614
10:14	MA36424-STD11	98.948	100.13	99.392
10:19	MA36424-STD12	99.192	100.06	98.854
10:23	MA36424-STD13	98.413	97.678	95.979
10:29	ZZZZZZ	98.778	100.946	100.066
10:34	MA36424-ICV1	98.602	100.389	99.57
10:39	MA36424-ICVA1	99.038	99.667	98.284
10:43	MA36424-ICB1	98.358	100.863	99.078
10:48	MA36424-CRIB1	98.66	100.545	100.011
10:52	MA36424-CCVA1	99.95	100.221	98.856
10:56	MA36424-CCB1	100.895	104.074	101.741
11:01	MA36424-ICSA1	98.071	93.624	89.453
11:05	MA36424-ICSAB1	99.863	94.482	90.567
11:10	ZZZZZZ	103.491	105.74	102.291
11:17	MA36424-CCVA2	103.815	106.435	101.547
11:21	MA36424-CCB2	105.033	107.943	103.387
11:32	MA36424-CRIB2	104.888	107.848	104.04
11:36	MP85639-B1	109.32	114.966	108.151
11:41	MP85639-MB1	100.376	106.252	100.999
11:45	MP85639-S1	109.348	113.669	108.465
11:50	MP85639-S2	109.057	112.329	108.491
11:54	ZZZZZZ	103.544	107.252	102.626
11:59	JB91480-4	101.01	102.473	99.193
12:03	MP85639-SD1	110.325	114.294	108.722

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#17	Istd#18	Istd#19
12:08	ZZZZZZ	106.374	110.562	105.278
12:13	MA36424-CCVA3	107.6	108.844	104.28
12:17	MA36424-CCB3	107.645	111.539	106.135
12:22	ZZZZZZ	102.926	108.059	102.378
12:26	MP85639-PS1	102.531	103.691	98.759
12:31	FA23309-1	93.716	87.178	81.474
12:35	FA23309-1F	96.204	87.682	83.272
12:40	FA23309-1	No results reported for the elements associated with this internal standard.		
12:44	FA23309-1F	113.307	109.31	107.396
12:49	ZZZZZZ	108.268	108.922	104.826
12:53	ZZZZZZ	107.974	110.692	105.266
12:57	MA36424-CCVA4	106.08	108.434	102.333
13:02	MA36424-CCB4	107.513	111.967	105.037
13:06	ZZZZZZ	108.738	113.632	107.961
13:11	ZZZZZZ	115.329	119.436	111.777
13:15	ZZZZZZ	113.269	119.067	110.29
13:20	ZZZZZZ	113.28	117.77	110.695
13:24	ZZZZZZ	109.363	111.233	106.082
13:28	FA23309-1	116.354	116.634	109.371
13:33	ZZZZZZ	109.846	113.669	107.042
13:37	ZZZZZZ	109.679	113.047	106.528
13:42	MA36424-CCVA5	111.201	112.854	105.546
13:47	MA36424-CCB5	108.772	112.856	106.107
13:52	ZZZZZZ	111.383	114.116	106.116
13:56	ZZZZZZ	110.482	115.275	107.522
14:01	ZZZZZZ	109.812	113.899	107.224
14:05	ZZZZZZ	111.215	118.178	108.701
14:09	ZZZZZZ	114.371	117.403	109.845
14:14	ZZZZZZ	112.709	115.269	108.677
14:18	MA36424-CCVA6	114.461	116.009	109.282
14:24	MA36424-CCB6	114.668	116.213	111.554
14:28	MP85759-MB1	No results reported for the elements associated with this internal standard.		
14:33	MP85759-B1	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#17	Istd#18	Istd#19
14:37	MP85759-S1	No results reported for the elements associated with this internal standard.		
14:41	MP85759-S2	No results reported for the elements associated with this internal standard.		
14:46	ZZZZZZ	113.06	115.312	109.524
14:50	FA23434-2	No results reported for the elements associated with this internal standard.		
14:55	MP85759-SD1	No results reported for the elements associated with this internal standard.		
14:59	ZZZZZZ	113.015	118.752	111.416
15:04	ZZZZZZ	113.839	117.359	110.56
15:08	MA36424-CCVA7	114.766	114.67	108.811
15:13	MA36424-CCB7	114.224	117.402	111.011
15:17	MP85759-PS1	No results reported for the elements associated with this internal standard.		
15:21	ZZZZZZ	115.815	117.044	112.12
15:26	ZZZZZZ	116.08	118.845	112.652
15:30	ZZZZZZ	115.078	117.525	111.497
15:35	ZZZZZZ	115.777	118.629	111.938
15:39	MA36424-CRIB3	114.475	117.035	110.697
15:44	MA36424-CCVA8	117.01	116.455	111.093
15:49	MA36424-CCB8	116.799	118.669	113.076
15:59	MP85759-MB1	116.336	121.573	114.097
16:03	MP85759-B1	120.342	123.709	116.331
16:07	MP85759-S1	118.495	122.844	114.096
16:12	MP85759-S2	118.955	121.1	115.059
16:16	ZZZZZZ	114.334	117.61	109.975
16:21	FA23434-2	115.082	120.338	111.83
16:25	MP85759-SD1	122.076	126.877	119.08
16:30	ZZZZZZ	114.809	118.113	110.621
16:34	MA36424-CCVA9	115.954	116.591	109.846
16:38	MA36424-CCB9	114.634	116.556	110.003
16:43	ZZZZZZ	113.562	118.235	110.461
16:47	ZZZZZZ	113.98	118.337	111.035
16:52	ZZZZZZ	115.735	119.06	110.864
16:56	ZZZZZZ	115.487	119.603	111.591
17:01	ZZZZZZ	117.801	122.249	114.765
17:05	ZZZZZZ	119.658	124.626	116.413

INTERNAL STANDARD SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
Analyst: GT Run ID: MA36424
Parameters: Ca,Se

Time	Sample Description	Istd#17	Istd#18	Istd#19
17:09	MP85759-PS1	No results reported for the elements associated with this internal standard.		
17:14	ZZZZZZ	115.216	117.813	109.8
17:18	MA36424-CCVA10	114.701	116.704	108.159
17:23	MA36424-CCB10	114.943	118.47	110.627
17:27	ZZZZZZ	115.029	117.7	110.218
17:32	MA36424-CRIB4	114.844	118.147	110.065
17:36	ZZZZZZ	116.519	117.391	111.601
17:41	ZZZZZZ	112.5	114.445	107.968
17:45	ZZZZZZ	114.278	116.984	109.251
17:50	ZZZZZZ	122.091	110.494	115.156
17:54	ZZZZZZ	125.499	112.593	116.587
17:59	ZZZZZZ	118.588	123.944	114.062
18:03	ZZZZZZ	117.163	117.983	110.381
18:08	MA36424-CCVA11	116.388	122.104	109.638
18:12	MA36424-CCB11	115.748	121.013	111.312
18:16	ZZZZZZ	228.864 !	260.95 !	229.343 !
18:21	ZZZZZZ	243.071 !	219.693 !	240.6 !
18:25	ZZZZZZ	116.914	118.719	112.259
18:30	ZZZZZZ	113.777	116.299	108.791
18:34	ZZZZZZ	118.507	120.076	113.943
18:39	ZZZZZZ	113.529	115.887	108.69
18:43	ZZZZZZ	110.75	112.738	106.56
18:47	ZZZZZZ	111	114.079	107.311
18:52	ZZZZZZ	111.836	114.869	107.515
18:56	MA36424-CRIB5	112.356	113.507	108.256
19:01	MA36424-CCVA12	113.054	114.606	106.345
19:05	MA36424-CCB12	113.396	114.86	108.755

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Holmium (165-2)	70-130 %	70-130 %
Istd#18	Bismuth (209-1)	70-130 %	70-130 %
Istd#19	Bismuth (209-2)	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36424 Units: ug/l

Time:				10:43		10:56		11:21	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	2.0	.048	1.0						
Arsenic	1.5	.042	1.0						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25						
Boron	25	.87	20						
Cadmium	3.0	.014	2.0						
Calcium	250	6.1	50	-3.9	<250	-2.3	<250	-2.9	<250
Chromium	4.0	.019	3.0						
Cobalt	0.50	.0044	0.25						
Copper	5.0	.036	4.0						
Iron	25	.73	13						
Lead	1.5	.0071	1.0						
Magnesium	250	.62	130						
Manganese	2.0	.016	1.0						
Molybdenum	1.0	.052	0.50						
Nickel	4.0	.02	2.0						
Potassium	250	3.2	50						
Selenium	1.0	.024	0.50	0.00043	<1.0	0.0086	<1.0	0.018	<1.0
Silver	1.0	.0073	0.50						
Sodium	250	2.6	50						
Strontium	10	.0094	5.0						
Thallium	1.0	.019	0.50						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.5	.14	1.0						
Zinc	10	.075	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36424 Units: ug/l

Time:				12:17		13:02		13:47	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	2.0	.048	1.0						
Arsenic	1.5	.042	1.0						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25						
Boron	25	.87	20						
Cadmium	3.0	.014	2.0						
Calcium	250	6.1	50	-5.5	<250	-5.4	<250	-6.8	<250
Chromium	4.0	.019	3.0						
Cobalt	0.50	.0044	0.25						
Copper	5.0	.036	4.0						
Iron	25	.73	13						
Lead	1.5	.0071	1.0						
Magnesium	250	.62	130						
Manganese	2.0	.016	1.0						
Molybdenum	1.0	.052	0.50						
Nickel	4.0	.02	2.0						
Potassium	250	3.2	50						
Selenium	1.0	.024	0.50	0.0090	<1.0	0.010	<1.0	0.0070	<1.0
Silver	1.0	.0073	0.50						
Sodium	250	2.6	50						
Strontium	10	.0094	5.0						
Thallium	1.0	.019	0.50						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.5	.14	1.0						
Zinc	10	.075	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: result < LOD Run ID: MA36424 Units: ug/l

Time:				14:24		15:13		15:49	
Sample ID:				CCB6		CCB7		CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.55	20						
Antimony	2.0	.048	1.0						
Arsenic	1.5	.042	1.0						
Barium	1.0	.0063	0.50						
Beryllium	0.50	.0053	0.25						
Boron	25	.87	20						
Cadmium	3.0	.014	2.0						
Calcium	250	6.1	50	-8.4	<250	-9.0	<250	-9.4	<250
Chromium	4.0	.019	3.0						
Cobalt	0.50	.0044	0.25						
Copper	5.0	.036	4.0						
Iron	25	.73	13						
Lead	1.5	.0071	1.0						
Magnesium	250	.62	130						
Manganese	2.0	.016	1.0						
Molybdenum	1.0	.052	0.50						
Nickel	4.0	.02	2.0						
Potassium	250	3.2	50						
Selenium	1.0	.024	0.50	0.00057	<1.0	-0.0019	<1.0	-0.00078	<1.0
Silver	1.0	.0073	0.50						
Sodium	250	2.6	50						
Strontium	10	.0094	5.0						
Thallium	1.0	.019	0.50						
Tin	5.0	.046	2.5						
Titanium	1.0	.052	0.50						
Vanadium	1.5	.14	1.0						
Zinc	10	.075	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36424 Units: ug/l

Time:		10:34			10:39			10:52	
Sample ID:	ICV	ICV1		ICVA	ICVA1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium				5500	5620	102.2	5000	4670	93.4
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium				60	60.1	100.2	50	49.1	98.2
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36424 Units: ug/l

Time:		11:17			12:13			12:57	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	5000	5160	103.2	5000	5190	103.8	5000	5170	103.4
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	50	52.1	104.2	50	51.7	103.4	50	52.9	105.8
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36424 Units: ug/l

Time:		13:42			14:18			15:08	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	5000	5190	103.8	5000	4960	99.2	5000	4930	98.6
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	50	52.5	105.0	50	50.8	101.6	50	51.4	102.8
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 90 to 110 % Recovery Run ID: MA36424 Units: ug/l

Time:		15:44	
Sample ID:	CCVA	CCVA8	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	5000	4930	98.6
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	50	50.7	101.4
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36424 Units: ug/l

Time:		10:48		11:32		15:39	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	25						
Antimony	0.50						
Arsenic	0.50						
Barium	1.0						
Beryllium	0.50						
Boron	25						
Cadmium	0.50						
Calcium	250	243	97.2	247	98.8	238	95.2
Chromium	1.0						
Cobalt	0.50						
Copper	2.0						
Iron	25						
Lead	0.50						
Magnesium	250						
Manganese	0.50						
Molybdenum	1.0						
Nickel	1.0						
Potassium	250						
Selenium	0.50	0.51	102.0	0.51	102.0	0.54	108.0
Silver	0.50						
Sodium	250						
Strontium	5.0						
Thallium	0.50						
Tin	5.0						
Titanium	1.0						
Vanadium	1.0						
Zinc	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

File ID: XB041415M1L.CSV Date Analyzed: 04/14/15 Methods: SW846 6020A
QC Limits: 80 to 120 % Recovery Run ID: MA36424 Units: ug/l

Time:			11:01		11:05	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95000	95.0	94500	94.5
Antimony			0.12		0.11	
Arsenic		20	0.071		20.0	100.0
Barium			0.12		0.12	
Beryllium			-0.054		-0.057	
Boron			1.7		1.1	
Cadmium		20	0.52		20.3	101.5
Calcium	100000	100000	93800	93.8	94600	94.6
Chromium		20	1.3		20.9	104.5
Cobalt		20	0.0079		19.4	97.0
Copper		20	0.50		19.1	95.5
Iron	100000	100000	93600	93.6	93100	93.1
Lead			0.22		0.23	
Magnesium	100000	100000	94400	94.4	94600	94.6
Manganese		20	0.45		20.1	100.5
Molybdenum	2000	2000	2050	102.5	2070	103.5
Nickel		20	0.21		18.8	94.0
Potassium	100000	100000	95600	95.6	96300	96.3
Selenium		20	0.021		20.6	103.0
Silver		20	0.023		18.2	91.0
Sodium	100000	100000	95300	95.3	96100	96.1
Strontium			0.68		0.71	
Thallium			0.012		0.014	
Tin			0.097		0.092	
Titanium	2000	2000	1980	99.0	1980	99.0
Vanadium		20	-0.22		21.0	105.0
Zinc		20	1.5		20.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.52	1.7	6.7	<50
Antimony	4.0	.096	.08	0.34	<4.0
Arsenic	3.0	.05	.081	0.069	<3.0
Barium	2.0	.013	.11	0.032	<2.0
Beryllium	1.0	.011	.074	0.0030	<1.0
Boron	50	1.7	1.9		
Cadmium	6.0	.017	.11	0.036	<6.0
Calcium	500	2.9	3.4	23.1	<500
Chromium	8.0	.026	.093	0.16	<8.0
Cobalt	1.0	.0042	.073	0.011	<1.0
Copper	10	.06	.1	0.33	<10
Iron	50	.94	1.2	4.0	<50
Lead	3.0	.008	.023	0.018	<3.0
Magnesium	500	.52	2.1	2.2	<500
Manganese	4.0	.024	.1	0.096	<4.0
Molybdenum	2.0	.05	.072		
Nickel	8.0	.024	.12	0.046	<8.0
Potassium	500	3.7	6	8.5	<500
Selenium	2.0	.047	.12	0.085	<2.0
Silver	2.0	.015	.055	0.0042	<2.0
Sodium	500	2.6	11	14.0	<500
Strontium	20	.013	.057		
Thallium	2.0	.027	.026	0.029	<2.0
Tin	10	.078	.12		
Titanium	2.0	.058	.22		
Vanadium	3.0	.061	.23	0.24	<3.0
Zinc	20	.11	1	4.8	<20

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	JB91480-4 Original	MSD	Spikelot MPSPK	% Rec	MSD RPD	QC Limit
Aluminum	54.2	24800	25000	99.0	2.4	20
Antimony	2.5	2250	2000	112.4	4.1	20
Arsenic	9.8	2210	2000	110.0	3.2	20
Barium	81.9	2190	2000	105.4	4.2	20
Beryllium	0.19	2060	2000	103.0	2.0	20
Boron						
Cadmium	0.25	2100	2000	105.0	1.0	20
Calcium	48100	76600	25000	114.0	2.9	20
Chromium	29.2	2120	2000	104.5	2.4	20
Cobalt	0.56	2090	2000	104.5	3.9	20
Copper	10.2	2110	2000	105.0	4.4	20
Iron	72.1	26500	25000	105.7	3.8	20
Lead	0.44	2120	2000	106.0	3.8	20
Magnesium	9710	35400	25000	102.8	1.7	20
Manganese	9.3	2090	2000	104.0	2.4	20
Molybdenum						
Nickel	4.5	2080	2000	103.8	3.9	20
Potassium	12100	36800	25000	98.8	2.2	20
Selenium	0.90	2160	2000	108.0	0.5	20
Silver	0.0	208	250	83.2	4.4	20
Sodium	19000	44800	25000	103.2	2.0	20
Strontium						
Thallium	0.29	2170	2000	108.5	4.2	20
Tin						
Titanium						
Vanadium	7.7	2130	2000	106.1	3.8	20
Zinc	11.7	2250	2000	111.9	1.8	20

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	JB91480-4 Original	MS	Spikelot MPSPK	% Rec	QC Limits
Aluminum	54.2	24200	25000	96.6	75-125
Antimony	2.5	2160	2000	107.9	75-125
Arsenic	9.8	2140	2000	106.5	75-125
Barium	81.9	2100	2000	100.9	75-125
Beryllium	0.19	2020	2000	101.0	75-125
Boron					
Cadmium	0.25	2080	2000	104.0	75-125
Calcium	48100	74400	25000	105.2	75-125
Chromium	29.2	2070	2000	102.0	75-125
Cobalt	0.56	2010	2000	100.5	75-125
Copper	10.2	2020	2000	100.5	75-125
Iron	72.1	25500	25000	101.7	75-125
Lead	0.44	2040	2000	102.0	75-125
Magnesium	9710	34800	25000	100.4	75-125
Manganese	9.3	2040	2000	101.5	75-125
Molybdenum					
Nickel	4.5	2000	2000	99.8	75-125
Potassium	12100	36000	25000	95.6	75-125
Selenium	0.90	2150	2000	107.5	75-125
Silver	0.0	199	250	79.6	75-125
Sodium	19000	43900	25000	99.6	75-125
Strontium					
Thallium	0.29	2080	2000	104.0	75-125
Tin					
Titanium					
Vanadium	7.7	2050	2000	102.1	75-125
Zinc	11.7	2210	2000	109.9	75-125

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	BSP Result	Spikelot MPSPK	% Rec	QC Limits
Aluminum	24500	25000	98.0	80-120
Antimony	2230	2000	111.5	80-120
Arsenic	2170	2000	108.5	80-120
Barium	2080	2000	104.0	80-120
Beryllium	2050	2000	102.5	80-120
Boron				
Cadmium	2150	2000	107.5	80-120
Calcium	25700	25000	102.8	80-120
Chromium	2100	2000	105.0	80-120
Cobalt	2090	2000	104.5	80-120
Copper	2100	2000	105.0	80-120
Iron	26200	25000	104.8	80-120
Lead	2120	2000	106.0	80-120
Magnesium	25800	25000	103.2	80-120
Manganese	2060	2000	103.0	80-120
Molybdenum				
Nickel	2090	2000	104.5	80-120
Potassium	24900	25000	99.6	80-120
Selenium	2150	2000	107.5	80-120
Silver	212	250	84.8	80-120
Sodium	25100	25000	100.4	80-120
Strontium				
Thallium	2130	2000	106.5	80-120
Tin				
Titanium				
Vanadium	2110	2000	105.5	80-120
Zinc	2240	2000	112.0	80-120

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	JB91480-4 Original	SDL 2:10	%DIF	QC Limits
Aluminum	54.2	57.0	5.2	0-10
Antimony	2.47	0.00	100.0(a)	0-10
Arsenic	9.78	9.78	0.1	0-10
Barium	81.9	81.0	1.0	0-10
Beryllium	0.191	0.00	100.0(a)	0-10
Boron				
Cadmium	0.247	0.00	100.0(a)	0-10
Calcium	48100	48300	0.6	0-10
Chromium	29.2	28.3	3.1	0-10
Cobalt	0.564	0.475	15.8*(b)	0-10
Copper	10.2	10.2	0.2	0-10
Iron	72.1	70.1	2.8	0-10
Lead	0.438	0.396	9.7	0-10
Magnesium	9710	9360	3.6	0-10
Manganese	9.32	9.64	3.4	0-10
Molybdenum				
Nickel	4.54	4.72	4.1	0-10
Potassium	12100	11700	3.2	0-10
Selenium	0.899	0.723	19.6 (a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	19000	18700	1.6	0-10
Strontium				
Thallium	0.287	0.230	19.7 (a)	0-10
Tin				
Titanium				
Vanadium	7.67	6.81	11.3*(b)	0-10
Zinc	11.7	13.6	16.7*(b)	0-10

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FA23309
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: BBAFLFWB: Melrose Air Force Range, NM

QC Batch ID: MP85639
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 04/08/15

Metal	Sample ml	Final ml	JB91480-4 Raw	JB91480-4 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.2	10	54.21513	49.87792	4636.031	0.2	250	5000	91.7	75-125
Antimony	9.2	10	2.47375	2.27585	54.17228	0.2	2.5	50	103.8	75-125
Arsenic	9.2	10	9.780645	8.998194	58.72144	0.2	2.5	50	99.4	75-125
Barium	9.2	10	81.87418	75.32424	117.3167	0.2	2.5	50	84.0	75-125
Beryllium	9.2	10	.1908327	.175566	45.18469	0.2	2.5	50	90.0	75-125
Boron										
Cadmium	9.2	10	.2466136	.2268845	47.96763	0.2	2.5	50	95.5	75-125
Calcium	9.2	10	48066.06	44220.78	48373.25	0.2	250	5000	83.0	75-125
Chromium	9.2	10	29.16684	26.8335	76.35822	0.2	2.5	50	99.0	75-125
Cobalt	9.2	10	.5641622	.5190292	49.57002	0.2	2.5	50	98.1	75-125
Copper	9.2	10	10.18841	9.373335	59.62187	0.2	2.5	50	100.5	75-125
Iron	9.2	10	72.08841	66.32133	5169.116	0.2	250	5000	102.1	75-125
Lead	9.2	10	.4380819	.4030354	48.29905	0.2	2.5	50	95.8	75-125
Magnesium	9.2	10	9714.86	8937.671	13763.33	0.2	250	5000	96.5	75-125
Manganese	9.2	10	9.318883	8.573372	58.54666	0.2	2.5	50	99.9	75-125
Molybdenum										
Nickel	9.2	10	4.535468	4.17263	52.23454	0.2	2.5	50	96.1	75-125
Potassium	9.2	10	12058.18	11093.53	16053.85	0.2	250	5000	99.2	75-125
Selenium	9.2	10	.899286	.8273431	49.32085	0.2	2.5	50	97.0	75-125
Silver	9.2	10			48.38741	0.2	2.5	50	96.8	75-125
Sodium	9.2	10	18990.91	17471.64	21701.99	0.2	250	5000	84.6	75-125
Strontium										
Thallium	9.2	10	.2865042	.2635838	49.77067	0.2	2.5	50	99.0	75-125
Tin										
Titanium										
Vanadium	9.2	10	7.672509	7.058708	58.972	0.2	2.5	50	103.8	75-125
Zinc	9.2	10	11.65282	10.7206	99.7945	0.2	5	100	89.1	75-125

Associated samples MP85639: FA23309-1, FA23309-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 12/16/2015

GCAL Report 215111414

Project Melrose

Deliver To	***Additional Recipients***
Jonathan Kramer Trinity A&D 1002 N Eglin Pkwy Shalimar, FL 32579 850-613-6800	NONE

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC Institute standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

_____

Authorized Signature
GCAL Report 215111414

Certifications

10/02/2015

Certification	Certification Number
DOD ELAP	L14-243
Alabama	01955
Arizona	AZ0718
Arkansas	12-060-0
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
USDA Soil Permit	P330-10-00117

Case Narrative

Client: TRINITY Analysis & Development Corp. **Report:** 215111414

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

METALS

In the EPA 6020A analysis, sample 21511141401 (MWQ 14) had to be diluted in order to bracket the concentration of target analytes within the calibration range of the instrument and to eliminate a chemical or physical interference. The dilutions are reflected in elevated detection limits.

The dissolved concentration for some analytes is slightly greater than the total concentration of these analytes in sample 21511141401 (MWQ 14). This is attributed to variations in the aliquots of sample. It can be assumed these analytes are present in the dissolved state in this sample.

CONVENTIONALS

In the EPA 300.0 Rev 2.1 analysis, sample 21511141401 (MWQ 14) had to be diluted in order to bracket the concentration of target ananlytes within the calibration range of the instrument.

MISCELLANEOUS

See subcontract laboratories report case narratives.

Q Flag Summary

NO Q FLAGS FOR THIS WORKORDER

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21511141401	MWQ 14	Water	11/13/2015 09:25	11/14/2015 10:10

Test Summary

GCAL ID	Client ID	Matrix	Procedure
21511141401	MWQ 14	W	SM 2540C TDS
21511141401	MWQ 14	W	SM 2320B Alkalinity Water
21511141401	MWQ 14	W	EPA 300.0 Inorganic Anions
21511141401	MWQ 14	W	EPA 6020A
21511141401	MWQ 14	W	EPA 6020A Dissolved
21511141401	MWQ 14	W	EPA 6020A Dissolved Prep
21511141401	MWQ 14	W	EPA 6020A Water Prep
21511141401	MWQ 14	W	EPA 7470A
21511141401	MWQ 14	W	EPA 7470A Water Prep
21511141401	MWQ 14	W	EPA 7470A Dissolved Prep
21511141401	MWQ 14	W	EPA 7470A Dissolved
21511141401	MWQ 14	W	EPA 9012B Cyanide Water
21511141401	MWQ 14	W	EPA 9012B Cyanide Prep Water
21511141401	MWQ 14	W	Ship to Sub Lab
21511141401	MWQ 14	W	Subcontract General

Manual Integrations

No Manual Integrations Performed By GCAL.

General Chemistry

MWQ 14	Collect Date	11/13/2015 09:25	GCAL ID	21511141401
	Receive Date	11/14/2015 10:10	Matrix	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	11/14/2015 17:13	RXJ	572497

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	**Nitrate**	**2.50**	**0.500**	**1.00**	**mg/L**
14797-65-0	Nitrite	0.500U	0.500	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/14/2015 19:32	RXJ	572497

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	**Chloride**	**600**	**25.0**	**100**	**mg/L**
14808-79-8	**Sulfate**	**912**	**50.0**	**100**	**mg/L**

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
11/20/2015 16:50	572950	Cyanide Prep	1	11/24/2015 01:13	RXJ	573249

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0012U	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	11/22/2015 17:00	SMR	573163

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	**Total Alkalinity**	**151**	**0.26**	**1.0**	**mg/L CaCO3**

General Chemistry

MWQ 14	Collect Date	11/13/2015 09:25	GCAL ID	21511141401
	Receive Date	11/14/2015 10:10	Matrix	Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	11/16/2015 15:30	WRW	572605

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	2140	10.0	10.0	mg/L

General Chemistry QC Summary

Analytical Batch	Client ID	LCS573163			
573163	GCAL ID	1512885			
	Sample Type	LCS			
	Prep Date	NA			
	Analysis Date	11/22/2015 17:00			
	Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R
Total Alkalinity	000000-00-5	200	201	101	80 - 120

Analytical Batch	Client ID	WR-MW-15-GW-1		1509629DUP		
573163	GCAL ID	21511132904		1512886		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	11/22/2015 17:00		11/22/2015 17:00		
	Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 DL	Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	369	0.26	377	2	11

Analytical Batch	Client ID	MB572497		LCS572497			
572497	GCAL ID	1510091		1510092			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	11/14/2015 16:38		11/14/2015 16:21			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.42	97	79 - 109
Nitrate	14797-55-8	0.100U	0.100	2.50	2.36	94	80 - 120
Nitrite	14797-65-0	0.100U	0.100	2.50	2.38	95	80 - 120
Sulfate	14808-79-8	0.100U	0.100	2.50	2.41	96	82 - 110

Analytical Batch	Client ID	MWQ 14		1509948MS				1509948MSD				
572497	GCAL ID	21511141401		1510093				1510094				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	11/14/2015 17:13		11/14/2015 17:30				11/14/2015 17:48				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	2.50	0.500	12.5	14.4	95	80 - 120	12.5	14.4	95	0	15
Nitrite	14797-65-0	0.000	0.500	12.5	11.2	89	80 - 120	12.5	11.2	90	0	15

Analytical Batch	Client ID	MWQ 14		1509948MS				1509948MSD				
572497	GCAL ID	21511141401		1510093				1510094				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	11/14/2015 19:32		11/14/2015 19:50				11/14/2015 20:07				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	600	25.0	1250	1850	100	79 - 109	1250	1850	100	0	15
Sulfate	14808-79-8	912	50.0	1250	2110	96	82 - 110	1250	2090	95	1	15

General Chemistry QC Summary

Analytical Batch	Client ID	MB572950		LCS572950				LCSHI572950			
573249	GCAL ID	1512007		1512008				1512009			
Prep Batch	Sample Type	MB		LCS				LCSHI			
572950	Prep Date	11/20/2015 16:50		11/20/2015 16:50				11/20/2015 16:50			
Prep Method	Analysis Date	11/24/2015 09:52		11/24/2015 00:18				11/24/2015 00:20			
Cyanide Prep	Matrix	Water		Water				Water			
EPA 9012B		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.0012U	0.0012	0.020	0.020	100	80 - 120	0.10	0.085	85	80 - 120

Analytical Batch	Client ID	MW-69		1509190DUP		
573249	GCAL ID	21511124543		1512011		
Prep Batch	Sample Type	SAMPLE		DUP		
572950	Prep Date	11/20/2015 16:50		11/20/2015 16:50		
Prep Method	Analysis Date	11/24/2015 00:31		11/24/2015 00:41		
Cyanide Prep	Matrix	Water		Water		
EPA 9012B		Units Result	mg/L DL	Result	RPD	RPD Limit
Cyanide	57-12-5	0.0	0.0012	0.0	0	20

Analytical Batch	Client ID	MW-61		1509708DUP			1509708MS			
573249	GCAL ID	21511134101		1512013			1512012			
Prep Batch	Sample Type	SAMPLE		DUP			MS			
572950	Prep Date	11/20/2015 16:50		11/20/2015 16:50			11/20/2015 16:50			
Prep Method	Analysis Date	11/24/2015 01:15		11/24/2015 01:19			11/24/2015 01:17			
Cyanide Prep	Matrix	Water		Water			Water			
EPA 9012B		Units Result	mg/L DL	Result	RPD	RPD Limit	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.0030	0.0012	0.0030	0	20	0.10	0.091	88	80 - 120

Analytical Batch	Client ID	MB572605		LCS572605			
572605	GCAL ID	1510455		1510456			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	11/16/2015 15:30		11/16/2015 15:30			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	964	96	80 - 120

Analytical Batch	Client ID	TK-470		1508118DUP		
572605	GCAL ID	21511103401		1510457		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	11/16/2015 15:30		11/16/2015 15:30		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	1480	10.0	1490	1	5.4

CYANIDE DISTILLATION
EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

START	11-20-15 1650	END		ANALYST	MOS
MATRIX	WATER SOLID			HBN:	572950

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	CHLORINE Yes	CHLORINE No	SULFIDE Yes	SULFIDE No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 572950 [INPR/15026]	1512007		50		✓		✓	MB		1.25M NaOH:1 9-17-8
2	QC ACCOUNT	LCS for HBN 572950 [INPR/15026	1512008		50		✓		✓	LCS		
3	QC ACCOUNT	LCSHI for HBN 572950 [INPR/150	1512009		50		✓		✓	LCSHI		Ca(OCl2):1 N/A
4	1369	RW-4	21511124529		50		✓		✓	SAMPLE		
5	1369	RW-12	21511124534		50		✓		✓	SAMPLE		0.1 NaS2O3:1
6	1369	MW-71	21511124541		50		✓		✓	SAMPLE		
7	1369	MW-69	21511124543		50		✓		✓	SAMPLE		Bi(NO3):2,3
8	QC ACCOUNT	MW-69(1509190MS)	1512010		50		✓		✓	MS		
9	QC ACCOUNT	MW-69(1509190DUP)	1512011		50		✓		✓	DUP		Ascorbic Acid:2,3
10	4435	SB051/GW-1	21511125902		50		✓		✓	SAMPLE		
11	4435	SB055/GW-1	21511125903		50		✓		✓	SAMPLE		Sulfamic Acid:2,3 9-17-11
12	4435	SB054/GW-1	21511125904		50		✓		✓	SAMPLE		
13	4435	DUP-5/GW-1	21511125905		50		✓		✓	FLDDUP		1:1 H2SO4:2 9-15-6
14	4435	SB053/GW-1	21511125906		50		✓		✓	SAMPLE		
15	4435	SB063/GW-1	21511125907		50		✓		✓	SAMPLE		2.5M MgCl:2 9-17-6
16	4435	SB010/GW-1	21511125908		50		✓		✓	SAMPLE		
17	4435	SB064/GW-1	21511125909		50		✓		✓	SAMPLE		Zn(C2H3O2):3 N/A
18	4435	SB065/GW-1	21511125910		50		✓		✓	SAMPLE		
19	4435	SB052/GW-1	21511125911		50		✓		✓	SAMPLE		0.1% Methyl Red:3
20	4435	SB049/GW-1	21511125912		50		✓		✓	SAMPLE		
21	4747	MWA 14	21511141401		50		✓		✓	SAMPLE		Acetate Buffer:3
22	1369	MW-61	21511134101		50		✓		✓	SAMPLE		
23	QC ACCOUNT	MW-61(1509708MS)	1512012		50		✓		✓	MS		5% NaOH (CLP):4
24	QC ACCOUNT	MW-61(1509708DUP)	1512013		50		✓		✓	DUP		
25												1.0N NaOH:1,2,3
26												

Type of cyanide prep: CNC-Total=2, CNAC-Amenable=1, CNFR-Free=3, CNC-CLP=4
COMMENTS:

BALANCE ID: N/A

TEMP: 150°C

LCS/MS SPIKE ID	9-17-9	CONC:	10 ppm			Analyst Review	DATE
LCS LOW VOL	100 ml	LCS HIGH VOL	500 ml	LCS CLP VOL	N/A	MOS	11-20-15
MS WATER VOL	500 ml	MS SOLID VOL	N/A				
						Secondary Review	DATE
SPIKE WITNESS	N/A					R.J.M	11-23-15

Revision 1, 08/10/2010

Form I

Sample Results

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151123D_MS2.b\183SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: AWG
Prep Date:	11/16/15	Analysis Date:	11/24/15 Time: 0121
Prep Batch:	572557	Analytical Batch:	573147
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	67.1	ug/L	J	25.0	100
Antimony	2.50	ug/L	U	2.50	10.0
Arsenic	1.37	ug/L	J	1.25	5.00
Barium	11.7	ug/L		1.25	5.00
Beryllium	1.25	ug/L	U	1.25	5.00
Cadmium	1.25	ug/L	U	1.25	5.00
Calcium	94000	ug/L		625	2500
Chromium	1.25	ug/L	U	1.25	5.00
Cobalt	1.25	ug/L	U	1.25	5.00
Copper	1.25	ug/L	U	1.25	5.00
Iron	125	ug/L	U	125	500
Lead	1.25	ug/L	U	1.25	5.00
Manganese	6.25	ug/L	U	6.25	25.0
Molybdenum	25.6	ug/L		1.25	5.00
Nickel	25.5	ug/L		2.50	10.0
Potassium	11200	ug/L		125	500
Selenium	24.3	ug/L		1.25	5.00
Silver	1.25	ug/L	U	1.25	5.00
Thallium	1.25	ug/L	U	1.25	5.00
Titanium	1.25	ug/L	U	1.25	5.00
Vanadium	5.60	ug/L		1.25	5.00
Zinc	25.0	ug/L	U	25.0	100

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14 DL
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151123D_MS2.b\182SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: AWG
Prep Date:	11/16/15	Analysis Date:	11/24/15 Time: 0117
Prep Batch:	572557	Analytical Batch:	573147
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Magnesium	71600	ug/L		2500	10000
Sodium	797000	ug/L		2500	10000

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	11/18/15	Analysis Date:	11/19/15 Time: 1443
Prep Batch:	572747	Analytical Batch:	572874
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	11/18/15	Analysis Date:	11/19/15 Time: 1623
Prep Batch:	572749	Analytical Batch:	572874
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151123D_MS2.b\191SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: AWG
Prep Date:	11/21/15	Analysis Date:	11/24/15 Time: 0148
Prep Batch:	572880	Analytical Batch:	573147
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	167	ug/L		25.0	100
Antimony	2.50	ug/L	U	2.50	10.0
Arsenic	1.37	ug/L	J	1.25	5.00
Barium	11.3	ug/L		1.25	5.00
Beryllium	1.25	ug/L	U	1.25	5.00
Cadmium	1.25	ug/L	U	1.25	5.00
Calcium	94100	ug/L		625	2500
Chromium	1.25	ug/L	U	1.25	5.00
Cobalt	1.25	ug/L	U	1.25	5.00
Copper	1.25	ug/L	U	1.25	5.00
Iron	125	ug/L	U	125	500
Lead	1.25	ug/L	U	1.25	5.00
Manganese	6.25	ug/L	U	6.25	25.0
Molybdenum	25.0	ug/L		1.25	5.00
Nickel	25.3	ug/L		2.50	10.0
Potassium	11000	ug/L		125	500
Selenium	25.6	ug/L		1.25	5.00
Silver	1.25	ug/L	U	1.25	5.00
Thallium	1.25	ug/L	U	1.25	5.00
Titanium	1.25	ug/L	U	1.25	5.00
Vanadium	5.56	ug/L		1.25	5.00
Zinc	25.0	ug/L	U	25.0	100

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215111414	Client Sample ID:	MWQ 14 DL
Collect Date:	11/13/15 Time: 0925	GCAL Sample ID:	21511141401 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151123D_MS2.b\190SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: AWG
Prep Date:	11/21/15	Analysis Date:	11/24/15 Time: 0144
Prep Batch:	572880	Analytical Batch:	573147
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Magnesium	69100	ug/L		2500	10000
Sodium	775000	ug/L		2500	10000

FORM I - IN

Form II

Calibration Verifications

II

INITIAL CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1600
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1333	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00450	91	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1423	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00470	95	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1447	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00480	96	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1602	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00460	92	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1627	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00460	93	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\029CCV1.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/23/15 Time: 1631	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	20.0	22.6	113	ug/L
Antimony	2.00	2.07	104	ug/L
Arsenic	1.00	1.01	101	ug/L
Barium	1.00	1.07	107	ug/L
Beryllium	1.00	1.03	103	ug/L
Cadmium	1.00	1.05	105	ug/L
Calcium	500	528	106	ug/L
Chromium	1.00	1.03	103	ug/L
Cobalt	1.00	1.08	108	ug/L
Copper	1.00	1.03	103	ug/L
Iron	100	108	108	ug/L
Lead	1.00	1.00	100	ug/L
Magnesium	100	102	102	ug/L
Manganese	5.00	5.06	101	ug/L
Molybdenum	1.00	0.990	99	ug/L
Nickel	2.00	2.32	116	ug/L
Potassium	100	100	100	ug/L
Selenium	1.00	1.03	103	ug/L
Silver	1.00	1.01	101	ug/L
Sodium	100	105	105	ug/L
Thallium	1.00	1.02	102	ug/L
Titanium	1.00	1.04	104	ug/L
Vanadium	1.00	1.03	103	ug/L
Zinc	20.0	21.1	106	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\031_ICV.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/23/15 Time: 1638	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	1000	1050	105	ug/L
Antimony	50.0	50.9	102	ug/L
Arsenic	50.0	53.4	107	ug/L
Barium	50.0	53.8	108	ug/L
Beryllium	50.0	53.9	108	ug/L
Cadmium	50.0	53.3	107	ug/L
Calcium	25000	26200	105	ug/L
Chromium	50.0	52.6	105	ug/L
Cobalt	50.0	52.1	104	ug/L
Copper	50.0	52.8	106	ug/L
Iron	5000	5220	104	ug/L
Lead	50.0	52.2	104	ug/L
Magnesium	5000	5270	105	ug/L
Manganese	50.0	51.6	103	ug/L
Molybdenum	50.0	51.0	102	ug/L
Nickel	100	107	107	ug/L
Potassium	5000	4950	99	ug/L
Selenium	25.0	26.1	104	ug/L
Silver	50.0	51.4	103	ug/L
Sodium	5000	5410	108	ug/L
Thallium	50.0	52.0	104	ug/L
Titanium	50.0	51.0	102	ug/L
Vanadium	50.0	51.8	104	ug/L
Zinc	1000	1060	106	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\177LCCV.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0100	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	20.0	24.4	122	ug/L
Antimony	2.00	2.07	103	ug/L
Arsenic	1.00	1.03	103	ug/L
Barium	1.00	1.06	106	ug/L
Beryllium	1.00	0.930	93	ug/L
Cadmium	1.00	1.03	103	ug/L
Calcium	500	512	102	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	1.06	106	ug/L
Copper	1.00	1.00	100	ug/L
Iron	100	102	102	ug/L
Lead	1.00	1.00	100	ug/L
Magnesium	100	105	105	ug/L
Manganese	5.00	5.18	104	ug/L
Molybdenum	1.00	0.960	96	ug/L
Nickel	2.00	2.16	108	ug/L
Potassium	100	107	107	ug/L
Selenium	1.00	0.990	99	ug/L
Silver	1.00	1.00	100	ug/L
Sodium	100	113	113	ug/L
Thallium	1.00	1.03	103	ug/L
Titanium	1.00	0.990	99	ug/L
Vanadium	1.00	1.01	101	ug/L
Zinc	20.0	21.4	107	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\178_CCV.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0104	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	200	204	102	ug/L
Antimony	20.0	20.6	103	ug/L
Arsenic	10.0	10.3	103	ug/L
Barium	10.0	10.6	106	ug/L
Beryllium	10.0	9.15	91	ug/L
Cadmium	10.0	9.99	100	ug/L
Calcium	5000	5070	101	ug/L
Chromium	10.0	10.2	102	ug/L
Cobalt	10.0	10.5	105	ug/L
Copper	10.0	9.99	100	ug/L
Iron	1000	1010	101	ug/L
Lead	10.0	10.1	101	ug/L
Magnesium	1000	1040	104	ug/L
Manganese	50.0	50.0	100	ug/L
Molybdenum	10.0	9.55	96	ug/L
Nickel	20.0	21.0	105	ug/L
Potassium	1000	986	99	ug/L
Selenium	10.0	10.3	103	ug/L
Silver	10.0	9.80	98	ug/L
Sodium	1000	1050	105	ug/L
Thallium	10.0	10.2	102	ug/L
Titanium	10.0	10.3	103	ug/L
Vanadium	10.0	10.1	101	ug/L
Zinc	200	206	103	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\194LCCV.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0158	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	20.0	24.6	123	ug/L
Antimony	2.00	2.08	104	ug/L
Arsenic	1.00	1.01	101	ug/L
Barium	1.00	1.04	104	ug/L
Beryllium	1.00	1.02	102	ug/L
Cadmium	1.00	1.03	103	ug/L
Calcium	500	522	104	ug/L
Chromium	1.00	1.02	102	ug/L
Cobalt	1.00	1.04	104	ug/L
Copper	1.00	1.03	103	ug/L
Iron	100	107	107	ug/L
Lead	1.00	1.02	102	ug/L
Magnesium	100	104	104	ug/L
Manganese	5.00	5.14	103	ug/L
Molybdenum	1.00	1.01	101	ug/L
Nickel	2.00	2.08	104	ug/L
Potassium	100	103	103	ug/L
Selenium	1.00	1.01	101	ug/L
Silver	1.00	1.01	101	ug/L
Sodium	100	111	111	ug/L
Thallium	1.00	1.03	103	ug/L
Titanium	1.00	1.17	117	ug/L
Vanadium	1.00	0.990	99	ug/L
Zinc	20.0	20.7	103	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\195_CCV.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0201	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	200	208	104	ug/L
Antimony	20.0	20.5	102	ug/L
Arsenic	10.0	10.4	104	ug/L
Barium	10.0	10.6	106	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	10.1	101	ug/L
Calcium	5000	5140	103	ug/L
Chromium	10.0	10.3	103	ug/L
Cobalt	10.0	10.5	105	ug/L
Copper	10.0	10.2	102	ug/L
Iron	1000	1030	103	ug/L
Lead	10.0	10.1	101	ug/L
Magnesium	1000	1040	104	ug/L
Manganese	50.0	51.4	103	ug/L
Molybdenum	10.0	9.95	99	ug/L
Nickel	20.0	21.3	106	ug/L
Potassium	1000	999	100	ug/L
Selenium	10.0	10.3	103	ug/L
Silver	10.0	10.0	100	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.2	102	ug/L
Titanium	10.0	10.6	106	ug/L
Vanadium	10.0	10.1	101	ug/L
Zinc	200	210	105	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\010CCV1.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1106	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	20.0	20.7	104	ug/L
Antimony	2.00	2.14	107	ug/L
Arsenic	1.00	0.990	99	ug/L
Beryllium	1.00	0.990	99	ug/L
Cadmium	1.00	0.970	97	ug/L
Calcium	500	516	103	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	1.01	101	ug/L
Copper	1.00	1.11	111	ug/L
Iron	100	102	102	ug/L
Lead	1.00	1.02	102	ug/L
Magnesium	100	101	101	ug/L
Manganese	5.00	5.09	102	ug/L
Molybdenum	1.00	1.02	102	ug/L
Nickel	2.00	2.10	105	ug/L
Potassium	100	99.9	100	ug/L
Selenium	1.00	1.01	101	ug/L
Silver	1.00	1.03	103	ug/L
Sodium	100	103	103	ug/L
Thallium	1.00	1.01	101	ug/L
Titanium	1.00	0.910	91	ug/L
Vanadium	1.00	1.00	100	ug/L
Zinc	20.0	21.3	106	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\012_ICV.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1113	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	1000	1040	104	ug/L
Antimony	50.0	52.8	106	ug/L
Arsenic	50.0	51.4	103	ug/L
Beryllium	50.0	52.8	106	ug/L
Cadmium	50.0	52.1	104	ug/L
Calcium	25000	25800	103	ug/L
Chromium	50.0	51.0	102	ug/L
Cobalt	50.0	50.9	102	ug/L
Copper	50.0	51.9	104	ug/L
Iron	5000	5100	102	ug/L
Lead	50.0	51.8	104	ug/L
Magnesium	5000	5040	101	ug/L
Manganese	50.0	50.7	101	ug/L
Molybdenum	50.0	50.1	100	ug/L
Nickel	100	103	103	ug/L
Potassium	5000	4920	98	ug/L
Selenium	25.0	25.9	103	ug/L
Silver	50.0	50.7	101	ug/L
Sodium	5000	5330	107	ug/L
Thallium	50.0	51.7	103	ug/L
Titanium	50.0	50.1	100	ug/L
Vanadium	50.0	50.2	100	ug/L
Zinc	1000	1030	103	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\037LCCV.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1301	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	20.0	22.5	113	ug/L
Antimony	2.00	2.05	103	ug/L
Arsenic	1.00	1.00	100	ug/L
Beryllium	1.00	1.07	107	ug/L
Cadmium	1.00	1.04	104	ug/L
Calcium	500	528	106	ug/L
Chromium	1.00	1.03	103	ug/L
Cobalt	1.00	1.04	104	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	103	103	ug/L
Lead	1.00	1.02	102	ug/L
Magnesium	100	105	105	ug/L
Manganese	5.00	5.19	104	ug/L
Molybdenum	1.00	1.01	101	ug/L
Nickel	2.00	2.18	109	ug/L
Potassium	100	102	102	ug/L
Selenium	1.00	0.920	92	ug/L
Silver	1.00	1.03	103	ug/L
Sodium	100	107	107	ug/L
Thallium	1.00	1.03	103	ug/L
Titanium	1.00	1.00	100	ug/L
Vanadium	1.00	0.970	97	ug/L
Zinc	20.0	21.1	106	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\038_CCV.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1304	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	200	208	104	ug/L
Antimony	20.0	20.7	103	ug/L
Arsenic	10.0	9.96	100	ug/L
Beryllium	10.0	10.5	105	ug/L
Cadmium	10.0	10.3	103	ug/L
Calcium	5000	5180	104	ug/L
Chromium	10.0	10.2	102	ug/L
Cobalt	10.0	10.3	103	ug/L
Copper	10.0	10.2	102	ug/L
Iron	1000	1030	103	ug/L
Lead	10.0	10.1	101	ug/L
Magnesium	1000	1020	102	ug/L
Manganese	50.0	50.9	102	ug/L
Molybdenum	10.0	10.1	101	ug/L
Nickel	20.0	20.7	104	ug/L
Potassium	1000	1010	101	ug/L
Selenium	10.0	10.0	100	ug/L
Silver	10.0	10.3	103	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.3	103	ug/L
Titanium	10.0	10.3	103	ug/L
Vanadium	10.0	10.0	100	ug/L
Zinc	200	208	104	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\010CCV1.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1237	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Barium	1.00	1.03	103	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1600
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\013_ICV.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1253	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Barium	50.0	49.4	99	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\043LCCV.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1535	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Barium	1.00	0.970	97	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215111414	GCAL QC ID:	1800
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\044_CCV.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1540	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Barium	10.0	9.51	95	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

Form III

Blanks

III

INITIAL CALIBRATION BLANK

Report No:	215111414	Blank ID:	1700
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1335	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1425	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215111414	Blank ID:	MB1511083
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1433	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1449	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1604	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215111414	Blank ID:	MB1511091
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1619	Analytical Method:	EPA 7470A Dissolved

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	572874
Analysis Date:	11/19/15 Time: 1629	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
INITIAL CALIBRATION BLANK

Report No:	215111414	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\027_ICB.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/23/15 Time: 1625	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

FORM III - IN

III
CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\176_CCB.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0057	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III
PREPARATION BLANK

Report No:	215111414	Blank ID:	MB1511606
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\185SMPL.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0127	Analytical Method:	EPA 6020A Dissolved

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	5.00	ug/L	U	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Barium	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III
CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151123D_MS2.b\193_CCB.d
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/24/15 Time: 0155	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

FORM III - IN

III
INITIAL CALIBRATION BLANK

Report No:	215111414	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\008_ICB.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1059	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

FORM III - IN

III
PREPARATION BLANK

Report No:	215111414	Blank ID:	MB1510215
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\019SMPL.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1142	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	5.00	ug/L	U	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\036_CCB.d
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 1257	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

FORM III - IN

III
INITIAL CALIBRATION BLANK

Report No:	215111414	Blank ID:	1700
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\009_ICB.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1231	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Barium	1.00	ug/L	U	0.25	1.00

FORM III - IN

III
PREPARATION BLANK

Report No:	215111414	Blank ID:	MB1510215
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\020SMPL.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1333	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Barium	0.25	ug/L	U	0.25	1.00

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215111414	Blank ID:	1900
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\041_CCB.d
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1524	Analytical Method:	EPA 6020A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Barium	1.00	ug/L	U	0.25	1.00

FORM III - IN

Form IV

Interference Checks

IV
ICPMS INTERFERENCE CHECKS

Report No:	215111414	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	573147
Analyst:	AWG	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151123D_MS2.b\028ICSA.d	Lab File ID ICSAB1:	2151123D_MS2.b\030ICSB.d
Lab File ID ICSA2:	2151123D_MS2.b\104ICSA.d	Lab File ID ICSAB2:	2151123D_MS2.b\105ICSB.d

Concentration Units: ug/L

		Analyzed (A/AB):	11/23/15 1628	11/23/15 1635		11/23/15 2052	11/23/15 2056	
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1050	1030	103	1080	1070	107
Antimony	0	0	0.013	0.011		0.0090	0.0010	
Arsenic	0	10.0	0.011	10.9	109	0.0060	10.9	109
Barium	0	0	0.035	0.046		0.017	0.040	
Beryllium	0	0	-0.0030	-0.0020		-0.0040	-0.0040	
Boron	0	20.0	-0.0020	20.0	100	-2.1	18.5	92
Cadmium	0	10.0	0.016	10.5	105	0.017	10.5	105
Calcium	3000	3000	3030	3090	103	3160	3110	104
Chromium	0	20.0	0.016	21.5	108	0.024	21.8	109
Cobalt	0	20.0	0.016	22.1	110	0.016	22.4	112
Copper	0	20.0	0.20	20.7	104	0.20	20.8	104
Iron	2500	2500	2610	2550	102	2600	2590	104
Lead	0	0	0.010	0.010		0.0080	0.0070	
Lithium	0	20.0	-0.14	21.0	105	-0.54	20.3	102
Magnesium	1000	1000	1050	1030	103	1080	1060	106
Manganese	0	20.0	0.11	20.3	102	0.13	20.7	104
Molybdenum	20.0	20.0	20.2	20.2	101	20.6	20.1	100
Nickel	0	20.0	0.083	21.2	106	0.097	21.2	106
Potassium	1000	1000	1000	989	99	1020	999	100
Selenium	0	10.0	-0.12	10.9	109	0.015	10.3	103
Silicon	0	1000	5.68	1090	109	-8.5	1070	107
Silver	0	5.00	0.0050	5.13	103	0.0040	5.18	104
Sodium	2500	2500	2670	2630	105	2750	2710	108
Strontium	0	10.0	0.058	10.5	105	0.063	10.9	109
Thallium	0	0	-0.0020	-0.0020		-0.0010	-0.0030	
Tin	0	10.0	0.0040	9.85	98	0.0070	9.94	99
Titanium	20.0	20.0	19.5	19.8	99	19.9	20.6	103
Vanadium	0	20.0	0.0	20.6	103	-0.0040	20.7	104
Zinc	0	20.0	0.70	21.7	108	0.55	22.2	111
Zirconium	0	20.0	0.0050	19.0	95	0.0070	19.5	98

FORM IV - IN

IV
ICPMS INTERFERENCE CHECKS

Report No:	215111414	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	573296
Analyst:	AWG	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151124A_MS2.b\009ICSA.d	Lab File ID ICSAB1:	2151124A_MS2.b\011ICSB.d
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

		Analyzed (A/AB):	11/24/15 1103	11/24/15 1109				
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1030	1010	101			
Antimony	0	0	0.084	0.059				
Arsenic	0	10.0	-0.0020	10.5	105			
Barium	0	0	0.020	0.030				
Beryllium	0	0	0.0020	0.0010				
Boron	0	20.0	2.59	21.4	107			
Cadmium	0	10.0	0.022	10.3	103			
Calcium	3000	3000	3010	2970	99			
Chromium	0	20.0	-0.0010	20.9	104			
Cobalt	0	20.0	0.015	21.5	108			
Copper	0	20.0	0.032	20.3	102			
Iron	2500	2500	2530	2490	100			
Lead	0	0	0.0070	0.0090				
Lithium	0	20.0	-0.050	20.5	102			
Magnesium	1000	1000	1050	1020	102			
Manganese	0	20.0	0.042	19.9	100			
Molybdenum	20.0	20.0	20.1	19.7	98			
Nickel	0	20.0	0.061	20.5	102			
Potassium	1000	1000	1010	985	98			
Selenium	0	10.0	-0.11	9.99	100			
Silicon	0	1000	35.1	1080	108			
Silver	0	5.00	0.0070	5.09	102			
Sodium	2500	2500	2610	2540	102			
Strontium	0	10.0	0.055	10.6	106			
Thallium	0	0	0.0030	0.0040				
Tin	0	10.0	-0.015	9.47	95			
Titanium	20.0	20.0	20.0	19.7	98			
Vanadium	0	20.0	0.0020	20.1	100			
Zinc	0	20.0	0.12	20.3	102			
Zirconium	0	20.0	0.0070	19.3	96			

FORM IV - IN

IV
ICPMS INTERFERENCE CHECKS

Report No:	215111414	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS1	Analytical Batch:	573376
Analyst:	AWG	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151125A_MS1.b\011ICSA.d	Lab File ID ICSAB1:	2151125A_MS1.b\012ICSB.d
Lab File ID ICSA2:	2151125A_MS1.b\120ICSA.d	Lab File ID ICSAB2:	2151125A_MS1.b\121ICSB.d

Concentration Units: ug/L

		Analyzed (A/AB):	11/25/15 1242	11/25/15 1247		11/25/15 2237	11/25/15 2243	
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1020	1030	103	943	929	93
Antimony	0	0	0.18	0.15		0.051	0.021	
Arsenic	0	10.0	0.0	11.0	110	0.0	11.3	113
Barium	0	0	0.048	0.039		0.022	0.033	
Beryllium	0	0	-0.0020	-0.0030		-0.0030	-0.0030	
Boron	0	20.0	0.47	19.8	99	0.34	15.2	76
Cadmium	0	10.0	0.029	10.1	101	0.026	9.86	99
Calcium	3000	3000	3080	3040	101	2960	2980	99
Chromium	0	20.0	0.014	21.6	108	0.0050	20.1	100
Cobalt	0	20.0	0.015	21.9	110	0.0060	20.7	104
Copper	0	20.0	0.012	20.9	104	0.056	19.4	97
Iron	2500	2500	2550	2570	103	2280	2270	91
Lead	0	0	0.013	0.0060		0.0070	0.0020	
Lithium	0	20.0	0.13	19.7	98	-2.9	9.32	47
Magnesium	1000	1000	1030	1040	104	977	980	98
Manganese	0	20.0	0.0080	20.4	102	0.016	18.6	93
Molybdenum	20.0	20.0	19.5	19.5	98	18.4	18.1	90
Nickel	0	20.0	0.12	21.0	105	0.10	19.4	97
Potassium	1000	1000	1010	1020	102	1040	1030	103
Selenium	0	10.0	0.031	9.75	98	0.077	10.2	102
Silicon	0	1000	-20	1010	101	105	1150	115
Silver	0	5.00	0.0090	4.99	100	0.0070	4.74	95
Sodium	2500	2500	2530	2550	102	2480	2470	99
Strontium	0	10.0	0.047	10.3	103	0.050	10.6	106
Thallium	0	0	-0.020	-0.023		-0.026	-0.027	
Tin	0	10.0	0.023	9.59	96	0.014	9.98	100
Titanium	20.0	20.0	19.3	20.9	104	19.3	18.6	93
Vanadium	0	20.0	-0.013	20.6	103	-0.0030	19.6	98
Zinc	0	20.0	-0.048	20.4	102	-0.18	20.0	100
Zirconium	0	20.0	0.014	19.0	95	0.022	18.9	94

FORM IV - IN

Form VII

Lab Control Spikes

VII
LABORATORY CONTROL SAMPLE

Report No:	215111414	GCAL LCS ID:	1510216
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	AWG	Lab File ID:	2151124A_MS2.b\020SMPL.d
Prep Date:	11/16/15 Time: 1330	Analysis Date:	11/24/15 Time: 1145
Prep Batch:	572557	Analytical Batch:	573296
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	***UNITS***	***TRUE***	***FOUND***	***% R***	***Q***	***LCL***	***UCL***
Aluminum	ug/L	1000	1060	106		80	120
Antimony	ug/L	100	111	111		80	120
Arsenic	ug/L	50.0	51.2	102		80	120
Beryllium	ug/L	50.0	52.8	106		80	120
Cadmium	ug/L	50.0	52.1	104		80	120
Calcium	ug/L	25000	26500	106		80	120
Chromium	ug/L	50.0	53.3	107		80	120
Cobalt	ug/L	50.0	53.2	106		80	120
Copper	ug/L	50.0	52.9	106		80	120
Iron	ug/L	5000	5300	106		80	120
Lead	ug/L	50.0	53.3	107		80	120
Magnesium	ug/L	5000	5280	106		80	120
Manganese	ug/L	50.0	53.2	106		80	120
Molybdenum	ug/L	50.0	52.9	106		80	120
Nickel	ug/L	100	106	106		80	120
Potassium	ug/L	5000	5130	103		80	120
Selenium	ug/L	10.0	10.2	102		80	120
Silver	ug/L	50.0	52.4	105		80	120
Sodium	ug/L	5000	5400	108		80	120
Thallium	ug/L	50.0	53.9	108		80	120
Titanium	ug/L	50.0	51.7	103		80	120
Vanadium	ug/L	50.0	52.5	105		80	120
Zinc	ug/L	1000	1020	102		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215111414	GCAL LCS ID:	1510216
Matrix:	Water	Instrument ID:	ICPMS1
Analyst:	AWG	Lab File ID:	2151125A_MS1.b\021SMPL.d
Prep Date:	11/16/15 Time: 1330	Analysis Date:	11/25/15 Time: 1339
Prep Batch:	572557	Analytical Batch:	573376
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% R*	*Q*	*LCL*	*UCL*
Barium	ug/L	50.0	49.6	99		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215111414	GCAL LCS ID:	1511084
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	11/18/15 Time: 1235	Analysis Date:	11/19/15 Time: 1435
Prep Batch:	572747	Analytical Batch:	572874
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% R*	*Q*	*LCL*	*UCL*
Mercury	ug/L	5.00	4.65	93		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215111414	GCAL LCS ID:	1511092
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	11/18/15 Time: 1325	Analysis Date:	11/19/15 Time: 1621
Prep Batch:	572749	Analytical Batch:	572874
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A Dissolved

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% R*	*Q*	*LCL*	*UCL*
Mercury	ug/L	5.00	5.02	100		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215111414	GCAL LCS ID:	1511607
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	AWG	Lab File ID:	2151123D_MS2.b\186SMPL.d
Prep Date:	11/21/15 Time: 1235	Analysis Date:	11/24/15 Time: 0131
Prep Batch:	572880	Analytical Batch:	573147
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissolved

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% R*	*Q*	*LCL*	*UCL*
Aluminum	ug/L	1000	1020	102		80	120
Antimony	ug/L	100	94.0	94		80	120
Arsenic	ug/L	50.0	50.1	100		80	120
Barium	ug/L	50.0	51.4	103		80	120
Beryllium	ug/L	50.0	49.9	100		80	120
Cadmium	ug/L	50.0	49.7	99		80	120
Calcium	ug/L	25000	25100	100		80	120
Chromium	ug/L	50.0	50.7	101		80	120
Cobalt	ug/L	50.0	51.3	103		80	120
Copper	ug/L	50.0	49.8	100		80	120
Iron	ug/L	5000	5070	101		80	120
Lead	ug/L	50.0	50.1	100		80	120
Magnesium	ug/L	5000	4990	100		80	120
Manganese	ug/L	50.0	49.6	99		80	120
Molybdenum	ug/L	50.0	49.0	98		80	120
Nickel	ug/L	100	102	102		80	120
Potassium	ug/L	5000	4920	98		80	120
Selenium	ug/L	10.0	9.92	99		80	120
Silver	ug/L	50.0	48.0	96		80	120
Sodium	ug/L	5000	5190	104		80	120
Thallium	ug/L	50.0	51.5	103		80	120
Titanium	ug/L	50.0	48.9	98		80	120
Vanadium	ug/L	50.0	50.5	101		80	120
Zinc	ug/L	1000	1020	102		80	120

FORM VII - IN

Form VIII

Tunes

VIII
ICP-MS TUNE

Report No:	215111414	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2151123A_MS2.b\QCTune\2151123A_MS2-QCTu
Analyst:	AWG	Analytical Batch:	573147
Analysis Date:	11/23/15 Time: 0906	Analytical Method:	EPA 6020A

ELEMENT - MASS	***AVG MEASURED MASS (amu)***	***PEAK WIDTH AT 5% PEAK HEIGHT (amu)***	***%RSD***
Be-9	9	.7802	1.7038
Mg-24	23.95	.7895	.9014
Mg-25	24.95	.7913	.9555
Mg-26	25.95	.7888	1.0567
Co-59	59	.7825	.7387
In-115	115.05	.739	2.6568
Pb-206	206	.8084	.8534
Pb-207	207	.8147	.7882
Pb-208	208	.825	1.1628

FORM VIII - IN

VIII
ICP-MS TUNE

Report No:	215111414	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2151124A_MS2.b\QCTune\2151124A_MS2-QCTu
Analyst:	AWG	Analytical Batch:	573296
Analysis Date:	11/24/15 Time: 0914	Analytical Method:	EPA 6020A

ELEMENT - MASS	***AVG MEASURED MASS (amu)***	***PEAK WIDTH AT 5% PEAK HEIGHT (amu)***	***%RSD***
Be-9	9	.7843	1.2266
Mg-24	23.95	.7783	1.6676
Mg-25	24.95	.7891	2.4315
Mg-26	25.95	.7792	1.4539
Co-59	59	.7811	1.9203
In-115	115.05	.7379	1.9152
Pb-206	206	.8204	1.9489
Pb-207	207	.7816	1.0173
Pb-208	208	.8205	1.5995

FORM VIII - IN

VIII
ICP-MS TUNE

Report No:	215111414	GCAL QC ID:	1150
Instrument ID:	ICPMS1	Lab File ID:	2151125A_MS1.b\QCTune\2151125A_MS1-QCTu
Analyst:	AWG	Analytical Batch:	573376
Analysis Date:	11/25/15 Time: 1148	Analytical Method:	EPA 6020A

ELEMENT - MASS	***AVG MEASURED MASS (amu)***	***PEAK WIDTH AT 5% PEAK HEIGHT (amu)***	***%RSD***
Be-9	9.05	.7792	.4832
Mg-24	23.95	.7144	.3997
Mg-25	24.9	.7573	.73
Mg-26	25.95	.7478	.7396
Co-59	59	.7318	.3604
In-115	115.05	.7232	.8254
Pb-206	206	.7802	.7902
Pb-207	207	.7802	.9302
Pb-208	207.95	.7815	.5015

FORM VIII - IN

Form X

MDLs

METHOD DETECTION LIMITS

Lab Name: GCAL

Instrument ID: (MS) ICPMS1/ICPMS2 (AV) HYDRA

Lab Code: LA024

Analyte	*MDL*	*Units*	*Type*
Aluminum	5	ug/L	MS
Antimony	.5	ug/L	MS
Arsenic	.25	ug/L	MS
Barium	.25	ug/L	MS
Boron	2.50	ug/L	MS
Beryllium	.25	ug/L	MS
Cadmium	.25	ug/L	MS
Calcium	125	ug/L	MS
Chromium	.25	ug/L	MS
Cobalt	.25	ug/L	MS
Copper	.25	ug/L	MS
Iron	25	ug/L	MS
Lead	.25	ug/L	MS
Magnesium	25	ug/L	MS
Manganese	1.25	ug/L	MS
Molybdenum	.25	ug/L	MS
Nickel	.5	ug/L	MS
Potassium	25	ug/L	MS
Selenium	.25	ug/L	MS
Silver	.25	ug/L	MS
Sodium	25	ug/L	MS
Thallium	.25	ug/L	MS
Titanium	.25	ug/L	MS
Vanadium	.25	ug/L	MS
Zinc	5	ug/L	MS
Mercury	0.00007	mg/L	AV

FORM X - IN

Form XIII

Preparation Logs

XIII
PREPARATION LOG

Report No: 215111414

Prep Method: EPA 3010A Prep Batch: 572557

CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*PREP DATE*	*WEIGHT*	*UNITS*	*VOLUME*	*UNITS*
LCS1510216	1510216	11/16/15			50	mL
MB1510215	1510215	11/16/15			50	mL
MWQ 14	21511141401	11/16/15			50	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215111414

Prep Method: EPA 7470A Prep Batch: 572747

CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*PREP DATE*	*WEIGHT*	*UNITS*	*VOLUME*	*UNITS*
LCS1511084	1511084	11/18/15			20	mL
MB1511083	1511083	11/18/15			20	mL
MWQ 14	21511141401	11/18/15			20	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215111414

Prep Method: EPA 7470A Dissol Prep Batch: 572749

CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*PREP DATE*	*WEIGHT*	*UNITS*	*VOLUME*	*UNITS*
LCS1511092	1511092	11/18/15			20	mL
MB1511091	1511091	11/18/15			20	mL
MWQ 14	21511141401	11/18/15			20	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215111414

Prep Method: EPA 3005A Dissol Prep Batch: 572880

CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*PREP DATE*	*WEIGHT*	*UNITS*	*VOLUME*	*UNITS*
LCS1511607	1511607	11/21/15			50	mL
MB1511606	1511606	11/21/15			50	mL
MWQ 14	21511141401	11/21/15			50	mL

FORM XIII - IN

Form XIV

Run Logs

XIV
ANALYSIS RUN LOG

Report No: 215111414 Analytical Batch: 572874 Start Date: 11/19/15

Instrument ID: HYDRA Analytical Method: EPA 7470A & 7470A Dissolved End Date: 11/19/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																	
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr				
IICALB	1300	*	1	1321																	X																	
IICAL1	1301	*	1	1323																	X																	
IICAL2	1302	*	1	1325																	X																	
IICAL3	1303	*	1	1327																	X																	
IICAL4	1304	*	1	1329																	X																	
IICAL5	1305	*	1	1331																	X																	
ICV	1600	*	1	1333																	X																	
ICB	1700	*	1	1335																	X																	
CCV	1800	*	1	1423																	X																	
CCB	1900	*	1	1425																	X																	
MB1511083	1511083	*	1	1433																	X																	
LCS1511084	1511084	*	1	1435																	X																	
MWQ 14	21511141401	*	1	1443																	X																	
CCV	1800	*	1	1447																	X																	
CCB	1900	*	1	1449																	X																	
CCV	1800	*	1	1602																	X																	
CCB	1900	*	1	1604																	X																	
MB1511091	1511091	*	1	1619																	X																	
LCS1511092	1511092	*	1	1621																	X																	
MWQ 14	21511141401	*	1	1623																	X																	
CCV	1800	*	1	1627																	X																	
CCB	1900	*	1	1629																	X																	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215111414 Analytical Batch: 573147 Start Date: 11/23/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A & 6020A Dissolved End Date: 11/24/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																														
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	0905	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	1605	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	1608	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	1612	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	1615	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	1618	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	1621	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	1625	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	1628	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1631	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1635	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1638	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	2052	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	2056	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	0057	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	0100	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	0104	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ 14 DL	21511141401	*	100	0117															X									X								
MWQ 14	21511141401	*	5	0121	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MB1511606	1511606	*	1	0127	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1511607	1511607	*	1	0131	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ 14 DL	21511141401	*	100	0144															X									X								
MWQ 14	21511141401	*	5	0148	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	0155	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	0158	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	0201	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215111414 Analytical Batch: 573296 Start Date: 11/24/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A End Date: 11/24/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																		
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	0913	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	1039	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	1042	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	1046	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	1049	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	1053	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	1056	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	1059	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	1103	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1106	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1109	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1113	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1510215	1510215	*	1	1142	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1510216	1510216	*	1	1145	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	1257	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1301	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1304	X	X	X		X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215111414 Analytical Batch: 573376 Start Date: 11/25/15

Instrument ID: ICPMS1 Analytical Method: EPA 6020A End Date: 11/26/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																		
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr					
ITUNE	1150	*	1	1147				X																															
IICALB	1300	*	1	1201				X																															
IICAL2	1302	*	1	1206				X																															
IICAL4	1304	*	1	1211				X																															
IICAL5	1305	*	1	1216				X																															
IICAL6	1306	*	1	1221				X																															
IICAL1	1301	*	1	1226				X																															
ICB	1700	*	1	1231				X																															
LLCCV	1803	*	1	1237				X																															
ICSA	2000	*	1	1242				X																															
ICSAB	2100	*	1	1247				X																															
ICV	1600	*	1	1253				X																															
MB1510215 RE	1510215	*	1	1333				X																															
LCS1510216 RE	1510216	*	1	1339				X																															
CCB	1900	*	1	1524				X																															
LLCCV	1803	*	1	1535				X																															
CCV	1800	*	1	1540				X																															
ICSA	2000	*	1	2237				X																															
ICSAB	2100	*	1	2243				X																															

FORM XIV - IN

Form XV

Internal Standards

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/23/15
Instrument ID:	ICPMS2	End Date:	11/24/15
Analytical Method	EPA 6020A & 6020A Dissolved	Analytical Batch:	573147

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MWQ 14 DL	21511141401	0117	98		91		92		94		94		89		96	
MWQ 14	21511141401	0121	90		91		90		94		90		90		95	
MB1511606	1511606	0127	98		92		94		95		95		90		97	
LCS1511607	1511607	0131	94		91		91		94		91		90		95	
MWQ 14 DL	21511141401	0144	99		94		95		98		96		92		99	
MWQ 14	21511141401	0148	92		94		93		99		91		93		98	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/23/15
Instrument ID:	ICPMS2	End Date:	11/24/15
Analytical Method	EPA 6020A & 6020A Dissolved	Analytical Batch:	573147

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD8***	***Q***	***ISTD9***	***Q***	***ISTD10***	***Q***	***ISTD11***	***Q***	***ISTD12***	***Q***	***ISTD13***	***Q***	***ISTD14***	***Q***
MWQ 14 DL	21511141401	0117	103		94		101		102		98		87		103	
MWQ 14	21511141401	0121	93		91		94		98		91		87		98	
MB1511606	1511606	0127	98		96		100		98		98		94		100	
LCS1511607	1511607	0131	94		95		98		97		95		95		98	
MWQ 14 DL	21511141401	0144	100		98		101		99		99		98		100	
MWQ 14	21511141401	0148	91		96		96		96		93		98		97	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/24/15
Instrument ID:	ICPMS2	End Date:	11/24/15
Analytical Method	EPA 6020A	Analytical Batch:	573296

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB1510215	1510215	1142	99		100		99		101		99		100		101	
LCS1510216	1510216	1145	99		99		99		102		97		100		102	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/24/15
Instrument ID:	ICPMS2	End Date:	11/24/15
Analytical Method	EPA 6020A	Analytical Batch:	573296

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD8***	***Q***	***ISTD9***	***Q***	***ISTD10***	***Q***	***ISTD11***	***Q***	***ISTD12***	***Q***	***ISTD13***	***Q***	***ISTD14***	***Q***
MB1510215	1510215	1142	98		98		98		98		99		100		98	
LCS1510216	1510216	1145	98		100		100		102		98		102		101	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/25/15
Instrument ID:	ICPMS1	End Date:	11/26/15
Analytical Method	EPA 6020A	Analytical Batch:	573376

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB1510215 RE	1510215	1333	95		95		95		94		93		95		97	
LCS1510216 RE	1510216	1339	94		95		94		95		91		96		97	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215111414	Start Date:	11/25/15
Instrument ID:	ICPMS1	End Date:	11/26/15
Analytical Method	EPA 6020A	Analytical Batch:	573376

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD8***	***Q***	***ISTD9***	***Q***	***ISTD10***	***Q***	***ISTD11***	***Q***	***ISTD12***	***Q***	***ISTD13***	***Q***	***ISTD14***	***Q***
MB1510215 RE	1510215	1333	100		96		99		101		99		98		99	
LCS1510216 RE	1510216	1339	96		93		95		98		94		96		97	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

ICPMS ICALs

Tune Mode	Mass	Name	ISTD	R	a	b (blank)	DL	BEC	Units
No Gas	7	Li	45 Sc [No Gas]	0.999999986	0.004354829	0.035072475	0.219121181	8.053698047	ppb
No Gas	9	Be	45 Sc [No Gas]	0.999998575	0.001300863	7.69E-06	0.004692924	0.005908732	ppb
No Gas	11	B	45 Sc [No Gas]	0.999997628	0.000774738	9.02E-05	0.028736937	0.116382672	ppb
He	23	Na	45 Sc [He]	0.999999462	0.005908935	0.163903541	1.481232224	27.73825378	ppb
He	24	Mg	45 Sc [He]	0.999999024	0.002667567	0.00146064	0.813954105	0.547555005	ppb
He	27	Al	45 Sc [He]	0.999999188	0.000684641	0.000669062	0.692850945	0.977244698	ppb
He	29	Si	45 Sc [He]	0.999977486	2.15E-05	0.009449697	92.9526566	439.2525969	ppb
He	39	K	45 Sc [He]	0.999999414	0.001286647	0.1249884	5.06947271	97.14272526	ppb
He	44	Ca	45 Sc [He]	0.999998868	7.16E-05	0.001596969	8.882374927	22.31181721	ppb
He	47	Ti	45 Sc [He]	0.99997615	0.000691927	4.85E-05	0.186427356	0.070165044	ppb
He	51	V	72 Ge [He]	0.999999047	0.038615803	0.001692451	0.031230921	0.043827927	ppb
He	52	Cr	72 Ge [He]	0.999997731	0.050646386	0.004664022	0.006879531	0.092089919	ppb
He	55	Mn	72 Ge [He]	0.999999404	0.018570914	0.001306943	0.045952402	0.070375821	ppb
He	57	Fe	72 Ge [He]	0.99999995	0.000953674	0.001158751	0.489321771	1.215039452	ppb
He	59	Co	72 Ge [He]	0.999998645	0.095121103	0.00098113	0.01236335	0.010314531	ppb
He	60	Ni	72 Ge [He]	0.999997759	0.028071906	0.000296847	0.010908001	0.010574511	ppb
He	63	Cu	72 Ge [He]	0.999988752	0.077973345	0.00480921	0.061023904	0.061677619	ppb
He	66	Zn	72 Ge [He]	0.999999324	0.00870824	0.004426423	0.073612125	0.508302847	ppb
He	75	As	72 Ge [He]	0.999999465	0.006060757	0.000138115	0.00744278	0.022788483	ppb
He	78	Se	209 Bi [He]	0.999875919	7.82E-06	1.01E-06	0.259315401	0.129666509	ppb
No Gas	88	Sr	72 Ge [No Gas]	0.999999964	0.036038305	0.000581964	0.011352426	0.016148486	ppb
No Gas	90	Zr	72 Ge [No Gas]	0.999956872	0.021073187	0.000326886	0.003472123	0.015511935	ppb
No Gas	95	Mo	115 In [No Gas]	0.999990337	0.001295857	1.95E-06	0.001886361	0.001506376	ppb
No Gas	107	Ag	115 In [No Gas]	0.999994495	0.00317862	1.62E-05	0.00380192	0.005083472	ppb
No Gas	111	Cd	115 In [No Gas]	0.999996093	0.000650669	2.35E-06	0.001139101	0.003612551	ppb
No Gas	118	[Sn]	115 In [No Gas]	0.999994156	0.001907071	4.04E-05	0.005237529	0.021206761	ppb
He	118	[Sn]	115 In [He]	0.999990448	0.002763101	4.86E-05	0.018648462	0.017599934	ppb
He	120	Sn	115 In [He]	0.999992455	0.00399513	6.74E-05	0.008789843	0.016862162	ppb
No Gas	121	Sb	115 In [No Gas]	0.999989146	0.002895612	9.69E-05	0.00870623	0.033464974	ppb
No Gas	137	Ba	115 In [No Gas]	0.999996169	0.000958072	1.03E-05	0.002186009	0.010734412	ppb
He	156	[Se]	115 In [He]						ppb
No Gas	205	Tl	209 Bi [No Gas]	0.999987278	0.006620153	0.000203274	0.003583536	0.030705364	ppb
No Gas	206	[Pb]	175 Lu [No Gas]	0.999998446	0.001273726	1.65E-05	0.018368241	0.012957355	ppb
No Gas	207	[Pb]	175 Lu [No Gas]	0.999998449	0.001124814	2.03E-05	0.020908584	0.0180489	ppb
No Gas	208	Pb	175 Lu [No Gas]	0.99999992	0.005247273	6.71E-05	0.00485928	0.012783105	ppb
No Gas	45	Sc							ppb
He	45	Sc							ppb
No Gas	72	Ge							ppb
He	72	Ge							ppb
No Gas	103	Rh							ppb
He	103	Rh							ppb
No Gas	115	In							ppb
He	115	In							ppb
No Gas	159	Tb							ppb
He	159	Tb							ppb
No Gas	175	Lu							ppb
He	175	Lu							ppb
No Gas	209	Bi							ppb
He	209	Bi							ppb

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999999522	0.002512782	0.020123035	0.210952571	8.008269675	ppb
1	9	Be	0.999999948	0.000707528	4.26E-06	0.008224674	0.006014521	ppb
1	11	B	0.999996949	0.000456425	0.001512081	0.068619859	3.312881722	ppb
2	23	Na	0.999998415	0.005870062	0.070547963	2.437160949	12.01826556	ppb
2	24	Mg	0.999999488	0.002761309	0.001259022	0.469519792	0.455951119	ppb
2	27	Al	0.999999677	0.000873406	0.000579153	0.487615797	0.663097423	ppb
2	29	Si	0.999996334	2.50E-05	0.001919318	18.19530121	76.82052764	ppb
2	39	K	0.999989956	0.001713225	0.092268212	3.837084885	53.85645723	ppb
2	44	Ca	0.999997968	8.84E-05	0.000616062	7.840295332	6.971852349	ppb
2	47	Ti	0.999961681	0.000726255	6.73E-06	0.024083866	0.009269732	ppb
2	51	V	0.999992783	0.044989645	0.001008355	0.005771786	0.022413051	ppb
2	52	Cr	0.999997463	0.055536117	0.001869194	0.024286261	0.033657275	ppb
2	55	Mn	0.999999129	0.024645464	0.00098423	0.02769552	0.039935543	ppb
2	57	Fe	0.999999229	0.001016891	0.000761963	0.874027198	0.749306375	ppb
2	59	Co	0.999999178	0.090931796	0.000385397	0.00362751	0.004238309	ppb
2	60	Ni	0.9999997	0.024655473	0.000446663	0.022968885	0.018116177	ppb
2	63	Cu	0.999998405	0.002365391	7.53E-05	0.006132858	0.031840002	ppb
2	66	Zn	0.999999868	0.00797865	0.001716307	0.130773129	0.215112486	ppb
2	75	As	0.999993751	0.005273016	9.36E-05	0.017095235	0.017746651	ppb
2	78	Se	0.999952881	0.000154717	7.35E-05	0.266187416	0.475230269	ppb
1	88	Sr	0.999999884	0.049292631	0.000561163	0.006005386	0.011384317	ppb
1	90	Zr	0.999989095	0.032481632	0.000214255	0.000846116	0.006596204	ppb
1	95	Mo	0.99998493	0.0015402	1.90E-05	0.007586704	0.012336937	ppb
1	107	Ag	0.999993435	0.003442325	2.93E-05	0.007810656	0.00852003	ppb
1	111	Cd	0.999998171	0.000722753	2.64E-06	0.006822594	0.003645956	ppb
1	118	(Sn)	0.999994662	0.002248354	3.88E-05	0.004116668	0.017266856	ppb
2	118	(Sn)	0.99998712	0.002981999	7.03E-05	0.023805573	0.023585927	ppb
2	120	Sn	0.999994925	0.004303413	0.000106496	0.026121831	0.024746759	ppb
1	121	Sb	0.999997967	0.003080204	0.000120156	0.015350996	0.03900922	ppb
1	137	Ba	0.999993718	0.001074885	2.24E-05	0.009592486	0.020864428	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999079	0.007447316	4.45E-05	0.004070147	0.005969997	ppb
1	206	(Pb)	0.999999437	0.002561638	1.96E-05	0.0200288	0.007662154	ppb
1	207	(Pb)	0.999994524	0.002291833	1.96E-05	0.010100746	0.008560145	ppb
1	208	Pb	0.999997212	0.010403336	9.30E-05	0.007641763	0.008940371	ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999997216	0.004302017	0.030065687	0.27156951	6.988742252	ppb
1	9	Be	0.99999948	0.001111554	6.21E-07	0.001678503	0.000558479	ppb
1	11	B	0.99999936	0.000718766	0.000147441	0.082512754	0.205131437	ppb
2	23	Na	0.999999403	0.006362713	0.061088052	0.475795677	9.600944017	ppb
2	24	Mg	0.999999646	0.003039596	0.000361326	0.007143517	0.11887289	ppb
2	27	Al	0.999996414	0.000957865	0.000256298	0.299175395	0.267572329	ppb
2	29	Si	0.999974928	1.57E-06	0.000304516	61.41759679	193.7102772	ppb
2	39	K	0.999999206	0.001814982	0.116275555	5.16347794	64.06430511	ppb
2	44	Ca	0.999999576	9.47E-05	0.000820392	6.726995654	8.666183757	ppb
2	47	Ti	0.999996046	0.000774131	1.19E-05	0.046527878	0.015430624	ppb
2	51	V	0.999998283	0.048142327	0.00108523	0.022058941	0.022542117	ppb
2	52	Cr	0.999999896	0.059522268	0.002185665	0.010836219	0.03672013	ppb
2	55	Mn	0.999999605	0.026409137	0.000765519	0.018487493	0.028986894	ppb
2	57	Fe	0.999999548	0.001098793	0.00033952	0.84435153	0.308993635	ppb
2	59	Co	0.999999602	0.097338124	0.000337565	0.001931641	0.003467959	ppb
2	60	Ni	0.999997697	0.026399249	0.001987521	0.03592569	0.075287036	ppb
2	63	Cu	0.999998986	0.008918925	0.000197315	0.017212288	0.022123228	ppb
2	66	Zn	0.999996493	0.008642398	0.001423493	0.124420049	0.164710435	ppb
2	75	As	0.999999522	0.005762902	0.000114716	0.015431779	0.019906026	ppb
2	78	Se	0.999973989	0.000282317	0.00015181	0.383280661	0.537728976	ppb
1	88	Sr	0.999994318	0.049360786	0.000563668	0.007351945	0.011419355	ppb
1	90	Zr	0.999994473	0.032139885	0.000118684	0.002121913	0.003692733	ppb
1	95	Mo	0.999999469	0.001737226	3.22E-06	0.002599014	0.001853056	ppb
1	107	Ag	0.999999587	0.00368747	1.32E-05	0.001731376	0.003572923	ppb
1	111	Cd	0.999999847	0.000766451	0	0	0	ppb
1	118	(Sn)	0.999999931	0.002379896	4.53E-05	0.011341991	0.019043812	ppb
2	118	(Sn)	0.999999061	0.003204513	0.000116465	0.066526587	0.03634394	ppb
2	120	Sn	0.999997145	0.004629982	0.000202864	0.03229722	0.043815335	ppb
1	121	Sb	0.999999941	0.003083901	7.73E-05	0.013487013	0.025063627	ppb
1	137	Ba	0.999991568	0.001122077	1.12E-05	0.012147028	0.010016784	ppb
2	156	[Se]						ppb
1	205	Tl	0.99999822	0.007941742	5.95E-05	0.0090399	0.007490743	ppb
1	206	(Pb)	0.999999848	0.002692215	2.12E-05	0.012585119	0.007889125	ppb
1	207	(Pb)	0.999999699	0.002406849	9.89E-06	0.002938636	0.004110061	ppb
1	208	Pb	0.999999865	0.01099403	6.51E-05	0.003474309	0.005918441	ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

PrepSheets

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1235 End: 1245	BATCH NO:	572880
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐ Diss 6020

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 572880 [DIGM/40187]	1511606	50	50	MB		HNO3
2	QC ACCOUNT	LCS for HBN 572880 [DIGM/40187	1511607			LCS		301-1-15
3	4271	LB-3D	21511134301			SAMPLE	Field Filtered	HCL
4	4747	MWA 14	21511141401			SAMPLE		
5	4271	LB-2D	21511184501			SAMPLE		H2O2
6	4380	CAP04-MW4-7-1115	21511180601			SAMPLE		
7	4380	CAP04-FB01-1115	21511180602			FLDBK		SOLID MATERIAL:
8	4380	CAP04-EB01-1115	21511180603			EQBK		
9	4380	CAP05-MW5-3R-1115	21511180607			SAMPLE		ICP MS SPIKE 2Bw123014
10	4380	CAP05-MW5-3R-1115 MS	21511180608			MS		ICP MS Spike 2Bw123014
11	4380	CAP05-MW5-3R-1115 MSD	21511180609			MSD		ICP MS SPIKE 2Bw123014
12								ICP MS SPIKE 2Bw123014
13								
14								
15								
16								
17								SPIKING SOLUTIONS (LCS/MS)
18								
19								GCALI-1 - 250uL
20								
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

Samples are undigested

COMMENTS:

BALANCE ID: _____ TEMP: _____

BLOCK ID	TECHNICIAN	DATE
N/A 150918	JEL	11-24-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	11/25/15

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

XTRACTION ATE/TIME:	Start: 1330 End: 1530	**BATCH NO:**	572557
ATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	**METHOD:**	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
	QC ACCOUNT	MB for HBN 572557 [DIGM/40148]	1510215	50	50	MB		HNO3 301-1-13
	QC ACCOUNT	LCS for HBN 572557 [DIGM/40148	1510216	↓	↓	LCS		
	0176	#9 REAL TIME	21511131701	↓	↓	SAMPLE		HCL 1:1 226-19-12
	4271	LB-3D	21511134301	↓	↓	SAMPLE		
	0176	RLA-1 D-111A H2O	21511140701	↓	↓	SAMPLE		H2O2
	0176	CD03 WATER	21511140702	↓	↓	SAMPLE		
	4747	MWA 14	21511141401	↓	↓	SAMPLE		SOLID MATERIAL:
	4455	NAV-EB-111215-SO	21511130601	↓	↓	EQBK		
	4248	C15	21511131911	↓	↓	SAMPLE		GCAL 8 250uL 2123036
0	QC ACCOUNT	C15(1509472MS)	1510217	↓	↓	MS		
1	QC ACCOUNT	C15(1509472MSD)	1510218	↓	↓	MSD		Li, B, Zr PrepSpk 248-62-4 250uL
2	4248	C16	21511131912	↓	↓	SAMPLE		
3	4248	D2b	21511131913	↓	↓	SAMPLE		Ag, Se, Sb PrepSpk 248-59-7 250uL
4	4248	D2c	21511131914	↓	↓	SAMPLE		
5	4248	D3b	21511131915	↓	↓	SAMPLE		1000 ppm Si Spk 2124153 250uL
6	4248	D3c	21511131916	↓	↓	SAMPLE		
7	4248	D5b	21511131917	↓	↓	SAMPLE		**SPIKING SOLUTIONS (LCS/MS)**
8	4248	D5c	21511131918	↓	↓	SAMPLE		
9	4248	D6	21511131919	↓	↓	SAMPLE		GCALI-1 - 250uL
0	4248	D7	21511131920	↓	↓	SAMPLE		
1	4248	D8	21511131921	↓	↓	SAMPLE		GCALI-2 - 250uL
2	4248	D9a	21511131922	↓	↓	SAMPLE		
3	4248	D9b	21511131923	↓	↓	SAMPLE		ORGANOMETALLIC ICP SPIKE 0.025g
4	4248	D10	21511131924	↓	↓	SAMPLE		
5								
6								
7								
8								

MMENTS:

BALANCE ID: N/A TEMP: 93°

LOCK ID	TECHNICIAN	DATE
A1	JEL2	11/16/15
EPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
NA	AWG	11/19/15

vision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 2:35 End: 1035	BATCH NO:	572747
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

#	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 572747 [DIGM/40160]	1511083	20	20	MB		HNO3
2	QC ACCOUNT	LCS for HBN 572747 [DIGM/40160	1511084			LCS		7174371
3	4494	CB-IDW-S-02	21511130201			SAMPLE		H2SO4
4	QC ACCOUNT	CB-IDW-S-02 (1509295MS)	1511197			MS		7173098
5	4494	CB-IDW-S-03	21511130202			SAMPLE		Aqua Regia
6	4747	MWA 14	21511141401			SAMPLE		
7	4248	A1	21511131901			SAMPLE		KMN04
8	4248	CD1a	21511131902			SAMPLE		7716203
9	4248	CD1d	21511131903			SAMPLE		K2S2O6
10	4248	C2	21511131904			SAMPLE		7716204
11	QC ACCOUNT	C2(1509461MS)	1511085			MS		Hg Calib ID
12	QC ACCOUNT	C2(1509461MSD)	1511086			MSD		
13	4248	C3b	21511131905			SAMPLE		0.1 ppm CCV Working Solution
14	4248	C5	21511131906			SAMPLE		
15	4248	C7	21511131907			SAMPLE		0.1 ppm ICV Working Solution
16	4248	C8	21511131908			SAMPLE		
17	4248	C12	21511131909			SAMPLE		Hg ICV
18	4248	C13	21511131910			SAMPLE		
19	4248	C15	21511131911			SAMPLE		**SPIKE SOLUTIONS (LCS/MS)**
20	4248	C16	21511131912			SAMPLE		
21	4248	D2b	21511131913			SAMPLE		Hg Spike ~~100uL~~ 150uL
22	4248	D2c	21511131914			SAMPLE		2110-10048
23	4248	D3b	21511131915			SAMPLE		ORGANOMETALLIC HG SPIKE 0.025g
24	4248	D3c	21511131916			SAMPLE		
25	4248	D5b	21511131917	↓	↓	SAMPLE		SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A2 1508107	JCC	11/18/15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	11/19/15

BALANCE ID: ____________ TEMP: 0930

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 13:25 End: 15:25	BATCH NO:	572749
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 572749 [DIGM/40162]	1511091	20	20	MB		HNO3
2	QC ACCOUNT	LCS for HBN 572749 [DIGM/40162	1511092			LCS	Field Filtered	2172371
3	4747	MWA 14	21511141401			SAMPLE		H2SO4
4	0176	Separator Effluent	21511161201			SAMPLE		2173038
5	0176	ACLA Sump	21511161401			SAMPLE		Aqua Regia
6	4435	SB048/GW-1	21511134602			SAMPLE		
7	QC ACCOUNT	SB048/GW-1 (1509777MS)	1511093			MS		KMN04
8	QC ACCOUNT	SB048/GW-1 (1509777MSD)	1511094			MSD		772670-3
9	4435	SB046/GW-1	21511134603			SAMPLE		K2S2O6
10	4435	SB072/GW-1	21511134604			SAMPLE		772670-4
11	4435	SB071/GW-1	21511134605			SAMPLE		Hg Calib ID
12	4435	SB080/GW-1	21511134606			SAMPLE		
13	4435	SB079/GW-1	21511134607			SAMPLE		0.1 ppm CCV Working Solution
14	4435	SB089/GW-1	21511134608			SAMPLE		
15	4435	SB090/GW-1	21511134609			SAMPLE		0.1 ppm ICV Working Solution
16	4435	SB091/GW-1	21511134610			SAMPLE		
17	4435	SB082/GW-1	21511134611			SAMPLE		Hg ICV
18	4435	DUP-7/GW-1	21511134612			FLDDUP		
19	4435	DUP-6/GW-1	21511134613			FLDDUP		SPIKE SOLUTIONS (LCS/MS)
20	0176	SYNTHETICS TRAIN 1	21511162901			SAMPLE		
21								Hg Spike ~~400uL~~ / ~~150uL~~ 150uL
22								[illegible]
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A1 150907	JU	11-18-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
NA	AWG	11/19/15

BALANCE ID: ____________ TEMP: 930

Revision 1, 08/10/2010

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1of 1
Project Number: A012-113
Chain of Custody Number (1): 13-11-15-01

Facility: ~~Holloman Air Force Base~~ Mel Rose Range
Project Name / Site Name: Melrose AFR ~~Annual~~ Quarterly
Client Name: Trinity
Project Manager: ~~Tony Lucero~~ Jonathan Kramer
Collected by: T Lucero

Sample Analysis Requested (5): metals(total E200.7/6020) | Cyanide (9012A) | Nitrate, Nitrite (300.0) | chloride, sulfate (300.0) | Alkalinity 2320 | TDS 2540C

Quality Assurance Samples (6)

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	metals(total E200.7/6020)	Cyanide (9012A)	Nitrate, Nitrite (300.0)	chloride, sulfate (300.0)	Alkalinity 2320	TDS 2540C				Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MWQ 14		13-11-2015	0925		N	1	WG	5	X	X	X	X	X	X							1-1

Comments: 7749 3420 3400 2DE24

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Tom Lu	11-13-15	1600	1.		
2. FedEx	11-14-15	10:10	2. Dodie McClure	11-14-15	10:10
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ______ Shipped: No.: ______
Method of Shipment: ______ Airbill Number: ______
Analytical Lab: ______ Delivery Location: ______
Lab Recipient: ______ Delivery Date/Time: ______

1.) Chain of Custody Number = site name (e.g., SS125) and then date (yyyymmdd) collected + custody number (e.g. SS125-20110902-01)... September 2, 2011.
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/11 = 01, if sampled again on 10/10/11 = 02, etc.)
4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.
6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on May 10, 2011 in association with samples on the COC will be designated 10051101 in the Blank Lot Control Number field).
7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: ST069-MW-08S-c

1.4, 1.1, 1958

Client ID: 4747 - TRINITY Analysis & Development Corp.
SDG: 215111414
PM: RCH2

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215111414

SAMPLE DELIVERY GROUP 215111414	
Client **PM** RCH2 4747 - TRINITY Analysis & Development Corp.	**Transport Method**
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 11/14/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOC water samples received without head space?	☐	☐	☑
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☑	☐	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
774934203400		2.0

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.4

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 11/15/15
Analyst: RXJ
HBN: 572497
Batch: 5145

Instrument ID: IC3

Secondary Reviewer/Date: DMT 11/18/15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2124345 Expiration Date: 2/28/16
Calibration Standard (NO_3) Lot #: 2124395 Expiration Date: 1/31/17
Calibration ID 1042-46-1
Calibration Date 10/31/15
Calibration Expiration 2/28/16 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1053-8-9
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1042-50-3 Expiration Date: 5/4/16

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

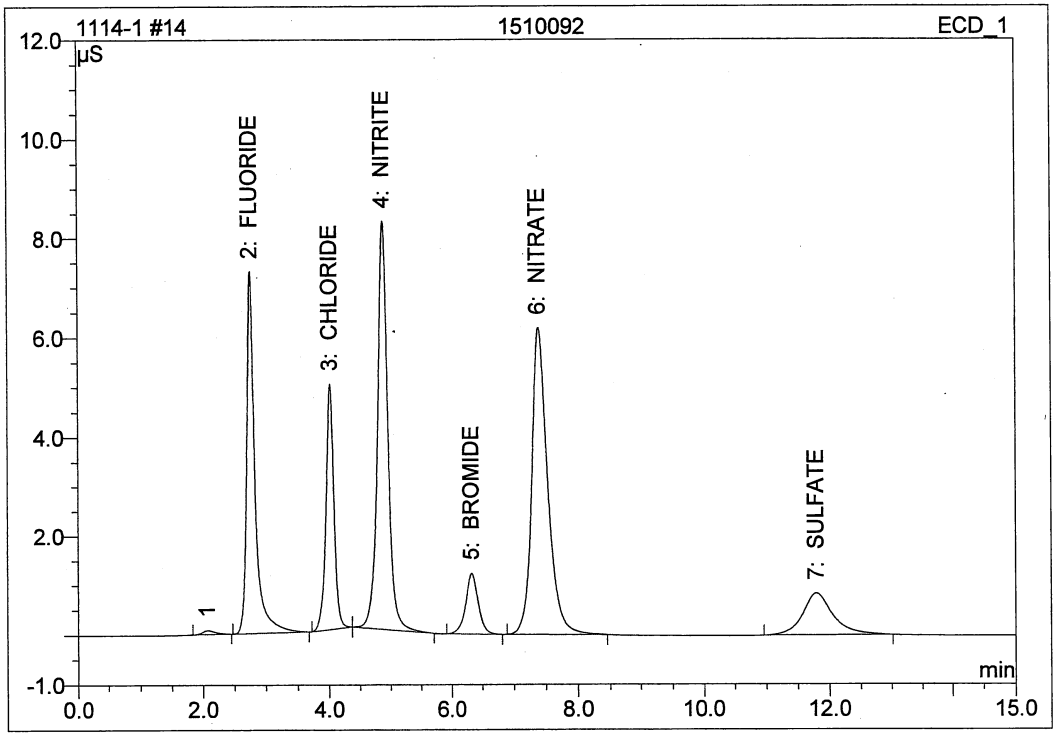
PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

Revision 00: 11/08/13

Sample Analysis Report

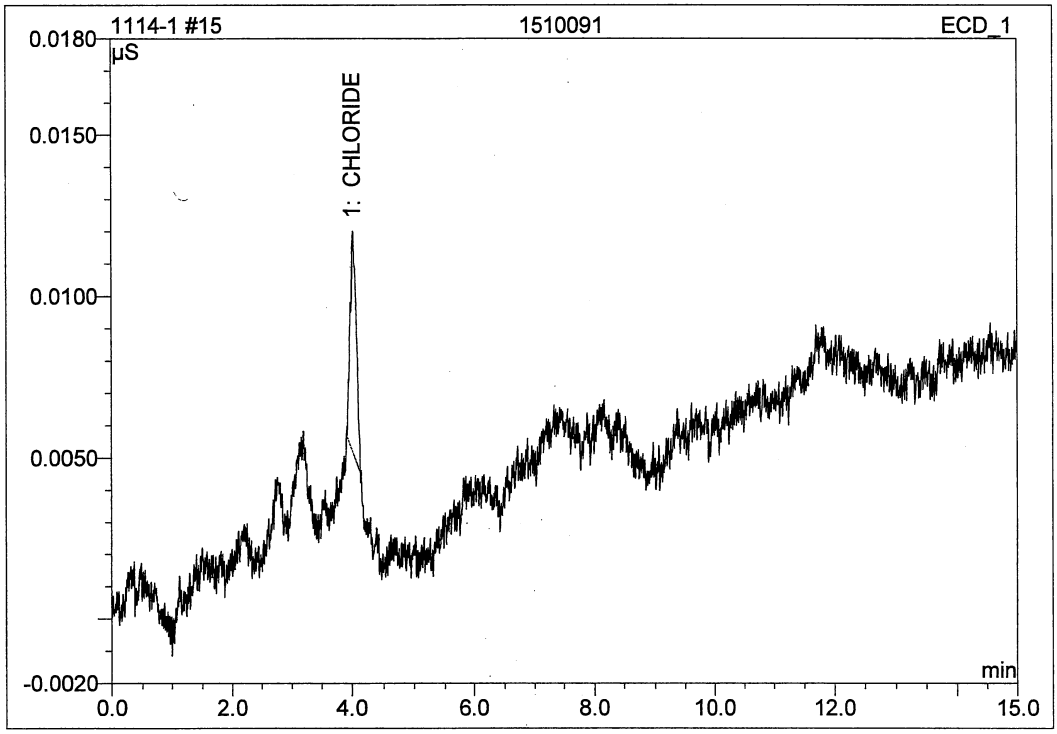
Sample Name:	1510092	**Sample No.:**	14
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 4:21 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.76	1.101	7.295	2.231	n.a.
3	CHLORIDE	4.02	0.729	4.955	2.417	n.a.
4	NITRITE	4.88	1.630	8.236	2.379	n.a.
5	BROMIDE	6.33	0.286	1.224	2.365	n.a.
6	NITRATE	7.39	1.801	6.194	2.359	n.a.
7	SULFATE	11.79	0.470	0.843	2.407	n.a.

Sample Analysis Report

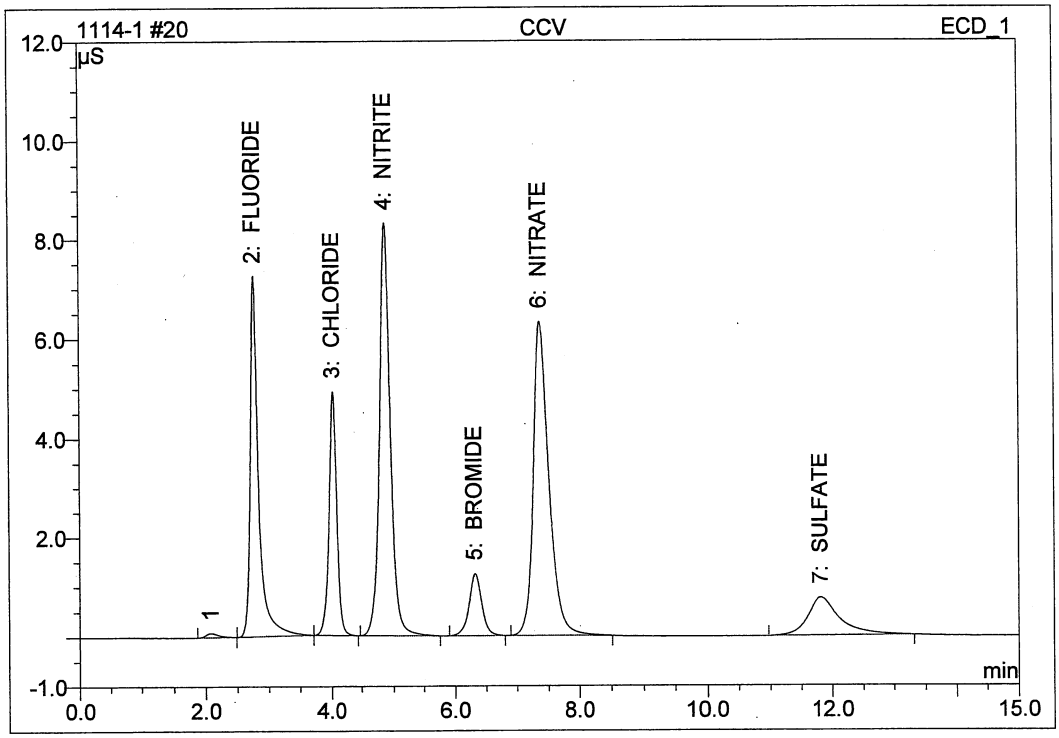
Sample Name:	1510091 mb/ccb	**Sample No.:**	15
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 4:38 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/l	Amnt.Dev.(abs) mg/L
1	CHLORIDE ✓	4.02	0.001	0.007	0.066	n.a.

Sample Analysis Report

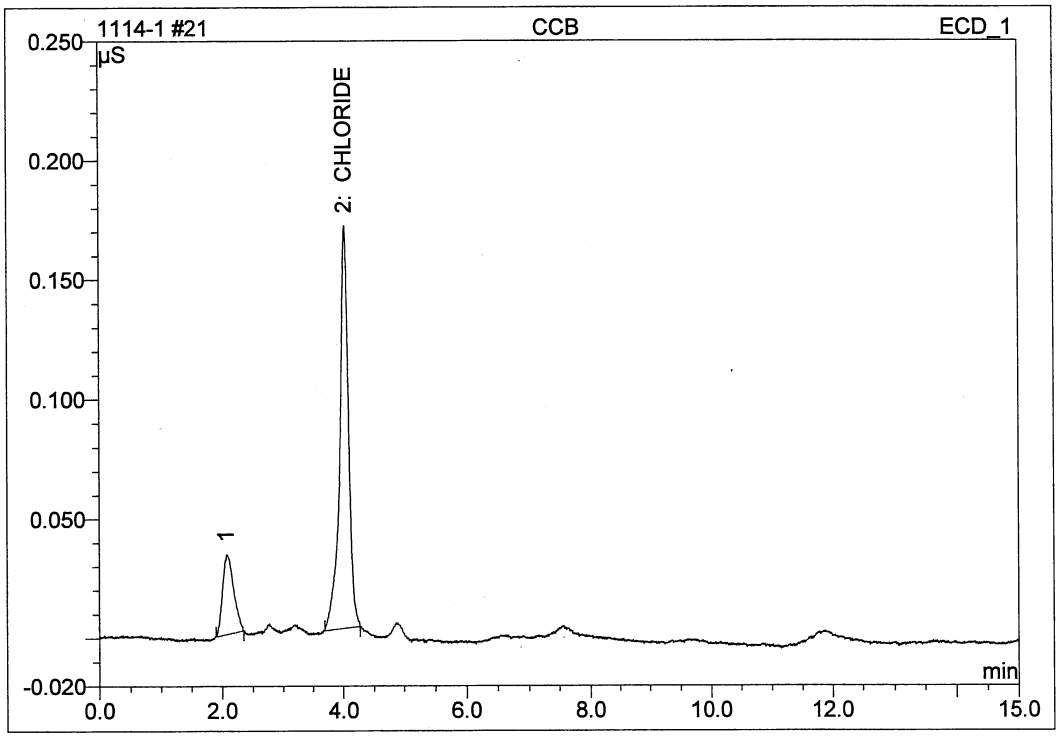
Sample Name:	CCV	**Sample No.:**	20
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 6:05 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.77	1.114	7.257	2.256	90
3	CHLORIDE	4.03	0.730	4.911	2.418 ✓	97
4	NITRITE	4.88	1.629	8.313	2.379 ✓	95
5	BROMIDE	6.32	0.292	1.243	2.407	96
6	NITRATE	7.37	1.824	6.325	2.388 ✓	96
7	SULFATE	11.81	0.457	0.761	2.345 ✓	94

Sample Analysis Report

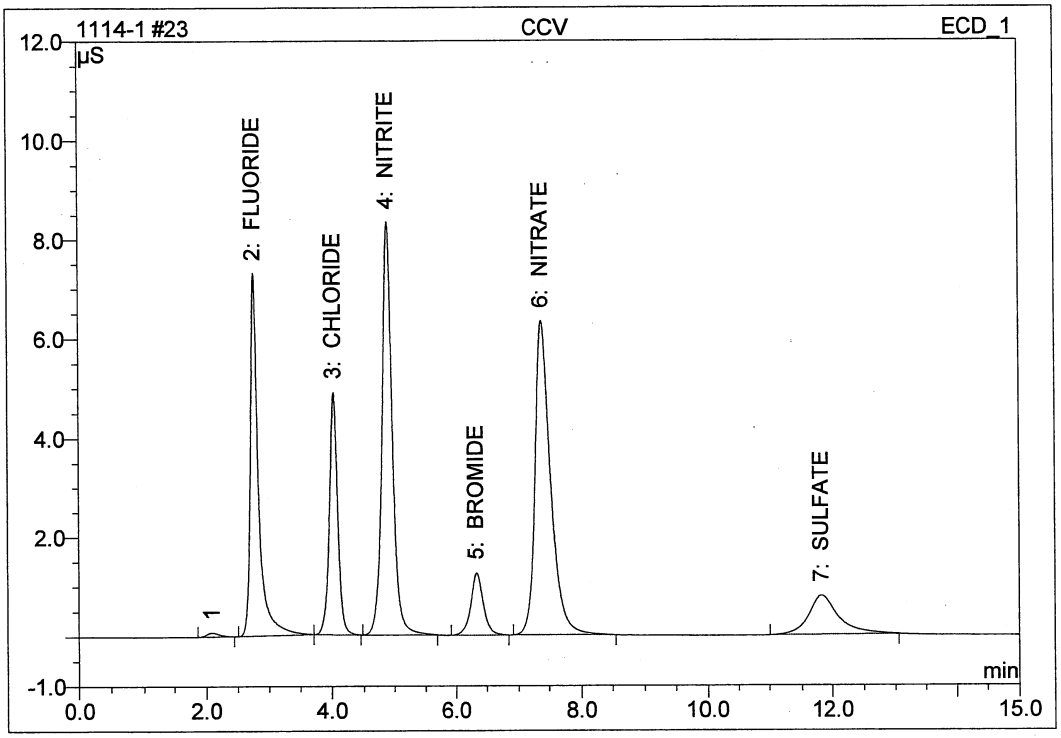
Sample Name:	CCB	**Sample No.:**	21
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 6:23 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	CHLORIDE ✓	4.03	0.028	0.168	0.155	n.a.

Sample Analysis Report

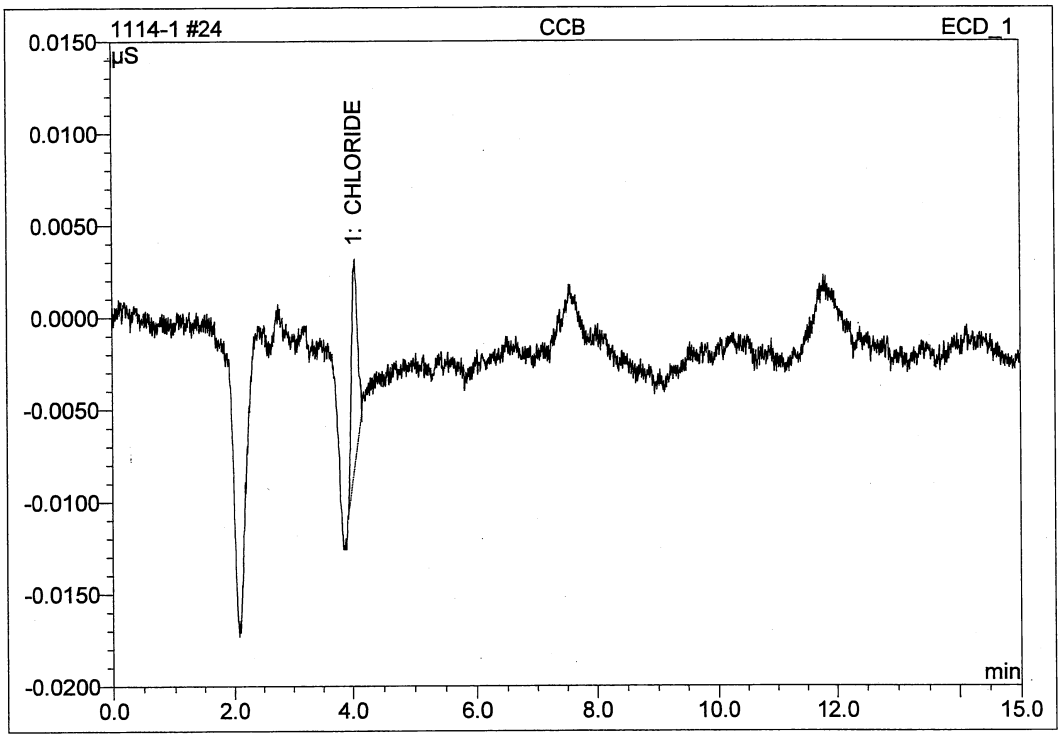
Sample Name:	CCV	**Sample No.:**	23
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 6:57 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.77	1.113	7.306	2.255	90
3	CHLORIDE	4.04	0.725	4.883	2.404 ✓	96
4	NITRITE	4.90	1.634	8.325	2.385	95
5	BROMIDE	6.34	0.294	1.250	2.424	97
6	NITRATE	7.39	1.824	6.324	2.387	95
7	SULFATE	11.82	0.453	0.788	2.325 ✓	93

Sample Analysis Report

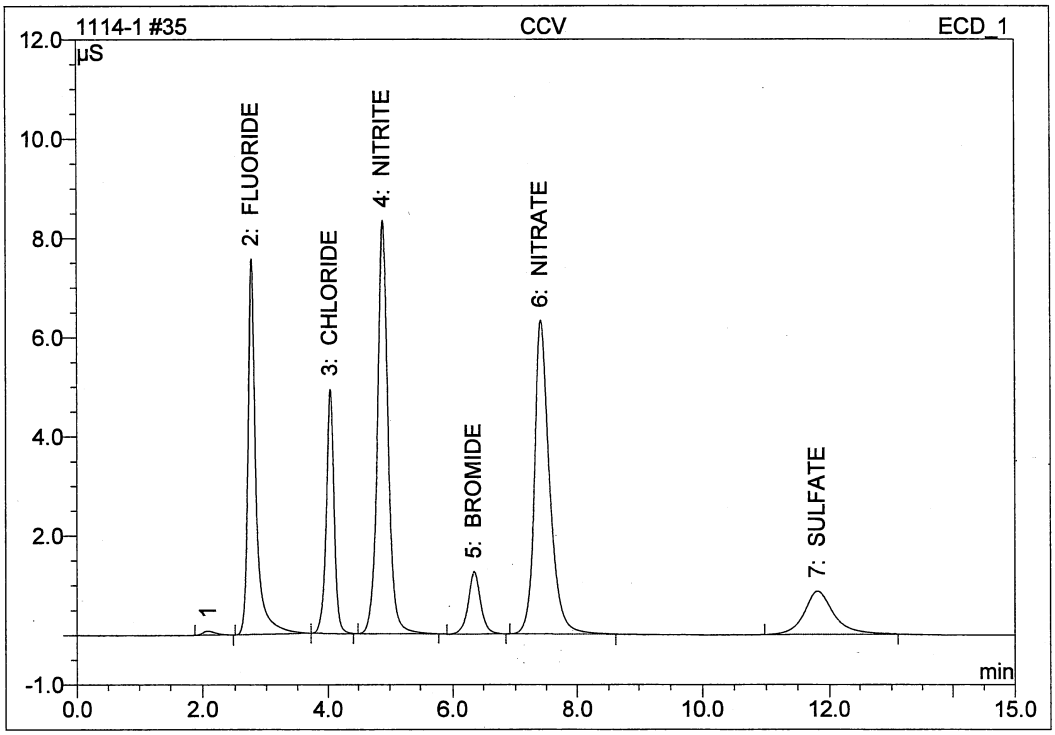
Sample Name:	CCB	**Sample No.:**	24
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 7:15 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	CHLORIDE ✓	4.05	0.001	0.011	0.068	n.a.

Sample Analysis Report

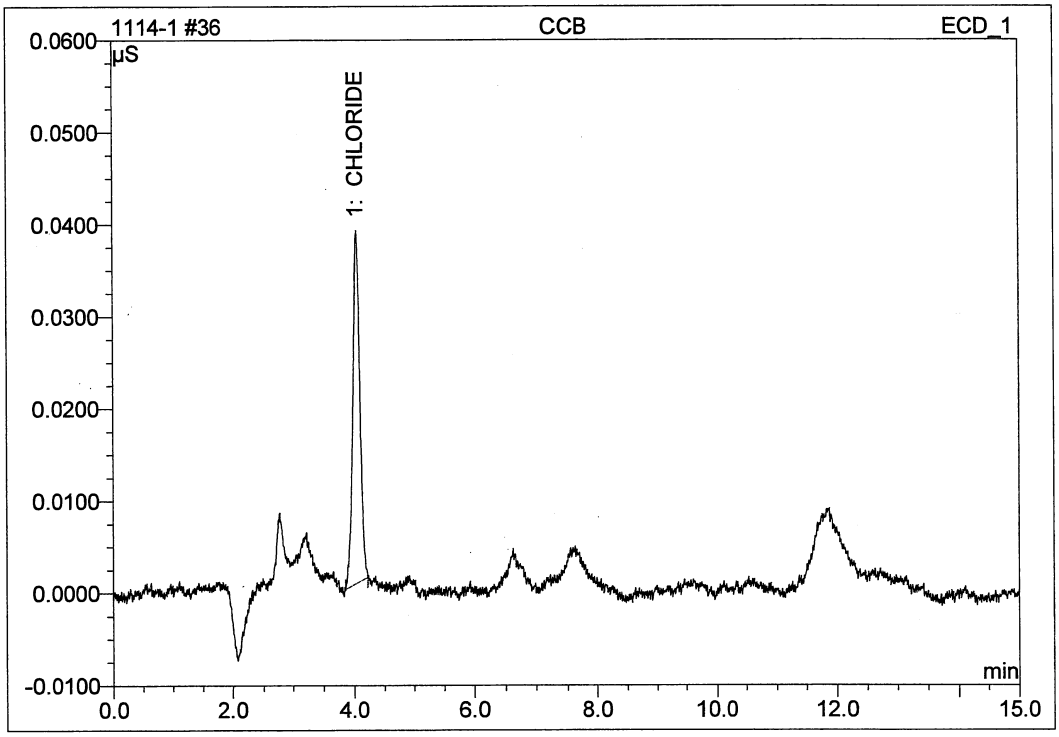
Sample Name:	CCV	**Sample No.:**	35
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 10:26 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev.(abs) mg/L
2	FLUORIDE	2.77	1.128	7.564	2.284		91
3	CHLORIDE	4.04	0.731	4.916	2.422	✓	97
4	NITRITE	4.90	1.634	8.331	2.385		95
5	BROMIDE	6.35	0.297	1.254	2.451		98
6	NITRATE	7.41	1.832	6.321	2.398		96
7	SULFATE	11.81	0.480	0.871	2.452	✓	98

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	36
Sequence Name:	1114-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/14/2015 10:44 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	CHLORIDE ✓	4.05	0.005	0.038	0.081	n.a.

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 11/1/15
Analyst: RXJ
HBN: ICAL
Batch:

Instrument ID: IC3

Secondary Reviewer/Date: DMT 11/2/15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 212823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 212845 Expiration Date: 2/28/16
Calibration Standard (NO_3) Lot #: 212895 Expiration Date: 1/31/17
Calibration ID 1042-46-1
Calibration Date 10/31/15
Calibration Expiration 2/28/16 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-46-7
Eluent Lot #: 1042-30-2 Expiration Date: 4/12/16

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

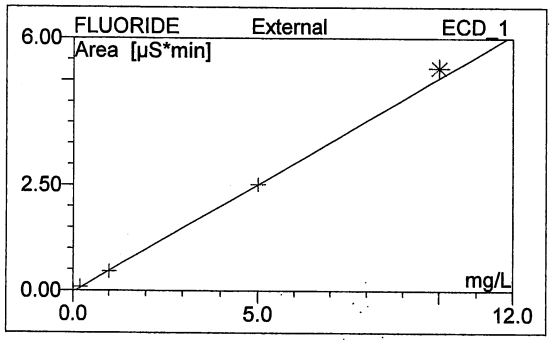
Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

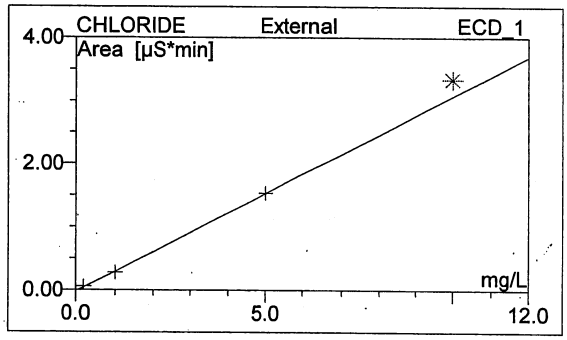
Revision 00: 11/08/13

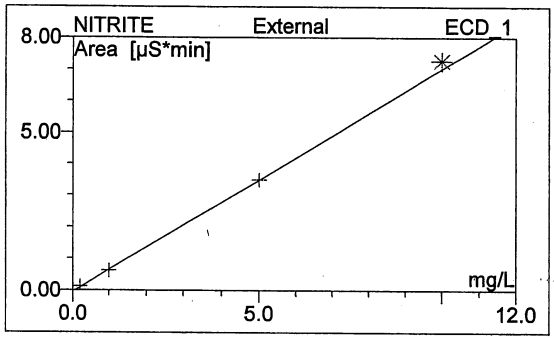
No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev	Corr.Coeff.	Offset	Slope	Curve
				%	%			
2	FLUORIDE	LOff	3	2.7729	99.9884	-0.037	0.5102	0
3	CHLORIDE	LOff	3	3.0516	99.9859	-0.0198	0.3099	0
4	NITRITE	LOff	3	3.0379	99.9862	-0.0534	0.7073	0
5	BROMIDE	LOff	4	1.9362	99.9903	-0.0109	0.1257	0
6	NITRATE	LOff	3	3.9719	99.9768	-0.0752	0.7954	0
7	SULFATE	LOff	4	4.0586	99.9596	-0.0429	0.2133	0

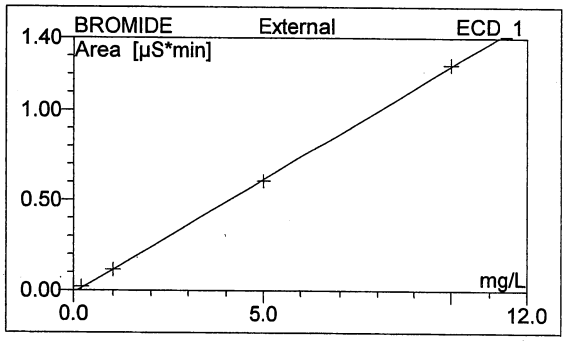
INITIAL CALIBRATION REPORT

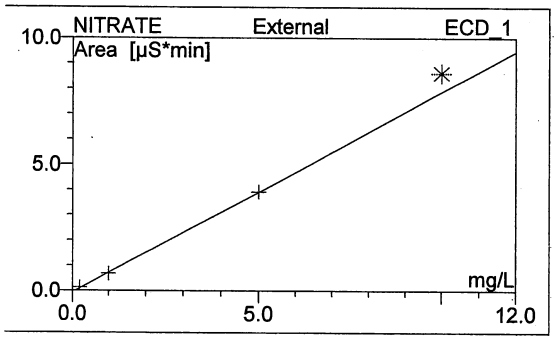
Recording Time:	##########	*Injection Volume:*	**50.0**
Control Program:	**9056**	*Channel:*	**ECD_1**
Quantif. Method:	**9056**		
Run Time (min):	**15.00**		

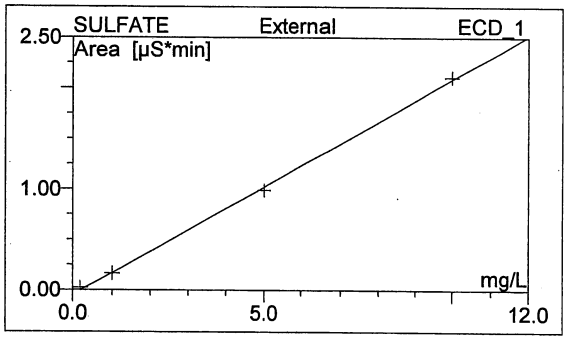












INITIAL CALIBRATION REPORT (Continued)

Recording Time: **###############**
Control Program: **9056**
Quantif. Method: **9056**
Run Time (min): **15.00**

Injection Volume: **50.0**
Channel: **ECD_'**

No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff.	Rel.Std.Dev. %
2	2.78	FLUORIDE	Loff	3	0.99988	2.773
3	4.13	CHLORIDE	Loff	3	0.99986	3.052
4	5.05	NITRITE	Loff	3	0.99986	3.038
5	6.62	BROMIDE	Loff	4	0.99990	1.936
6	7.80	NITRATE	Loff	3	0.99977	3.972
7	12.33	SULFATE	Loff	4	0.99960	4.059

GCAL ANALYTICAL LABORATORIES, LLC

SEAL AQ2 STANDARD IDs

Date: 11/24/15
Analyst: RXJ
HBN: 573220/573221/573250/573249
Batch: 14238/14239/14241/14240

Test: Cyanide
Secondary Reviewer/Date: DMT 11/24/15

Calibration Standard Lot: 2124462
Calibration Std. Exp: 4/30/16
Calibration ID: 1042-40-10
Calibration Date: 10/27/15
Calibration Exp: 4/27/16

Note: Calibration expires 6 months from calibration date or on the calibration standard expiration date, whichever is sooner.

CHLORIDE - SM 4500-Cl E-2011 / EPA 9251

CCV (LCS) Standard ID	
ICV Standard ID	
Color Reagent Lot/Exp.	

N+N/NITRATE/NITRITE - EPA 353.2

N+N:

CCV (LCS) Standard ID	
ICV Standard ID	

Reagents:

Ammonium Chloride Buffer Lot/Exp.	
Sulfanilamide Color Reagent Lot/Exp.	

Nitrite (NO_2):

CCV (LCS) Standard ID	
ICV Standard ID	

Reagents:

Ammonium Chloride Buffer Lot/Exp.	
Sulfanilamide Color Reagent Lot/Exp.	
Sodium Thiosulfate 0.025N Lot/Exp.	

Calculations:

$NO_3 = N+N - NO_2$

Column Efficiency = (LCS N+N*100) / LCS NO_2 (must be 90-110%)

Column Efficiency: _____

pH check and adjustment (if necessary):

Reagent used for pH adjustment: HCl or NH_4OH

HCl Concentrated Lot/Exp.	
NH_4OH Concentrated Lot/Exp.	

Initial and final pH for each sample recorded on Batch Sheet

CYANIDE - EPA 335.4 / SM 4500-Cn G-2011 / EPA 9012B

CCV Standard ID	1053-15-11
ICV Standard ID	NA
Phosphate Buffer Lot/Exp.	1042-34-2 1/19/16
Chloramine T Lot/Exp.	1053-15-12
Pyridine Lot/Exp.	2123050 11/30/15
0.25N NaOH Lot/Exp.	1053-12-7 5/20/16
Prep Batch HBN	573036/573102/572950/573139

PHENOLICS - EPA 420.4 / EPA 9066

CCV Standard ID	
ICV Standard ID	
Phenol Buffer Lot/Exp.	
4-Aminoantipyrine Lot/Exp.	
Prep Batch HBN	

PHOSPHORUS - EPA 365.1

CCV Standard ID	
ICV Standard ID	
Ascorbic Acid Lot/Exp.	
5N H2SO4 Lot/Exp.	
Molybdate Color Lot/Exp.	
Prep Batch HBN	

Revision 0: 04/23/15

AQ-2 Report

Report Requested By: dmt
Date & Time: Tue Nov 24 09:19:34 2015
Tray Number: 30
Tray Name: 15.11.23 (23-48)

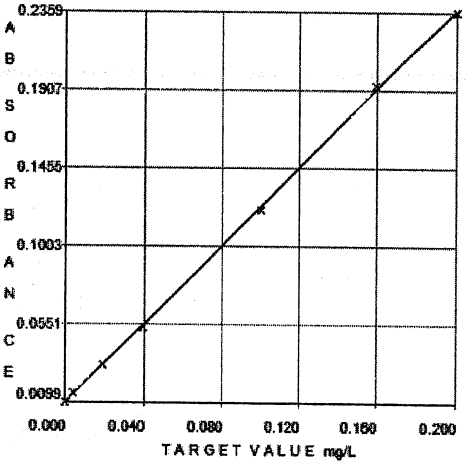
CYANIDE

Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0099	0.001	0.000	
S90	0.0149	0.005	0.004	30.03
S91	0.0309	0.019	0.020	-3.51
S92	0.0531	0.039	0.040	-3.06
S93	0.1211	0.099	0.100	-1.33
S94	0.1926	0.162	0.160	0.99
S95	0.2359	0.200	0.200	-0.15
S0	0.0100	0.001	0.000	

Polynomial Order: 1
Correlation Coefficient: 0.9999
Carryover(%): 0.0
Calibration Equation: y = bx + a
y =: Concentration mg/L
x =: Measured Absorbance
a =: -7.917373E-003
b =: 8.800171E-001
Date & Time: Tue Oct 27 15:59:35 2015

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
CN buffer			
Chloramine T			
Pyridine			

Cup	Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
	C11	C C V ✓	0.095	mg/L	0.117179	95%		dmt	Tue Nov 24 00:09:05 2015
	C12	C C B ✓	0.001	mg/L	0.009804	L		dmt	Tue Nov 24 00:11:21 2015
1	U1	1512432	0.003	mg/L	0.012165	Rerun		dmt	Tue Nov 24 00:13:37 2015
2	U2	1512663	0.083	mg/L	0.103196	80%		dmt	Tue Nov 24 00:15:53 2015
3	U3	1512008	0.020	mg/L	0.032260	10%		dmt	Tue Nov 24 00:18:10 2015
4	U4	1512009	0.085	mg/L	0.105529	85%		dmt	Tue Nov 24 00:20:26 2015
5	U5	~~1512007~~	0.003	mg/L	0.012634	Rerun		dmt	Tue Nov 24 00:22:45 2015
6	U6	21511124529	0.002	mg/L	0.011497			dmt	Tue Nov 24 00:25:03 2015
7	U7	21511124534	0.004	mg/L	0.013743			dmt	Tue Nov 24 00:27:20 2015
8	U8	21511124541	0.002	mg/L	0.011080			dmt	Tue Nov 24 00:29:36 2015
9	U9	21511124543	0.003	mg/L	0.012236			dmt	Tue Nov 24 00:31:53 2015
10	U10	1512010	0.070	mg/L	0.088573	67%		dmt	Tue Nov 24 00:34:09 2015 matrix interference
	C11	C C V ✓	0.092	mg/L	0.114043	92%		dmt	Tue Nov 24 00:36:26 2015
	C12	C C B ✓	0.002	mg/L	0.011256	L		dmt	Tue Nov 24 00:38:44 2015

11	U11	1512011	0.002	mg/L	0.011142	dmt	Tue Nov 24 00:41:01 2015
12	U12	21511125902	0.002	mg/L	0.011474	dmt	Tue Nov 24 00:43:18 2015
13	U13	21511125903	0.001	mg/L	0.010215	dmt	Tue Nov 24 00:45:36 2015
14	U14	21511125904	0.001	mg/L	0.010265	dmt	Tue Nov 24 00:47:53 2015
15	U15	21511125905	0.001	mg/L	0.010101	dmt	Tue Nov 24 00:50:11 2015
16	U16	21511125906	0.003	mg/L	0.012476	dmt	Tue Nov 24 00:52:30 2015
17	U17	21511125907	0.003	mg/L	0.012100	dmt	Tue Nov 24 00:54:47 2015
18	U18	21511125908	0.003	mg/L	0.012068	dmt	Tue Nov 24 00:57:04 2015
19	U19	21511125909	0.003	mg/L	0.012046	dmt	Tue Nov 24 00:59:22 2015
20	U20	21511125910	0.002	mg/L	0.010910	dmt	Tue Nov 24 01:01:39 2015
	C11	C C V ✓	0.092	mg/L	0.113566 92%D	dmt	Tue Nov 24 01:03:56 2015
	C12	C C B ✓	0.001	mg/L	0.010485 ✓	dmt	Tue Nov 24 01:06:14 2015
21	U21	21511125911	0.003	mg/L	0.012592	dmt	Tue Nov 24 01:08:32 2015
22	U22	21511125912	0.004	mg/L	0.013072	dmt	Tue Nov 24 01:10:48 2015
23	U23	21511141401	0.001	mg/L	0.010621	dmt	Tue Nov 24 01:13:05 2015
24	U24	21511134101	0.003	mg/L	0.012068	dmt	Tue Nov 24 01:15:21 2015
25	U25	1512012	0.091	mg/L	0.112646 88%	dmt	Tue Nov 24 01:17:39 2015
26	U26	1512013	0.003	mg/L	0.011987	dmt	Tue Nov 24 01:19:58 2015
27	U27	1512769	0.018	mg/L	0.029953 90%	dmt	Tue Nov 24 01:22:14 2015
28	U28	1512962	0.086	mg/L	0.106722 86%	dmt	Tue Nov 24 01:24:30 2015
29	U29	1512768	0.003	mg/L	0.012517 Rerun	dmt	Tue Nov 24 01:26:47 2015
30	U30	21511134102	0.002	mg/L	0.011818	dmt	Tue Nov 24 01:29:03 2015
	C11	C C V ✓	0.095	mg/L	0.116438 95%D	dmt	Tue Nov 24 01:31:19 2015
	C12	C C B ✓	0.001	mg/L	0.010433 ✓	dmt	Tue Nov 24 01:33:37 2015
31	U31	21511134602	0.002	mg/L	0.011276	dmt	Tue Nov 24 01:35:55 2015
32	U32	21511134603	0.002	mg/L	0.011484	dmt	Tue Nov 24 01:38:11 2015
33	U33	21511134604	0.001	mg/L	0.010599	dmt	Tue Nov 24 01:40:27 2015
34	U34	21511134605	0.003	mg/L	0.012798	dmt	Tue Nov 24 01:42:43 2015
35	U35	21511134606	0.001	mg/L	0.009956	dmt	Tue Nov 24 01:45:01 2015
36	U36	21511134607	0.003	mg/L	0.012894	dmt	Tue Nov 24 01:47:20 2015
37	U37	1512770	0.078	mg/L	0.097707 75%	dmt	Tue Nov 24 01:49:36 2015
38	U38	1512771	0.002	mg/L	0.011007	dmt	Tue Nov 24 01:51:52 2015
39	U39	21511134608	0.002	mg/L	0.011694	dmt	Tue Nov 24 01:54:08 2015
40	U40	21511134609	0.002	mg/L	0.010807	dmt	Tue Nov 24 01:56:24 2015
	C11	C C V ✓	0.094	mg/L	0.116050 94%D	dmt	Tue Nov 24 01:58:40 2015
	C12	C C B ✓	0.001	mg/L	0.009832 ✓	dmt	Tue Nov 24 02:00:59 2015
41	U41	21511134610	0.002	mg/L	0.011599	dmt	Tue Nov 24 02:03:18 2015
42	U42	21511134611	0.003	mg/L	0.012285	dmt	Tue Nov 24 02:05:35 2015
43	U43	21511134612	0.002	mg/L	0.010971	dmt	Tue Nov 24 02:07:51 2015
44	U44	21511134613	0.002	mg/L	0.010983	dmt	Tue Nov 24 02:10:08 2015
45	U45	21511142102	0.002	mg/L	0.011388	dmt	Tue Nov 24 02:12:26 2015
46	U46	1512785	0.003	mg/L	0.012358	dmt	Tue Nov 24 02:14:45 2015
47	U47	1512783	0.083	mg/L	0.103104 81%	dmt	Tue Nov 24 02:17:01 2015
48	U48	21511142103	0.003	mg/L	0.012578	dmt	Tue Nov 24 02:19:18 2015
49	U49	21511142104	0.001	mg/L	0.010088	dmt	Tue Nov 24 02:21:35 2015
50	U50	21511195102	0.003	mg/L	0.012483	dmt	Tue Nov 24 02:23:51 2015
	C11	C C V ✓	0.095	mg/L	0.117335 95%D	dmt	Tue Nov 24 02:26:08 2015
	C12	C C B ✓	0.000	mg/L	0.009074 ✓	dmt	Tue Nov 24 02:28:28 2015
51	U51	21511195103	0.002	mg/L	0.011004	dmt	Tue Nov 24 02:30:50 2015
52	U52	RLA DOC1	0.076	mg/L	0.095032	dmt	Tue Nov 24 02:33:08 2015
53	U53	RLA DOC2	0.080	mg/L	0.100138	dmt	Tue Nov 24 02:35:03 2015
54	U54	RLA DOC3	0.073	mg/L	0.092222	dmt	Tue Nov 24 02:36:55 2015
55	U55	RLA DOC4	0.083	mg/L	0.102750	dmt	Tue Nov 24 02:38:36 2015
56	U56	1512437	0.081	mg/L	0.101436 78%	dmt	Tue Nov 24 02:40:18 2015
	C11	C C V ✓	0.095	mg/L	0.117362 95%D	dmt	Tue Nov 24 02:42:00 2015
	C12	C C B ✓	0.002	mg/L	0.011224 ✓	dmt	Tue Nov 24 02:43:45 2015

AQ-2 Report

Report Requested By: dmt
Date & Time: Tue Nov 24 11:58:56 2015
Tray Number: 31
Tray Name: 15.11.24 (09-27)

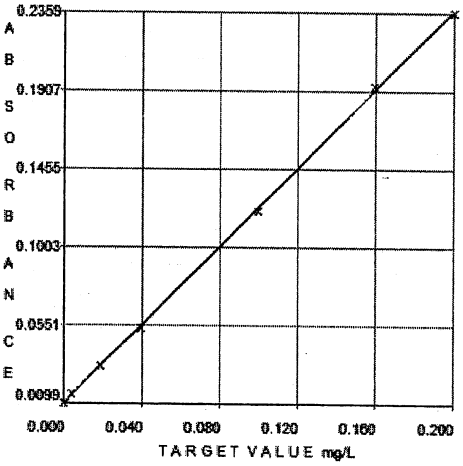
CYANIDE

Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0099	0.001	0.000	
S90	0.0149	0.005	0.004	30.03
S91	0.0309	0.019	0.020	-3.51
S92	0.0531	0.039	0.040	-3.06
S93	0.1211	0.099	0.100	-1.33
S94	0.1926	0.162	0.160	0.99
S95	0.2359	0.200	0.200	-0.15
S0	0.0100	0.001	0.000	

Polynomial Order: 1
Correlation Coefficient: 0.9999
Carryover(%): 0.0
Calibration Equation: y = bx + a
y =: Concentration mg/L
x =: Measured Absorbance
a =: -7.917373E-003
b =: 8.800171E-001
Date & Time: Tue Oct 27 15:59:35 2015

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
CN buffer			
Chloramine T			
Pyridine			

Cup	Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
	C11	CCV	0.090	mg/L	0.111793	90%		dmt	Tue Nov 24 09:45:37 2015
	C12	CCB	0.001	mg/L	0.010500			dmt	Tue Nov 24 09:47:31 2015
1	U1	1512432	0.001	mg/L	0.009991			dmt	Tue Nov 24 09:49:23 2015
2	U2	1512768	0.002	mg/L	0.011361			dmt	Tue Nov 24 09:51:05 2015
3	U3	1512007	0.001	mg/L	0.010007			dmt	Tue Nov 24 09:52:47 2015
	C11	CCV	0.095	mg/L	0.116871	95%		dmt	Tue Nov 24 09:54:28 2015
	C12	CCB	0.001	mg/L	0.009891			dmt	Tue Nov 24 09:56:10 2015

CYANIDE DISTILLATION
EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

START	11-20-15 1650	END		ANALYST	MOS
MATRIX	WATER SOLID			HBN:	572950

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	CHLORINE Yes	CHLORINE No	SULFIDE Yes	SULFIDE No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 572950 [INPR/15026]	1512007		50		✓		✓	MB		1.25M NaOH:1 9-17-8
2	QC ACCOUNT	LCS for HBN 572950 [INPR/15026	1512008		50		✓		✓	LCS		
3	QC ACCOUNT	LCSHI for HBN 572950 [INPR/150	1512009		50		✓		✓	LCSHI		Ca(OCl2):1 N/A
4	1369	RW-4	21511124529		50		✓		✓	SAMPLE		
5	1369	RW-12	21511124534		50		✓		✓	SAMPLE		0.1 NaS2O3:1
6	1369	MW-71	21511124541		50		✓		✓	SAMPLE		
7	1369	MW-69	21511124543		50		✓		✓	SAMPLE		Bi(NO3):2,3
8	QC ACCOUNT	MW-69(1509190MS)	1512010		50		✓		✓	MS		
9	QC ACCOUNT	MW-69(1509190DUP)	1512011		50		✓		✓	DUP		Ascorbic Acid:2,3
10	4435	SB051/GW-1	21511125902		50		✓		✓	SAMPLE		
11	4435	SB055/GW-1	21511125903		50		✓		✓	SAMPLE		Sulfamic Acid:2,3 9-17-11
12	4435	SB054/GW-1	21511125904		50		✓		✓	SAMPLE		
13	4435	DUP-5/GW-1	21511125905		50		✓		✓	FLDDUP		1:1 H2SO4:2 9-15-6
14	4435	SB053/GW-1	21511125906		50		✓		✓	SAMPLE		
15	4435	SB063/GW-1	21511125907		50		✓		✓	SAMPLE		2.5M MgCl:2 9-17-6
16	4435	SB010/GW-1	21511125908		50		✓		✓	SAMPLE		
17	4435	SB064/GW-1	21511125909		50		✓		✓	SAMPLE		Zn(C2H3O2):3 N/A
18	4435	SB065/GW-1	21511125910		50		✓		✓	SAMPLE		
19	4435	SB052/GW-1	21511125911		50		✓		✓	SAMPLE		0.1% Methyl Red:3
20	4435	SB049/GW-1	21511125912		50		✓		✓	SAMPLE		
21	4747	MWA 14	21511141401		50		✓		✓	SAMPLE		Acetate Buffer:3
22	1369	MW-61	21511134101		50		✓		✓	SAMPLE		
23	QC ACCOUNT	MW-61(1509708MS)	1512012		50		✓		✓	MS		5% NaOH (CLP):4
24	QC ACCOUNT	MW-61(1509708DUP)	1512013		50		✓		✓	DUP		
25												1.0N NaOH:1,2,3
26												

Type of cyanide prep: CNC-Total=2, CNAC-Amenable=1, CNFR-Free=3, CNC-CLP=4
COMMENTS:

BALANCE ID: N/A TEMP: 150°C

LCS/MS SPIKE ID	9-17-9	CONC:	10 ppm			Analyst Review	DATE
LCS LOW VOL	100 ul	LCS HIGH VOL	500 ul	LCS CLP VOL	N/A	MOS	11-20-15
MS WATER VOL	500 ul	MS SOLID VOL	N/A				
						Secondary Review	DATE
SPIKE WITNESS	N/A					R.J.M	11-23-15

Revision 1, 08/10/2010

December 07, 2015 Service Request No:R1509914

Mr. Jonathan Kramer
Gulf Coast Analytical Laboratories
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Laboratory Results for: Melrose AFR Quarterly/215111414

Dear Mr.Kramer,

Enclosed are the results of the sample(s) submitted to our laboratory November 14, 2015
For your reference, these analyses have been assigned our service request number **R1509914.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Tracy Christ
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

ALS-ENVIRONMENTAL

Client:	Gulf Coast Analytical	**Service Request No.:**	R1509914
Project:	Melrose AFR Quarterly/215111414	**Date Received:**	11/14/15
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS-Rochester. The sample was received in good condition consistent with the accompanying chain of custody form enclosed except as noted on the Cooler Receipt and Preservation Check Form. The samples were stored in a refrigerator between 1ºC and 6°C upon receipt at the laboratory.

General Chemistry

No analytical or quality control problems were encountered during analysis.

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1 of 1

Project Number: A012-113

Chain of Custody Number (1): 11B15-03

Facility: ~~Holloman Air Force Base~~ melrose AFR Quarterly

Project Name / Site Name: Melrose AFR

Client Name: Trinity

Project Manager: ~~Tony Lucero~~ J Kramer

Collected by: T Lucero

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	Hexa chrom.								Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MW2 14		13-11-15	0925		N	1	WG	1	X											03

Sample Analysis Requested [5] | Quality Assurance Samples [6]

R1509914 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

Comments

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received By (Signed)	Date	Time
1.	Tony Lucero	11-13-15	1600		11-14-15	09:20
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped: No.: _____

Method of Shipment: _____ Airbill Number: _____

Analytical Lab: _____ Delivery Location: _____

Lab Recipient: _____ Delivery Date/Time: _____

1.) Chain of Custody Number = site name (e.g., SS125) and then date (yyyymmdd) collected + custody number (e.g. SS125-20110902-01)... September 2, 2011.

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-e) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/11 = 01, if sampled again on 10/10/11 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on May 10, 2011 in association with samples on the COC will be designated 10051101 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: ST069-MW-08S-c

Cooler Receipt and Preservation Check Form

Project/Client Trinity Folder Number

Cooler received on 11-14-15 by: KE

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT	
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 11-14-15 Time: 09:26 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	2.9						
Correction Factor (°C)	0						
Corrected Temp (°C)	2.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by KE on 11-14-15 at 10:00 after pH check KE 11-14-15

5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: Must

Cooler Breakdown: Date: 11/16/15 Time: 0950 by: MA

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 091415-2AA0

Other Comments:

1 Cr+6 218.6 Cr+6 buffer 85124 10/16

11-13-15 09:25

PC Secondary Review: Must

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Analytical Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509914
Project:	Melrose AFR Quarterly/215111414/A012-113	**Date Collected:**	11/13/15 09:25
Sample Matrix:	Water	**Date Received:**	11/14/15 09:20
Sample Name:	MWQ 14	**Basis:**	NA
Lab Code:	R1509914-001		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Chromium, Hexavalent, Dissolved	218.6 LL	**0.462**	ug/L	0.020	0.010	1	12/04/15 15:35	

Analytical Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509914
Project:	Melrose AFR Quarterly/215111414/A012-113	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1509914-MB		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Chromium, Hexavalent, Dissolved	218.6 LL	0.020 U	ug/L	0.020	0.010	1	12/04/15 14:32	

Client: Gulf Coast Analytical Labs
Project: Melrose AFR Quarterly/215111414/A012-113
Sample Matrix: Water

Service Request: R1509914
Date Analyzed: 12/04/15

Lab Control Sample Summary
General Chemistry Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1509914-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.209	0.200	105	90-110

December 07, 2015 Service Request No:R1509914

Mr. Jonathan Kramer
Gulf Coast Analytical Laboratories
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Laboratory Results for: Melrose AFR Quarterly/215111414

Dear Mr.Kramer,

Enclosed are the results of the sample(s) submitted to our laboratory November 14, 2015
For your reference, these analyses have been assigned our service request number **R1509914.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Tracy Christ
Project Manager

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PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

SDG NARRATIVE

ALS Environmental - Rochester, NY
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS-ENVIRONMENTAL

Client:	Gulf Coast Analytical	**Service Request No.:**	R1509914
Project:	Melrose AFR Quarterly/215111414	**Date Received:**	11/14/15
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS. This report contains analytical results for samples designated for Tier IV. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

One sample was received for analysis at ALS-Rochester. The sample was received in good condition consistent with the accompanying chain of custody form enclosed except as noted on the Cooler Receipt and Preservation Check Form. The samples were stored in a refrigerator between 1ºC and 6°C upon receipt at the laboratory.

General Chemistry

No analytical or quality control problems were encountered during analysis.

ALS ASP/CLP Batching Form/Login Sheet

Client Proj #:	A012-113	Batch Complete:	Yes	Date Revised:	
Submission:	R1509914	Diskette Requested:	Yes	Date Due:	12/2/15
Client:	Gulf Coast Analytical Labs	Date: 12/14/15		Protocol: MCAWW	
Client Rep:	TCHRIST	Custody Seal: Present/Absent:		Shipping No.:	
Project:	Melrose AFR Quarterly/215111414	Chain of Custody: Present/Absent:		SDG #:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1509914-001	MWQ 14	Water	218.6 LL	11/13/15	11/14/15			

Folder Comments: MRLU,218.6LL for Trinity Melrose has MDL turned on, ERPIMS 4.0 for Trinity Melrose, cc regina and subcontract-data@gcal.com for report and invoice

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

CHAINS OF CUSTODY

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1 of 1

Project Number: A012-113

Chain of Custody Number (1): 11B15-03

Facility: ~~Holloman Air Force Base~~ melrose AFR Quarterly

Project Name / Site Name: Melrose AFR

Client Name: Trinity

Project Manager: ~~Tony Lucero~~ J Kramer

Collected by: T Lucero

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	Hexa chrom.								Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MW2 14		13-11-15	0925		N	1	WG	1	X											03

Sample Analysis Requested [5] | Quality Assurance Samples [6]

R1509914 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

7079

Comments

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received By (Signed)	Date	Time
1.	Tony Lucero	11-13-15	1600		11-14-15	09:20
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped: No.: _____

Method of Shipment: _____ Airbill Number: _____

Analytical Lab: _____ Delivery Location: _____

Lab Recipient: _____ Delivery Date/Time: _____

1.) Chain of Custody Number = site name (e.g., SS125) and then date (yyyymmdd) collected + custody number (e.g. SS125-20110902-01)... September 2, 2011.

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-e) Sample, FD = Field Duplicate (-e) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/11 = 01, if sampled again on 10/10/11 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on May 10, 2011 in association with samples on the COC will be designated 10051101 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: ST069-MW-08S-c

R1509914 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

Cooler Receipt and Preservation Check Form

Project/Client Trinity Folder Number

Cooler received on 11-14-15 by: KE

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y)	N

5a	**Perchlorate** samples have required headspace?	Y	N	(NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y	N	(NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT	
7	Soil VOA received as: Bulk Encore 5035set			(NA)

8. Temperature Readings Date: 11-14-15 Time: 09:26 ID: IR#3 (IR#5) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	2.9						
Correction Factor (°C)	0						
Corrected Temp (°C)	2.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by KE on 11-14-15 at 10:00 after pH check KE 11-14-15

5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: Must

Cooler Breakdown: Date: 11/16/15 Time: 0950 by: MA

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 091415-2A10

Other Comments:

1 Cr+6 218.6 Cr+6 buffer 85124 10/16

11-13-15 09:25

PC Secondary Review: Must

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

ALS ENVIRONMENTAL

Chain of Custody Report

Client: Gulf Coast Analytical Laboratories **Service Request:** R1509914
Project: Melrose AFR Quarterly/215111414/A012-113

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R1509914-001.01					
	218.6 LL				
		11/16/15	0950	SMO / GESMERIAN	
		11/16/15	0950	R-002 / GESMERIAN	
		11/16/15	0950	R-002 / GESMERIAN	
		12/4/15	1530	In Lab / CWOODS	
		12/8/15	1640	R-002 / EBRUEN	

GENERAL CHEMISTRY DATA

ALS Environmental - Rochester, NY
1565 Jefferson Rd, Bldg. 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509914
Project:	Melrose AFR Quarterly/215111414/A012-113	**Date Collected:**	11/13/15 09:25
Sample Matrix:	Water	**Date Received:**	11/14/15 09:20
Sample Name:	MWQ 14	**Basis:**	NA
Lab Code:	R1509914-001		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Chromium, Hexavalent, Dissolved	218.6 LL	**0.462**	ug/L	0.020	0.010	1	12/04/15 15:35	

Analytical Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509914
Project:	Melrose AFR Quarterly/215111414/A012-113	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R1509914-MB		

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Chromium, Hexavalent, Dissolved	218.6 LL	0.020 U	ug/L	0.020	0.010	1	12/04/15 14:32	

Client: Gulf Coast Analytical Labs
Project: Melrose AFR Quarterly/215111414/A012-113
Sample Matrix: Water

Service Request: R1509914
Date Analyzed: 12/04/15

Lab Control Sample Summary
General Chemistry Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1509914-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.209	0.200	105	90-110

Analytical Results Summary

Instrument Name: R-IC-08 **Analyst:** CWOODS **Analysis Lot:** 474996 **Method/Testcode:** 218.6 LL/Cr6 D LL

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
RQ1515011-02	Chromium, Hexavalent, Dissolved	CCV		Water	0.52 µg/L	10 mL	0.520 µg/L	1					12/4/15 14:20:00	N	II
RQ1515011-04	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			12/4/15 14:32:00	N	II
RQ1515011-05	Chromium, Hexavalent, Dissolved	MB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			12/4/15 14:32:00	N	II
RQ1515011-06	Chromium, Hexavalent, Dissolved	LCS		Water	0.21 µg/L	10 mL	0.209 µg/L	1	0.010	0.020	105		12/4/15 14:44:00	N	II
R1509914-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.46 µg/L	10 mL	0.462 µg/L	1	0.010	0.020			12/4/15 15:35:00	N	II
R1510174-001	Chromium, Hexavalent, Dissolved	N/A		Water	0.13 µg/L	10 mL	0.126 µg/L	1	0.010	0.020			12/4/15 15:47:00	N	II
R1510174-002	Chromium, Hexavalent, Dissolved	N/A		Water	0.08 µg/L	10 mL	0.077 µg/L	1	0.010	0.020			12/4/15 15:59:00	N	II
R1510174-003	Chromium, Hexavalent, Dissolved	N/A		Water	0.12 µg/L	10 mL	0.124 µg/L	1	0.010	0.020			12/4/15 16:11:00	N	II
R1510174-004	Chromium, Hexavalent, Dissolved	N/A		Water	0.02 µg/L	10 mL	0.021 µg/L	1	0.010	0.020			12/4/15 16:23:00	N	II
R1510174-005	Chromium, Hexavalent, Dissolved	N/A		Water	0.19 µg/L	10 mL	0.194 µg/L	1	0.010	0.020			12/4/15 16:35:00	N	II
RQ1515011-01	Chromium, Hexavalent, Dissolved	CCV		Water	0.50 µg/L	10 mL	0.503 µg/L	1					12/4/15 16:47:00	N	II
RQ1515011-03	Chromium, Hexavalent, Dissolved	CCB		Water	0.00 µg/L	10 mL	0.020 µg/L U	1	0.010	0.020			12/4/15 16:59:00	N	II

Reviewed & Approved
By: CK
Date: 12/4/15

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

12-04-15 IC#8 218.6LL Analyst: GWoods Pipet: Up

Injection Number	Injection Name	Type	Level	Processing Method	Inject Time	Dilution	Comment
1	STANDARD 1	Calibration Standard	01	8-120415LL	04/12/15 12:34	1.0	218.6 LL
2	STANDARD 2	Calibration Standard	02	8-120415LL	04/12/15 12:58	1.0	218.6 LL
3	STANDARD 3	Calibration Standard	03	8-120415LL	04/12/15 13:10	1.0	218.6 LL
4	STANDARD 4	Calibration Standard	04	8-120415LL	04/12/15 13:22	1.0	218.6 LL
5	STANDARD 5	Calibration Standard	05	8-120415LL	04/12/15 13:34	1.0	218.6 LL
6	STANDARD 6	Calibration Standard	06	8-120415LL	04/12/15 13:46	1.0	218.6 LL
7	STANDARD 7	Calibration Standard	07	8-120415LL	04/12/15 13:57	1.0	218.6 LL
8	ICV	Unknown		8-120415LL	04/12/15 14:20	1.0	218.6 LL
9	ICB	Unknown		8-120415LL	04/12/15 14:32	1.0	218.6 LL
10	LCS	Unknown		8-120415LL	04/12/15 14:44	1.0	218.6 LL
11	R1509914-001	Unknown		8-120415LL	04/12/15 15:35	1.0	218.6 LL
12	R1510174-001	Unknown		8-120415LL	04/12/15 15:47	1.0	218.6 LL
13	R1510174-002	Unknown		8-120415LL	04/12/15 15:59	1.0	218.6 LL
14	R1510174-003	Unknown		8-120415LL	04/12/15 16:11	1.0	218.6 LL
15	R1510174-004	Unknown		8-120415LL	04/12/15 16:23	1.0	218.6 LL
16	R1510174-005	Unknown		8-120415LL	04/12/15 16:35	1.0	218.6 LL
17	CCV	Unknown		8-120415LL	04/12/15 16:47	1.0	218.6 LL
18	CCB	Unknown		8-120415LL	04/12/15 16:59	1.0	218.6 LL
19	K1513051-001	Unknown		8-120415LL	04/12/15 17:38	1.0	218.6 LL
20	K1513051-001 MS	Unknown		8-120415LL	04/12/15 17:50	1.0	218.6 LL
21	K1513051-001 MSD	Unknown		8-120415LL	04/12/15 18:02	1.0	218.6 LL
22	K1513051-002	Unknown		8-120415LL	04/12/15 18:14	1.0	218.6 LL
23	K1513051-003	Unknown		8-120415LL	04/12/15 18:26	1.0	218.6 LL
24	K1513051-004	Unknown		8-120415LL	04/12/15 18:38	1.0	218.6 LL
25	K1513141-001	Unknown		8-120415LL	04/12/15 18:50	1.0	218.6 LL
26	K1513141-002	Unknown		8-120415LL	04/12/15 19:02	1.0	218.6 LL
27	K1513141-003	Unknown		8-120415LL	04/12/15 19:13	1.0	218.6 LL
28	K1513141-004	Unknown		8-120415LL	04/12/15 19:25	1.0	218.6 LL
29	CCV	Unknown		8-120415LL	04/12/15 19:37	1.0	218.6 LL
30	CCB	Unknown		8-120415LL	04/12/15 19:49	1.0	218.6 LL
31	K1513141-005	Unknown		8-120415LL	04/12/15 20:01	1.0	218.6 LL
32	K1513141-006	Unknown		8-120415LL	04/12/15 20:13	1.0	218.6 LL
33	K1513141-006 MS	Unknown		8-120415LL	04/12/15 20:25	1.0	218.6 LL
34	K1513141-006 MSD	Unknown		8-120415LL	04/12/15 20:37	1.0	218.6 LL
35	K1513141-007	Unknown		8-120415LL	04/12/15 20:49	1.0	218.6 LL

36	K1513141-008	Unknown	8-120415LL	04/12/15 21:01	1.0	218.6 LL
37	CCV	Unknown	8-120415LL	04/12/15 21:13	1.0	218.6 LL
38	CCB	Unknown	8-120415LL	04/12/15 21:25	1.0	218.6 LL

ALS Environmental
Rochester, NY

Analyst: CWoods
Date: 12/4/15
pH Meter ID: Toto
Adjustment Solutions: Buffer Lot: ~~84~~ 85124

Method 218.6-LL **Method 218.6-RL** **Method 7199** **Method 218.7** CWT 12/4/15

Folder Number	Sample ID	Matrix (Water or DW)	Sample pH at analysis	Analysis Date
R150	9914-001	Water	9.34	12/4/15
R15	10174-001		9.32	
	-002		9.43	
	-003		9.37	
	-004		9.33	
	-005		9.37	
K15	13051-001		9.41	
	-002		9.43	
	-003		9.46	
	-004		9.41	
	13141-001		9.50	
	-002		9.43	
	-003		9.47	
	-004		9.44	
	-005		9.42	
	006		9.37	
	-007		9.40	
	-008		9.54	

Sample pH must be between 9.3 and 9.7 for 218.6 Water.
Sample pH must be between 9.0 and 9.5 for 7199 and 218.6 Drinking Water.

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
10/28/15 0925	15300-MW-16 R15-9132 -017	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	10/27/15 1145	Yes No (Field)	—	—	9.432	—	@ 10/28/15 1135	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	@10/28/15 ~~85022~~
↓	R15-9132 -016	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	10/27/15 1030	Yes No (Field)	—	—	9.184	9.385	@ 10/28/15 1137	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	85124
↓	R15-9132 -018	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	10/27/15 —	Yes No (Field)	—	—	~~9.330~~ ~~9.385~~ @10/28/15	—	@ 10/28/15 1139	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
11-14-15 09:20	MQW-14 0914-001	7199 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	11-13-15 09:25	Yes (No) ~~Field~~ AE 11.14.15	—	—	9.335	—	AE 11-14-15 09:58	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	—
11-14-15 11:00	MST-KM-32-GW	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11-14-15 09:34	Yes (No) Field	—	—	8.693	9.332	AE 11-14-15 11:45	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	85124
↓	MST-KM-23-GW	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11-14-15 12:40	Yes No (Field)	—	—	8.878	9.405	AE 11-14-15 11:48	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	85124
11/17/15 1030	MST-KM-30-GW	7199 ~~218.6 RL~~ 218.6 LL ~~218.7~~	(Water) Drinking Water	11/12/15 09:55	Yes (No) Field	—	—	8.83	9.35	DLW 11/17/15 1251	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	85124
11/18/15 0945	K1513141-004	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	~~Water~~ Drinking Water	11/15/15 1420	Yes No (Field)	—	—	9.113	9.450	@ 11/18/15 1140	(Buffer) 10%H2SO4 10%NH4OH NH4OH(conc)	85124

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
11/18/15 0945	KI513141-001	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 0830	Yes (No) Field	—	—	7.957	9.504	@ 11/18/15 1142	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-003	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1250	Yes (No) Field	—	—	8.430	9.462	@ 11/18/15 1143	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-008	7199 ~~218.6 RL~~ ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1445	Yes (No) Field	—	—	9.571	—	@ 11/18/15 1144	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-006	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1145	Yes ~~No~~ (Field)	@ 12/10/15 —	—	9.051	9.398	@ 11/18/15 1145	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-007	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1345	Yes No (Field)	—	—	8.612	9.407	@ 11/18/15 1147	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-005	7199 218.6 RL ~~218.6 LL~~ 218.7	~~Water~~ Drinking Water	11/15/15 0930	Yes No (Field)	—	—	8.370	9.450	@ 11/18/15 1149	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	KI513141-002	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1020	Yes (No) Field	—	—	8.852	9.448	@ 11/18/15 1151	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
↓	KI513051-002	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/15/15 1330	Yes No (Field)	—	—	7.933	9.446	@ 11/18/15 1153	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
11/18/15 0945	KLS13051-001	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/11/15 1115	Yes ~~No~~ Field	—	—	7.880	9.429	@ 11/18/15 1155	~~Buffer~~ 10%H2SO4 10%NH4OH NH4OH(conc)	86124
↓	KLS13051-003	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/11/15 1210	Yes No ~~Field~~	—	—	7.978	9.455	@ 11/18/15 1156	~~Buffer~~ 10%H2SO4 10%NH4OH NH4OH(conc)	85124
↓	KLS13051-004	7199 218.6 RL ~~218.6 LL~~ 218.7	~~Water~~ Drinking Water	11/11/15 1415	Yes No ~~Field~~	—	—	7.972	9.433	@ 11/18/15 1158	~~Buffer~~ 10%H2SO4 10%NH4OH NH4OH(conc)	85124
11/23/15 1005	RS-10174-001	7199 218.6 RL ~~218.6 LL~~ 218.7	~~Water~~ Drinking Water	11/20/15 1320	Yes No ~~Field~~	—	—	9.322	—	@ 11/23/15 1246	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
↓	-002	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/20/15 1710	Yes No ~~Field~~	—	—	9.401	—	@ 11/23/15 1241	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
↓	-003	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/20/15 1500	Yes No ~~Field~~	—	—	9.291	9.391	@ 11/23/15 1243	~~Buffer~~ 10%H2SO4 10%NH4OH NH4OH(conc)	85124
↓	-004	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/20/15 1630	Yes No ~~Field~~	—	—	9.329	—	@ 11/23/15 1244	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	
↓	-005	7199 218.6 RL ~~218.6 LL~~ 218.7	(Water) Drinking Water	11/20/15 1415	Yes No ~~Field~~	—	—	9.326	—	@ 11/23/15 1245	Buffer 10%H2SO4 10%NH4OH NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
11/24/15 0985	R15-10198 -001	7199 ~~218.6 RL~~ 218.6 LL (218.7)	(Water) Drinking Water	11/19/15 0930	Yes (No) Field	—	<0.1	8.388	—	@ 11/24/15 1420	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	-002	7199 ~~218.6 RL~~ 218.6 LL (218.7)	(Water) Drinking Water	11/19/15 0930	Yes (No) Field ?	—	<0.1	12.730	—	@ 11/24/15 1422	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
11/25/15 0915	R15-10270 -001	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	11/19/15 1200	Yes No (Field)	—	<0.1	9.370	—	@ 11/25/15 1010	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	-002	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	11/20/15 1200	Yes No (Field)	—	<0.1	9.322	—	@ 11/25/15 1011	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	-003	7199 218.6 RL 218.6 LL (218.7)	~~Water~~ Drinking Water	11/20/15 1200	Yes No (Field)	—	<0.1	9.319	—	@ 11/25/15 1012	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
	-004	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	11/20/15 1200	Yes No (Field)	—	<0.1	9.348	—	@ 11/25/15 1013	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
12/2/15 0920	151201084JL	7199 ~~218.6 RL~~ 218.6 LL 218.7	(Water) Drinking Water	12/1/15 0843	Yes No (Field)	—	—	9.094	9.361	@ 12/2/15 1235	(Buffer)	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
0940	R15-10406 -001	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	11/25/15 1200	Yes No (Field)	—	<0.1	9.545	—	@ 12/2/15 1237	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

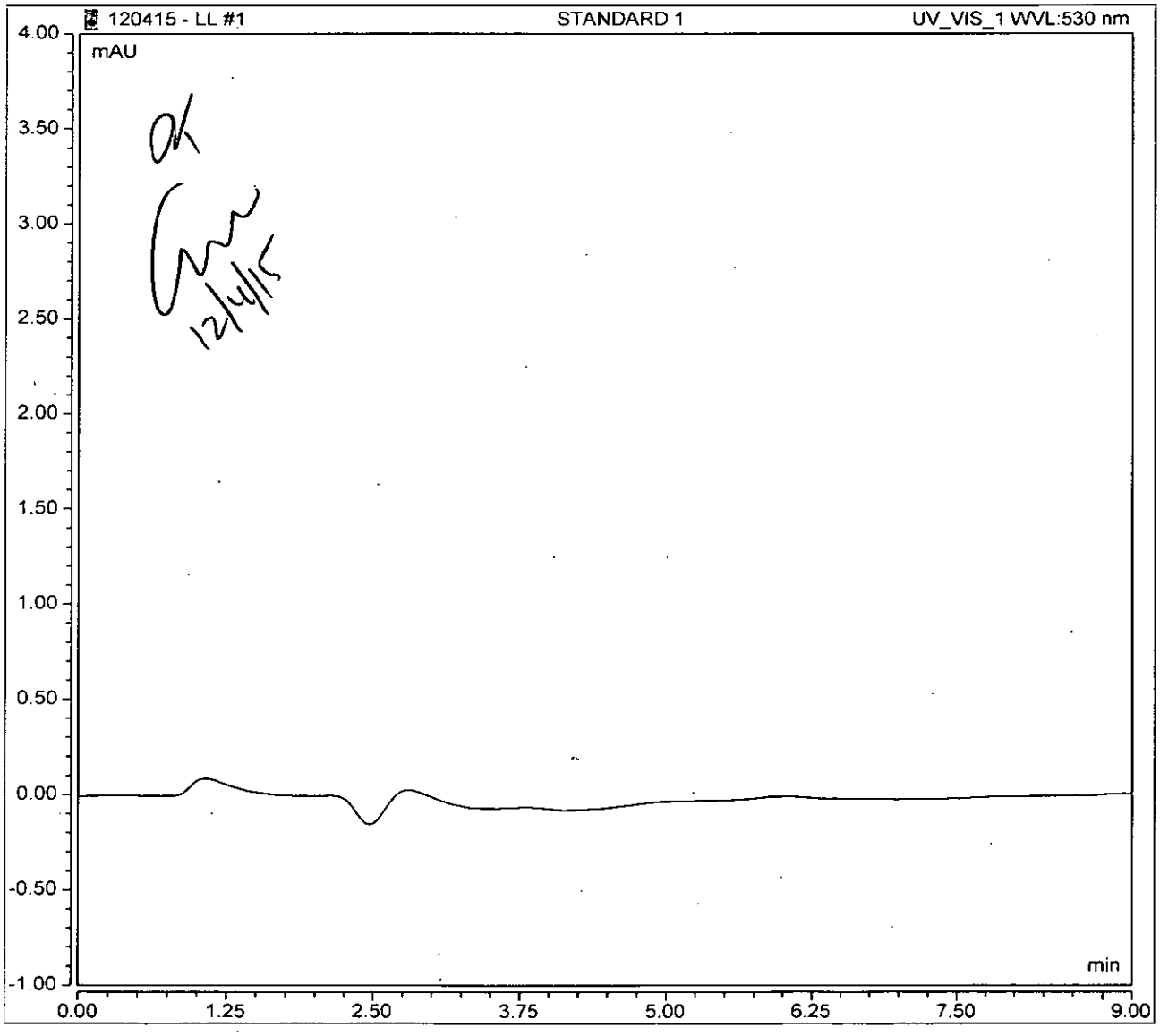
Date/Time Received	Sample ID	Analysis	Matrix	Date/Time Sampled	Sample Filtered	Filter Lot ID	Chlorine Residual (mg/L) 218.7 only	pH at Receipt	pH Adjustment	Analyst/ Date/ Time pH Adjustment	Solution Used For PH Adjust	Solution Lot ID
12/2/15 0940	R15-10406 -002	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	11/30/15 1200	Yes No (Field)	—	<0.1	←	— 9.578	12/2/15 1239	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
12/4/15	R1510532 -001	7199 218.6 RL 218.6 LL (218.7)	(Water) Drinking Water	12/1/15 0925	Yes (No) Field	—	~~<0.1~~ 1.295 <0.1	8.83	—	dfw 12/4/15 1302	Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
12/7/15 —	R1510590 -001	(7199) 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	12/7/15	Yes (No) Field	—	—	7.97	9.32	CMW 12/8/15 1117	Buffer	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
↓	R1510590 -003	(7199) 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	12/7/15	Yes (No) Field	—	—	7.87	9.29	CMW 12/8/15 1120	Buffer	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
↓	R1510590 -005	(7199) 218.6 RL 218.6 LL 218.7	(Water) Drinking Water	12/7/15	Yes (No) Field	—	—	6.73	9.46	CMW 12/8/15 1122	Buffer	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
12/8/15	R1510594 -001	7199 (218.6 RL) 218.6 LL 218.7	(Water) Drinking Water		(Yes) No Field		—	7.47	9.65	CMW 12/8/15 1124	Buffer	85124
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	
		7199 218.6 RL 218.6 LL 218.7	Water Drinking Water		Yes No Field						Buffer	
											10%H2SO4	
											10%NH4OH	
											NH4OH(conc)	

	Drinking water 218.7	Drinking water 218.6	Non-Pot Water 218.6	Water 7199
Filter	No	Required	Required	Optional
pH	>8.0	9.0-9.5	9.3-9.7	unpreserved - adjust to 9.0-9.5
Res Chlorine	<0.1 mg/L	NA	NA	NA
Holding Time	14 days	5 days	28 days	24 hours

Peak Integration Report

Sample Name:	**STANDARD 1**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**1**
Inj. Date / Time:	**04-Dec-2015 / 12:34**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00

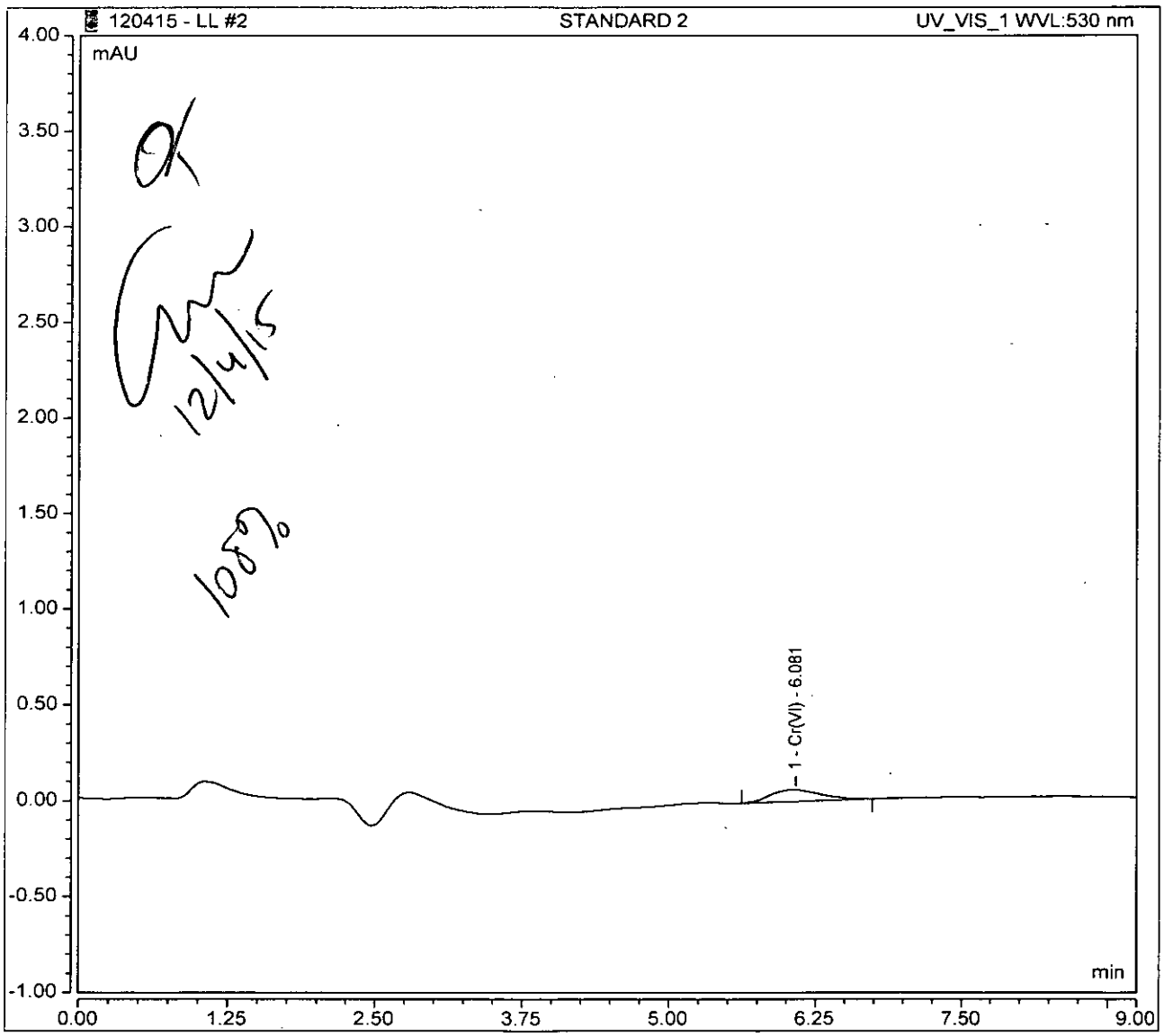


OK
12/4/15

Peak Integration Report

Sample Name:	**STANDARD 2**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**2**
Inj. Date / Time:	**04-Dec-2015 / 12:58**	*Sample Comment:*	**218.6 LL**

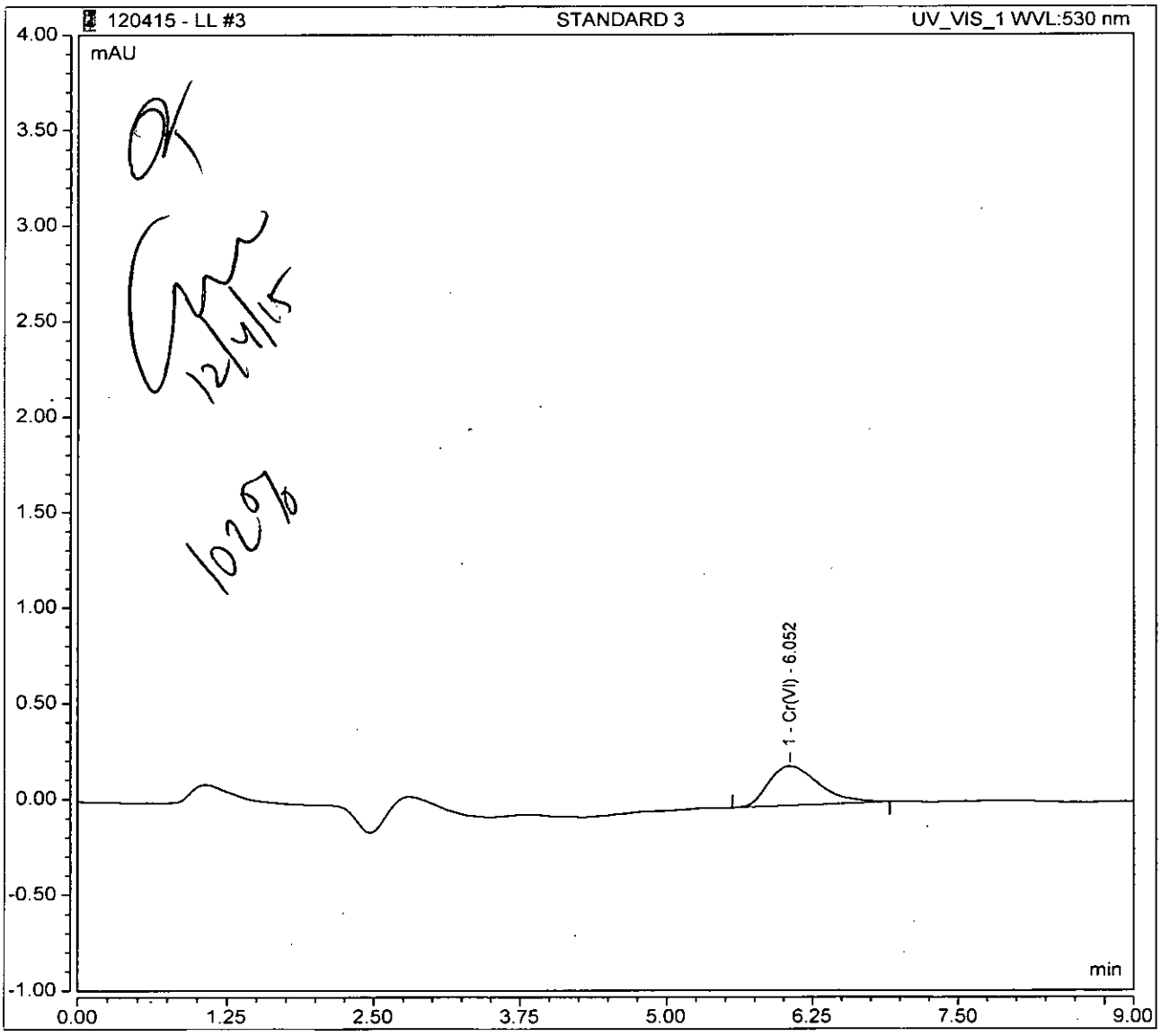
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.08	Cr(VI)	BMB	0.030	0.061	0.0215
TOTAL:				0.03	0.06	0.02



Peak Integration Report

Sample Name:	**STANDARD 3**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**3**
Inj. Date / Time:	**04-Dec-2015 / 13:10**	*Sample Comment:*	**218.6 LL**

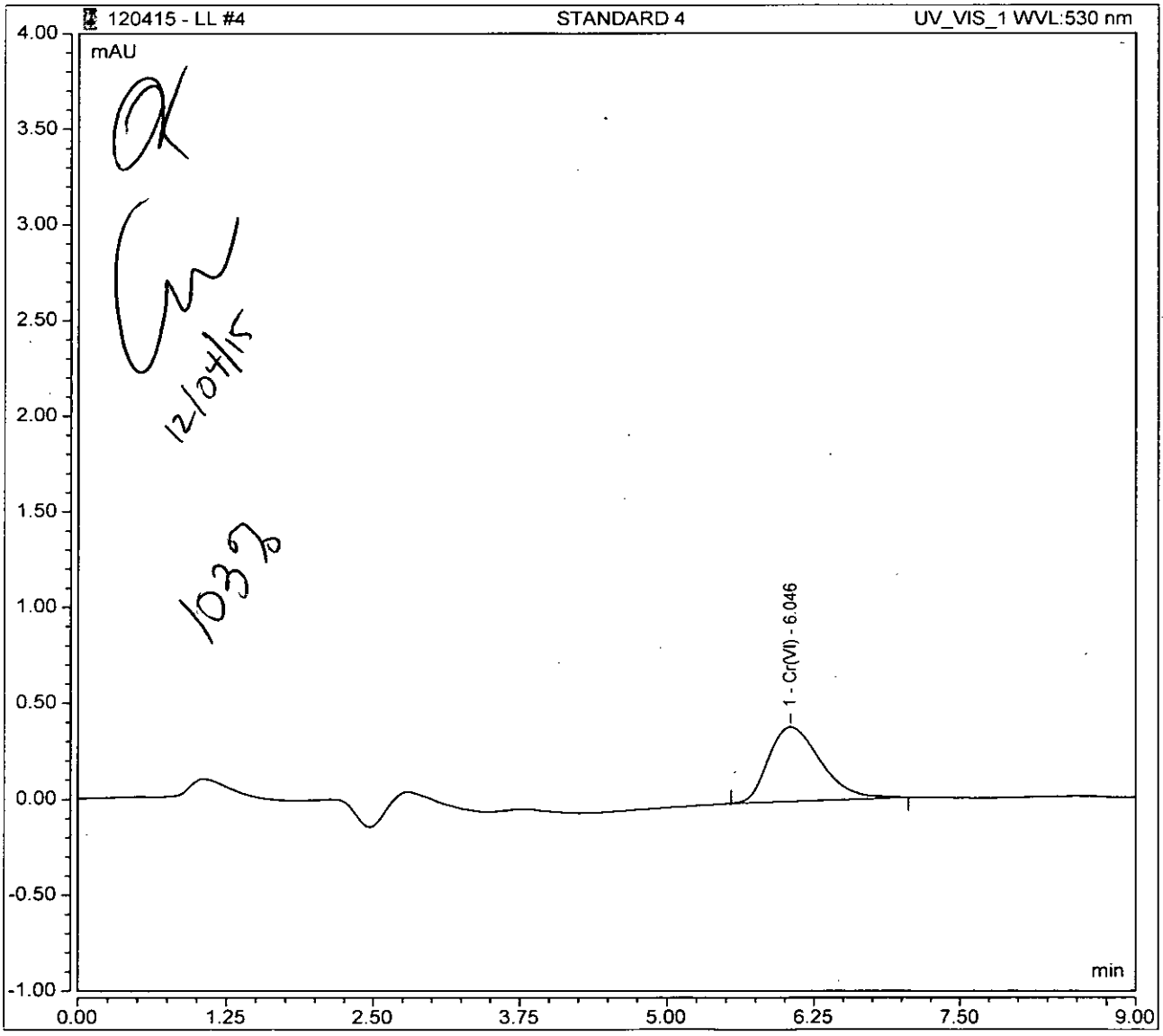
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.104	0.206	0.1017
TOTAL:				0.10	0.21	0.10



Peak Integration Report

Sample Name:	**STANDARD 4**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**4**
Inj. Date / Time:	**04-Dec-2015 / 13:22**	*Sample Comment:*	**218.6 LL**

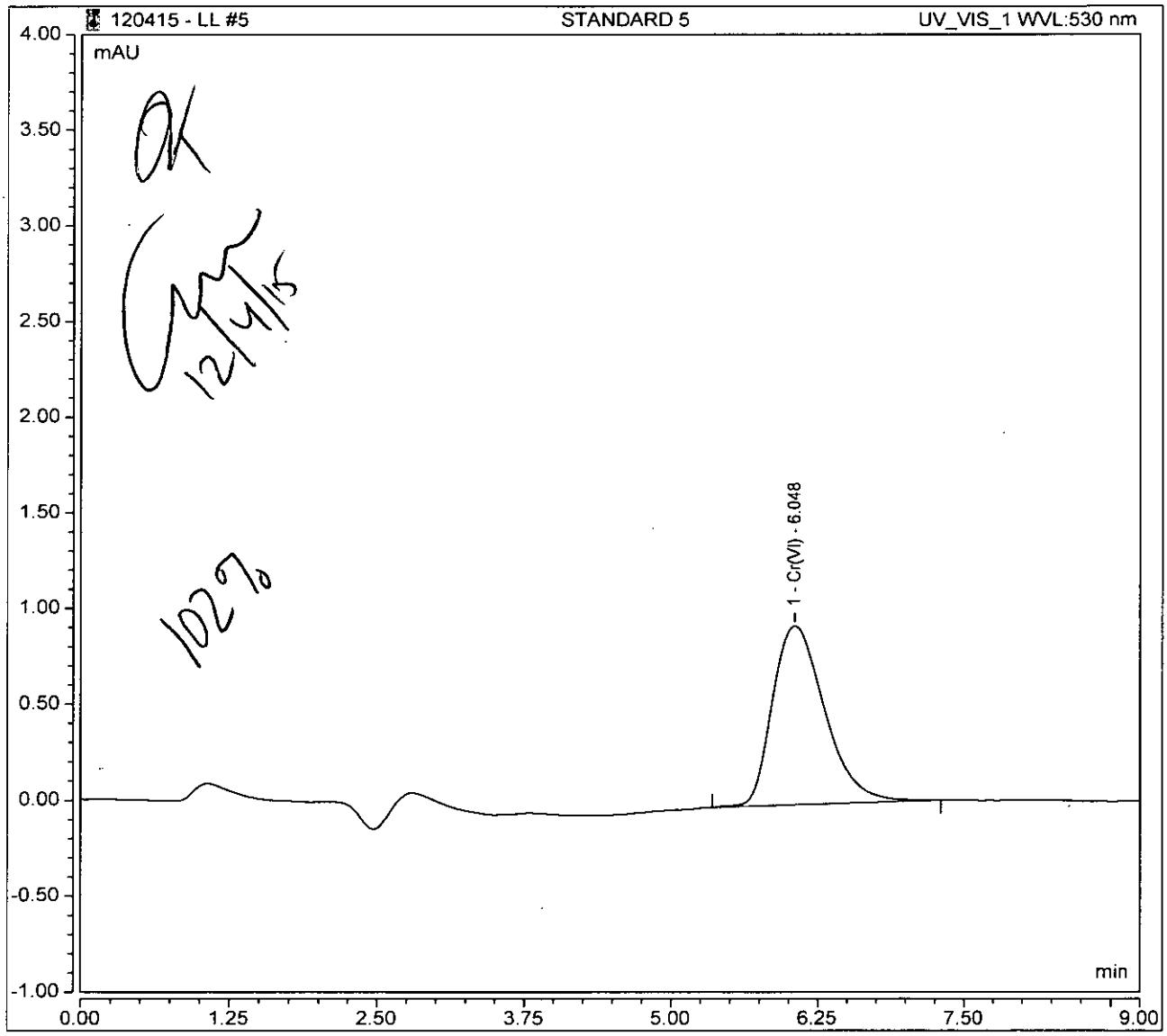
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.200	0.389	0.2058
TOTAL:				0.20	0.39	0.21



Peak Integration Report

Sample Name:	**STANDARD 5**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**5**
Inj. Date / Time:	**04-Dec-2015 / 13:34**	*Sample Comment:*	**218.6 LL**

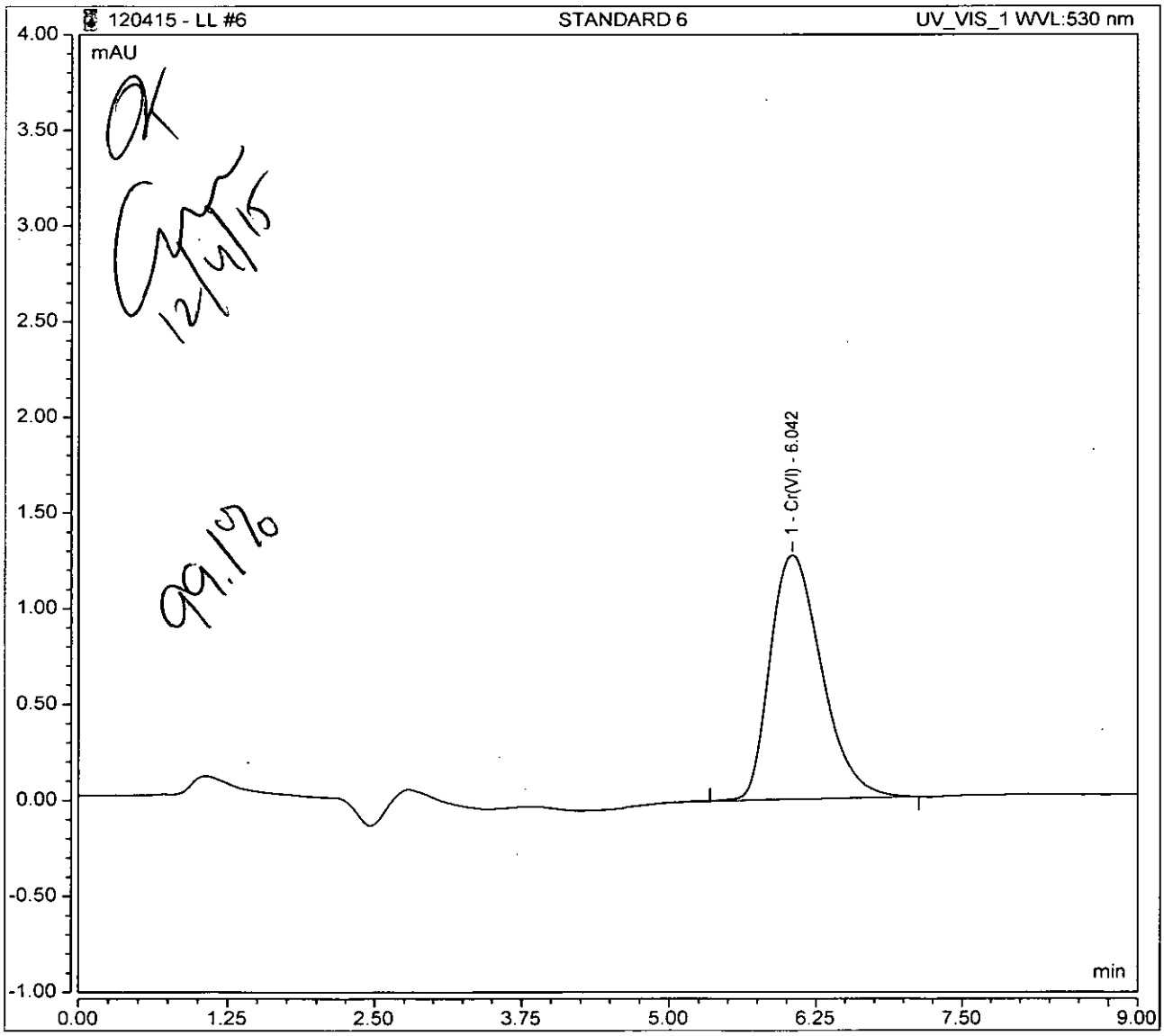
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.483	0.934	0.5124
TOTAL:				0.48	0.93	0.51



Peak Integration Report

Sample Name:	**STANDARD 6**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**6**
Inj. Date / Time:	**04-Dec-2015 / 13:46**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.650	1.276	0.6935
TOTAL:				0.65	1.28	0.69

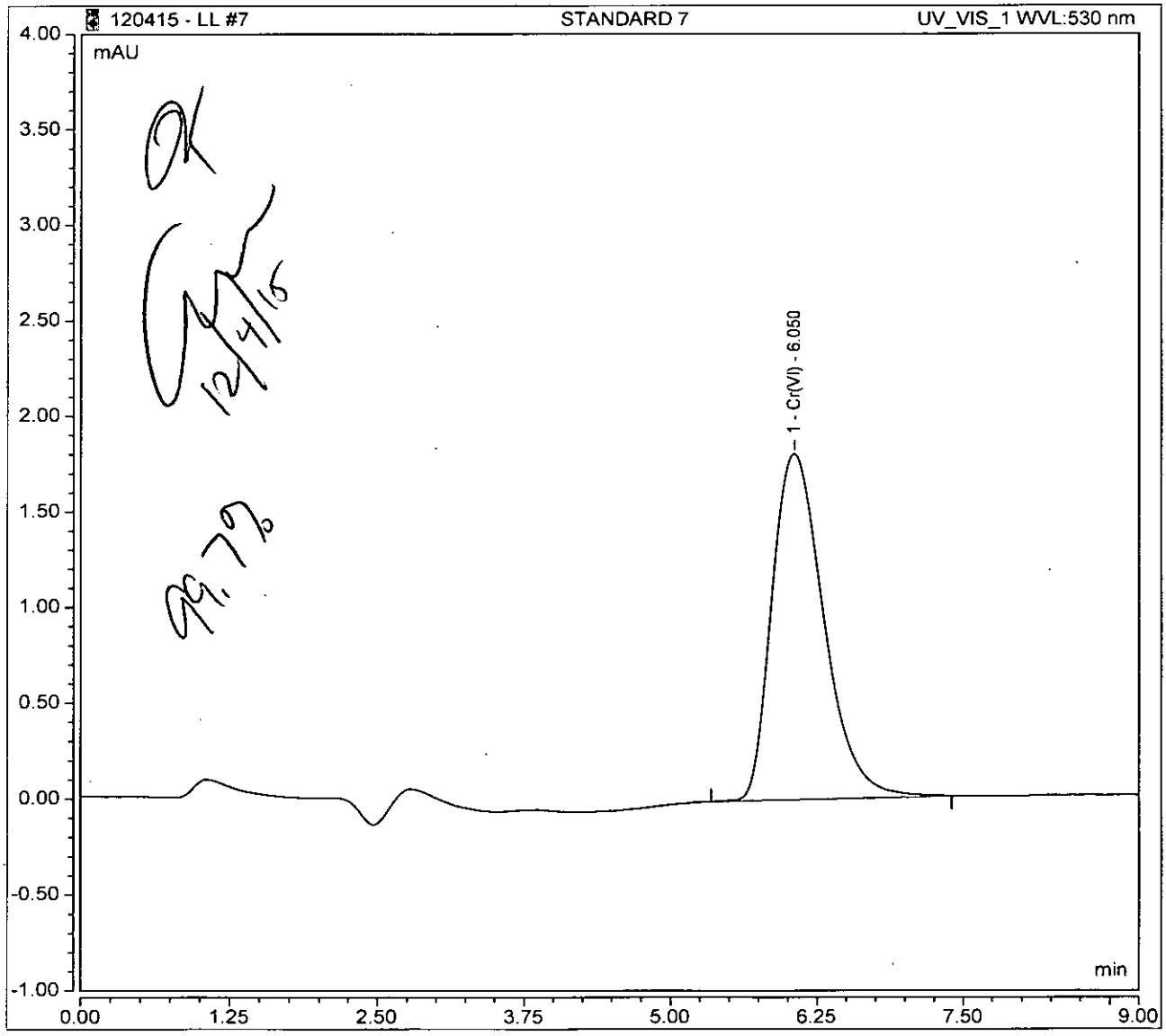


OK
12/4/15
99.1%

Peak Integration Report

Sample Name:	**STANDARD 7**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**7**
Inj. Date / Time:	**04-Dec-2015 / 13:57**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.930	1.808	0.9966
TOTAL:				0.93	1.81	1.00

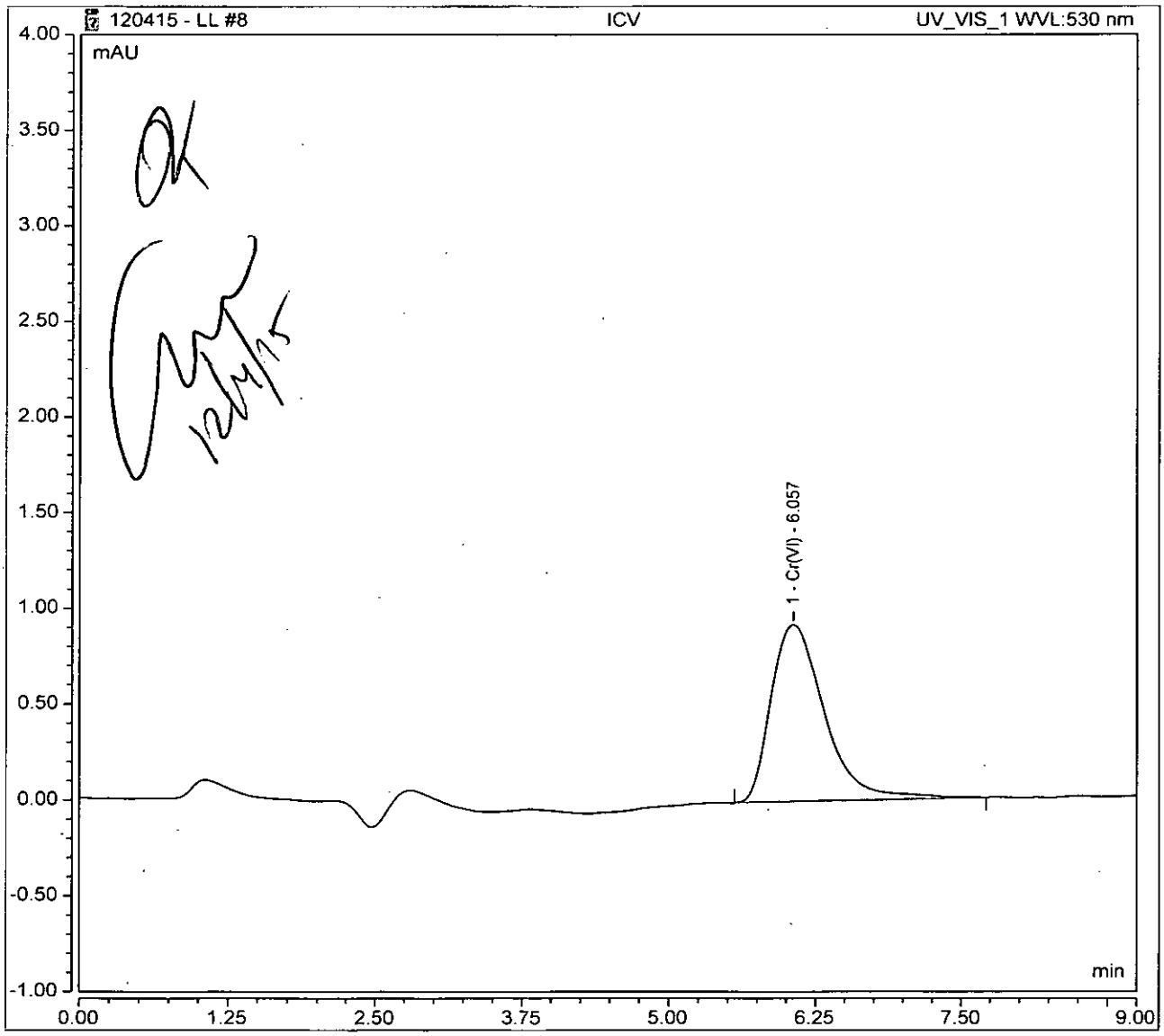


OK
12/4/15
99.7%

Peak Integration Report

Sample Name:	**ICV**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**8**
Inj. Date / Time:	**04-Dec-2015 / 14:20**	*Sample Comment:*	**218.6 LL**

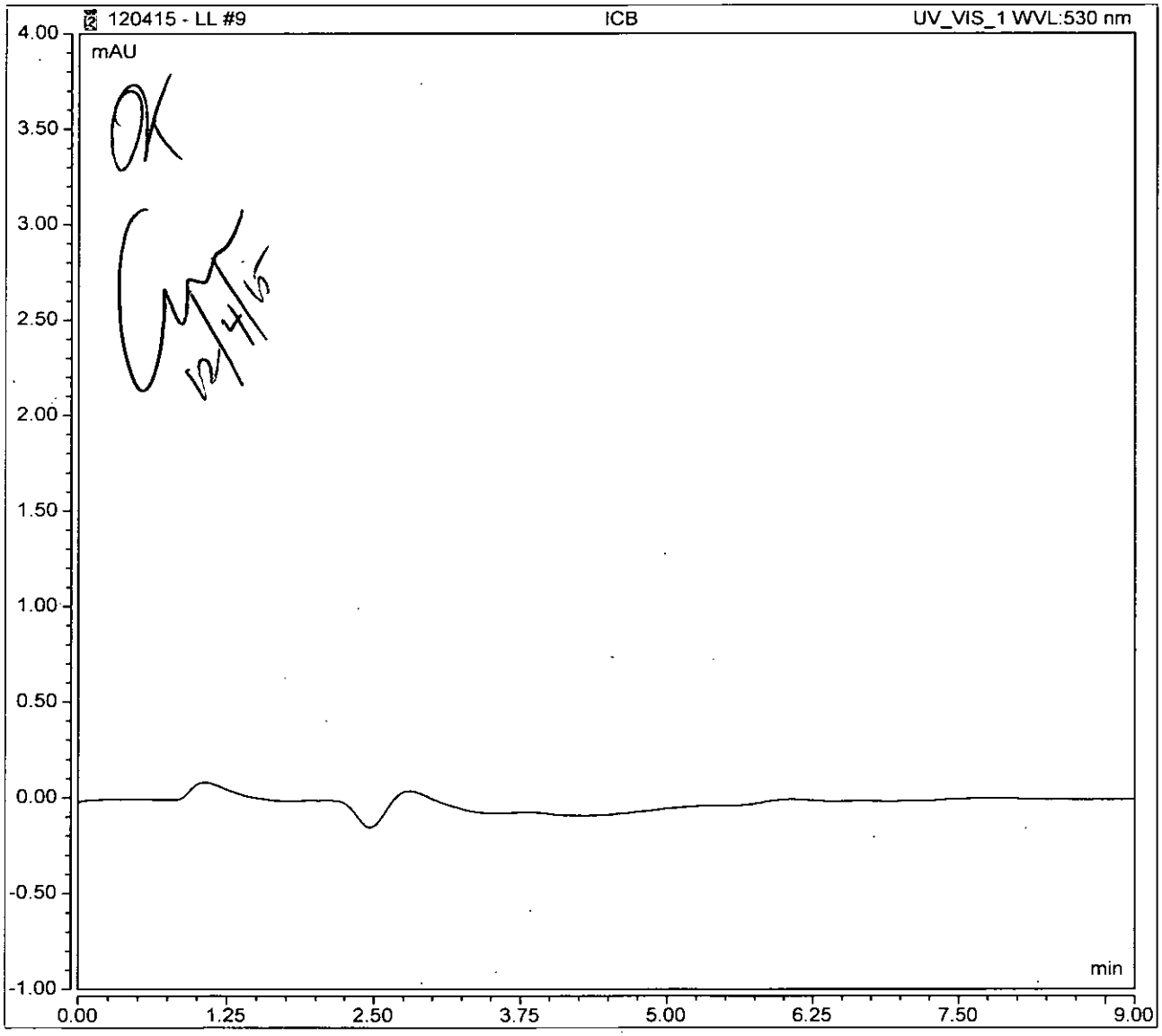
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB	0.490	0.923	0.5203
TOTAL:				0.49	0.92	0.52



Peak Integration Report

Sample Name:	**ICB**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**9**
Inj. Date / Time:	**04-Dec-2015 / 14:32**	*Sample Comment:*	**218.6 LL**

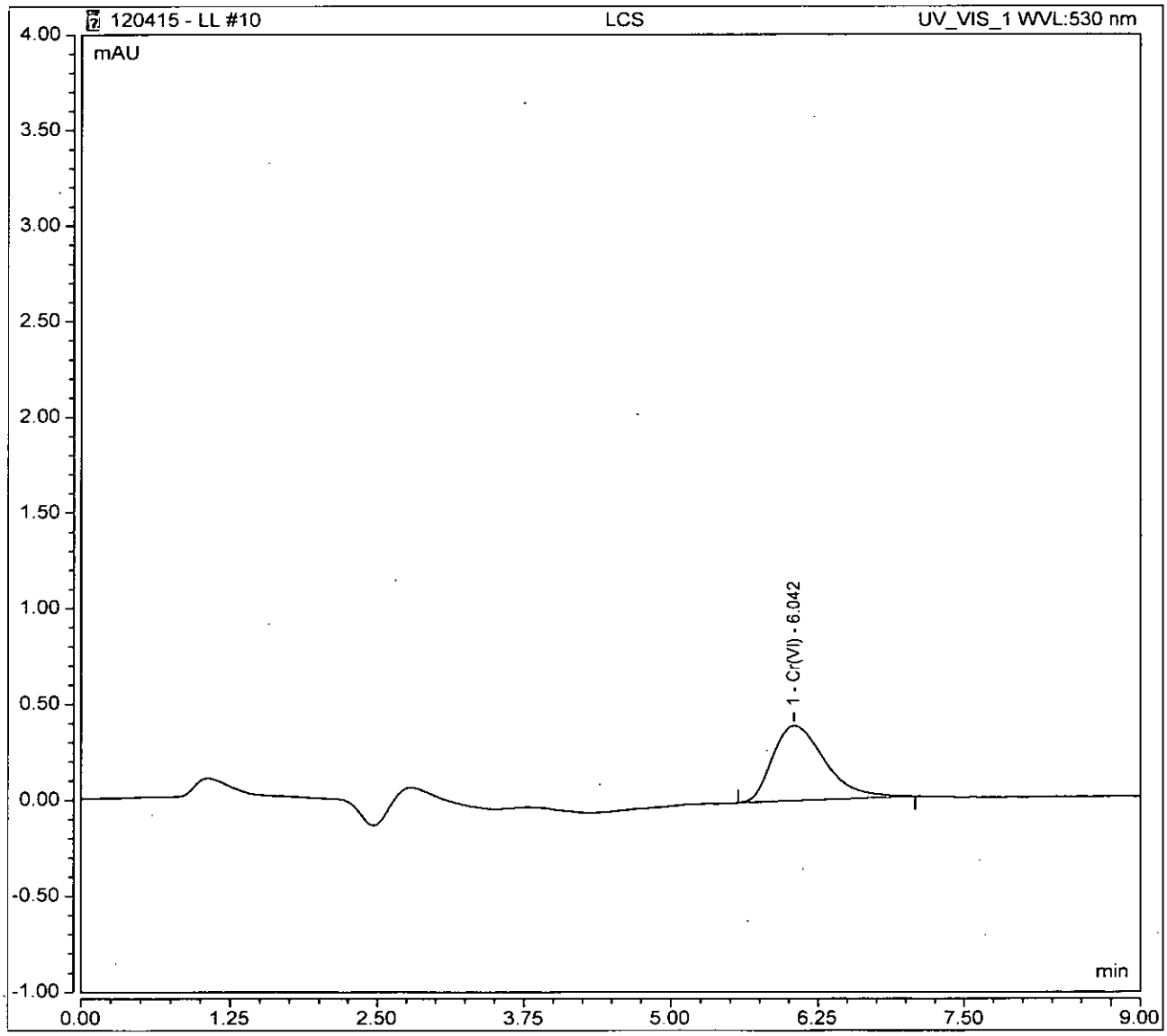
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**LCS**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**10**
Inj. Date / Time:	**04-Dec-2015 / 14:44**	*Sample Comment:*	**218.6 LL**

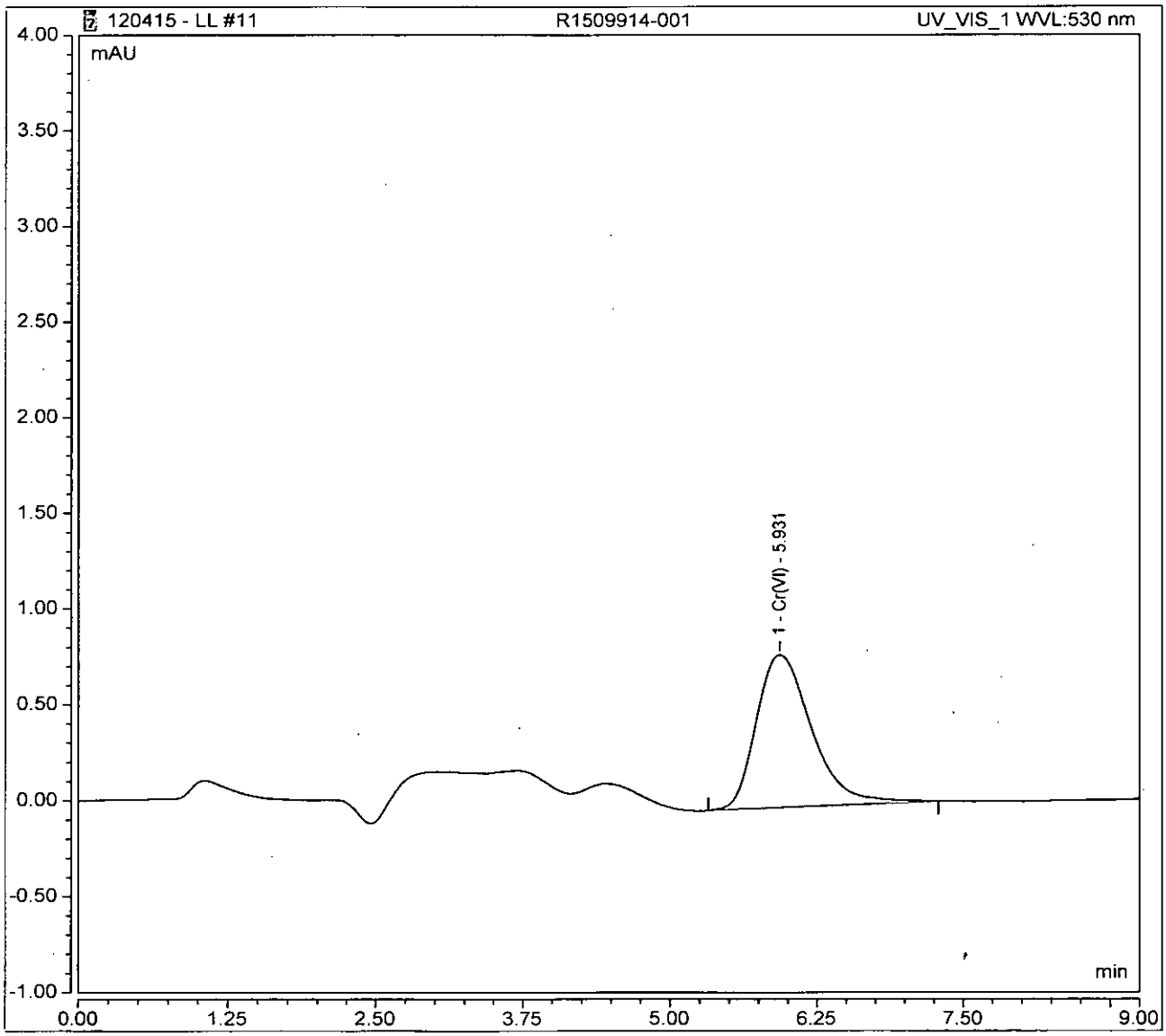
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.204	0.392	0.2093
TOTAL:				0.20	0.39	0.21



Peak Integration Report

Sample Name:	**R1509914-001**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**11**
Inj. Date / Time:	**04-Dec-2015 / 15:35**	*Sample Comment:*	**218.6 LL**

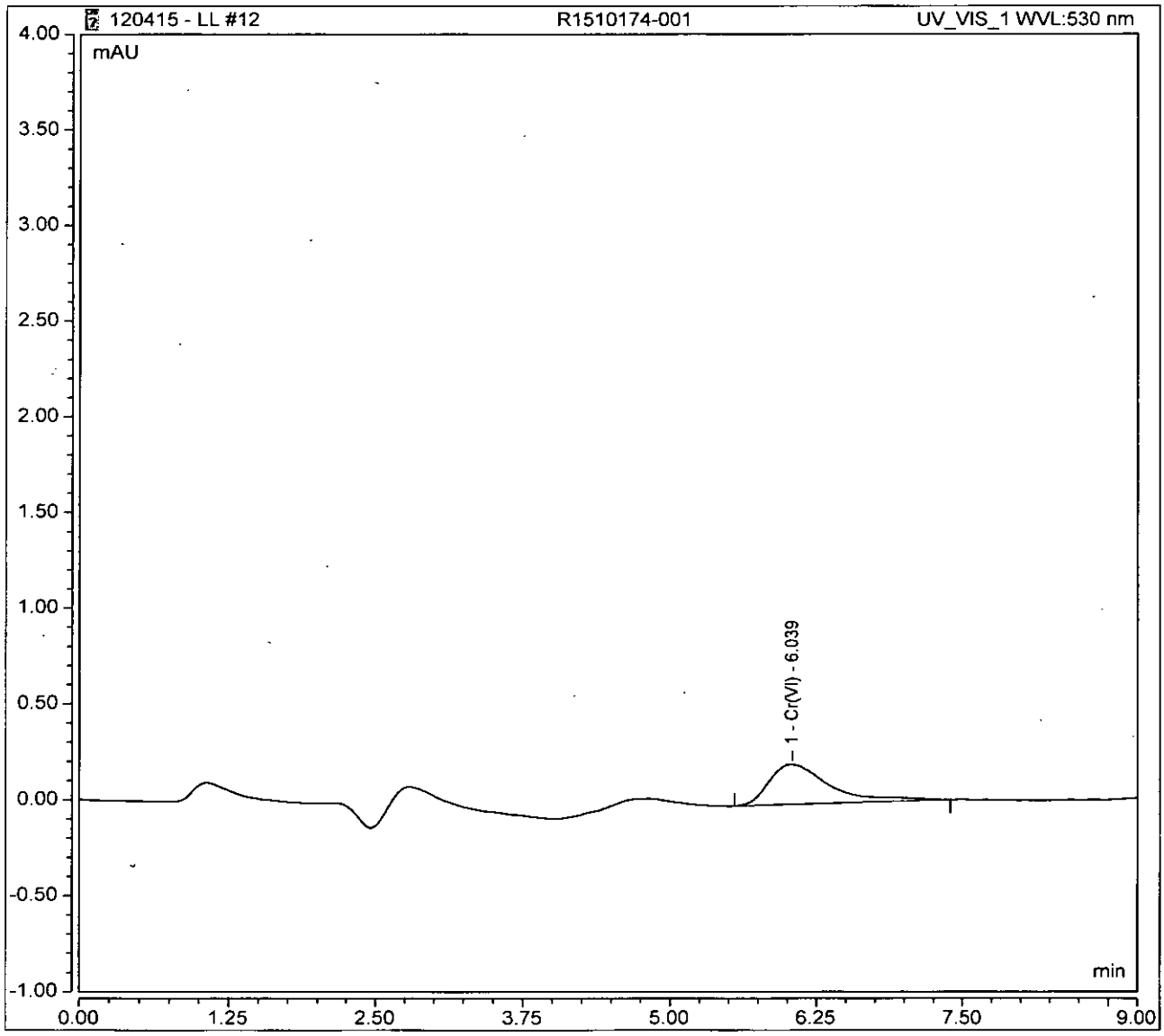
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	5.93	Cr(VI)	BMB	0.436	0.796	0.4615
TOTAL:				0.44	0.80	0.46



Peak Integration Report

Sample Name:	**R1510174-001**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**12**
Inj. Date / Time:	**04-Dec-2015 / 15:47**	*Sample Comment:*	**218.6 LL**

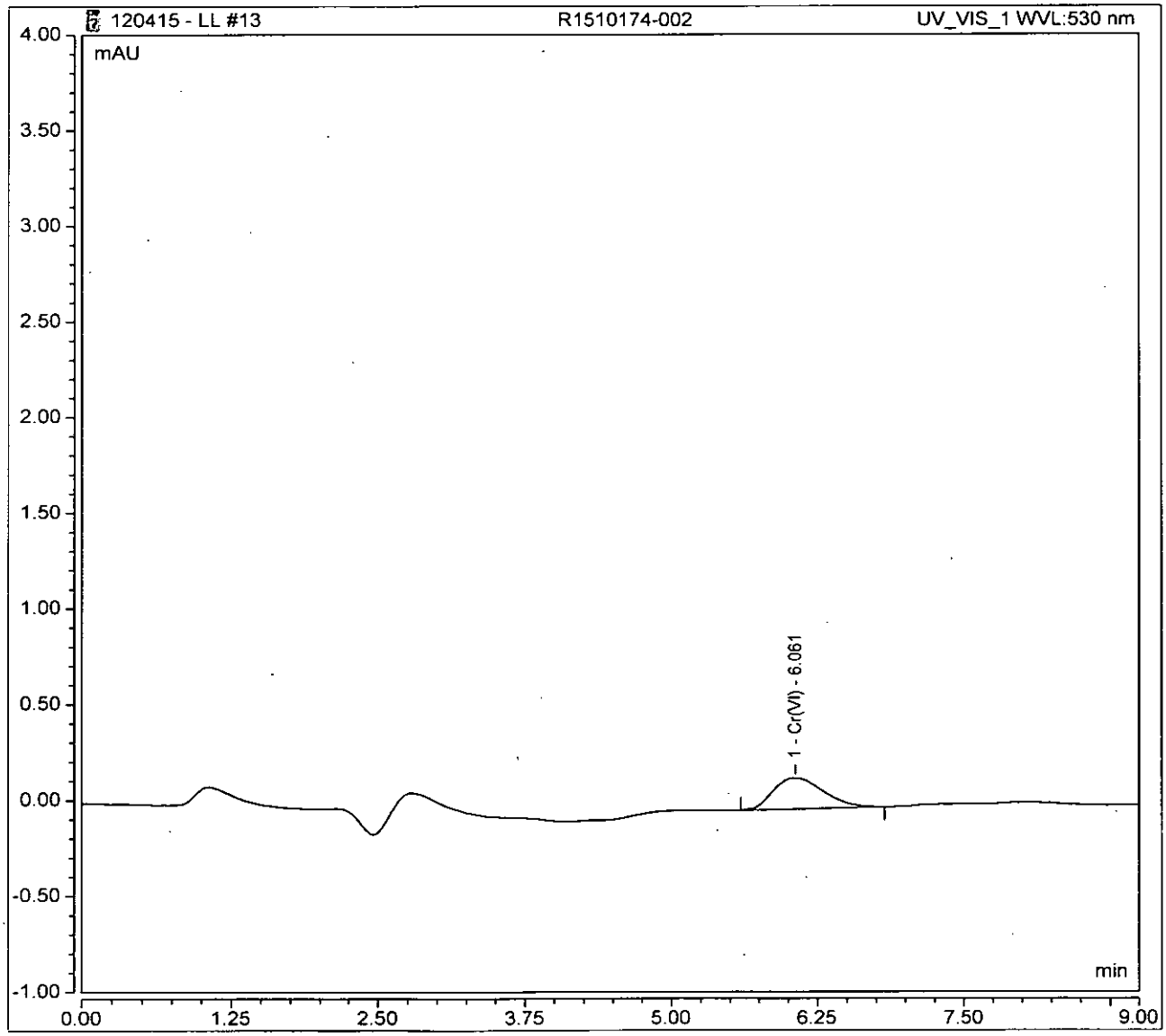
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.126	0.209	0.1256
TOTAL:				0.13	0.21	0.13



Peak Integration Report

Sample Name:	**R1510174-002**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**13**
Inj. Date / Time:	**04-Dec-2015 / 15:59**	*Sample Comment:*	**218.6 LL**

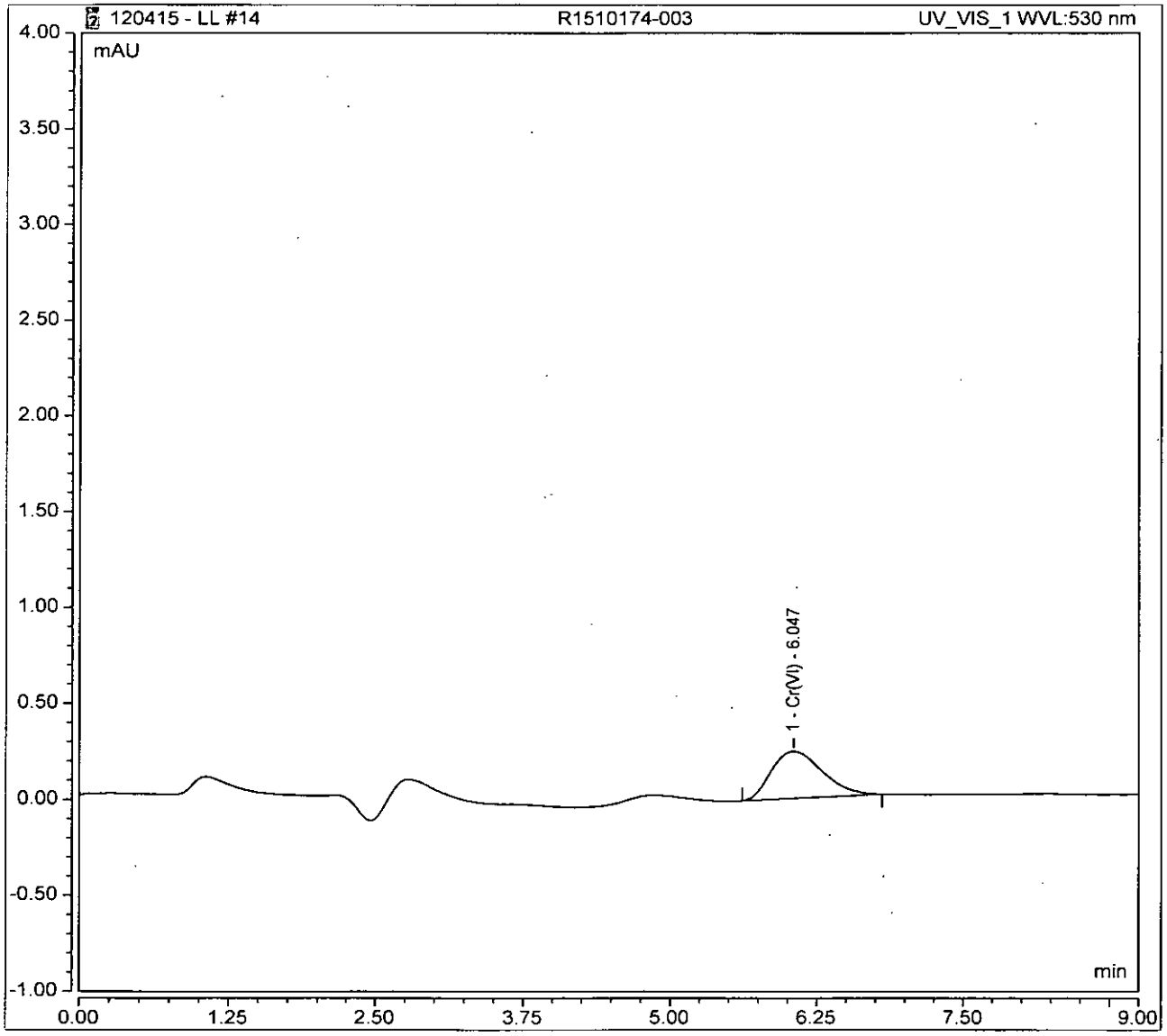
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB	0.081	0.163	0.0766
TOTAL:				0.08	0.16	0.08



Peak Integration Report

Sample Name:	**R1510174-003**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**14**
Inj. Date / Time:	**04-Dec-2015 / 16:11**	*Sample Comment:*	**218.6 LL**

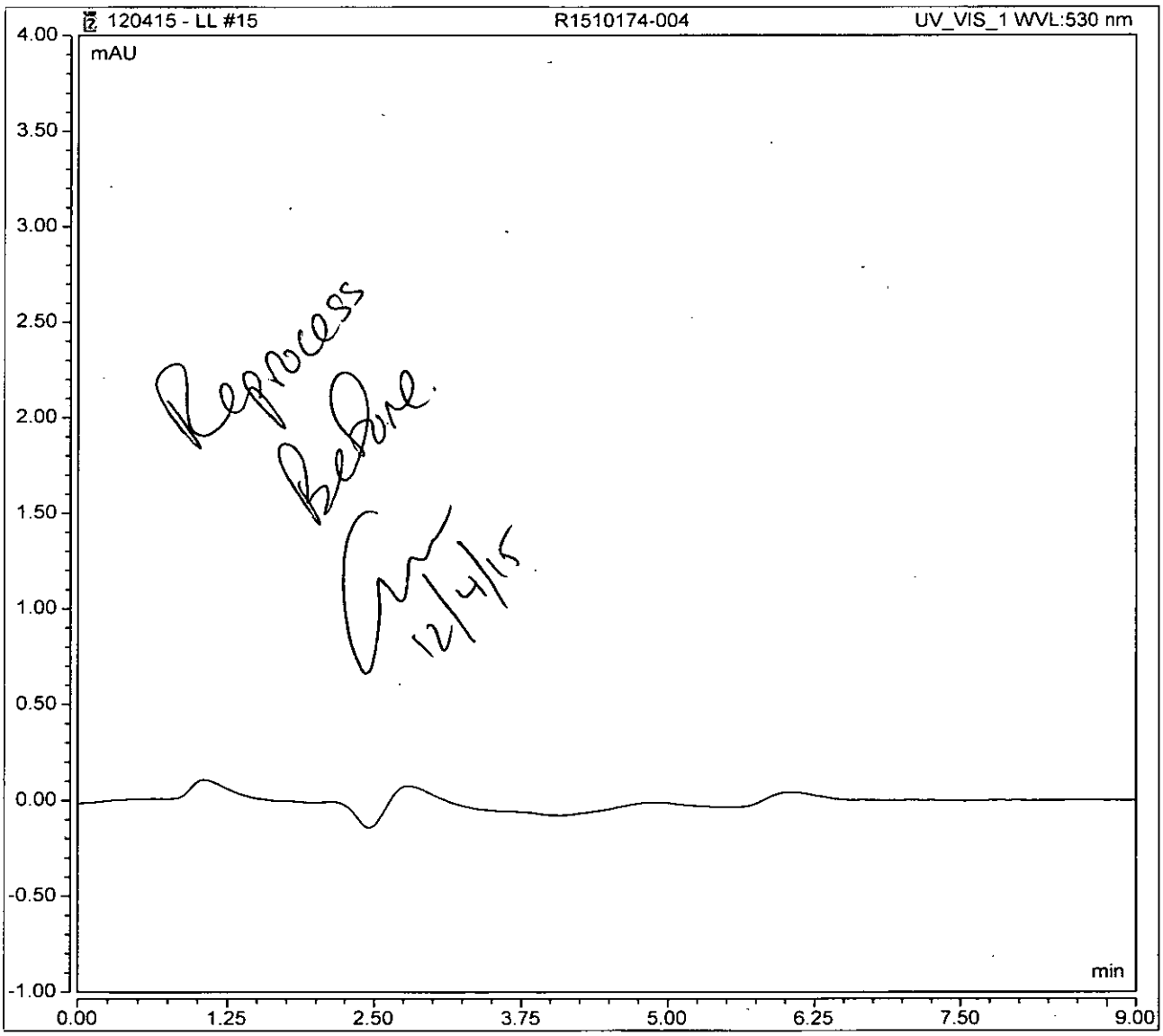
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.125	0.245	0.1241
TOTAL:				0.13	0.25	0.12



Peak Integration Report

Sample Name:	**R1510174-004**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**15**
Inj. Date / Time:	**04-Dec-2015 / 16:23**	*Sample Comment:*	**218.6 LL**

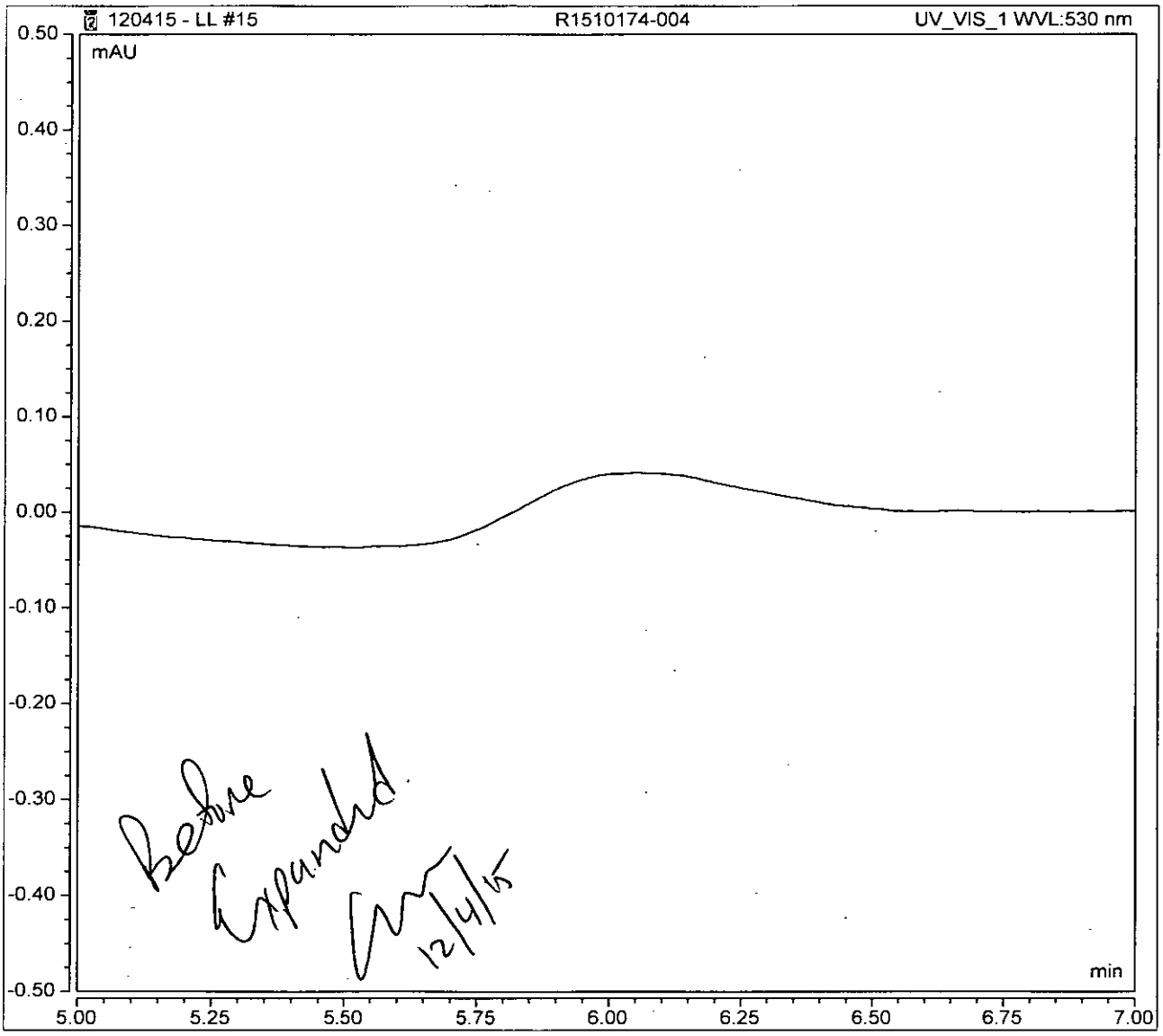
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**R1510174-004**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**15**
Inj. Date / Time:	**04-Dec-2015 / 16:23**	*Sample Comment:*	**218.6 LL**

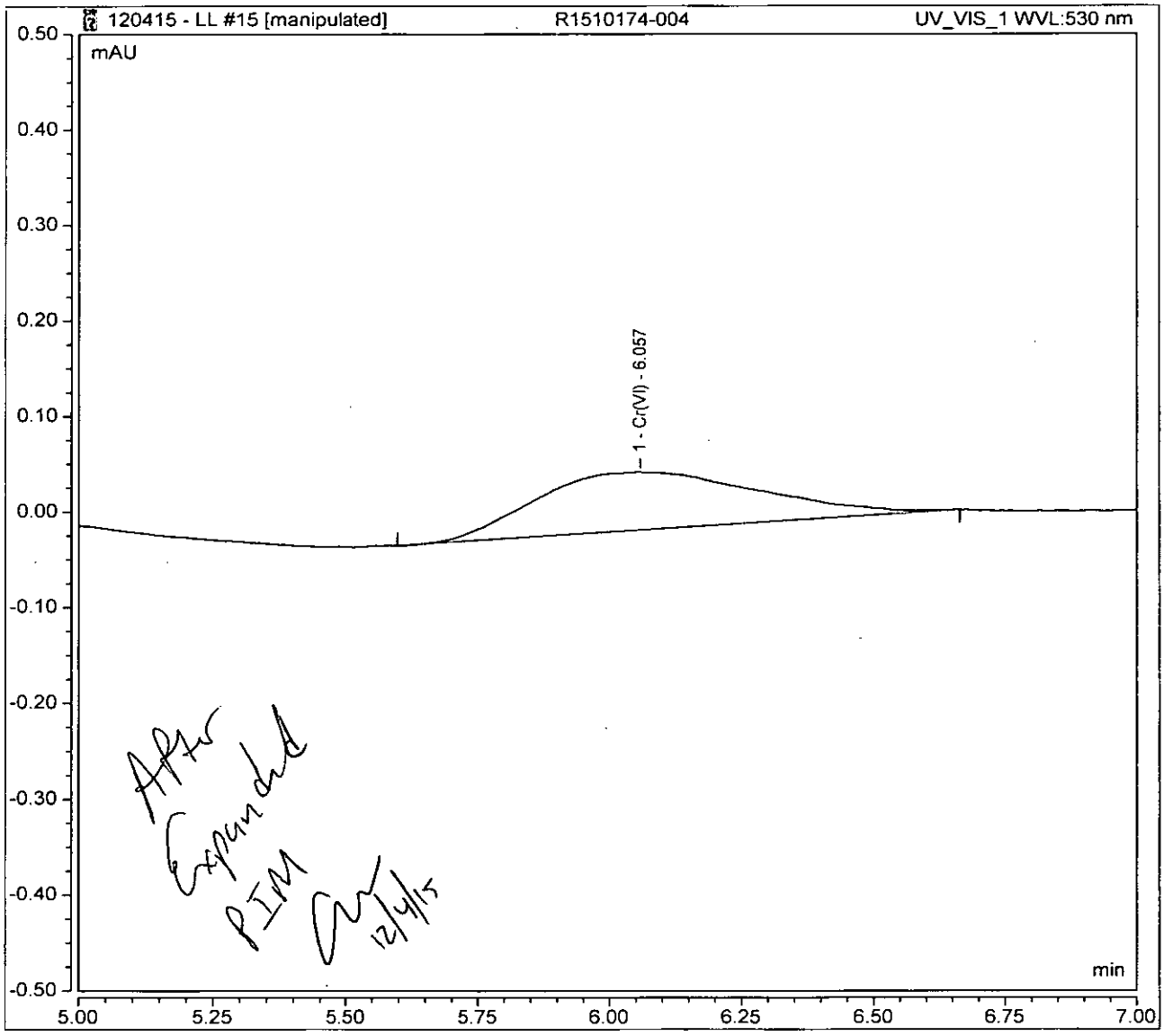
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**R1510174-004**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**15**
Inj. Date / Time:	**04-Dec-2015 / 16:23**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB*	0.030	0.061	0.0205
TOTAL:				0.03	0.06	0.02



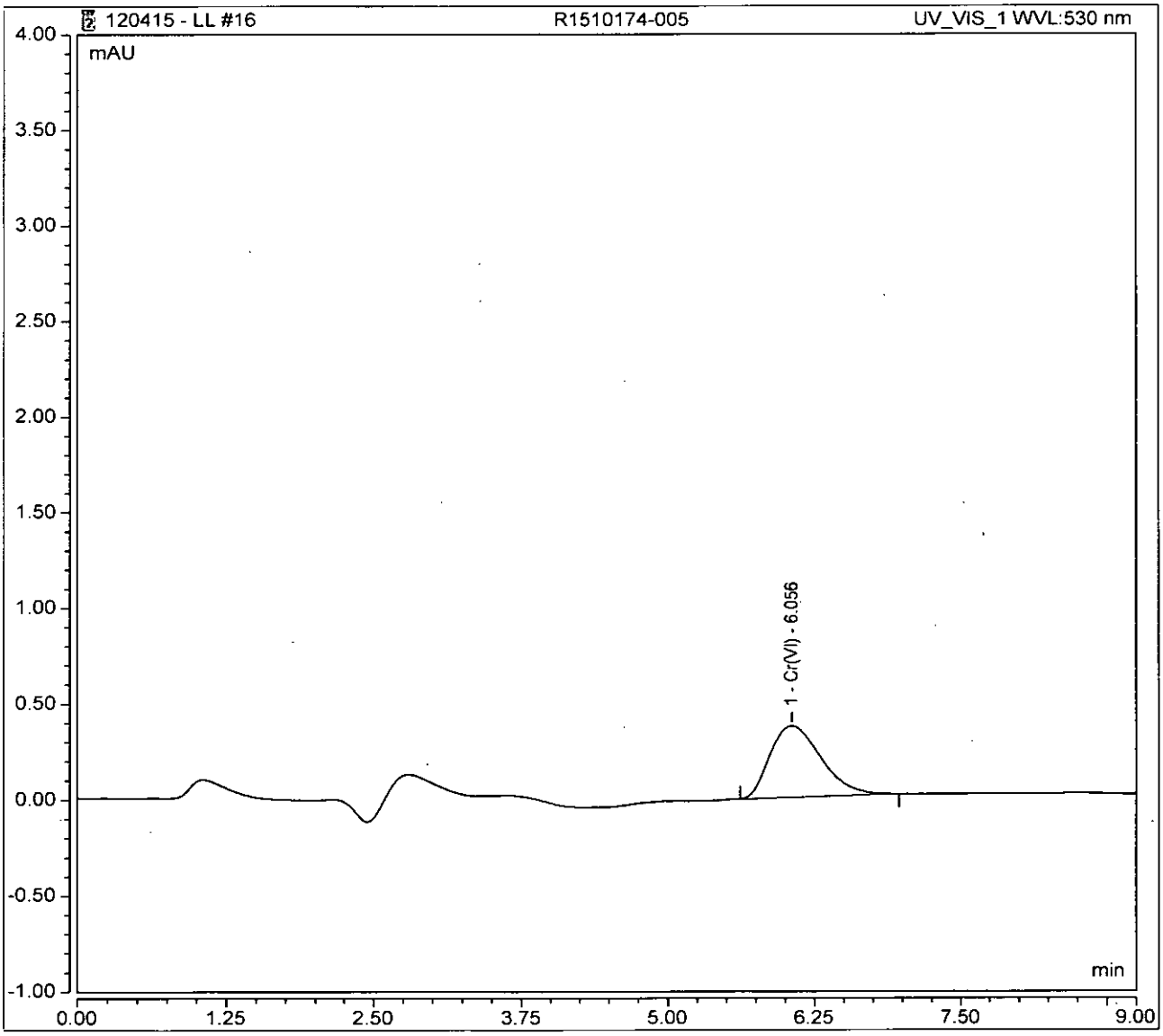
After Expanded RIM 12/4/15

OK 12/4/15

Peak Integration Report

Sample Name:	**R1510174-005**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**16**
Inj. Date / Time:	**04-Dec-2015 / 16:35**	*Sample Comment:*	**218.6 LL**

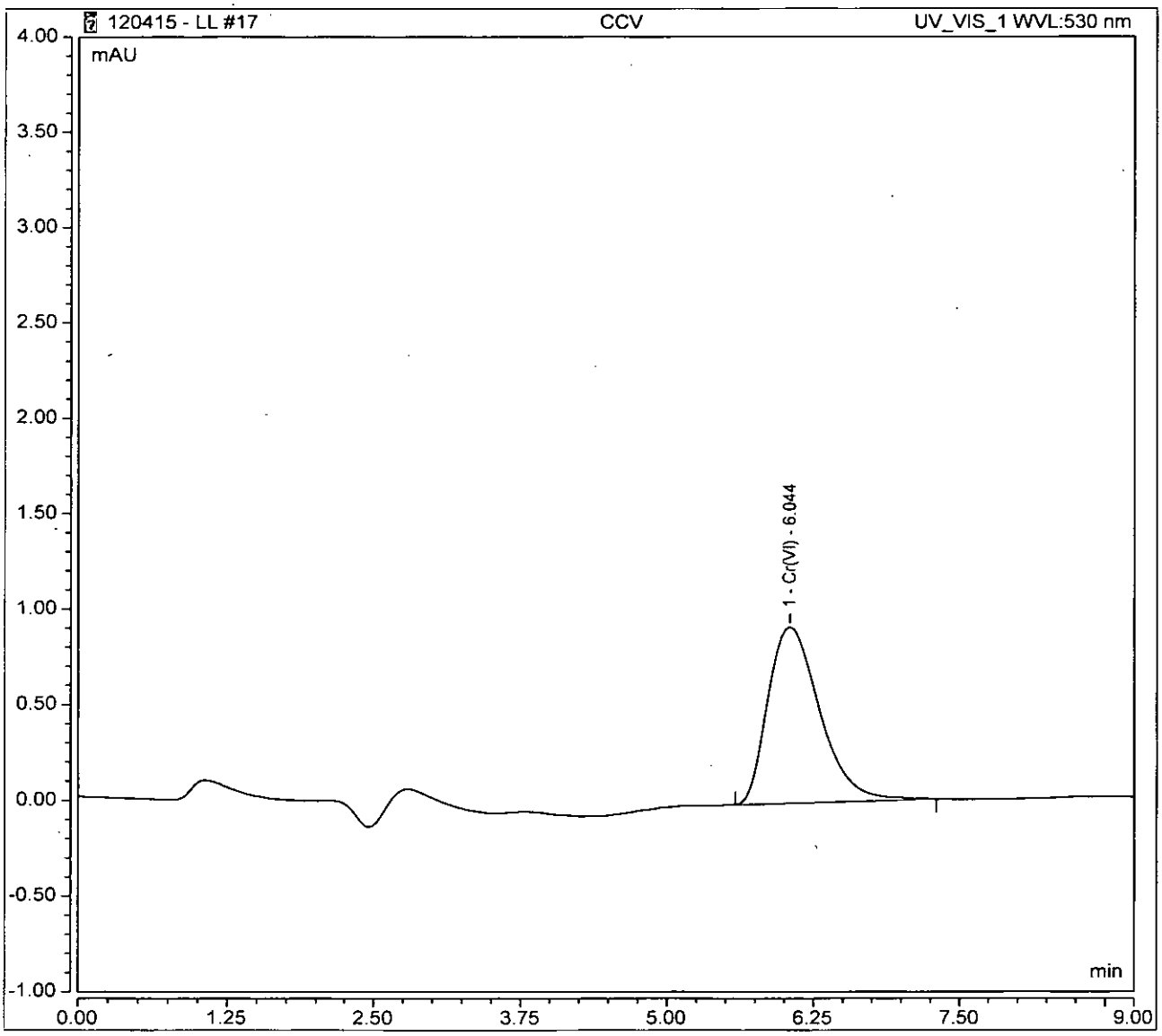
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB	0.189	0.374	0.1935
TOTAL:				0.19	0.37	0.19



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**17**
Inj. Date / Time:	**04-Dec-2015 / 16:47**	*Sample Comment:*	**218.6 LL**

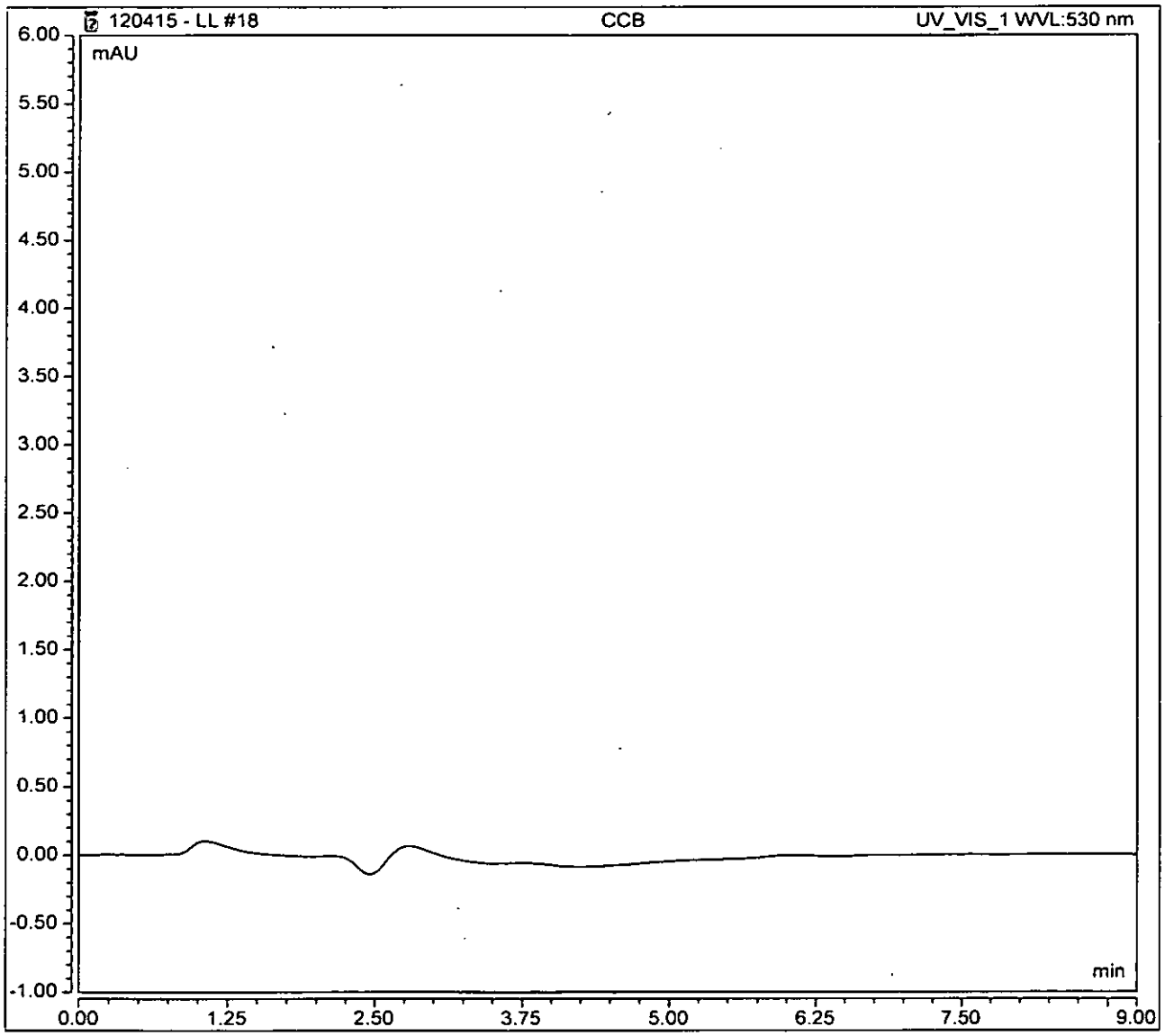
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.475	0.922	0.5034
TOTAL:				0.47	0.92	0.50



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**18**
Inj. Date / Time:	**04-Dec-2015 / 16:59**	*Sample Comment:*	**218.6 LL**

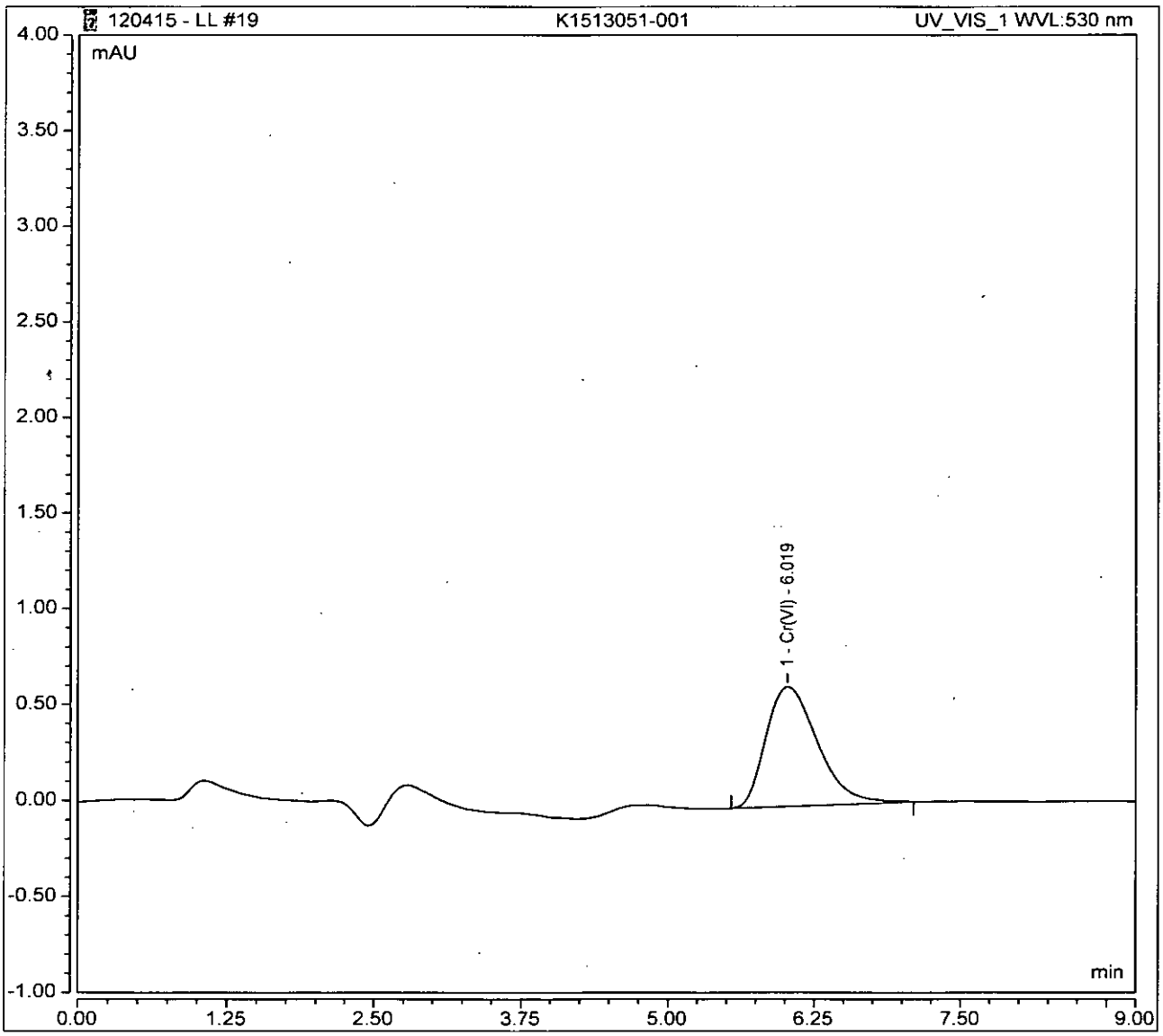
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**K1513051-001**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**19**
Inj. Date / Time:	**04-Dec-2015 / 17:38**	*Sample Comment:*	**218.6 LL**

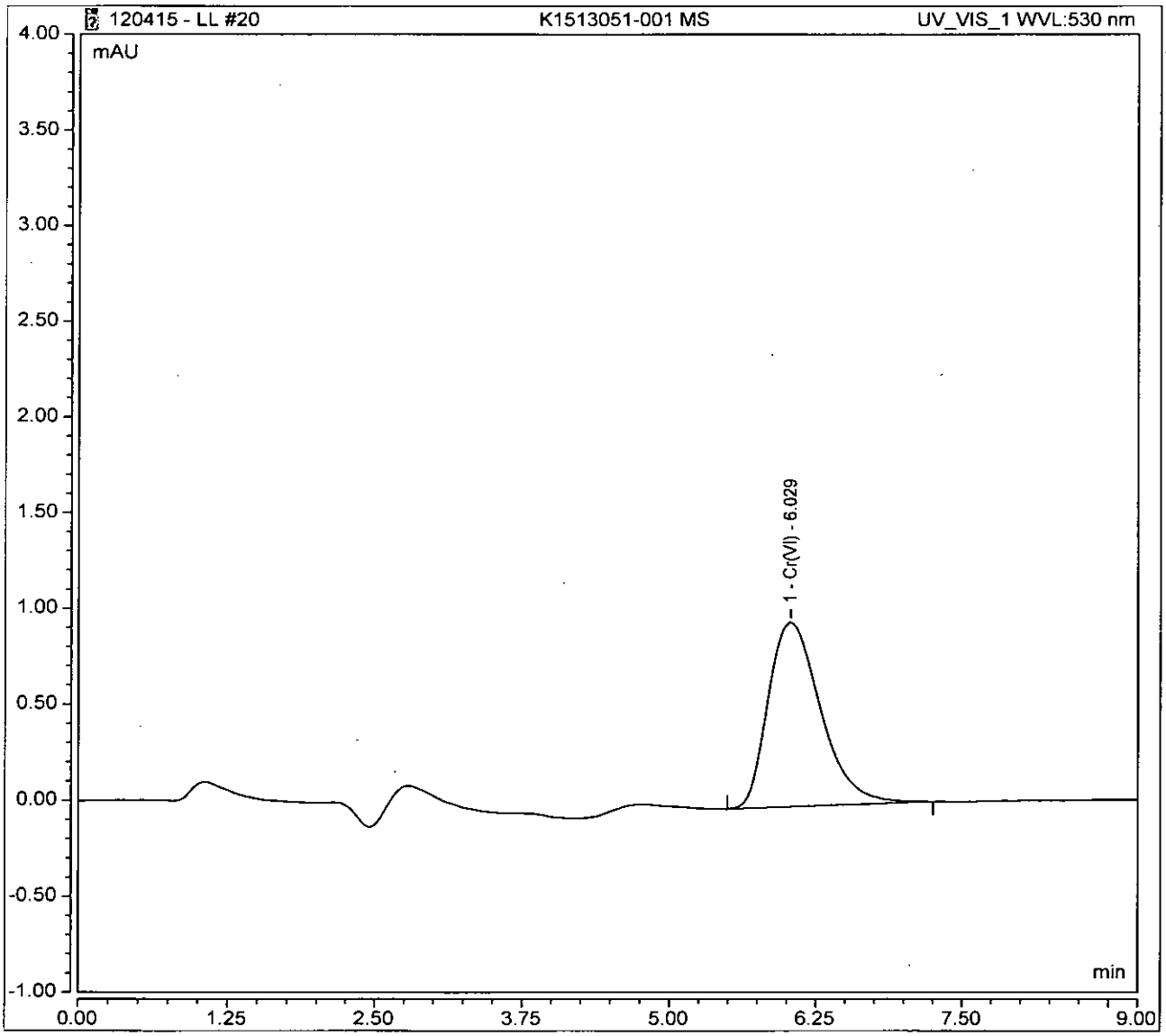
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.02	Cr(VI)	BMB	0.320	0.625	0.3352
TOTAL:				0.32	0.62	0.34



Peak Integration Report

Sample Name:	**K1513051-001 MS**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**20**
Inj. Date / Time:	**04-Dec-2015 / 17:50**	*Sample Comment:*	**218.6 LL**

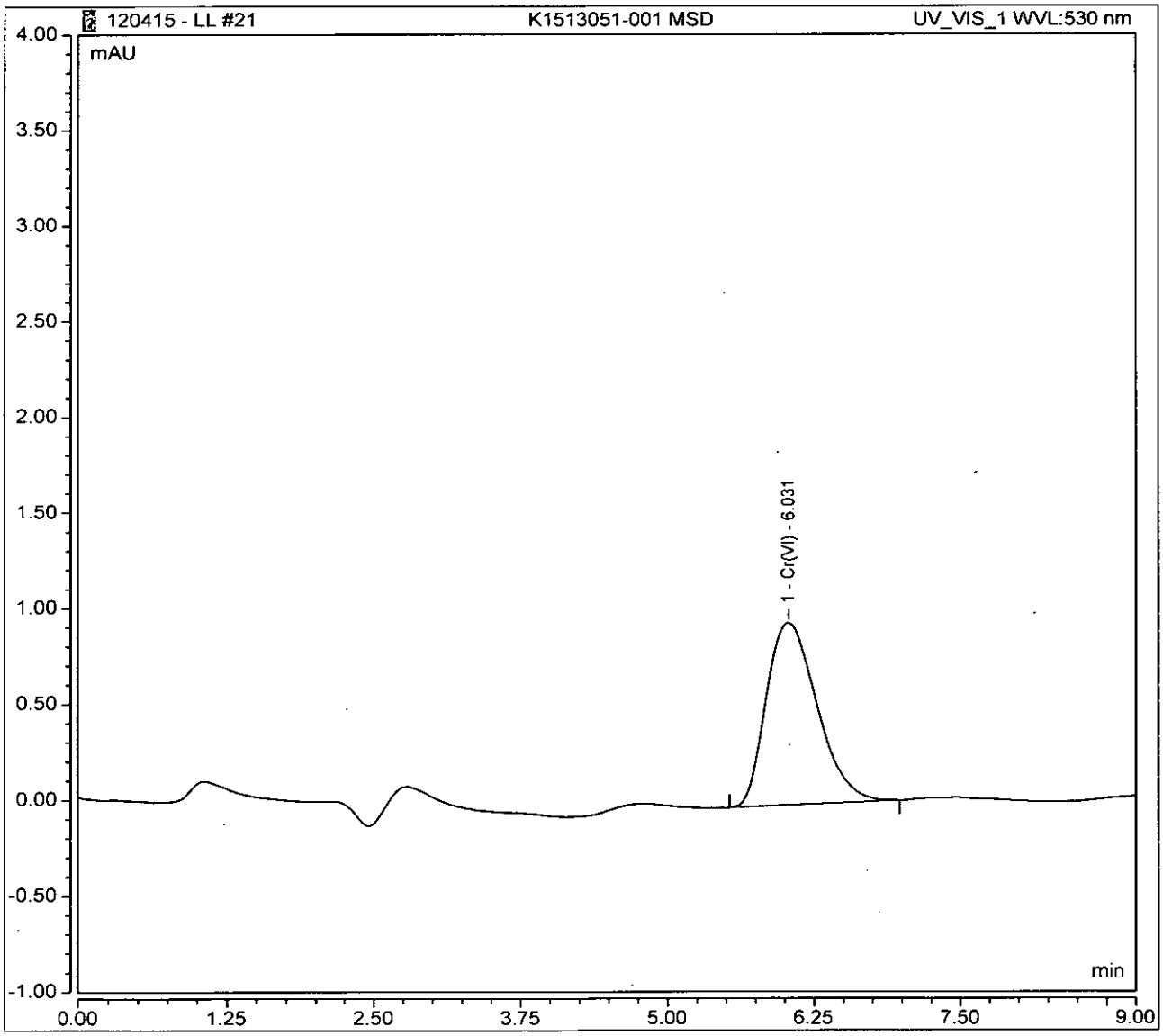
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.500	0.961	0.5305
TOTAL:				0.50	0.96	0.53



Peak Integration Report

Sample Name:	**K1513051-001 MSD**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**21**
Inj. Date / Time:	**04-Dec-2015 / 18:02**	*Sample Comment:*	**218.6 LL**

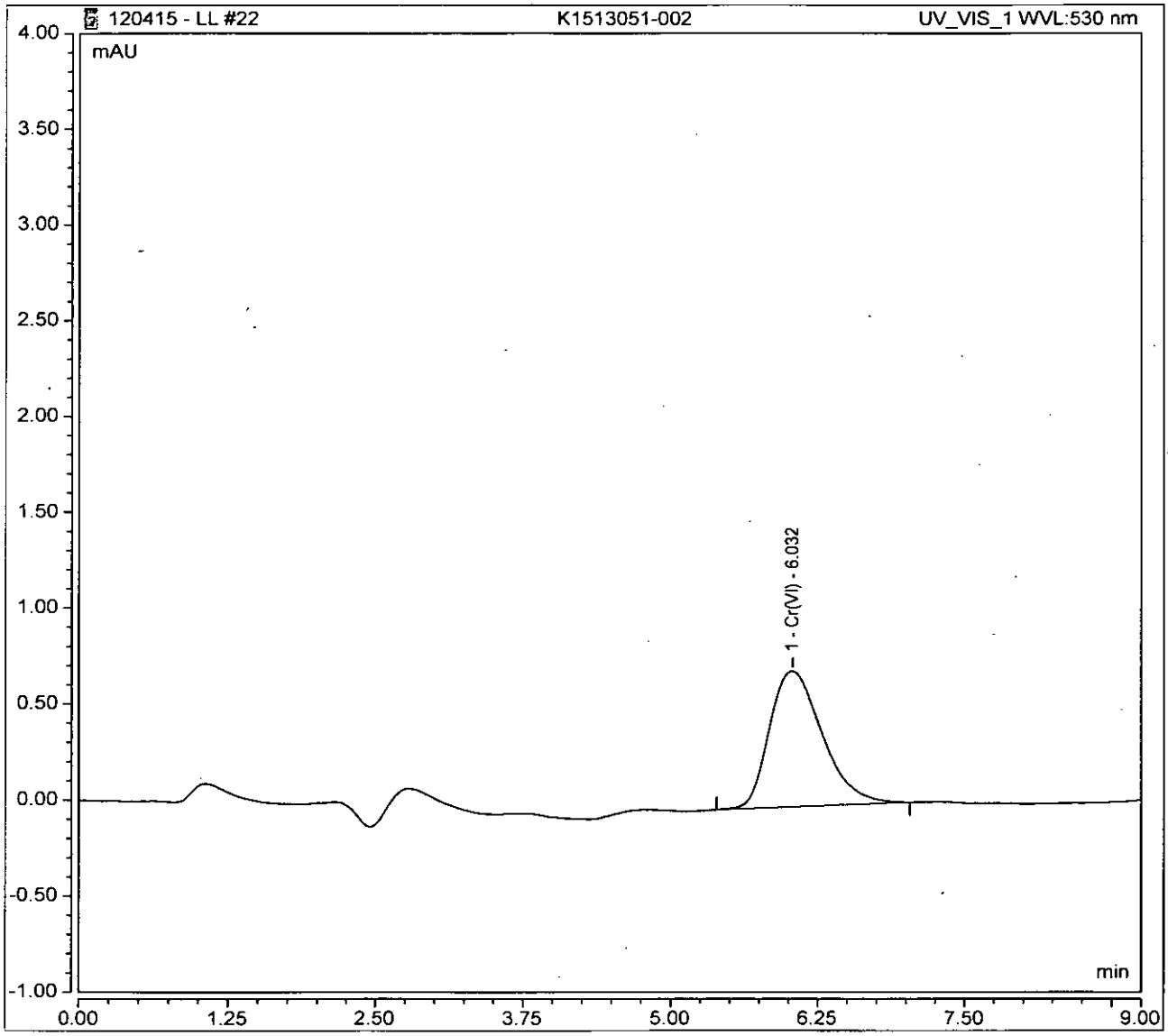
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.478	0.951	0.5070
TOTAL:				0.48	0.95	0.51



Peak Integration Report

Sample Name:	**K1513051-002**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**22**
Inj. Date / Time:	**04-Dec-2015 / 18:14**	*Sample Comment:*	**218.6 LL**

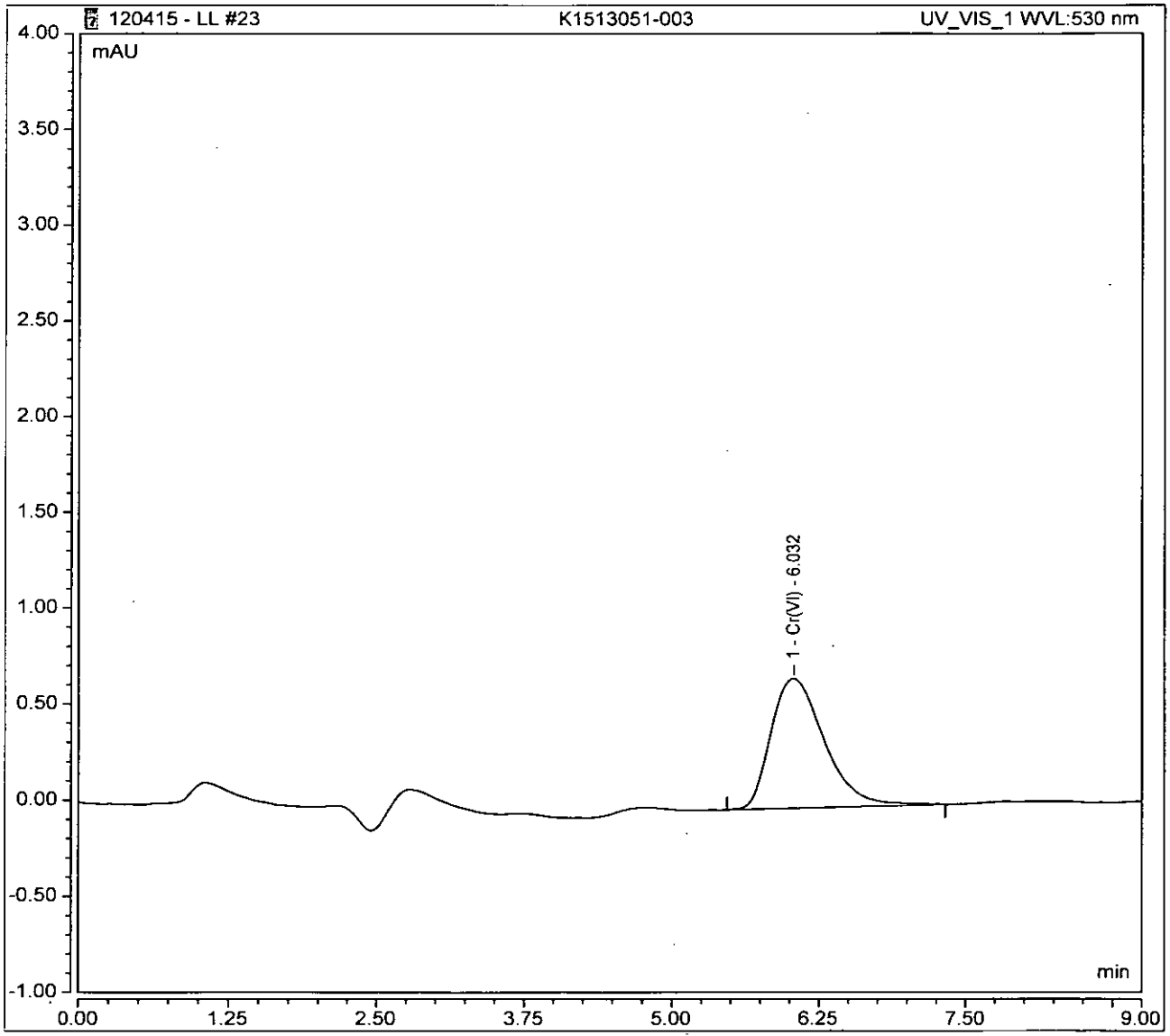
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.368	0.706	0.3873
TOTAL:				0.37	0.71	0.39



Peak Integration Report

Sample Name:	**K1513051-003**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**23**
Inj. Date / Time:	**04-Dec-2015 / 18:26**	*Sample Comment:*	**218.6 LL**

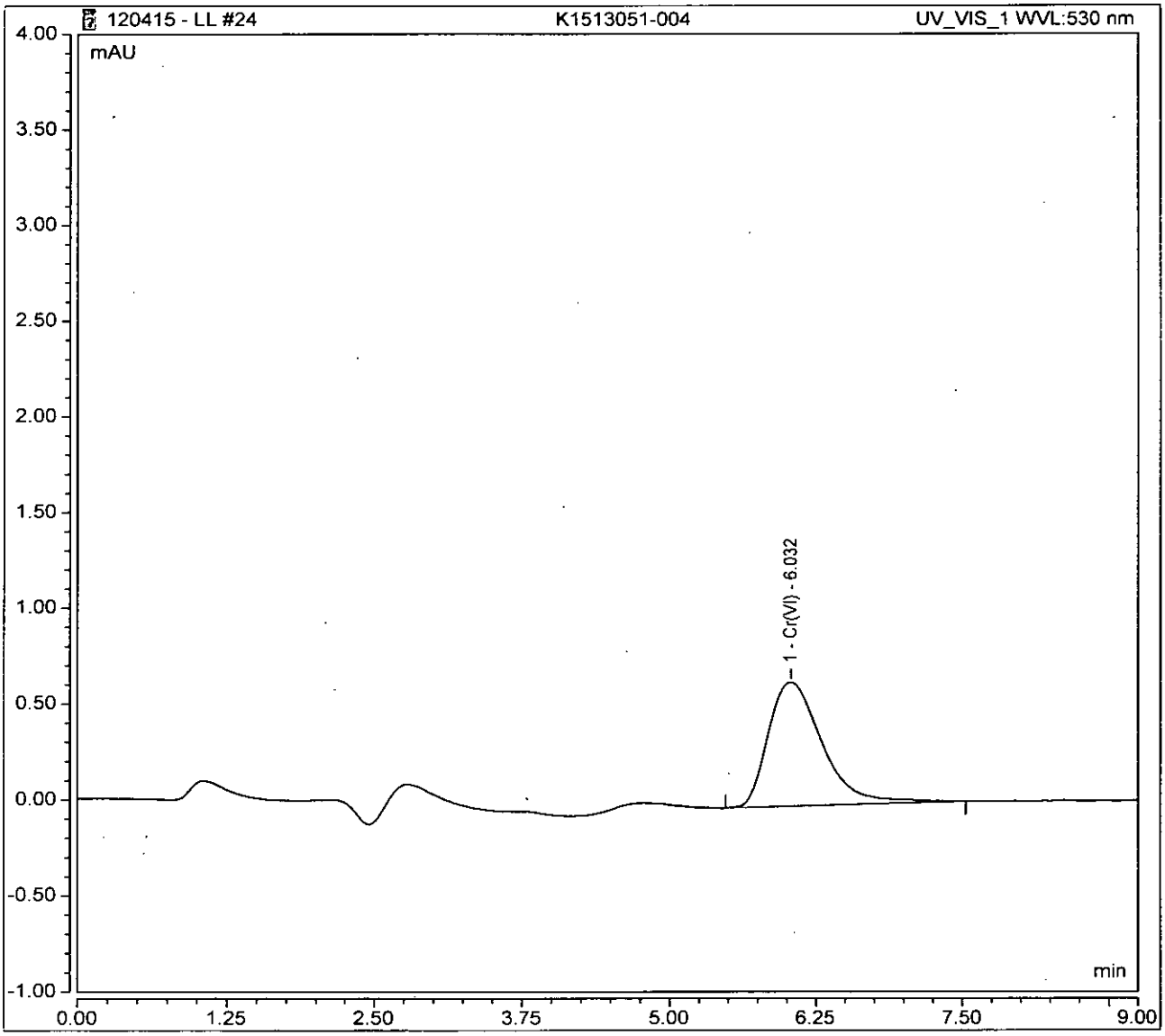
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.356	0.675	0.3744
TOTAL:				0.36	0.68	0.37



Peak Integration Report

Sample Name:	**K1513051-004**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**24**
Inj. Date / Time:	**04-Dec-2015 / 18:38**	*Sample Comment:*	**218.6 LL**

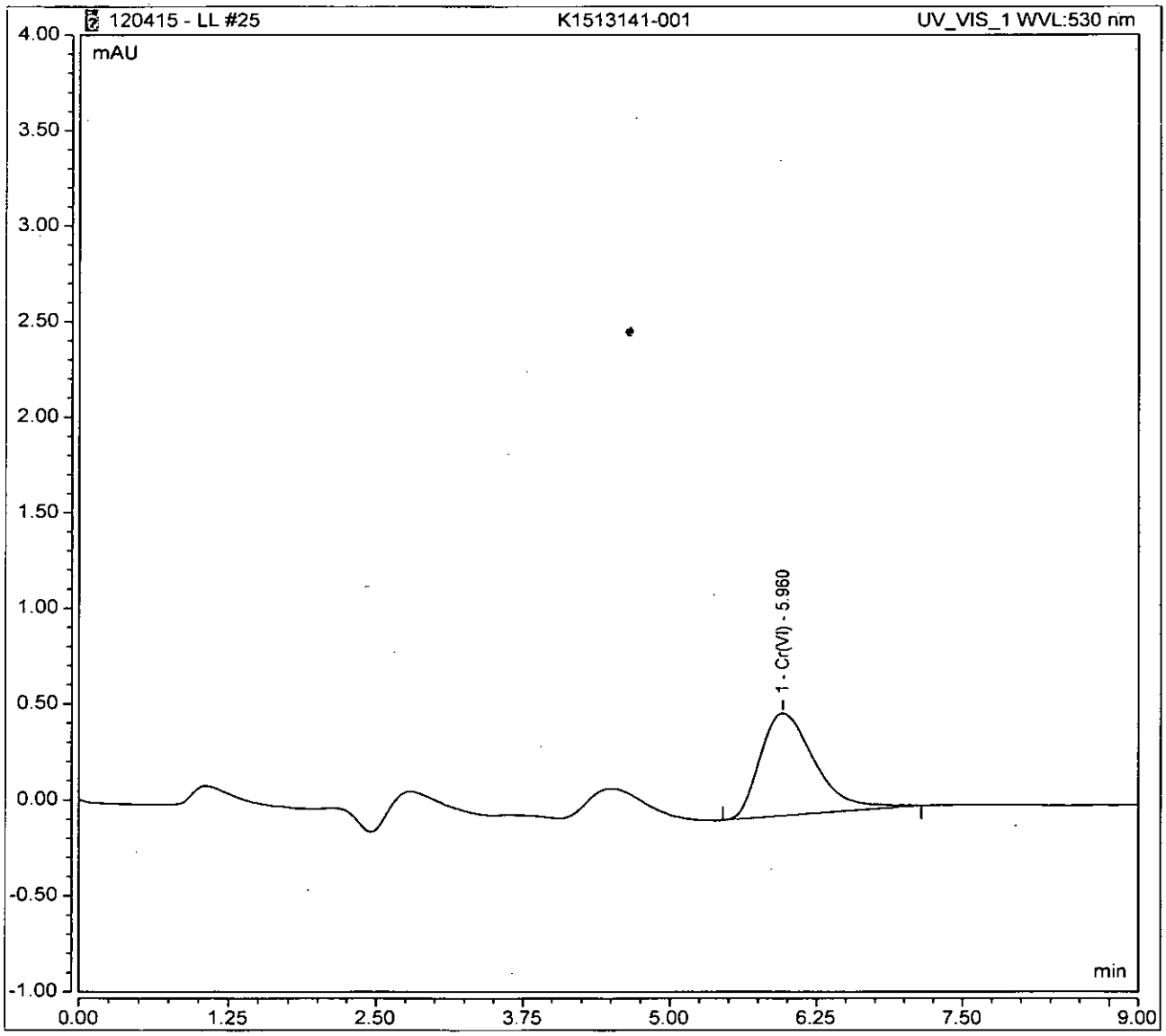
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.347	0.646	0.3650
TOTAL:				0.35	0.65	0.36



Peak Integration Report

Sample Name:	**K1513141-001**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**25**
Inj. Date / Time:	**04-Dec-2015 / 18:50**	*Sample Comment:*	**218.6 LL**

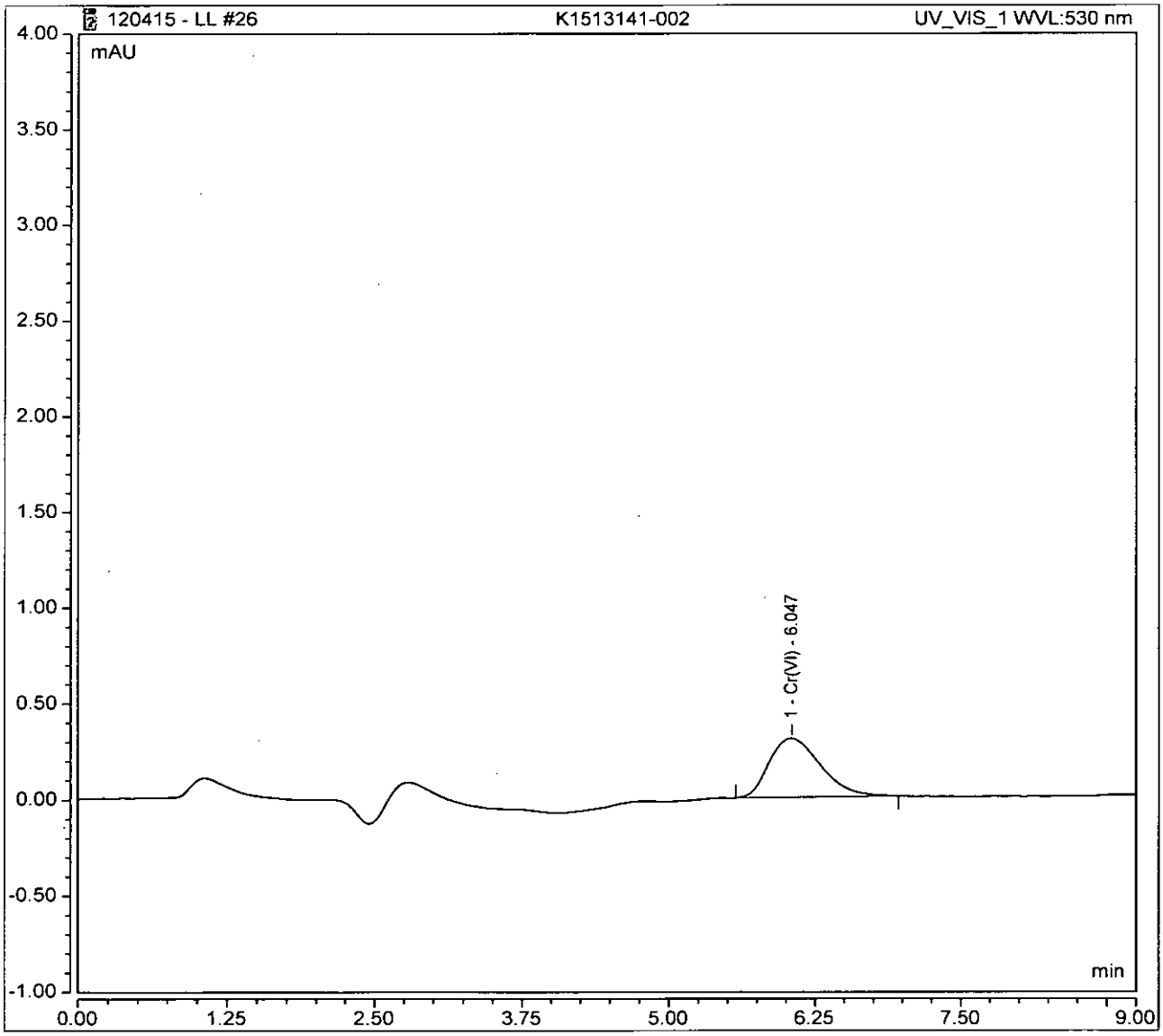
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	5.96	Cr(VI)	BMB	0.289	0.534	0.3016
TOTAL:				0.29	0.53	0.30



Peak Integration Report

Sample Name:	**K1513141-002**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**26**
Inj. Date / Time:	**04-Dec-2015 / 19:02**	*Sample Comment:*	**218.6 LL**

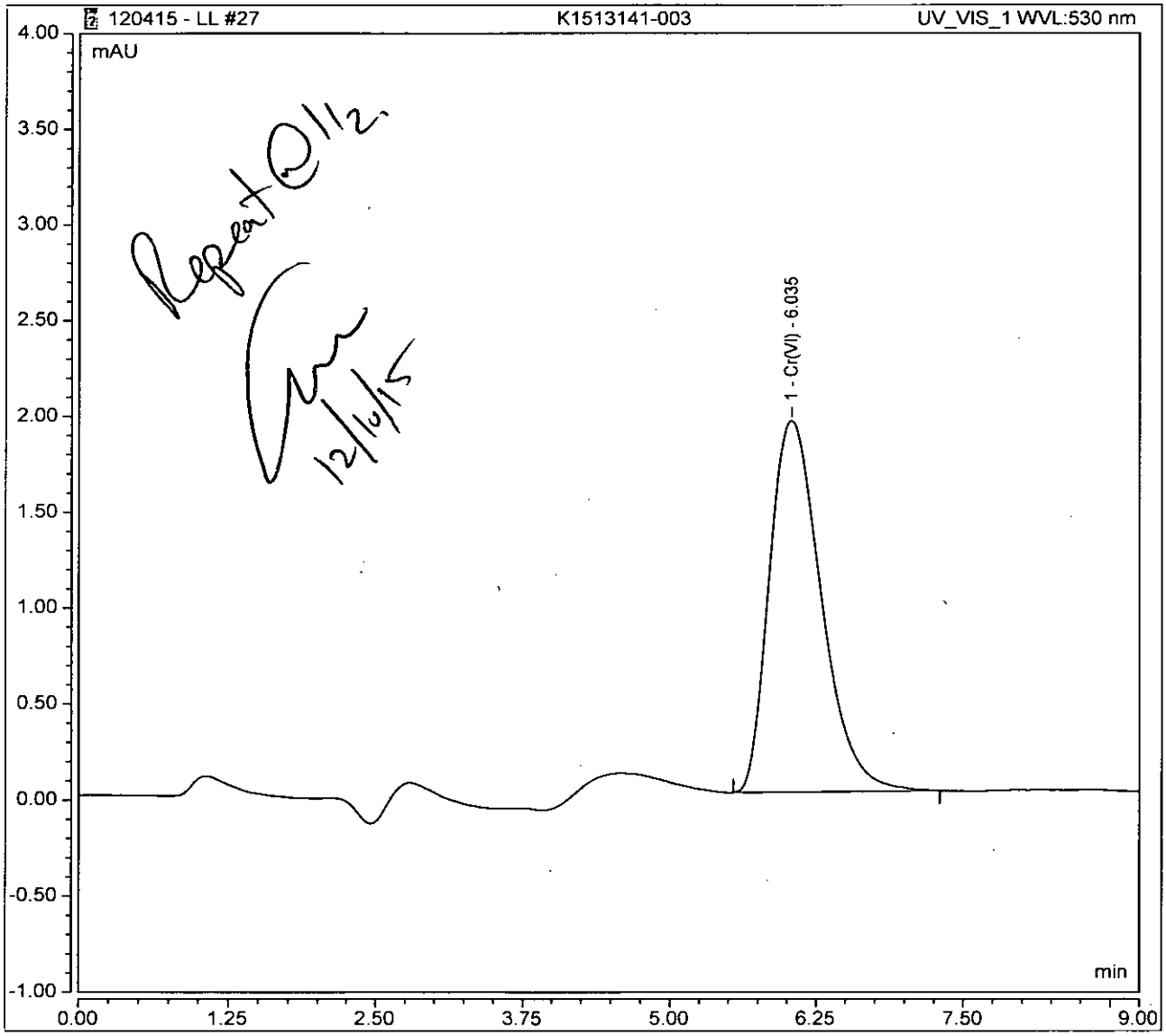
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.157	0.308	0.1584
TOTAL:				0.16	0.31	0.16



Peak Integration Report

Sample Name:	**K1513141-003**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**27**
Inj. Date / Time:	**04-Dec-2015 / 19:13**	*Sample Comment:*	**218.6 LL**

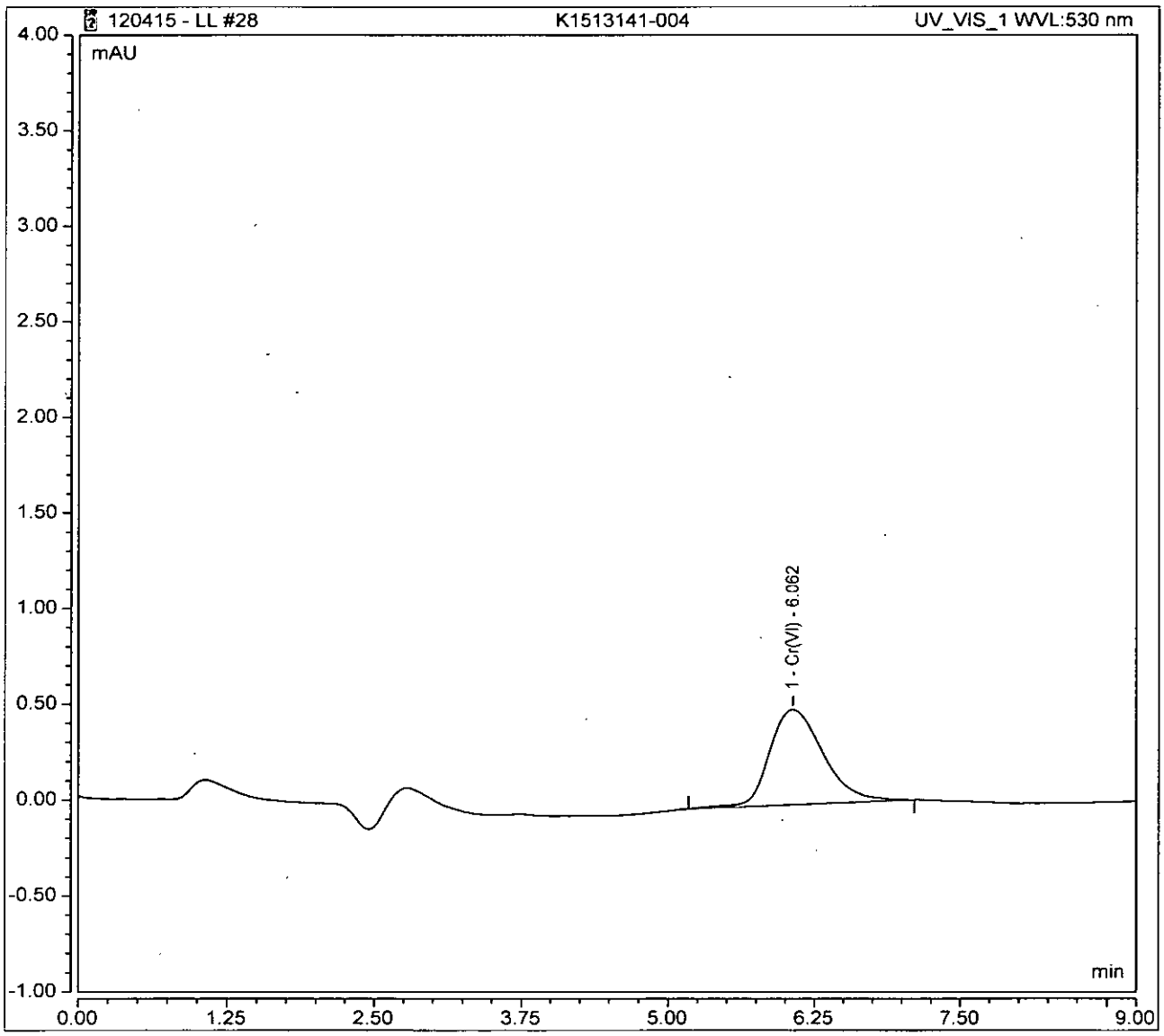
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.997	1.937	1.0693
TOTAL:				1.00	1.94	1.07



Peak Integration Report

Sample Name:	**K1513141-004**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**28**
Inj. Date / Time:	**04-Dec-2015 / 19:25**	*Sample Comment:*	**218.6 LL**

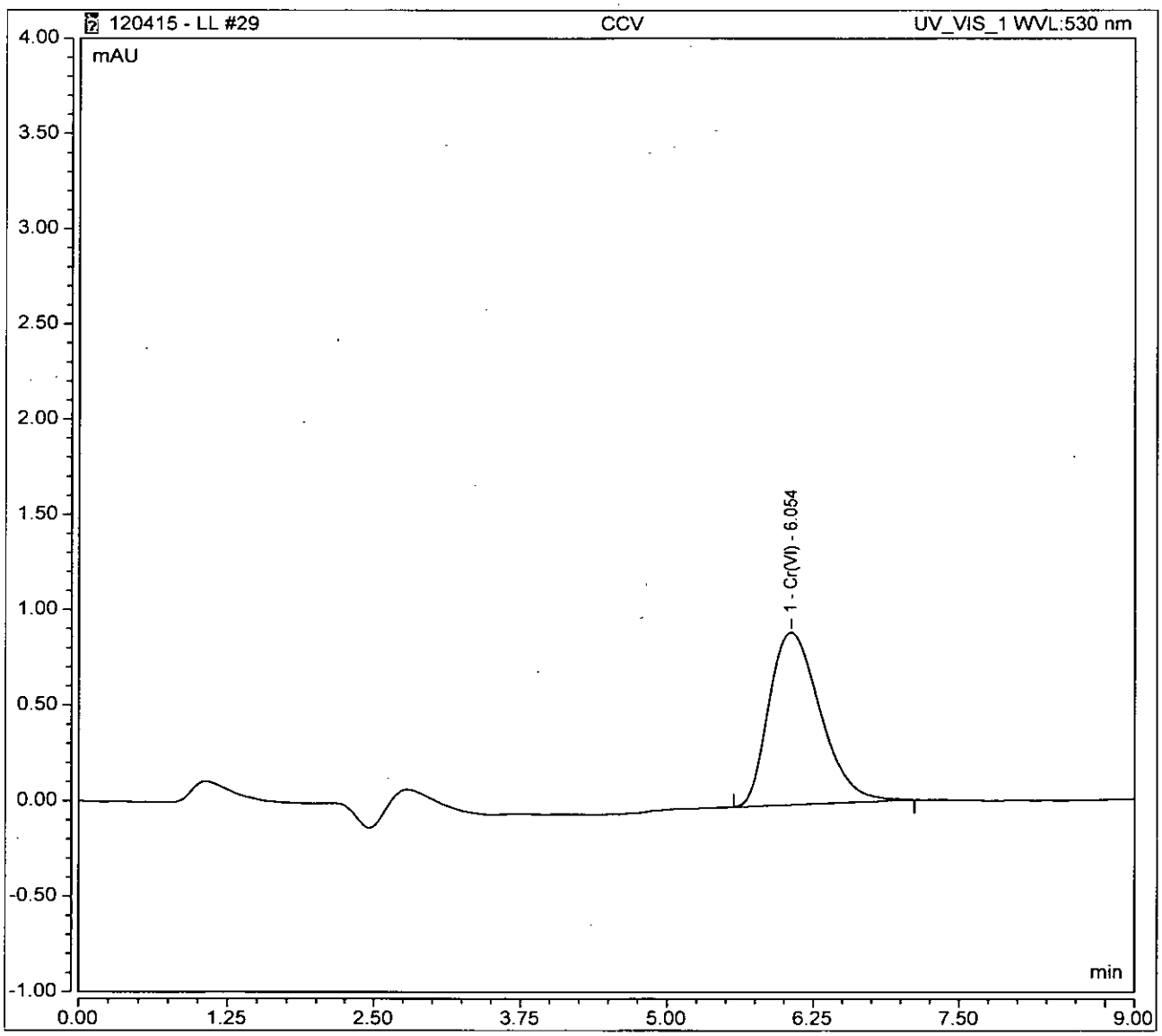
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB	0.265	0.498	0.2759
TOTAL:				0.27	0.50	0.28



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**29**
Inj. Date / Time:	**04-Dec-2015 / 19:37**	*Sample Comment:*	**218.6 LL**

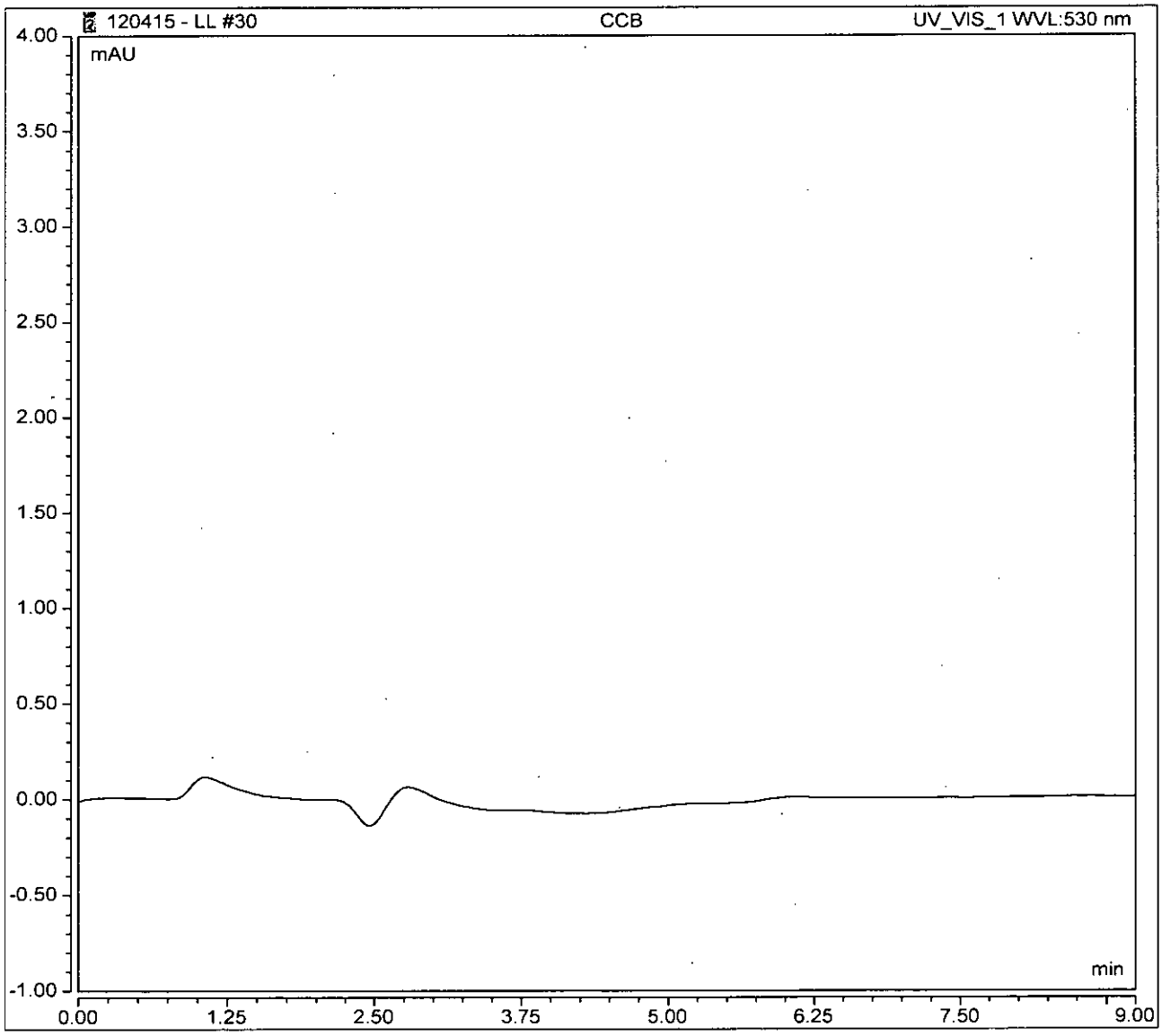
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.462	0.903	0.4893
TOTAL:				0.46	0.90	0.49



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**30**
Inj. Date / Time:	**04-Dec-2015 / 19:49**	*Sample Comment:*	**218.6 LL**

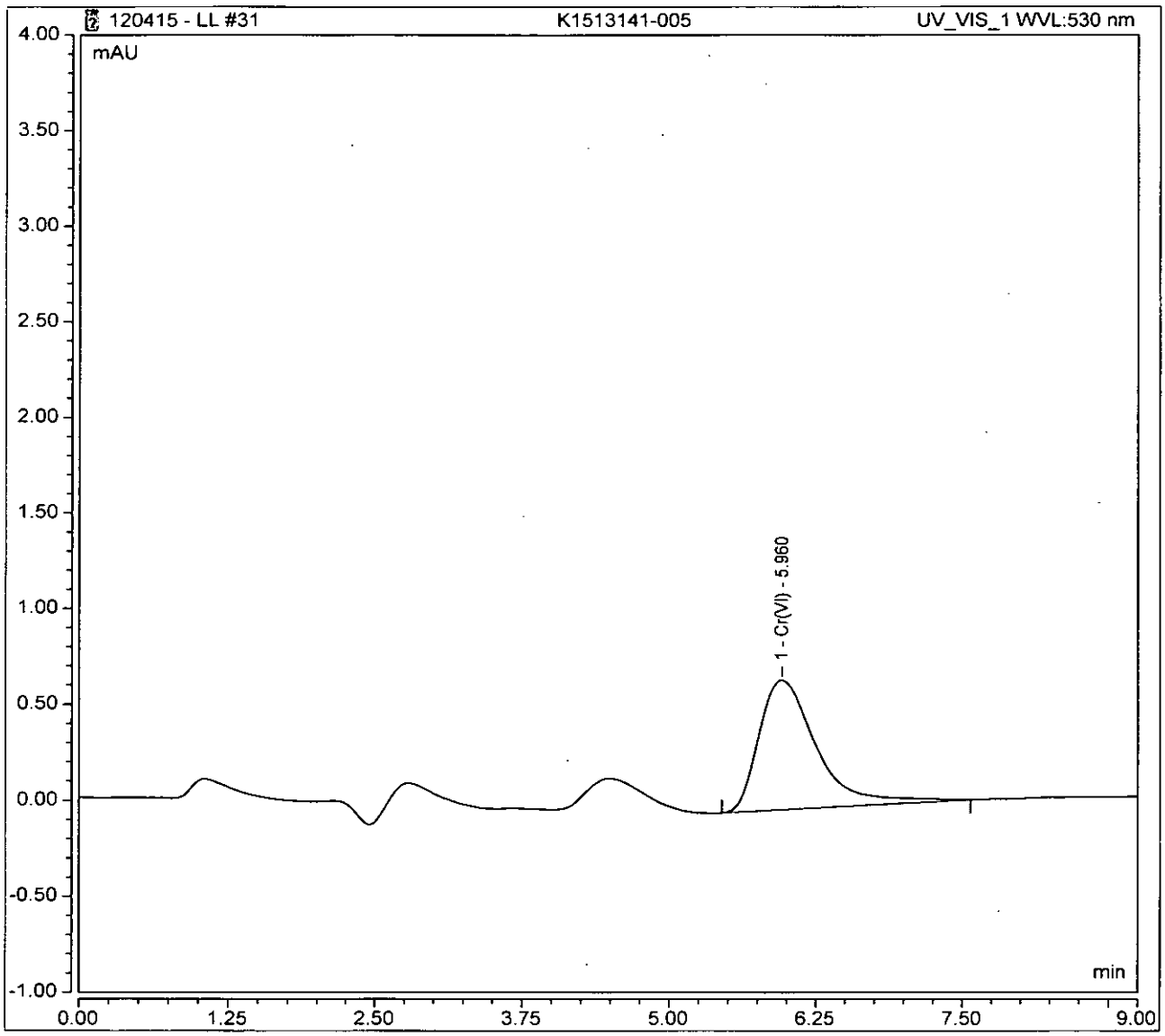
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Peak Integration Report

Sample Name:	**K1513141-005**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**31**
Inj. Date / Time:	**04-Dec-2015 / 20:01**	*Sample Comment:*	**218.6 LL**

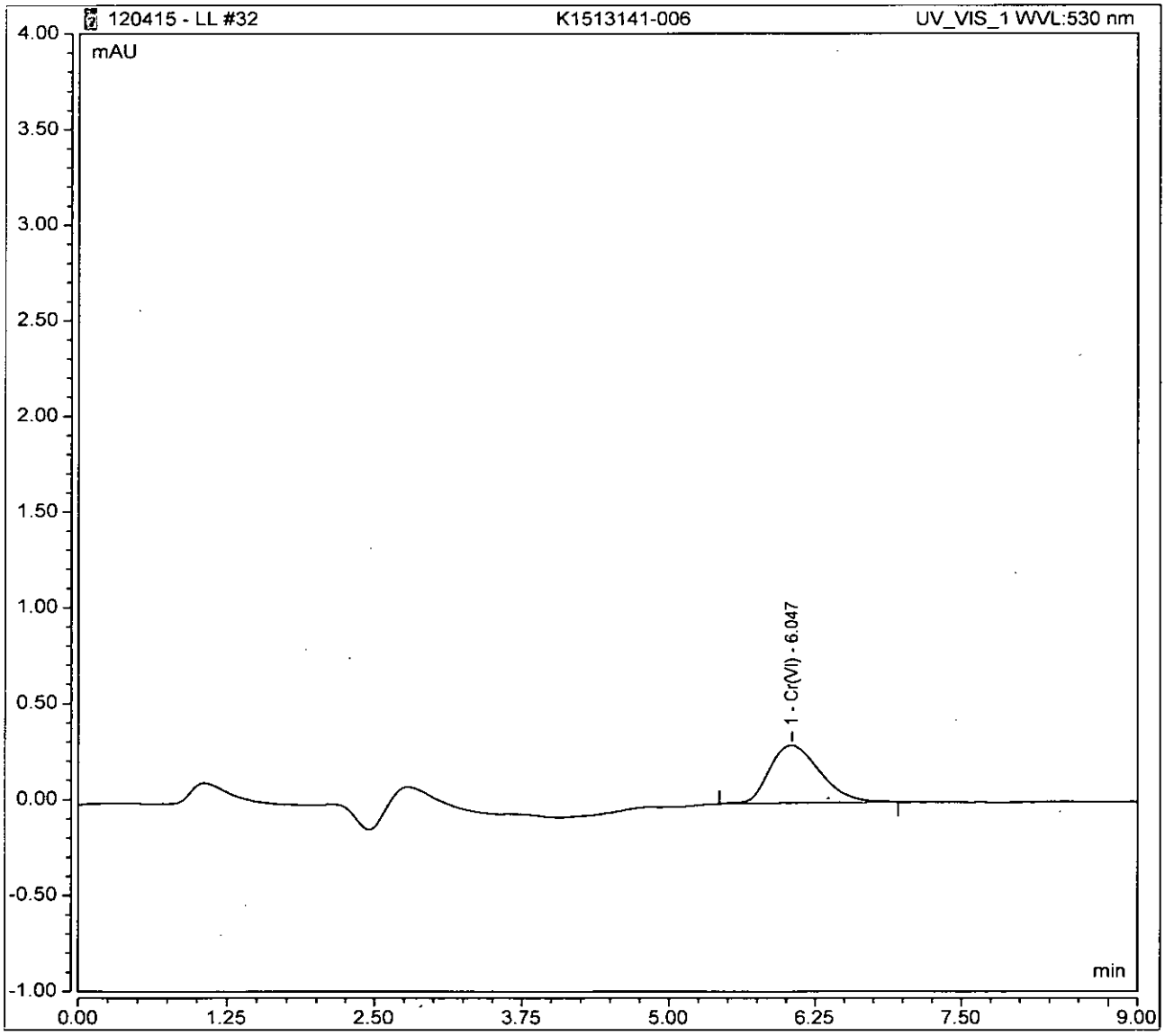
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	5.96	Cr(VI)	BMB	0.387	0.676	0.4080
TOTAL:				0.39	0.68	0.41



Peak Integration Report

Sample Name:	**K1513141-006**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**32**
Inj. Date / Time:	**04-Dec-2015 / 20:13**	*Sample Comment:*	**218.6 LL**

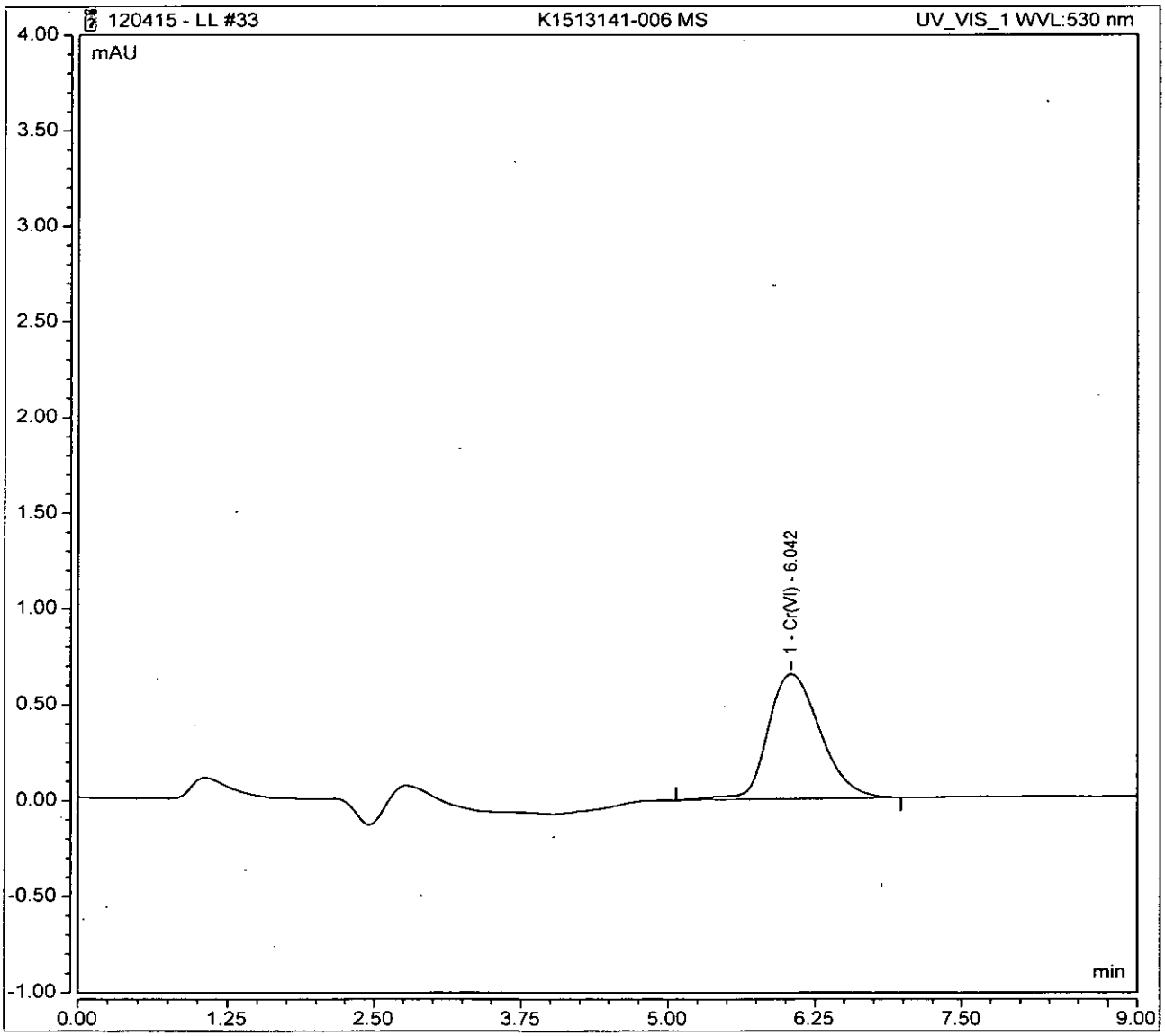
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.153	0.302	0.1539
TOTAL:				0.15	0.30	0.15



Peak Integration Report

Sample Name:	**K1513141-006 MS**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**33**
Inj. Date / Time:	**04-Dec-2015 / 20:25**	*Sample Comment:*	**218.6 LL**

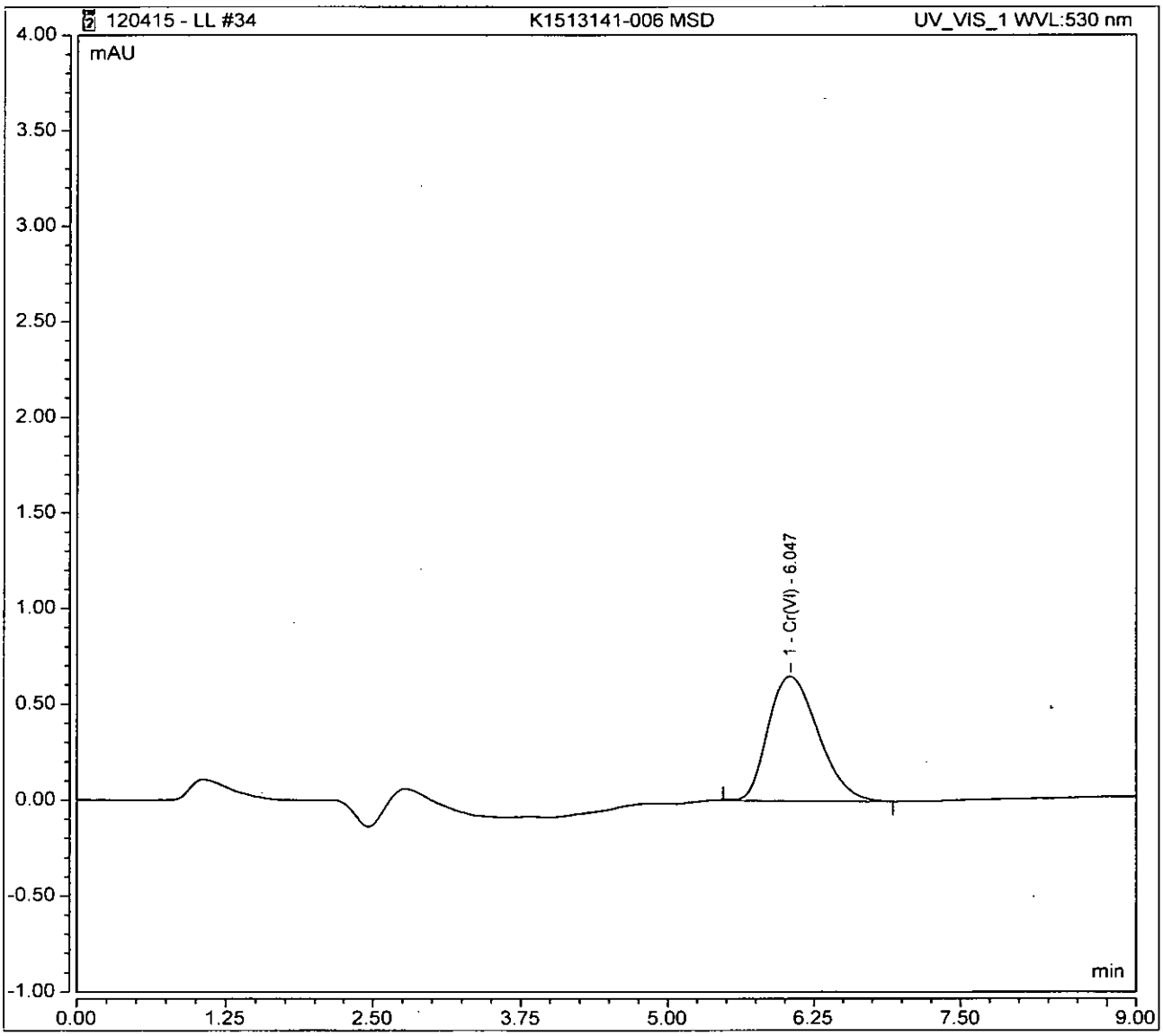
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.336	0.651	0.3527
TOTAL:				0.34	0.65	0.35



Peak Integration Report

Sample Name:	**K1513141-006 MSD**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**34**
Inj. Date / Time:	**04-Dec-2015 / 20:37**	*Sample Comment:*	**218.6 LL**

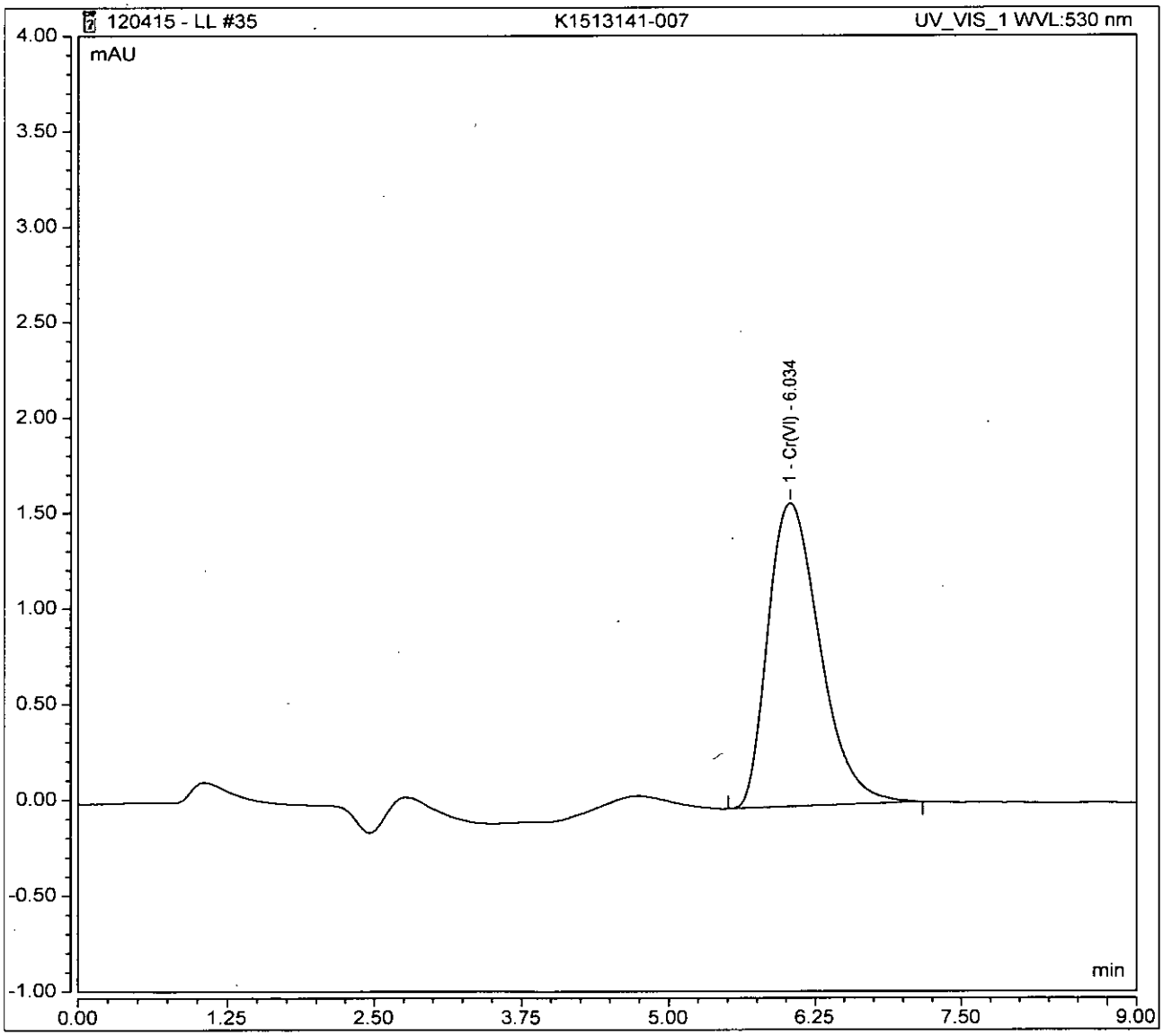
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.323	0.650	0.3385
TOTAL:				0.32	0.65	0.34



Peak Integration Report

Sample Name:	**K1513141-007**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**35**
Inj. Date / Time:	**04-Dec-2015 / 20:49**	*Sample Comment:*	**218.6 LL**

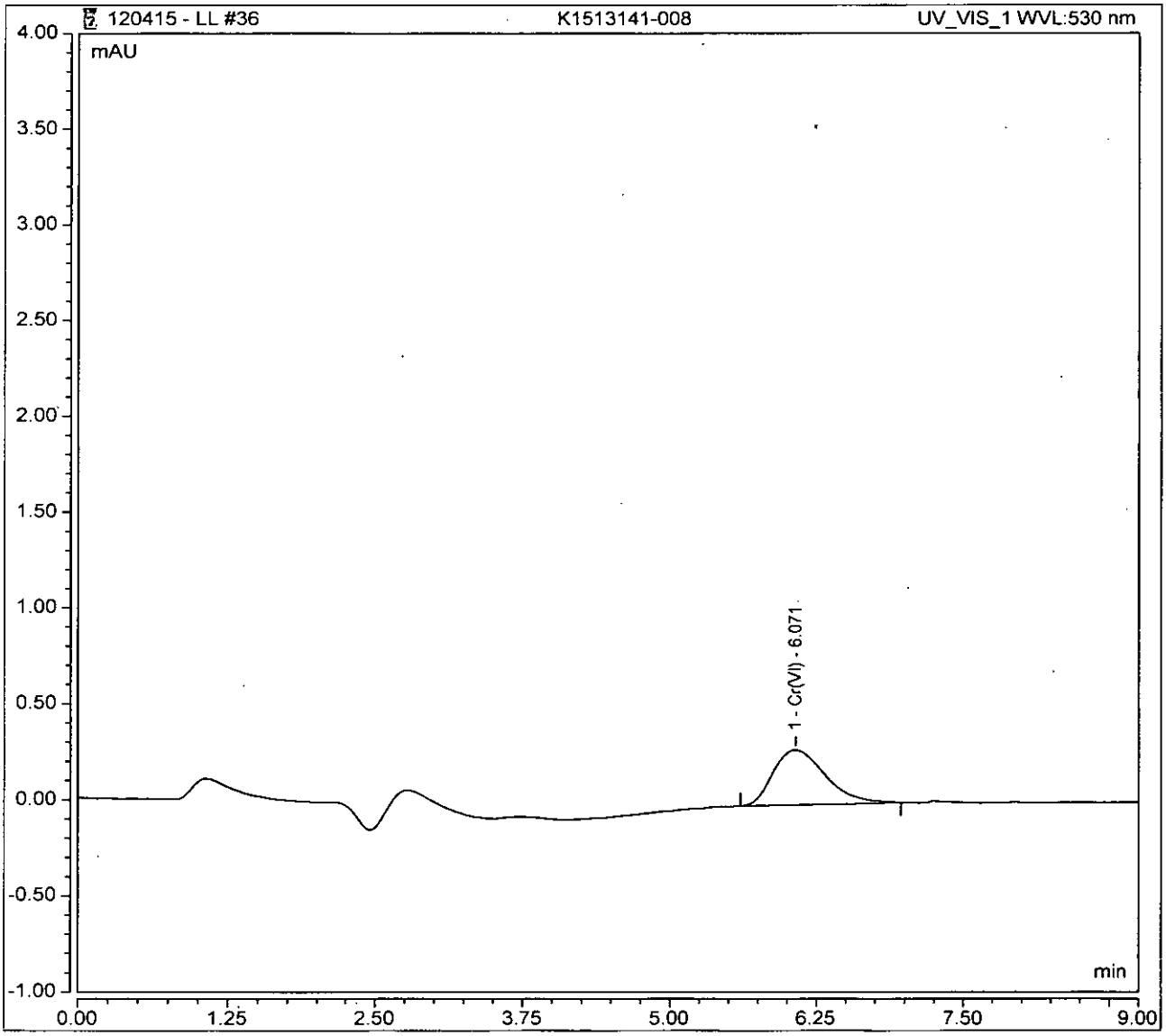
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.03	Cr(VI)	BMB	0.818	1.587	0.8756
TOTAL:				0.82	1.59	0.88



Peak Integration Report

Sample Name:	**K1513141-008**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**36**
Inj. Date / Time:	**04-Dec-2015 / 21:01**	*Sample Comment:*	**218.6 LL**

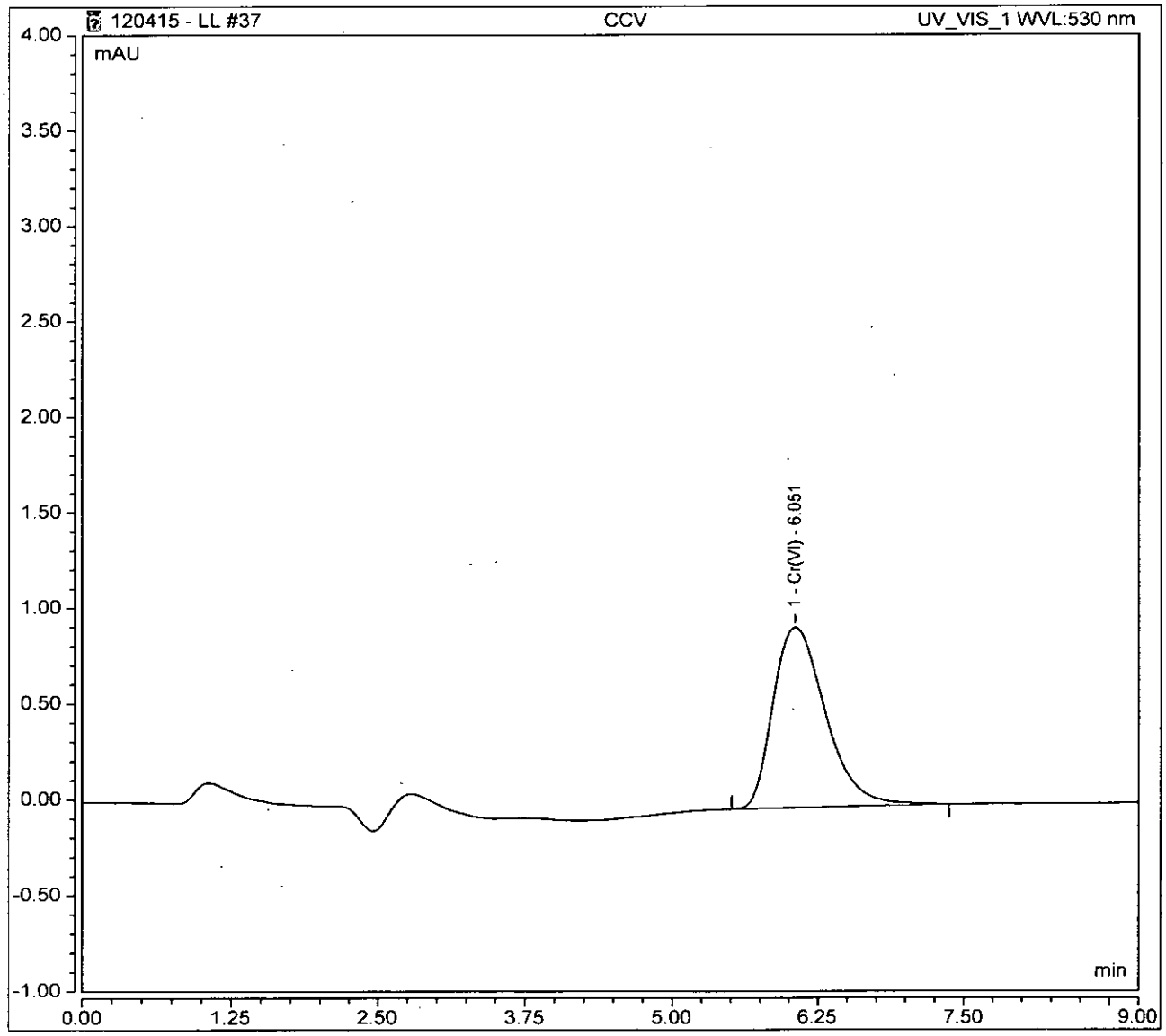
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.07	Cr(VI)	BMB	0.149	0.287	0.1498
TOTAL:				0.15	0.29	0.15



Peak Integration Report

Sample Name:	**CCV**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**37**
Inj. Date / Time:	**04-Dec-2015 / 21:13**	*Sample Comment:*	**218.6 LL**

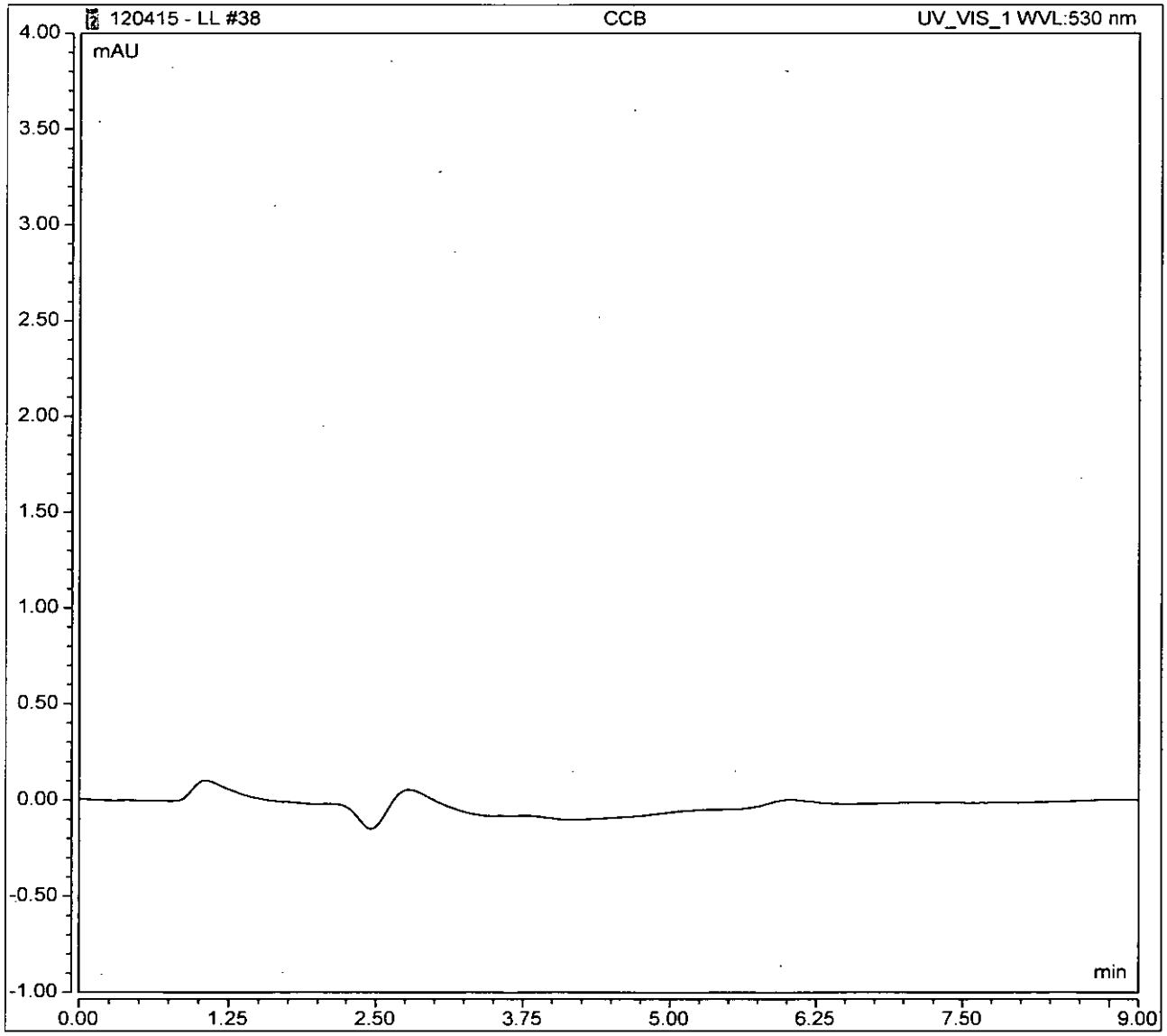
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.492	0.941	0.5218
TOTAL:				0.49	0.94	0.52



Peak Integration Report

Sample Name:	**CCB**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**38**
Inj. Date / Time:	**04-Dec-2015 / 21:25**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



ALS Environmental

1565 Jefferson Road, Building 300, Suite 360; Rochester, NY 14623

Ion Chromatography Cover Sheet

Instrument: IC#8 – Dionex 2100, AXP Reagent Pump, ICS Series UV/Vis VWD

Column: AS7 Analytical Column (S/N 001384) / AG7 Guard Column (S/N 001363)

Analytical Column installed 07/09/14

Curve Date: 12/04/15 **Loop size:** _500 uL Loop_____

Analyst: CWoods **Analysis Date:** 12/4/15

CALIBRATION CURVE FOR THIS METHOD IS LINEAR

Method Filename: 8-120415LL

Standards Prep Dates & Log ID's:

Std Type	*Date Rec'd*	*Log ID*		*Std Type*	*Prep Date*	*Log ID*
Calibration Standard Stock	09/23/14	WC140066D		Calibration Stds	12/04/15	Same as WC126208E
LCS / MS Soluble Stock	09/23/14	WC140066D		I/CCB	Daily	Same as WC126209B
I/CCV Standard Stock	02/05/15	WC140152H		I/CCV	Daily	Same as WC126209A
LCS	Daily	Same as WC126209C		Matrix Spike	Daily	Same as WC126209D

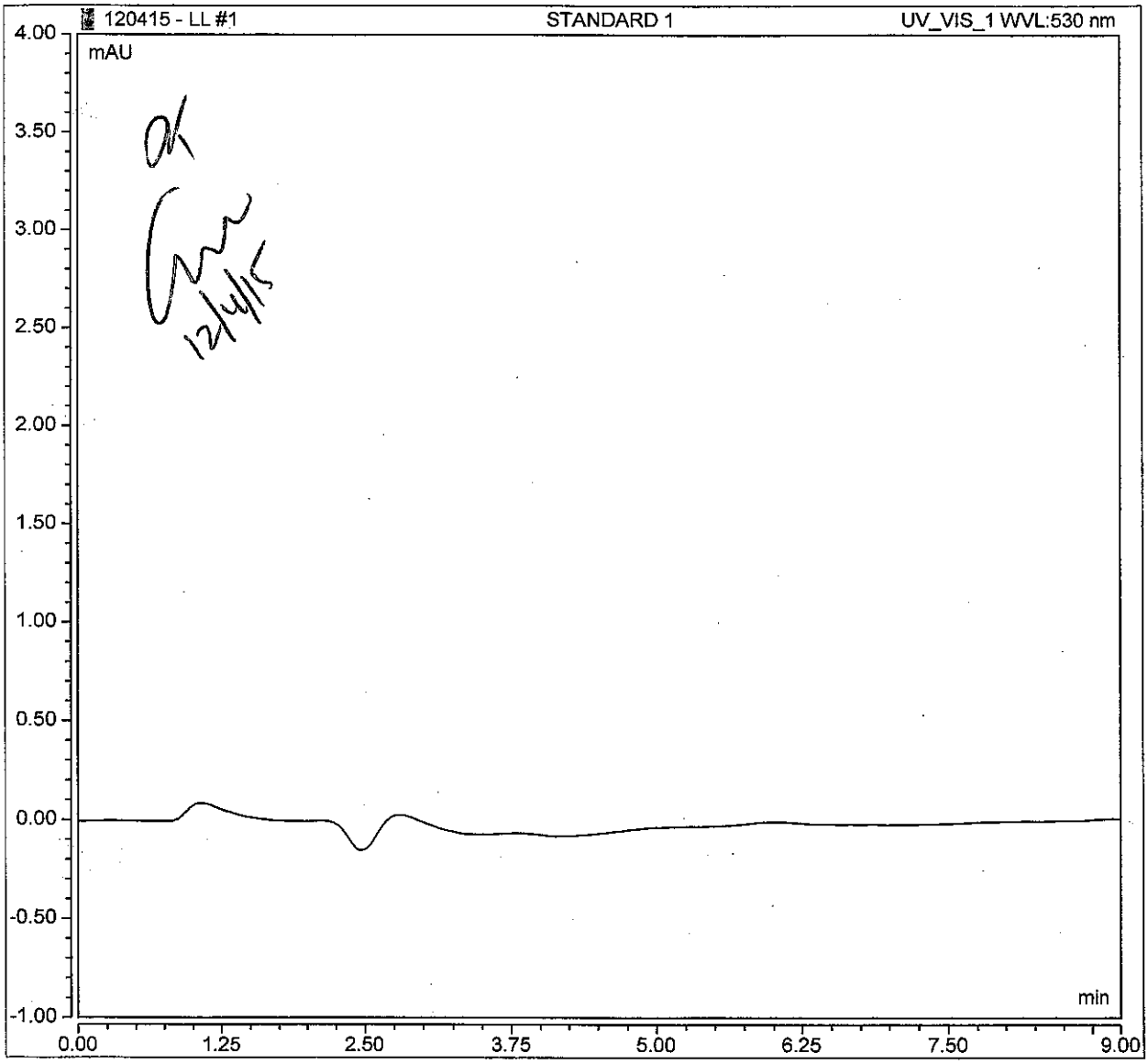
Retention times must be within ten percent of original RT as determined by Standard 5 – 6.048 minutes

All analyses are reviewed to ensure that peak integration is performed properly from baseline to baseline.

Peak Integration Report

Sample Name:	**STANDARD 1**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**1**
Inj. Date / Time:	**04-Dec-2015 / 12:34**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00

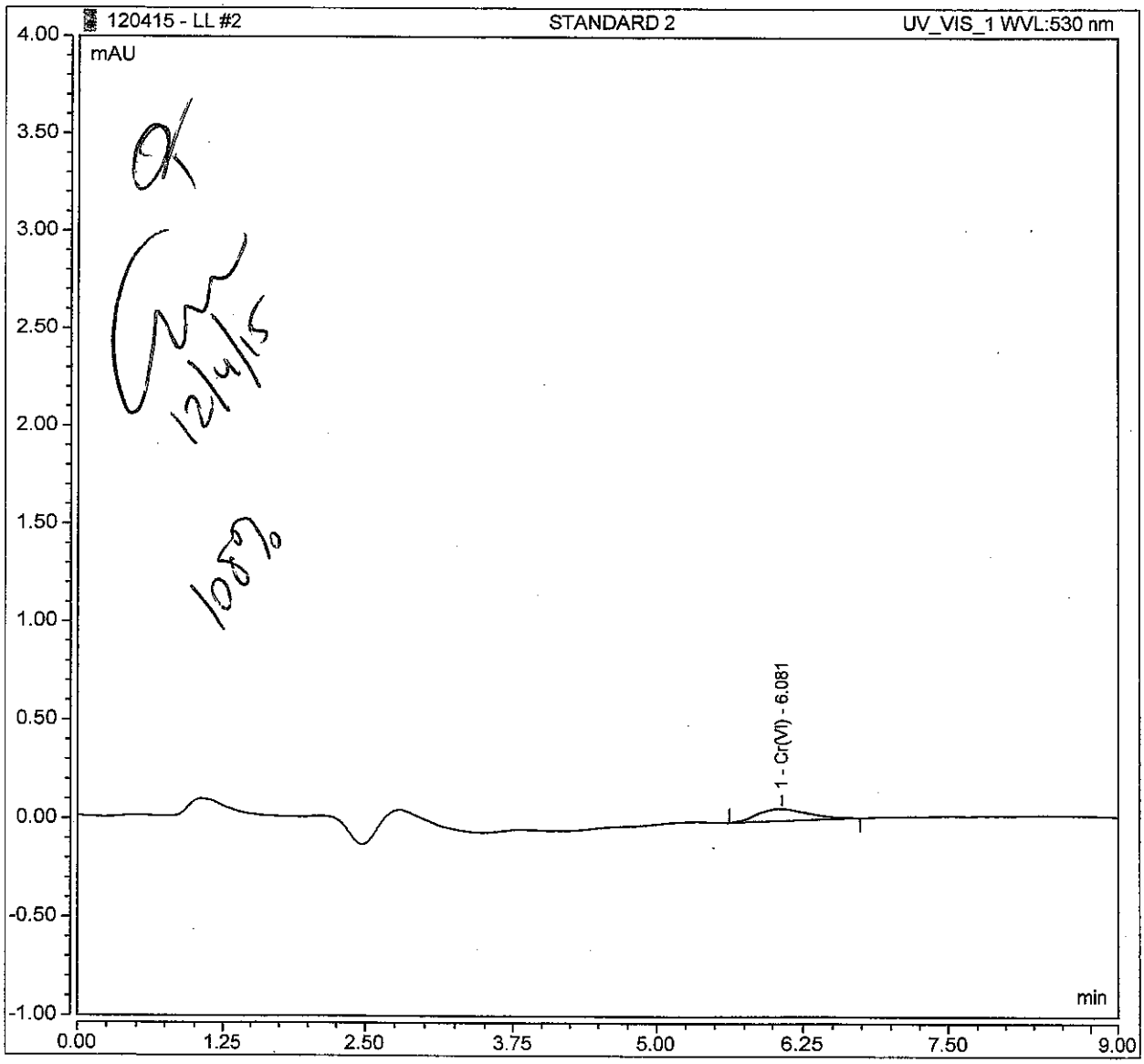


OK
12/4/15

Peak Integration Report

Sample Name:	**STANDARD 2**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**2**
Inj. Date / Time:	**04-Dec-2015 / 12:58**	*Sample Comment:*	**218.6 LL**

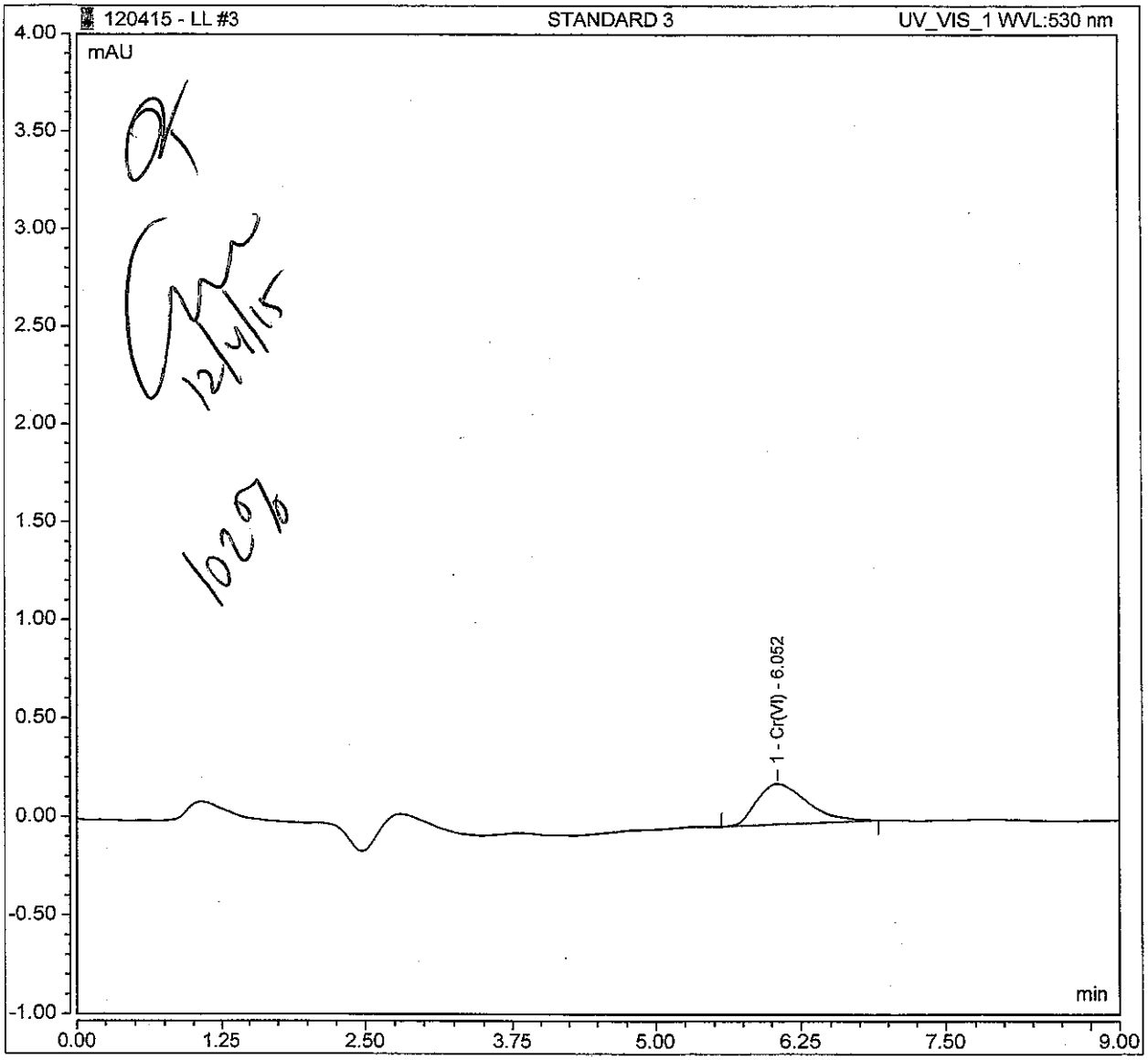
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.08	Cr(VI)	BMB	0.030	0.061	0.0215
TOTAL:				0.03	0.06	0.02



Peak Integration Report

Sample Name:	**STANDARD 3**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**3**
Inj. Date / Time:	**04-Dec-2015 / 13:10**	*Sample Comment:*	**218.6 LL**

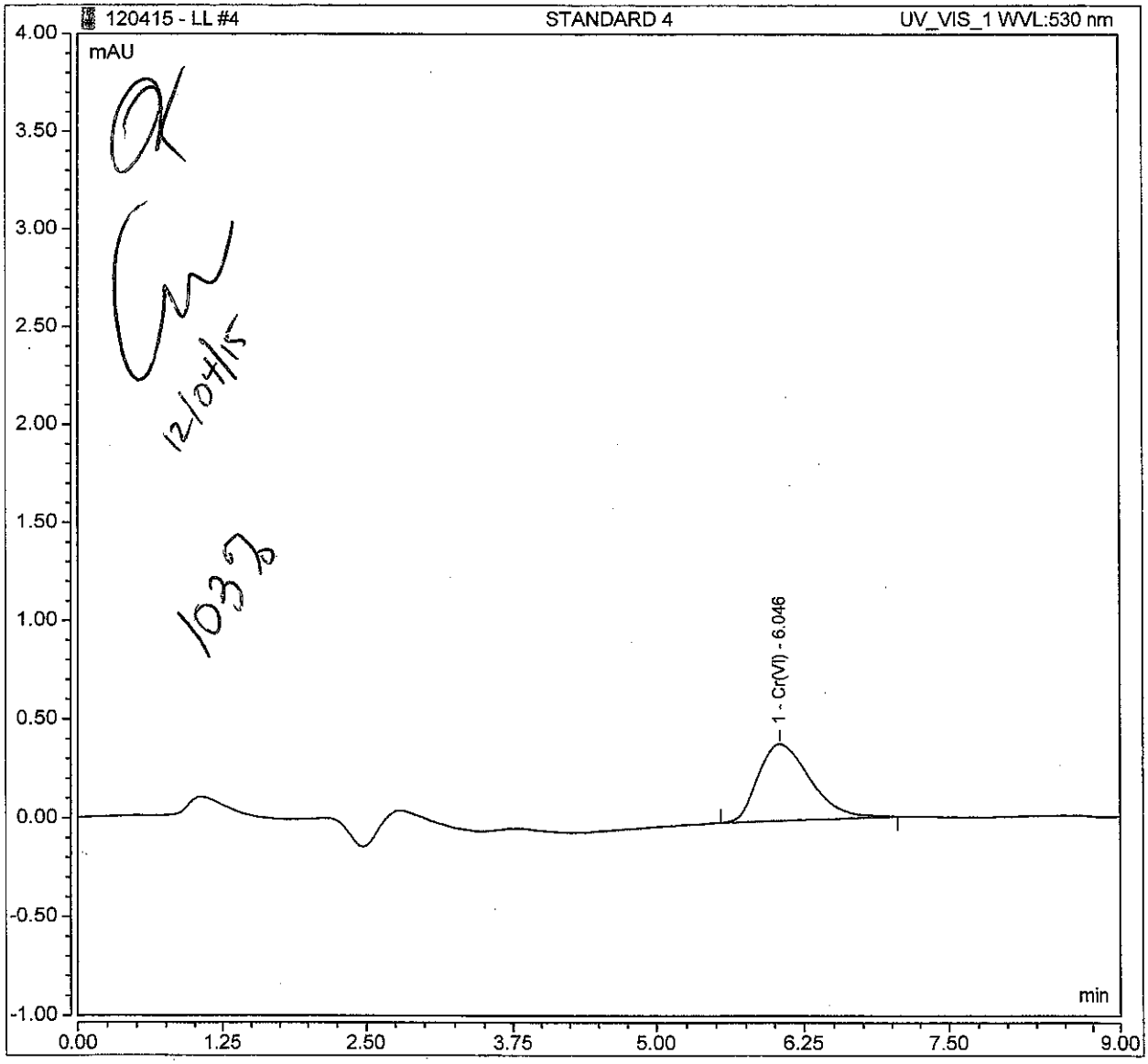
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.104	0.206	0.1017
TOTAL:				0.10	0.21	0.10



Peak Integration Report

Sample Name:	**STANDARD 4**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**4**
Inj. Date / Time:	**04-Dec-2015 / 13:22**	*Sample Comment:*	**218.6 LL**

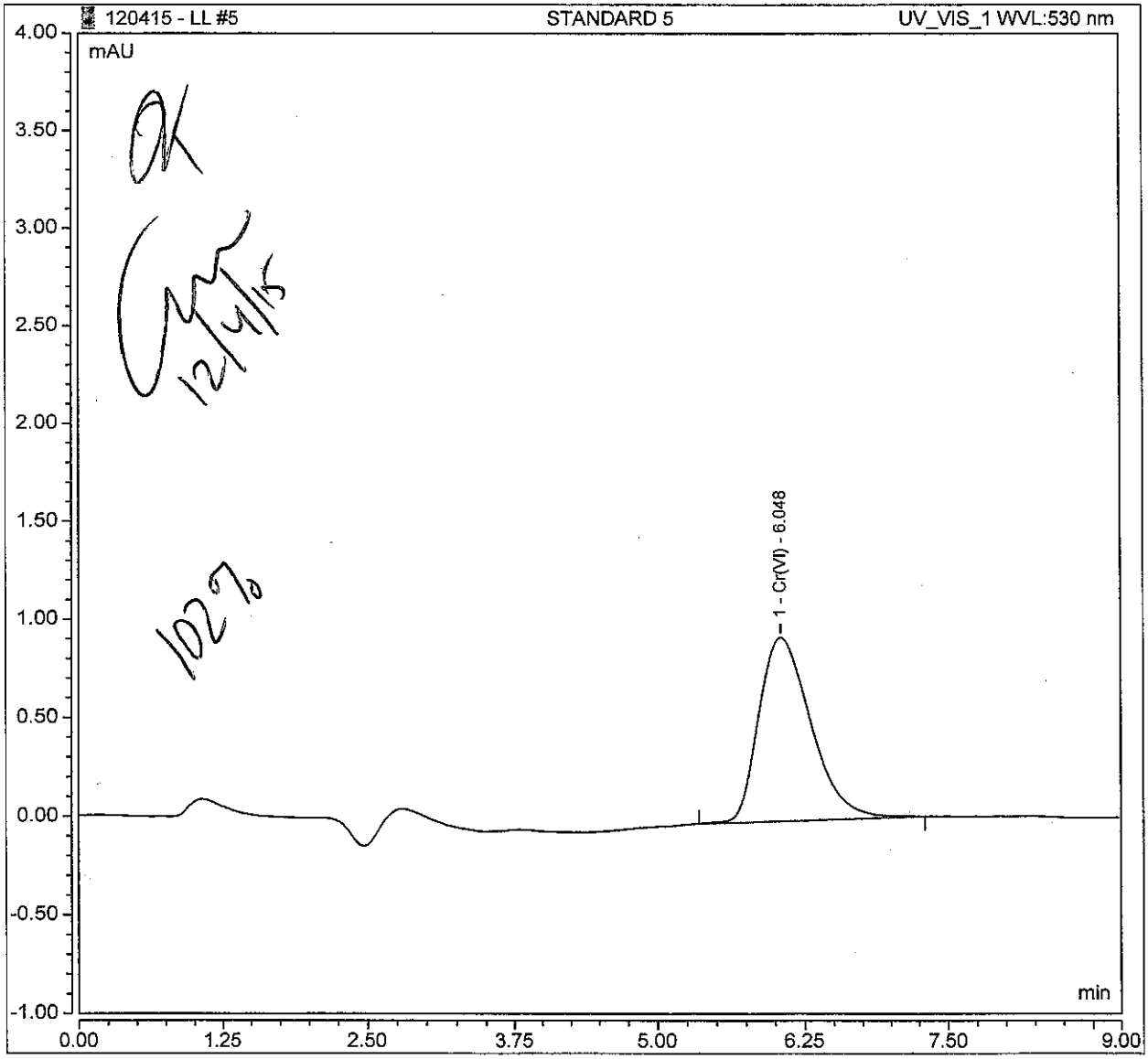
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.200	0.389	0.2058
TOTAL:				0.20	0.39	0.21



Peak Integration Report

Sample Name:	**STANDARD 5**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**5**
Inj. Date / Time:	**04-Dec-2015 / 13:34**	*Sample Comment:*	**218.6 LL**

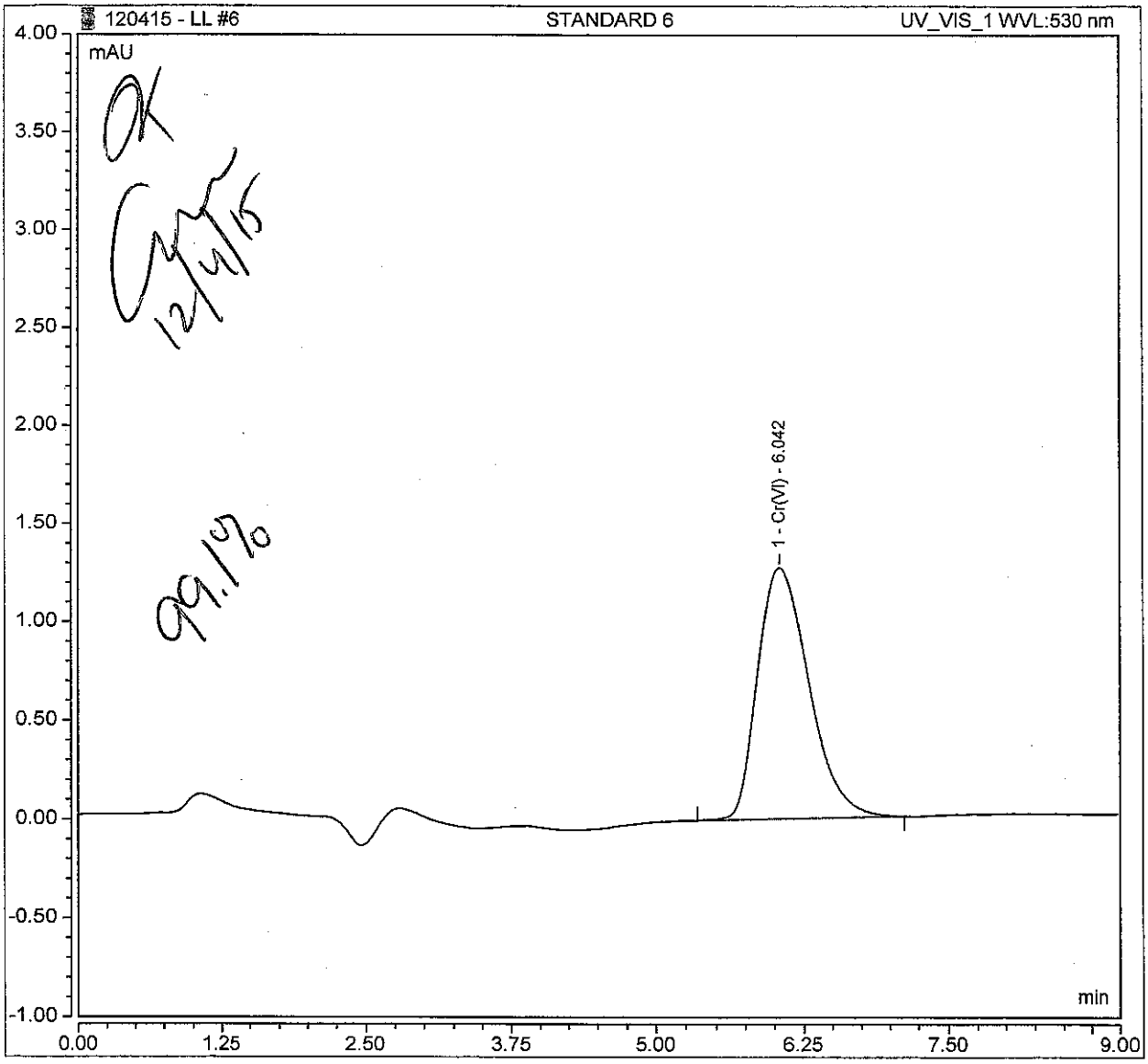
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.483	0.934	0.5124
TOTAL:				0.48	0.93	0.51



Peak Integration Report

Sample Name:	**STANDARD 6**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**6**
Inj. Date / Time:	**04-Dec-2015 / 13:46**	*Sample Comment:*	**218.6 LL**

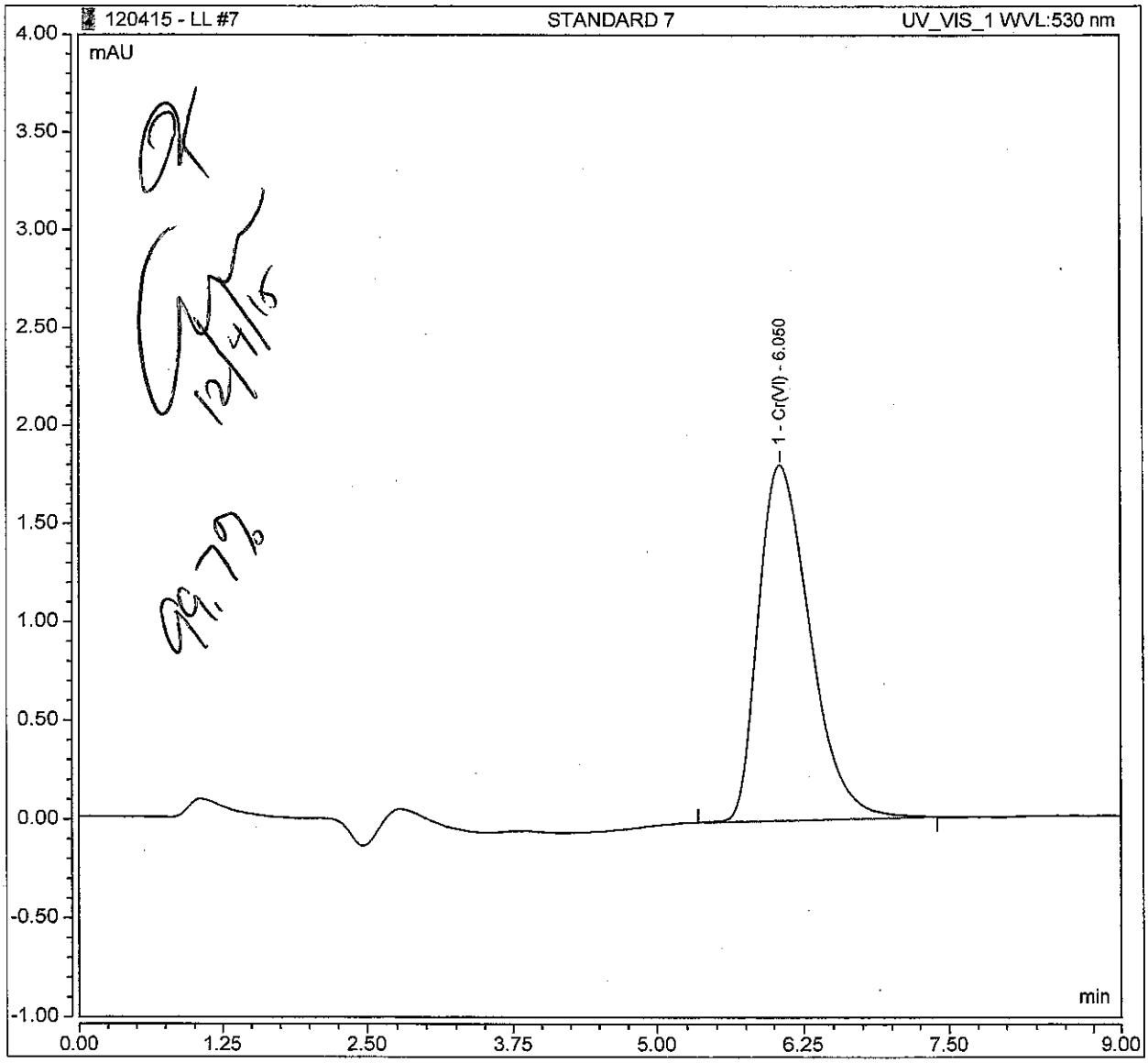
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.04	Cr(VI)	BMB	0.650	1.276	0.6935
TOTAL:				0.65	1.28	0.69



Peak Integration Report

Sample Name:	**STANDARD 7**	*Inj. Vol.:*	**500.00**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**7**
Inj. Date / Time:	**04-Dec-2015 / 13:57**	*Sample Comment:*	**218.6 LL**

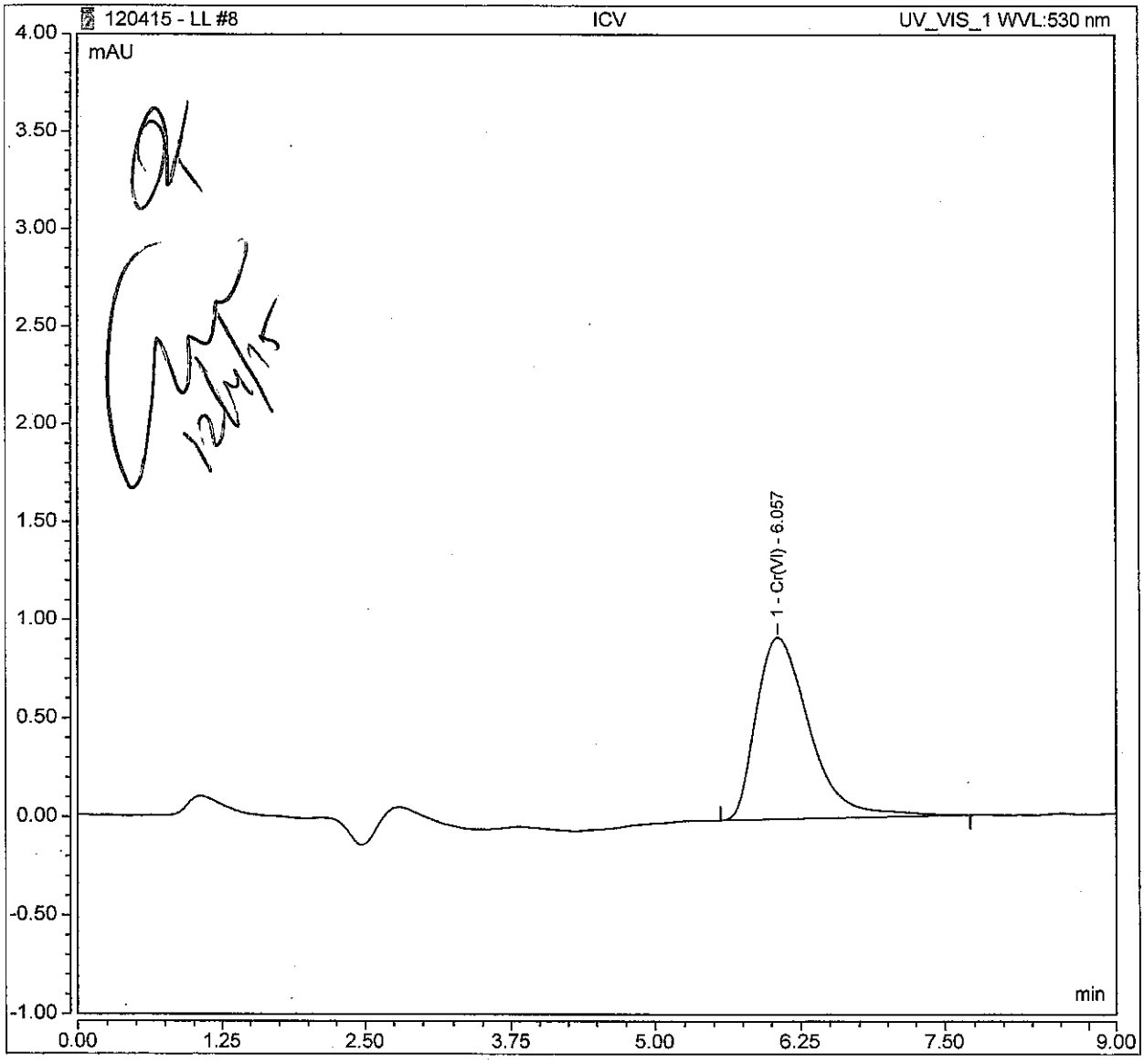
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.05	Cr(VI)	BMB	0.930	1.808	0.9966
TOTAL:				0.93	1.81	1.00



Peak Integration Report

Sample Name:	ICV	*Inj. Vol.:*	500.00
Injection Type:	Unknown	*Dilution Factor:*	1.0000
Processing Method:	8-120415LL	*Injection Number:*	8
Inj. Date / Time:	04-Dec-2015 / 14:20	*Sample Comment:*	218.6 LL

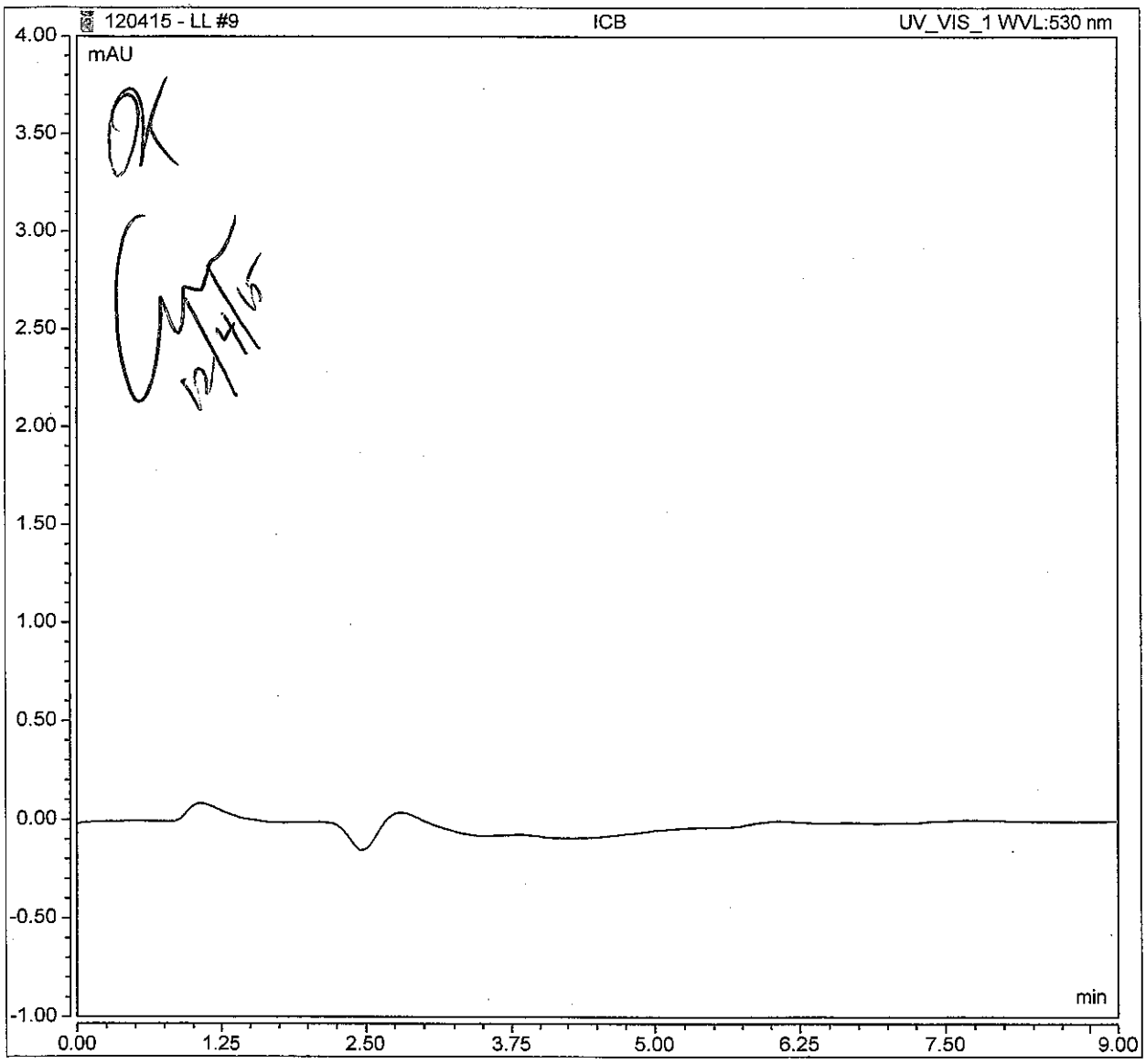
No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount ppb
1	6.06	Cr(VI)	BMB	0.490	0.923	0.5203
TOTAL:				0.49	0.92	0.52



Peak Integration Report

Sample Name:	**ICB**	*Inj. Vol.:*	**500.00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**8-120415LL**	*Injection Number:*	**9**
Inj. Date / Time:	**04-Dec-2015 / 14:32**	*Sample Comment:*	**218.6 LL**

No.	Time min	Peak Name	Peak Type	Area mAU*min	Height mAU	Amount n.a.
TOTAL:				0.00	0.00	0.00



Calibration Batch Report

Processing Method:	**8-120415LL**	*Injection Volume:*	**500.00**
Instrument Method:	**Cr(VI) w ASDV - LL**	*Operator:*	**ALRCE.GENCHEM02**

Calibration Summary

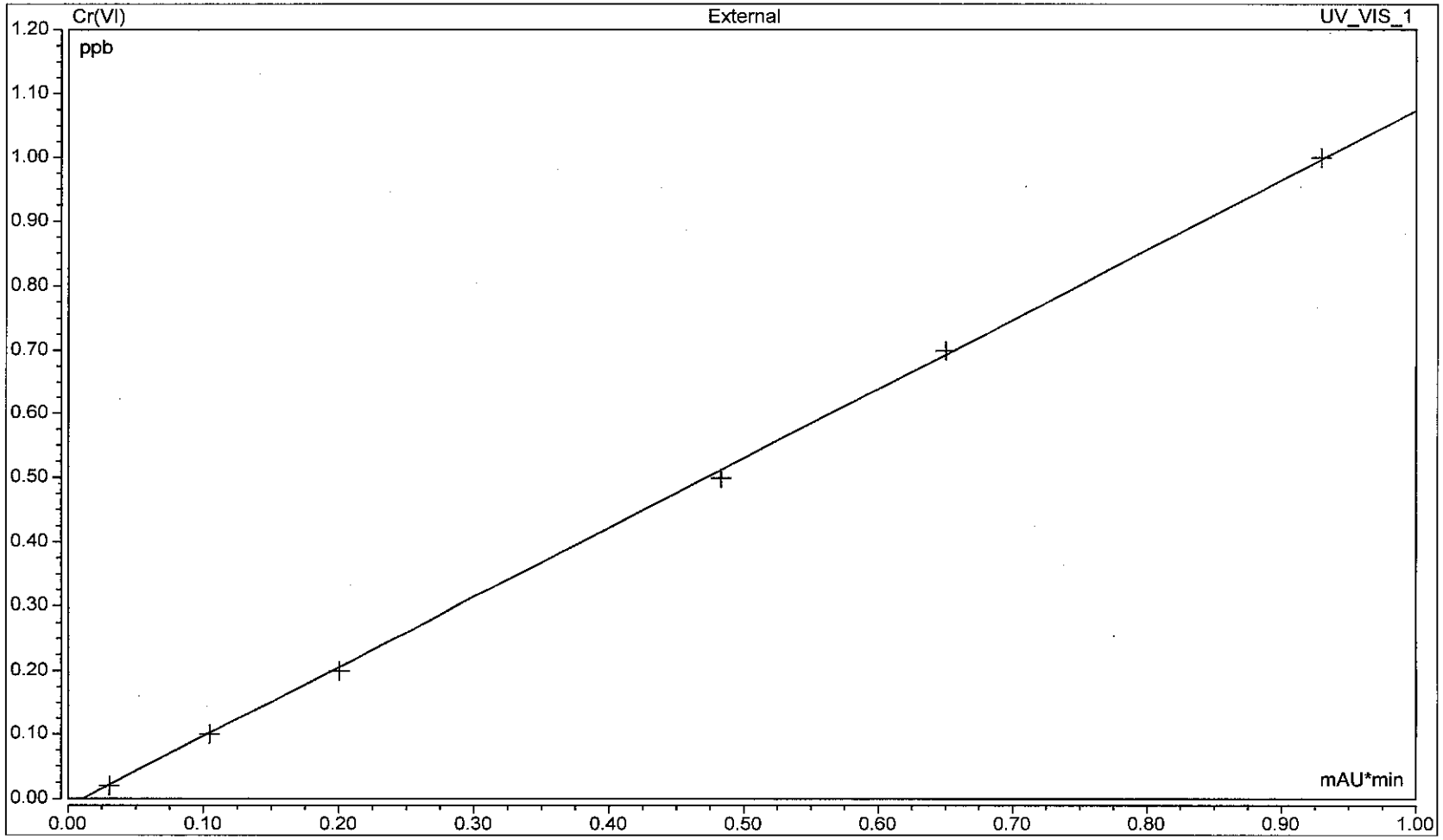
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
Cr(VI)	Area	Lin, AddZero	7.000	-0.012	1.085	0.000	99.96

Injection Name Cr(VI)	Ret.Time min Cr(VI)	Area mAU*min Cr(VI)	Height mAU Cr(VI)	Amount ppb Cr(VI)	Calibration Point Status Cr(VI)
	UV_VIS_1	UV_VIS_1	UV_VIS_1	UV_VIS_1	UV_VIS_1
STANDARD 1	n.a.	n.a.	n.a.	n.a.	Missing Peak
STANDARD 2	6.081	0.0305	0.061	0.0215	Ok
STANDARD 3	6.052	0.1045	0.206	0.1017	Ok
STANDARD 4	6.046	0.2004	0.389	0.2058	Ok
STANDARD 5	6.048	0.4831	0.934	0.5124	Ok
STANDARD 6	6.042	0.6501	1.276	0.6935	Ok
STANDARD 7	6.050	0.9296	1.808	0.9966	Ok
Average	6.053				
Rel. Std. Dev.	0.230 %				

Ret. Time min	Param. Name	Param. Value	Inj. Type	Channel
0.000	Inhibit Integration	On	Any	All Channels
0.000	Valley To Valley	On	Any	All Channels
0.000	Minimum Area	0.0300 [Signal*min]	Any	All Channels
0.000	Minimum Height	0.055 [Signal]	Any	All Channels
0.000	Peak Slice	2.00 [s]	Any	All Channels
5.000	Inhibit Integration	Off	Any	All Channels
8.000	Inhibit Integration	On	Any	All Channels

Chromeleon (c) Dionex 1996-2009
Version 7.1.1.1127

Method Name: 8-120415LL
Corr. Coefficient: 99.96
Calibration Type: Lin, AddZero



Chromeleon (c) Dionex 1996-2009
Version 7.1.1.1127

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360; Rochester, NY 14623

Ion Chromatography Cover Sheet

Instrument: IC#8 – Dionex 2100, AXP Reagent Pump, ICS Series UV/Vis VWD

Column: AS7 Analytical Column (S/N 001384) / AG7 Guard Column (S/N 001363)

Analytical Column installed 07/09/14

Curve Date: 12/04/15 **Loop size:** _500 uL Loop_____

Analyst: CWoods **Analysis Date:** 12/4/15

CALIBRATION CURVE FOR THIS METHOD IS LINEAR

Method Filename: 8-120415LL

Standards Prep Dates & Log ID's:

Pipets: Barney

Std Type	*Date Rec'd*	*Log ID*		*Std Type*	*Prep Date*	*Log ID*
Calibration Standard Stock	09/23/14	WC140066D		Calibration Stds	12/04/15	Same as WC126208E
LCS / MS Soluble Stock	09/23/14	WC140066D		I/CCB	Daily	Same as WC126209B
I/CCV Standard Stock	02/05/15	WC140152H		I/CCV	Daily	Same as WC126209A
LCS	Daily	Same as WC126209C		Matrix Spike	Daily	Same as WC126209D

Retention times must be within ten percent of original RT as determined by Standard 5 – 6.048 minutes

All analyses are reviewed to ensure that peak integration is performed properly from baseline to baseline.

3/28/14
CMW

Calibration for 218.6 L1

3

(A) 1000ppb Cr^{6+} Standard
In a 1L Vol flask add about 500mL DI. To this add 1.0mL of 1000ppm Cr^{6+} Standard Stock (WC112232F). Bring to volume w/ DI. Mix Thoroughly. Prepare fresh.

(B) 1000ppb Cr^{6+} Reference
In a 1L Vol flask add about 500mL DI. To this add 1.0mL of 1000ppm Cr^{6+} Reference Stock (WC126117H). Bring to volume w/ DI. Mix Thoroughly. Prepare fresh.

(C) 100ppb Cr^{6+} Standard Working Stock - In a 100mL vol flask add about 50mL of DI and add 1.0mL of Cr^{6+} buffer soln. To this add 1.0mL of 1000ppb Cr^{6+} Standard (WC126208A). Bring to volume w/ DI. Mix Thoroughly. Prepare fresh.

(D) 100ppb Cr^{6+} Reference Working Stock - In a 100mL vol flask add about 50mL of DI and add 1.0mL of Cr^{6+} buffer soln. To this add 1.0mL of 1000ppb Cr^{6+} Reference (WC126208B). Bring to volume w/ DI. Mix Thoroughly. Prepare fresh.

(E) Calibration Standards

Std #	mLs buffered DI	mLs 100ppb Std (WC126208C)	Conc. (ppb)
1	10.0	—	0.00
2	1/10 serial dilution of std #4		0.020
3	9.9	0.1	0.10
4	9.8	0.2	0.20
5	9.5	0.5	0.50
6	9.3	0.7	0.70
7	9.0	1.0	1.0

3/28/14

[redacted]

Calibration for 218 old Continued

2/28/14

④ ICV/CCV (TV = 0.50 ppb)
To 9.5mLs of buffered DI add 0.5mL of 10ppb Cr^{6+} Reference Working Stock ~~(WC1262085)~~. (WC1262085) 2/28/14
Mix + analyze.

⑤ ICB/CCB/MB - Analyze 10mL of buffered DI.

⑥ LCS (TV = 0.20ppb) -
To 9.8mL of buffered DI add 0.2mL of 10ppb Cr^{6+} Standard Working Stock (WC1262085). Mix + analyze.

⑦ Matrix Spike (TV = 0.20 × dilution (ppb))
To 10mL of sample add 0.20mL of 10 ppb Cr^{6+} Standard Working stock (WC1262085).
Mix + analyze.

Received from Hach

(A) (2) x 500mL Pyridine/Barbituric Acid Reagent, CAT# 52013, Hach lot# 4211, CAS#'s 628-53-7, 67-52-7, 110-86-1, 7732-18-5, Store @ 4°C Expires 1/31/2015 as per manufacturer

(B) Same as above; (1) x 500mL lot# 4204.

Received from VWR

(C) (6) x 1L Sodium Hypochlorite Solution, CAT SS290-1, CAS# 7681-52-9 and 7732-18-5, Fisher lot 144413 Store @ RT away from sunlight, Expires 4/30/2015, as per manufacturer

(D) (1) x 500mL 1000ppm Chromium Reference Standard Solution, CAT# SC192-500, CAS#'s 7778-50-9 + 7732-18-5, lot# 144217 Store @ RT, Expires 5/31/2016 as per manufacturer

(E) (1) x 1L Phosphoric Acid, 85%, CAT# 2796-05, CAS#'s 7732-18-5 + 7664-38-2, Macron lot 0000072583 Store @ RT, Expires 2/27/2016 as per manufacturer

Received

(A) (6) x 2.5L CAS#'s 7732- 0000071397, manufacturer,

(B) (1) x 500mL CAS#'s 5949-89- 2406623, S manufacturer,

(C) (1) x 500g LI CAS#'s 108-95 0000083557, Expires 3/17/20

(D) (4) x 4L-Met JT Baker lot# cabinet, Expire

Received

(E) (12) x 2.5L

Received from VWR

(A) (3) x 1L Formaldehyde Solution. Cat # BDH0500-1LP, lot # ~~Habchem~~ BDH 2/5/15 UMD 3123S2, Cas # 50-00-0; 67-56-1. Expires per manufacturer: 10/2016.

(B) (1) x 500 mL Eriochrome black T. Cat # LC14040-1, lot # D302-16 (LabChem), Cas # 1787-61-7, 109-86-4. Expires per manufacturer: 10/30/2017.

(C) (1) x 500g Sulfanilamide. Cat # V153-07 JT Baker lot # 0000085314, Cas # 63-74-1. Expires per manufacturer: 10/30/2018

(D) (1) x 1L Phosphate Buffer pH 7.0. Cat # BDH7447-1. BDH lot # 510105. Cas # 7778-77-0, 7558-79-4, 7732-18-5. Expires per manufacturer: 11/5/2016

(E) (2) x 1L Sodium Thiosulfate Solution 0.1N. Cat # SX0821-8. EMD lot # 54198, Cas # 10102-17-7, 497-19-8, 7732-18-5. Expires per manufacturer: 1/31/2016.

(F) (4) x 500G Phenol, liquified. Cat # 0025-04. Macron lot # 0000083557, Cas # 108-95-2, 7732-18-5. Expires per manufacturer: 3/17/2020

2/5/15 (G) TSS References

(K) 0.2141 g (Kaolin) (WC922018) diluted w/ 1000g of DI. Stored in plastic bottle @ 4°C. Exp: 5/15/15

2/5/15 ~~(A)~~ UMD 2/5/15 Received from VWR

UMD (H) (1) x 500mL Cr^{+6} Chromium 1000 ug/mL. ~~Cas #~~ 2/5/15 UMD Cat # 100012-7 High purity standards lot # 1402709, ~~Cas #~~ UMD 2/5/15. Expires per manufacturer: 7/20/16.

(I) (1) x 25g Silver sulfate powder. Cat # 11417. Alfa Aesar lot # 24559, Cas # 10294-26-5. Expires 5 years from date of receipt: 2/5/2020

(J) (1) x 100g Mercury (II) sulfate. Cat # 31028 Alfa Aesar lot # 22748W5 Cas # 7783-35-9. Expires 5 years from date of

December 01, 2015

Regina Haney
GCAL LAB
7979 GSRI AVENUE
BATON ROUGE, LA 70820
TEL: (225) 769-4900
FAX (225) 767-5717

Order No.: 1511146

RE: Melrose AFR

Dear Regina Haney:

DHL Analytical, Inc. received 1 sample(s) on 11/16/2015 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory Certification Number: T104704211-15-15 & DoD-ELAP #L14-26-R1

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TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 11-13-15-02

#1511462

Facility: ~~Holloman Air Force Base~~ Melrose AFR Quarterly

Project Name / Site Name: Melrose AFR

Client Name: Trinity

Project Manager: ~~Tony Lucero~~ J Kramer

Collected by: T Lucero

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	Sample Analysis Requested [5] Perchlorate 6850	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MW14		13 11 15	0925		N	01	WG	1	X				2

Comments: Rec temp 1.3 Therm #78 seals intact

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1.	Tony Lucero	11-13-15	1600	Kelley	11/13/15	1600
2.	Kelley	11/14/15	0930	[signature]	11/14/15	0930
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped: No.: _____

Method of Shipment: _____ Airbill Number: _____

Analytical Lab: _____ Delivery Location: _____

Lab Recipient: _____ Delivery Date/Time: _____

1.) Chain of Custody Number = site name (e.g., SS125) and then date (yyyymmdd) collected + custody number (e.g. SS125-20110902-01)....September 2, 2011.

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-e) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/11 = 01, if sampled again on 10/10/11 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on May 10, 2011 in association with samples on the COC will be designated 10051101 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: ST069-MW-08S-e

ORIGIN ID:VPSA (850) 603-7535
TONY LUCERO
TRINITY ANALYSIS & DEVELOPMENT
1002 N. EGLIN PKWY

SHALIMAR, FL 32579
UNITED STATES US

SHIP DATE: 13NOV15
ACTWGT: 5.00 LB
CAD: 104773633/INET3670

BILL THIRD PARTY

TO JENNIFER BARKER
DHL ANALYTICAL
2300 DOUBLE CREEK

ROUND ROCK TX 78664
(512) 388-8222 REF: A012-114
INV:
PO: DEPT:

539J/23F56/31D0

FedEx Express

J1830105910001uv

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 7749 3372 1233

X0 BSMA

78664
TX-US AUS

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

CUSTODY SEAL
DATE 11-13-15
SIGNATURE

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GCAL LAB

Date Received: 11/16/2015

Work Order Number 1511146

Received by JB

Checklist completed by: _____ 11/16/2015
Signature | Date

Reviewed by DL 11/16/2015
Initials | Date

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.3 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: Melrose AFR	**Date: 12/1/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1511146**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	**X**				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	**X**				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	**X**				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	**X**				
		3) Were calculations checked by a peer or supervisor?	**X**				
		4) Were all analyte identifications checked by a peer or supervisor?	**X**				
		5) Were sample quantitation limits reported for all analytes not detected?	**X**				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			**X**		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			**X**		
		8) If required for the project, TICs reported?			**X**		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	**X**				
		2) Were blanks analyzed at the appropriate frequency?	**X**				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	**X**				
		4) Were blank concentrations < MQL?	**X**				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	**X**				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	**X**				
		3) Were LCSs analyzed at the required frequency?	**X**				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	**X**				
		6) Was the LCSD RPD within QC limits (if applicable)?			**X**		
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	**X**				
		2) Were MS/MSD analyzed at the appropriate frequency?	**X**				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		**X**			**R7-03**
		4) Were MS/MSD RPDs within laboratory QC limits?	**X**				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?			**X**		
		2) Were analytical duplicates analyzed at the appropriate frequency?			**X**		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			**X**		
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	**X**				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	**X**				
		3) Are unadjusted MQLs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	**X**				
		2) Were all necessary corrective actions performed for the reported data?	**X**				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.
Laboratory Review Checklist (continued): Supporting Data

Project Name: Melrose AFR	**Date: 12/1/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1511146**

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	**X**				
		2) Were percent RSDs or correlation coefficient criteria met?	**X**				
		3) Was the number of standards recommended in the method used for all analytes?	**X**				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	**X**				
		5) Are ICAL data available for all instruments used?	**X**				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	**X**				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)**					
		1) Was the CCV analyzed at the method-required frequency?	**X**				
		2) Were percent differences for each analyte within the method-required QC limits?	**X**				
		3) Was the ICAL curve verified for each analyte?	**X**				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			**X**		
S3	O	**Mass Spectral Tuning**					
		1) Was the appropriate compound for the method used for tuning?	**X**				
		2) Were ion abundance data within the method-required QC limits?	**X**				
S4	O	**Internal Standards (IS)**					
		1) Were IS area counts and retention times within the method-required QC limits?	**X**				
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	**X**				
		2) Were data associated with manual integrations flagged on the raw data?	**X**				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			**X**		
S7	O	**Tentatively Identified Compounds (TICs)**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			**X**		
S8	I	**Interference Check Sample (ICS) Results**					
		1) Were percent recoveries within method QC limits?			**X**		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			**X**		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	**X**				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	**X**				
S11	OI	**Proficiency Test Reports**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	**X**				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	**X**				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	**X**				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	**X**				
		2) Is documentation of the analyst's competency up-to-date and on file?	**X**				
S15	OI	**Verification/Validation Documentation for Methods (NELAC Chap 5)**					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	**X**				
S16	OI	**Laboratory Standard Operating Procedures (SOPs)**					
		1) Are laboratory SOPs current and on file for each method performed?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC 5.13
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
R5 Test reports/summary forms for blank samples;
R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) the amount of analyte measured in the duplicate,
  b) the calculated RPD, and
  c) the laboratory's QC limits for analytical duplicates.
R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director

Signature

1□/01/15

Date

DHL Analytical, Inc. **Date:** *01-Dec-15*

CLIENT: GCAL LAB
Project: Melrose AFR
Lab Order: 1511146

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC. The "U" flag , in the Analytical Report, indicates the results for that sample are nondetect.

Samples were analyzed using the methods outlined in the following references:

Method E332.0/SW6860 - Perchlorate Analysis (Parameter is ELAP Accredited but not NELAC Certified)

Exception Report R1-01

The samples were received on and log-in performed on 11/16/2015. A total of 1 sample was received and analyzed. The sample arrived in good condition and was properly packaged.

Exception Report R7-03

For Perchlorate Analysis, the recovery of the Matrix Spike Duplicate (1511146-01 MSD) was below the method control limits. This is flagged accordingly in the QC Summary Report. The associated LCS/MS was within method control limits. No further corrective action was taken.

A summary of project communication follows:

Request for quote was sent to DHL Analytical from the client, via email on 5/5/11 and the quote was sent to client via email on 5/5/11. Email for work approved by both parties on 5/18/11 with P.O number 12-0969.

DHL Bottle Kit # 6456 was prepared on 11/3/2015 to be delivered by fedex ground to arrive by 11/10/2015.

This sample delivery group arrived at DHL Analytical and sample summary sent via email from Log-in to client on 11/16/2015. All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder or are filed in the project/client folder as part of the Administrative records in the QA office.

DHL project manager/qa staff discussed with client the following issues:
none

DHL Analytical, Inc.

Date: *01-Dec-15*

CLIENT: GCAL LAB
Project: Melrose AFR
Lab Order: 1511146

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1511146-01	MWQ 14		11/13/15 09:25 AM	11/16/2015

Lab Order: 1511146
Client: GCAL LAB
Project: Melrose AFR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1511146-01A	MWQ 14	11/13/15 09:25 AM	Aqueous	SW6860	Perchlorate Prep	12/01/15 08:43 AM	72503

Lab Order: 1511146
Client: GCAL LAB
Project: Melrose AFR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1511146-01A	MWQ 14	Aqueous	SW6860	Perchlorate - Water	72503	1	12/01/15 12:18 PM	ICMS2_151201A

DHL Analytical, Inc.

Date: *01-Dec-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ 14
Project:	Melrose AFR	**Lab ID:**	1511146-01
Project No:	A012-113 / 215111414	**Collection Date:**	11/13/15 09:25 AM
Lab Order:	1511146	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00405	0.000100	0.000300	N	mg/L	1	12/01/15 12:18 PM
IS: Perchlorate_107	65.7	0	50-150	N	%REC	1	12/01/15 12:18 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

CLIENT: GCAL LAB
Work Order: 1511146
Project: Melrose AFR

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_151201A

The QC data in batch 72503 applies to the following samples: 1511146-01A

Sample ID **MB-72503** Batch ID: **72503** TestNo: **SW6860** Units: **mg/L**
SampType: **MBLK** Run ID: **ICMS2_151201A** Analysis Date: **12/1/2015 11:46:01 AM** Prep Date: **12/1/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000100	0.000300								NU
IS: Perchlorate_107	0.00101		0.00100		55.5	50	150			N

Sample ID **LCS-72503** Batch ID: **72503** TestNo: **SW6860** Units: **mg/L**
SampType: **LCS** Run ID: **ICMS2_151201A** Analysis Date: **12/1/2015 12:02:05 PM** Prep Date: **12/1/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000310	0.000300	0.000300	0	103	85	115			N
IS: Perchlorate_107	0.00101		0.00100		55.3	50	150			N

Sample ID **1511146-01AMS** Batch ID: **72503** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_151201A** Analysis Date: **12/1/2015 12:34:13 PM** Prep Date: **12/1/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00438	0.000300	0.000300	0.00405	109	85	115			N
IS: Perchlorate_107	0.00101		0.00100		64.2	50	150			N

Sample ID **1511146-01AMSD** Batch ID: **72503** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_151201A** Analysis Date: **12/1/2015 12:50:17 PM** Prep Date: **12/1/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00430	0.000300	0.000300	0.00405	82.5	85	115	1.82	15	SN
IS: Perchlorate_107	0.00101		0.00100		58.5	50	150	0	0	N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1511146
Project: Melrose AFR

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_151201A

Sample ID **ICV-151201**	Batch ID: **R82883**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICMS2_151201A**	Analysis Date: **12/1/2015 10:35:43 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00193	0.000300	0.00200	0	96.7	85	115			N
IS: Perchlorate_107	0.00100		0.00100		51.0	50	150			N

Sample ID **LCVL1-151201**	Batch ID: **R82883**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_151201A**	Analysis Date: **12/1/2015 10:51:47 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000223	0.000300	0.000200	0	112	70	130			N
IS: Perchlorate_107	0.00100		0.00100		53.1	50	150			N

Sample ID **ICS1-151201**	Batch ID: **R82883**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICS**	Run ID: **ICMS2_151201A**	Analysis Date: **12/1/2015 11:07:51 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000281	0.000300	0.000300	0	93.7	70	130			N
IS: Perchlorate_107	0.00100		0.00100		67.2	50	150			N

Sample ID **CCV1-151201**	Batch ID: **R82883**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_151201A**	Analysis Date: **12/1/2015 1:33:01 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00500	0.000300	0.00500	0	100	85	115			N
IS: Perchlorate_107	0.00100		0.00100		53.2	50	150			N

Sample ID **LCVL2-151201**	Batch ID: **R82883**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_151201A**	Analysis Date: **12/1/2015 1:49:05 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000216	0.000300	0.000200	0	108	70	130			N
IS: Perchlorate_107	0.00100		0.00100		55.5	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Lab Order: 1511146
Client: GCAL LAB
Project: Melrose AFR

Sequence Report

Run ID: ICMS2_151201A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
LRB1-151201	-----	SW6860	R82883	1	12/1/2015 10:19:38 AM		A
ICV-151201	-----	SW6860	R82883	1	12/1/2015 10:35:43 AM		A
LCVL1-151201	-----	SW6860	R82883	1	12/1/2015 10:51:47 AM		A
ICS1-151201	-----	SW6860	R82883	1	12/1/2015 11:07:51 AM		A
MB-72503	-----	SW6860	72503	1	12/1/2015 11:46:01 AM	12/1/2015 8:43:39 AM	A
LCS-72503	-----	SW6860	72503	1	12/1/2015 12:02:05 PM	12/1/2015 8:43:39 AM	A
1511146-01A	MWQ 14	SW6860	72503	1	12/1/2015 12:18:09 PM	12/1/2015 8:43:39 AM	A
1511146-01AMS	MWQ 14MS	SW6860	72503	1	12/1/2015 12:34:13 PM	12/1/2015 8:43:39 AM	A
1511146-01AMSD	MWQ 14MSD	SW6860	72503	1	12/1/2015 12:50:17 PM	12/1/2015 8:43:39 AM	A
CCV1-151201	-----	SW6860	R82883	1	12/1/2015 1:33:01 PM		A
LCVL2-151201	-----	SW6860	R82883	1	12/1/2015 1:49:05 PM		A
LRB2-151201	-----	SW6860	R82883	1	12/1/2015 2:05:09 PM		A

GCAL
ANALYTICAL LABORATORIES, LLC

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 11/11/2015

GCAL Report 215102304

Project Melrose

Deliver To	*Additional Recipients*
Jonathan Kramer Trinity A&D 1002 N Eglin Pkwy Shalimar, FL 32579 850-613-6800	NONE

PJLA Testing DoD ELAP

ISO 17025

NELAP ACCREDITED LABORATORY

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
DL	Diluted analysis – when appended to Client Sample ID
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC Institute standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
GCAL Report 215102304

Certifications

10/02/2015

Certification	Certification Number
DOD ELAP	L14-243
Alabama	01955
Arizona	AZ0718
Arkansas	12-060-0
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
USDA Soil Permit	P330-10-00117

Case Narrative

Client: TRINITY Analysis & Development Corp. **Report:** 215102304

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES MASS SPECTROMETRY

In the EPA 8260B analysis for analytical batch 571133, the %D/%Drift is outside ± 20% for Chloroethane in the CCV. The response is high and this analyte was not detected in the associated samples; this is a poor performing analyte.

In the EPA 8260B analysis for analytical batch 570981, the LCS and/or LCSD recoveries are outside the control limits for Acetone. This compound is defined as a poor performer by the method 8260B. The %D/%Drift is outside ± 20% for Acetone and 2-Hexanone in the CCV. The response is high and these analytes were not detected in the associated samples; these are poor performing analytes.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the EPA 8330A analysis for prep batch 570989, the MS/MSD exhibited sporadic recovery failures. HMX was recovered outside of the established control limits for the LCS and/or LCSD.

METALS

In the EPA 6020A analysis, samples 21510230404 (MA01MW002), 21510230405 (MA01MW004), 21510230411 (MA01MW003), 21510230416 (MA02MW001D), 21510230417 (MA02MW001D-a), 21510230419 (MWQ-24), 21510230401 (M114MW001), 21510230402 (M114MW004), 21510230407 (MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-MSD), 21510230413 (MW114MW002) and 21510230414 (MW114MW003) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 6020A Dissolved analysis, samples 21510230401 (M114MW001), 21510230402 (M114MW004), 21510230404 (MA01MW002), 21510230405 (MA01MW004), 21510230416 (MA02MW001D), 21510230417 (MA02MW001D-a), 21510230419 (MWQ-24), 21510230407 (MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-MSD), 21510230411 (MA01MW003), 21510230413 (MW114MW002) and 21510230414 (MW114MW003) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 6020A analysis, a chemical or physical interference necessitated a dilution for samples 21510230416 (MA02MW001D), 21510230417 (MA02MW001D-a), 21510230401 (M114MW001), 21510230402 (M114MW004), 21510230404 (MA01MW002), 21510230405 (MA01MW004), 21510230407 (MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-

MSD), 21510230411 (MA01MW003), 21510230413 (MW114MW002) and 21510230414 (MW114MW003). This is reflected in the elevated reporting limits.

In the EPA 6020A Dissolved analysis, a chemical or physical interference necessitated a dilution for samples 21510230401 (M114MW001), 21510230402 (M114MW004), 21510230404 (MA01MW002), 21510230405 (MA01MW004), 21510230416 (MA02MW001D), 21510230417 (MA02MW001D-a), 21510230407 (MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-MSD), 21510230411 (MA01MW003), 21510230413 (MW114MW002) and 21510230414 (MW114MW003). This is reflected in the elevated reporting limits.

In the EPA 6020A analysis for prep batches 570926 and 570844, the MS/MSD recoveries and RPD are not applicable for Sodium because the sample concentration is greater than four times the spike concentration.

In the EPA 6020A Dissolved analysis for prep batch 570848, the MS/MSD recoveries and RPD are not applicable for Sodium because the sample concentration is greater than four times the spike concentration.

In the EPA 6020A analysis for prep batch 570930, the MS and/or MSD recovery is outside the control limits for Magnesium, Selenium and Silver. The LCS recovery is within the control limits. This indicates the analysis is in control and the sample is affected by matrix interference. The MS recovery is not applicable for Barium, Manganese and Sodium because the sample concentration is greater than four times the spike concentration.

The dissolved concentration for some analytes is slightly greater than the total concentration of these analytes in several samples. This is attributed to separate aliquots of sample.

In the EPA 6020A analysis, Aluminum is greater than 130% in the LLCCV (ICPMS2, 10/27/15) @ 18:12. The 20 standard (LOQ) is passing.

In the EPA 6020A analysis, Sodium is greater than 130% in the LLCCV (ICPMS2, 10/28/15) @ 13:20. The associated samples are greater than CCV level.

CONVENTIONALS

In the EPA 300.0 and Rev 2.1 analysis, samples 21510230401 (M114MW001), 21510230402 (M114MW004), 21510230404 (MA01MW002), 21510230405 (MA01MW004), 21510230407 (MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-MSD), 21510230411 (MA01MW003), 21510230413 (MW114MW002), 21510230414 (MW114MW003), 21510230417 (MA02MW001D-a), 21510230416 (MA02MW001D) and 21510230419 (MWQ-24) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 300.0 and Rev 2.1 analysis, a chemical or physical interference necessitated a dilution for samples 21510230402 (M114MW004), 21510230413 (MW114MW002), 21510230414 (MW114MW003), 21510230401 (M114MW001), 21510230404 (MA01MW002), 21510230407

(MA01MW001), 21510230408 (MA01MW001-MS), 21510230410 (MA01MW001-MSD), 21510230405 (MA01MW004), 21510230411 (MA01MW003), 21510230416 (MA02MW001D) and 21510230417 (MA02MW001D-a). This is reflected in the elevated reporting limit.

In the Cyanide analysis for prep batch 571016, the batch MS and/or MSD recovery is outside the control limits. The LCS recovery is acceptable. This indicates the analysis is in control and the sample is affected by matrix interference.

In the EPA 9012B analysis, Cyanide was detected in the method blank for prep batch 571016. The concentration was insignificant compared to the concentration detected in the sample.

Q Flag Summary

Client Sample ID: **M114MW001** Lab Sample ID: **21510230401**

Method: **EPA 8260B** Analysis Date: **10/26/2015 2:34:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 8:47:21 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **M114MW004** Lab Sample ID: **21510230402**

Method: **EPA 8260B** Analysis Date: **10/26/2015 2:54:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 9:01:24 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-01** Lab Sample ID: **21510230403**

Method: **EPA 8260B** Analysis Date: **10/26/2015 3:13:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Client Sample ID: **MA01MW002** Lab Sample ID: **21510230404**

Method: **EPA 8260B** Analysis Date: **10/26/2015 3:33:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 9:15:27 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **MA01MW004** Lab Sample ID: **21510230405**

Method: **EPA 8260B** Analysis Date: **10/26/2015 3:52:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 9:29:30 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-03** Lab Sample ID: **21510230406**

Method: **EPA 8260B** Analysis Date: **10/26/2015 4:12:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Client Sample ID: **MA01MW001** Lab Sample ID: **21510230407**

Method: **EPA 8260B** Analysis Date: **10/26/2015 12:56:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 9:43:33 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-04** Lab Sample ID: **21510230409**

Method: **EPA 8260B** Analysis Date: **10/26/2015 4:31:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Client Sample ID: **MA01MW003** Lab Sample ID: **21510230411**

Method: **EPA 8260B** Analysis Date: **10/26/2015 4:51:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 10:39:24 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-05** Lab Sample ID: **21510230412**

Method: **EPA 8260B** Analysis Date: **10/26/2015 5:10:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Client Sample ID: **MW114MW002** Lab Sample ID: **21510230413**

Method: **EPA 8260B** Analysis Date: **10/26/2015 5:29:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Method: **EPA 8330A** Analysis Date: **10/29/2015 10:53:26 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **MW114MW003** Lab Sample ID: **21510230414**

Method: **EPA 8260B** Analysis Date: **10/26/2015 5:49:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 11:07:30 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-02** Lab Sample ID: **21510230415**

Method: **EPA 8260B** Analysis Date: **10/26/2015 6:08:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				

Client Sample ID: **MA02MW001D** Lab Sample ID: **21510230416**

Method: **EPA 8260B** Analysis Date: **10/26/2015 6:27:00 AM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
2-Hexanone	591-78-6	X					
Acetone	67-64-1	X	X				
Method: **EPA 8330A** Analysis Date: **10/29/2015 11:21:33 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **MA02MW001D-a** Lab Sample ID: **21510230417**

Method: **EPA 8260B** Analysis Date: **10/27/2015 7:38:00 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
Chloroethane	75-00-3	X					
Method: **EPA 8330A** Analysis Date: **10/29/2015 11:35:36 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-06** Lab Sample ID: **21510230418**

Method: **EPA 8260B** Analysis Date: **10/27/2015 7:57:00 PM**							
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
Chloroethane	75-00-3	X					

Client Sample ID: **MWQ-24** Lab Sample ID: **21510230419**

Method: **EPA 8260B**	Analysis Date: **10/27/2015 9:14:00 PM**						
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
Chloroethane	75-00-3	X					

Method: **EPA 8330A**	Analysis Date: **10/29/2015 11:49:40 PM**						
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
HMX	2691-41-0		X				

Client Sample ID: **TB-08** Lab Sample ID: **21510230420**

Method: **EPA 8260B**	Analysis Date: **10/27/2015 9:33:00 PM**						
Analyte	**CAS**	**CCV OUL**	**LCS/LCSD OUL**	**SURROGATE OUL**	**ANALYTE NC**	**IS OUL**	**CLCCV OUL**
Chloroethane	75-00-3	X					

CCV OUL=CCV out of limits
LCS/LCSD OUL=LCS/LCSD out of limits
SURROGATE OUL=Surrogate out of limits
ANALYTE NC=The analyte did not confirm
IS OUL=Internal Standard out of limits
CLCCV OUL=Closing CCV out of limits

Sample Test Summary Report: 215102304

Lab Sample ID	Cust. Sample ID	Matrix	Proc. Desc.
21510230401	M114MW001	W	SM 2540C TDS
21510230401	M114MW001	W	SM 2320B Alkalinity Water
21510230401	M114MW001	W	EPA 300.0 Inorganic Anions
21510230401	M114MW001	W	EPA 6020A
21510230401	M114MW001	W	EPA 6020A Dissolved
21510230401	M114MW001	W	EPA 6020A Dissolved Prep
21510230401	M114MW001	W	EPA 6020A Water Prep
21510230401	M114MW001	W	EPA 7470A
21510230401	M114MW001	W	EPA 7470A
21510230401	M114MW001	W	EPA 7470A Dissolved Prep
21510230401	M114MW001	W	EPA 7470A Dissolved
21510230401	M114MW001	W	EPA 8260B DOD Water
21510230401	M114MW001	W	EPA 8330A Water
21510230401	M114MW001	W	EPA 8330A Prep Water
21510230401	M114MW001	W	EPA 9012B Cyanide Water
21510230401	M114MW001	W	EPA 9012B Cyanide Prep Water
21510230401	M114MW001	W	Subcontract General
21510230402	M114MW004	W	SM 2540C TDS
21510230402	M114MW004	W	SM 2320B Alkalinity Water
21510230402	M114MW004	W	EPA 300.0 Inorganic Anions
21510230402	M114MW004	W	EPA 6020A
21510230402	M114MW004	W	EPA 6020A Dissolved
21510230402	M114MW004	W	EPA 6020A Dissolved Prep
21510230402	M114MW004	W	EPA 6020A Water Prep
21510230402	M114MW004	W	EPA 7470A
21510230402	M114MW004	W	EPA 7470A
21510230402	M114MW004	W	EPA 7470A Dissolved Prep
21510230402	M114MW004	W	EPA 7470A Dissolved
21510230402	M114MW004	W	EPA 8260B DOD Water
21510230402	M114MW004	W	EPA 8330A Water
21510230402	M114MW004	W	EPA 8330A Prep Water
21510230402	M114MW004	W	EPA 9012B Cyanide Water
21510230402	M114MW004	W	EPA 9012B Cyanide Prep Water
21510230402	M114MW004	W	Subcontract General
21510230403	TB-01	W	EPA 8260B DOD Water
21510230404	MA01MW002	W	SM 2540C TDS
21510230404	MA01MW002	W	SM 2320B Alkalinity Water
21510230404	MA01MW002	W	EPA 300.0 Inorganic Anions
21510230404	MA01MW002	W	EPA 6020A
21510230404	MA01MW002	W	EPA 6020A Dissolved
21510230404	MA01MW002	W	EPA 6020A Dissolved Prep
21510230404	MA01MW002	W	EPA 6020A Water Prep
21510230404	MA01MW002	W	EPA 7470A
21510230404	MA01MW002	W	EPA 7470A
21510230404	MA01MW002	W	EPA 7470A Dissolved Prep
21510230404	MA01MW002	W	EPA 7470A Dissolved
21510230404	MA01MW002	W	EPA 8260B DOD Water

21510230404	MA01MW002	W	EPA 8330A Water
21510230404	MA01MW002	W	EPA 8330A Prep Water
21510230404	MA01MW002	W	EPA 9012B Cyanide Water
21510230404	MA01MW002	W	EPA 9012B Cyanide Prep Water
21510230404	MA01MW002	W	Subcontract General
21510230405	MA01MW004	W	SM 2540C TDS
21510230405	MA01MW004	W	SM 2320B Alkalinity Water
21510230405	MA01MW004	W	EPA 300.0 Inorganic Anions
21510230405	MA01MW004	W	EPA 6020A
21510230405	MA01MW004	W	EPA 6020A Dissolved
21510230405	MA01MW004	W	EPA 6020A Dissolved Prep
21510230405	MA01MW004	W	EPA 6020A Water Prep
21510230405	MA01MW004	W	EPA 7470A
21510230405	MA01MW004	W	EPA 7470A
21510230405	MA01MW004	W	EPA 7470A Dissolved Prep
21510230405	MA01MW004	W	EPA 7470A Dissolved
21510230405	MA01MW004	W	EPA 8260B DOD Water
21510230405	MA01MW004	W	EPA 8330A Water
21510230405	MA01MW004	W	EPA 8330A Prep Water
21510230405	MA01MW004	W	EPA 9012B Cyanide Water
21510230405	MA01MW004	W	EPA 9012B Cyanide Prep Water
21510230405	MA01MW004	W	Subcontract General
21510230406	TB-03	W	EPA 8260B DOD Water
21510230407	MA01MW001	W	SM 2540C TDS
21510230407	MA01MW001	W	SM 2320B Alkalinity Water
21510230407	MA01MW001	W	EPA 300.0 Inorganic Anions
21510230407	MA01MW001	W	EPA 6020A
21510230407	MA01MW001	W	EPA 6020A Dissolved
21510230407	MA01MW001	W	EPA 6020A Dissolved Prep
21510230407	MA01MW001	W	EPA 6020A Water Prep
21510230407	MA01MW001	W	EPA 7470A
21510230407	MA01MW001	W	EPA 7470A
21510230407	MA01MW001	W	EPA 7470A Dissolved Prep
21510230407	MA01MW001	W	EPA 7470A Dissolved
21510230407	MA01MW001	W	EPA 8260B DOD Water
21510230407	MA01MW001	W	EPA 8330A Water
21510230407	MA01MW001	W	EPA 8330A Prep Water
21510230407	MA01MW001	W	EPA 9012B Cyanide Water
21510230407	MA01MW001	W	EPA 9012B Cyanide Prep Water
21510230407	MA01MW001	W	Subcontract General
21510230408	MA01MW001-MS	W	EPA 300.0 Inorganic Anions
21510230408	MA01MW001-MS	W	EPA 6020A
21510230408	MA01MW001-MS	W	EPA 6020A Dissolved
21510230408	MA01MW001-MS	W	EPA 6020A Dissolved Prep
21510230408	MA01MW001-MS	W	EPA 6020A Water Prep
21510230408	MA01MW001-MS	W	EPA 7470A
21510230408	MA01MW001-MS	W	EPA 7470A
21510230408	MA01MW001-MS	W	EPA 7470A Dissolved Prep
21510230408	MA01MW001-MS	W	EPA 7470A Dissolved
21510230408	MA01MW001-MS	W	EPA 8260B DOD Water

21510230408	MA01MW001-MS	W	EPA 8330A Water
21510230408	MA01MW001-MS	W	EPA 8330A Prep Water
21510230408	MA01MW001-MS	W	EPA 9012B Cyanide Water
21510230408	MA01MW001-MS	W	EPA 9012B Cyanide Prep Water
21510230408	MA01MW001-MS	W	Subcontract General
21510230409	TB-04	W	EPA 8260B DOD Water
21510230410	MA01MW001-MSD	W	EPA 300.0 Inorganic Anions
21510230410	MA01MW001-MSD	W	EPA 6020A
21510230410	MA01MW001-MSD	W	EPA 6020A Dissolved
21510230410	MA01MW001-MSD	W	EPA 6020A Dissolved Prep
21510230410	MA01MW001-MSD	W	EPA 6020A Water Prep
21510230410	MA01MW001-MSD	W	EPA 7470A
21510230410	MA01MW001-MSD	W	EPA 7470A
21510230410	MA01MW001-MSD	W	EPA 7470A Dissolved Prep
21510230410	MA01MW001-MSD	W	EPA 7470A Dissolved
21510230410	MA01MW001-MSD	W	EPA 8260B DOD Water
21510230410	MA01MW001-MSD	W	EPA 8330A Water
21510230410	MA01MW001-MSD	W	EPA 8330A Prep Water
21510230410	MA01MW001-MSD	W	EPA 9012B Cyanide Water
21510230410	MA01MW001-MSD	W	EPA 9012B Cyanide Prep Water
21510230410	MA01MW001-MSD	W	Subcontract General
21510230411	MA01MW003	W	SM 2540C TDS
21510230411	MA01MW003	W	SM 2320B Alkalinity Water
21510230411	MA01MW003	W	EPA 300.0 Inorganic Anions
21510230411	MA01MW003	W	EPA 6020A
21510230411	MA01MW003	W	EPA 6020A Dissolved
21510230411	MA01MW003	W	EPA 6020A Dissolved Prep
21510230411	MA01MW003	W	EPA 6020A Water Prep
21510230411	MA01MW003	W	EPA 7470A
21510230411	MA01MW003	W	EPA 7470A
21510230411	MA01MW003	W	EPA 7470A Dissolved Prep
21510230411	MA01MW003	W	EPA 7470A Dissolved
21510230411	MA01MW003	W	EPA 8260B DOD Water
21510230411	MA01MW003	W	EPA 8330A Water
21510230411	MA01MW003	W	EPA 8330A Prep Water
21510230411	MA01MW003	W	EPA 9012B Cyanide Water
21510230411	MA01MW003	W	EPA 9012B Cyanide Prep Water
21510230411	MA01MW003	W	Subcontract General
21510230412	TB-05	W	EPA 8260B DOD Water
21510230413	MW114MW002	W	SM 2540C TDS
21510230413	MW114MW002	W	SM 2320B Alkalinity Water
21510230413	MW114MW002	W	EPA 300.0 Inorganic Anions
21510230413	MW114MW002	W	EPA 6020A
21510230413	MW114MW002	W	EPA 6020A Dissolved
21510230413	MW114MW002	W	EPA 6020A Dissolved Prep
21510230413	MW114MW002	W	EPA 6020A Water Prep
21510230413	MW114MW002	W	EPA 7470A
21510230413	MW114MW002	W	EPA 7470A
21510230413	MW114MW002	W	EPA 7470A Dissolved Prep
21510230413	MW114MW002	W	EPA 7470A Dissolved

21510230413	MW114MW002	W	EPA 8260B DOD Water
21510230413	MW114MW002	W	EPA 8330A Water
21510230413	MW114MW002	W	EPA 8330A Prep Water
21510230413	MW114MW002	W	EPA 9012B Cyanide Water
21510230413	MW114MW002	W	EPA 9012B Cyanide Prep Water
21510230413	MW114MW002	W	Subcontract General
21510230414	MW114MW003	W	SM 2540C TDS
21510230414	MW114MW003	W	SM 2320B Alkalinity Water
21510230414	MW114MW003	W	EPA 300.0 Inorganic Anions
21510230414	MW114MW003	W	EPA 6020A
21510230414	MW114MW003	W	EPA 6020A Dissolved
21510230414	MW114MW003	W	EPA 6020A Dissolved Prep
21510230414	MW114MW003	W	EPA 6020A Water Prep
21510230414	MW114MW003	W	EPA 7470A
21510230414	MW114MW003	W	EPA 7470A
21510230414	MW114MW003	W	EPA 7470A Dissolved Prep
21510230414	MW114MW003	W	EPA 7470A Dissolved
21510230414	MW114MW003	W	EPA 8260B DOD Water
21510230414	MW114MW003	W	EPA 8330A Water
21510230414	MW114MW003	W	EPA 8330A Prep Water
21510230414	MW114MW003	W	EPA 9012B Cyanide Water
21510230414	MW114MW003	W	EPA 9012B Cyanide Prep Water
21510230414	MW114MW003	W	Subcontract General
21510230415	TB-02	W	EPA 8260B DOD Water
21510230416	MA02MW001D	W	SM 2540C TDS
21510230416	MA02MW001D	W	SM 2320B Alkalinity Water
21510230416	MA02MW001D	W	EPA 300.0 Inorganic Anions
21510230416	MA02MW001D	W	EPA 6020A
21510230416	MA02MW001D	W	EPA 6020A Dissolved
21510230416	MA02MW001D	W	EPA 6020A Dissolved Prep
21510230416	MA02MW001D	W	EPA 6020A Water Prep
21510230416	MA02MW001D	W	EPA 7470A
21510230416	MA02MW001D	W	EPA 7470A
21510230416	MA02MW001D	W	EPA 7470A Dissolved Prep
21510230416	MA02MW001D	W	EPA 7470A Dissolved
21510230416	MA02MW001D	W	EPA 8260B DOD Water
21510230416	MA02MW001D	W	EPA 8330A Water
21510230416	MA02MW001D	W	EPA 8330A Prep Water
21510230416	MA02MW001D	W	EPA 9012B Cyanide Water
21510230416	MA02MW001D	W	EPA 9012B Cyanide Prep Water
21510230416	MA02MW001D	W	Subcontract General
21510230417	MA02MW001D-a	W	SM 2540C TDS
21510230417	MA02MW001D-a	W	SM 2320B Alkalinity Water
21510230417	MA02MW001D-a	W	EPA 300.0 Inorganic Anions
21510230417	MA02MW001D-a	W	EPA 6020A
21510230417	MA02MW001D-a	W	EPA 6020A Dissolved
21510230417	MA02MW001D-a	W	EPA 6020A Dissolved Prep
21510230417	MA02MW001D-a	W	EPA 6020A Water Prep
21510230417	MA02MW001D-a	W	EPA 7470A
21510230417	MA02MW001D-a	W	EPA 7470A
21510230417	MA02MW001D-a	W	EPA 7470A Dissolved Prep

21510230417	MA02MW001D-a	W	EPA 7470A Dissolved
21510230417	MA02MW001D-a	W	EPA 8260B DOD Water
21510230417	MA02MW001D-a	W	EPA 8330A Water
21510230417	MA02MW001D-a	W	EPA 8330A Prep Water
21510230417	MA02MW001D-a	W	EPA 9012B Cyanide Water
21510230417	MA02MW001D-a	W	EPA 9012B Cyanide Prep Water
21510230417	MA02MW001D-a	W	Subcontract General
21510230418	TB-06	W	EPA 8260B DOD Water
21510230419	MWQ-24	W	SM 2540C TDS
21510230419	MWQ-24	W	SM 2320B Alkalinity Water
21510230419	MWQ-24	W	EPA 300.0 Inorganic Anions
21510230419	MWQ-24	W	EPA 6020A
21510230419	MWQ-24	W	EPA 6020A Dissolved
21510230419	MWQ-24	W	EPA 6020A Dissolved Prep
21510230419	MWQ-24	W	EPA 6020A Water Prep
21510230419	MWQ-24	W	EPA 7470A
21510230419	MWQ-24	W	EPA 7470A
21510230419	MWQ-24	W	EPA 7470A Dissolved Prep
21510230419	MWQ-24	W	EPA 7470A Dissolved
21510230419	MWQ-24	W	EPA 8260B DOD Water
21510230419	MWQ-24	W	EPA 8330A Water
21510230419	MWQ-24	W	EPA 8330A Prep Water
21510230419	MWQ-24	W	EPA 9012B Cyanide Water
21510230419	MWQ-24	W	EPA 9012B Cyanide Prep Water
21510230419	MWQ-24	W	Subcontract General
21510230420	TB-08	W	EPA 8260B DOD Water

Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21510230401	M114MW001	Water	10/22/2015 11:10	10/23/2015 09:48
21510230402	M114MW004	Water	10/22/2015 09:10	10/23/2015 09:48
21510230403	TB-01	Water	10/22/2015 09:10	10/23/2015 09:48
21510230404	MA01MW002	Water	10/22/2015 12:38	10/23/2015 09:48
21510230405	MA01MW004	Water	10/22/2015 13:48	10/23/2015 09:48
21510230406	TB-03	Water	10/22/2015 12:38	10/23/2015 09:48
21510230407	MA01MW001	Water	10/22/2015 12:55	10/23/2015 09:48
21510230408	MA01MW001-MS	Water	10/22/2015 12:55	10/23/2015 09:48
21510230409	TB-04	Water	10/22/2015 12:55	10/23/2015 09:48
21510230410	MA01MW001-MSD	Water	10/22/2015 12:55	10/23/2015 09:48
21510230411	MA01MW003	Water	10/22/2015 14:45	10/23/2015 09:48
21510230412	TB-05	Water	10/22/2015 14:45	10/23/2015 09:48
21510230413	MW114MW002	Water	10/22/2015 09:17	10/23/2015 09:48
21510230414	MW114MW003	Water	10/22/2015 10:23	10/23/2015 09:48
21510230415	TB-02	Water	10/22/2015 09:17	10/23/2015 09:48
21510230416	MA02MW001D	Water	10/23/2015 08:55	10/24/2015 10:00
21510230417	MA02MW001D-a	Water	10/23/2015 08:55	10/24/2015 10:00
21510230418	TB-06	Water	10/23/2015 08:55	10/24/2015 10:00
21510230419	MWQ-24	Water	10/23/2015 10:55	10/24/2015 10:00
21510230420	TB-08	Water	10/23/2015 10:55	10/24/2015 10:00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230401

Lab File ID: 2151025p/j3437

Date Collected: 10/22/15 Time: 1110

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0234

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230401

Lab File ID: 2151025p/j3437

Date Collected: 10/22/15 Time: 1110

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0234

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230401

Lab File ID: 2151025p/j3437

Date Collected: 10/22/15 Time: 1110

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0234

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230402

Lab File ID: 2151025p/j3438

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0254

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230402

Lab File ID: 2151025p/j3438

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0254

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230402

Lab File ID: 2151025p/j3438

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0254

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-01

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230403

Lab File ID: 2151025p/j3439

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0313

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-01

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230403

Lab File ID: 2151025p/j3439

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0313

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.611	J	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-01

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230403

Lab File ID: 2151025p/j3439

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0313

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230404

Lab File ID: 2151025p/j3440

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0333

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230404

Lab File ID: 2151025p/j3440

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0333

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230404

Lab File ID: 2151025p/j3440

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0333

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230405

Lab File ID: 2151025p/j3441

Date Collected: 10/22/15 Time: 1348

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0352

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230405

Lab File ID: 2151025p/j3441

Date Collected: 10/22/15 Time: 1348

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0352

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230405

Lab File ID: 2151025p/j3441

Date Collected: 10/22/15 Time: 1348

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0352

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230406

Lab File ID: 2151025p/j3442

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0412

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230406

Lab File ID: 2151025p/j3442

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0412

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-03

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230406

Lab File ID: 2151025p/j3442

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0412

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230407

Lab File ID: 2151025p/j3432

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0056

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230407

Lab File ID: 2151025p/j3432

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0056

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230407

Lab File ID: 2151025p/j3432

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0056

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230408

Lab File ID: 2151025p/j3433ms

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0116

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	49.2		0.200	1.00
71-55-6	1,1,1-Trichloroethane	48.9		0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	51.5		0.200	1.00
79-00-5	1,1,2-Trichloroethane	49.0		0.200	1.00
75-34-3	1,1-Dichloroethane	48.5		0.200	1.00
75-35-4	1,1-Dichloroethene	47.5		0.200	1.00
563-58-6	1,1-Dichloropropene	49.0		0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	51.4		0.200	1.00
96-18-4	1,2,3-Trichloropropane	52.2		0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	50.4		0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	52.4		0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	53.9		0.200	1.00
106-93-4	1,2-Dibromoethane	49.9		0.200	1.00
95-50-1	1,2-Dichlorobenzene	50.6		0.200	1.00
107-06-2	1,2-Dichloroethane	47.7		0.200	1.00
78-87-5	1,2-Dichloropropane	50.4		0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	51.5		0.200	1.00
541-73-1	1,3-Dichlorobenzene	50.9		0.200	1.00
142-28-9	1,3-Dichloropropane	49.7		0.200	1.00
106-46-7	1,4-Dichlorobenzene	49.8		0.200	1.00
594-20-7	2,2-Dichloropropane	48.5		0.200	1.00
78-93-3	2-Butanone	34.6		0.200	5.00
95-49-8	2-Chlorotoluene	51.2		0.200	1.00
591-78-6	2-Hexanone	51.7		0.500	5.00
106-43-4	4-Chlorotoluene	52.2		0.200	1.00
99-87-6	4-Isopropyltoluene	52.4		0.200	1.00
108-10-1	4-Methyl-2-pentanone	52.2		0.200	5.00
67-64-1	Acetone	69.3		0.500	5.00
71-43-2	Benzene	48.8		0.200	1.00
108-86-1	Bromobenzene	50.9		0.200	1.00
74-97-5	Bromochloromethane	49.8		0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230408

Lab File ID: 2151025p/j3433ms

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0116

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	50.7		0.200	1.00
75-25-2	Bromoform	50.3		0.250	1.00
74-83-9	Bromomethane	41.9		0.500	1.00
75-15-0	Carbon disulfide	48.7		0.200	1.00
56-23-5	Carbon tetrachloride	47.9		0.250	1.00
108-90-7	Chlorobenzene	49.3		0.200	1.00
75-00-3	Chloroethane	45.3		0.250	1.00
67-66-3	Chloroform	49.4		0.200	1.00
74-87-3	Chloromethane	46.0		0.200	1.00
74-95-3	Dibromomethane	48.9		0.250	1.00
75-71-8	Dichlorodifluoromethane	46.1		0.200	1.00
100-41-4	Ethylbenzene	49.9		0.200	1.00
87-68-3	Hexachlorobutadiene	48.7		0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	50.7		0.200	1.00
75-09-2	Methylene chloride	49.1		0.200	5.00
91-20-3	Naphthalene	53.1		0.200	1.00
100-42-5	Styrene	50.8		0.200	1.00
127-18-4	Tetrachloroethene	47.2		0.200	1.00
108-88-3	Toluene	48.0		0.200	1.00
79-01-6	Trichloroethene	47.9		0.200	1.00
75-69-4	Trichlorofluoromethane	45.5		0.200	1.00
75-01-4	Vinyl chloride	44.8		0.200	1.00
156-59-2	cis-1,2-Dichloroethene	50.1		0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	51.3		0.200	1.00
136777-61-2	m,p-Xylene	101		0.200	2.00
104-51-8	n-Butylbenzene	52.0		0.200	1.00
103-65-1	n-Propylbenzene	52.0		1.00	1.00
95-47-6	o-Xylene	50.3		0.200	1.00
135-98-8	sec-Butylbenzene	51.6		0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	50.6		0.200	5.00
98-06-6	tert-Butylbenzene	51.8		0.200	1.00
156-60-5	trans-1,2-Dichloroethene	49.0		0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230408

Lab File ID: 2151025p/j3433ms

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0116

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	52.1		0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230409

Lab File ID: 2151025p/j3443

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0431

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230409

Lab File ID: 2151025p/j3443

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0431

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-04

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21510230409

Level: (low/med) Lab File ID: 2151025p/j3443

% Moisture: not dec. Date Collected: 10/22/15 Time: 1255

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 10/23/15

Instrument ID: MSV8 Date Analyzed: 10/26/15 Time: 0431

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: LBH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MSD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230410

Lab File ID: 2151025p/j3434msd

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0135

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	48.6		0.200	1.00
71-55-6	1,1,1-Trichloroethane	47.1		0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	49.6		0.200	1.00
79-00-5	1,1,2-Trichloroethane	48.3		0.200	1.00
75-34-3	1,1-Dichloroethane	46.8		0.200	1.00
75-35-4	1,1-Dichloroethene	46.1		0.200	1.00
563-58-6	1,1-Dichloropropene	46.4		0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	49.1		0.200	1.00
96-18-4	1,2,3-Trichloropropane	50.0		0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	49.0		0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	49.8		0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	51.6		0.200	1.00
106-93-4	1,2-Dibromoethane	49.2		0.200	1.00
95-50-1	1,2-Dichlorobenzene	48.8		0.200	1.00
107-06-2	1,2-Dichloroethane	46.5		0.200	1.00
78-87-5	1,2-Dichloropropane	48.1		0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	49.0		0.200	1.00
541-73-1	1,3-Dichlorobenzene	48.6		0.200	1.00
142-28-9	1,3-Dichloropropane	48.4		0.200	1.00
106-46-7	1,4-Dichlorobenzene	47.9		0.200	1.00
594-20-7	2,2-Dichloropropane	46.5		0.200	1.00
78-93-3	2-Butanone	33.8		0.200	5.00
95-49-8	2-Chlorotoluene	49.0		0.200	1.00
591-78-6	2-Hexanone	50.3		0.500	5.00
106-43-4	4-Chlorotoluene	49.5		0.200	1.00
99-87-6	4-Isopropyltoluene	50.0		0.200	1.00
108-10-1	4-Methyl-2-pentanone	50.1		0.200	5.00
67-64-1	Acetone	66.9		0.500	5.00
71-43-2	Benzene	46.9		0.200	1.00
108-86-1	Bromobenzene	48.8		0.200	1.00
74-97-5	Bromochloromethane	48.3		0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MSD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230410

Lab File ID: 2151025p/j3434msd

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0135

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	48.7		0.200	1.00
75-25-2	Bromoform	48.8		0.250	1.00
74-83-9	Bromomethane	41.9		0.500	1.00
75-15-0	Carbon disulfide	46.6		0.200	1.00
56-23-5	Carbon tetrachloride	46.9		0.250	1.00
108-90-7	Chlorobenzene	47.9		0.200	1.00
75-00-3	Chloroethane	43.4		0.250	1.00
67-66-3	Chloroform	46.5		0.200	1.00
74-87-3	Chloromethane	42.4		0.200	1.00
74-95-3	Dibromomethane	47.6		0.250	1.00
75-71-8	Dichlorodifluoromethane	45.3		0.200	1.00
100-41-4	Ethylbenzene	47.4		0.200	1.00
87-68-3	Hexachlorobutadiene	48.3		0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	48.7		0.200	1.00
75-09-2	Methylene chloride	46.5		0.200	5.00
91-20-3	Naphthalene	52.4		0.200	1.00
100-42-5	Styrene	49.3		0.200	1.00
127-18-4	Tetrachloroethene	45.7		0.200	1.00
108-88-3	Toluene	46.0		0.200	1.00
79-01-6	Trichloroethene	46.8		0.200	1.00
75-69-4	Trichlorofluoromethane	44.1		0.200	1.00
75-01-4	Vinyl chloride	44.2		0.200	1.00
156-59-2	cis-1,2-Dichloroethene	47.6		0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	49.5		0.200	1.00
136777-61-2	m,p-Xylene	97.7		0.200	2.00
104-51-8	n-Butylbenzene	49.9		0.200	1.00
103-65-1	n-Propylbenzene	48.9		1.00	1.00
95-47-6	o-Xylene	48.2		0.200	1.00
135-98-8	sec-Butylbenzene	48.7		0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	49.0		0.200	5.00
98-06-6	tert-Butylbenzene	49.4		0.200	1.00
156-60-5	trans-1,2-Dichloroethene	45.9		0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001-MSD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230410

Lab File ID: 2151025p/j3434msd

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0135

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	51.1		0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230411

Lab File ID: 2151025p/j3444

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0451

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230411

Lab File ID: 2151025p/j3444

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0451

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230411

Lab File ID: 2151025p/j3444

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0451

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-05

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230412

Lab File ID: 2151025p/j3445

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0510

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-05

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230412

Lab File ID: 2151025p/j3445

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0510

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-05

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230412

Lab File ID: 2151025p/j3445

Date Collected: 10/22/15 Time: 1445

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0510

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230413

Lab File ID: 2151025p/j3446

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0529

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230413

Lab File ID: 2151025p/j3446

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0529

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230413

Lab File ID: 2151025p/j3446

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0529

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230414

Lab File ID: 2151025p/j3447

Date Collected: 10/22/15 Time: 1023

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0549

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230414

Lab File ID: 2151025p/j3447

Date Collected: 10/22/15 Time: 1023

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0549

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MW114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230414

Lab File ID: 2151025p/j3447

Date Collected: 10/22/15 Time: 1023

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0549

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-02

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230415

Lab File ID: 2151025p/j3448

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0608

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-02

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230415

Lab File ID: 2151025p/j3448

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0608

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-02

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230415

Lab File ID: 2151025p/j3448

Date Collected: 10/22/15 Time: 0917

Date Received: 10/23/15

Date Analyzed: 10/26/15 Time: 0608

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230416

Lab File ID: 2151025p/j3449

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/26/15 Time: 0627

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	UQ	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	UQ	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230416

Lab File ID: 2151025p/j3449

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/26/15 Time: 0627

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21510230416

Level: (low/med) Lab File ID: 2151025p/j3449

% Moisture: not dec. Date Collected: 10/23/15 Time: 0855

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 10/24/15

Instrument ID: MSV8 Date Analyzed: 10/26/15 Time: 0627

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: LBH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230417

Lab File ID: 2151027p/j3548

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1938

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	U	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230417

Lab File ID: 2151027p/j3548

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1938

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	UQ	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.330	J	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230417

Lab File ID: 2151027p/j3548

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1938

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-06

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230418

Lab File ID: 2151027p/j3549

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1957

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	U	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-06

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230418

Lab File ID: 2151027p/j3549

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1957

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	UQ	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-06

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230418

Lab File ID: 2151027p/j3549

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 1957

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230419

Lab File ID: 2151027p/j3551

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	U	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230419

Lab File ID: 2151027p/j3551

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	UQ	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230419

Lab File ID: 2151027p/j3551

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-08

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230420

Lab File ID: 2151027p/j3552

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2133

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
67-64-1	Acetone	0.500	U	0.500	5.00
71-43-2	Benzene	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-08

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230420

Lab File ID: 2151027p/j3552

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2133

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
108-90-7	Chlorobenzene	0.200	U	0.200	1.00
75-00-3	Chloroethane	0.250	UQ	0.250	1.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

TB-08

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21510230420

Lab File ID: 2151027p/j3552

Date Collected: 10/23/15 Time: 1055

Date Received: 10/24/15

Date Analyzed: 10/27/15 Time: 2133

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1502523

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1502523

Lab File ID: 2151025p/j3431

Date Collected: Time:

Date Received:

Date Analyzed: 10/26/15 Time: 0037

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.500	U	0.500	5.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1502523

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1502523

Lab File ID: 2151025p/j3431

Date Collected: Time:

Date Received:

Date Analyzed: 10/26/15 Time: 0037

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1502523

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1502523

Lab File ID: 2151025p/j3431

Date Collected: Time:

Date Received:

Date Analyzed: 10/26/15 Time: 0037

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 570981

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.200	U	0.200	1.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1503283

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1503283

Lab File ID: 2151027p/j3536

Date Collected: Time:

Date Received:

Date Analyzed: 10/27/15 Time: 1545

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.500	U	0.500	5.00
74-97-5	Bromochloromethane	0.200	U	0.200	1.00
75-27-4	Bromodichloromethane	0.200	U	0.200	1.00
75-25-2	Bromoform	0.250	U	0.250	1.00
74-83-9	Bromomethane	0.500	U	0.500	1.00
75-15-0	Carbon disulfide	0.200	U	0.200	1.00
56-23-5	Carbon tetrachloride	0.250	U	0.250	1.00
75-00-3	Chloroethane	0.250	U	0.250	1.00
136777-61-2	m,p-Xylene	0.200	U	0.200	2.00
67-66-3	Chloroform	0.200	U	0.200	1.00
74-87-3	Chloromethane	0.200	U	0.200	1.00
74-95-3	Dibromomethane	0.250	U	0.250	1.00
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	1.00
75-34-3	1,1-Dichloroethane	0.200	U	0.200	1.00
107-06-2	1,2-Dichloroethane	0.200	U	0.200	1.00
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	1.00
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	1.00
75-09-2	Methylene chloride	0.200	U	0.200	5.00
78-87-5	1,2-Dichloropropane	0.200	U	0.200	1.00
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	1.00
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	1.00
100-41-4	Ethylbenzene	0.200	U	0.200	1.00
591-78-6	2-Hexanone	0.500	U	0.500	5.00
98-82-8	Isopropylbenzene (Cumene)	0.200	U	0.200	1.00
78-93-3	2-Butanone	0.200	U	0.200	5.00
108-10-1	4-Methyl-2-pentanone	0.200	U	0.200	5.00
103-65-1	n-Propylbenzene	1.00	U	1.00	1.00
100-42-5	Styrene	0.200	U	0.200	1.00
127-18-4	Tetrachloroethene	0.200	U	0.200	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.200	U	0.200	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1503283

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV8

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1503283

Lab File ID: 2151027p/j3536

Date Collected: Time:

Date Received:

Date Analyzed: 10/27/15 Time: 1545

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.200	U	0.200	1.00
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	1.00
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	1.00
75-69-4	Trichlorofluoromethane	0.200	U	0.200	1.00
96-18-4	1,2,3-Trichloropropane	0.200	U	0.200	1.00
95-63-6	1,2,4-Trimethylbenzene	0.200	U	0.200	1.00
108-67-8	1,3,5-Trimethylbenzene	0.200	U	0.200	1.00
75-01-4	Vinyl chloride	0.200	U	0.200	1.00
95-47-6	o-Xylene	0.200	U	0.200	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.200	U	0.200	1.00
106-93-4	1,2-Dibromoethane	0.200	U	0.200	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.200	U	0.200	5.00
99-87-6	4-Isopropyltoluene	0.200	U	0.200	1.00
594-20-7	2,2-Dichloropropane	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.200	U	0.200	1.00
142-28-9	1,3-Dichloropropane	0.200	U	0.200	1.00
108-86-1	Bromobenzene	0.200	U	0.200	1.00
95-49-8	2-Chlorotoluene	0.200	U	0.200	1.00
106-43-4	4-Chlorotoluene	0.200	U	0.200	1.00
98-06-6	tert-Butylbenzene	0.200	U	0.200	1.00
135-98-8	sec-Butylbenzene	0.200	U	0.200	1.00
541-73-1	1,3-Dichlorobenzene	0.200	U	0.200	1.00
106-46-7	1,4-Dichlorobenzene	0.200	U	0.200	1.00
104-51-8	n-Butylbenzene	0.200	U	0.200	1.00
95-50-1	1,2-Dichlorobenzene	0.200	U	0.200	1.00
87-68-3	Hexachlorobutadiene	0.500	U	0.500	1.00
91-20-3	Naphthalene	0.200	U	0.200	1.00
87-61-6	1,2,3-Trichlorobenzene	0.200	U	0.200	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.200	U	0.200	1.00
79-01-6	Trichloroethene	0.200	U	0.200	1.00
108-88-3	Toluene	0.200	U	0.200	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1503283

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 1503283

Level: (low/med) Lab File ID: 2151027p/j3536

% Moisture: not dec. Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received:

Instrument ID: MSV8 Date Analyzed: 10/27/15 Time: 1545

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: LBH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 571133

Analytical Method: EPA 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.200	U	0.200	1.00

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Method: EPA 8260B

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	M114MW001	95		97		103		103		0
2.	MA01MW001-MSD	99		99		97		101		0
3.	MA01MW003	95		98		102		102		0
4.	TB-05	95		99		102		102		0
5.	MW114MW002	95		99		102		102		0
6.	MW114MW003	95		97		102		103		0
7.	TB-02	94		98		101		100		0
8.	MA02MW001D	94		97		101		102		0
9.	MA02MW001D-a	97		101		102		101		0
10.	TB-06	93		103		102		102		0
11.	MWQ-24	94		102		101		101		0
12.	M114MW004	98		97		102		99		0
13.	TB-08	93		101		102		102		0
14.	MB1502523	95		98		101		100		0
15.	LCS1502524	100		99		99		102		0
16.	LCSD1502525	100		99		99		101		0
17.	MB1503283	100		99		102		100		0
18.	LCS1503284	102		103		100		100		0
19.	LCSD1503285	103		101		99		99		0
20.	TB-01	96		98		103		100		0
21.	MA01MW002	95		98		102		101		0
22.	MA01MW004	96		96		101		100		0
23.	TB-03	94		98		101		101		0
24.	MA01MW001	97		97		101		99		0
25.	MA01MW001-MS	98		100		98		101		0
26.	TB-04	94		99		101		103		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	75 - 120
SMC 2	Dibromofluoromethane	85 - 115
SMC 3	Toluene-d8	85 - 120
SMC 4	1,2-Dichloroethane-d4	70 - 120

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 571133

SAMPLE NO. : 1503284

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	52.1	104		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	52.5	105		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	49.4	99		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	49.6	99		75 - 125
1,1-Dichloroethane	ug/L	50	0	51.4	103		70 - 135
1,1-Dichloroethene	ug/L	50	0	54.5	109		70 - 130
1,1-Dichloropropene	ug/L	50	0	54.2	108		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	47.7	95		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	46.3	93		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	47.8	96		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	51.7	103		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	48.6	97		50 - 130
1,2-Dibromoethane	ug/L	50	0	50.7	101		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	50.6	101		70 - 120
1,2-Dichloroethane	ug/L	50	0	49.5	99		70 - 130
1,2-Dichloropropane	ug/L	50	0	50.7	101		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	51.1	102		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	50.9	102		75 - 125
1,3-Dichloropropane	ug/L	50	0	50.4	101		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	50.4	101		75 - 125
2,2-Dichloropropane	ug/L	50	0	54.8	110		70 - 135
2-Butanone	ug/L	50	0	48.1	96		30 - 150
2-Chlorotoluene	ug/L	50	0	50.3	101		75 - 125
2-Hexanone	ug/L	50	0	48.8	98		55 - 130
4-Chlorotoluene	ug/L	50	0	50.9	102		75 - 130
4-Isopropyltoluene	ug/L	50	0	51.9	104		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	48.2	96		60 - 135
Acetone	ug/L	50	0	42.9	86		40 - 140
Benzene	ug/L	50	0	51.6	103		80 - 120
Bromobenzene	ug/L	50	0	49.8	100		75 - 125
Bromochloromethane	ug/L	50	0	52	104		65 - 130
Bromodichloromethane	ug/L	50	0	52.8	106		75 - 120
Bromoform	ug/L	50	0	51.6	103		70 - 130
Bromomethane	ug/L	50	0	50.2	100		30 - 145
Carbon disulfide	ug/L	50	0	54.2	108		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 571133

Carbon tetrachloride	ug/L	50	0	54.5	109		65 - 140
Chlorobenzene	ug/L	50	0	51.3	103		80 - 120
Chloroethane	ug/L	50	0	60.3	121		60 - 135
Chloroform	ug/L	50	0	51	102		65 - 135
Chloromethane	ug/L	50	0	49.8	100		40 - 125
Dibromomethane	ug/L	50	0	51.4	103		75 - 125
Dichlorodifluoromethane	ug/L	50	0	54	108		30 - 155
Ethylbenzene	ug/L	50	0	51.9	104		75 - 125
Hexachlorobutadiene	ug/L	50	0	54.1	108		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	52.9	106		75 - 125
Methylene chloride	ug/L	50	0	48.5	97		55 - 140
Naphthalene	ug/L	50	0	46	92		55 - 140
Styrene	ug/L	50	0	53.9	108		65 - 135
Tetrachloroethene	ug/L	50	0	53	106		45 - 150
Toluene	ug/L	50	0	50.6	101		75 - 120
Trichloroethene	ug/L	50	0	51.1	102		70 - 125
Trichlorofluoromethane	ug/L	50	0	55.3	111		60 - 145
Vinyl chloride	ug/L	50	0	52.2	104		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	51.4	103		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	52.6	105		70 - 130
m,p-Xylene	ug/L	100	0	104	104		75 - 130
n-Butylbenzene	ug/L	50	0	53.5	107		70 - 135
n-Propylbenzene	ug/L	50	0	51.3	103		70 - 130
o-Xylene	ug/L	50	0	52.2	104		80 - 120
sec-Butylbenzene	ug/L	50	0	51.7	103		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	50.5	101		65 - 125
tert-Butylbenzene	ug/L	50	0	51.2	102		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	52.2	104		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	52.6	105		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 571133

SAMPLE NO. : 1503285

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
1,1,1,2-Tetrachloroethane	ug/L	50	51.8	104		.6		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	52.1	104		.8		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	50.7	101		3		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	49.6	99		0		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	50.6	101		2		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	53.3	107		2		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	52.7	105		3		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	46.6	93		2		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	48.3	97		4		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	46.8	94		2		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	50.9	102		2		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	49.9	100		3		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	51	102		.6		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	50.1	100		1		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	49.5	99		0		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	50.7	101		0		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	50.9	102		.4		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	50.9	102		0		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	51	102		1		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	49.9	100		1		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	53.2	106		3		70 - 135	0 - 30
2-Butanone	ug/L	50	51	102		6		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	50.5	101		.4		75 - 125	0 - 30
2-Hexanone	ug/L	50	52.5	105		7		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	50.4	101		1		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	51	102		2		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	50.9	102		5		60 - 135	0 - 30
Acetone	ug/L	50	46.4	93		8		40 - 140	0 - 30
Benzene	ug/L	50	50.5	101		2		80 - 120	0 - 30
Bromobenzene	ug/L	50	49.9	100		.2		75 - 125	0 - 30
Bromochloromethane	ug/L	50	50.2	100		4		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	52	104		2		75 - 120	0 - 30
Bromoform	ug/L	50	53	106		3		70 - 130	0 - 30
Bromomethane	ug/L	50	51.8	104		3		30 - 145	0 - 30
Carbon disulfide	ug/L	50	53.2	106		2		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 571133

Carbon tetrachloride	ug/L	50	53.3	107		2		65 - 140	0 - 30
Chlorobenzene	ug/L	50	50.6	101		1		80 - 120	0 - 30
Chloroethane	ug/L	50	51.3	103		16		60 - 135	0 - 30
Chloroform	ug/L	50	49.7	99		3		65 - 135	0 - 30
Chloromethane	ug/L	50	50.6	101		2		40 - 125	0 - 30
Dibromomethane	ug/L	50	50.8	102		1		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	52.8	106		2		30 - 155	0 - 30
Ethylbenzene	ug/L	50	51.6	103		.6		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	52.4	105		3		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	52.2	104		1		75 - 125	0 - 30
Methylene chloride	ug/L	50	48	96		1		55 - 140	0 - 30
Naphthalene	ug/L	50	46.5	93		1		55 - 140	0 - 30
Styrene	ug/L	50	53.9	108		0		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	53.4	107		.8		45 - 150	0 - 30
Toluene	ug/L	50	50.1	100		1		75 - 120	0 - 30
Trichloroethene	ug/L	50	50.8	102		.6		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	53.2	106		4		60 - 145	0 - 30
Vinyl chloride	ug/L	50	52	104		.4		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	50.5	101		2		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	52.7	105		.2		70 - 130	0 - 30
m,p-Xylene	ug/L	100	104	104		0		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	51.6	103		4		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	50.2	100		2		70 - 130	0 - 30
o-Xylene	ug/L	50	51.9	104		.6		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	50.9	102		2		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	50.9	102		.8		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	50.9	102		.6		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	51	102		2		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	52.4	105		.4		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 570981

SAMPLE NO. : 1502524

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	49.4	99		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	49.3	99		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	49.6	99		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	49	98		75 - 125
1,1-Dichloroethane	ug/L	50	0	48.8	98		70 - 135
1,1-Dichloroethene	ug/L	50	0	48	96		70 - 130
1,1-Dichloropropene	ug/L	50	0	49.9	100		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	52.9	106		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	50.6	101		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	51.8	104		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	51.7	103		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	54.7	109		50 - 130
1,2-Dibromoethane	ug/L	50	0	50.2	100		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	50.4	101		70 - 120
1,2-Dichloroethane	ug/L	50	0	47	94		70 - 130
1,2-Dichloropropane	ug/L	50	0	49.3	99		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	51.5	103		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	50.8	102		75 - 125
1,3-Dichloropropane	ug/L	50	0	49.6	99		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	50	100		75 - 125
2,2-Dichloropropane	ug/L	50	0	49.7	99		70 - 135
2-Butanone	ug/L	50	0	46.1	92		30 - 150
2-Chlorotoluene	ug/L	50	0	50.7	101		75 - 125
2-Hexanone	ug/L	50	0	60.4	121		55 - 130
4-Chlorotoluene	ug/L	50	0	51.7	103		75 - 130
4-Isopropyltoluene	ug/L	50	0	53	106		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	52.7	105		60 - 135
Acetone	ug/L	50	0	107	214	*	40 - 140
Benzene	ug/L	50	0	48.4	97		80 - 120
Bromobenzene	ug/L	50	0	50.5	101		75 - 125
Bromochloromethane	ug/L	50	0	48.4	97		65 - 130
Bromodichloromethane	ug/L	50	0	50.5	101		75 - 120
Bromoform	ug/L	50	0	49.7	99		70 - 130
Bromomethane	ug/L	50	0	40.2	80		30 - 145
Carbon disulfide	ug/L	50	0	47.7	95		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 2 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 570981

Carbon tetrachloride	ug/L	50	0	49.7	99		65 - 140
Chlorobenzene	ug/L	50	0	49.5	99		80 - 120
Chloroethane	ug/L	50	0	48.4	97		60 - 135
Chloroform	ug/L	50	0	48.5	97		65 - 135
Chloromethane	ug/L	50	0	42.6	85		40 - 125
Dibromomethane	ug/L	50	0	48.6	97		75 - 125
Dichlorodifluoromethane	ug/L	50	0	43.4	87		30 - 155
Ethylbenzene	ug/L	50	0	50	100		75 - 125
Hexachlorobutadiene	ug/L	50	0	52.2	104		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	51.8	104		75 - 125
Methylene chloride	ug/L	50	0	46.5	93		55 - 140
Naphthalene	ug/L	50	0	53.9	108		55 - 140
Styrene	ug/L	50	0	51.6	103		65 - 135
Tetrachloroethene	ug/L	50	0	49.6	99		45 - 150
Toluene	ug/L	50	0	48.4	97		75 - 120
Trichloroethene	ug/L	50	0	48.5	97		70 - 125
Trichlorofluoromethane	ug/L	50	0	45.7	91		60 - 145
Vinyl chloride	ug/L	50	0	45	90		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	48.9	98		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	50.4	101		70 - 130
m,p-Xylene	ug/L	100	0	102	102		75 - 130
n-Butylbenzene	ug/L	50	0	54.1	108		70 - 135
n-Propylbenzene	ug/L	50	0	52.1	104		70 - 130
o-Xylene	ug/L	50	0	51.2	102		80 - 120
sec-Butylbenzene	ug/L	50	0	52.6	105		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	48.9	98		65 - 125
tert-Butylbenzene	ug/L	50	0	52.3	105		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	48.6	97		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	51.3	103		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 2 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 570981

SAMPLE NO. : 1502525

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
1,1,1,2-Tetrachloroethane	ug/L	50	51.2	102		4		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	49.7	99		.8		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	52.1	104		5		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	51.2	102		4		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	48.6	97		.4		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	48.4	97		.8		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	49.4	99		1		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	54.6	109		3		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	53.7	107		6		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	54	108		4		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	52.8	106		2		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	58	116		6		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	53.3	107		6		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	52.2	104		4		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	48.2	96		3		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	50.4	101		2		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	52	104		1		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	51.8	104		2		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	51.6	103		4		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	50.7	101		1		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	49.7	99		0		70 - 135	0 - 30
2-Butanone	ug/L	50	49.5	99		7		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	51.8	104		2		75 - 125	0 - 30
2-Hexanone	ug/L	50	64.4	129		6		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	52.6	105		2		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	53.1	106		.2		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	56.3	113		7		60 - 135	0 - 30
Acetone	ug/L	50	108	216	*	.9		40 - 140	0 - 30
Benzene	ug/L	50	48.9	98		1		80 - 120	0 - 30
Bromobenzene	ug/L	50	51.5	103		2		75 - 125	0 - 30
Bromochloromethane	ug/L	50	50.7	101		5		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	51.1	102		1		75 - 120	0 - 30
Bromoform	ug/L	50	53.3	107		7		70 - 130	0 - 30
Bromomethane	ug/L	50	41.9	84		4		30 - 145	0 - 30
Carbon disulfide	ug/L	50	48	96		.6		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 2 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Analytical Batch: 570981

Carbon tetrachloride	ug/L	50	49.2	98		1		65 - 140	0 - 30
Chlorobenzene	ug/L	50	50.6	101		2		80 - 120	0 - 30
Chloroethane	ug/L	50	52.2	104		8		60 - 135	0 - 30
Chloroform	ug/L	50	49	98		1		65 - 135	0 - 30
Chloromethane	ug/L	50	44	88		3		40 - 125	0 - 30
Dibromomethane	ug/L	50	50.2	100		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	43.8	88		.9		30 - 155	0 - 30
Ethylbenzene	ug/L	50	50.9	102		2		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	51.6	103		1		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	52.4	105		1		75 - 125	0 - 30
Methylene chloride	ug/L	50	47.3	95		2		55 - 140	0 - 30
Naphthalene	ug/L	50	57.3	115		6		55 - 140	0 - 30
Styrene	ug/L	50	53.4	107		3		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	48.6	97		2		45 - 150	0 - 30
Toluene	ug/L	50	49.2	98		2		75 - 120	0 - 30
Trichloroethene	ug/L	50	49.1	98		1		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	46.2	92		1		60 - 145	0 - 30
Vinyl chloride	ug/L	50	46.1	92		2		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	49.1	98		.4		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	52.2	104		4		70 - 130	0 - 30
m,p-Xylene	ug/L	100	103	103		1		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	53.4	107		1		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	52.3	105		.4		70 - 130	0 - 30
o-Xylene	ug/L	50	51.5	103		.6		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	52.9	106		.6		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	50.9	102		4		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	52.6	105		.6		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	48.3	97		.6		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	53.7	107		5		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 2 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix Spike - EPA Sample No: MA01MW001

Analytical Batch: 570981

SAMPLE NO. : 21510230408

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	49.2	98		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	48.9	98		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	51.5	103		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	49	98		75 - 125
1,1-Dichloroethane	ug/L	50	0	48.5	97		70 - 135
1,1-Dichloroethene	ug/L	50	0	47.5	95		70 - 130
1,1-Dichloropropene	ug/L	50	0	49	98		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	51.4	103		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	52.2	104		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	50.4	101		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	52.4	105		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	53.9	108		50 - 130
1,2-Dibromoethane	ug/L	50	0	49.9	100		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	50.6	101		70 - 120
1,2-Dichloroethane	ug/L	50	0	47.7	95		70 - 130
1,2-Dichloropropane	ug/L	50	0	50.4	101		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	51.5	103		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	50.9	102		75 - 125
1,3-Dichloropropane	ug/L	50	0	49.7	99		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	49.8	100		75 - 125
2,2-Dichloropropane	ug/L	50	0	48.5	97		70 - 135
2-Butanone	ug/L	50	0	34.6	69		30 - 150
2-Chlorotoluene	ug/L	50	0	51.2	102		75 - 125
2-Hexanone	ug/L	50	0	51.7	103		55 - 130
4-Chlorotoluene	ug/L	50	0	52.2	104		75 - 130
4-Isopropyltoluene	ug/L	50	0	52.4	105		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	52.2	104		60 - 135
Acetone	ug/L	50	0	69.3	139		40 - 140
Benzene	ug/L	50	0	48.8	98		80 - 120
Bromobenzene	ug/L	50	0	50.9	102		75 - 125
Bromochloromethane	ug/L	50	0	49.8	100		65 - 130
Bromodichloromethane	ug/L	50	0	50.7	101		75 - 120
Bromoform	ug/L	50	0	50.3	101		70 - 130
Bromomethane	ug/L	50	0	41.9	84		30 - 145
Carbon disulfide	ug/L	50	0	48.7	97		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix Spike - EPA Sample No: MA01MW001

Analytical Batch: 570981

Carbon tetrachloride	ug/L	50	0	47.9	96		65 - 140
Chlorobenzene	ug/L	50	0	49.3	99		80 - 120
Chloroethane	ug/L	50	0	45.3	91		60 - 135
Chloroform	ug/L	50	0	49.4	99		65 - 135
Chloromethane	ug/L	50	0	46	92		40 - 125
Dibromomethane	ug/L	50	0	48.9	98		75 - 125
Dichlorodifluoromethane	ug/L	50	0	46.1	92		30 - 155
Ethylbenzene	ug/L	50	0	49.9	100		75 - 125
Hexachlorobutadiene	ug/L	50	0	48.7	97		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	50.7	101		75 - 125
Methylene chloride	ug/L	50	0	49.1	98		55 - 140
Naphthalene	ug/L	50	0	53.1	106		55 - 140
Styrene	ug/L	50	0	50.8	102		65 - 135
Tetrachloroethene	ug/L	50	0	47.2	94		45 - 150
Toluene	ug/L	50	0	48	96		75 - 120
Trichloroethene	ug/L	50	0	47.9	96		70 - 125
Trichlorofluoromethane	ug/L	50	0	45.5	91		60 - 145
Vinyl chloride	ug/L	50	0	44.8	90		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	50.1	100		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	51.3	103		70 - 130
m,p-Xylene	ug/L	100	0	101	101		75 - 130
n-Butylbenzene	ug/L	50	0	52	104		70 - 135
n-Propylbenzene	ug/L	50	0	52	104		70 - 130
o-Xylene	ug/L	50	0	50.3	101		80 - 120
sec-Butylbenzene	ug/L	50	0	51.6	103		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	50.6	101		65 - 125
tert-Butylbenzene	ug/L	50	0	51.8	104		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	49	98		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	52.1	104		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix Spike - EPA Sample No: MA01MW001

Analytical Batch: 570981

SAMPLE NO. : 21510230410

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
1,1,1,2-Tetrachloroethane	ug/L	50	48.6	97		1		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	47.1	94		4		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	49.6	99		4		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	48.3	97		1		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	46.8	94		4		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	46.1	92		3		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	46.4	93		5		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	49.1	98		5		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	50	100		4		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	49	98		3		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	49.8	100		5		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	51.6	103		4		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	49.2	98		1		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	48.8	98		4		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	46.5	93		3		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	48.1	96		5		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	49	98		5		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	48.6	97		5		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	48.4	97		3		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	47.9	96		4		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	46.5	93		4		70 - 135	0 - 30
2-Butanone	ug/L	50	33.8	68		2		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	49	98		4		75 - 125	0 - 30
2-Hexanone	ug/L	50	50.3	101		3		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	49.5	99		5		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	50	100		5		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	50.1	100		4		60 - 135	0 - 30
Acetone	ug/L	50	66.9	134		4		40 - 140	0 - 30
Benzene	ug/L	50	46.9	94		4		80 - 120	0 - 30
Bromobenzene	ug/L	50	48.8	98		4		75 - 125	0 - 30
Bromochloromethane	ug/L	50	48.3	97		3		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	48.7	97		4		75 - 120	0 - 30
Bromoform	ug/L	50	48.8	98		3		70 - 130	0 - 30
Bromomethane	ug/L	50	41.9	84		0		30 - 145	0 - 30
Carbon disulfide	ug/L	50	46.6	93		4		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Matrix Spike - EPA Sample No: MA01MW001

Analytical Batch: 570981

Carbon tetrachloride	ug/L	50	46.9	94		2		65 - 140	0 - 30
Chlorobenzene	ug/L	50	47.9	96		3		80 - 120	0 - 30
Chloroethane	ug/L	50	43.4	87		4		60 - 135	0 - 30
Chloroform	ug/L	50	46.5	93		6		65 - 135	0 - 30
Chloromethane	ug/L	50	42.4	85		8		40 - 125	0 - 30
Dibromomethane	ug/L	50	47.6	95		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	45.3	91		2		30 - 155	0 - 30
Ethylbenzene	ug/L	50	47.4	95		5		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	48.3	97		.8		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	48.7	97		4		75 - 125	0 - 30
Methylene chloride	ug/L	50	46.5	93		5		55 - 140	0 - 30
Naphthalene	ug/L	50	52.4	105		1		55 - 140	0 - 30
Styrene	ug/L	50	49.3	99		3		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	45.7	91		3		45 - 150	0 - 30
Toluene	ug/L	50	46	92		4		75 - 120	0 - 30
Trichloroethene	ug/L	50	46.8	94		2		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	44.1	88		3		60 - 145	0 - 30
Vinyl chloride	ug/L	50	44.2	88		1		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	47.6	95		5		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	49.5	99		4		70 - 130	0 - 30
m,p-Xylene	ug/L	100	97.7	98		3		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	49.9	100		4		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	48.9	98		6		70 - 130	0 - 30
o-Xylene	ug/L	50	48.2	96		4		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	48.7	97		6		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	49	98		3		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	49.4	99		5		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	45.9	92		7		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	51.1	102		2		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1502523

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151025p/j3431 Lab Sample ID: 1502523 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 10/26/15 Time: 0037

Instrument ID: MSV8 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 570981

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1502524	1502524	2151025p/j3427	10/25/15	2319
2.	LCSD1502525	1502525	2151025p/j3428	10/25/15	2338
3.	MA01MW001	21510230407	2151025p/j3432	10/26/15	0056
4.	MA01MW001-MS	21510230408	2151025p/j3433	10/26/15	0116
5.	MA01MW001-MSD	21510230410	2151025p/j3434	10/26/15	0135
6.	M114MW001	21510230401	2151025p/j3437	10/26/15	0234
7.	M114MW004	21510230402	2151025p/j3438	10/26/15	0254
8.	TB-01	21510230403	2151025p/j3439	10/26/15	0313
9.	MA01MW002	21510230404	2151025p/j3440	10/26/15	0333
10.	MA01MW004	21510230405	2151025p/j3441	10/26/15	0352
11.	TB-03	21510230406	2151025p/j3442	10/26/15	0412
12.	TB-04	21510230409	2151025p/j3443	10/26/15	0431
13.	MA01MW003	21510230411	2151025p/j3444	10/26/15	0451
14.	TB-05	21510230412	2151025p/j3445	10/26/15	0510
15.	MW114MW002	21510230413	2151025p/j3446	10/26/15	0529
16.	MW114MW003	21510230414	2151025p/j3447	10/26/15	0549
17.	TB-02	21510230415	2151025p/j3448	10/26/15	0608
18.	MA02MW001D	21510230416	2151025p/j3449	10/26/15	0627

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1503283

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151027p/j3536 Lab Sample ID: 1503283 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 10/27/15 Time: 1545

Instrument ID: MSV8 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 571133

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1503284	1503284	2151027p/j3532	10/27/15	1422
2.	LCSD1503285	1503285	2151027p/j3533	10/27/15	1446
3.	MA02MW001D-a	21510230417	2151027p/j3548	10/27/15	1938
4.	TB-06	21510230418	2151027p/j3549	10/27/15	1957
5.	MWQ-24	21510230419	2151027p/j3551	10/27/15	2114
6.	TB-08	21510230420	2151027p/j3552	10/27/15	2133

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151024/j3357d BFB Injection Date: 10/24/15

Instrument ID: MSV8 BFB Injection Time: 1156

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 570940

m / e	*ION ABUNDANCE CRITERIA*	*% Relative Abundance*			
50	15.0 - 40.0% of mass 95	22.57	(	)	
75	30.0 - 60.0% of mass 95	52.62	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.02	(	)	
173	Less than 2.0% of mass 174	0	(0	)	1
174	50.0 - 120.0% of mass 95	73.04	(	)	
175	5.0 - 9.0% of mass 174	5.23	(7.17	)	1
176	95.0 - 101.0% of mass 174	70.53	(96.57	)	1
177	5.0 - 9.0% of mass 176	4.4	(6.25	)	2

1- Value is % mass 174 2- Value is % mass 176

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

	SAMPLE NO.	*LAB SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	V8STD001	1203	2151024/j3360d	10/24/15	1328
2.	V8STD005	1204	2151024/j3362d	10/24/15	1407
3.	V8STD010	1205	2151024/j3363d	10/24/15	1426
4.	V8STD020	1206	2151024/j3364d	10/24/15	1446
5.	V8STD050	1207	2151024/j3365d	10/24/15	1514
6.	V8STD100	1208	2151024/j3366d	10/24/15	1533
7.	V8STD200	1209	2151024/j3368d	10/24/15	1612
8.	ICV050	1600	2151024/j3370d	10/24/15	1650
9.	V8STD050	1440	2151024/j3388	10/24/15	2239

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 215102304

Lab File ID: 2151025p/j3426

BFB Injection Date: 10/25/15

Instrument ID: MSV8

BFB Injection Time: 2243

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 570981

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	23.94	(	)	
75	30.0 - 60.0% of mass 95	54.59	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.35	(	)	
173	Less than 2.0% of mass 174	.79	(1.14	)	1
174	50.0 - 120.0% of mass 95	69.57	(	)	
175	5.0 - 9.0% of mass 174	5.46	(7.86	)	1
176	95.0 - 101.0% of mass 174	68.69	(98.74	)	1
177	5.0 - 9.0% of mass 176	4.16	(6.07	)	2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1502524	1502524	2151025p/j3427	10/25/15	2319
2.	V8STD050	1400	2151025p/j3427	10/25/15	2319
3.	LCSD1502525	1502525	2151025p/j3428	10/25/15	2338
4.	MB1502523	1502523	2151025p/j3431	10/26/15	0037
5.	MA01MW001	21510230407	2151025p/j3432	10/26/15	0056
6.	MA01MW001-MS	21510230408	2151025p/j3433	10/26/15	0116
7.	MA01MW001-MSD	21510230410	2151025p/j3434	10/26/15	0135
8.	M114MW001	21510230401	2151025p/j3437	10/26/15	0234
9.	M114MW004	21510230402	2151025p/j3438	10/26/15	0254
10.	TB-01	21510230403	2151025p/j3439	10/26/15	0313
11.	MA01MW002	21510230404	2151025p/j3440	10/26/15	0333
12.	MA01MW004	21510230405	2151025p/j3441	10/26/15	0352
13.	TB-03	21510230406	2151025p/j3442	10/26/15	0412
14.	TB-04	21510230409	2151025p/j3443	10/26/15	0431
15.	MA01MW003	21510230411	2151025p/j3444	10/26/15	0451
16.	TB-05	21510230412	2151025p/j3445	10/26/15	0510

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151025p/j3426 BFB Injection Date: 10/25/15

Instrument ID: MSV8 BFB Injection Time: 2243

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 570981

17.	MW114MW002	21510230413	2151025p/j3446	10/26/15	0529
18.	MW114MW003	21510230414	2151025p/j3447	10/26/15	0549
19.	TB-02	21510230415	2151025p/j3448	10/26/15	0608
20.	MA02MW001D	21510230416	2151025p/j3449	10/26/15	0627

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151027/j3516d BFB Injection Date: 10/27/15

Instrument ID: MSV8 BFB Injection Time: 0747

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 571201

m / e	*ION ABUNDANCE CRITERIA*	*% Relative Abundance*			
50	15.0 - 40.0% of mass 95	22.88	(	)	
75	30.0 - 60.0% of mass 95	52.71	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.56	(	)	
173	Less than 2.0% of mass 174	.41	(.58	)	1
174	50.0 - 120.0% of mass 95	72.3	(	)	
175	5.0 - 9.0% of mass 174	5.44	(7.53	)	1
176	95.0 - 101.0% of mass 174	70.27	(97.2	)	1
177	5.0 - 9.0% of mass 176	4.28	(6.1	)	2

1- Value is % mass 174 2- Value is % mass 176

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

	SAMPLE NO.	*LAB SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	V8STD001	1203	2151027/j3519d	10/27/15	0920
2.	V8STD005	1204	2151027/j3521d	10/27/15	0959
3.	V8STD010	1205	2151027/j3522d	10/27/15	1019
4.	V8STD020	1206	2151027/j3523d	10/27/15	1038
5.	V8STD050	1207	2151027/j3524d	10/27/15	1058
6.	V8STD100	1208	2151027/j3526d	10/27/15	1136
7.	V8STD200	1209	2151027/j3528d	10/27/15	1215
8.	V8UCV050	1600	2151027/j3530d	10/27/15	1254

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID: 2151027p/j3531 BFB Injection Date: 10/27/15

Instrument ID: MSV8 BFB Injection Time: 1334

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 571133

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	23.64	(	)	
75	30.0 - 60.0% of mass 95	53.99	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.75	(	)	
173	Less than 2.0% of mass 174	0	(0)		1
174	50.0 - 120.0% of mass 95	72.34	(	)	
175	5.0 - 9.0% of mass 174	5.18	(7.17)		1
176	95.0 - 101.0% of mass 174	70.87	(97.98)		1
177	5.0 - 9.0% of mass 176	4.3	(6.07)		2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V8STD050	1400	2151027p/j3532	10/27/15	1422
2.	LCS1503284	1503284	2151027p/j3532	10/27/15	1422
3.	LCSD1503285	1503285	2151027p/j3533	10/27/15	1446
4.	MB1503283	1503283	2151027p/j3536	10/27/15	1545
5.	MA02MW001D-a	21510230417	2151027p/j3548	10/27/15	1938
6.	TB-06	21510230418	2151027p/j3549	10/27/15	1957
7.	MWQ-24	21510230419	2151027p/j3551	10/27/15	2114
8.	TB-08	21510230420	2151027p/j3552	10/27/15	2133

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Calibration File Names:
Level 3: /var/chem/msv8.i/2151024.s.b/j3360d.d
Level 4: /var/chem/msv8.i/2151024.s.b/j3362d.d
Level 5: /var/chem/msv8.i/2151024.s.b/j3363d.d
Level 6: /var/chem/msv8.i/2151024.s.b/j3364d.d
Level 7: /var/chem/msv8.i/2151024.s.b/j3365d.d
Level 8: /var/chem/msv8.i/2151024.s.b/j3366d.d
Level 9: /var/chem/msv8.i/2151024.s.b/j3368d.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
1 Dichlorodifluoromethane	0.21048	0.23158	0.22441	0.22796	0.22469	0.24248						
	0.23910						AVRG		0.22867		4.63259	
2 Chloromethane ++	0.31054	0.31887	0.33208	0.32197	0.30745	0.32764						
	0.32060						AVRG		0.31988		2.72801	
4 1-3 Butadiene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
3 Vinyl Chloride +	0.31091	0.30562	0.32421	0.32840	0.31254	0.33705						
	0.34575						AVRG		0.32350		4.55270	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
5 Bromomethane	0.16092	0.17586	0.17238	0.16176	0.15234	0.17012					
	0.18287						AVRG		0.16804		6.14990
6 Chloroethane	0.22936	0.23296	0.21756	0.21016	0.21162	0.22742					
	0.21210						AVRG		0.22017		4.33267
9 Trichlorofluoromethane	0.32315	0.33121	0.32205	0.32715	0.31655	0.34527					
	0.36298						AVRG		0.33262		4.86771
12 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+00		0.000e+00 <-
13 1,1-Dichloroethene +	0.17142	0.19075	0.18727	0.19095	0.19070	0.20500					
	0.21095						AVRG		0.19243		6.63148
19 1,1,2Trichlotrifluoroethane	0.16931	0.18175	0.18574	0.18567	0.18937	0.19863					
	0.20122						AVRG		0.18738		5.70571
21 Carbon Disulfide	0.66480	0.65412	0.66481	0.66769	0.67218	0.72718					
	0.73602						AVRG		0.68383		4.85216

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
14 Methyl Iodide	2831	14424	29948	66348	185048	425800						
	892684						LINR	0.06286	0.26216		0.99885	
8 Acrolein	+++++	1799	4623	10718	26890	70462						
	185617						QUAD	0.28712	137	-214	0.99870	
17 Allyl chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
18 Methylene Chloride	0.43817	0.39635	0.38563	0.38412	0.36369	0.38278						
	0.38757						AVRG		0.39119		5.86194	
156 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
11 Acetone	0.08453	0.08302	0.08457	0.07894	0.06742	0.06931						
	0.07857						AVRG		0.07805		9.05420	
20 Methyl Acetate	0.35482	0.29651	0.30779	0.28936	0.26933	0.27761						
	0.29743						AVRG		0.29898		9.29430	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
22 trans-1,2-Dichloroethene	0.33582	0.34903	0.34908	0.34761	0.34408	0.37171						
	0.37967						AVRG		0.35386		4.45518	
32 Hexane	0.52680	0.54568	0.52317	0.53379	0.55710	0.58145						
	0.59505						AVRG		0.55186		5.00848	
25 MTBE	0.72331	0.78041	0.78451	0.81094	0.76642	0.81438						
	0.83627						AVRG		0.78804		4.71202	
15 tert-Butyl Alcohol	+++++	0.03634	0.03515	0.03521	0.03201	0.03350						
	0.03644						AVRG		0.03477		4.94796	<-
10 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
28 Isopropyl Ether	0.94708	0.95922	0.96167	1.00022	0.97603	1.01587						
	1.05754						AVRG		0.98823		3.94092	
27 Chloroprene	0.34532	0.39033	0.38161	0.39290	0.38887	0.41739						
	0.44430						AVRG		0.39439		7.77422	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2
26 1,1-Dichloroethane ++	0.46655	0.50510	0.49187	0.49814	0.48362	0.51671	0.52775	AVRG		0.49854		4.10844
16 Acrylonitrile	0.10438	0.11456	0.11604	0.12136	0.11119	0.11951	0.12442	AVRG		0.11592		5.80922
29 Vinyl Acetate	0.26489	0.26539	0.26018	0.26881	0.28837	0.30078	0.28835	AVRG		0.27668		5.62681
23 cis-1,2-Dichloroethene	0.36041	0.35581	0.35769	0.37406	0.36360	0.38441	0.39408	AVRG		0.37001		3.96233
80 Total 1,2-Dichloroethene	0.34812	0.35242	0.35339	0.36083	0.35384	0.37806	0.38687	AVRG		0.36193		4.07228
38 2,2-Dichloropropane	0.37550	0.37588	0.37223	0.37580	0.38576	0.40607	0.41029	AVRG		0.38593		4.09524
45 Cyclohexane	0.42575	0.43888	0.44363	0.45688	0.46296	0.49467	0.51008	AVRG		0.46183		6.61053

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
36 Bromochloromethane	0.07472	0.10619	0.10669	0.11074	0.10713	0.11412							
	0.11512							AVRG		0.10496		13.15916	
37 Chloroform +	0.40942	0.44247	0.41811	0.42123	0.41223	0.43351							
	0.43839							AVRG		0.42505		3.07409	
35 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+00		0.000e+00	<-
53 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+00		0.000e+00	<-
46 Carbon Tetrachloride	0.25514	0.25936	0.27010	0.27065	0.26938	0.29116							
	0.30202							AVRG		0.27398		6.13956	
43 1,1,1-Trichloroethane	0.31097	0.34589	0.33782	0.34463	0.33309	0.35794							
	0.36378							AVRG		0.34202		5.07823	
33 2-Butanone	0.28501	0.26419	0.25216	0.25720	0.23350	0.25251							
	0.26561							AVRG		0.25860		6.09085	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
44 1,1-Dichloropropene	0.31576	0.32576	0.32615	0.33445	0.33936	0.36078						
	0.36634						AVRG		0.33837		5.55582	
54 2,2,4 Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
24 Propionitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
30 Methylacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
47 Benzene	1.04155	1.03662	1.05235	1.06863	1.02422	1.08065						
	1.10244						AVRG		1.05806		2.58876	
34 Isobutyl Alcohol	0.01674	0.01726	0.01795	0.01813	0.01713	0.01803						
	0.01976						AVRG		0.01786		5.53601	
31 sec-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
42 1,2-Dichloroethane	0.41022	0.39926	0.38592	0.38644	0.36523	0.38392						
	0.38506						AVRG		0.38801		3.60105	
7 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
57 Trichloroethene	0.22440	0.22330	0.22699	0.23336	0.22270	0.24355						
	0.25212						AVRG		0.23234		4.92099	
61 Methyl Cyclohexane	0.38252	0.39611	0.37443	0.39805	0.41307	0.43527						
	0.44953						AVRG		0.40700		6.73171	
40 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Ethyl Tert-butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
55 Dibromomethane	0.14086	0.15246	0.15151	0.15702	0.14954	0.15924						
	0.16571						AVRG		0.15376		5.13672	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
48 2-3 Dichloro-1-Proprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
56 1,2-Dichloropropane +	0.28594	0.28483	0.29157	0.28859	0.28080	0.30107	0.30702	AVRG		0.29140		3.22731	
58 Bromodichloromethane	0.29973	0.32214	0.32334	0.34184	0.32933	0.35256	0.35793	AVRG		0.33241		6.03113	
52 Methyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
51 1,4- Dioxane	0.00240	0.00261	0.00269	0.00287	0.00279	0.00297	0.00308	AVRG		0.00277		8.20971	
60 1-Bromo-2-chloroethane	0.37836	0.40841	0.41502	0.42903	0.40398	0.43068	0.43897	AVRG		0.41492		4.94328	
62 2-Chloroethyl vinyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
63 cis-1,3-Dichloropropene	0.38308	0.40256	0.41239	0.43681	0.43351	0.47098						
	0.48411						AVRG		0.43192		8.40348	
70 Toluene +	2.69546	2.65318	2.60278	2.65517	2.50164	2.61737						
	2.50362						AVRG		2.60417		2.89637	
154 Tert-butyl formate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
49 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
162 Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
65 4-methyl-2-pentanone	0.82156	0.86095	0.86304	0.92396	0.82777	0.87371						
	0.89578						AVRG		0.86668		4.15305	
78 Tetrachloroethene	0.35463	0.40062	0.38428	0.38624	0.37640	0.40071						
	0.39265						AVRG		0.38507		4.17099	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
66 trans-1,3-Dichloropropene	0.32961	0.37327	0.39182	0.41587	0.41397	0.44399						
	0.46018						AVRG		0.40410		10.89167	
M 87 1-3 Dichloropropene total	0.35634	0.38791	0.40210	0.42634	0.42374	0.45749						
	0.47214						AVRG		0.41801		9.54549	
64 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
67 1,1,2-Trichloroethane	0.51747	0.56889	0.55692	0.56753	0.52390	0.55720						
	0.53739						AVRG		0.54704		3.80643	
153 tert-amyl Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
72 Dibromochloromethane	0.48043	0.50972	0.52667	0.53033	0.51453	0.56916						
	0.56242						AVRG		0.52761		5.82268	
71 1,3-Dichloropropane	1.03074	1.06445	1.08921	1.11072	1.04643	1.09277						
	1.03823						AVRG		1.06751		2.87175	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
155 Tert-amyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
59 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
74 1,2-Dibromoethane(EDB)	0.44774	0.52780	0.53409	0.56834	0.53070	0.55177	0.54671	AVRG		0.52959		7.31727	
73 2-Hexanone	0.57205	0.59924	0.62125	0.67189	0.58665	0.64000	0.64427	AVRG		0.61934		5.71704	
86 1-Chlorohexane	0.94107	0.74670	0.74807	0.76600	0.78001	0.81548	0.83916	AVRG		0.80521		8.57080	
85 Chlorobenzene ++	1.47024	1.58229	1.54725	1.60811	1.52114	1.62174	1.58580	AVRG		1.56237		3.40499	
88 Ethylbenzene +	0.82066	0.83033	0.85572	0.86999	0.82249	0.88414	0.86469	AVRG		0.84972		2.96847	

GCAL, Inc.

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Start Cal Date : 24-OCT-2015 13:28
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Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
82 1,1,1,2-Tetrachloroethane	0.44339	0.47727	0.48363	0.50558	0.48028	0.51434						
	0.50720						AVRG		0.48738		4.99255	
89 p,m-Xylene	0.94759	0.99098	1.02715	1.06186	1.04029	1.11226						
	1.10139						AVRG		1.04022		5.62964	
93 o-Xylene	0.96506	0.94939	1.00029	1.02298	1.01907	1.07215						
	1.06328						AVRG		1.01318		4.53553	
M 120 TOTAL XYLENE	0.95342	0.97711	1.01820	1.04890	1.03321	1.09889						
	1.08869						AVRG		1.03120		5.21464	
157 1,3-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
91 Styrene	1.43485	1.58446	1.63868	1.74381	1.75083	1.88802						
	1.88650						AVRG		1.70388		9.64211	
90 Bromoform ++	0.34518	0.34578	0.35629	0.37842	0.36689	0.41257						
	0.42646						AVRG		0.37594		8.56712	

GCAL, Inc.

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Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
158 1,4-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
81 1-3 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
96 Isopropylbenzene	2.48868	2.52091	2.54820	2.66162	2.66948	2.81922						
	2.75177						AVRG		2.63713		4.68020	
79 1-4 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
159 1,2-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
M 161 Total Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
77 1-2 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
M 121 Total Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
	+++++											
98 Bromobenzene	1.68240	1.68797	1.70116	1.73660	1.65073	1.69682	AVRG		1.69413		1.52438	
	1.70320											
100 n-Propylbenzene	3.71039	3.92003	3.94099	3.97422	3.90750	4.02064	AVRG		3.91033		2.50146	
	3.89854											
92 1,1,2,2-Tetrachloroethane++	1.10881	1.06219	1.02122	1.06265	0.96644	0.99320	AVRG		1.02696		5.15825	
	0.97417											
101 2-Chlorotoluene	2.37884	2.36670	2.36423	2.39845	2.30118	2.38161	AVRG		2.36140		1.36787	
	2.33876											
104 1,3,5-Trimethylbenzene	2.48723	2.60361	2.60395	2.70255	2.63808	2.77060	AVRG		2.65500		3.91079	
	2.77901											
76 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
	+++++											

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
94 1,2,3-Trichloropropane	0.87449	0.92637	0.94198	0.95228	0.85450	0.89287	0.91910	AVRG		0.90880		3.96360	
95 trans-1,4-Dichloro-2-Butene	0.29367	0.31298	0.33963	0.35067	0.33248	0.34239	0.35474	AVRG		0.33236		6.57089	
102 4-Chlorotoluene	2.19736	2.40063	2.41409	2.44850	2.39012	2.46229	2.42284	AVRG		2.39083		3.72255	
84 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
105 tert-butylbenzene	1.42220	1.43637	1.41283	1.47814	1.48574	1.52050	1.53078	AVRG		1.46951		3.19682	
106 1,2,4-Trimethylbenzene	2.42987	2.59565	2.69946	2.77685	2.72030	2.85881	2.81581	AVRG		2.69954		5.42758	
107 sec-Butylbenzene	2.98355	3.34083	3.28704	3.41958	3.38578	3.45844	3.41350	AVRG		3.32696		4.85487	

GCAL, Inc.

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End Cal Date : 24-OCT-2015 16:12
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Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
112 Dicyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 p-Isopropyltoluene	2.33505	2.62703	2.68208	2.78939	2.84544	2.94017						
	2.91854						AVRG		2.73396		7.69196	
108 1,3-Dichlorobenzene	1.39307	1.41987	1.44411	1.50807	1.45782	1.52903						
	1.50929						AVRG		1.46589		3.47943	
99 Benzal Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
110 1,4-Dichlorobenzene	1.48752	1.50856	1.50210	1.53838	1.50028	1.53285						
	1.52035						AVRG		1.51286		1.21923	
114 n-Butylbenzene	2.36636	2.56968	2.63414	2.72219	2.80931	2.85020						
	2.78176						AVRG		2.67623		6.29646	
160 Methyldisulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
113 1,2-Dichlorobenzene	1.42854 1.46722	1.42871	1.41060	1.47489	1.41944	1.49030	AVRG		1.44567		2.15247	
151 3,3 Dimethyl-1-butanol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
69 3-ethyltoluene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
115 1,2-Dibromo-3-Chloropropane	0.13697 0.22203	0.19525	0.20295	0.20444	0.19211	0.20761	AVRG		0.19448		13.94906	
118 Hexachlorobutadiene	0.27956 0.34565	0.32612	0.31622	0.32479	0.34328	0.34002	AVRG		0.32509		7.02564	
116 1,2,4-Trichlorobenzene	0.75797 0.98359	0.80848	0.82792	0.90438	0.91363	0.96827	AVRG		0.88061		9.60950	
117 Naphthalene	2.16262 3.19137	2.62799	2.88691	3.08405	2.94575	3.15902	AVRG		2.86539		12.72324	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 24-OCT-2015 13:28
End Cal Date : 24-OCT-2015 16:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Cal Date : 25-Oct-2015 15:50 clh

Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
119 1,2,3-Trichlorobenzene	0.69663	0.80179	0.81374	0.87163	0.89455	0.93195						
	0.95803						AVRG		0.85262		10.48535	
75 2-ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
103 2-methylnapthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 39 Dibromofluoromethane	0.22197	0.21976	0.21851	0.22097	0.22162	0.21945						
	0.22357						AVRG		0.22084		0.78199	
41 1,2-Dichloroethane-d4	0.16857	0.16594	0.16570	0.16614	0.16332	0.16362						
	0.16544						AVRG		0.16553		1.05646	
$ 68 Toluene-d8	2.35389	2.31630	2.28238	2.32422	2.23472	2.22758						
	2.13559						AVRG		2.26781		3.28756	
97 Bromofluorobenzene	0.61427	0.60194	0.60146	0.60924	0.61191	0.62916						
	0.60322						AVRG		0.61017		1.60180	

Data File: /var/chem/msv8.i/2151024.s.b/j3370d.d
Report Date: 25-Oct-2015 15:49

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 8260b+A9-1.sub
Method File: /var/chem/msv8.i/2151024.s.b/8260dodw8.m
Misc Info: MSV~34661~*1*CLH

Client SDG: 2151024.s
Fraction: VOA
Client Smp ID: ICV050
Operator: CLH
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluoromethane	50.0	50.6	101.24	80-120
2 Chloromethane ++	50.0	49.4	98.86	80-120
3 Vinyl Chloride +	50.0	50.7	101.42	80-120
5 Bromomethane	50.0	52.6	105.11	80-120
6 Chloroethane	50.0	59.3	118.58	80-120
9 Trichlorofluoromethane	50.0	52.7	105.35	80-120
13 1,1-Dichloroethene +	50.0	52.9	105.78	80-120
19 1,1,2Trichlotrifluoroethane	50.0	52.4	104.75	80-120
21 Carbon Disulfide	50.0	51.5	102.99	80-120
14 Methyl Iodide	50.0	48.0	95.93	80-120
8 Acrolein	250	283	113.25	80-120
18 Methylene Chloride	50.0	47.9	95.90	80-120
11 Acetone	50.0	53.5	106.90	80-120
20 Methyl Acetate	50.0	47.5	95.07	80-120
22 trans-1,2-Dichloroethene	50.0	50.7	101.34	80-120
25 MTBE	50.0	52.2	104.35	80-120
26 1,1-Dichloroethane ++	50.0	50.4	100.73	80-120
16 Acrylonitrile	250	265	106.18	80-120
29 Vinyl Acetate	50.0	50.4	100.83	80-120
23 cis-1,2-Dichloroethene	50.0	51.3	102.57	80-120
38 2,2-Dichloropropane	50.0	52.2	104.40	80-120
36 Bromochloromethane	50.0	54.4	108.70	80-120
45 Cyclohexane	50.0	51.4	102.86	80-120
37 Chloroform +	50.0	51.0	102.09	80-120
46 Carbon Tetrachloride	50.0	53.4	106.86	80-120
43 1,1,1-Trichloroethane	50.0	52.3	104.66	80-120
33 2-Butanone	50.0	49.6	99.10	80-120
44 1,1-Dichloropropene	50.0	52.1	104.29	80-120
47 Benzene	50.0	50.7	101.49	80-120
42 1,2-Dichloroethane	50.0	49.9	99.75	80-120
57 Trichloroethene	50.0	52.2	104.36	80-120
61 Methyl Cyclohexane	50.0	51.4	102.77	80-120
55 Dibromomethane	50.0	51.9	103.89	80-120

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS	
56	1,2-Dichloropropane +	50.0	50.8	101.52	80-120	
58	Bromodichloromethane	50.0	52.3	104.53	80-120	
62	2-Chloroethyl vinyl ether	50.0	0.00	*	80-120	NT
63	cis-1,3-Dichloropropene	50.0	53.2	106.40	80-120	
70	Toluene +	50.0	50.6	101.16	80-120	
65	4-methyl-2-pentanone	50.0	53.5	106.93	80-120	
78	Tetrachloroethene	50.0	53.3	106.54	80-120	
66	trans-1,3-Dichloropropene	50.0	53.5	107.02	80-120	
67	1,1,2-Trichloroethane	50.0	51.8	103.51	80-120	
72	Dibromochloromethane	50.0	53.6	107.25	80-120	
71	1,3-Dichloropropane	50.0	51.9	103.71	80-120	
74	1,2-Dibromoethane(EDB)	50.0	53.7	107.47	80-120	
73	2-Hexanone	50.0	54.1	108.18	80-120	
86	1-Chlorohexane	50.0	49.8	99.61	80-120	
85	Chlorobenzene ++	50.0	51.4	102.85	80-120	
88	Ethylbenzene +	50.0	51.6	103.11	80-120	
82	1,1,1,2-Tetrachloroethane	50.0	52.0	103.95	80-120	
89	p,m-Xylene	100	106	105.53	80-120	
93	o-Xylene	50.0	52.1	104.23	80-120	
91	Styrene	50.0	53.5	107.05	80-120	
90	Bromoform ++	50.0	53.9	107.85	80-120	
96	Isopropylbenzene	50.0	52.9	105.75	80-120	
98	Bromobenzene	50.0	49.6	99.18	80-120	
100	n-Propylbenzene	50.0	51.3	102.54	80-120	
92	1,1,2,2-Tetrachloroethane++	50.0	50.5	101.05	80-120	
101	2-Chlorotoluene	50.0	50.8	101.50	80-120	
104	1,3,5-Trimethylbenzene	50.0	51.3	102.69	80-120	
94	1,2,3-Trichloropropane	50.0	51.1	102.19	80-120	
95	trans-1,4-Dichloro-2-Butene	50.0	52.6	105.29	80-120	
102	4-Chlorotoluene	50.0	52.0	103.92	80-120	
105	tert-butylbenzene	50.0	52.1	104.22	80-120	
106	1,2,4-Trimethylbenzene	50.0	52.4	104.72	80-120	
107	sec-Butylbenzene	50.0	51.8	103.65	80-120	
111	p-Isopropyltoluene	50.0	53.3	106.69	80-120	
108	1,3-Dichlorobenzene	50.0	51.4	102.90	80-120	
110	1,4-Dichlorobenzene	50.0	50.7	101.44	80-120	
114	n-Butylbenzene	50.0	52.0	104.00	80-120	
113	1,2-Dichlorobenzene	50.0	51.4	102.76	80-120	
115	1,2-Dibromo-3-Chloropropane	50.0	56.0	111.99	80-120	
118	Hexachlorobutadiene	50.0	52.8	105.68	80-120	
117	Naphthalene	50.0	55.5	110.94	80-120	
116	1,2,4-Trichlorobenzene	50.0	54.3	108.69	80-120	
119	1,2,3-Trichlorobenzene	50.0	54.4	108.74	80-120	

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i
Lab File ID: j3427.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv8.i/2151025p.s.b/8260dodw8.m

Injection Date: 25-OCT-2015 23:19
Init. Cal. Date(s): 24-OCT-2015 24-OCT-2015
Init. Cal. Times: 13:28 16:12
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Dichlorodifluoromethane	0.22867	0.19858	0.19858	0.000	-13.15849	20.00000	Averaged	
2 Chloromethane ++	0.31988	0.27264	0.27264	0.100	-14.76881	20.00000	Averaged	
3 Vinyl Chloride +	0.32350	0.29112	0.29112	0.000	-10.00957	20.00000	Averaged	
5 Bromomethane	0.16804	0.13518	0.13518	0.000	-19.55195	20.00000	Averaged	
6 Chloroethane	0.22017	0.21294	0.21294	0.050	-3.28616	20.00000	Averaged	
9 Trichlorofluoromethane	0.33262	0.30413	0.30413	0.000	-8.56653	20.00000	Averaged	
13 1,1-Dichloroethene +	0.19243	0.18479	0.18479	0.000	-3.97429	20.00000	Averaged	
19 1,1,2Trichlotrifluoroethane	0.18738	0.18514	0.18514	0.000	-1.19609	20.00000	Averaged	
21 Carbon Disulfide	0.68383	0.65257	0.65257	0.000	-4.57045	20.00000	Averaged	
14 Methyl Iodide	31.87511	50.00000	0.15065	0.000	-36.24979	20.00000	Linear	<-NT
8 Acrolein	458	250	0.01458	0.000	83.17045	20.00000	Quadratic	<-NT
18 Methylene Chloride	0.39119	0.36369	0.36369	0.000	-7.02900	20.00000	Averaged	
11 Acetone	0.07805	0.16640	0.16640	0.000	113	20.00000	Averaged	<-
20 Methyl Acetate	0.29898	0.28066	0.28066	0.050	-6.12750	20.00000	Averaged	
22 trans-1,2-Dichloroethene	0.35386	0.34403	0.34403	0.000	-2.77606	20.00000	Averaged	
32 Hexane	0.55186	0.54775	0.54775	0.050	-0.74462	20.00000	Averaged	
25 MTBE	0.78804	0.77091	0.77091	0.000	-2.17336	20.00000	Averaged	
26 1,1-Dichloroethane ++	0.49854	0.48610	0.48610	0.100	-2.49498	20.00000	Averaged	
16 Acrylonitrile	0.11592	0.12304	0.12304	0.000	6.14295	20.00000	Averaged	
29 Vinyl Acetate	0.27668	0.34621	0.34621	0.000	25.13110	20.00000	Averaged	<-NT
23 cis-1,2-Dichloroethene	0.37001	0.36175	0.36175	0.000	-2.23124	20.00000	Averaged	
M 80 Total 1,2-Dichloroethene	0.36193	0.35289	0.35289	0.000	-2.49757	20.00000	Averaged	
38 2,2-Dichloropropane	0.38593	0.38387	0.38387	0.000	-0.53444	20.00000	Averaged	
36 Bromochloromethane	0.10496	0.10162	0.10162	0.000	-3.18306	20.00000	Averaged	
45 Cyclohexane	0.46183	0.46598	0.46598	0.000	0.89782	20.00000	Averaged	
37 Chloroform +	0.42505	0.41268	0.41268	0.000	-2.91063	20.00000	Averaged	
46 Carbon Tetrachloride	0.27398	0.27253	0.27253	0.000	-0.52726	20.00000	Averaged	
$ 39 Dibromofluoromethane	0.22084	0.21912	0.21912	0.000	-0.77543	20.00000	Averaged	
43 1,1,1-Trichloroethane	0.34202	0.33733	0.33733	0.000	-1.37238	20.00000	Averaged	
33 2-Butanone	0.25860	0.23863	0.23863	0.000	-7.72240	20.00000	Averaged	
44 1,1-Dichloropropene	0.33837	0.33766	0.33766	0.000	-0.21130	20.00000	Averaged	
47 Benzene	1.05806	1.02352	1.02352	0.000	-3.26497	20.00000	Averaged	
$ 41 1,2-Dichloroethane-d4	0.16553	0.16809	0.16809	0.000	1.54508	20.00000	Averaged	
42 1,2-Dichloroethane	0.38801	0.36494	0.36494	0.000	-5.94638	20.00000	Averaged	
57 Trichloroethene	0.23234	0.22530	0.22530	0.000	-3.03174	20.00000	Averaged	

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i Injection Date: 25-OCT-2015 23:19
Lab File ID: j3427.d Init. Cal. Date(s): 24-OCT-2015 24-OCT-2015
Analysis Type: WATER Init. Cal. Times: 13:28 16:12
Lab Sample ID: 1400 Quant Type: ISTD
Method: /var/chem/msv8.i/2151025p.s.b/8260dodw8.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
61 Methyl Cyclohexane	0.40700	0.40556	0.40556	0.050	-0.35310	20.00000	Averaged	
55 Dibromomethane	0.15376	0.14954	0.14954	0.000	-2.74438	20.00000	Averaged	
56 1,2-Dichloropropane +	0.29140	0.28713	0.28713	0.000	-1.46636	20.00000	Averaged	
58 Bromodichloromethane	0.33241	0.33575	0.33575	0.000	1.00395	20.00000	Averaged	
60 1-Bromo-2-chloroethane	0.41492	0.41163	0.41163	0.005	-0.79314	20.00000	Averaged	
62 2-Chloroethyl vinyl ether	++++	++++	0.00000	0.000	++++	20.00000	Averaged	<-
63 cis-1,3-Dichloropropene	0.43192	0.43498	0.43498	0.000	0.70898	20.00000	Averaged	
$ 68 Toluene-d8	2.26781	2.24773	2.24773	0.000	-0.88546	20.00000	Averaged	
70 Toluene +	2.60417	2.52070	2.52070	0.000	-3.20538	20.00000	Averaged	
65 4-methyl-2-pentanone	0.86668	0.91302	0.91302	0.000	5.34676	20.00000	Averaged	
78 Tetrachloroethene	0.38507	0.38233	0.38233	0.000	-0.71369	20.00000	Averaged	
66 trans-1,3-Dichloropropene	0.40410	0.41472	0.41472	0.000	2.62851	20.00000	Averaged	
M 87 1-3 Dichloropropene total	0.41801	0.42485	0.42485	0.050	1.63681	20.00000	Averaged	
67 1,1,2-Trichloroethane	0.54704	0.53625	0.53625	0.000	-1.97223	20.00000	Averaged	
72 Dibromochloromethane	0.52761	0.52190	0.52190	0.000	-1.08193	20.00000	Averaged	
71 1,3-Dichloropropane	1.06751	1.05910	1.05910	0.000	-0.78799	20.00000	Averaged	
74 1,2-Dibromoethane(EDB)	0.52959	0.53134	0.53134	0.000	0.32893	20.00000	Averaged	
73 2-Hexanone	0.61934	0.74873	0.74873	0.000	20.89322	20.00000	Averaged	<-
86 1-Chlorohexane	0.80521	0.81252	0.81252	0.050	0.90792	20.00000	Averaged	
85 Chlorobenzene ++	1.56237	1.54829	1.54829	0.300	-0.90067	20.00000	Averaged	
88 Ethylbenzene +	0.84972	0.85048	0.85048	0.000	0.09017	20.00000	Averaged	
82 1,1,1,2-Tetrachloroethane	0.48738	0.48110	0.48110	0.000	-1.28848	20.00000	Averaged	
89 p,m-Xylene	1.04022	1.05918	1.05918	0.000	1.82273	20.00000	Averaged	
93 o-Xylene	1.01318	1.03691	1.03691	0.000	2.34285	20.00000	Averaged	
M 120 TOTAL XYLENE	1.03120	1.05176	1.05176	0.000	1.99307	20.00000	Averaged	
91 Styrene	1.70388	1.75899	1.75899	0.000	3.23457	20.00000	Averaged	
90 Bromoform ++	0.37594	0.37333	0.37333	0.100	-0.69549	20.00000	Averaged	
96 Isopropylbenzene	2.63713	2.73045	2.73045	0.000	3.53892	20.00000	Averaged	
$ 97 Bromofluorobenzene	0.61017	0.60843	0.60843	0.000	-0.28491	20.00000	Averaged	
98 Bromobenzene	1.69413	1.71071	1.71071	0.000	0.97905	20.00000	Averaged	
100 n-Propylbenzene	3.91033	4.07534	4.07534	0.000	4.21988	20.00000	Averaged	
92 1,1,2,2-Tetrachloroethane++	1.02696	1.01865	1.01865	0.300	-0.80918	20.00000	Averaged	
101 2-Chlorotoluene	2.36140	2.39282	2.39282	0.000	1.33048	20.00000	Averaged	
104 1,3,5-Trimethylbenzene	2.65500	2.73354	2.73354	0.000	2.95815	20.00000	Averaged	
94 1,2,3-Trichloropropane	0.90880	0.91923	0.91923	0.000	1.14813	20.00000	Averaged	

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i
Lab File ID: j3427.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv8.i/2151025p.s.b/8260dodw8.m

Injection Date: 25-OCT-2015 23:19
Init. Cal. Date(s): 24-OCT-2015 24-OCT-2015
Init. Cal. Times: 13:28 16:12
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 trans-1,4-Dichloro-2-Butene	0.33236	0.33947	0.33947	0.000	2.13872	20.00000	Averaged	
102 4-Chlorotoluene	2.39083	2.47332	2.47332	0.000	3.45003	20.00000	Averaged	
105 tert-butylbenzene	1.46951	1.53621	1.53621	0.000	4.53914	20.00000	Averaged	
106 1,2,4-Trimethylbenzene	2.69954	2.79158	2.79158	0.000	3.40960	20.00000	Averaged	
107 sec-Butylbenzene	3.32696	3.50010	3.50010	0.000	5.20405	20.00000	Averaged	
111 p-Isopropyltoluene	2.73396	2.89695	2.89695	0.000	5.96183	20.00000	Averaged	
108 1,3-Dichlorobenzene	1.46589	1.48828	1.48828	0.000	1.52688	20.00000	Averaged	
110 1,4-Dichlorobenzene	1.51286	1.51252	1.51252	0.000	-0.02273	20.00000	Averaged	
114 n-Butylbenzene	2.67623	2.89447	2.89447	0.000	8.15446	20.00000	Averaged	
113 1,2-Dichlorobenzene	1.44567	1.45777	1.45777	0.000	0.83687	20.00000	Averaged	
115 1,2-Dibromo-3-Chloropropane	0.19448	0.21292	0.21292	0.000	9.47979	20.00000	Averaged	
118 Hexachlorobutadiene	0.32509	0.33916	0.33916	0.000	4.32817	20.00000	Averaged	
116 1,2,4-Trichlorobenzene	0.88061	0.91317	0.91317	0.000	3.69825	20.00000	Averaged	
117 Naphthalene	2.86539	3.08987	3.08987	0.000	7.83435	20.00000	Averaged	
119 1,2,3-Trichlorobenzene	0.85262	0.90220	0.90220	0.000	5.81561	20.00000	Averaged	
15 tert-Butyl Alcohol	0.03477	0.03589	0.03589	0.050	3.21274	20.00000	Averaged	<-
28 Isopropyl Ether	0.98823	0.97341	0.97341	0.050	-1.49984	20.00000	Averaged	
27 Chloroprene	0.39439	0.38781	0.38781	0.050	-1.66752	20.00000	Averaged	
34 Isobutyl Alcohol	0.01786	0.01934	0.01934	0.000	8.32459	20.00000	Averaged	
51 1,4- Dioxane	0.00277	0.00301	0.00301	0.000	8.74409	20.00000	Averaged	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Calibration File Names:
Level 3: /var/chem/msv8.i/2151027.s.b/j3519d.d
Level 4: /var/chem/msv8.i/2151027.s.b/j3521d.d
Level 5: /var/chem/msv8.i/2151027.s.b/j3522d.d
Level 6: /var/chem/msv8.i/2151027.s.b/j3523d.d
Level 7: /var/chem/msv8.i/2151027.s.b/j3524d.d
Level 8: /var/chem/msv8.i/2151027.s.b/j3526d.d
Level 9: /var/chem/msv8.i/2151027.s.b/j3528d.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
1 Dichlorodifluoromethane	0.19204	0.19308	0.19069	0.21027	0.20856	0.23001						
	0.23545						AVRG		0.20858		8.79196	
2 Chloromethane ++	0.30828	0.27311	0.30288	0.30272	0.30129	0.30523						
	0.30913						AVRG		0.30038		4.11995	
4 1-3 Butadiene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
3 Vinyl Chloride +	0.28902	0.26413	0.28079	0.31302	0.30898	0.32359						
	0.34305						AVRG		0.30323		8.89350	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
5 Bromomethane	0.14871	0.14304	0.15486	0.14902	0.14956	0.16047						
	0.17483						AVRG		0.15435		6.83697	
6 Chloroethane	0.18550	0.18206	0.20355	0.20733	0.20744	0.21807						
	0.20369						AVRG		0.20109		6.37372	
9 Trichlorofluoromethane	0.29076	0.26393	0.27522	0.30804	0.30639	0.33424						
	0.34842						AVRG		0.30386		9.98107	
12 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
13 1,1-Dichloroethene +	0.16311	0.15846	0.16950	0.18105	0.18680	0.19914						
	0.21037						AVRG		0.18120		10.53159	
19 1,1,2Trichlotrifluoroethane	0.14715	0.14963	0.15920	0.17546	0.17472	0.19512						
	0.19917						AVRG		0.17149		12.07310	
21 Carbon Disulfide	0.58811	0.55791	0.61476	0.65348	0.66279	0.71671						
	0.74045						AVRG		0.64774		10.22615	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
14 Methyl Iodide	839	6699	18398	44057	145727	327886						
	753267						LINR	0.11925	0.21652		0.99646	
8 Acrolein	386	5181	8825	19688	49910	105251						
	226224						LINR	0.20301	0.01287		0.99923	
17 Allyl chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
18 Methylene Chloride	11741	34048	69077	130094	328550	669824						
	1383597						LINR	-0.00016	0.39199		0.99991	
156 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
11 Acetone	0.14769	0.13973	0.12813	0.12028	0.11582	0.10773						
	0.10733						AVRG		0.12382		12.55073	
20 Methyl Acetate	0.37225	0.28815	0.28179	0.28017	0.28558	0.29442						
	0.30591						AVRG		0.30118		10.80120	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
22 trans-1,2-Dichloroethene	0.31164	0.31412	0.33038	0.33877	0.34894	0.37054						
	0.38010						AVRG		0.34207		7.69650	
32 Hexane	0.53734	0.44375	0.48153	0.51022	0.51472	0.56174						
	0.58609						AVRG		0.51934		9.24280	
25 MTBE	0.71192	0.76904	0.77687	0.78000	0.80612	0.82746						
	0.84568						AVRG		0.78815		5.56632	
15 tert-Butyl Alcohol	434	2291	5305	10388	26901	59799						
	132132						LINR	0.06593	0.03761		0.99789	<-
10 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
28 Isopropyl Ether	12765	66210	128362	284240	760979	1667945						
	3492521						LINR	0.04729	0.99909		0.99944	
27 Chloroprene	4524	21535	44491	99929	285297	656044						
	1361834						LINR	0.06537	0.39195		0.99901	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
26 1,1-Dichloroethane ++	0.44805	0.44354	0.47546	0.48492	0.49577	0.51402					
	0.52658						AVRG		0.48405		6.45446
16 Acrylonitrile	0.10663	0.11285	0.11158	0.12247	0.11966	0.12584					
	0.12534						AVRG		0.11777		6.34240
29 Vinyl Acetate	0.28025	0.24989	0.25357	0.27409	0.29524	0.28081					
	0.25542						AVRG		0.26990		6.34988
23 cis-1,2-Dichloroethene	0.34111	0.33979	0.34990	0.36347	0.37187	0.38686					
	0.39884						AVRG		0.36455		6.24124
80 Total 1,2-Dichloroethene	0.32637	0.32695	0.34014	0.35112	0.36040	0.37870					
	0.38947						AVRG		0.35331		6.93416
38 2,2-Dichloropropane	0.33816	0.31909	0.35958	0.36649	0.37355	0.39578					
	0.39749						AVRG		0.36431		7.87034
45 Cyclohexane	0.40172	0.36550	0.38181	0.43056	0.43100	0.48472					
	0.51036						AVRG		0.42938		12.29861

GCAL, Inc.

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Start Cal Date : 27-OCT-2015 09:20
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Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
36 Bromochloromethane	0.09104	0.10494	0.10786	0.10744	0.10886	0.10821						
	0.10705						AVRG		0.10506		6.00124	
37 Chloroform +	0.41018	0.38445	0.41889	0.41957	0.42466	0.43433						
	0.43946						AVRG		0.41879		4.31302	
35 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
53 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
46 Carbon Tetrachloride	0.23248	0.21687	0.23678	0.26132	0.26042	0.28759						
	0.30020						AVRG		0.25652		11.75009	
43 1,1,1-Trichloroethane	0.30642	0.30286	0.31157	0.33753	0.33438	0.35851						
	0.36585						AVRG		0.33102		7.60139	
33 2-Butanone	0.21142	0.22478	0.21458	0.21773	0.22911	0.25529						
	0.27037						AVRG		0.23190		9.65210	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
44 1,1-Dichloropropene	0.27545	0.27413	0.30362	0.32137	0.32620	0.35315						
	0.36767						AVRG		0.31737		11.30214	
54 2,2,4 Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
24 Propionitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
30 Methylacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
47 Benzene	0.96636	0.94151	1.02373	1.02827	1.04381	1.09157						
	1.10210						AVRG		1.02819		5.76486	
34 Isobutyl Alcohol	1070	6839	13050	27710	72131	167387						
	356434						LINR	0.31861	0.02040		0.99847	
31 sec-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
42 1,2-Dichloroethane	0.39314	0.36602	0.37110	0.37282	0.37186	0.38598						
	0.39009						AVRG		0.37872		2.83363	
7 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
57 Trichloroethene	0.20914	0.20376	0.22446	0.23668	0.23729	0.25540						
	0.26516						AVRG		0.23313		9.69584	
61 Methyl Cyclohexane	0.38731	0.31333	0.34394	0.37485	0.36936	0.41429						
	0.43875						AVRG		0.37741		11.09456	
40 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
152 Ethyl Tert-butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
55 Dibromomethane	0.12158	0.13909	0.14691	0.14631	0.15425	0.16064						
	0.16608						AVRG		0.14784		9.98263	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
48 2-3 Dichloro-1-Proprene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
56 1,2-Dichloropropane +	0.27077	0.25444	0.28505	0.28228	0.29209	0.30334						
	0.30903						AVRG		0.28529		6.56874	
58 Bromodichloromethane	0.26723	0.29145	0.31329	0.32311	0.33984	0.35540						
	0.35994						AVRG		0.32147		10.53480	
52 Methyl methacrylate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
51 1,4- Dioxane	972	5574	9859	22044	57413	132886						
	271429						LINR	1.18567	0.00312		0.99906	
60 1-Bromo-2-chloroethane	0.38713	0.37956	0.39137	0.39935	0.41260	0.43214						
	0.44248						AVRG		0.40638		5.83214	
62 2-Chloroethyl vinyl ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
63 cis-1,3-Dichloropropene	0.36949	0.37733	0.40721	0.42004	0.44211	0.46547						
	0.47867						AVRG		0.42290		9.88032	
70 Toluene +	2.58181	2.43111	2.56444	2.55807	2.53662	2.56077						
	2.55722						AVRG		2.54143		1.98402	
154 Tert-butyl formate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
49 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
162 Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
65 4-methyl-2-pentanone	0.76770	0.85965	0.83741	0.85103	0.88912	0.91301						
	0.95887						AVRG		0.86811		6.98837	
78 Tetrachloroethene	0.35796	0.31438	0.35950	0.36624	0.36688	0.38679						
	0.40072						AVRG		0.36464		7.42409	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
66 trans-1,3-Dichloropropene	0.34669	0.34496	0.36859	0.39228	0.41501	0.44192	0.45983	AVRG		0.39561		11.46573	
M 87 1-3 Dichloropropene total	0.35809	0.36114	0.38790	0.40616	0.42856	0.45370	0.46925	AVRG		0.40926		10.62517	
64 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
67 1,1,2-Trichloroethane	0.56204	0.54370	0.55588	0.54072	0.55129	0.54330	0.54989	AVRG		0.54955		1.39062	
153 tert-amyl Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
72 Dibromochloromethane	0.48208	0.48035	0.51948	0.51702	0.54361	0.55412	0.56935	AVRG		0.52372		6.55939	
71 1,3-Dichloropropane	0.97379	1.00495	1.06534	1.06322	1.07497	1.06799	1.07915	AVRG		1.04706		3.89587	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
155 Tert-amyl alcohol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
59 1-Nitropropane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
74 1,2-Dibromoethane(EDB)	0.46137 0.56088	0.50700	0.52094	0.52430	0.54054	0.54435	AVRG		0.52277		6.17802	
73 2-Hexanone	0.57901 0.74842	0.64706	0.65051	0.67459	0.70619	0.72997	AVRG		0.67654		8.52618	
86 1-Chlorohexane	0.87470 0.83051	0.66515	0.69465	0.73558	0.73188	0.78027	AVRG		0.75896		9.79862	
85 Chlorobenzene ++	1.48405 1.60366	1.48118	1.54836	1.54512	1.56856	1.58319	AVRG		1.54488		3.04221	
88 Ethylbenzene +	0.76324 0.87926	0.77296	0.80381	0.83007	0.83799	0.86686	AVRG		0.82203		5.39504	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
82 1,1,1,2-Tetrachloroethane	0.46209	0.44000	0.46862	0.47333	0.50299	0.50159	0.51379	AVRG		0.48035		5.52827	
89 p,m-Xylene	0.95214	0.91767	1.02963	1.03588	1.05096	1.08933	1.11142	AVRG		1.02672		6.79786	
93 o-Xylene	0.88951	0.92344	0.95727	1.00544	1.03322	1.05072	1.07238	AVRG		0.99028		6.92034	
M 120 TOTAL XYLENE	0.93127	0.91959	1.00551	1.02574	1.04505	1.07646	1.09841	AVRG		1.01457		6.72775	
157 1,3-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
91 Styrene	1.27609	1.40153	1.65591	1.68035	1.77951	1.83935	1.90233	AVRG		1.64787		13.98738	
90 Bromoform ++	0.35494	0.30906	0.33163	0.34724	0.37987	0.40547	0.42556	AVRG		0.36482		11.29335	

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Compound	1 Level 3 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
158 1,4-difluorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
81 1-3 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
96 Isopropylbenzene	2.33214 2.74516	2.24512	2.46334	2.56544	2.59449	2.72733	AVRG		2.52472		7.50125	
79 1-4 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
159 1,2-difluorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
M 161 Total Difluorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
77 1-2 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
M 121 Total Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
98 Bromobenzene	1.64273	1.63876	1.72238	1.67741	1.66280	1.72927						
	1.77233						AVRG		1.69224		2.96377	
100 n-Propylbenzene	3.73397	3.66863	3.89750	3.95722	3.80800	4.04697						
	4.04056						AVRG		3.87898		3.81084	
92 1,1,2,2-Tetrachloroethane++	0.97796	0.97938	0.98697	0.94809	0.94223	0.93933						
	0.94175						AVRG		0.95939		2.18648	
101 2-Chlorotoluene	2.27484	2.22936	2.37628	2.40617	2.32624	2.42338						
	2.43259						AVRG		2.35269		3.32732	
104 1,3,5-Trimethylbenzene	2.36476	2.41813	2.65254	2.66965	2.57759	2.75064						
	2.83127						AVRG		2.60923		6.49108	
76 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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	200 Level 9											
94 1,2,3-Trichloropropane	0.95516	0.99269	0.94291	0.90094	0.90903	0.93542						
	0.96335						AVRG		0.94279		3.35717	
95 trans-1,4-Dichloro-2-Butene	0.28393	0.31897	0.31700	0.32642	0.32616	0.34390						
	0.36023						AVRG		0.32523		7.30668	
102 4-Chlorotoluene	2.22369	2.29577	2.45429	2.44347	2.39864	2.47368						
	2.50541						AVRG		2.39928		4.28182	
84 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
105 tert-butylbenzene	1.29078	1.36336	1.42192	1.46449	1.42497	1.51440						
	1.57220						AVRG		1.43602		6.49487	
106 1,2,4-Trimethylbenzene	2.38450	2.55550	2.69199	2.72927	2.67819	2.82081						
	2.86365						AVRG		2.67485		6.08142	
107 sec-Butylbenzene	2.96402	2.94487	3.14700	3.31132	3.19071	3.40482						
	3.44809						AVRG		3.20155		6.24105	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
112 Dicyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 p-Isopropyltoluene	2.54280	2.42534	2.63062	2.75662	2.65282	2.83930						
	2.93231						AVRG		2.68283		6.48657	
108 1,3-Dichlorobenzene	1.33152	1.33324	1.49697	1.44867	1.43840	1.49872						
	1.52289						AVRG		1.43863		5.44331	
99 Benzal Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
110 1,4-Dichlorobenzene	1.42413	1.40955	1.51711	1.48984	1.46309	1.52327						
	1.54135						AVRG		1.48119		3.42817	
114 n-Butylbenzene	2.16357	2.29714	2.51735	2.65379	2.56486	2.73860						
	2.79002						AVRG		2.53219		9.06714	
160 Methyldisulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
113 1,2-Dichlorobenzene	1.22348	1.36147	1.45303	1.45180	1.42440	1.45853						
	1.48458						AVRG		1.40819		6.40739	
151 3,3 Dimethyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
69 3-ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
115 1,2-Dibromo-3-Chloropropane	0.18055	0.17233	0.18490	0.18436	0.19662	0.21069						
	0.22751						AVRG		0.19385		9.95534	
118 Hexachlorobutadiene	0.32305	0.26102	0.28584	0.29061	0.30141	0.30699						
	0.33290						AVRG		0.30026		8.01162	
116 1,2,4-Trichlorobenzene	3307	17718	44153	95763	266745	585782						
	1321538						LINR	0.06686	0.97960		0.99804	
117 Naphthalene	8236	53874	140281	319075	901359	1979389						
	4350164						LINR	0.06127	3.23465		0.99899	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-OCT-2015 09:20
End Cal Date : 27-OCT-2015 12:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Cal Date : 28-Oct-2015 11:14 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
119 1,2,3-Trichlorobenzene	3003	17999	42643	95916	261393	572525						
	1275808						LINR	0.05972	0.94581		0.99851	
75 2-ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
103 2-methylnapthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
$ 39 Dibromofluoromethane	0.21450	0.21373	0.21416	0.21711	0.21640	0.22025						
	0.22467						AVRG		0.21726		1.82505	
41 1,2-Dichloroethane-d4	0.16708	0.16511	0.16442	0.16614	0.16550	0.16465						
	0.16401						AVRG		0.16527		0.64506	
$ 68 Toluene-d8	2.30622	2.31490	2.30234	2.29386	2.24323	2.19215						
	2.16534						AVRG		2.25972		2.67568	
97 Bromofluorobenzene	0.60152	0.59764	0.60314	0.61228	0.61198	0.60638						
	0.59955						AVRG		0.60464		0.96005	

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: icvall.spk
Sublist File: 8260b+A9-1.sub
Method File: /var/chem/msv8.i/2151027.s.b/8260dodw8.m
Misc Info: MSV~34682~*1*LBH

Client SDG: 2151027.s
Fraction: VOA
Client Smp ID: V8UCV050
Operator: LBH
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluoromethane	50.0	43.1	86.13	80-120
2 Chloromethane ++	50.0	47.0	93.91	80-120
3 Vinyl Chloride +	50.0	49.6	99.13	80-120
5 Bromomethane	50.0	50.5	100.94	80-120
6 Chloroethane	50.0	49.8	99.56	80-120
9 Trichlorofluoromethane	50.0	47.8	95.59	80-120
13 1,1-Dichloroethene +	50.0	50.6	101.26	80-120
19 1,1,2Trichlotrifluoroethane	50.0	51.0	101.93	80-120
21 Carbon Disulfide	50.0	50.2	100.44	80-120
14 Methyl Iodide	50.0	42.1	84.15	80-120
8 Acrolein	250	240	96.01	80-120
18 Methylene Chloride	50.0	47.5	95.09	80-120
11 Acetone	50.0	49.3	98.63	80-120
20 Methyl Acetate	50.0	48.1	96.21	80-120
22 trans-1,2-Dichloroethene	50.0	51.6	103.27	80-120
25 MTBE	50.0	52.7	105.39	80-120
26 1,1-Dichloroethane ++	50.0	50.6	101.28	80-120
16 Acrylonitrile	250	250	99.81	80-120
29 Vinyl Acetate	50.0	49.0	97.92	80-120
23 cis-1,2-Dichloroethene	50.0	52.3	104.69	80-120
38 2,2-Dichloropropane	50.0	51.9	103.77	80-120
36 Bromochloromethane	50.0	54.0	107.92	80-120
45 Cyclohexane	50.0	51.8	103.63	80-120
37 Chloroform +	50.0	52.3	104.62	80-120
46 Carbon Tetrachloride	50.0	53.2	106.35	80-120
43 1,1,1-Trichloroethane	50.0	52.8	105.65	80-120
33 2-Butanone	50.0	55.3	110.69	80-120
44 1,1-Dichloropropene	50.0	54.9	109.77	80-120
47 Benzene	50.0	51.8	103.59	80-120
42 1,2-Dichloroethane	50.0	52.3	104.65	80-120
57 Trichloroethene	50.0	55.1	110.18	80-120
61 Methyl Cyclohexane	50.0	50.1	100.17	80-120
55 Dibromomethane	50.0	54.4	108.88	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
56 1,2-Dichloropropane +	50.0	53.1	106.20	80-120
58 Bromodichloromethane	50.0	57.2	114.32	80-120
63 cis-1,3-Dichloropropene	50.0	56.0	112.00	80-120
70 Toluene +	50.0	52.4	104.74	80-120
65 4-methyl-2-pentanone	50.0	55.8	111.56	80-120
78 Tetrachloroethene	50.0	54.0	108.08	80-120
66 trans-1,3-Dichloropropene	50.0	56.7	113.35	80-120
67 1,1,2-Trichloroethane	50.0	54.8	109.62	80-120
72 Dibromochloromethane	50.0	55.8	111.51	80-120
71 1,3-Dichloropropane	50.0	56.0	111.95	80-120
74 1,2-Dibromoethane(EDB)	50.0	56.6	113.10	80-120
73 2-Hexanone	50.0	58.7	117.38	80-120
86 1-Chlorohexane	50.0	51.6	103.22	80-120
85 Chlorobenzene ++	50.0	54.7	109.42	80-120
88 Ethylbenzene +	50.0	54.9	109.81	80-120
82 1,1,1,2-Tetrachloroethane	50.0	56.6	113.24	80-120
89 p,m-Xylene	100	110	109.96	80-120
93 o-Xylene	50.0	56.4	112.84	80-120
91 Styrene	50.0	59.0	118.04	80-120
90 Bromoform ++	50.0	59.1	118.28	80-120
96 Isopropylbenzene	50.0	56.0	111.94	80-120
98 Bromobenzene	50.0	53.5	106.90	80-120
100 n-Propylbenzene	50.0	53.9	107.72	80-120
92 1,1,2,2-Tetrachloroethane++	50.0	53.8	107.55	80-120
101 2-Chlorotoluene	50.0	52.9	105.81	80-120
104 1,3,5-Trimethylbenzene	50.0	54.1	108.19	80-120
94 1,2,3-Trichloropropane	50.0	52.6	105.28	80-120
95 trans-1,4-Dichloro-2-Butene	50.0	57.5	114.93	80-120
102 4-Chlorotoluene	50.0	53.9	107.85	80-120
105 tert-butylbenzene	50.0	54.0	107.95	80-120
106 1,2,4-Trimethylbenzene	50.0	54.2	108.42	80-120
107 sec-Butylbenzene	50.0	53.8	107.59	80-120
111 p-Isopropyltoluene	50.0	53.0	106.04	80-120
108 1,3-Dichlorobenzene	50.0	54.1	108.23	80-120
110 1,4-Dichlorobenzene	50.0	53.7	107.49	80-120
114 n-Butylbenzene	50.0	55.3	110.55	80-120
113 1,2-Dichlorobenzene	50.0	54.5	109.08	80-120
115 1,2-Dibromo-3-Chloropropane	50.0	56.4	112.79	80-120
118 Hexachlorobutadiene	50.0	54.7	109.30	80-120
117 Naphthalene	50.0	50.8	101.62	80-120
116 1,2,4-Trichlorobenzene	50.0	50.2	100.37	80-120
119 1,2,3-Trichlorobenzene	50.0	51.1	102.19	80-120
15 tert-Butyl Alcohol	50.0	56.4	112.77	60-140
28 Isopropyl Ether	50.0	56.4	112.80	60-140
27 Chloroprene	50.0	56.8	113.68	60-140
34 Isobutyl Alcohol	250	279	111.80	60-140
51 1,4- Dioxane	1250	1480	118.08	60-140

Data File: /var/chem/msv8.i/2151027p.s.b/j3532.d
Report Date: 28-Oct-2015 11:21

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i
Lab File ID: j3532.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv8.i/2151027p.s.b/8260dodw8.m

Injection Date: 27-OCT-2015 14:22
Init. Cal. Date(s): 27-OCT-2015 27-OCT-2015
Init. Cal. Times: 09:20 12:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Dichlorodifluoromethane	0.20858	0.22513	0.22513	0.000	7.93037	20.00000	Averaged
2 Chloromethane ++	0.30038	0.29926	0.29926	0.100	-0.37271	20.00000	Averaged
3 Vinyl Chloride +	0.30323	0.31666	0.31666	0.000	4.43129	20.00000	Averaged
5 Bromomethane	0.15435	0.15487	0.15487	0.000	0.33289	20.00000	Averaged
6 Chloroethane	0.20109	0.24271	0.24271	0.050	20.69740	20.00000	Averaged <-
9 Trichlorofluoromethane	0.30386	0.33617	0.33617	0.000	10.63529	20.00000	Averaged
13 1,1-Dichloroethene +	0.18120	0.19739	0.19739	0.000	8.93332	20.00000	Averaged
19 1,1,2Trichlotrifluoroethane	0.17149	0.19061	0.19061	0.000	11.14839	20.00000	Averaged
21 Carbon Disulfide	0.64774	0.70162	0.70162	0.000	8.31690	20.00000	Averaged
14 Methyl Iodide	43.08145	50.00000	0.16074	0.000	-13.83710	20.00000	Linear
8 Acrolein	232	250	0.01143	0.000	-7.13562	20.00000	Linear
18 Methylene Chloride	48.49449	50.00000	0.38025	0.000	-3.01102	20.00000	Linear
11 Acetone	0.12382	0.10631	0.10631	0.000	-14.13861	20.00000	Averaged
20 Methyl Acetate	0.30118	0.27009	0.27009	0.050	-10.32196	20.00000	Averaged
22 trans-1,2-Dichloroethene	0.34207	0.35720	0.35720	0.000	4.42220	20.00000	Averaged
32 Hexane	0.51934	0.55021	0.55021	0.050	5.94461	20.00000	Averaged
25 MTBE	0.78815	0.79682	0.79682	0.000	1.09992	20.00000	Averaged
26 1,1-Dichloroethane ++	0.48405	0.49806	0.49806	0.100	2.89402	20.00000	Averaged
16 Acrylonitrile	0.11777	0.10709	0.10709	0.000	-9.06831	20.00000	Averaged
29 Vinyl Acetate	0.26990	0.28707	0.28707	0.000	6.36260	20.00000	Averaged
23 cis-1,2-Dichloroethene	0.36455	0.37490	0.37490	0.000	2.84000	20.00000	Averaged
M 80 Total 1,2-Dichloroethene	0.35331	0.36605	0.36605	0.000	3.60594	20.00000	Averaged
38 2,2-Dichloropropane	0.36431	0.39941	0.39941	0.000	9.63415	20.00000	Averaged
36 Bromochloromethane	0.10506	0.10918	0.10918	0.000	3.92860	20.00000	Averaged
45 Cyclohexane	0.42938	0.45263	0.45263	0.000	5.41371	20.00000	Averaged
37 Chloroform +	0.41879	0.42687	0.42687	0.000	1.93033	20.00000	Averaged
46 Carbon Tetrachloride	0.25652	0.27955	0.27955	0.000	8.97613	20.00000	Averaged
$ 39 Dibromofluoromethane	0.21726	0.22375	0.22375	0.000	2.98717	20.00000	Averaged
43 1,1,1-Trichloroethane	0.33102	0.34747	0.34747	0.000	4.97033	20.00000	Averaged
33 2-Butanone	0.23190	0.22299	0.22299	0.000	-3.83978	20.00000	Averaged
44 1,1-Dichloropropene	0.31737	0.34385	0.34385	0.000	8.34385	20.00000	Averaged
47 Benzene	1.02819	1.06211	1.06211	0.000	3.29825	20.00000	Averaged
$ 41 1,2-Dichloroethane-d4	0.16527	0.16498	0.16498	0.000	-0.17914	20.00000	Averaged
42 1,2-Dichloroethane	0.37872	0.37458	0.37458	0.000	-1.09088	20.00000	Averaged
57 Trichloroethene	0.23313	0.23820	0.23820	0.000	2.17739	20.00000	Averaged

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i Injection Date: 27-OCT-2015 14:22
Lab File ID: j3532.d Init. Cal. Date(s): 27-OCT-2015 27-OCT-2015
Analysis Type: WATER Init. Cal. Times: 09:20 12:15
Lab Sample ID: 1400 Quant Type: ISTD
Method: /var/chem/msv8.i/2151027p.s.b/8260dodw8.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
61 Methyl Cyclohexane	0.37741	0.39374	0.39374	0.050	4.32907	20.00000	Averaged	
55 Dibromomethane	0.14784	0.15204	0.15204	0.000	2.84173	20.00000	Averaged	
56 1,2-Dichloropropane +	0.28529	0.28913	0.28913	0.000	1.34550	20.00000	Averaged	
58 Bromodichloromethane	0.32147	0.33961	0.33961	0.000	5.64555	20.00000	Averaged	
60 1-Bromo-2-chloroethane	0.40638	0.40738	0.40738	0.005	0.24749	20.00000	Averaged	
62 2-Chloroethyl vinyl ether	++++	++++	0.00000	0.000	++++	20.00000	Averaged	<-
63 cis-1,3-Dichloropropene	0.42290	0.44479	0.44479	0.000	5.17570	20.00000	Averaged	
$ 68 Toluene-d8	2.25972	2.25739	2.25739	0.000	-0.10294	20.00000	Averaged	
70 Toluene +	2.54143	2.57365	2.57365	0.000	1.26760	20.00000	Averaged	
65 4-methyl-2-pentanone	0.86811	0.83689	0.83689	0.000	-3.59620	20.00000	Averaged	
78 Tetrachloroethene	0.36464	0.38648	0.38648	0.000	5.99005	20.00000	Averaged	
66 trans-1,3-Dichloropropene	0.39561	0.41619	0.41619	0.000	5.20249	20.00000	Averaged	
M 87 1-3 Dichloropropene total	0.40926	0.43049	0.43049	0.050	5.18865	20.00000	Averaged	
67 1,1,2-Trichloroethane	0.54955	0.54497	0.54497	0.000	-0.83222	20.00000	Averaged	
72 Dibromochloromethane	0.52372	0.54307	0.54307	0.000	3.69606	20.00000	Averaged	
71 1,3-Dichloropropane	1.04706	1.05534	1.05534	0.000	0.79139	20.00000	Averaged	
74 1,2-Dibromoethane(EDB)	0.52277	0.52959	0.52959	0.000	1.30537	20.00000	Averaged	
73 2-Hexanone	0.67654	0.66096	0.66096	0.000	-2.30206	20.00000	Averaged	
86 1-Chlorohexane	0.75896	0.79768	0.79768	0.050	5.10175	20.00000	Averaged	
85 Chlorobenzene ++	1.54488	1.58411	1.58411	0.300	2.53982	20.00000	Averaged	
88 Ethylbenzene +	0.82203	0.85330	0.85330	0.000	3.80439	20.00000	Averaged	
82 1,1,1,2-Tetrachloroethane	0.48035	0.50085	0.50085	0.000	4.26896	20.00000	Averaged	
89 p,m-Xylene	1.02672	1.06663	1.06663	0.000	3.88696	20.00000	Averaged	
93 o-Xylene	0.99028	1.03363	1.03363	0.000	4.37738	20.00000	Averaged	
M 120 TOTAL XYLENE	1.01457	1.05563	1.05563	0.000	4.04652	20.00000	Averaged	
91 Styrene	1.64787	1.77546	1.77546	0.000	7.74305	20.00000	Averaged	
90 Bromoform ++	0.36482	0.37658	0.37658	0.100	3.22163	20.00000	Averaged	
96 Isopropylbenzene	2.52472	2.67123	2.67123	0.000	5.80311	20.00000	Averaged	
$ 97 Bromofluorobenzene	0.60464	0.61876	0.61876	0.000	2.33595	20.00000	Averaged	
98 Bromobenzene	1.69224	1.68685	1.68685	0.000	-0.31870	20.00000	Averaged	
100 n-Propylbenzene	3.87898	3.97994	3.97994	0.000	2.60275	20.00000	Averaged	
92 1,1,2,2-Tetrachloroethane++	0.95939	0.94789	0.94789	0.300	-1.19903	20.00000	Averaged	
101 2-Chlorotoluene	2.35269	2.36833	2.36833	0.000	0.66448	20.00000	Averaged	
104 1,3,5-Trimethylbenzene	2.60923	2.66461	2.66461	0.000	2.12267	20.00000	Averaged	
94 1,2,3-Trichloropropane	0.94279	0.87327	0.87327	0.000	-7.37325	20.00000	Averaged	

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv8.i Injection Date: 27-OCT-2015 14:22
Lab File ID: j3532.d Init. Cal. Date(s): 27-OCT-2015 27-OCT-2015
Analysis Type: WATER Init. Cal. Times: 09:20 12:15
Lab Sample ID: 1400 Quant Type: ISTD
Method: /var/chem/msv8.i/2151027p.s.b/8260dodw8.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
95 trans-1,4-Dichloro-2-Butene	0.32523	0.31236	0.31236	0.000	-3.95543	20.00000	Averaged	
102 4-Chlorotoluene	2.39928	2.44220	2.44220	0.000	1.78888	20.00000	Averaged	
105 tert-butylbenzene	1.43602	1.47153	1.47153	0.000	2.47273	20.00000	Averaged	
106 1,2,4-Trimethylbenzene	2.67485	2.76478	2.76478	0.000	3.36210	20.00000	Averaged	
107 sec-Butylbenzene	3.20155	3.30752	3.30752	0.000	3.31011	20.00000	Averaged	
111 p-Isopropyltoluene	2.68283	2.78514	2.78514	0.000	3.81341	20.00000	Averaged	
108 1,3-Dichlorobenzene	1.43863	1.46536	1.46536	0.000	1.85816	20.00000	Averaged	
110 1,4-Dichlorobenzene	1.48119	1.49299	1.49299	0.000	0.79672	20.00000	Averaged	
114 n-Butylbenzene	2.53219	2.71065	2.71065	0.000	7.04757	20.00000	Averaged	
113 1,2-Dichlorobenzene	1.40819	1.42377	1.42377	0.000	1.10683	20.00000	Averaged	
115 1,2-Dibromo-3-Chloropropane	0.19385	0.18848	0.18848	0.000	-2.76995	20.00000	Averaged	
118 Hexachlorobutadiene	0.30026	0.32503	0.32503	0.000	8.24757	20.00000	Averaged	
116 1,2,4-Trichlorobenzene	47.83031	50.00000	0.87160	0.000	-4.33939	20.00000	Linear	
117 Naphthalene	46.00331	50.00000	2.77789	0.000	-7.99339	20.00000	Linear	
119 1,2,3-Trichlorobenzene	47.70226	50.00000	0.84586	0.000	-4.59548	20.00000	Linear	
15 tert-Butyl Alcohol	46.06661	50.00000	0.03218	0.050	-7.86678	20.00000	Linear	<-
28 Isopropyl Ether	46.27562	50.00000	0.87742	0.050	-7.44875	20.00000	Linear	
27 Chloroprene	45.88609	50.00000	0.33408	0.050	-8.22782	20.00000	Linear	
34 Isobutyl Alcohol	215	250	0.01621	0.000	-14.17996	20.00000	Linear	
51 1,4- Dioxane	1139	1250	0.00269	0.000	-8.89316	20.00000	Linear	

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Lab File ID (Standard): 2151024/j3365d Date Analyzed: 10/24/15 Time: 1514

Instrument ID: MSV8 GC Column: RTX-VMS-30M ID: .25 (mm)

Analytical Batch: 570981 Heated Burge: (Y/N) N

	IS1 Area		IS1 RT		IS2 Area		IS2 RT		IS3 Area		IS3 RT	
STANDARD	838104		6.03		363228		9.20		317896		11.31	
EPA Sample No.		#		#		#		#		#		#
LCS1502524	854376		6.03		369028		9.20		313898		11.31	
LCSD1502525	838465		6.03		361932		9.20		307940		11.31	
MB1502523	798932		6.03		339926		9.20		262586		11.31	
MA01MW001	818741		6.03		344226		9.20		262173		11.31	
MA01MW001-MS	803320		6.03		355773		9.20		297535		11.31	
MA01MW001-MSD	830926		6.03		365112		9.20		310124		11.31	
M114MW001	807560		6.03		337386		9.20		263566		11.31	
M114MW004	805632		6.03		330378		9.20		260877		11.31	
TB-01	781766		6.03		325278		9.20		256829		11.31	
MA01MW002	796224		6.03		336013		9.20		263779		11.31	
MA01MW004	785255		6.03		327134		9.20		249524		11.31	
TB-03	777004		6.03		330884		9.20		255316		11.31	
TB-04	779056		6.03		329037		9.20		250868		11.31	
MA01MW003	766310		6.03		323713		9.20		248177		11.31	
TB-05	770887		6.03		325298		9.20		249851		11.31	
MW114MW002	761034		6.03		321727		9.20		250187		11.31	
MW114MW003	742681		6.03		311790		9.20		238431		11.31	
TB-02	749496		6.03		318567		9.20		240251		11.31	
MA02MW001D	750153		6.03		317234		9.20		245118		11.31	

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215102304

Lab File ID (Standard): 2151027/j3524d | Date Analyzed: 10/27/15 | Time: 1058

Instrument ID: MSV8 | GC Column: RTX-VMS-30M | ID: .25 (mm)

Analytical Batch: 571133 | Heated Burge: (Y/N) N

	IS1		IS2		IS3	
	Area	RT	Area	RT	Area	RT
STANDARD	853052	6.03	365364	9.20	315646	11.31

EPA Sample No.		#		#		#		#		#		#
LCS1503284	915130		6.03		393097		9.20		332688		11.31	
LCSD1503285	932394		6.03		399954		9.20		337002		11.31	
MB1503283	873477		6.03		361703		9.20		276539		11.31	
MA02MW001D-a	816559		6.03		340369		9.20		258553		11.31	
TB-06	792528		6.03		337564		9.20		254456		11.31	
MWQ-24	782985		6.03		329388		9.20		247187		11.31	
TB-08	771601		6.03		325675		9.20		246143		11.31	

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 24-OCT-2015
Instrument: msv8.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50	126-41-4	02/27/16
1000 (BFB)	BFB IS/SS	50	126-41-4	02/27/16
1201-1209 (ICAL)	8260	250	126-45-1	11/03/15
	AC/AC/VA	MC	126-44-7	11/30/15
	2-CVE	250	126-41-3	02/27/16
	APP9-1	250	126-43-10	04/03/16
1600 (ICV)	8260 ICV	250	126-44-9	04/16/16
	AC/AC/VA ICV	MC	126-44-8	11/30/15
	2-CVE ICV	250	126-39-2	01/08/16
	APP9-1 ICV	250	126-40-11	02/19/16

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		j3357.d	0.00 ml	24-OCT-2015 11:56	1.0	CLH	2
1000		j3357d.d	0.00 ml	24-OCT-2015 11:56	1.0	CLH	2
1201		j3358.d	5.00 ml	24-OCT-2015 12:41	1.0	CLH	1
1202		j3359.d	5.00 ml	24-OCT-2015 13:01	1.0	CLH	1
1203		j3360.d	5.00 ml	24-OCT-2015 13:28	1.0	CLH	1
1203		j3360d.d	5.00 ml	24-OCT-2015 13:28	1.0	CLH	1
LOD002		j3361.d	5.00 ml	24-OCT-2015 13:47	1.0	CLH	1
1204		j3362.d	5.00 ml	24-OCT-2015 14:07	1.0	CLH	1
1204		j3362d.d	5.00 ml	24-OCT-2015 14:07	1.0	CLH	1
1205		j3363.d	5.00 ml	24-OCT-2015 14:26	1.0	CLH	1
1205		j3363d.d	5.00 ml	24-OCT-2015 14:26	1.0	CLH	1
1206		j3364.d	5.00 ml	24-OCT-2015 14:46	1.0	CLH	1
1206		j3364d.d	5.00 ml	24-OCT-2015 14:46	1.0	CLH	1
1207		j3365.d	5.00 ml	24-OCT-2015 15:14	1.0	CLH	1
1207		j3365d.d	5.00 ml	24-OCT-2015 15:14	1.0	CLH	1
1208		j3366.d	5.00 ml	24-OCT-2015 15:33	1.0	CLH	1
1208		j3366d.d	5.00 ml	24-OCT-2015 15:33	1.0	CLH	1
BLANK		j3367.d	5.00 ml	24-OCT-2015 15:52	1.0	CLH	1
1209		j3368.d	5.00 ml	24-OCT-2015 16:12	1.0	CLH	1
1209		j3368d.d	5.00 ml	24-OCT-2015 16:12	1.0	CLH	1
BLANK		j3369.d	5.00 ml	24-OCT-2015 16:31	1.0	CLH	1
1600		j3370.d	5.00 ml	24-OCT-2015 16:50	1.0	CLH	1
1600		j3370d.d	5.00 ml	24-OCT-2015 16:50	1.0	CLH	1
1502466		j3371.d	5.00 ml	24-OCT-2015 17:10	1.0	CLH	1
1502467		j3372.d	5.00 ml	24-OCT-2015 17:29	1.0	CLH	1
MB		j3373.d	5.00 ml	24-OCT-2015 17:49	1.0	CLH	1
MB		j3374.d	5.00 ml	24-OCT-2015 18:08	1.0	CLH	1
1502465 pH		j3375.d	5.00 ml	24-OCT-2015 18:27	1.0	CLH	1
21510161408 1		j3376.d	5.00 ml	24-OCT-2015 18:46	1.0	CLH	1
21510161409 1		j3377.d	5.00 ml	24-OCT-2015 19:06	1.0	CLH	1
21510161001 1		j3378.d	5.00 ml	24-OCT-2015 19:25	1.0	CLH	1
21510161002 1		j3379.d	5.00 ml	24-OCT-2015 19:45	1.0	CLH	1
21510161003 1	RR, ACETONE HIGH IN CCCV	j3380.d	5.00 ml	24-OCT-2015 20:04	1.0	CLH	1
21510161004 1		j3381.d	5.00 ml	24-OCT-2015 20:24	1.0	CLH	1
21510161005 1		j3382.d	5.00 ml	24-OCT-2015 20:44	1.0	CLH	1
21510161008 1		j3383.d	5.00 ml	24-OCT-2015 21:03	1.0	CLH	1

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 24-OCT-2015
Instrument: msv8.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
21510161009 1		j3384.d	5.00 ml	24-OCT-2015 21:22	1.0	CLH	1
21510161010 1		j3385.d	5.00 ml	24-OCT-2015 21:41	1.0	CLH	1
21510161006 1		j3386.d	5.00 ml	24-OCT-2015 22:01	1.0	CLH	1
21510161007 1		j3387.d	5.00 ml	24-OCT-2015 22:20	1.0	CLH	1
1440		j3388.d	5.00 ml	24-OCT-2015 22:39	1.0	CLH	1
BLANK		j3389.d	5.00 ml	24-OCT-2015 22:59	1.0	CLH	1
BLANK		j3390.d	5.00 ml	24-OCT-2015 23:18	1.0	CLH	1
BLANK		j3391.d	5.00 ml	24-OCT-2015 23:38	1.0	CLH	1
BLANK		j3392.d	5.00 ml	24-OCT-2015 23:57	1.0	CLH	1

REVISED 1-28-15 Supervisor Review: TUNE TIME: 23:56 10/24/15

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 25-OCT-2015
Instrument: msv8.i
Analyst(s): CL

	Standard	Conc	ID	EXP
	8260 IS/SS	50	126-41-4	02/27/16
1000 (BFB)	BFB IS/SS	50	126-41-4	02/27/16
1400 (CCV)	8260	250	126-45-1	11/03/15
	AC/AC/VA	MC	126-44-7	11/30/15
	APP9-1	250	126-43-10	04/03/16

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		j3426.d	0.00 ml	25-OCT-2015 22:43	1.0	CLH	2
1400		j3427.d	5.00 ml	25-OCT-2015 23:19	1.0	CLH	1
1502524		j3427L.d	5.00 ml	25-OCT-2015 23:19	1.0	CLH	1
1502525		j3428.d	5.00 ml	25-OCT-2015 23:38	1.0	LBH	1
MB		j3429.d	5.00 ml	25-OCT-2015 23:58	1.0	LBH	1
MB		j3430.d	5.00 ml	26-OCT-2015 00:17	1.0	LBH	1
1502523	pH	j3431.d	5.00 ml	26-OCT-2015 00:37	1.0	LBH	1
21510230407	1	j3432.d	5.00 ml	26-OCT-2015 00:56	1.0	LBH	1
21510230408	1	j3433ms.d	5.00 ml	26-OCT-2015 01:16	1.0	LBH	1
21510230410	1	j3434msd.d	5.00 ml	26-OCT-2015 01:35	1.0	LBH	1
BLANK		j3435.d	5.00 ml	26-OCT-2015 01:55	1.0	LBH	1
BLANK		j3436.d	5.00 ml	26-OCT-2015 02:14	1.0	LBH	1
21510230401	1	j3437.d	5.00 ml	26-OCT-2015 02:34	1.0	LBH	1
21510230402	1	j3438.d	5.00 ml	26-OCT-2015 02:54	1.0	LBH	1
21510230403	1	j3439.d	5.00 ml	26-OCT-2015 03:13	1.0	LBH	1
21510230404	1	j3440.d	5.00 ml	26-OCT-2015 03:33	1.0	LBH	1
21510230405	1	j3441.d	5.00 ml	26-OCT-2015 03:52	1.0	LBH	1
21510230406	1	j3442.d	5.00 ml	26-OCT-2015 04:12	1.0	LBH	1
21510230409	1	j3443.d	5.00 ml	26-OCT-2015 04:31	1.0	LBH	1
21510230411	1	j3444.d	5.00 ml	26-OCT-2015 04:51	1.0	LBH	1
21510230412	1	j3445.d	5.00 ml	26-OCT-2015 05:10	1.0	LBH	1
21510230413	1	j3446.d	5.00 ml	26-OCT-2015 05:29	1.0	LBH	1
21510230414	1	j3447.d	5.00 ml	26-OCT-2015 05:49	1.0	LBH	1
21510230415	1	j3448.d	5.00 ml	26-OCT-2015 06:08	1.0	LBH	1
21510230416	1	j3449.d	5.00 ml	26-OCT-2015 06:27	1.0	LBH	1
21510211704	1	j3450.d	5.00 ml	26-OCT-2015 06:47	1.0	CLH	1
21510211705	1	j3451.d	5.00 ml	26-OCT-2015 07:06	1.0	CLH	1
21510211706	1	j3452.d	5.00 ml	26-OCT-2015 07:25	1.0	CLH	1
BLANK		j3453.d	5.00 ml	26-OCT-2015 07:45	1.0	CLH	1

REVISED 1-28-15 Supervisor Review: TUNE TIME: 10:43 10/27/15

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 27-OCT-2015
Instrument: msv8.i
Analyst(s): LBH

	Standard	Conc	ID	EXP
	8260 IS/SS	50	126-41-4	02/27/16
1000 (BFB)	BFB IS/SS	50	126-41-4	02/27/16
1201-1209 (ICAL)	8260	250	126-45-1	11/03/15
	AC/AC/VA	MC	126-45-2	11/30/15
	2-CVE	250	126-41-3	02/27/16
	APP9-1	250	126-43-10	04/03/16
1600 (ICV)	8260 ICV	250	126-44-9	04/16/16
	AC/AC/VA ICV	MC	126-45-3	11/30/15
	2-CVE ICV	250	126-39-2	01/08/16
	APP9-1 ICV	250	126-40-11	02/19/16

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		j3516.d	0.00 ml	27-OCT-2015 07:47	1.0	LBH	2
1000		j3516d.d	0.00 ml	27-OCT-2015 07:47	1.0	LBH	2
1201		j3517.d	5.00 ml	27-OCT-2015 08:37	1.0	LBH	1
1202		j3518.d	5.00 ml	27-OCT-2015 09:01	1.0	LBH	1
1203		j3519.d	5.00 ml	27-OCT-2015 09:20	1.0	LBH	1
1203		j3519d.d	5.00 ml	27-OCT-2015 09:20	1.0	LBH	1
LOQ		j3520.d	5.00 ml	27-OCT-2015 09:39	1.0	LBH	1
1204		j3521.d	5.00 ml	27-OCT-2015 09:59	1.0	LBH	1
1204		j3521d.d	5.00 ml	27-OCT-2015 09:59	1.0	LBH	1
1205		j3522.d	5.00 ml	27-OCT-2015 10:19	1.0	LBH	1
1205		j3522d.d	5.00 ml	27-OCT-2015 10:19	1.0	LBH	1
1206		j3523.d	5.00 ml	27-OCT-2015 10:38	1.0	LBH	1
1206		j3523d.d	5.00 ml	27-OCT-2015 10:38	1.0	LBH	1
1207		j3524.d	5.00 ml	27-OCT-2015 10:58	1.0	LBH	1
1207		j3524d.d	5.00 ml	27-OCT-2015 10:58	1.0	LBH	1
BLANK		j3525.d	5.00 ml	27-OCT-2015 11:17	1.0	LBH	1
1208		j3526.d	5.00 ml	27-OCT-2015 11:36	1.0	LBH	1
1208		j3526d.d	5.00 ml	27-OCT-2015 11:36	1.0	LBH	1
BLANK		j3527.d	5.00 ml	27-OCT-2015 11:55	1.0	LBH	1
1209		j3528.d	5.00 ml	27-OCT-2015 12:15	1.0	LBH	1
1209		j3528d.d	5.00 ml	27-OCT-2015 12:15	1.0	LBH	1
BLANK		j3529.d	5.00 ml	27-OCT-2015 12:34	1.0	LBH	1
1600		j3530.d	5.00 ml	27-OCT-2015 12:54	1.0	LBH	1
1600		j3530d.d	5.00 ml	27-OCT-2015 12:54	1.0	LBH	1

REVISED 1-28-15 Supervisor Review: TUNE TIME: :

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 27-OCT-2015
Instrument: msv8.i
Analyst(s): LBH

	Standard	Conc	ID	EXP
	8260 IS/SS	50	126-41-4	02/27/16
1000 (BFB)	BFB IS/SS	50	126-41-4	02/27/16
1400 (CCV)	8260	250	126-45-1	11/03/15
	AC/AC/VA	MC	126-45-2	11/30/15
	2-CVE	250	126-41-3	02/27/16
	APP9-1	250	126-43-10	04/03/16

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		j3531.d	0.00 ml	27-OCT-2015 13:34	1.0	LBH	2
1400		j3532.d	5.00 ml	27-OCT-2015 14:22	1.0	LBH	1
LCS		j3532L.d	5.00 ml	27-OCT-2015 14:22	1.0	LBH	1
LCS		j3533.d	5.00 ml	27-OCT-2015 14:46	1.0	LBH	1
BLANK		j3534.d	5.00 ml	27-OCT-2015 15:06	1.0	LBH	1
BLANK		j3535.d	5.00 ml	27-OCT-2015 15:25	1.0	LBH	1
1503283 pH		j3536.d	5.00 ml	27-OCT-2015 15:45	1.0	LBH	1
21510211305 1		j3537.d	5.00 ml	27-OCT-2015 16:04	1.0	LBH	1
21510211606 1		j3538.d	5.00 ml	27-OCT-2015 16:24	1.0	LBH	1
21510211607 1		j3539.d	5.00 ml	27-OCT-2015 16:43	1.0	JCK	1
21510211702 1		j3540.d	5.00 ml	27-OCT-2015 17:03	1.0	JCK	1
21510211703 1		j3541.d	5.00 ml	27-OCT-2015 17:23	1.0	JCK	1
21510230301 1		j3542.d	5.00 ml	27-OCT-2015 17:42	1.0	JCK	1
21510230302 1		j3543.d	5.00 ml	27-OCT-2015 18:02	1.0	JCK	1
21510230303 1		j3544.d	5.00 ml	27-OCT-2015 18:21	1.0	JCK	1
21510230304 1		j3545.d	5.00 ml	27-OCT-2015 18:40	1.0	JCK	1
21510230305 1		j3546.d	5.00 ml	27-OCT-2015 18:59	1.0	JCK	1
21510230306 1		j3547.d	5.00 ml	27-OCT-2015 19:18	1.0	JCK	1
21510230417 1		j3548.d	5.00 ml	27-OCT-2015 19:38	1.0	JCK	1
21510230418 1		j3549.d	5.00 ml	27-OCT-2015 19:57	1.0	JCK	1
BLANK		j3550.d	5.00 ml	27-OCT-2015 20:54	1.0	LBH	1
21510230419 1		j3551.d	5.00 ml	27-OCT-2015 21:14	1.0	LBH	1
21510230420 1		j3552.d	5.00 ml	27-OCT-2015 21:33	1.0	LBH	1
21510241104 1		j3553.d	5.00 ml	27-OCT-2015 21:53	1.0	LBH	1
21510241105 1		j3554.d	5.00 ml	27-OCT-2015 22:13	1.0	LBH	1
21510241101 1		j3555.d	5.00 ml	27-OCT-2015 22:32	1.0	LBH	1
21510241102 1		j3556.d	5.00 ml	27-OCT-2015 22:52	1.0	LBH	1
21510241103 1		j3557.d	5.00 ml	27-OCT-2015 23:11	1.0	LBH	1
BLANK		j3558.d	5.00 ml	27-OCT-2015 23:31	1.0	LBH	1
BLANK		j3559.d	5.00 ml	27-OCT-2015 23:50	1.0	LBH	1
BLANK		j3560.d	5.00 ml	28-OCT-2015 00:10	1.0	LBH	1

REVISED 1-28-15 Supervisor Review: TUNE TIME: 01:34 10/28/15

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
Lab Code: LA024 Case No.:
Matrix: Water
Sample wt/vol: 1000 Units: mL
Level: (low/med) LOW
% Moisture: decanted: (Y/N)
GC Column: ID: (mm)
Concentrated Extract Volume: 20000 (µL)
Soil Aliquot Volume: (µL)
Injection Volume: 1 (µL)
GPC Cleanup: (Y/N) N pH:
Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: M114MW001
Contract:
SAS No.: SDG No.: 215102304
Lab Sample ID: 21510230401
Date Collected: 10/22/15 Time: 1110
Date Received: 10/23/15
Date Extracted: 10/26/15
Date Analyzed: 10/29/15 Time: 2047
Dilution Factor: 1 Analyst: CEK
Prep Method: 8330A
Analytical Method: EPA 8330A
Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3
Lab File ID: 2151029\A29

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: M114MW004

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230402

Date Collected: 10/22/15 Time: 0910

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2101

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A30

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW002

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230404

Date Collected: 10/22/15 Time: 1238

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2115

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A31

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
Lab Code: LA024 Case No.:
Matrix: Water
Sample wt/vol: 1000 Units: mL
Level: (low/med) LOW
% Moisture: decanted: (Y/N)
GC Column: ID: (mm)
Concentrated Extract Volume: 20000 (µL)
Soil Aliquot Volume: (µL)
Injection Volume: 1 (µL)
GPC Cleanup: (Y/N) N pH:
Prep Batch: 570989 Analytical Batch: 571390

Sample ID: MA01MW004
Contract:
SAS No.: SDG No.: 215102304
Lab Sample ID: 21510230405
Date Collected: 10/22/15 Time: 1348
Date Received: 10/23/15
Date Extracted: 10/26/15
Date Analyzed: 10/29/15 Time: 2129
Dilution Factor: 1 Analyst: CEK
Prep Method: 8330A
Analytical Method: EPA 8330A
Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3
Lab File ID: 2151029\A32

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW001

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230407

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2143

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A33

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQJ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	UJ	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW001-MS

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230408

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2157

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A34

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	6.56		0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	7.16		0.500	2.00
99-65-0	1,3-Dinitrobenzene	6.82		0.500	2.00
121-14-2	2,4-Dinitrotoluene	7.31		0.500	2.00
606-20-2	2,6-Dinitrotoluene	6.13		0.500	2.00
2691-41-0	HMX	6.41		0.500	2.00
98-95-3	Nitrobenzene	6.65		0.500	2.00
55-63-0	Nitroglycerin	7.08		0.500	2.00
88-72-2	2-Nitrotoluene	6.58		0.500	2.00
99-08-1	3-Nitrotoluene	6.78		0.500	2.00
99-99-0	4-Nitrotoluene	6.04		0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	6.87		0.750	2.00
121-82-4	RDX	6.80		0.500	2.00
479-45-8	Tetryl	3.99		0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	6.31		0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	5.55		0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW001-MSD

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230410

Date Collected: 10/22/15 Time: 1255

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2211

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A35

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	6.65		0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	7.17		0.500	2.00
99-65-0	1,3-Dinitrobenzene	6.90		0.500	2.00
121-14-2	2,4-Dinitrotoluene	6.93		0.500	2.00
606-20-2	2,6-Dinitrotoluene	6.90		0.500	2.00
2691-41-0	HMX	6.84		0.500	2.00
98-95-3	Nitrobenzene	6.78		0.500	2.00
55-63-0	Nitroglycerin	7.28		0.500	2.00
88-72-2	2-Nitrotoluene	6.39		0.500	2.00
99-08-1	3-Nitrotoluene	6.70		0.500	2.00
99-99-0	4-Nitrotoluene	5.90		0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	6.50		0.750	2.00
121-82-4	RDX	7.08		0.500	2.00
479-45-8	Tetryl	4.10		0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	6.41		0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	5.47		0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA01MW003

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215102304

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21510230411

Level: (low/med) LOW | Date Collected: 10/22/15 | Time: 1445

% Moisture: | decanted: (Y/N) | Date Received: 10/23/15

GC Column: | ID: | (mm) | Date Extracted: 10/26/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 10/29/15 | Time: 2239

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: CEK

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: EPA 8330A

Prep Batch: 570989 | Analytical Batch: 571390 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 3

CONCENTRATION UNITS: ug/L | Lab File ID: 2151029\A37

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
Lab Code: LA024 Case No.:
Matrix: Water
Sample wt/vol: 1000 Units: mL
Level: (low/med) LOW
% Moisture: decanted: (Y/N)
GC Column: ID: (mm)
Concentrated Extract Volume: 20000 (µL)
Soil Aliquot Volume: (µL)
Injection Volume: 1 (µL)
GPC Cleanup: (Y/N) N pH:
Prep Batch: 570989 Analytical Batch: 571390

Sample ID: MW114MW002
Contract:
SAS No.: SDG No.: 215102304
Lab Sample ID: 21510230413
Date Collected: 10/22/15 Time: 0917
Date Received: 10/23/15
Date Extracted: 10/26/15
Date Analyzed: 10/29/15 Time: 2253
Dilution Factor: 1 Analyst: CEK
Prep Method: 8330A
Analytical Method: EPA 8330A
Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3
Lab File ID: 2151029\A38

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MW114MW003

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230414

Date Collected: 10/22/15 Time: 1023

Date Received: 10/23/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2307

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A39

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA02MW001D

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215102304

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21510230416

Level: (low/med) LOW | Date Collected: 10/23/15 | Time: 0855

% Moisture: | decanted: (Y/N) | Date Received: 10/24/15

GC Column: | ID: | (mm) | Date Extracted: 10/26/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 10/29/15 | Time: 2321

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: CEK

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: EPA 8330A

Prep Batch: 570989 | Analytical Batch: 571390 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 3

CONCENTRATION UNITS: ug/L | Lab File ID: 2151029\A40

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 570989 Analytical Batch: 571390

CONCENTRATION UNITS: ug/L

Sample ID: MA02MW001D-a

Contract:

SAS No.: SDG No.: 215102304

Lab Sample ID: 21510230417

Date Collected: 10/23/15 Time: 0855

Date Received: 10/24/15

Date Extracted: 10/26/15

Date Analyzed: 10/29/15 Time: 2335

Dilution Factor: 1 Analyst: CEK

Prep Method: 8330A

Analytical Method: EPA 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

Lab File ID: 2151029\A41

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: MWQ-24

Lab Code: LA024 Case No.:
Contract:

Matrix: Water
SAS No.: SDG No.: 215102304

Sample wt/vol: 1000 Units: mL
Lab Sample ID: 21510230419

Level: (low/med) LOW
Date Collected: 10/23/15 Time: 1055

% Moisture: decanted: (Y/N)
Date Received: 10/24/15

GC Column: ID: (mm)
Date Extracted: 10/26/15

Concentrated Extract Volume: 20000 (µL)
Date Analyzed: 10/29/15 Time: 2349

Soil Aliquot Volume: (µL)
Dilution Factor: 1 Analyst: CEK

Injection Volume: 1 (µL)
Prep Method: 8330A

GPC Cleanup: (Y/N) N pH:
Analytical Method: EPA 8330A

Prep Batch: 570989 Analytical Batch: 571390
Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 3

CONCENTRATION UNITS: ug/L
Lab File ID: 2151029\A42

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	UQ	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1502549

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215102304

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1502549

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted: 10/26/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 10/29/15 | Time: 2005

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: CEK

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: EPA 8330A

Prep Batch: 570989 | Analytical Batch: 571390 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 3

CONCENTRATION UNITS: ug/L | Lab File ID: 2151029\A26

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
2691-41-0	HMX	0.500	U	0.500	2.00
121-82-4	RDX	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00

2E

ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: EPA 8330A

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC2 2	Lo	Hi	F	SMC3 3	Lo	Hi	F	SMC4 4	Lo	Hi	F	TOT OUT
1.	M114MW001	75	60	140														0
2.	M114MW004	76	60	140														0
3.	MA01MW002	99	60	140														0
4.	MA01MW004	81	60	140														0
5.	MA01MW001	68	60	140														0
6.	MA01MW001-MS	71	60	140														0
7.	MA01MW001-MSD	71	60	140														0
8.	MA01MW003	65	60	140														0
9.	MW114MW002	78	60	140														0
10.	MW114MW003	70	60	140														0
11.	MA02MW001D	66	60	140														0
12.	MA02MW001D-a	72	60	140														0
13.	MWQ-24	62	60	140														0
14.	MB1502549	78	60	140														0
15.	LCS1502550	87	60	140														0
16.	LCSD1502551	74	60	140														0

SMC 1 : 1,2-Dinitrobenzene SMC 2 :

SMC 3 : SMC 4 :

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Contract: Method: EPA 8330A

Prep Batch: 570989 Analytical Batch: 571390

SAMPLE NO : 1502550

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1,3,5-Trinitrobenzene	ug/L	10	0	8.38	84		65 - 140
1,3-Dinitrobenzene	ug/L	10	0	8.46	85		45 - 160
2,4,6-Trinitrotoluene	ug/L	10	0	6.8	68		50 - 145
2,4-Dinitrotoluene	ug/L	10	0	8.15	82		60 - 135
2,6-Dinitrotoluene	ug/L	10	0	9.27	93		60 - 135
2-Amino-4,6-dinitrotoluene	ug/L	10	0	8.64	86		50 - 155
2-Nitrotoluene	ug/L	10	0	8.25	82		45 - 135
3-Nitrotoluene	ug/L	10	0	8.31	83		50 - 130
4-Amino-2,6-dinitrotoluene	ug/L	10	0	8.09	81		55 - 155
4-Nitrotoluene	ug/L	10	0	8.73	87		50 - 130
HMX	ug/L	10	0	8.11	81		80 - 115
Nitrobenzene	ug/L	10	0	8.31	83		50 - 140
Nitroglycerin	ug/L	10	0	8.72	87		40 - 140
Pentaerythritol Tetranitrate	ug/L	10	0	7.96	80		40 - 140
RDX	ug/L	10	0	8.17	82		50 - 160
Tetryl	ug/L	10	0	5.83	58		20 - 175

RPD : 0 out of 16 outside limits

Spike Recovery: 1 out of 32 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Contract: Method: EPA 8330A

Prep Batch: 570989 Analytical Batch: 571390

SAMPLE NO : 1502551

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
1,3,5-Trinitrobenzene	ug/L	10	6.99	70		18		65 - 140	0 - 30
1,3-Dinitrobenzene	ug/L	10	7.2	72		16		45 - 160	0 - 30
2,4,6-Trinitrotoluene	ug/L	10	5.82	58		16		50 - 145	0 - 30
2,4-Dinitrotoluene	ug/L	10	6.92	69		16		60 - 135	0 - 30
2,6-Dinitrotoluene	ug/L	10	7.68	77		19		60 - 135	0 - 30
2-Amino-4,6-dinitrotoluene	ug/L	10	7.59	76		13		50 - 155	0 - 30
2-Nitrotoluene	ug/L	10	6.9	69		18		45 - 135	0 - 30
3-Nitrotoluene	ug/L	10	7.13	71		15		50 - 130	0 - 30
4-Amino-2,6-dinitrotoluene	ug/L	10	6.7	67		19		55 - 155	0 - 30
4-Nitrotoluene	ug/L	10	7.39	74		17		50 - 130	0 - 30
HMX	ug/L	10	6.86	69	*	17		80 - 115	0 - 30
Nitrobenzene	ug/L	10	7.08	71		16		50 - 140	0 - 30
Nitroglycerin	ug/L	10	7.66	77		13		40 - 140	0 - 30
Pentaerythritol Tetranitrate	ug/L	10	6.66	67		18		40 - 140	0 - 30
RDX	ug/L	10	7.18	72		13		50 - 160	0 - 30
Tetryl	ug/L	10	5.04	50		15		20 - 175	0 - 30

RPD : 0 out of 16 outside limits

Spike Recovery: 1 out of 32 outside limits

FORM III ORG-1

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: MA01MW001

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Contract: Method: EPA 8330A

Prep Batch: 570989 Analytical Batch: 571390

SAMPLE NO : 21510230408

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
1,3,5-Trinitrobenzene	ug/L	10	0	6.31	63	*	65 - 140
1,3-Dinitrobenzene	ug/L	10	0	6.82	68		45 - 160
2,4,6-Trinitrotoluene	ug/L	10	0	5.55	55		50 - 145
2,4-Dinitrotoluene	ug/L	10	0	7.31	73		60 - 135
2,6-Dinitrotoluene	ug/L	10	0	6.13	61		60 - 135
2-Amino-4,6-dinitrotoluene	ug/L	10	0	7.16	72		50 - 155
2-Nitrotoluene	ug/L	10	0	6.58	66		45 - 135
3-Nitrotoluene	ug/L	10	0	6.78	68		50 - 130
4-Amino-2,6-dinitrotoluene	ug/L	10	0	6.56	66		55 - 155
4-Nitrotoluene	ug/L	10	0	6.04	60		50 - 130
HMX	ug/L	10	0	6.41	64	*	80 - 115
Nitrobenzene	ug/L	10	0	6.65	66		50 - 140
Nitroglycerin	ug/L	10	0	7.08	71		40 - 140
Pentaerythritol Tetranitrate	ug/L	10	0	6.87	69		40 - 140
RDX	ug/L	10	0	6.8	68		50 - 160
Tetryl	ug/L	10	0	3.99	40		20 - 175

RPD : 0 out of 16 outside limits

Spike Recovery: 4 out of 32 outside limits

3E
WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: MA01MW001

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215102304

Contract: Method: EPA 8330A

Prep Batch: 570989 Analytical Batch: 571390

SAMPLE NO : ***21510230410***

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
1,3,5-Trinitrobenzene	ug/L	10	6.41	64	*	2		65 - 140	0 - 30
1,3-Dinitrobenzene	ug/L	10	6.9	69		1		45 - 160	0 - 30
2,4,6-Trinitrotoluene	ug/L	10	5.47	55		1		50 - 145	0 - 30
2,4-Dinitrotoluene	ug/L	10	6.93	69		5		60 - 135	0 - 30
2,6-Dinitrotoluene	ug/L	10	6.9	69		12		60 - 135	0 - 30
2-Amino-4,6-dinitrotoluene	ug/L	10	7.17	72		.2		50 - 155	0 - 30
2-Nitrotoluene	ug/L	10	6.39	64		3		45 - 135	0 - 30
3-Nitrotoluene	ug/L	10	6.7	67		1		50 - 130	0 - 30
4-Amino-2,6-dinitrotoluene	ug/L	10	6.65	66		1		55 - 155	0 - 30
4-Nitrotoluene	ug/L	10	5.9	59		2		50 - 130	0 - 30
HMX	ug/L	10	6.84	68	*	6		80 - 115	0 - 30
Nitrobenzene	ug/L	10	6.78	68		2		50 - 140	0 - 30
Nitroglycerin	ug/L	10	7.28	73		3		40 - 140	0 - 30
Pentaerythritol Tetranitrate	ug/L	10	6.5	65		6		40 - 140	0 - 30
RDX	ug/L	10	7.08	71		4		50 - 160	0 - 30
Tetryl	ug/L	10	4.1	41		3		20 - 175	0 - 30

RPD : 0 out of 16 outside limits

Spike Recovery: 4 out of 32 outside limits

FORM III ORG-1

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL | Sample ID: MB1502549

Lab Code: LA024 | Case No.: | Contract:

Lab Sample ID: 1502549 | SAS No.: | SDG No.: 215102304

Matrix: Water | Sulfur Cleanup: (Y/N) N | Date Extracted: 10/26/15

Date Analyzed (1): 10/29/15 | Time (1): 2005 | Date Analyzed (2): | Time (2):

Instrument ID (1): HPLC 3 | Instrument ID (2):

GC Column (1): | ID: (mm) | GC Column (2): | ID: (mm)

Method: EPA 8330A | Prep Batch: 570989 | Analytical Batch: 571390

Lab File ID: 2151029\A26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1502550	1502550	10/29/15	2019	HPLC3
2.	LCSD1502551	1502551	10/29/15	2033	HPLC3
3.	M114MW001	21510230401	10/29/15	2047	HPLC3
4.	M114MW004	21510230402	10/29/15	2101	HPLC3
5.	MA01MW002	21510230404	10/29/15	2115	HPLC3
6.	MA01MW004	21510230405	10/29/15	2129	HPLC3
7.	MA01MW001	21510230407	10/29/15	2143	HPLC3
8.	MA01MW001-MS	21510230408	10/29/15	2157	HPLC3
9.	MA01MW001-MSD	21510230410	10/29/15	2211	HPLC3
10.	MA01MW003	21510230411	10/29/15	2239	HPLC3
11.	MW114MW002	21510230413	10/29/15	2253	HPLC3
12.	MW114MW003	21510230414	10/29/15	2307	HPLC3
13.	MA02MW001D	21510230416	10/29/15	2321	HPLC3
14.	MA02MW001D-a	21510230417	10/29/15	2335	HPLC3
15.	MWQ-24	21510230419	10/29/15	2349	HPLC3

Data File D:\CHEMSTATION\1\DATA\2151027R\2151027 2015-10-28 01-53-15\A000010.D
Sample Name: 1600

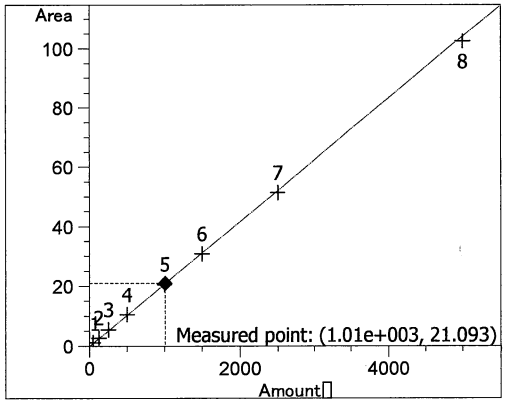
RetTime [min]	Sig	Type	Area [mAU*s]	Amt/Area	Amount	Grp	Name
3.122	2	VV	89.64080	12.95476	1161.27526		3,5-DNA
3.685	1	BV	45.43038	21.98033	998.57473		NB
3.685	2	BV	76.36718	27.00852	2062.56461		NB & NG
3.992	1	VB	31.44864	28.09982	883.70135		TETRYL
4.536	1	BB	53.70827	18.07565	970.81189		2,4,6-TNT
5.040	1	BV	40.43750	24.36780	985.37269		2-A-4,6-DNT
5.219	1	VB	26.88533	34.32746	922.90500		4-A-2,6-DNT
5.847	1	MF	66.79037	14.18724	947.57136		2,4-DNT
5.922	1	FM	33.84740	30.60949	1036.05171		2,6-DNT
8.239	2	VV	62.87980	15.68970	986.56519		2-NT
8.901	2	BV	40.40151	23.83513	962.97516		4-NT
9.173	2	VV	29.48461	34.50840	1017.46654		PETN
9.655	2	VV	74.40142	13.82518	1028.61330		3-NT

Totals : 1.88955e4

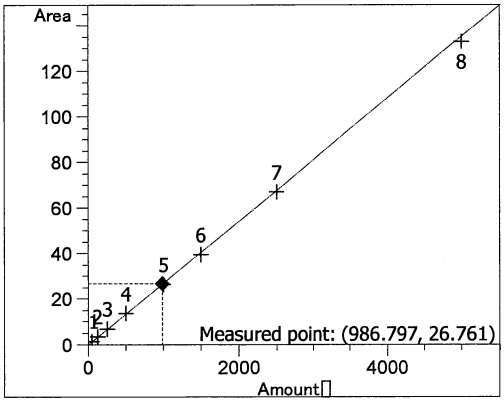
2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Elution order of calibrated compounds may have changed

Calibration Curves

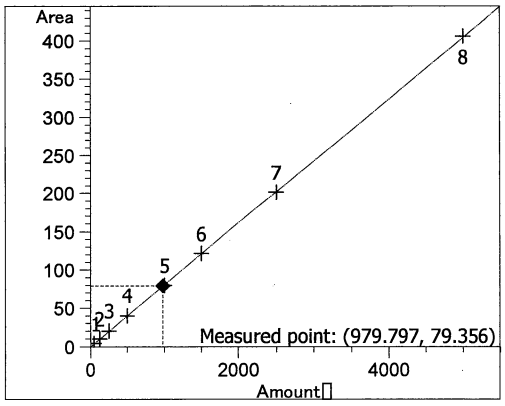


HMX at exp. RT: 0.840
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.83031
Formula: y = mx
m: 2.08831e-2
x: Amount
y: Area

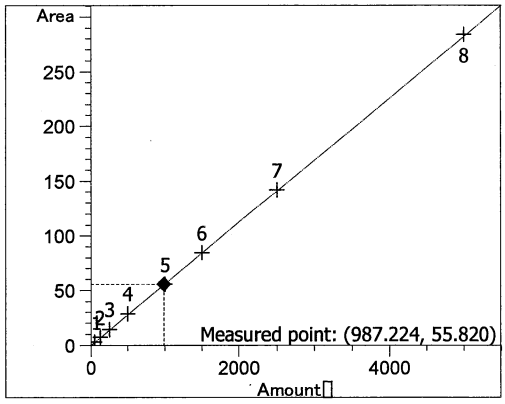


RDX at exp. RT: 1.418
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99998
Residual Std. Dev.: 1.23179
Formula: y = mx
m: 2.71187e-2
x: Amount
y: Area

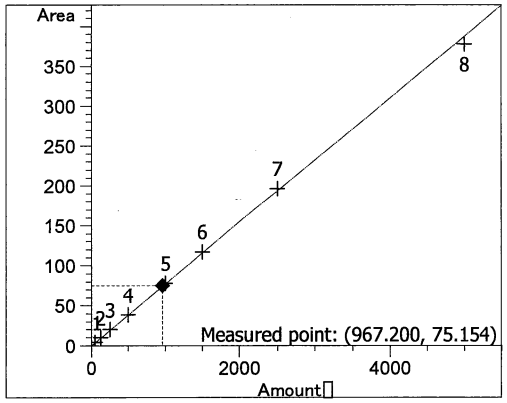
Data File D:\CHEMSTATION\1\DATA\2151027R\2151027 2015-10-28 01-53-15\A000010.D
Sample Name: 1600



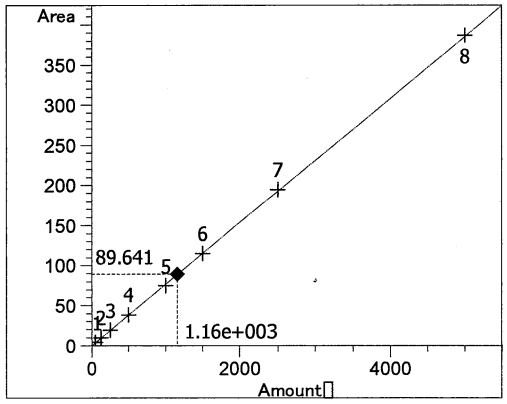
1,3,5-TNB at exp. RT: 2.151
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 0.77483
Formula: y = mx
m: 8.09925e-2
x: Amount
y: Area



1,2-DNB at exp. RT: 2.658
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 0.68131
Formula: y = mx
m: 5.65421e-2
x: Amount
y: Area

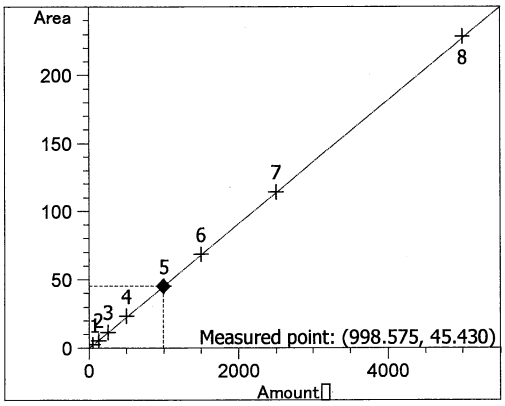


1,3-DNB at exp. RT: 2.828
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99980
Residual Std. Dev.: 4.39263
Formula: y = mx
m: 7.77022e-2
x: Amount
y: Area

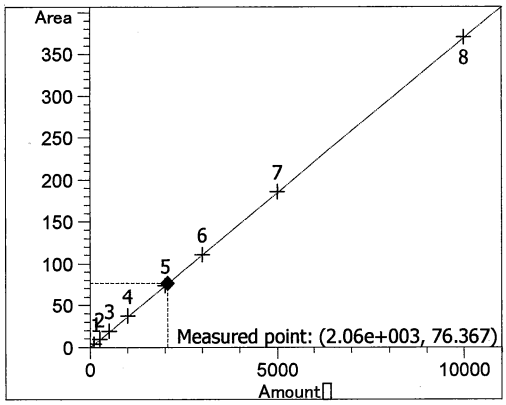


3,5-DNA at exp. RT: 3.127
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99996
Residual Std. Dev.: 1.30571
Formula: y = mx
m: 7.71917e-2
x: Amount
y: Area

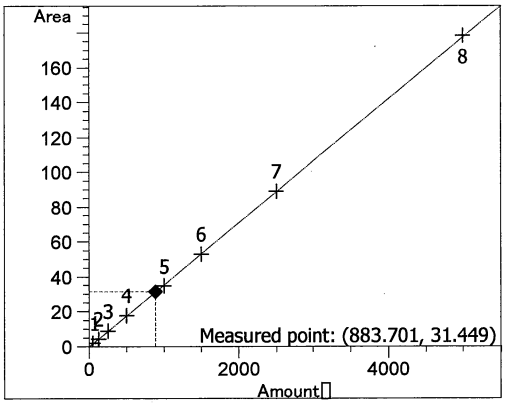
Data File D:\CHEMSTATION\1\DATA\2151027R\2151027 2015-10-28 01-53-15\A000010.D
Sample Name: 1600



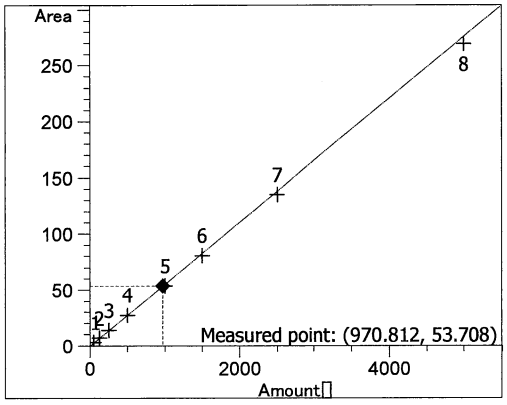
NB at exp. RT: 3.688
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.49665
Formula: y = mx
m: 4.54952e-2
x: Amount
y: Area



NB & NG at exp. RT: 3.687
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 0.43964
Formula: y = mx
m: 3.70254e-2
x: Amount
y: Area

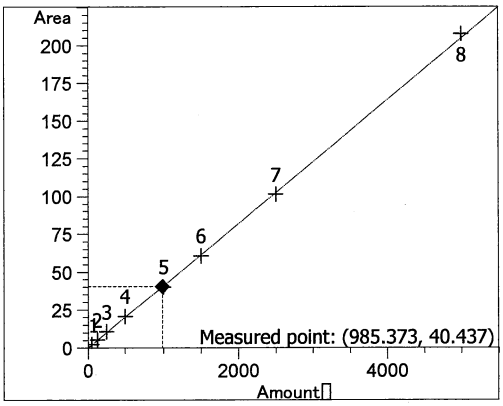


TETRYL at exp. RT: 4.008
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 0.39710
Formula: y = mx
m: 3.55874e-2
x: Amount
y: Area

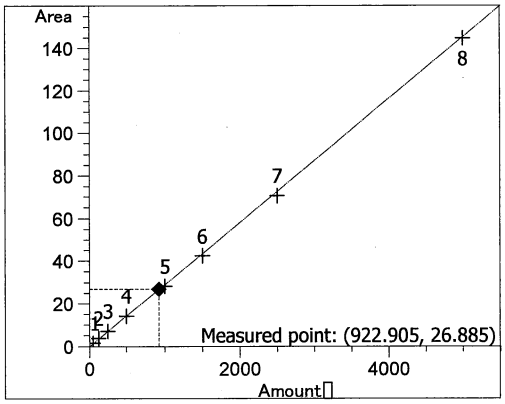


2,4,6-TNT at exp. RT: 4.541
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 1.00000
Residual Std. Dev.: 3.33299
Formula: y = mx
m: 5.53230e-2
x: Amount
y: Area

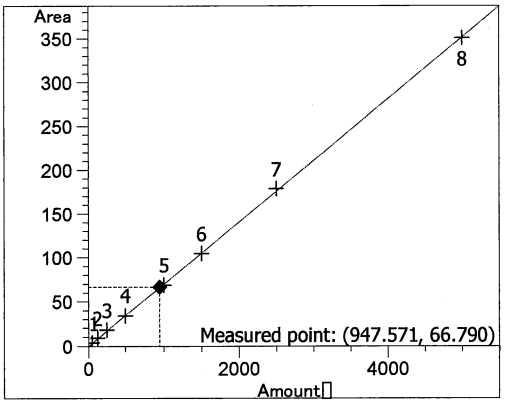
Data File D:\CHEMSTATION\1\DATA\2151027R\2151027 2015-10-28 01-53-15\A000010.D
Sample Name: 1600



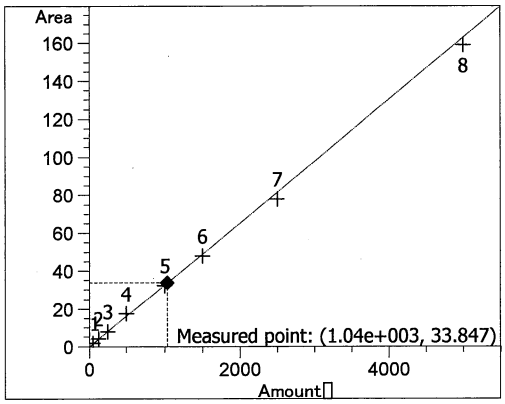
2-A-4,6-DNT at exp. RT: 5.047
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99991
Residual Std. Dev.: 1.22177
Formula: y = mx
m: 4.10378e-2
x: Amount
y: Area



4-A-2,6-DNT at exp. RT: 5.237
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99991
Residual Std. Dev.: 1.18353
Formula: y = mx
m: 2.91312e-2
x: Amount
y: Area

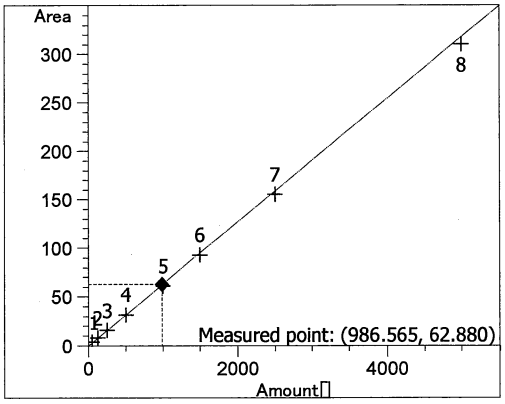


2,4-DNT at exp. RT: 5.847
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99994
Residual Std. Dev.: 1.40839
Formula: y = mx
m: 7.04859e-2
x: Amount
y: Area

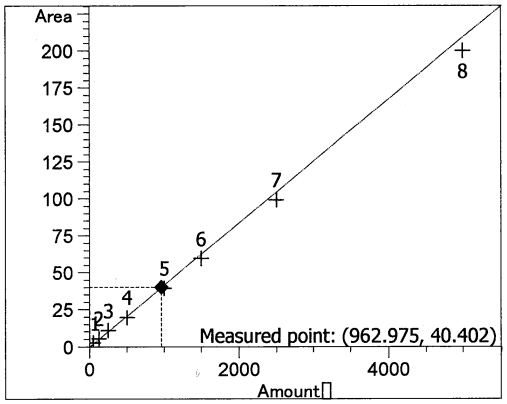


2,6-DNT at exp. RT: 5.974
MWD1 B, Sig=254,4 Ref=360,100
Correlation: 0.99988
Residual Std. Dev.: 2.43594
Formula: y = mx
m: 3.26696e-2
x: Amount
y: Area

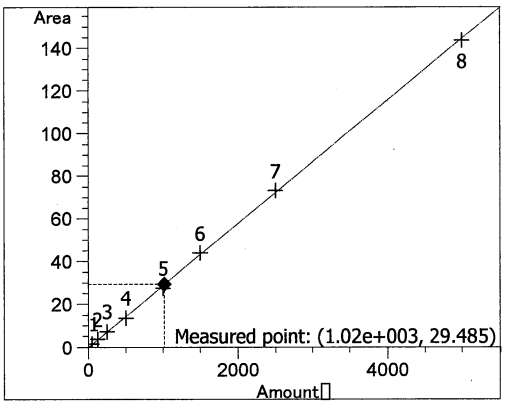
Data File D:\CHEMSTATION\1\DATA\2151027R\2151027 2015-10-28 01-53-15\A000010.D
Sample Name: 1600



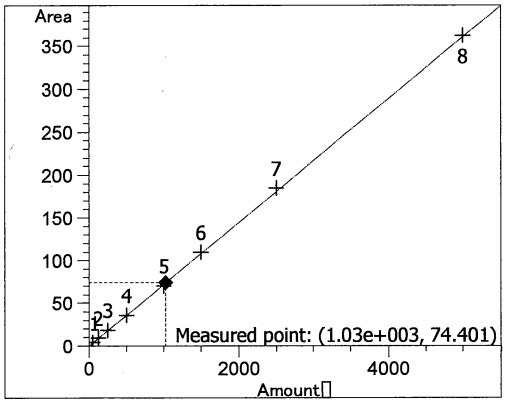
2-NT at exp. RT: 8.242
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99999
Residual Std. Dev.: 3.99724
Formula: y = mx
m: 6.37361e-2
x: Amount
y: Area



4-NT at exp. RT: 8.883
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99997
Residual Std. Dev.: 4.88605
Formula: y = mx
m: 4.19549e-2
x: Amount
y: Area



PETN at exp. RT: 9.145
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99987
Residual Std. Dev.: 0.94796
Formula: y = mx
m: 2.89785e-2
x: Amount
y: Area



3-NT at exp. RT: 9.621
MWD1 C, Sig=210,4 Ref=360,100
Correlation: 0.99992
Residual Std. Dev.: 1.87237
Formula: y = mx
m: 7.23318e-2
x: Amount
y: Area

==========

Continuing Calibration Verification Recovery
29-Oct-15, 19:51:21
*****

Name	Amount Recovered	Expected Concentration	Percent Recovered	Percent Drift	
HMX	940.8994997	1000.0	94.1%	5.9%	
RDX	936.4091886	1000.0	93.6%	6.4%	
1,3,5-TNB	985.6138522	1000.0	98.6%	1.4%	
1,2-DNB	974.1202046	1000.0	97.4%	2.6%	
1,3-DNB	952.9087549	1000.0	95.3%	4.7%	
3,5-DNA	963.8421371	1000.0	96.4%	3.6%	
NB & NG	1843.500758	2000.0	92.2%	7.8%	
NB	911.7860407	1000.0	91.2%	8.8%	
TETRYL	939.0137662	1000.0	93.9%	6.1%	
2,4,6-TNT	951.968924	1000.0	95.2%	4.8%	
2-A-4,6-DNT	955.2290863	1000.0	95.5%	4.5%	
4-A-2,6-DNT	953.2856599	1000.0	95.3%	4.7%	
2,4-DNT	948.2119287	1000.0	94.8%	5.2%	
2,6-DNT	963.1401322	1000.0	96.3%	3.7%	
2-NT	913.1163177	1000.0	91.3%	8.7%	
4-NT	969.7526204	1000.0	97.0%	3.0%	
PETN	875.5229436	1000.0	87.6%	12.4%	
3-NT	948.6481662	1000.0	94.9%	5.1%	

<- is greater than 20%

Continuing Calibration Verification Recovery
29-Oct-15, 22:25:32
*****

Name	Amount Recovered	Expected Concentration	Percent Recovered	Percent Drift	
HMX	951.1631205	1000.0	95.1%	4.9%	
RDX	944.1539411	1000.0	94.4%	5.6%	
1,3,5-TNB	978.131455	1000.0	97.8%	2.2%	
1,2-DNB	983.8714666	1000.0	98.4%	1.6%	
1,3-DNB	957.0089716	1000.0	95.7%	4.3%	
3,5-DNA	959.4309433	1000.0	95.9%	4.1%	
NB & NG	1816.734355	2000.0	90.8%	9.2%	
NB	890.813233	1000.0	89.1%	10.9%	
TETRYL	913.7172352	1000.0	91.4%	8.6%	
2,4,6-TNT	948.539195	1000.0	94.9%	5.1%	
2-A-4,6-DNT	946.7364614	1000.0	94.7%	5.3%	
4-A-2,6-DNT	937.6644426	1000.0	93.8%	6.2%	
2,4-DNT	939.5956932	1000.0	94.0%	6.0%	
2,6-DNT	962.1371711	1000.0	96.2%	3.8%	
2-NT	899.6224469	1000.0	90.0%	10.0%	
4-NT	912.5304535	1000.0	91.3%	8.7%	
PETN	901.3111723	1000.0	90.1%	9.9%	
3-NT	907.7617089	1000.0	90.8%	9.2%	

<- is greater than 20%

Continuing Calibration Verification Recovery
30-Oct-15, 00:03:31
*****

Name	Amount Recovered	Expected Concentration	Percent Recovered	Percent Drift	
HMX	944.0520006	1000.0	94.4%	5.6%	
RDX	941.7692902	1000.0	94.2%	5.8%	
1,3,5-TNB	983.6757124	1000.0	98.4%	1.6%	
1,2-DNB	982.4309906	1000.0	98.2%	1.8%	
1,3-DNB	967.9437337	1000.0	96.8%	3.2%	
3,5-DNA	953.8368684	1000.0	95.4%	4.6%	
NB & NG	1824.104455	2000.0	91.2%	8.8%	
NB	867.7556211	1000.0	86.8%	13.2%	
TETRYL	910.4233223	1000.0	91.0%	9.0%	
2,4,6-TNT	947.6684548	1000.0	94.8%	5.2%	
2-A-4,6-DNT	953.2973725	1000.0	95.3%	4.7%	
4-A-2,6-DNT	940.5009259	1000.0	94.1%	5.9%	
2,4-DNT	985.5858226	1000.0	98.6%	1.4%	
2,6-DNT	901.8119157	1000.0	90.2%	9.8%	
2-NT	888.1850124	1000.0	88.8%	11.2%	
4-NT	919.5775936	1000.0	92.0%	8.0%	
PETN	921.771309	1000.0	92.2%	7.8%	
3-NT	929.1642052	1000.0	92.9%	7.1%	

<- is greater than 20%

8330 SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 10/26/15	Start: 1130	End: 1620	BATCH NO: 570989
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐		LEVEL: LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	SAMPLE TYPE	COMMENT	METHOD
1	QC ACCOUNT	MB for HBN 570989 [EXTO/45057]	1502549	1000	20.0		MB		WATER BATCH SONICATION
2	QC ACCOUNT	LCS for HBN 570989 [EXTO/45057	1502550	1000	20.0		LCS		
3	QC ACCOUNT	LCSD for HBN 570989 [EXTO/4505	1502551	1000	20.0		LCSD		SEA SAND
4	4747	M114MW001	21510230401	1000	20.0		SAMPLE		
5	4747	M114MW004	21510230402	1000	20.0		SAMPLE		ACETONITILE LOT#
6	4747	MA01MW002	21510230404	1000	20.0		SAMPLE		151929
7	4747	MA01MW004	21510230405	1000	20.0		SAMPLE		CALCIUM CHLORIDE LOT#
8	4747	MA01MW001	21510230407	1000	20.0		SAMPLE		
9	4747	MA01MW001-MS	21510230408	1000	20.0		MS		FLORISIL CLEANUP/3620
10	4747	MA01MW001-MSD	21510230410	1000	20.0		MSD		
11	4747	MA01MW003	21510230411	1000	20.0		SAMPLE		HPLC H2O
12	4747	MW114MW002	21510230413	1000	20.0		SAMPLE		153682
13	4747	MW114MW003	21510230414	1000	20.0		SAMPLE		
14	4747	MA02MW001D	21510230416	1000	20.0		SAMPLE		
15	4747	MA02MW001D-a	21510230417	1000	20.0		FLDDUP		
16	4747	MWQ-24	21510230419	1000	20.0		SAMPLE		
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: _____ TEMP: _____

8330 ID	583-33-14	8330 SPIKE ID	583-33-13			TECHNICIAN	DATE
VOLUME	1.0mL		1.0mL			[signature]	10/26/15
CONCENTRATION	10ug/mL		10ug/mL				
ACID						SUPERVISOR	DATE
SPIKE WITNESS	NA					R.J.M	10/26/15

Revision 3, 10/04/2010

Form I

Sample Results

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\015SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1113
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	16.1	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	353000	ug/L		1250	5000
Chromium	4.88	ug/L	J	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	17.7	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	14800	ug/L		250	1000
Selenium	29.8	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	6.70	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001 DL
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\014SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1109
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	283000	ug/L		25000	100000
Sodium	2400000	ug/L		25000	100000

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1142
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOQ*
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\044SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1253
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	16.1	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	345000	ug/L		1250	5000
Chromium	4.71	ug/L	J	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	17.5	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	14500	ug/L		250	1000
Selenium	29.5	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	6.22	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001 DL
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\043SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1250
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	276000	ug/L		25000	100000
Sodium	2380000	ug/L		25000	100000

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW001
Collect Date:	10/22/15 Time: 1110	GCAL Sample ID:	21510230401
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1216
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\017SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1120
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	15.1	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	443000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	12.1	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	16100	ug/L		250	1000
Selenium	24.1	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	6.86	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004 DL
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\016SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1116
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	359000	ug/L		25000	100000
Sodium	2810000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1144
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\046SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1300
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	15.0	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	438000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	11.9	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	15900	ug/L		250	1000
Selenium	23.0	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	6.70	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004 DL
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\045SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1256
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	358000	ug/L		25000	100000
Sodium	2800000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	M114MW004
Collect Date:	10/22/15 Time: 0910	GCAL Sample ID:	21510230402
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1219
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\018SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1123
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	10.0	ug/L	U	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	0.78	ug/L	J	0.50	2.00
Barium	14.1	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Calcium	47900	ug/L		250	1000
Chromium	1.46	ug/L	J	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	0.50	ug/L	U	0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	7.17	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	6290	ug/L		50.0	200
Selenium	4.72	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	12.0	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002 DL
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026C_MS2.b\139SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: TAH
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 0227
Prep Batch:	570844	Analytical Batch:	571022
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	41500	ug/L		2500	10000
Sodium	545000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1146
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\048SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1306
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	10.0	ug/L	U	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	0.78	ug/L	J	0.50	2.00
Barium	14.5	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Calcium	48600	ug/L		250	1000
Chromium	1.39	ug/L	J	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	3.74	ug/L		0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	7.42	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	6490	ug/L		50.0	200
Selenium	4.73	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	12.2	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002 DL
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\047SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1303
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	44200	ug/L		2500	10000
Sodium	577000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW002
Collect Date:	10/22/15 Time: 1238	GCAL Sample ID:	21510230404
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1221
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\019SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1126
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	10.0	ug/L	U	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	1.21	ug/L	J	0.50	2.00
Barium	20.0	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Calcium	44100	ug/L		250	1000
Chromium	0.65	ug/L	J	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	0.50	ug/L	U	0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	5.86	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	5320	ug/L		50.0	200
Selenium	6.27	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	18.4	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004 DL
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026C_MS2.b\141SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: TAH
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 0233
Prep Batch:	570844	Analytical Batch:	571022
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	37100	ug/L		2500	10000
Sodium	333000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1148
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\050SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1313
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	10.0	ug/L	U	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	1.40	ug/L	J	0.50	2.00
Barium	21.1	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Calcium	46300	ug/L		250	1000
Chromium	0.66	ug/L	J	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	3.47	ug/L		0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	6.12	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	5600	ug/L		50.0	200
Selenium	6.67	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	19.1	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004 DL
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\049SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1310
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	40000	ug/L		2500	10000
Sodium	359000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW004
Collect Date:	10/22/15 Time: 1348	GCAL Sample ID:	21510230405
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1223
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\028_ARF.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1157
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	112	ug/L		25.0	100
Antimony	2.50	ug/L	U	2.50	10.0
Arsenic	1.25	ug/L	U	1.25	5.00
Barium	13.6	ug/L		1.25	5.00
Beryllium	1.25	ug/L	U	1.25	5.00
Cadmium	1.25	ug/L	U	1.25	5.00
Calcium	56900	ug/L		625	2500
Chromium	1.25	ug/L	U	1.25	5.00
Cobalt	1.25	ug/L	U	1.25	5.00
Copper	1.25	ug/L	U	1.25	5.00
Iron	125	ug/L	U	125	500
Lead	1.25	ug/L	U	1.25	5.00
Magnesium	48300	ug/L		125	500
Manganese	8.78	ug/L	J	6.25	25.0
Molybdenum	5.95	ug/L		1.25	5.00
Nickel	2.50	ug/L	U	2.50	10.0
Potassium	6440	ug/L		125	500
Selenium	3.52	ug/L	J	1.25	5.00
Silver	1.25	ug/L	U	1.25	5.00
Thallium	1.25	ug/L	U	1.25	5.00
Titanium	2.75	ug/L	J	1.25	5.00
Vanadium	11.8	ug/L		1.25	5.00
Zinc	25.0	ug/L	U	25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001 DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\020_ARF.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1130
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	636000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1150
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\130_ARF.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1832
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	25.0	ug/L	U	25.0	100
Antimony	2.50	ug/L	U	2.50	10.0
Arsenic	1.25	ug/L	U	1.25	5.00
Barium	13.1	ug/L		1.25	5.00
Beryllium	1.25	ug/L	U	1.25	5.00
Cadmium	1.25	ug/L	U	1.25	5.00
Calcium	52200	ug/L		625	2500
Chromium	1.25	ug/L	U	1.25	5.00
Cobalt	1.25	ug/L	U	1.25	5.00
Copper	1.25	ug/L	U	1.25	5.00
Iron	125	ug/L	U	125	500
Lead	1.25	ug/L	U	1.25	5.00
Magnesium	45700	ug/L		125	500
Manganese	6.25	ug/L	U	6.25	25.0
Molybdenum	6.27	ug/L		1.25	5.00
Nickel	2.50	ug/L	U	2.50	10.0
Potassium	6450	ug/L		125	500
Selenium	4.96	ug/L	J	1.25	5.00
Silver	1.25	ug/L	U	1.25	5.00
Thallium	1.25	ug/L	U	1.25	5.00
Titanium	1.25	ug/L	U	1.25	5.00
Vanadium	13.4	ug/L		1.25	5.00
Zinc	25.0	ug/L	U	25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001 DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\054_ARF.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1327
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	570000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230407
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1229
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\029_MS.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1200
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	1230	ug/L		25.0	100
Antimony	119	ug/L		2.50	10.0
Arsenic	55.1	ug/L		1.25	5.00
Barium	67.4	ug/L		1.25	5.00
Beryllium	53.6	ug/L		1.25	5.00
Cadmium	55.2	ug/L		1.25	5.00
Calcium	84700	ug/L		625	2500
Chromium	54.8	ug/L		1.25	5.00
Cobalt	54.0	ug/L		1.25	5.00
Copper	56.4	ug/L		1.25	5.00
Iron	5470	ug/L		125	500
Lead	56.0	ug/L		1.25	5.00
Magnesium	53700	ug/L		125	500
Manganese	59.6	ug/L		6.25	25.0
Molybdenum	61.5	ug/L		1.25	5.00
Nickel	109	ug/L		2.50	10.0
Potassium	11700	ug/L		125	500
Selenium	14.9	ug/L		1.25	5.00
Silver	54.5	ug/L		1.25	5.00
Thallium	56.7	ug/L		1.25	5.00
Titanium	53.8	ug/L		1.25	5.00
Vanadium	65.9	ug/L		1.25	5.00
Zinc	1070	ug/L		25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\021_MS.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1133
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	659000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1152
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	5.38	ug/L		0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\131_MS.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1835
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	1060	ug/L		25.0	100
Antimony	119	ug/L		2.50	10.0
Arsenic	53.4	ug/L		1.25	5.00
Barium	65.5	ug/L		1.25	5.00
Beryllium	51.1	ug/L		1.25	5.00
Cadmium	54.9	ug/L		1.25	5.00
Calcium	77200	ug/L		625	2500
Chromium	51.7	ug/L		1.25	5.00
Cobalt	52.3	ug/L		1.25	5.00
Copper	53.4	ug/L		1.25	5.00
Iron	5170	ug/L		125	500
Lead	54.9	ug/L		1.25	5.00
Magnesium	50000	ug/L		125	500
Manganese	50.9	ug/L		6.25	25.0
Molybdenum	59.8	ug/L		1.25	5.00
Nickel	105	ug/L		2.50	10.0
Potassium	11400	ug/L		125	500
Selenium	14.3	ug/L		1.25	5.00
Silver	49.2	ug/L		1.25	5.00
Thallium	55.9	ug/L		1.25	5.00
Titanium	52.2	ug/L		1.25	5.00
Vanadium	64.0	ug/L		1.25	5.00
Zinc	1060	ug/L		25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\055_MS.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1330
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	556000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MS
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230408
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1231
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	5.41	ug/L		0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\030_MSD.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1204
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	1230	ug/L		25.0	100
Antimony	117	ug/L		2.50	10.0
Arsenic	53.8	ug/L		1.25	5.00
Barium	67.2	ug/L		1.25	5.00
Beryllium	51.6	ug/L		1.25	5.00
Cadmium	54.0	ug/L		1.25	5.00
Calcium	83900	ug/L		625	2500
Chromium	53.0	ug/L		1.25	5.00
Cobalt	52.8	ug/L		1.25	5.00
Copper	55.4	ug/L		1.25	5.00
Iron	5290	ug/L		125	500
Lead	54.7	ug/L		1.25	5.00
Magnesium	54000	ug/L		125	500
Manganese	58.9	ug/L		6.25	25.0
Molybdenum	60.5	ug/L		1.25	5.00
Nickel	105	ug/L		2.50	10.0
Potassium	11500	ug/L		125	500
Selenium	14.7	ug/L		1.25	5.00
Silver	53.2	ug/L		1.25	5.00
Thallium	55.3	ug/L		1.25	5.00
Titanium	55.8	ug/L		1.25	5.00
Vanadium	63.9	ug/L		1.25	5.00
Zinc	1050	ug/L		25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\022_MSD.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1137
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	652000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1153
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	4.95	ug/L		0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\132_MSD.d
Prep Vol.:	50 (mL)	Dilution Factor:	5 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1839
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	1070	ug/L		25.0	100
Antimony	120	ug/L		2.50	10.0
Arsenic	53.8	ug/L		1.25	5.00
Barium	66.5	ug/L		1.25	5.00
Beryllium	52.3	ug/L		1.25	5.00
Cadmium	55.2	ug/L		1.25	5.00
Calcium	77200	ug/L		625	2500
Chromium	52.5	ug/L		1.25	5.00
Cobalt	52.4	ug/L		1.25	5.00
Copper	54.1	ug/L		1.25	5.00
Iron	5210	ug/L		125	500
Lead	55.7	ug/L		1.25	5.00
Magnesium	49900	ug/L		125	500
Manganese	52.1	ug/L		6.25	25.0
Molybdenum	60.5	ug/L		1.25	5.00
Nickel	106	ug/L		2.50	10.0
Potassium	11400	ug/L		125	500
Selenium	14.4	ug/L		1.25	5.00
Silver	49.4	ug/L		1.25	5.00
Thallium	57.0	ug/L		1.25	5.00
Titanium	52.4	ug/L		1.25	5.00
Vanadium	65.8	ug/L		1.25	5.00
Zinc	1070	ug/L		25.0	100

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD DL
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\056_MSD.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1334
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	552000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW001-MSD
Collect Date:	10/22/15 Time: 1255	GCAL Sample ID:	21510230410
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1233
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	5.35	ug/L		0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\033SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1214
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	11.9	ug/L	J	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	0.97	ug/L	J	0.50	2.00
Barium	13.7	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Chromium	0.50	ug/L	U	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	0.50	ug/L	U	0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	4.31	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	7240	ug/L		50.0	200
Selenium	3.96	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	12.9	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003 DL
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026C_MS2.b\143SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: TAH
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 0240
Prep Batch:	570844	Analytical Batch:	571022
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Calcium	84700	ug/L		12500	50000
Magnesium	66300	ug/L		2500	10000
Sodium	514000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1156
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\135SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	2 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1849
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	10.0	ug/L	U	10.0	40.0
Antimony	1.00	ug/L	U	1.00	4.00
Arsenic	1.05	ug/L	J	0.50	2.00
Barium	14.3	ug/L		0.50	2.00
Beryllium	0.50	ug/L	U	0.50	2.00
Cadmium	0.50	ug/L	U	0.50	2.00
Chromium	0.50	ug/L	U	0.50	2.00
Cobalt	0.50	ug/L	U	0.50	2.00
Copper	0.52	ug/L	J	0.50	2.00
Iron	50.0	ug/L	U	50.0	200
Lead	0.50	ug/L	U	0.50	2.00
Manganese	2.50	ug/L	U	2.50	10.0
Molybdenum	4.48	ug/L		0.50	2.00
Nickel	1.00	ug/L	U	1.00	4.00
Potassium	7490	ug/L		50.0	200
Selenium	3.97	ug/L		0.50	2.00
Silver	0.50	ug/L	U	0.50	2.00
Thallium	0.50	ug/L	U	0.50	2.00
Titanium	0.50	ug/L	U	0.50	2.00
Vanadium	13.0	ug/L		0.50	2.00
Zinc	10.0	ug/L	U	10.0	40.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003 DL
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\134SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	100 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1846
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Calcium	79600	ug/L		12500	50000
Magnesium	70000	ug/L		2500	10000
Sodium	512000	ug/L		2500	10000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA01MW003
Collect Date:	10/22/15 Time: 1445	GCAL Sample ID:	21510230411
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1236
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\035SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1221
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	14.9	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	374000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	17.1	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	15400	ug/L		250	1000
Selenium	17.0	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	8.33	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002 DL
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\034SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1217
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	325000	ug/L		25000	100000
Sodium	2720000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1204
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\140SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1906
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	15.7	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	354000	ug/L		1250	5000
Chromium	2.91	ug/L	J	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	4.82	ug/L	J	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	18.8	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	14900	ug/L		250	1000
Selenium	18.9	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	7.67	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002 DL
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\139SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1903
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	310000	ug/L		25000	100000
Sodium	2520000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW002
Collect Date:	10/22/15 Time: 0917	GCAL Sample ID:	21510230413
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1239
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\037SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1227
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	14.7	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	450000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	8.55	ug/L	J	2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	15300	ug/L		250	1000
Selenium	30.1	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	10.4	ug/L		2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003 DL
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\036SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1224
Prep Batch:	570844	Analytical Batch:	571211
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	338000	ug/L		25000	100000
Sodium	3130000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1206
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\142SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1913
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	14.1	ug/L		2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	444000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	3.35	ug/L	J	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Manganese	12.5	ug/L	U	12.5	50.0
Molybdenum	8.69	ug/L	J	2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	15300	ug/L		250	1000
Selenium	31.3	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	9.79	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003 DL
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151028A_MS2.b\141SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: JEL2
Prep Date:	10/23/15	Analysis Date:	10/28/15 Time: 1909
Prep Batch:	570848	Analytical Batch:	571211
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	336000	ug/L		25000	100000
Sodium	2970000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MW114MW003
Collect Date:	10/22/15 Time: 1023	GCAL Sample ID:	21510230414
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/23/15	Analysis Date:	10/27/15 Time: 1241
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\061SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1626
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	8.10	ug/L	J	2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	149000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Magnesium	55100	ug/L		250	1000
Manganese	182	ug/L		12.5	50.0
Molybdenum	19.9	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	7030	ug/L		250	1000
Selenium	50.3	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	5.84	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D DL
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\060SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1623
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	2300000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1317
Prep Batch:	570927	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\019SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1133
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	7.97	ug/L	J	2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	136000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Magnesium	51400	ug/L		250	1000
Manganese	169	ug/L		12.5	50.0
Molybdenum	18.2	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	6780	ug/L		250	1000
Selenium	65.3	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	4.09	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D DL
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\018SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1128
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	2080000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230416
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1415
Prep Batch:	570929	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\064SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1637
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	7.41	ug/L	J	2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	133000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Magnesium	51200	ug/L		250	1000
Manganese	170	ug/L		12.5	50.0
Molybdenum	18.3	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	6500	ug/L		250	1000
Selenium	55.6	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	4.38	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a DL
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\063SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1633
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	2110000	ug/L		25000	100000

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1324
Prep Batch:	570927	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\022SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1149
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	50.0	ug/L	U	50.0	200
Antimony	5.00	ug/L	U	5.00	20.0
Arsenic	2.50	ug/L	U	2.50	10.0
Barium	8.25	ug/L	J	2.50	10.0
Beryllium	2.50	ug/L	U	2.50	10.0
Cadmium	2.50	ug/L	U	2.50	10.0
Calcium	143000	ug/L		1250	5000
Chromium	2.50	ug/L	U	2.50	10.0
Cobalt	2.50	ug/L	U	2.50	10.0
Copper	2.50	ug/L	U	2.50	10.0
Iron	250	ug/L	U	250	1000
Lead	2.50	ug/L	U	2.50	10.0
Magnesium	54700	ug/L		250	1000
Manganese	182	ug/L		12.5	50.0
Molybdenum	19.2	ug/L		2.50	10.0
Nickel	5.00	ug/L	U	5.00	20.0
Potassium	7310	ug/L		250	1000
Selenium	69.3	ug/L		2.50	10.0
Silver	2.50	ug/L	U	2.50	10.0
Thallium	2.50	ug/L	U	2.50	10.0
Titanium	2.50	ug/L	U	2.50	10.0
Vanadium	4.74	ug/L	J	2.50	10.0
Zinc	50.0	ug/L	U	50.0	200

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a DL
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\021SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1000 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1144
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Sodium	2250000	ug/L		25000	100000

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MA02MW001D-a
Collect Date:	10/23/15 Time: 0855	GCAL Sample ID:	21510230417
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1422
Prep Batch:	570929	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\067SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	1 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1647
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	12.0	ug/L	J	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	4.75	ug/L		0.25	1.00
Barium	48.9	ug/L		0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	43100	ug/L		125	500
Chromium	0.84	ug/L	J	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.29	ug/L	J	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	17.2	ug/L		0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	4280	ug/L		25.0	100
Selenium	0.54	ug/L	J	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	30.0	ug/L		0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24 DL
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2151026B_MS2.b\066SMPL_2151027B_MS2.D
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: AWG
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1643
Prep Batch:	570926	Analytical Batch:	571111
Prep Method:	3010A	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	19800	ug/L		250	1000
Sodium	61100	ug/L		250	1000

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1326
Prep Batch:	570927	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\025SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1205
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	8.02	ug/L	J	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	4.71	ug/L		0.25	1.00
Barium	49.4	ug/L		0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	43900	ug/L		125	500
Chromium	0.79	ug/L	J	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.34	ug/L	J	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	16.3	ug/L		0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	4430	ug/L		25.0	100
Selenium	0.49	ug/L	J	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	30.0	ug/L		0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

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INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24 DL
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419 DL
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS1
Sample Amt:	50 mL	Lab File ID:	2151028A_MS1.b\024SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	10 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/28/15 Time: 1200
Prep Batch:	570930	Analytical Batch:	571189
Prep Method:	3005A	Analytical Method:	EPA 6020A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Magnesium	19500	ug/L		250	1000
Sodium	58700	ug/L		250	1000

FORM I - IN

I

INORGANIC ANALYSIS DATA SHEET

Report No:	215102304	Client Sample ID:	MWQ-24
Collect Date:	10/23/15 Time: 1055	GCAL Sample ID:	21510230419
Matrix:	Water % Solids: NA	Instrument ID:	HYDRA
Sample Amt:	20 mL	Lab File ID:	HYDRA
Prep Vol.:	20 (mL)	Dilution Factor:	1 Analyst: LWZ
Prep Date:	10/24/15	Analysis Date:	10/27/15 Time: 1425
Prep Batch:	570929	Analytical Batch:	571083
Prep Method:	7470 Prep Dissol	Analytical Method:	EPA 7470A Dissol

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM I - IN

Form II

Calibration Verifications

II

INITIAL CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1600
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1105	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00500	100	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1132	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00510	103	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1159	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00510	101	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1224	Analytical Method:	EPA 7470A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Mercury	0.00500	0.00540	108	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1251	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00550	109	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1319	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00530	106	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1343	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00520	103	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1410	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00510	102	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1436	Analytical Method:	EPA 7470A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Mercury	0.00500	0.00520	104	mg/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\012CCV1_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1320	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	20.1	100	ug/L
Antimony	2.00	2.02	101	ug/L
Arsenic	1.00	1.04	104	ug/L
Barium	1.00	0.910	91	ug/L
Beryllium	1.00	1.01	101	ug/L
Cadmium	1.00	1.00	100	ug/L
Calcium	500	521	104	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	0.990	99	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	97.7	98	ug/L
Lead	1.00	0.990	99	ug/L
Magnesium	100	100	100	ug/L
Manganese	5.00	4.91	98	ug/L
Molybdenum	1.00	0.960	96	ug/L
Nickel	2.00	1.98	99	ug/L
Potassium	100	95.0	95	ug/L
Selenium	1.00	1.00	100	ug/L
Silver	1.00	1.01	101	ug/L
Sodium	100	103	103	ug/L
Thallium	1.00	1.00	100	ug/L
Titanium	1.00	1.02	102	ug/L
Vanadium	1.00	0.960	96	ug/L
Zinc	20.0	20.4	102	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\014_ICV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1327	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	1000	1030	103	ug/L
Antimony	50.0	49.9	100	ug/L
Arsenic	50.0	51.1	102	ug/L
Barium	50.0	47.4	95	ug/L
Beryllium	50.0	53.4	107	ug/L
Cadmium	50.0	51.7	103	ug/L
Calcium	25000	25600	103	ug/L
Chromium	50.0	50.6	101	ug/L
Cobalt	50.0	50.5	101	ug/L
Copper	50.0	53.0	106	ug/L
Iron	5000	5060	101	ug/L
Lead	50.0	50.6	101	ug/L
Magnesium	5000	5170	103	ug/L
Manganese	50.0	50.4	101	ug/L
Molybdenum	50.0	49.5	99	ug/L
Nickel	100	102	102	ug/L
Potassium	5000	4890	98	ug/L
Selenium	25.0	24.9	100	ug/L
Silver	50.0	51.8	104	ug/L
Sodium	5000	5380	108	ug/L
Thallium	50.0	50.5	101	ug/L
Titanium	50.0	51.5	103	ug/L
Vanadium	50.0	49.7	99	ug/L
Zinc	1000	1020	102	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\033LCCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1433	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	20.3	102	ug/L
Antimony	2.00	1.99	100	ug/L
Arsenic	1.00	1.00	100	ug/L
Barium	1.00	0.910	91	ug/L
Beryllium	1.00	1.01	101	ug/L
Cadmium	1.00	0.990	99	ug/L
Calcium	500	510	102	ug/L
Chromium	1.00	0.960	96	ug/L
Cobalt	1.00	1.00	100	ug/L
Copper	1.00	1.05	105	ug/L
Iron	100	97.2	97	ug/L
Lead	1.00	0.990	99	ug/L
Magnesium	100	99.6	100	ug/L
Manganese	5.00	4.93	99	ug/L
Molybdenum	1.00	0.950	95	ug/L
Nickel	2.00	1.96	98	ug/L
Potassium	100	92.7	93	ug/L
Selenium	1.00	1.10	110	ug/L
Silver	1.00	1.00	100	ug/L
Sodium	100	104	104	ug/L
Thallium	1.00	1.00	100	ug/L
Titanium	1.00	1.09	109	ug/L
Vanadium	1.00	0.960	96	ug/L
Zinc	20.0	20.5	103	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\034_CCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1436	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	204	102	ug/L
Antimony	20.0	20.1	101	ug/L
Arsenic	10.0	9.80	98	ug/L
Barium	10.0	9.22	92	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	9.96	100	ug/L
Calcium	5000	5060	101	ug/L
Chromium	10.0	9.97	100	ug/L
Cobalt	10.0	10.1	101	ug/L
Copper	10.0	10.5	105	ug/L
Iron	1000	1000	100	ug/L
Lead	10.0	9.82	98	ug/L
Magnesium	1000	1000	100	ug/L
Manganese	50.0	50.2	100	ug/L
Molybdenum	10.0	9.73	97	ug/L
Nickel	20.0	20.5	102	ug/L
Potassium	1000	972	97	ug/L
Selenium	10.0	9.92	99	ug/L
Silver	10.0	10.1	101	ug/L
Sodium	1000	1020	102	ug/L
Thallium	10.0	10.1	101	ug/L
Titanium	10.0	10.2	102	ug/L
Vanadium	10.0	9.90	99	ug/L
Zinc	200	203	101	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1804
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\047SMPL_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1539	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	10.0	9.66	97	ug/L
Antimony	1.00	0.990	99	ug/L
Arsenic	0.500	0.500	100	ug/L
Barium	0.500	0.460	92	ug/L
Beryllium	0.500	0.480	96	ug/L
Cadmium	0.500	0.490	98	ug/L
Calcium	250	266	107	ug/L
Chromium	0.500	0.470	93	ug/L
Cobalt	0.500	0.510	102	ug/L
Copper	0.500	0.590	117	ug/L
Iron	50.0	49.1	98	ug/L
Lead	0.500	0.480	96	ug/L
Magnesium	50.0	50.1	100	ug/L
Manganese	2.50	2.44	97	ug/L
Molybdenum	0.500	0.470	94	ug/L
Nickel	1.00	1.01	101	ug/L
Potassium	50.0	45.1	90	ug/L
Selenium	0.500	0.450	90	ug/L
Silver	0.500	0.500	100	ug/L
Sodium	50.0	59.5	119	ug/L
Thallium	0.500	0.480	96	ug/L
Titanium	0.500	0.600	120	ug/L
Vanadium	0.500	0.470	95	ug/L
Zinc	10.0	10.0	100	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\058LCCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1616	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.9	100	ug/L
Antimony	2.00	2.03	101	ug/L
Arsenic	1.00	0.960	96	ug/L
Barium	1.00	0.910	91	ug/L
Beryllium	1.00	0.990	99	ug/L
Cadmium	1.00	1.00	100	ug/L
Calcium	500	509	102	ug/L
Chromium	1.00	0.930	93	ug/L
Cobalt	1.00	0.980	98	ug/L
Copper	1.00	1.06	106	ug/L
Iron	100	96.0	96	ug/L
Lead	1.00	0.980	98	ug/L
Magnesium	100	97.6	98	ug/L
Manganese	5.00	4.83	97	ug/L
Molybdenum	1.00	0.970	97	ug/L
Nickel	2.00	1.93	96	ug/L
Potassium	100	89.8	90	ug/L
Selenium	1.00	0.880	88	ug/L
Silver	1.00	0.980	98	ug/L
Sodium	100	104	104	ug/L
Thallium	1.00	0.990	99	ug/L
Titanium	1.00	1.16	116	ug/L
Vanadium	1.00	0.970	97	ug/L
Zinc	20.0	19.9	100	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\059_CCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1620	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	201	101	ug/L
Antimony	20.0	20.2	101	ug/L
Arsenic	10.0	9.80	98	ug/L
Barium	10.0	9.30	93	ug/L
Beryllium	10.0	9.96	100	ug/L
Cadmium	10.0	9.97	100	ug/L
Calcium	5000	4980	100	ug/L
Chromium	10.0	9.81	98	ug/L
Cobalt	10.0	10.1	101	ug/L
Copper	10.0	10.7	107	ug/L
Iron	1000	970	97	ug/L
Lead	10.0	9.80	98	ug/L
Magnesium	1000	1010	101	ug/L
Manganese	50.0	48.8	98	ug/L
Molybdenum	10.0	9.73	97	ug/L
Nickel	20.0	20.2	101	ug/L
Potassium	1000	966	97	ug/L
Selenium	10.0	9.73	97	ug/L
Silver	10.0	10.0	100	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.1	101	ug/L
Titanium	10.0	9.79	98	ug/L
Vanadium	10.0	9.68	97	ug/L
Zinc	200	201	101	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\072LCCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1704	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.5	97	ug/L
Antimony	2.00	1.96	98	ug/L
Arsenic	1.00	0.910	91	ug/L
Barium	1.00	0.910	91	ug/L
Beryllium	1.00	0.980	98	ug/L
Cadmium	1.00	0.990	99	ug/L
Calcium	500	524	105	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	1.02	102	ug/L
Copper	1.00	1.10	110	ug/L
Iron	100	100	100	ug/L
Lead	1.00	0.990	99	ug/L
Magnesium	100	99.8	100	ug/L
Manganese	5.00	5.06	101	ug/L
Molybdenum	1.00	0.940	94	ug/L
Nickel	2.00	2.00	100	ug/L
Potassium	100	93.3	93	ug/L
Selenium	1.00	0.970	97	ug/L
Silver	1.00	0.990	99	ug/L
Sodium	100	110	110	ug/L
Thallium	1.00	0.970	97	ug/L
Titanium	1.00	0.970	97	ug/L
Vanadium	1.00	1.01	101	ug/L
Zinc	20.0	20.7	104	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\073_CCV_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1707	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	197	98	ug/L
Antimony	20.0	20.2	101	ug/L
Arsenic	10.0	9.78	98	ug/L
Barium	10.0	9.29	93	ug/L
Beryllium	10.0	9.90	99	ug/L
Cadmium	10.0	10.0	100	ug/L
Calcium	5000	4930	99	ug/L
Chromium	10.0	9.71	97	ug/L
Cobalt	10.0	9.95	99	ug/L
Copper	10.0	10.6	106	ug/L
Iron	1000	979	98	ug/L
Lead	10.0	9.79	98	ug/L
Magnesium	1000	993	99	ug/L
Manganese	50.0	48.4	97	ug/L
Molybdenum	10.0	9.68	97	ug/L
Nickel	20.0	20.1	100	ug/L
Potassium	1000	958	96	ug/L
Selenium	10.0	9.60	96	ug/L
Silver	10.0	9.96	100	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.1	101	ug/L
Titanium	10.0	9.94	99	ug/L
Vanadium	10.0	9.58	96	ug/L
Zinc	200	200	100	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1804
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\092SMPL_2151027B_MS2.D
Analyst:	TAH	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1812	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	10.0	13.5	135	ug/L
Antimony	1.00	1.03	103	ug/L
Arsenic	0.500	0.520	104	ug/L
Barium	0.500	0.460	91	ug/L
Beryllium	0.500	0.500	99	ug/L
Cadmium	0.500	0.500	100	ug/L
Calcium	250	263	105	ug/L
Chromium	0.500	0.460	91	ug/L
Cobalt	0.500	0.480	97	ug/L
Copper	0.500	0.520	103	ug/L
Iron	50.0	46.7	93	ug/L
Lead	0.500	0.500	100	ug/L
Magnesium	50.0	49.8	100	ug/L
Manganese	2.50	2.36	94	ug/L
Molybdenum	0.500	0.490	97	ug/L
Nickel	1.00	0.920	92	ug/L
Potassium	50.0	46.0	92	ug/L
Selenium	0.500	0.480	97	ug/L
Silver	0.500	0.490	99	ug/L
Sodium	50.0	52.5	105	ug/L
Thallium	0.500	0.500	100	ug/L
Titanium	0.500	0.520	105	ug/L
Vanadium	0.500	0.490	98	ug/L
Zinc	10.0	9.94	99	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\012CCV1.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/26/15 Time: 1914	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	21.3	106	ug/L
Antimony	2.00	2.02	101	ug/L
Arsenic	1.00	1.01	101	ug/L
Barium	1.00	0.930	93	ug/L
Beryllium	1.00	1.00	100	ug/L
Cadmium	1.00	1.05	105	ug/L
Calcium	500	515	103	ug/L
Chromium	1.00	1.01	101	ug/L
Cobalt	1.00	1.03	103	ug/L
Copper	1.00	1.10	110	ug/L
Iron	100	101	101	ug/L
Lead	1.00	1.00	100	ug/L
Magnesium	100	102	102	ug/L
Manganese	5.00	5.03	101	ug/L
Molybdenum	1.00	0.990	99	ug/L
Nickel	2.00	2.05	102	ug/L
Potassium	100	91.4	91	ug/L
Selenium	1.00	1.01	101	ug/L
Silver	1.00	1.01	101	ug/L
Sodium	100	105	105	ug/L
Thallium	1.00	1.01	101	ug/L
Titanium	1.00	0.960	96	ug/L
Vanadium	1.00	1.00	100	ug/L
Zinc	20.0	20.5	102	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\014_ICV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/26/15 Time: 1921	Analytical Method:	EPA 6020A

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	1000	1000	100	ug/L
Antimony	50.0	49.8	100	ug/L
Arsenic	50.0	51.5	103	ug/L
Barium	50.0	47.4	95	ug/L
Beryllium	50.0	51.7	103	ug/L
Cadmium	50.0	51.9	104	ug/L
Calcium	25000	25100	100	ug/L
Chromium	50.0	51.0	102	ug/L
Cobalt	50.0	50.7	101	ug/L
Copper	50.0	52.1	104	ug/L
Iron	5000	5100	102	ug/L
Lead	50.0	51.0	102	ug/L
Magnesium	5000	5160	103	ug/L
Manganese	50.0	50.9	102	ug/L
Molybdenum	50.0	49.3	99	ug/L
Nickel	100	103	103	ug/L
Potassium	5000	4790	96	ug/L
Selenium	25.0	24.8	99	ug/L
Silver	50.0	52.1	104	ug/L
Sodium	5000	5210	104	ug/L
Thallium	50.0	51.0	102	ug/L
Titanium	50.0	50.0	100	ug/L
Vanadium	50.0	50.2	100	ug/L
Zinc	1000	998	100	ug/L

CONTROL LIMITS 90-110%

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\117LCCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0112	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	22.7	114	ug/L
Antimony	2.00	1.97	98	ug/L
Arsenic	1.00	1.00	100	ug/L
Barium	1.00	0.920	92	ug/L
Beryllium	1.00	0.930	93	ug/L
Cadmium	1.00	0.990	99	ug/L
Calcium	500	524	105	ug/L
Chromium	1.00	0.960	96	ug/L
Cobalt	1.00	1.01	101	ug/L
Copper	1.00	1.08	108	ug/L
Iron	100	101	101	ug/L
Lead	1.00	0.960	96	ug/L
Magnesium	100	101	101	ug/L
Manganese	5.00	5.00	100	ug/L
Molybdenum	1.00	0.960	96	ug/L
Nickel	2.00	2.03	102	ug/L
Potassium	100	88.7	89	ug/L
Selenium	1.00	1.01	101	ug/L
Silver	1.00	0.990	99	ug/L
Sodium	100	110	110	ug/L
Thallium	1.00	0.990	99	ug/L
Titanium	1.00	0.910	91	ug/L
Vanadium	1.00	0.990	99	ug/L
Zinc	20.0	20.3	102	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\118_CCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0115	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	216	108	ug/L
Antimony	20.0	20.0	100	ug/L
Arsenic	10.0	10.4	104	ug/L
Barium	10.0	9.27	93	ug/L
Beryllium	10.0	9.89	99	ug/L
Cadmium	10.0	10.1	101	ug/L
Calcium	5000	5330	107	ug/L
Chromium	10.0	10.5	105	ug/L
Cobalt	10.0	10.7	107	ug/L
Copper	10.0	11.2	112	ug/L
Iron	1000	1070	107	ug/L
Lead	10.0	9.88	99	ug/L
Magnesium	1000	1060	106	ug/L
Manganese	50.0	52.6	105	ug/L
Molybdenum	10.0	9.78	98	ug/L
Nickel	20.0	21.7	108	ug/L
Potassium	1000	1010	101	ug/L
Selenium	10.0	10.4	104	ug/L
Silver	10.0	10.1	101	ug/L
Sodium	1000	1080	108	ug/L
Thallium	10.0	10.1	101	ug/L
Titanium	10.0	10.2	102	ug/L
Vanadium	10.0	10.4	104	ug/L
Zinc	200	212	106	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\134LCCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0210	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	22.1	110	ug/L
Antimony	2.00	1.97	98	ug/L
Arsenic	1.00	1.00	100	ug/L
Barium	1.00	0.900	90	ug/L
Beryllium	1.00	0.950	95	ug/L
Cadmium	1.00	0.980	98	ug/L
Calcium	500	531	106	ug/L
Chromium	1.00	1.01	101	ug/L
Cobalt	1.00	1.03	103	ug/L
Copper	1.00	1.10	110	ug/L
Iron	100	101	101	ug/L
Lead	1.00	0.970	97	ug/L
Magnesium	100	101	101	ug/L
Manganese	5.00	5.06	101	ug/L
Molybdenum	1.00	0.940	94	ug/L
Nickel	2.00	2.09	104	ug/L
Potassium	100	93.7	94	ug/L
Selenium	1.00	1.01	101	ug/L
Silver	1.00	0.980	98	ug/L
Sodium	100	111	111	ug/L
Thallium	1.00	0.990	99	ug/L
Titanium	1.00	0.910	91	ug/L
Vanadium	1.00	0.990	99	ug/L
Zinc	20.0	20.7	104	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\135_CCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0213	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	206	103	ug/L
Antimony	20.0	19.9	99	ug/L
Arsenic	10.0	10.0	100	ug/L
Barium	10.0	9.06	91	ug/L
Beryllium	10.0	9.90	99	ug/L
Cadmium	10.0	9.93	99	ug/L
Calcium	5000	5050	101	ug/L
Chromium	10.0	9.96	100	ug/L
Cobalt	10.0	10.2	102	ug/L
Copper	10.0	10.6	106	ug/L
Iron	1000	1020	102	ug/L
Lead	10.0	9.81	98	ug/L
Magnesium	1000	1020	102	ug/L
Manganese	50.0	50.3	101	ug/L
Molybdenum	10.0	9.71	97	ug/L
Nickel	20.0	20.5	103	ug/L
Potassium	1000	957	96	ug/L
Selenium	10.0	10.2	102	ug/L
Silver	10.0	9.94	99	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.0	100	ug/L
Titanium	10.0	10.1	101	ug/L
Vanadium	10.0	9.95	100	ug/L
Zinc	200	201	101	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\147LCCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0254	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	21.4	107	ug/L
Antimony	2.00	1.97	98	ug/L
Arsenic	1.00	0.970	97	ug/L
Barium	1.00	0.910	91	ug/L
Beryllium	1.00	0.960	96	ug/L
Cadmium	1.00	0.990	99	ug/L
Calcium	500	525	105	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	1.02	102	ug/L
Copper	1.00	1.06	106	ug/L
Iron	100	97.7	98	ug/L
Lead	1.00	0.950	95	ug/L
Magnesium	100	102	102	ug/L
Manganese	5.00	4.98	100	ug/L
Molybdenum	1.00	0.940	94	ug/L
Nickel	2.00	2.03	101	ug/L
Potassium	100	92.8	93	ug/L
Selenium	1.00	1.03	103	ug/L
Silver	1.00	0.970	97	ug/L
Sodium	100	115	115	ug/L
Thallium	1.00	0.980	98	ug/L
Titanium	1.00	1.04	104	ug/L
Vanadium	1.00	0.990	99	ug/L
Zinc	20.0	20.1	101	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\148_CCV.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0257	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	204	102	ug/L
Antimony	20.0	19.9	99	ug/L
Arsenic	10.0	10.0	100	ug/L
Barium	10.0	9.09	91	ug/L
Beryllium	10.0	9.72	97	ug/L
Cadmium	10.0	9.97	100	ug/L
Calcium	5000	5080	102	ug/L
Chromium	10.0	10.0	100	ug/L
Cobalt	10.0	10.2	102	ug/L
Copper	10.0	10.5	105	ug/L
Iron	1000	1010	101	ug/L
Lead	10.0	9.69	97	ug/L
Magnesium	1000	1010	101	ug/L
Manganese	50.0	50.6	101	ug/L
Molybdenum	10.0	9.58	96	ug/L
Nickel	20.0	20.4	102	ug/L
Potassium	1000	964	96	ug/L
Selenium	10.0	9.97	100	ug/L
Silver	10.0	9.95	100	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	10.0	100	ug/L
Titanium	10.0	9.73	97	ug/L
Vanadium	10.0	9.76	98	ug/L
Zinc	200	202	101	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\011CCV1.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1052	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.2	96	ug/L
Antimony	2.00	2.08	104	ug/L
Arsenic	1.00	0.950	95	ug/L
Barium	1.00	0.980	98	ug/L
Beryllium	1.00	0.980	98	ug/L
Cadmium	1.00	1.00	100	ug/L
Calcium	500	507	101	ug/L
Chromium	1.00	1.00	100	ug/L
Cobalt	1.00	1.01	101	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	98.1	98	ug/L
Lead	1.00	0.990	99	ug/L
Magnesium	100	101	101	ug/L
Manganese	5.00	4.85	97	ug/L
Molybdenum	1.00	0.980	98	ug/L
Nickel	2.00	2.04	102	ug/L
Potassium	100	97.9	98	ug/L
Selenium	1.00	0.950	95	ug/L
Silver	1.00	1.03	103	ug/L
Sodium	100	105	105	ug/L
Thallium	1.00	0.970	97	ug/L
Titanium	1.00	1.06	106	ug/L
Vanadium	1.00	0.940	94	ug/L
Zinc	20.0	20.2	101	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\013_ICV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1059	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	1000	1030	103	ug/L
Antimony	50.0	53.9	108	ug/L
Arsenic	50.0	52.6	105	ug/L
Barium	50.0	49.9	100	ug/L
Beryllium	50.0	52.5	105	ug/L
Cadmium	50.0	52.9	106	ug/L
Calcium	25000	25900	104	ug/L
Chromium	50.0	52.2	104	ug/L
Cobalt	50.0	51.4	103	ug/L
Copper	50.0	53.9	108	ug/L
Iron	5000	5190	104	ug/L
Lead	50.0	51.7	103	ug/L
Magnesium	5000	5330	107	ug/L
Manganese	50.0	51.7	103	ug/L
Molybdenum	50.0	50.1	100	ug/L
Nickel	100	106	106	ug/L
Potassium	5000	4870	97	ug/L
Selenium	25.0	25.4	102	ug/L
Silver	50.0	54.0	108	ug/L
Sodium	5000	5280	106	ug/L
Thallium	50.0	51.4	103	ug/L
Titanium	50.0	50.6	101	ug/L
Vanadium	50.0	51.3	103	ug/L
Zinc	1000	1030	103	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\026LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1150	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.2	96	ug/L
Antimony	2.00	2.15	107	ug/L
Arsenic	1.00	0.960	96	ug/L
Barium	1.00	0.980	98	ug/L
Beryllium	1.00	1.01	101	ug/L
Cadmium	1.00	1.02	102	ug/L
Calcium	500	505	101	ug/L
Chromium	1.00	1.02	102	ug/L
Cobalt	1.00	1.04	104	ug/L
Copper	1.00	1.07	107	ug/L
Iron	100	98.6	99	ug/L
Lead	1.00	0.990	99	ug/L
Magnesium	100	103	103	ug/L
Manganese	5.00	5.00	100	ug/L
Molybdenum	1.00	0.960	96	ug/L
Nickel	2.00	2.05	103	ug/L
Potassium	100	98.2	98	ug/L
Selenium	1.00	1.02	102	ug/L
Silver	1.00	1.03	103	ug/L
Sodium	100	112	112	ug/L
Thallium	1.00	1.00	100	ug/L
Titanium	1.00	1.05	105	ug/L
Vanadium	1.00	0.970	97	ug/L
Zinc	20.0	20.4	102	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\027_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1154	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	203	101	ug/L
Antimony	20.0	20.5	102	ug/L
Arsenic	10.0	10.0	100	ug/L
Barium	10.0	9.81	98	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	10.2	102	ug/L
Calcium	5000	5000	100	ug/L
Chromium	10.0	10.1	101	ug/L
Cobalt	10.0	10.2	102	ug/L
Copper	10.0	10.8	108	ug/L
Iron	1000	1030	103	ug/L
Lead	10.0	10.1	101	ug/L
Magnesium	1000	1030	103	ug/L
Manganese	50.0	50.2	100	ug/L
Molybdenum	10.0	9.85	99	ug/L
Nickel	20.0	20.9	104	ug/L
Potassium	1000	980	98	ug/L
Selenium	10.0	10.2	102	ug/L
Silver	10.0	10.5	105	ug/L
Sodium	1000	1060	106	ug/L
Thallium	10.0	10.3	103	ug/L
Titanium	10.0	9.96	100	ug/L
Vanadium	10.0	9.90	99	ug/L
Zinc	200	204	102	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\039LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1234	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.4	97	ug/L
Antimony	2.00	2.06	103	ug/L
Arsenic	1.00	0.950	95	ug/L
Barium	1.00	0.970	97	ug/L
Beryllium	1.00	1.02	102	ug/L
Cadmium	1.00	1.01	101	ug/L
Calcium	500	508	102	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	1.02	102	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	101	101	ug/L
Lead	1.00	1.00	100	ug/L
Magnesium	100	106	106	ug/L
Manganese	5.00	4.99	100	ug/L
Molybdenum	1.00	0.970	97	ug/L
Nickel	2.00	2.10	105	ug/L
Potassium	100	98.5	98	ug/L
Selenium	1.00	0.910	91	ug/L
Silver	1.00	1.05	105	ug/L
Sodium	100	135	135	ug/L
Thallium	1.00	1.00	100	ug/L
Titanium	1.00	1.12	112	ug/L
Vanadium	1.00	0.970	97	ug/L
Zinc	20.0	20.8	104	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\040_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1238	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	205	103	ug/L
Antimony	20.0	20.7	104	ug/L
Arsenic	10.0	10.1	101	ug/L
Barium	10.0	9.90	99	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	10.4	104	ug/L
Calcium	5000	5100	102	ug/L
Chromium	10.0	10.1	101	ug/L
Cobalt	10.0	10.2	102	ug/L
Copper	10.0	10.8	108	ug/L
Iron	1000	1010	101	ug/L
Lead	10.0	10.2	102	ug/L
Magnesium	1000	1050	105	ug/L
Manganese	50.0	50.3	101	ug/L
Molybdenum	10.0	9.98	100	ug/L
Nickel	20.0	20.9	105	ug/L
Potassium	1000	978	98	ug/L
Selenium	10.0	10.1	101	ug/L
Silver	10.0	10.6	106	ug/L
Sodium	1000	1100	110	ug/L
Thallium	10.0	10.4	104	ug/L
Titanium	10.0	10.1	101	ug/L
Vanadium	10.0	9.90	99	ug/L
Zinc	200	205	103	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\052LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1320	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.2	96	ug/L
Antimony	2.00	2.12	106	ug/L
Arsenic	1.00	0.980	98	ug/L
Barium	1.00	0.980	98	ug/L
Beryllium	1.00	1.01	101	ug/L
Cadmium	1.00	1.04	104	ug/L
Calcium	500	514	103	ug/L
Chromium	1.00	1.00	100	ug/L
Cobalt	1.00	1.02	102	ug/L
Copper	1.00	1.07	107	ug/L
Iron	100	100	100	ug/L
Lead	1.00	1.01	101	ug/L
Magnesium	100	105	105	ug/L
Manganese	5.00	4.95	99	ug/L
Molybdenum	1.00	0.990	99	ug/L
Nickel	2.00	2.07	104	ug/L
Potassium	100	99.3	99	ug/L
Selenium	1.00	0.930	93	ug/L
Silver	1.00	1.06	106	ug/L
Sodium	100	137	137	ug/L
Thallium	1.00	1.03	103	ug/L
Titanium	1.00	0.890	89	ug/L
Vanadium	1.00	0.940	94	ug/L
Zinc	20.0	20.6	103	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\053_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1323	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	207	103	ug/L
Antimony	20.0	20.9	104	ug/L
Arsenic	10.0	10.1	101	ug/L
Barium	10.0	9.93	99	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	10.5	105	ug/L
Calcium	5000	5090	102	ug/L
Chromium	10.0	10.1	101	ug/L
Cobalt	10.0	10.3	103	ug/L
Copper	10.0	10.9	109	ug/L
Iron	1000	1030	103	ug/L
Lead	10.0	10.3	103	ug/L
Magnesium	1000	1060	106	ug/L
Manganese	50.0	50.3	101	ug/L
Molybdenum	10.0	9.98	100	ug/L
Nickel	20.0	21.0	105	ug/L
Potassium	1000	988	99	ug/L
Selenium	10.0	10.0	100	ug/L
Silver	10.0	10.7	107	ug/L
Sodium	1000	1100	110	ug/L
Thallium	10.0	10.5	105	ug/L
Titanium	10.0	9.69	97	ug/L
Vanadium	10.0	9.90	99	ug/L
Zinc	200	206	103	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\059LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1344	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.4	97	ug/L
Antimony	2.00	2.11	106	ug/L
Arsenic	1.00	0.950	95	ug/L
Barium	1.00	0.980	98	ug/L
Beryllium	1.00	1.01	101	ug/L
Cadmium	1.00	1.04	104	ug/L
Calcium	500	525	105	ug/L
Chromium	1.00	0.980	98	ug/L
Cobalt	1.00	1.01	101	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	102	102	ug/L
Lead	1.00	1.01	101	ug/L
Magnesium	100	104	104	ug/L
Manganese	5.00	4.95	99	ug/L
Molybdenum	1.00	1.00	100	ug/L
Nickel	2.00	2.06	103	ug/L
Potassium	100	102	102	ug/L
Selenium	1.00	0.900	90	ug/L
Silver	1.00	1.06	106	ug/L
Sodium	100	120	120	ug/L
Thallium	1.00	1.01	101	ug/L
Titanium	1.00	1.06	106	ug/L
Vanadium	1.00	0.980	98	ug/L
Zinc	20.0	20.8	104	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\060_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1347	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	203	102	ug/L
Antimony	20.0	20.9	105	ug/L
Arsenic	10.0	10.1	101	ug/L
Barium	10.0	9.93	99	ug/L
Beryllium	10.0	10.2	102	ug/L
Cadmium	10.0	10.5	105	ug/L
Calcium	5000	5040	101	ug/L
Chromium	10.0	10.1	101	ug/L
Cobalt	10.0	10.3	103	ug/L
Copper	10.0	10.8	108	ug/L
Iron	1000	1020	102	ug/L
Lead	10.0	10.3	103	ug/L
Magnesium	1000	1040	104	ug/L
Manganese	50.0	50.4	101	ug/L
Molybdenum	10.0	10.1	101	ug/L
Nickel	20.0	20.9	104	ug/L
Potassium	1000	987	99	ug/L
Selenium	10.0	10.1	101	ug/L
Silver	10.0	10.8	108	ug/L
Sodium	1000	1080	108	ug/L
Thallium	10.0	10.5	105	ug/L
Titanium	10.0	10.2	102	ug/L
Vanadium	10.0	9.81	98	ug/L
Zinc	200	205	102	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\128LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1825	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	20.0	100	ug/L
Antimony	2.00	2.20	110	ug/L
Arsenic	1.00	1.04	104	ug/L
Barium	1.00	1.03	103	ug/L
Beryllium	1.00	1.03	103	ug/L
Cadmium	1.00	1.07	107	ug/L
Calcium	500	533	107	ug/L
Chromium	1.00	1.00	100	ug/L
Cobalt	1.00	1.04	104	ug/L
Copper	1.00	1.09	109	ug/L
Iron	100	104	104	ug/L
Lead	1.00	1.05	105	ug/L
Magnesium	100	108	108	ug/L
Manganese	5.00	5.04	101	ug/L
Molybdenum	1.00	1.02	102	ug/L
Nickel	2.00	2.14	107	ug/L
Potassium	100	102	102	ug/L
Selenium	1.00	0.870	87	ug/L
Silver	1.00	1.08	108	ug/L
Sodium	100	115	115	ug/L
Thallium	1.00	1.06	106	ug/L
Titanium	1.00	0.940	94	ug/L
Vanadium	1.00	0.960	96	ug/L
Zinc	20.0	21.1	106	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\129_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1829	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	209	104	ug/L
Antimony	20.0	21.7	108	ug/L
Arsenic	10.0	10.1	101	ug/L
Barium	10.0	10.2	102	ug/L
Beryllium	10.0	10.3	103	ug/L
Cadmium	10.0	10.8	108	ug/L
Calcium	5000	5140	103	ug/L
Chromium	10.0	10.2	102	ug/L
Cobalt	10.0	10.4	104	ug/L
Copper	10.0	10.7	107	ug/L
Iron	1000	1030	103	ug/L
Lead	10.0	10.7	107	ug/L
Magnesium	1000	1060	106	ug/L
Manganese	50.0	50.7	101	ug/L
Molybdenum	10.0	10.2	102	ug/L
Nickel	20.0	21.1	105	ug/L
Potassium	1000	997	100	ug/L
Selenium	10.0	10.1	101	ug/L
Silver	10.0	11.0	110	ug/L
Sodium	1000	1060	106	ug/L
Thallium	10.0	10.9	109	ug/L
Titanium	10.0	9.77	98	ug/L
Vanadium	10.0	9.83	98	ug/L
Zinc	200	208	104	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\137LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1856	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	20.0	100	ug/L
Antimony	2.00	2.19	110	ug/L
Arsenic	1.00	1.01	101	ug/L
Barium	1.00	1.00	100	ug/L
Beryllium	1.00	1.06	106	ug/L
Cadmium	1.00	1.05	105	ug/L
Calcium	500	528	106	ug/L
Chromium	1.00	1.02	102	ug/L
Cobalt	1.00	1.06	106	ug/L
Copper	1.00	1.10	110	ug/L
Iron	100	103	103	ug/L
Lead	1.00	1.05	105	ug/L
Magnesium	100	106	106	ug/L
Manganese	5.00	4.97	99	ug/L
Molybdenum	1.00	1.02	102	ug/L
Nickel	2.00	2.10	105	ug/L
Potassium	100	103	103	ug/L
Selenium	1.00	0.960	96	ug/L
Silver	1.00	1.08	108	ug/L
Sodium	100	130	130	ug/L
Thallium	1.00	1.03	103	ug/L
Titanium	1.00	1.02	102	ug/L
Vanadium	1.00	0.960	96	ug/L
Zinc	20.0	21.4	107	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\138_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1859	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	208	104	ug/L
Antimony	20.0	21.6	108	ug/L
Arsenic	10.0	10.1	101	ug/L
Barium	10.0	10.2	102	ug/L
Beryllium	10.0	10.5	105	ug/L
Cadmium	10.0	10.9	109	ug/L
Calcium	5000	5100	102	ug/L
Chromium	10.0	10.2	102	ug/L
Cobalt	10.0	10.4	104	ug/L
Copper	10.0	10.8	108	ug/L
Iron	1000	1020	102	ug/L
Lead	10.0	10.6	106	ug/L
Magnesium	1000	1060	106	ug/L
Manganese	50.0	50.6	101	ug/L
Molybdenum	10.0	10.3	103	ug/L
Nickel	20.0	21.4	107	ug/L
Potassium	1000	1000	100	ug/L
Selenium	10.0	9.83	98	ug/L
Silver	10.0	10.8	108	ug/L
Sodium	1000	1080	108	ug/L
Thallium	10.0	10.8	108	ug/L
Titanium	10.0	10.3	103	ug/L
Vanadium	10.0	9.87	99	ug/L
Zinc	200	210	105	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\146LCCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1926	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.3	97	ug/L
Antimony	2.00	2.20	110	ug/L
Arsenic	1.00	0.990	99	ug/L
Barium	1.00	1.01	101	ug/L
Beryllium	1.00	1.02	102	ug/L
Cadmium	1.00	1.07	107	ug/L
Calcium	500	516	103	ug/L
Chromium	1.00	0.980	98	ug/L
Cobalt	1.00	1.05	105	ug/L
Copper	1.00	1.10	110	ug/L
Iron	100	101	101	ug/L
Lead	1.00	1.06	106	ug/L
Magnesium	100	106	106	ug/L
Manganese	5.00	4.94	99	ug/L
Molybdenum	1.00	1.01	101	ug/L
Nickel	2.00	2.06	103	ug/L
Potassium	100	104	104	ug/L
Selenium	1.00	0.890	89	ug/L
Silver	1.00	1.07	107	ug/L
Sodium	100	129	129	ug/L
Thallium	1.00	1.04	104	ug/L
Titanium	1.00	1.01	101	ug/L
Vanadium	1.00	0.940	94	ug/L
Zinc	20.0	21.0	105	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\147_CCV.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1930	Analytical Method:	EPA 6020A

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	208	104	ug/L
Antimony	20.0	21.8	109	ug/L
Arsenic	10.0	10.2	102	ug/L
Barium	10.0	10.2	102	ug/L
Beryllium	10.0	10.4	104	ug/L
Cadmium	10.0	10.8	108	ug/L
Calcium	5000	5060	101	ug/L
Chromium	10.0	10.1	101	ug/L
Cobalt	10.0	10.4	104	ug/L
Copper	10.0	10.7	107	ug/L
Iron	1000	1020	102	ug/L
Lead	10.0	10.7	107	ug/L
Magnesium	1000	1060	106	ug/L
Manganese	50.0	50.4	101	ug/L
Molybdenum	10.0	10.2	102	ug/L
Nickel	20.0	21.1	105	ug/L
Potassium	1000	990	99	ug/L
Selenium	10.0	10.2	102	ug/L
Silver	10.0	10.9	109	ug/L
Sodium	1000	1070	107	ug/L
Thallium	10.0	10.9	109	ug/L
Titanium	10.0	9.61	96	ug/L
Vanadium	10.0	10.0	100	ug/L
Zinc	200	208	104	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\012CCV1.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1005	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	22.5	112	ug/L
Antimony	2.00	1.94	97	ug/L
Arsenic	1.00	0.960	96	ug/L
Barium	1.00	0.980	98	ug/L
Beryllium	1.00	0.980	98	ug/L
Cadmium	1.00	0.970	97	ug/L
Calcium	500	506	101	ug/L
Chromium	1.00	1.00	100	ug/L
Cobalt	1.00	1.00	100	ug/L
Copper	1.00	1.01	101	ug/L
Iron	100	106	106	ug/L
Lead	1.00	0.960	96	ug/L
Magnesium	100	101	101	ug/L
Manganese	5.00	4.90	98	ug/L
Molybdenum	1.00	1.00	100	ug/L
Nickel	2.00	2.06	103	ug/L
Potassium	100	96.6	97	ug/L
Selenium	1.00	1.09	109	ug/L
Silver	1.00	0.950	95	ug/L
Sodium	100	106	106	ug/L
Thallium	1.00	0.910	91	ug/L
Titanium	1.00	0.890	89	ug/L
Vanadium	1.00	0.910	91	ug/L
Zinc	20.0	19.5	98	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

INITIAL CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1600
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\015_ICV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1048	Analytical Method:	EPA 6020A Dissolved

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*UNITS*
Aluminum	1000	1020	102	ug/L
Antimony	50.0	48.9	98	ug/L
Arsenic	50.0	51.8	104	ug/L
Barium	50.0	49.6	99	ug/L
Beryllium	50.0	49.7	99	ug/L
Cadmium	50.0	50.5	101	ug/L
Calcium	25000	25600	103	ug/L
Chromium	50.0	50.6	101	ug/L
Cobalt	50.0	50.4	101	ug/L
Copper	50.0	51.7	103	ug/L
Iron	5000	5080	102	ug/L
Lead	50.0	50.0	100	ug/L
Magnesium	5000	4930	99	ug/L
Manganese	50.0	51.1	102	ug/L
Molybdenum	50.0	48.7	97	ug/L
Nickel	100	102	102	ug/L
Potassium	5000	4940	99	ug/L
Selenium	25.0	25.9	104	ug/L
Silver	50.0	49.4	99	ug/L
Sodium	5000	5280	106	ug/L
Thallium	50.0	51.2	102	ug/L
Titanium	50.0	51.3	103	ug/L
Vanadium	50.0	49.9	100	ug/L
Zinc	1000	1010	101	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\032LCCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1242	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	19.6	98	ug/L
Antimony	2.00	1.88	94	ug/L
Arsenic	1.00	0.940	94	ug/L
Barium	1.00	0.960	96	ug/L
Beryllium	1.00	0.940	94	ug/L
Cadmium	1.00	0.960	96	ug/L
Calcium	500	450	90	ug/L
Chromium	1.00	0.970	97	ug/L
Cobalt	1.00	0.990	99	ug/L
Copper	1.00	1.03	103	ug/L
Iron	100	94.6	95	ug/L
Lead	1.00	0.950	95	ug/L
Magnesium	100	98.8	99	ug/L
Manganese	5.00	4.92	98	ug/L
Molybdenum	1.00	0.910	91	ug/L
Nickel	2.00	1.87	94	ug/L
Potassium	100	99.4	99	ug/L
Selenium	1.00	1.00	100	ug/L
Silver	1.00	0.950	95	ug/L
Sodium	100	105	105	ug/L
Thallium	1.00	0.900	90	ug/L
Titanium	1.00	1.12	112	ug/L
Vanadium	1.00	1.00	100	ug/L
Zinc	20.0	19.3	97	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\033_CCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1247	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	200	100	ug/L
Antimony	20.0	19.0	95	ug/L
Arsenic	10.0	9.84	98	ug/L
Barium	10.0	9.55	95	ug/L
Beryllium	10.0	9.72	97	ug/L
Cadmium	10.0	9.67	97	ug/L
Calcium	5000	4990	100	ug/L
Chromium	10.0	9.83	98	ug/L
Cobalt	10.0	9.97	100	ug/L
Copper	10.0	10.2	102	ug/L
Iron	1000	983	98	ug/L
Lead	10.0	9.71	97	ug/L
Magnesium	1000	1010	101	ug/L
Manganese	50.0	49.4	99	ug/L
Molybdenum	10.0	9.46	95	ug/L
Nickel	20.0	19.9	100	ug/L
Potassium	1000	1000	100	ug/L
Selenium	10.0	9.81	98	ug/L
Silver	10.0	9.57	96	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	9.52	95	ug/L
Titanium	10.0	9.80	98	ug/L
Vanadium	10.0	9.62	96	ug/L
Zinc	200	199	100	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\072LCCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1639	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	18.4	92	ug/L
Antimony	2.00	1.89	94	ug/L
Arsenic	1.00	0.960	96	ug/L
Barium	1.00	0.950	95	ug/L
Beryllium	1.00	0.820	82	ug/L
Cadmium	1.00	0.960	96	ug/L
Calcium	500	461	92	ug/L
Chromium	1.00	0.970	97	ug/L
Cobalt	1.00	1.00	100	ug/L
Copper	1.00	1.05	105	ug/L
Iron	100	95.8	96	ug/L
Lead	1.00	0.930	93	ug/L
Magnesium	100	99.0	99	ug/L
Manganese	5.00	4.64	93	ug/L
Molybdenum	1.00	0.910	91	ug/L
Nickel	2.00	1.97	99	ug/L
Potassium	100	98.1	98	ug/L
Selenium	1.00	0.880	88	ug/L
Silver	1.00	0.930	93	ug/L
Sodium	100	105	105	ug/L
Thallium	1.00	0.910	91	ug/L
Titanium	1.00	1.29	129	ug/L
Vanadium	1.00	0.960	96	ug/L
Zinc	20.0	18.8	94	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\073_CCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1644	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	190	95	ug/L
Antimony	20.0	18.6	93	ug/L
Arsenic	10.0	9.57	96	ug/L
Barium	10.0	9.50	95	ug/L
Beryllium	10.0	8.59	86	ug/L
Cadmium	10.0	9.52	95	ug/L
Calcium	5000	4870	97	ug/L
Chromium	10.0	9.90	99	ug/L
Cobalt	10.0	9.99	100	ug/L
Copper	10.0	10.2	102	ug/L
Iron	1000	969	97	ug/L
Lead	10.0	9.58	96	ug/L
Magnesium	1000	993	99	ug/L
Manganese	50.0	48.0	96	ug/L
Molybdenum	10.0	9.18	92	ug/L
Nickel	20.0	20.1	101	ug/L
Potassium	1000	976	98	ug/L
Selenium	10.0	9.36	94	ug/L
Silver	10.0	9.25	93	ug/L
Sodium	1000	1030	103	ug/L
Thallium	10.0	9.32	93	ug/L
Titanium	10.0	10.0	100	ug/L
Vanadium	10.0	9.56	96	ug/L
Zinc	200	197	98	ug/L

CONTROL LIMITS 90-110%

FORM II - IN

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1803
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\093LCCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1831	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	20.0	20.2	101	ug/L
Antimony	2.00	1.85	93	ug/L
Arsenic	1.00	0.960	96	ug/L
Barium	1.00	0.960	96	ug/L
Beryllium	1.00	0.820	82	ug/L
Cadmium	1.00	0.960	96	ug/L
Calcium	500	483	97	ug/L
Chromium	1.00	0.990	99	ug/L
Cobalt	1.00	0.990	99	ug/L
Copper	1.00	0.940	94	ug/L
Iron	100	99.1	99	ug/L
Lead	1.00	0.960	96	ug/L
Magnesium	100	96.4	96	ug/L
Manganese	5.00	4.80	96	ug/L
Molybdenum	1.00	0.930	93	ug/L
Nickel	2.00	1.99	100	ug/L
Potassium	100	94.1	94	ug/L
Selenium	1.00	1.09	109	ug/L
Silver	1.00	0.930	93	ug/L
Sodium	100	109	109	ug/L
Thallium	1.00	0.910	91	ug/L
Titanium	1.00	1.03	103	ug/L
Vanadium	1.00	0.970	97	ug/L
Zinc	20.0	18.9	95	ug/L

CONTROL LIMITS 70-130%; EPA 6020A DOD QSM LIMITS 80-120% for INITIAL LLCCV

FORM II - IN

II

CONTINUING CALIBRATION VERIFICATION

Report No:	215102304	GCAL QC ID:	1800
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\094_CCV.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1836	Analytical Method:	EPA 6020A Dissolved

ANALYTE	TRUE	FOUND	%RECOVERY	UNITS
Aluminum	200	195	97	ug/L
Antimony	20.0	18.5	93	ug/L
Arsenic	10.0	9.83	98	ug/L
Barium	10.0	9.49	95	ug/L
Beryllium	10.0	8.44	84	ug/L
Cadmium	10.0	9.42	94	ug/L
Calcium	5000	5000	100	ug/L
Chromium	10.0	9.95	99	ug/L
Cobalt	10.0	10.1	101	ug/L
Copper	10.0	9.54	95	ug/L
Iron	1000	975	98	ug/L
Lead	10.0	9.54	95	ug/L
Magnesium	1000	1000	100	ug/L
Manganese	50.0	48.2	96	ug/L
Molybdenum	10.0	9.18	92	ug/L
Nickel	20.0	20.4	102	ug/L
Potassium	1000	988	99	ug/L
Selenium	10.0	9.44	94	ug/L
Silver	10.0	9.24	92	ug/L
Sodium	1000	1050	105	ug/L
Thallium	10.0	9.32	93	ug/L
Titanium	10.0	9.73	97	ug/L
Vanadium	10.0	9.63	96	ug/L
Zinc	200	197	98	ug/L

CONTROL LIMITS 90-110%

Form III

Blanks

III

INITIAL CALIBRATION BLANK

Report No:	215102304	Blank ID:	1700
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1108	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1501886
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1111	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1135	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1201	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1501926
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1212	Analytical Method:	EPA 7470A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1226	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1253	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1502430
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1310	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1321	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1346	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1502434
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1403	Analytical Method:	EPA 7470A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.10	ug/L	U	0.10	0.20

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1412	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	HYDRA	Lab File ID:	HYDRA
Analyst:	LWZ	Analytical Batch:	571083
Analysis Date:	10/27/15 Time: 1439	Analytical Method:	EPA 7470A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Mercury	0.00020	mg/L	U	0.00010	0.00020

FORM III - IN

III

INITIAL CALIBRATION BLANK

Report No:	215102304	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\010_ICB_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1313	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1502426
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\015SMPL_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1332	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	5.00	ug/L	U	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Barium	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\031_CCB_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1426	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\057_CCB_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1613	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026B_MS2.b\071_CCB_2151027B_MS2.D
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 1700	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

INITIAL CALIBRATION BLANK

Report No:	215102304	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\010_ICB.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/26/15 Time: 1907	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\116_CCB.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0109	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1501884
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\122SMPL.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0129	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	5.32	ug/L	J	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Barium	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\133_CCB.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0206	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151026C_MS2.b\146_CCB.d
Analyst:	TAH	Analytical Batch:	571022
Analysis Date:	10/27/15 Time: 0250	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

INITIAL CALIBRATION BLANK

Report No:	215102304	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\009_ICB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1045	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\025_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1147	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\038_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1231	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	44.9	ug/L	J	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1501928
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\041MBW.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1243	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	5.00	ug/L	U	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Barium	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\051_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1317	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	46.4	ug/L	J	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\058_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1340	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\127_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1822	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\136_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1852	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	35.6	ug/L	J	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\145_CCB.d
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1923	Analytical Method:	EPA 6020A

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	27.9	ug/L	J	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

INITIAL CALIBRATION BLANK

Report No:	215102304	Blank ID:	1700
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\010_ICB.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 0954	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III
PREPARATION BLANK

Report No:	215102304	Blank ID:	MB1502438
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\016SMPL.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1118	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	5.00	ug/L	U	5.00	20.0
Antimony	0.50	ug/L	U	0.50	2.00
Arsenic	0.25	ug/L	U	0.25	1.00
Barium	0.25	ug/L	U	0.25	1.00
Beryllium	0.25	ug/L	U	0.25	1.00
Cadmium	0.25	ug/L	U	0.25	1.00
Calcium	125	ug/L	U	125	500
Chromium	0.25	ug/L	U	0.25	1.00
Cobalt	0.25	ug/L	U	0.25	1.00
Copper	0.25	ug/L	U	0.25	1.00
Iron	25.0	ug/L	U	25.0	100
Lead	0.25	ug/L	U	0.25	1.00
Magnesium	25.0	ug/L	U	25.0	100
Manganese	1.25	ug/L	U	1.25	5.00
Molybdenum	0.25	ug/L	U	0.25	1.00
Nickel	0.50	ug/L	U	0.50	2.00
Potassium	25.0	ug/L	U	25.0	100
Selenium	0.25	ug/L	U	0.25	1.00
Silver	0.25	ug/L	U	0.25	1.00
Sodium	25.0	ug/L	U	25.0	100
Thallium	0.25	ug/L	U	0.25	1.00
Titanium	0.25	ug/L	U	0.25	1.00
Vanadium	0.25	ug/L	U	0.25	1.00
Zinc	5.00	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\031_CCB.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1237	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\074_CCB.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1650	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

III

CONTINUING CALIBRATION BLANK

Report No:	215102304	Blank ID:	1900
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\092_CCB.d
Analyst:	LWZ	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 1826	Analytical Method:	EPA 6020A Dissolved

ANALYTE	RESULT	UNITS	Q	DL	LOQ
Aluminum	20.0	ug/L	U	5.00	20.0
Antimony	2.00	ug/L	U	0.50	2.00
Arsenic	1.00	ug/L	U	0.25	1.00
Barium	1.00	ug/L	U	0.25	1.00
Beryllium	1.00	ug/L	U	0.25	1.00
Cadmium	1.00	ug/L	U	0.25	1.00
Calcium	500	ug/L	U	125	500
Chromium	1.00	ug/L	U	0.25	1.00
Cobalt	1.00	ug/L	U	0.25	1.00
Copper	1.00	ug/L	U	0.25	1.00
Iron	100	ug/L	U	25.0	100
Lead	1.00	ug/L	U	0.25	1.00
Magnesium	100	ug/L	U	25.0	100
Manganese	5.00	ug/L	U	1.25	5.00
Molybdenum	1.00	ug/L	U	0.25	1.00
Nickel	2.00	ug/L	U	0.50	2.00
Potassium	100	ug/L	U	25.0	100
Selenium	1.00	ug/L	U	0.25	1.00
Silver	1.00	ug/L	U	0.25	1.00
Sodium	100	ug/L	U	25.0	100
Thallium	1.00	ug/L	U	0.25	1.00
Titanium	1.00	ug/L	U	0.25	1.00
Vanadium	1.00	ug/L	U	0.25	1.00
Zinc	20.0	ug/L	U	5.00	20.0

Form IV

Interference Checks

IV

ICPMS INTERFERENCE CHECKS

Report No:	215102304	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	571111
Analyst:	AWG	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151026B_MS2.b\011ICSA_2151027B_MS2.D	Lab File ID ICSAB1:	2151026B_MS2.b\013ICSB_2151027B_MS2.D
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

		Analyzed (A/AB):	10/27/15 1317	10/27/15 1324				
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1030	1050	105			
Antimony	0	0	0.010	0.014				
Arsenic	0	10.0	0.0030	10.4	104			
Barium	0	0	0.023	0.019				
Beryllium	0	0	0.0	0.0010				
Boron	0	20.0	0.84	20.9	104			
Cadmium	0	10.0	0.023	10.5	105			
Calcium	3000	3000	3070	3120	104			
Chromium	0	20.0	0.010	21.3	106			
Cobalt	0	20.0	0.012	21.8	109			
Copper	0	20.0	0.023	21.3	106			
Iron	2500	2500	2540	2560	102			
Lead	0	0	0.0080	0.0080				
Lithium	0	20.0	0.087	21.3	106			
Magnesium	1000	1000	1030	1050	105			
Manganese	0	20.0	0.019	20.1	100			
Molybdenum	20.0	20.0	19.8	20.0	100			
Nickel	0	20.0	0.13	20.8	104			
Potassium	1000	1000	991	1010	101			
Selenium	0	10.0	0.068	10.4	104			
Silicon	0	1000	-5.7	1120	112			
Silver	0	5.00	0.0040	5.13	103			
Sodium	2500	2500	2660	2670	107			
Strontium	0	10.0	0.049	10.3	103			
Thallium	0	0	-0.0010	0.0				
Tin	0	10.0	0.0090	7.60	76			
Titanium	20.0	20.0	20.5	20.1	100			
Vanadium	0	20.0	-0.0080	20.2	101			
Zinc	0	20.0	0.010	20.8	104			
Zirconium	0	20.0	0.0010	19.3	96			

FORM IV - IN

IV

ICPMS INTERFERENCE CHECKS

Report No:	215102304	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	571022
Analyst:	TAH	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151026C_MS2.b\011ICSA.d	Lab File ID ICSAB1:	2151026C_MS2.b\013ICSB.d
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

		Analyzed (A/AB):	10/26/15 1910	10/26/15 1917				
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1030	1080	108			
Antimony	0	0	0.015	0.016				
Arsenic	0	10.0	0.010	10.4	104			
Barium	0	0	0.016	0.026				
Beryllium	0	0	0.0010	0.0				
Boron	0	20.0	0.99	21.0	105			
Cadmium	0	10.0	0.018	10.5	105			
Calcium	3000	3000	3010	3110	104			
Chromium	0	20.0	0.014	21.5	108			
Cobalt	0	20.0	0.012	21.9	110			
Copper	0	20.0	0.018	21.5	108			
Iron	2500	2500	2610	2560	102			
Lead	0	0	0.0080	0.013				
Lithium	0	20.0	-0.099	20.4	102			
Magnesium	1000	1000	1040	1050	105			
Manganese	0	20.0	0.063	20.4	102			
Molybdenum	20.0	20.0	20.2	20.1	100			
Nickel	0	20.0	0.017	21.2	106			
Potassium	1000	1000	993	987	99			
Selenium	0	10.0	0.024	10.5	105			
Silicon	0	1000	-5.7	1090	109			
Silver	0	5.00	0.0040	5.19	104			
Sodium	2500	2500	2640	2650	106			
Strontium	0	10.0	0.053	10.4	104			
Thallium	0	0	0.0010	0.0010				
Tin	0	10.0	0.021	7.49	75			
Titanium	20.0	20.0	19.9	20.5	102			
Vanadium	0	20.0	-0.0080	20.3	102			
Zinc	0	20.0	0.048	20.8	104			
Zirconium	0	20.0	0.0060	19.5	98			

FORM IV - IN

IV

ICPMS INTERFERENCE CHECKS

Report No:	215102304	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	571211
Analyst:	JEL2	Analytical Method:	EPA 6020A
Lab File ID ICSA1:	2151028A_MS2.b\010ICSA.d	Lab File ID ICSAB1:	2151028A_MS2.b\012ICSB.d
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

			Analyzed (A/AB):	10/28/15 1048	10/28/15 1055			
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1050	1030	103			
Antimony	0	0	0.084	0.060				
Arsenic	0	10.0	0.0070	10.4	104			
Barium	0	0	0.025	0.035				
Beryllium	0	0	0.0	-0.0010				
Boron	0	20.0	1.24	20.8	104			
Cadmium	0	10.0	0.019	10.5	105			
Calcium	3000	3000	3070	3050	102			
Chromium	0	20.0	0.0	21.5	108			
Cobalt	0	20.0	0.012	21.7	108			
Copper	0	20.0	0.0080	21.4	107			
Iron	2500	2500	2600	2530	101			
Lead	0	0	0.013	0.010				
Lithium	0	20.0	-0.23	20.1	100			
Magnesium	1000	1000	1070	1050	105			
Manganese	0	20.0	0.035	20.2	101			
Molybdenum	20.0	20.0	20.2	19.6	98			
Nickel	0	20.0	0.14	21.0	105			
Potassium	1000	1000	989	975	98			
Selenium	0	10.0	-0.035	9.91	99			
Silicon	0	1000	1.25	1070	107			
Silver	0	5.00	0.0070	5.21	104			
Sodium	2500	2500	2680	2620	105			
Strontium	0	10.0	0.054	10.3	103			
Thallium	0	0	-0.016	-0.017				
Tin	0	10.0	-0.0060	9.81	98			
Titanium	20.0	20.0	20.8	20.5	102			
Vanadium	0	20.0	-0.032	20.1	100			
Zinc	0	20.0	0.096	20.8	104			
Zirconium	0	20.0	0.0060	19.8	99			

FORM IV - IN

IV
ICPMS INTERFERENCE CHECKS

Report No:	215102304	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS1	Analytical Batch:	571189
Analyst:	LWZ	Analytical Method:	EPA 6020A Dissolved
Lab File ID ICSA1:	2151028A_MS1.b\011ICSA.d	Lab File ID ICSAB1:	2151028A_MS1.b\014ICSB.d
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

		Analyzed (A/AB):	10/28/15 0959	10/28/15 1043				
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1040	1020	102			
Antimony	0	0	0.14	0.032				
Arsenic	0	10.0	0.0080	10.6	106			
Barium	0	0	0.034	0.025				
Beryllium	0	0	0.0020	-0.0010				
Boron	0	20.0	0.72	19.7	98			
Cadmium	0	10.0	0.033	10.1	101			
Calcium	3000	3000	3040	3030	101			
Chromium	0	20.0	0.019	21.1	106			
Cobalt	0	20.0	0.012	21.6	108			
Copper	0	20.0	0.0070	20.5	102			
Iron	2500	2500	2600	2490	100			
Lead	0	0	0.0060	0.0080				
Lithium	0	20.0	0.32	19.7	98			
Magnesium	1000	1000	1030	1020	102			
Manganese	0	20.0	-0.026	20.3	102			
Molybdenum	20.0	20.0	19.3	19.4	97			
Nickel	0	20.0	-0.040	20.4	102			
Potassium	1000	1000	1020	995	100			
Selenium	0	10.0	-0.0050	11.0	110			
Silicon	0	1000	-30	1050	105			
Silver	0	5.00	0.0040	4.83	97			
Sodium	2500	2500	2550	2490	100			
Strontium	0	10.0	0.046	10.1	101			
Thallium	0	0	-0.0030	-0.0060				
Tin	0	10.0	0.0050	9.41	94			
Titanium	20.0	20.0	19.6	19.4	97			
Vanadium	0	20.0	-0.0040	20.3	102			
Zinc	0	20.0	-0.52	19.6	98			
Zirconium	0	20.0	0.037	20.0	100			

FORM IV - IN

Form V1

Matrix Spikes

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	15-151
Prep Method:	3010A	Parent GCAL ID:	21510234102
Prep Date:	10/24/15 Time: 1415	Prep Batch:	570926
Analytical Method:	EPA 6020A	Analytical Batch:	571111

GCAL QC ID:	**1502428 MS**	Instrument ID:	ICPMS2
Analyst:	AWG	Lab File ID:	2151026B_MS2.b\023SMPL_2151027B_MS2.D
Analysis Date:	10/27/15 1359	Dilution:	10

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Arsenic	ug/L	500	0	562	110		80 - 120
Barium	ug/L	500	170	663	99		80 - 120
Cadmium	ug/L	500	0	547	109		80 - 120
Chromium	ug/L	500	210	728	103		80 - 120
Lead	ug/L	500	0	548	109		80 - 120
Selenium	ug/L	100	0	114	113		80 - 120
Silver	ug/L	500	0	547	109		80 - 120

GCAL QC ID:	**1502429 MSD**	Instrument ID:	ICPMS2
Analyst:	AWG	Lab File ID:	2151026B_MS2.b\024SMPL_2151027B_MS2.D
Analysis Date:	10/27/15 1402	Dilution:	10

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Arsenic	ug/L	500	558	110		1		80 - 120	0 - 20
Barium	ug/L	500	686	104		3		80 - 120	0 - 20
Cadmium	ug/L	500	573	115		5		80 - 120	0 - 20
Chromium	ug/L	500	748	107		3		80 - 120	0 - 20
Lead	ug/L	500	571	113		4		80 - 120	0 - 20
Selenium	ug/L	100	121	120		6		80 - 120	0 - 20
Silver	ug/L	500	573	114		5		80 - 120	0 - 20

RPD : 1 out of 24 outside limits
Spike Recovery: 0 out of 14 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	15-151
Prep Method:	7470 Prep	Parent GCAL ID:	21510234102
Prep Date:	10/24/15 Time: 1415	Prep Batch:	570927
Analytical Method:	EPA 7470A	Analytical Batch:	571083

GCAL QC ID:	**1502432 MS**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1341	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Mercury	ug/L	5	0	5.11	102		80 - 120

GCAL QC ID:	**1502433 MSD**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1349	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Mercury	ug/L	5	5.34	107		4		80 - 120	0 - 20

RPD : 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	3010A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1145	Prep Batch:	570844
Analytical Method:	EPA 6020A	Analytical Batch:	571211

GCAL QC ID:	**21510230408 MS**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\029_MS.d
Analysis Date:	10/28/15 1200	Dilution:	5

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Aluminum	ug/L	1000	112	1230	112		80 - 120
Antimony	ug/L	100	0	119	119		80 - 120
Arsenic	ug/L	50	0	55.1	110		80 - 120
Barium	ug/L	50	13.6	67.4	108		80 - 120
Beryllium	ug/L	50	0	53.6	107		80 - 120
Cadmium	ug/L	50	0	55.2	110		80 - 120
Calcium	ug/L	25000	56900	84700	111		80 - 120
Chromium	ug/L	50	0	54.8	110		80 - 120
Cobalt	ug/L	50	0	54	108		80 - 120
Copper	ug/L	50	0	56.4	113		80 - 120
Iron	ug/L	5000	0	5470	109		80 - 120
Lead	ug/L	50	0	56	112		80 - 120
Magnesium	ug/L	5000	48300	53700	108		80 - 120
Manganese	ug/L	50	8.78	59.6	102		80 - 120
Molybdenum	ug/L	50	5.95	61.5	111		80 - 120
Nickel	ug/L	100	0	109	109		80 - 120
Potassium	ug/L	5000	6440	11700	104		80 - 120
Selenium	ug/L	10	3.52	14.9	113		80 - 120
Silver	ug/L	50	0	54.5	109		80 - 120
Thallium	ug/L	50	0	56.7	113		80 - 120
Titanium	ug/L	50	2.75	53.8	102		80 - 120
Vanadium	ug/L	50	11.8	65.9	108		80 - 120
Zinc	ug/L	1000	0	1070	107		80 - 120

RPD : 0 out of 23 outside limits
Spike Recovery: 0 out of 46 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	3010A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1145	Prep Batch:	570844
Analytical Method:	EPA 6020A	Analytical Batch:	571211

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\030_MSD.d
Analysis Date:	10/28/15 1204	Dilution:	5

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Aluminum	ug/L	1000	1230	111		1		80 - 120	0 - 20
Antimony	ug/L	100	117	117		2		80 - 120	0 - 20
Arsenic	ug/L	50	53.8	108		2		80 - 120	0 - 20
Barium	ug/L	50	67.2	107		0		80 - 120	0 - 20
Beryllium	ug/L	50	51.6	103		4		80 - 120	0 - 20
Cadmium	ug/L	50	54	108		2		80 - 120	0 - 20
Calcium	ug/L	25000	83900	108		1		80 - 120	0 - 20
Chromium	ug/L	50	53	106		3		80 - 120	0 - 20
Cobalt	ug/L	50	52.8	106		2		80 - 120	0 - 20
Copper	ug/L	50	55.4	111		2		80 - 120	0 - 20
Iron	ug/L	5000	5290	106		3		80 - 120	0 - 20
Lead	ug/L	50	54.7	109		2		80 - 120	0 - 20
Magnesium	ug/L	5000	54000	113		1		80 - 120	0 - 20
Manganese	ug/L	50	58.9	100		1		80 - 120	0 - 20
Molybdenum	ug/L	50	60.5	109		2		80 - 120	0 - 20
Nickel	ug/L	100	105	105		3		80 - 120	0 - 20
Potassium	ug/L	5000	11500	102		1		80 - 120	0 - 20
Selenium	ug/L	10	14.7	112		1		80 - 120	0 - 20
Silver	ug/L	50	53.2	106		2		80 - 120	0 - 20
Thallium	ug/L	50	55.3	111		2		80 - 120	0 - 20
Titanium	ug/L	50	55.8	106		3		80 - 120	0 - 20
Vanadium	ug/L	50	63.9	104		3		80 - 120	0 - 20
Zinc	ug/L	1000	1050	105		2		80 - 120	0 - 20

RPD : 0 out of 23 outside limits
Spike Recovery: 0 out of 46 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001 DL
Prep Method:	3010A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1145	Prep Batch:	570844
Analytical Method:	EPA 6020A	Analytical Batch:	571211

GCAL QC ID:	**21510230408 MS**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\021_MS.d
Analysis Date:	10/28/15 1133	Dilution:	100

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Sodium	ug/L	5000	636000	659000	453	*	80 - 120

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\022_MSD.d
Analysis Date:	10/28/15 1137	Dilution:	100

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Sodium	ug/L	5000	652000	329	*	1		80 - 120	0 - 20

RPD : 0 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	7470 Prep	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1145	Prep Batch:	570845
Analytical Method:	EPA 7470A	Analytical Batch:	571083

GCAL QC ID:	**21510230408 MS**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1152	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Mercury	ug/L	5	0	5.38	108		80 - 120

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1153	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Mercury	ug/L	5	4.95	99		8		80 - 120	0 - 20

RPD : 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA02MW001D
Prep Method:	7470 Prep	Parent GCAL ID:	21510230416
Prep Date:	10/24/15 Time: 1435	Prep Batch:	570929
Analytical Method:	EPA 7470A Dissolved	Analytical Batch:	571083

GCAL QC ID:	**1502436 MS**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1417	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Mercury	ug/L	5	0	5.26	105		80 - 120

GCAL QC ID:	**1502437 MSD**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1419	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Mercury	ug/L	5	5.21	104		1		80 - 120	0 - 30

RPD : 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	DP02
Prep Method:	3005A	Parent GCAL ID:	21510241201
Prep Date:	10/24/15 Time: 1420	Prep Batch:	570930
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571189

GCAL QC ID:	**1502440 MS**	Instrument ID:	ICPMS1
Analyst:	LWZ	Lab File ID:	2151028A_MS1.b\077SMPL.d
Analysis Date:	10/28/15 1707	Dilution:	25

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Arsenic	ug/L	50	11.5	62.8	103		80 - 120
Barium	ug/L	50	3130	3120	0	*	80 - 120
Calcium	ug/L	25000	205000	225000	82		80 - 120
Chromium	ug/L	50	0	50.1	100		80 - 120
Iron	ug/L	5000	23600	27600	80		80 - 120
Lead	ug/L	50	0	49.2	98		80 - 120
Magnesium	ug/L	5000	53900	56900	61	*	80 - 120
Manganese	ug/L	50	1430	1460	55	*	80 - 120
Potassium	ug/L	5000	9370	14000	92		80 - 120
Selenium	ug/L	10	0	12.7	127	*	80 - 120
Silver	ug/L	50	0	36.6	73	*	80 - 120
Sodium	ug/L	5000	2870000	2780000	0	*	80 - 120
Zinc	ug/L	1000	0	1010	101		80 - 120

RPD : 1 out of 24 outside limits
Spike Recovery: 11 out of 26 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	DP02
Prep Method:	3005A	Parent GCAL ID:	21510241201
Prep Date:	10/24/15 Time: 1420	Prep Batch:	570930
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571189

GCAL QC ID:	**1502441 MSD**	Instrument ID:	ICPMS1
Analyst:	LWZ	Lab File ID:	2151028A_MS1.b\079SMPL.d
Analysis Date:	10/28/15 1717	Dilution:	25

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Arsenic	ug/L	50	62.9	103		0		80 - 120	0 - 20
Barium	ug/L	50	3140	30	*	1		80 - 120	0 - 20
Calcium	ug/L	25000	228000	93		1		80 - 120	0 - 20
Chromium	ug/L	50	51.7	103		3		80 - 120	0 - 20
Iron	ug/L	5000	27900	86		1		80 - 120	0 - 20
Lead	ug/L	50	50.7	101		3		80 - 120	0 - 20
Magnesium	ug/L	5000	57600	74	*	1		80 - 120	0 - 20
Manganese	ug/L	50	1460	49	*	0		80 - 120	0 - 20
Potassium	ug/L	5000	14200	97		2		80 - 120	0 - 20
Selenium	ug/L	10	9.88	99		25	*	80 - 120	0 - 20
Silver	ug/L	50	37.5	75	*	2		80 - 120	0 - 20
Sodium	ug/L	5000	2810000	0	*	1		80 - 120	0 - 20
Zinc	ug/L	1000	1010	101		1		80 - 120	0 - 20

RPD : 1 out of 24 outside limits
Spike Recovery: 11 out of 26 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	7470 Prep Dissolved	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1235	Prep Batch:	570847
Analytical Method:	EPA 7470A Dissolved	Analytical Batch:	571083

GCAL QC ID:	**21510230408 MS**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1231	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Mercury	ug/L	5	0	5.41	108		80 - 120

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Analysis Date:	10/27/15 1233	Dilution:	1

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Mercury	ug/L	5	5.35	107		1		80 - 120	0 - 20

RPD : 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	3005A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1430	Prep Batch:	570848
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571211

GCAL QC ID:	**21510230408 MS**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\131_MS.d
Analysis Date:	10/28/15 1835	Dilution:	5

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Aluminum	ug/L	1000	0	1060	106		80 - 120
Antimony	ug/L	100	0	119	119		80 - 120
Arsenic	ug/L	50	0	53.4	107		80 - 120
Barium	ug/L	50	13.1	65.5	105		80 - 120
Beryllium	ug/L	50	0	51.1	102		80 - 120
Cadmium	ug/L	50	0	54.9	110		80 - 120
Calcium	ug/L	25000	52200	77200	100		80 - 120
Chromium	ug/L	50	0	51.7	103		80 - 120
Cobalt	ug/L	50	0	52.3	105		80 - 120
Copper	ug/L	50	0	53.4	107		80 - 120
Iron	ug/L	5000	0	5170	103		80 - 120
Lead	ug/L	50	0	54.9	110		80 - 120
Magnesium	ug/L	5000	45700	50000	87		80 - 120
Manganese	ug/L	50	0	50.9	102		80 - 120
Molybdenum	ug/L	50	6.27	59.8	107		80 - 120
Nickel	ug/L	100	0	105	105		80 - 120
Potassium	ug/L	5000	6450	11400	98		80 - 120
Selenium	ug/L	10	4.96	14.3	93		80 - 120
Silver	ug/L	50	0	49.2	98		80 - 120
Thallium	ug/L	50	0	55.9	112		80 - 120
Titanium	ug/L	50	0	52.2	104		80 - 120
Vanadium	ug/L	50	13.4	64	101		80 - 120
Zinc	ug/L	1000	0	1060	106		80 - 120

RPD : 0 out of 23 outside limits
Spike Recovery: 0 out of 46 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001
Prep Method:	3005A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1430	Prep Batch:	570848
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571211

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\132_MSD.d
Analysis Date:	10/28/15 1839	Dilution:	5

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Aluminum	ug/L	1000	1070	107		1		80 - 120	0 - 20
Antimony	ug/L	100	120	120		1		80 - 120	0 - 20
Arsenic	ug/L	50	53.8	108		1		80 - 120	0 - 20
Barium	ug/L	50	66.5	107		1		80 - 120	0 - 20
Beryllium	ug/L	50	52.3	105		2		80 - 120	0 - 20
Cadmium	ug/L	50	55.2	110		1		80 - 120	0 - 20
Calcium	ug/L	25000	77200	100		0		80 - 120	0 - 20
Chromium	ug/L	50	52.5	105		1		80 - 120	0 - 20
Cobalt	ug/L	50	52.4	105		0		80 - 120	0 - 20
Copper	ug/L	50	54.1	108		1		80 - 120	0 - 20
Iron	ug/L	5000	5210	104		1		80 - 120	0 - 20
Lead	ug/L	50	55.7	111		1		80 - 120	0 - 20
Magnesium	ug/L	5000	49900	84		0		80 - 120	0 - 20
Manganese	ug/L	50	52.1	104		2		80 - 120	0 - 20
Molybdenum	ug/L	50	60.5	108		1		80 - 120	0 - 20
Nickel	ug/L	100	106	106		1		80 - 120	0 - 20
Potassium	ug/L	5000	11400	99		1		80 - 120	0 - 20
Selenium	ug/L	10	14.4	94		1		80 - 120	0 - 20
Silver	ug/L	50	49.4	99		0		80 - 120	0 - 20
Thallium	ug/L	50	57	114		2		80 - 120	0 - 20
Titanium	ug/L	50	52.4	105		0		80 - 120	0 - 20
Vanadium	ug/L	50	65.8	105		3		80 - 120	0 - 20
Zinc	ug/L	1000	1070	107		2		80 - 120	0 - 20

RPD : 0 out of 23 outside limits
Spike Recovery: 0 out of 46 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

V1
MS/MSD RECOVERY

Report No:	215102304	Parent Sample ID:	MA01MW001 DL
Prep Method:	3005A	Parent GCAL ID:	21510230407
Prep Date:	10/23/15 Time: 1430	Prep Batch:	570848
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571211

GCAL QC ID:	**21510230408 MS**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\055_MS.d
Analysis Date:	10/28/15 1330	Dilution:	100

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
Sodium	ug/L	5000	570000	556000	0	*	80 - 120

GCAL QC ID:	**21510230410 MSD**	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\056_MSD.d
Analysis Date:	10/28/15 1334	Dilution:	100

ANALYTE	UNITS	SPIKE ADDED	MSD RESULT	MSD % REC	#	% RPD	#	QC LIMITS %REC	QC LIMITS RPD
Sodium	ug/L	5000	552000	0	*	1		80 - 120	0 - 20

RPD : 0 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

FORM V (PART 1) - IN

Form V2

Post Digestion Spikes

V2

POST DIGEST SPIKE SAMPLE RECOVERY

Report No:	215102304	GCAL PDS ID:	1503085
Matrix:	Solid	Parent Sample ID:	1S-151 (21510234102)
Analyst:	AWG	Instrument ID:	ICPMS2
Analysis Date:	10/27/15 Time: 1406	Lab File ID:	2151026B_MS2.b\025SMPL_2151027B_MS2.D
Analytical Method:	EPA 6020A	Analytical Batch:	571111

ANALYTE	UNITS	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	% R	Q	LCL	UCL
Arsenic	ug/L	5070		9.9	J	5000	101		75	125
Barium	ug/L	4910		170		5000	95		75	125
Cadmium	ug/L	5110		0	U	5000	102		75	125
Chromium	ug/L	5270		210		5000	101		75	125
Lead	ug/L	5010		5	J	5000	100		75	125
Selenium	ug/L	1060		0	U	1000	106		75	125
Silver	ug/L	5150		0	U	5000	103		75	125

FORM V (PART 2) - IN

V2

POST DIGEST SPIKE SAMPLE RECOVERY

Report No:	215102304	GCAL PDS ID:	1503645
Matrix:	Water	Parent Sample ID:	MA01MW001 (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1207	Lab File ID:	2151028A_MS2.b\031_PDS.d
Analytical Method:	EPA 6020A	Analytical Batch:	571211

ANALYTE	UNITS	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	% R	Q	LCL	UCL
Aluminum	ug/L	5170		112		5000	101		75	125
Antimony	ug/L	547		0	U	500	109		75	125
Arsenic	ug/L	256		0	U	250	102		75	125
Barium	ug/L	266		13.6		250	101		75	125
Beryllium	ug/L	246		0	U	250	98		75	125
Cadmium	ug/L	257		0	U	250	103		75	125
Calcium	ug/L	184000		56900		125000	102		75	125
Chromium	ug/L	250		0	U	250	100		75	125
Cobalt	ug/L	254		0	U	250	101		75	125
Copper	ug/L	260		0	U	250	104		75	125
Iron	ug/L	25100		0	U	25000	100		75	125
Lead	ug/L	259		0	U	250	104		75	125
Magnesium	ug/L	73200		48300		25000	100		75	125
Manganese	ug/L	254		8.78	J	250	98		75	125
Molybdenum	ug/L	266		5.95		250	104		75	125
Nickel	ug/L	503		0	U	500	101		75	125
Potassium	ug/L	31000		6440		25000	98		75	125
Selenium	ug/L	51.5		3.52	J	50	96		75	125
Silver	ug/L	238		0	U	250	95		75	125
Thallium	ug/L	259		0	U	250	104		75	125
Titanium	ug/L	258		2.75	J	250	102		75	125
Vanadium	ug/L	262		11.8		250	100		75	125
Zinc	ug/L	4910		0	U	5000	98		75	125

FORM V (PART 2) - IN

V2

POST DIGEST SPIKE SAMPLE RECOVERY

Report No:	215102304	GCAL PDS ID:	1503645
Matrix:	Water	Parent Sample ID:	MA01MW001 DL (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1140	Lab File ID:	2151028A_MS2.b\023_PDS.d
Analytical Method:	EPA 6020A	Analytical Batch:	571211

ANALYTE	UNITS	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	% R	Q	LCL	UCL
Sodium	ug/L	1170000		636000		500000	106		75	125

FORM V (PART 2) - IN

Form VII

Lab Control Spikes

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1501885
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	TAH	Lab File ID:	2151026C_MS2.b\123SMPL.d
Prep Date:	10/23/15 Time: 1145	Analysis Date:	10/27/15 Time: 0132
Prep Batch:		Analytical Batch:	571022
Prep Method:		Analytical Method:	EPA 6020A

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Aluminum	ug/L	1000	1000	100		80	120
Antimony	ug/L	100	100	100		80	120
Arsenic	ug/L	50.0	47.4	95		80	120
Barium	ug/L	50.0	46.3	93		80	120
Beryllium	ug/L	50.0	47.1	94		80	120
Cadmium	ug/L	50.0	48.6	97		80	120
Calcium	ug/L	25000	25100	100		80	120
Chromium	ug/L	50.0	50.2	100		80	120
Cobalt	ug/L	50.0	50.7	101		80	120
Copper	ug/L	50.0	50.8	102		80	120
Iron	ug/L	5000	5040	101		80	120
Lead	ug/L	50.0	49.6	99		80	120
Magnesium	ug/L	5000	5200	104		80	120
Manganese	ug/L	50.0	50.0	100		80	120
Molybdenum	ug/L	50.0	49.4	99		80	120
Nickel	ug/L	100	101	101		80	120
Potassium	ug/L	5000	4780	96		80	120
Selenium	ug/L	10.0	9.16	92		80	120
Silver	ug/L	50.0	48.8	98		80	120
Sodium	ug/L	5000	5080	102		80	120
Thallium	ug/L	50.0	51.3	103		80	120
Titanium	ug/L	50.0	48.9	98		80	120
Vanadium	ug/L	50.0	50.1	100		80	120
Zinc	ug/L	1000	933	93		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1501887
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	10/23/15 Time: 1145	Analysis Date:	10/27/15 Time: 1113
Prep Batch:	570845	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Mercury	ug/L	5.00	4.98	100		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1502427
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	AWG	Lab File ID:	2151026B_MS2.b\016SMPL_2151027B_MS2.D
Prep Date:	10/24/15 Time: 1415	Analysis Date:	10/27/15 Time: 1335
Prep Batch:		Analytical Batch:	571111
Prep Method:		Analytical Method:	EPA 6020A

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Aluminum	ug/L	1000	1080	108		80	120
Antimony	ug/L	100	106	106		80	120
Arsenic	ug/L	50.0	51.3	103		80	120
Barium	ug/L	50.0	50.5	101		80	120
Beryllium	ug/L	50.0	52.6	105		80	120
Cadmium	ug/L	50.0	52.7	105		80	120
Calcium	ug/L	25000	27100	108		80	120
Chromium	ug/L	50.0	54.2	108		80	120
Cobalt	ug/L	50.0	54.8	110		80	120
Copper	ug/L	50.0	55.2	110		80	120
Iron	ug/L	5000	5450	109		80	120
Lead	ug/L	50.0	53.9	108		80	120
Magnesium	ug/L	5000	5590	112		80	120
Manganese	ug/L	50.0	54.2	108		80	120
Molybdenum	ug/L	50.0	54.2	108		80	120
Nickel	ug/L	100	109	109		80	120
Potassium	ug/L	5000	5180	104		80	120
Selenium	ug/L	10.0	9.72	97		80	120
Silver	ug/L	50.0	53.0	106		80	120
Sodium	ug/L	5000	5530	111		80	120
Thallium	ug/L	50.0	54.1	108		80	120
Titanium	ug/L	50.0	54.1	108		80	120
Vanadium	ug/L	50.0	53.7	107		80	120
Zinc	ug/L	1000	1030	103		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1502431
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	10/24/15 Time: 1415	Analysis Date:	10/27/15 Time: 1312
Prep Batch:	570927	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Mercury	ug/L	5.00	4.84	97		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1501927
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	10/23/15 Time: 1235	Analysis Date:	10/27/15 Time: 1214
Prep Batch:	570847	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A Dissolved

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Mercury	ug/L	5.00	5.14	103		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1501929
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	JEL2	Lab File ID:	2151028A_MS2.b\042SMPL.d
Prep Date:	10/23/15 Time: 1430	Analysis Date:	10/28/15 Time: 1246
Prep Batch:		Analytical Batch:	571211
Prep Method:		Analytical Method:	EPA 6020A Dissolved

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Aluminum	ug/L	1000	990	99		80	120
Antimony	ug/L	100	97.5	97		80	120
Arsenic	ug/L	50.0	48.3	97		80	120
Barium	ug/L	50.0	47.0	94		80	120
Beryllium	ug/L	50.0	49.4	99		80	120
Cadmium	ug/L	50.0	49.8	100		80	120
Calcium	ug/L	25000	24200	97		80	120
Chromium	ug/L	50.0	49.0	98		80	120
Cobalt	ug/L	50.0	49.3	99		80	120
Copper	ug/L	50.0	49.1	98		80	120
Iron	ug/L	5000	4900	98		80	120
Lead	ug/L	50.0	48.4	97		80	120
Magnesium	ug/L	5000	5120	102		80	120
Manganese	ug/L	50.0	49.0	98		80	120
Molybdenum	ug/L	50.0	48.4	97		80	120
Nickel	ug/L	100	99.0	99		80	120
Potassium	ug/L	5000	4690	94		80	120
Selenium	ug/L	10.0	9.61	96		80	120
Silver	ug/L	50.0	49.6	99		80	120
Sodium	ug/L	5000	5010	100		80	120
Thallium	ug/L	50.0	48.4	97		80	120
Titanium	ug/L	50.0	47.5	95		80	120
Vanadium	ug/L	50.0	48.3	97		80	120
Zinc	ug/L	1000	981	98		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1502435
Matrix:	Water	Instrument ID:	HYDRA
Analyst:	LWZ	Lab File ID:	HYDRA
Prep Date:	10/24/15 Time: 1435	Analysis Date:	10/27/15 Time: 1405
Prep Batch:	570929	Analytical Batch:	571083
Prep Method:	7470 Prep	Analytical Method:	EPA 7470A Dissolved

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Mercury	ug/L	5.00	4.84	97		80	120

FORM VII - IN

VII
LABORATORY CONTROL SAMPLE

Report No:	215102304	GCAL LCS ID:	1502439
Matrix:	Water	Instrument ID:	ICPMS1
Analyst:	LWZ	Lab File ID:	2151028A_MS1.b\017SMPL.d
Prep Date:	10/24/15 Time: 1420	Analysis Date:	10/28/15 Time: 1123
Prep Batch:		Analytical Batch:	571189
Prep Method:		Analytical Method:	EPA 6020A Dissolved

ANALYTE	UNITS	TRUE	FOUND	% R	Q	LCL	UCL
Aluminum	ug/L	1000	1010	101		80	120
Antimony	ug/L	100	98.7	99		80	120
Arsenic	ug/L	50.0	49.4	99		80	120
Barium	ug/L	50.0	47.3	95		80	120
Beryllium	ug/L	50.0	50.4	101		80	120
Cadmium	ug/L	50.0	48.1	96		80	120
Calcium	ug/L	25000	25100	101		80	120
Chromium	ug/L	50.0	48.2	96		80	120
Cobalt	ug/L	50.0	47.9	96		80	120
Copper	ug/L	50.0	47.7	95		80	120
Iron	ug/L	5000	4860	97		80	120
Lead	ug/L	50.0	47.7	95		80	120
Magnesium	ug/L	5000	4800	96		80	120
Manganese	ug/L	50.0	49.1	98		80	120
Molybdenum	ug/L	50.0	49.1	98		80	120
Nickel	ug/L	100	95.6	96		80	120
Potassium	ug/L	5000	5020	100		80	120
Selenium	ug/L	10.0	10.8	108		80	120
Silver	ug/L	50.0	46.8	94		80	120
Sodium	ug/L	5000	4920	98		80	120
Thallium	ug/L	50.0	49.7	99		80	120
Titanium	ug/L	50.0	49.2	98		80	120
Vanadium	ug/L	50.0	48.5	97		80	120
Zinc	ug/L	1000	970	97		80	120

FORM VII - IN

Form VIII

Tunes

VIII
ICP-MS TUNE

Report No:	215102304	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2151027A_MS2.b\QCTune\2151027A_MS2-QCTu
Analyst:	AWG	Analytical Batch:	571111
Analysis Date:	10/27/15 Time: 0900	Analytical Method:	EPA 6020A

ELEMENT - MASS	***AVG MEASURED MASS (amu)***	***PEAK WIDTH AT PEAK HEIGHT (amu)***	***%RSD***
Be-9	9	.8132	.8138
Mg-24	23.95	.7896	1.014
Mg-25	24.95	.7943	1.1797
Mg-26	25.95	.7899	1.063
Co-59	59	.7881	1.1705
In-115	115.05	.7781	1.8758
Pb-206	206	.7862	.9851
Pb-207	207	.7858	1.2707
Pb-208	208	.8024	.7971

FORM VIII - IN

VIII
ICP-MS TUNE

Report No:	215102304	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2151026A_MS2.b\QCTune\2151026A_MS2-QCTu
Analyst:	AWG	Analytical Batch:	571022
Analysis Date:	10/26/15 Time: 1101	Analytical Method:	EPA 6020A

ELEMENT - MASS	AVG MEASURED MASS (amu)	PEAK WIDTH AT PEAK HEIGHT (amu)	%RSD
Be-9	9	.8261	.4528
Mg-24	23.95	.7926	.2927
Mg-25	24.95	.8204	.3708
Mg-26	25.9	.8272	1.0979
Co-59	58.95	.7898	.3511
In-115	115.05	.7718	1.1156
Pb-206	206	.8184	.3152
Pb-207	207	.7826	.4398
Pb-208	208	.7899	.3215

FORM VIII - IN

VIII
ICP-MS TUNE

Report No:	215102304	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2151028A_MS2.b\QCTune\2151028A_MS2-QCTu
Analyst:	JEL2	Analytical Batch:	571211
Analysis Date:	10/28/15 Time: 1015	Analytical Method:	EPA 6020A

ELEMENT - MASS	***AVG MEASURED MASS (amu)***	***PEAK WIDTH AT PEAK HEIGHT (amu)***	***%RSD***
Be-9	8.95	.7828	.345
Mg-24	24	.7878	.6087
Mg-25	24.95	.7914	.581
Mg-26	25.95	.8105	.9893
Co-59	58.95	.784	.5955
In-115	115	.7675	.824
Pb-206	206	.7599	.602
Pb-207	206.95	.7756	.4206
Pb-208	207.95	.7907	.3191

FORM VIII - IN

VIII
ICP-MS TUNE

Report No:	215102304	GCAL QC ID:	1150
Instrument ID:	ICPMS1	Lab File ID:	2151028A_MS1.b\QCTune\2151028A_MS1-QCTu
Analyst:	MAP	Analytical Batch:	571189
Analysis Date:	10/28/15 Time: 0854	Analytical Method:	EPA 6020A Dissolved

ELEMENT - MASS	AVG MEASURED MASS (amu)	PEAK WIDTH AT PEAK HEIGHT (amu)	%RSD
Be-9	8.95	.7415	.7349
Mg-24	23.9	.7412	.7714
Mg-25	24.95	.7634	.7103
Mg-26	25.9	.7424	.4243
Co-59	58.95	.7743	.3457
In-115	115	.7297	1.7498
Pb-206	205.95	.7869	.9106
Pb-207	206.95	.81	.748
Pb-208	207.95	.7955	.9529

FORM VIII - IN

Form IX

Serial Dilutions

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503086
Matrix:	Solid	Parent Sample ID:	1S-151 (21510234102)
Analyst:	AWG	Instrument ID:	ICPMS2
Analysis Date:	10/27/15 Time: 1409	Lab File ID:	2151026B_MS2.b\026SMPL_2151027B_MS2.D
Analytical Method:	EPA 6020A	Analytical Batch:	571111

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Arsenic	ug/L	0	U	0	U				
Barium	ug/L	166		0	U				
Cadmium	ug/L	0	U	0	U				
Chromium	ug/L	214		0	U				
Lead	ug/L	0	U	0	U				
Selenium	ug/L	0	U	0	U				
Silver	ug/L	0	U	0	U				

FORM IX - IN

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503646
Matrix:	Water	Parent Sample ID:	MA01MW001 (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1210	Lab File ID:	2151028A_MS2.b\032SMPL.d
Analytical Method:	EPA 6020A	Analytical Batch:	571211

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Aluminum	ug/L	0	U	0	U				
Antimony	ug/L	0	U	0	U				
Arsenic	ug/L	0	U	0	U				
Barium	ug/L	13.6	J	14.3	J				
Beryllium	ug/L	0	U	0	U				
Cadmium	ug/L	0	U	0	U				
Calcium	ug/L	56900		59800		5.1		0	10
Chromium	ug/L	0	U	0	U				
Cobalt	ug/L	0	U	0	U				
Copper	ug/L	0	U	0	U				
Iron	ug/L	0	U	0	U				
Lead	ug/L	0	U	0	U				
Magnesium	ug/L	48300		49300		2.1		0	10
Manganese	ug/L	0	U	0	U				
Molybdenum	ug/L	0	U	6.48	J				
Nickel	ug/L	0	U	0	U				
Potassium	ug/L	6440		6760		5		0	10
Selenium	ug/L	0	U	0	U				
Silver	ug/L	0	U	0	U				
Thallium	ug/L	0	U	0	U				
Titanium	ug/L	0	U	0	U				
Vanadium	ug/L	11.8	J	10.8	J				
Zinc	ug/L	0	U	0	U				

FORM IX - IN

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503646
Matrix:	Water	Parent Sample ID:	MA01MW001 DL (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1143	Lab File ID:	2151028A_MS2.b\024SMPL.d
Analytical Method:	EPA 6020A	Analytical Batch:	571211

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Sodium	ug/L	636000		659000		3.6		0	10

FORM IX - IN

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503647
Matrix:	Water	Parent Sample ID:	MA01MW001 (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1842	Lab File ID:	2151028A_MS2.b\133SMPL.d
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571211

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Aluminum	ug/L	0	U	0	U				
Antimony	ug/L	0	U	0	U				
Arsenic	ug/L	0	U	0	U				
Barium	ug/L	13.1	J	13.6	J				
Beryllium	ug/L	0	U	0	U				
Cadmium	ug/L	0	U	0	U				
Calcium	ug/L	52200		53600		2.7		0	10
Chromium	ug/L	0	U	0	U				
Cobalt	ug/L	0	U	0	U				
Copper	ug/L	0	U	0	U				
Iron	ug/L	0	U	0	U				
Lead	ug/L	0	U	0	U				
Magnesium	ug/L	45700		46300		1.3		0	10
Manganese	ug/L	0	U	0	U				
Molybdenum	ug/L	6.27	J	6.26	J				
Nickel	ug/L	0	U	0	U				
Potassium	ug/L	6450		6740		4.5		0	10
Selenium	ug/L	0	U	0	U				
Silver	ug/L	0	U	0	U				
Thallium	ug/L	0	U	0	U				
Titanium	ug/L	0	U	0	U				
Vanadium	ug/L	13.4	J	12.2	J				
Zinc	ug/L	0	U	0	U				

FORM IX - IN

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503647
Matrix:	Water	Parent Sample ID:	MA01MW001 DL (21510230407)
Analyst:	JEL2	Instrument ID:	ICPMS2
Analysis Date:	10/28/15 Time: 1337	Lab File ID:	2151028A_MS2.b\057SMPL.d
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571211

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Sodium	ug/L	570000		620000		8.8		0	10

FORM IX - IN

IX
SERIAL DILUTIONS

Report No:	215102304	GCAL SD ID:	1503554
Matrix:	Water	Parent Sample ID:	DP02 (21510241201)
Analyst:	LWZ	Instrument ID:	ICPMS1
Analysis Date:	10/28/15 Time: 1728	Lab File ID:	2151028A_MS1.b\081SMPL.d
Analytical Method:	EPA 6020A Dissolved	Analytical Batch:	571189

ANALYTE	UNITS	PARENT SAMPLE RESULT	C	SERIAL DILUTION RESULT	C	% DIFF	Q	LCL	UCL
Aluminum	ug/L	0	U	0	U				
Antimony	ug/L	0	U	0	U				
Arsenic	ug/L	0	U	0	U				
Barium	ug/L	3130		3190		1.9		0	10
Beryllium	ug/L	0	U	0	U				
Cadmium	ug/L	0	U	0	U				
Calcium	ug/L	205000		212000		3.4		0	10
Chromium	ug/L	0	U	0	U				
Cobalt	ug/L	0	U	0	U				
Copper	ug/L	0	U	0	U				
Iron	ug/L	23600		24600					
Lead	ug/L	0	U	0	U				
Magnesium	ug/L	53900		55900		3.7		0	10
Manganese	ug/L	1430		1460					
Molybdenum	ug/L	0	U	0	U				
Nickel	ug/L	0	U	0	U				
Potassium	ug/L	9370	J	9090	J				
Selenium	ug/L	0	U	0	U				
Silver	ug/L	0	U	0	U				
Sodium	ug/L	2870000		3010000		4.9		0	10
Thallium	ug/L	0	U	0	U				
Titanium	ug/L	0	U	0	U				
Vanadium	ug/L	0	U	0	U				
Zinc	ug/L	0	U	0	U				

Form X

MDLs

METHOD DETECTION LIMITS

Lab Name: GCAL

Instrument ID: (MS) ICPMS1/ICPMS2 (AV) HYDRA

Lab Code: LA024

Analyte	*MDL*	*Units*	*Type*
Aluminum	5	ug/L	MS
Antimony	.5	ug/L	MS
Arsenic	.25	ug/L	MS
Barium	.25	ug/L	MS
Boron	2.50	ug/L	MS
Beryllium	.25	ug/L	MS
Cadmium	.25	ug/L	MS
Calcium	125	ug/L	MS
Chromium	.25	ug/L	MS
Cobalt	.25	ug/L	MS
Copper	.25	ug/L	MS
Iron	25	ug/L	MS
Lead	.25	ug/L	MS
Magnesium	25	ug/L	MS
Manganese	1.25	ug/L	MS
Molybdenum	.25	ug/L	MS
Nickel	.5	ug/L	MS
Potassium	25	ug/L	MS
Selenium	.25	ug/L	MS
Silver	.25	ug/L	MS
Sodium	25	ug/L	MS
Thallium	.25	ug/L	MS
Titanium	.25	ug/L	MS
Vanadium	.25	ug/L	MS
Zinc	5	ug/L	MS
Mercury	0.00007	mg/L	AV

FORM X - IN

METHOD DETECTION LIMITS

Lab Name: GCAL

Instrument ID: (MS) ICPMS1/ICPMS2 (AV) HYDRA

Lab Code: LA024

Analyte	*MDL*	*Units*	*Type*
Aluminum	200	ug/kg	MS
Antimony	20	ug/kg	MS
Arsenic	10	ug/kg	MS
Barium	10	ug/kg	MS
Beryllium	10	ug/kg	MS
Cadmium	10	ug/kg	MS
Calcium	5000	ug/kg	MS
Chromium	10	ug/kg	MS
Cobalt	10	ug/kg	MS
Copper	10	ug/kg	MS
Iron	1000	ug/kg	MS
Lead	10	ug/kg	MS
Magnesium	1000	ug/kg	MS
Manganese	50	ug/kg	MS
Nickel	20	ug/kg	MS
Potassium	1000	ug/kg	MS
Selenium	10	ug/kg	MS
Silver	10	ug/kg	MS
Sodium	1000	ug/kg	MS
Thallium	10	ug/kg	MS
Vanadium	10	ug/kg	MS
Zinc	200	ug/kg	MS
Mercury	0.004	mg/kg	AV
Molybdenum	10	ug/kg	MS

FORM X - IN

Form XIII

Preparation Logs

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 3010A Prep Batch: 570844

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
LCS1501885	1501885	10/23/15			50	mL
M114MW001	21510230401	10/23/15			50	mL
M114MW004	21510230402	10/23/15			50	mL
MA01MW001	21510230407	10/23/15			50	mL
MA01MW001-MS	21510230408	10/23/15			50	mL
MA01MW001-MSD	21510230410	10/23/15			50	mL
MA01MW002	21510230404	10/23/15			50	mL
MA01MW003	21510230411	10/23/15			50	mL
MA01MW004	21510230405	10/23/15			50	mL
MB1501884	1501884	10/23/15			50	mL
MW114MW002	21510230413	10/23/15			50	mL
MW114MW003	21510230414	10/23/15			50	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 7470A Prep Batch: 570845

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
LCS1501887	1501887	10/23/15			20	mL
M114MW001	21510230401	10/23/15			20	mL
M114MW004	21510230402	10/23/15			20	mL
MA01MW001	21510230407	10/23/15			20	mL
MA01MW001-MS	21510230408	10/23/15			20	mL
MA01MW001-MSD	21510230410	10/23/15			20	mL
MA01MW002	21510230404	10/23/15			20	mL
MA01MW003	21510230411	10/23/15			20	mL
MA01MW004	21510230405	10/23/15			20	mL
MB1501886	1501886	10/23/15			20	mL
MW114MW002	21510230413	10/23/15			20	mL
MW114MW003	21510230414	10/23/15			20	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 3010A Prep Batch: 570926

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
1S-151MS	1502428	10/24/15			50	mL
1S-151MSD	1502429	10/24/15			50	mL
LCS1502427	1502427	10/24/15			50	mL
MA02MW001D	21510230416	10/24/15			50	mL
MA02MW001D-a	21510230417	10/24/15			50	mL
MB1502426	1502426	10/24/15			50	mL
MWQ-24	21510230419	10/24/15			50	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 7470A Prep Batch: 570927

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
1S-151MS	1502432	10/24/15			20	mL
1S-151MSD	1502433	10/24/15			20	mL
LCS1502431	1502431	10/24/15			20	mL
MA02MW001D	21510230416	10/24/15			20	mL
MA02MW001D-a	21510230417	10/24/15			20	mL
MB1502430	1502430	10/24/15			20	mL
MWQ-24	21510230419	10/24/15			20	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 7470A Dissol Prep Batch: 570847

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
LCS1501927	1501927	10/23/15			20	mL
M114MW001	21510230401	10/23/15			20	mL
M114MW004	21510230402	10/23/15			20	mL
MA01MW001	21510230407	10/23/15			20	mL
MA01MW001-MS	21510230408	10/23/15			20	mL
MA01MW001-MSD	21510230410	10/23/15			20	mL
MA01MW002	21510230404	10/23/15			20	mL
MA01MW003	21510230411	10/23/15			20	mL
MA01MW004	21510230405	10/23/15			20	mL
MB1501926	1501926	10/23/15			20	mL
MW114MW002	21510230413	10/23/15			20	mL
MW114MW003	21510230414	10/23/15			20	mL

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 3005A Dissol Prep Batch: 570848

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
LCS1501929	1501929	10/23/15			50	mL
M114MW001	21510230401	10/23/15			50	mL
M114MW004	21510230402	10/23/15			50	mL
MA01MW001	21510230407	10/23/15			50	mL
MA01MW001-MS	21510230408	10/23/15			50	mL
MA01MW001-MSD	21510230410	10/23/15			50	mL
MA01MW002	21510230404	10/23/15			50	mL
MA01MW003	21510230411	10/23/15			50	mL
MA01MW004	21510230405	10/23/15			50	mL
MB1501928	1501928	10/23/15			50	mL
MW114MW002	21510230413	10/23/15			50	mL
MW114MW003	21510230414	10/23/15			50	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 7470A Dissol Prep Batch: 570929

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
LCS1502435	1502435	10/24/15			20	mL
MA02MW001D	21510230416	10/24/15			20	mL
MA02MW001D-a	21510230417	10/24/15			20	mL
MA02MW001DMS	1502436	10/24/15			20	mL
MA02MW001DMSD	1502437	10/24/15			20	mL
MB1502434	1502434	10/24/15			20	mL
MWQ-24	21510230419	10/24/15			20	mL

FORM XIII - IN

XIII
PREPARATION LOG

Report No: 215102304

Prep Method: EPA 3005A Dissol Prep Batch: 570930

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
DP02MS	1502440	10/24/15			50	mL
DP02MSD	1502441	10/24/15			50	mL
LCS1502439	1502439	10/24/15			50	mL
MA02MW001D	21510230416	10/24/15			50	mL
MA02MW001D-a	21510230417	10/24/15			50	mL
MB1502438	1502438	10/24/15			50	mL
MWQ-24	21510230419	10/24/15			50	mL

FORM XIII - IN

Form XIV

Run Logs

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571083 Start Date: 10/27/15

Instrument ID: HYDRA Analytical Method: EPA 7470A & 7470A Dissolved End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr			
IICALB	1300	*	1	1051																	X																
IICAL1	1301	*	1	1052																	X																
IICAL2	1302	*	1	1054																	X																
IICAL3	1303	*	1	1057																	X																
IICAL4	1304	*	1	1059																	X																
IICAL5	1305	*	1	1102																	X																
ICV	1600	*	1	1105																	X																
ICB	1700	*	1	1108																	X																
MB1501886	1501886	*	1	1111																	X																
LCS1501887	1501887	*	1	1113																	X																
CCV	1800	*	1	1132																	X																
CCB	1900	*	1	1135																	X																
M114MW001	21510230401	*	1	1142																	X																
M114MW004	21510230402	*	1	1144																	X																
MA01MW002	21510230404	*	1	1146																	X																
MA01MW004	21510230405	*	1	1148																	X																
MA01MW001	21510230407	*	1	1150																	X																
MA01MW001-MS	21510230408	*	1	1152																	X																
MA01MW001-MSD	21510230410	*	1	1153																	X																
MA01MW003	21510230411	*	1	1156																	X																
CCV	1800	*	1	1159																	X																
CCB	1900	*	1	1201																	X																
MW114MW002	21510230413	*	1	1204																	X																
MW114MW003	21510230414	*	1	1206																	X																
MB1501926	1501926	*	1	1212																	X																
LCS1501927	1501927	*	1	1214																	X																
M114MW001	21510230401	*	1	1216																	X																
M114MW004	21510230402	*	1	1219																	X																
MA01MW002	21510230404	*	1	1221																	X																

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 | Analytical Batch: 571083 | Start Date: 10/27/15

Instrument ID: HYDRA | Analytical Method: EPA 7470A & 7470A Dissolved | End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
MA01MW004	21510230405	*	1	1223																	X														
CCV	1800	*	1	1224																	X														
CCB	1900	*	1	1226																	X														
MA01MW001	21510230407	*	1	1229																	X														
MA01MW001-MS	21510230408	*	1	1231																	X														
MA01MW001-MSD	21510230410	*	1	1233																	X														
MA01MW003	21510230411	*	1	1236																	X														
MW114MW002	21510230413	*	1	1239																	X														
MW114MW003	21510230414	*	1	1241																	X														
CCV	1800	*	1	1251																	X														
CCB	1900	*	1	1253																	X														
MB1502430	1502430	*	1	1310																	X														
LCS1502431	1502431	*	1	1312																	X														
MA02MW001D	21510230416	*	1	1317																	X														
CCV	1800	*	1	1319																	X														
CCB	1900	*	1	1321																	X														
MA02MW001D-a	21510230417	*	1	1324																	X														
MWQ-24	21510230419	*	1	1326																	X														
1S-151MS	1502432	*	1	1341																	X														
CCV	1800	*	1	1343																	X														
CCB	1900	*	1	1346																	X														
1S-151MSD	1502433	*	1	1349																	X														
MB1502434	1502434	*	1	1403																	X														
LCS1502435	1502435	*	1	1405																	X														
CCV	1800	*	1	1410																	X														
CCB	1900	*	1	1412																	X														
MA02MW001D	21510230416	*	1	1415																	X														
MA02MW001DMS	1502436	*	1	1417																	X														
MA02MW001DMSD	1502437	*	1	1419																	X														

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571083 Start Date: 10/27/15

Instrument ID: HYDRA Analytical Method: EPA 7470A & 7470A Dissolved End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																													
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
MA02MW001D-a	21510230417	*	1	1422																	X													
MWQ-24	21510230419	*	1	1425																	X													
CCV	1800	*	1	1436																	X													
CCB	1900	*	1	1439																	X													

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571111 Start Date: 10/27/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	0900	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	1245	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	1249	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	1252	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	1256	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	1259	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	1310	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	1313	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	1317	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1320	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1324	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1327	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1502426	1502426	*	1	1332	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1502427	1502427	*	1	1335	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
1S-151MS	1502428	*	10	1359			X	X			X		X				X								X		X									
1S-151MSD	1502429	*	10	1402			X	X			X		X				X								X		X									
1S-151PDS	1503085	*	10	1406			X	X			X		X				X								X		X									
1S-151SD	1503086	*	50	1409			X	X			X		X				X								X		X									
CCB	1900	*	1	1426	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1433	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1436	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV2	1804	*	1	1539	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	1613	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1616	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1620	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA02MW001D DL	21510230416	*	1000	1623																							X									
MA02MW001D	21510230416	*	10	1626	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA02MW001D-a DL	21510230417	*	1000	1633																							X									
MA02MW001D-a	21510230417	*	10	1637	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571111 Start Date: 10/27/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																														
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
MWQ-24 DL	21510230419	*	10	1643															X								X								
MWQ-24	21510230419	*	1	1647	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1700	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1704	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1707	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV2	1804	*	1	1812	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571022 Start Date: 10/26/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A End Date: 10/27/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																														
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	1100	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	1843	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	1850	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	1854	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	1857	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	1900	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	1904	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	1907	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	1910	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1914	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1917	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1921	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	0109	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	0112	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	0115	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1501884	1501884	*	1	0129	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1501885	1501885	*	1	0132	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	0206	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	0210	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	0213	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW002 DL	21510230404	*	100	0227															X									X								
MA01MW004 DL	21510230405	*	100	0233															X									X								
MA01MW003 DL	21510230411	*	100	0240								X							X									X								
CCB	1900	*	1	0250	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	0254	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	0257	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571211 Start Date: 10/28/15

Instrument ID: ICPMS2 Analytical Method: EPA 6020A & 6020A Dissolved End Date: 10/28/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	1015	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	1024	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	1028	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	1032	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	1035	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	1038	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	1041	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	1045	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	1048	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1052	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1055	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1059	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW001 DL	21510230401	*	1000	1109															X									X								
M114MW001	21510230401	*	10	1113	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW004 DL	21510230402	*	1000	1116															X									X								
M114MW004	21510230402	*	10	1120	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW002	21510230404	*	2	1123	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW004	21510230405	*	2	1126	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW001 DL	21510230407	*	100	1130																								X								
MA01MW001-MS DL	21510230408	*	100	1133																								X								
MA01MW001-MSD DL	21510230410	*	100	1137																								X								
MA01MW001PDS DL	1503645	*	100	1140																								X								
MA01MW001SD DL	1503646	*	500	1143																								X								
CCB	1900	*	1	1147	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1150	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1154	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW001	21510230407	*	5	1157	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001-MS	21510230408	*	5	1200	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001-MSD	21510230410	*	5	1204	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 | Analytical Batch: 571211 | Start Date: 10/28/15

Instrument ID: ICPMS2 | Analytical Method: EPA 6020A & 6020A Dissolved | End Date: 10/28/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
MA01MW001PDS	1503645	*	5	1207	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001SD	1503646	*	25	1210	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW003	21510230411	*	2	1214	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MW114MW002 DL	21510230413	*	1000	1217															X									X								
MW114MW002	21510230413	*	10	1221	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MW114MW003 DL	21510230414	*	1000	1224															X									X								
MW114MW003	21510230414	*	10	1227	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1231	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1234	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1238	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1501928	1501928	*	1	1243	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1501929	1501929	*	1	1246	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW001 DL	21510230401	*	1000	1250															X									X								
M114MW001	21510230401	*	10	1253	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW004 DL	21510230402	*	1000	1256															X									X								
M114MW004	21510230402	*	10	1300	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW002 DL	21510230404	*	100	1303															X									X								
MA01MW002	21510230404	*	2	1306	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW004 DL	21510230405	*	100	1310															X									X								
MA01MW004	21510230405	*	2	1313	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1317	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1320	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1323	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW001 DL	21510230407	*	100	1327																								X								
MA01MW001-MS DL	21510230408	*	100	1330																								X								
MA01MW001-MSD DL	21510230410	*	100	1334																								X								
MA01MW001SD DL	1503647	*	500	1337																								X								
CCB	1900	*	1	1340	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1344	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 | Analytical Batch: 571211 | Start Date: 10/28/15

Instrument ID: ICPMS2 | Analytical Method: EPA 6020A & 6020A Dissolved | End Date: 10/28/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
CCV	1800	*	1	1347	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	1822	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1825	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1829	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW001	21510230407	*	5	1832	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001-MS	21510230408	*	5	1835	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001-MSD	21510230410	*	5	1839	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW001SD	1503647	*	25	1842	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW003 DL	21510230411	*	100	1846								X							X									X								
MA01MW003	21510230411	*	2	1849	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1852	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1856	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1859	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MW114MW002 DL	21510230413	*	1000	1903															X									X								
MW114MW002	21510230413	*	10	1906	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MW114MW003 DL	21510230414	*	1000	1909															X									X								
MW114MW003	21510230414	*	10	1913	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1923	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1926	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1930	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571189 Start Date: 10/28/15

Instrument ID: ICPMS1 Analytical Method: EPA 6020A Dissolved End Date: 10/28/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	1150	*	1	0853	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICALB	1300	*	1	0923	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	1302	*	1	0929	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	1304	*	1	0934	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	1305	*	1	0939	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	1306	*	1	0944	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	1301	*	1	0949	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	1700	*	1	0954	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	2000	*	1	0959	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1005	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	2100	*	1	1043	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	1600	*	1	1048	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1502438	1502438	*	1	1118	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1502439	1502439	*	1	1123	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA02MW001D DL	21510230416	*	1000	1128																								X								
MA02MW001D	21510230416	*	10	1133	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA02MW001D-a DL	21510230417	*	1000	1144																								X								
MA02MW001D-a	21510230417	*	10	1149	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-24 DL	21510230419	*	10	1200															X									X								
MWQ-24	21510230419	*	1	1205	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	1900	*	1	1237	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1242	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1247	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1639	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1644	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	1900	*	1	1650	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
DP02MS	1502440	*	25	1707			X	X				X	X				X								X		X								X	
DP02MSD	1502441	*	25	1717			X	X				X	X				X								X		X								X	
DP02SD	1503554	*	125	1728			X	X				X	X				X								X		X								X	

FORM XIV - IN

XIV
ANALYSIS RUN LOG

Report No: 215102304 Analytical Batch: 571189 Start Date: 10/28/15

Instrument ID: ICPMS1 Analytical Method: EPA 6020A Dissolved End Date: 10/28/15

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																														
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
CCB	1900	*	1	1826	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	1803	*	1	1831	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	1800	*	1	1836	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

Form XV

Internal Standards

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/27/15
Instrument ID:	ICPMS2	End Date:	10/27/15
Analytical Method	EPA 6020A	Analytical Batch:	571111

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB1502426	1502426	1332	97		95		95		97		97		95		97	
LCS1502427	1502427	1335	94		96		94		98		96		96		98	
1S-151MS	1502428	1359	100		102		100		100		100		101		100	
1S-151MSD	1502429	1402	100		101		99		100		99		100		100	
1S-151PDS	1503085	1406	97		100		98		100		98		101		100	
1S-151SD	1503086	1409	101		102		100		100		102		102		101	
MA02MW001D DL	21510230416	1623	98		95		93		95		95		92		96	
MA02MW001D	21510230416	1626	88		89		89		95		88		83		94	
MA02MW001D-a DL	21510230417	1633	101		98		97		98		99		95		99	
MA02MW001D-a	21510230417	1637	89		89		89		94		86		83		94	
MWQ-24 DL	21510230419	1643	98		95		93		96		96		93		97	
MWQ-24	21510230419	1647	93		90		89		95		89		87		96	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/27/15
Instrument ID:	ICPMS2	End Date:	10/27/15
Analytical Method	EPA 6020A	Analytical Batch:	571111

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	ISTD8	Q	ISTD9	Q	ISTD10	Q	ISTD11	Q	ISTD12	Q	ISTD13	Q	ISTD14	Q
MB1502426	1502426	1332	99		97		100		100		97		98		100	
LCS1502427	1502427	1335	98		99		99		101		96		100		101	
1S-151MS	1502428	1359	100		101		101		101		99		101		100	
1S-151MSD	1502429	1402	102		102		102		102		100		104		102	
1S-151PDS	1503085	1406	100		100		101		102		99		102		102	
1S-151SD	1503086	1409	103		103		104		102		103		103		103	
MA02MW001D DL	21510230416	1623	102		99		102		102		99		97		101	
MA02MW001D	21510230416	1626	94		97		97		100		92		96		99	
MA02MW001D-a DL	21510230417	1633	107		103		105		106		102		100		105	
MA02MW001D-a	21510230417	1637	95		99		99		102		93		97		101	
MWQ-24 DL	21510230419	1643	105		103		104		106		101		99		105	
MWQ-24	21510230419	1647	98		98		100		103		94		98		102	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/26/15
Instrument ID:	ICPMS2	End Date:	10/27/15
Analytical Method	EPA 6020A	Analytical Batch:	571022

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB1501884	1501884	0129	105		104		104		106		106		105		105	
LCS1501885	1501885	0132	102		103		102		106		104		105		105	
MA01MW002 DL	21510230404	0227	107		106		105		107		107		107		106	
MA01MW004 DL	21510230405	0233	107		106		104		107		108		106		106	
MA01MW003 DL	21510230411	0240	106		105		104		106		106		105		105	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/26/15
Instrument ID:	ICPMS2	End Date:	10/27/15
Analytical Method	EPA 6020A	Analytical Batch:	571022

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD8***	***Q***	***ISTD9***	***Q***	***ISTD10***	***Q***	***ISTD11***	***Q***	***ISTD12***	***Q***	***ISTD13***	***Q***	***ISTD14***	***Q***
MB1501884	1501884	0129	105		104		107		106		107		107		106	
LCS1501885	1501885	0132	102		103		104		107		103		107		107	
MA01MW002 DL	21510230404	0227	107		106		108		107		108		108		107	
MA01MW004 DL	21510230405	0233	109		106		108		108		108		108		109	
MA01MW003 DL	21510230411	0240	106		105		107		106		105		106		106	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/28/15
Instrument ID:	ICPMS2	End Date:	10/28/15
Analytical Method	EPA 6020A & 6020A Dissolved	Analytical Batch:	571211

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	ISTD1	Q	ISTD2	Q	ISTD3	Q	ISTD4	Q	ISTD5	Q	ISTD6	Q	ISTD7	Q
M114MW001 DL	21510230401	1109	100		99		97		97		98		98		98	
M114MW001	21510230401	1113	89		91		89		94		87		90		94	
M114MW004 DL	21510230402	1116	101		100		98		98		99		98		98	
M114MW004	21510230402	1120	87		91		89		95		87		90		93	
MA01MW002	21510230404	1123	89		89		88		95		87		88		94	
MA01MW004	21510230405	1126	92		94		91		97		90		92		96	
MA01MW001 DL	21510230407	1130	102		102		100		100		100		101		101	
MA01MW001-MS DL	21510230408	1133	101		102		100		99		101		101		99	
MA01MW001-MSD DL	21510230410	1137	102		102		99		99		101		101		99	
MA01MW001PDS DL	1503645	1140	98		101		97		99		98		102		99	
MA01MW001SD DL	1503646	1143	102		103		100		100		101		102		100	
MA01MW001	21510230407	1157	94		97		94		98		93		96		97	
MA01MW001-MS	21510230408	1200	94		96		93		98		93		95		97	
MA01MW001-MSD	21510230410	1204	94		97		93		98		92		94		98	
MA01MW001PDS	1503645	1207	93		96		93		98		92		95		97	
MA01MW001SD	1503646	1210	102		104		101		103		101		102		103	
MA01MW003	21510230411	1214	90		92		90		97		89		91		95	
MW114MW002 DL	21510230413	1217	102		103		99		100		100		101		100	
MW114MW002	21510230413	1221	90		94		91		97		90		93		96	
MW114MW003 DL	21510230414	1224	101		103		100		99		102		101		100	
MW114MW003	21510230414	1227	89		94		91		96		89		93		95	
MB1501928	1501928	1243	102		108		103		101		104		109		101	
LCS1501929	1501929	1246	99		107		101		100		101		109		100	
M114MW001 DL	21510230401	1250	101		102		98		98		101		101		98	
M114MW001	21510230401	1253	90		94		90		96		89		94		94	
M114MW004 DL	21510230402	1256	100		101		98		98		99		100		98	
M114MW004	21510230402	1300	90		94		90		96		88		94		95	
MA01MW002 DL	21510230404	1303	100		102		98		98		99		100		98	
MA01MW002	21510230404	1306	92		96		92		98		90		93		96	
MA01MW004 DL	21510230405	1310	100		102		98		99		99		98		99	
MA01MW004	21510230405	1313	94		98		95		99		93		97		98	
MA01MW001 DL	21510230407	1327	100		100		96		97		97		99		98	
MA01MW001-MS DL	21510230408	1330	99		101		97		97		99		100		98	
MA01MW001-MSD DL	21510230410	1334	100		100		97		97		98		99		97	
MA01MW001SD DL	1503647	1337	100		100		97		97		98		98		97	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No: 215102304 Start Date: 10/28/15

Instrument ID: ICPMS2 End Date: 10/28/15

Analytical Method EPA 6020A & 6020A Dissolved Analytical Batch: 571211

CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	Internal Standanrds %RI For: ISTD8	Q	ISTD9	Q	ISTD10	Q	ISTD11	Q	ISTD12	Q	ISTD13	Q	ISTD14	Q
M114MW001 DL	21510230401	1109	102		103		101		100		101		102		101	
M114MW001	21510230401	1113	89		95		93		95		89		97		95	
M114MW004 DL	21510230402	1116	101		103		102		100		100		102		99	
M114MW004	21510230402	1120	87		95		92		95		89		97		94	
MA01MW002	21510230404	1123	88		94		92		96		89		97		94	
MA01MW004	21510230405	1126	92		100		96		98		93		101		97	
MA01MW001 DL	21510230407	1130	102		104		103		102		102		105		102	
MA01MW001-MS DL	21510230408	1133	102		104		101		100		101		104		101	
MA01MW001-MSD DL	21510230410	1137	101		103		101		100		100		103		100	
MA01MW001PDS DL	1503645	1140	97		101		98		99		97		102		98	
MA01MW001SD DL	1503646	1143	103		104		103		101		103		104		101	
MA01MW001	21510230407	1157	94		101		98		100		95		101		99	
MA01MW001-MS	21510230408	1200	93		100		98		98		94		101		98	
MA01MW001-MSD	21510230410	1204	93		99		96		99		94		101		98	
MA01MW001PDS	1503645	1207	92		98		95		98		92		100		97	
MA01MW001SD	1503646	1210	101		106		102		102		101		105		102	
MA01MW003	21510230411	1214	90		97		94		97		91		99		96	
MW114MW002 DL	21510230413	1217	103		106		104		102		103		106		102	
MW114MW002	21510230413	1221	90		98		95		98		92		100		97	
MW114MW003 DL	21510230414	1224	102		106		104		102		103		106		101	
MW114MW003	21510230414	1227	88		96		92		96		89		99		95	
MB1501928	1501928	1243	99		104		102		99		103		105		100	
LCS1501929	1501929	1246	97		104		101		99		100		106		99	
M114MW001 DL	21510230401	1250	101		104		102		101		101		104		101	
M114MW001	21510230401	1253	89		96		94		96		91		99		95	
M114MW004 DL	21510230402	1256	100		103		101		99		100		104		99	
M114MW004	21510230402	1300	86		95		93		95		89		98		93	
MA01MW002 DL	21510230404	1303	100		104		101		99		100		104		99	
MA01MW002	21510230404	1306	90		98		95		97		91		100		96	
MA01MW004 DL	21510230405	1310	100		103		101		100		100		104		100	
MA01MW004	21510230405	1313	94		102		98		100		95		103		99	
MA01MW001 DL	21510230407	1327	99		102		100		99		99		101		99	
MA01MW001-MS DL	21510230408	1330	99		102		100		99		99		101		99	
MA01MW001-MSD DL	21510230410	1334	98		101		100		98		98		100		98	
MA01MW001SD DL	1503647	1337	98		102		100		98		99		101		97	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/28/15
Instrument ID:	ICPMS2	End Date:	10/28/15
Analytical Method	EPA 6020A & 6020A Dissolved	Analytical Batch:	571211

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	ISTD1	Q	ISTD2	Q	ISTD3	Q	ISTD4	Q	ISTD5	Q	ISTD6	Q	ISTD7	Q
MA01MW001	21510230407	1832	92		98		92		94		91		97		94	
MA01MW001-MS	21510230408	1835	92		99		91		95		92		97		95	
MA01MW001-MSD	21510230410	1839	92		99		93		96		92		98		96	
MA01MW001SD	1503647	1842	96		101		95		96		97		99		96	
MA01MW003 DL	21510230411	1846	98		101		95		95		97		99		96	
MA01MW003	21510230411	1849	88		95		90		93		87		95		93	
MW114MW002 DL	21510230413	1903	98		99		93		95		97		98		95	
MW114MW002	21510230413	1906	87		93		88		92		86		92		92	
MW114MW003 DL	21510230414	1909	98		100		95		94		97		98		95	
MW114MW003	21510230414	1913	87		93		89		94		87		92		93	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/28/15
Instrument ID:	ICPMS2	End Date:	10/28/15
Analytical Method	EPA 6020A & 6020A Dissolved	Analytical Batch:	571211

			Internal Standanrds %RI For:													
CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	ISTD8	Q	ISTD9	Q	ISTD10	Q	ISTD11	Q	ISTD12	Q	ISTD13	Q	ISTD14	Q
MA01MW001	21510230407	1832	91		100		96		97		93		100		97	
MA01MW001-MS	21510230408	1835	91		99		96		96		93		101		96	
MA01MW001-MSD	21510230410	1839	91		99		96		97		93		100		97	
MA01MW001SD	1503647	1842	97		103		99		98		97		101		98	
MA01MW003 DL	21510230411	1846	98		102		100		98		98		101		98	
MA01MW003	21510230411	1849	88		97		93		94		88		98		94	
MW114MW002 DL	21510230413	1903	97		100		98		97		97		99		97	
MW114MW002	21510230413	1906	87		95		92		94		88		97		94	
MW114MW003 DL	21510230414	1909	99		102		100		99		99		102		99	
MW114MW003	21510230414	1913	87		96		92		95		88		97		94	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/28/15
Instrument ID:	ICPMS1	End Date:	10/28/15
Analytical Method	EPA 6020A Dissolved	Analytical Batch:	571189

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB1502438	1502438	1118	100		108		108		104		104		108		103	
LCS1502439	1502439	1123	97		108		106		106		102		108		103	
MA02MW001D DL	21510230416	1128	97		101		101		100		100		100		101	
MA02MW001D	21510230416	1133	91		102		98		100		96		102		100	
MA02MW001D-a DL	21510230417	1144	97		101		100		101		100		99		101	
MA02MW001D-a	21510230417	1149	90		102		98		100		95		102		99	
MWQ-24 DL	21510230419	1200	96		100		100		100		100		100		101	
MWQ-24	21510230419	1205	96		110		105		106		101		110		104	
DP02MS	1502440	1707	90		96		91		95		93		95		94	
DP02MSD	1502441	1717	89		96		91		95		93		94		95	
DP02SD	1503554	1728	92		97		93		95		96		95		96	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	215102304	Start Date:	10/28/15
Instrument ID:	ICPMS1	End Date:	10/28/15
Analytical Method	EPA 6020A Dissolved	Analytical Batch:	571189

			Internal Standanrds %RI For:															
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD8***	***Q***	***ISTD9***	***Q***	***ISTD10***	***Q***	***ISTD11***	***Q***	***ISTD12***	***Q***	***ISTD13***	***Q***	***ISTD14***	***Q***
MB1502438	1502438	1118	97		102		102		99		102		106		99	
LCS1502439	1502439	1123	93		104		100		99		99		105		98	
MA02MW001D DL	21510230416	1128	98		99		101		101		101		102		100	
MA02MW001D	21510230416	1133	88		99		95		96		93		101		96	
MA02MW001D-a DL	21510230417	1144	100		100		103		103		101		101		102	
MA02MW001D-a	21510230417	1149	88		100		95		97		93		101		96	
MWQ-24 DL	21510230419	1200	97		101		102		102		100		101		101	
MWQ-24	21510230419	1205	92		105		101		100		98		108		100	
DP02MS	1502440	1707	94		99		99		103		96		100		101	
DP02MSD	1502441	1717	93		100		100		103		97		101		101	
DP02SD	1503554	1728	99		100		104		105		100		102		104	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

ICPMS ICALs

Tune Mode	Mass	Name	ISTD	R	a	b (blank)	DL	BEC	Units
No Gas	7	Li	45 Sc [No Gas]	0.999990877	0.001894211	0.020420264	0.385893683	10.78035107	ppb
No Gas	9	Be	45 Sc [No Gas]	0.999997799	0.00065722	4.27E-06	0.003700946	0.006504422	ppb
No Gas	11	B	45 Sc [No Gas]	0.999999674	0.00043814	8.95E-05	0.025768865	0.204322277	ppb
He	23	Na	45 Sc [He]	0.99999951	0.003921071	0.114696526	1.790582867	29.25132694	ppb
He	24	Mg	45 Sc [He]	0.99999849	0.001771732	0.001242986	0.745876508	0.701565795	ppb
He	27	Al	45 Sc [He]	0.999997645	0.000465849	0.000242482	0.259211821	0.520516224	ppb
He	29	Si	45 Sc [He]	0.999986167	1.54E-05	0.006001185	73.32758671	390.2354269	ppb
He	39	K	45 Sc [He]	0.999998763	0.000964235	0.078031058	15.62500925	80.92531976	ppb
He	44	Ca	45 Sc [He]	0.999998311	5.42E-05	0.002181789	16.02857639	40.24855701	ppb
He	47	Ti	45 Sc [He]	0.999997825	0.000535499	3.30E-06	0.03202375	0.006162974	ppb
He	51	V	72 Ge [He]	0.999995762	0.029625615	0.001917264	0.024158065	0.06471644	ppb
He	52	Cr	72 Ge [He]	0.999999219	0.038468128	0.007144611	0.064303083	0.18572807	ppb
He	55	Mn	72 Ge [He]	0.999999235	0.013846642	0.001310319	0.014179087	0.094630819	ppb
He	57	Fe	72 Ge [He]	0.999999936	0.000710546	0.000406285	1.571051328	0.571793329	ppb
He	59	Co	72 Ge [He]	0.999999961	0.07357453	0.000418503	0.005024094	0.005688151	ppb
He	60	Ni	72 Ge [He]	0.999999834	0.021194461	0.002323096	0.036803254	0.109608629	ppb
He	63	Cu	103 Rh [He]	0.999998289	0.001702515	0.000113811	0.017729719	0.066848538	ppb
He	66	Zn	72 Ge [He]	0.999999942	0.006369673	0.004901476	0.336953978	0.769501973	ppb
He	75	As	72 Ge [He]	0.999998754	0.004410534	5.06E-05	0.002204239	0.011481232	ppb
He	78	Se	45 Sc [He]	0.999999832	0.00013365	2.05E-05	0.085237627	0.153065902	ppb
No Gas	88	Sr	72 Ge [No Gas]	0.999999636	0.028102815	0.000636074	0.009649737	0.022633819	ppb
No Gas	90	Zr	72 Ge [No Gas]	0.999939627	0.019641986	0.000210863	0.005783277	0.010735329	ppb
No Gas	95	Mo	115 In [No Gas]	0.999993742	0.001068575	1.84E-06	0.003550285	0.001721279	ppb
No Gas	107	Ag	115 In [No Gas]	0.999994559	0.002541842	1.58E-05	0.004003154	0.006207767	ppb
No Gas	111	Cd	115 In [No Gas]	0.999996852	0.000516583	1.34E-06	0.003564056	0.002601517	ppb
No Gas	118	[Sn]	115 In [No Gas]	0.999993842	0.001555567	5.79E-05	0.026689352	0.037217296	ppb
He	118	[Sn]	115 In [He]	0.999996689	0.002223623	8.18E-05	0.042990753	0.036788185	ppb
He	120	Sn	115 In [He]	0.999993221	0.003265413	0.000114858	0.013219868	0.035174201	ppb
No Gas	121	Sb	115 In [No Gas]	0.99998954	0.002363346	7.92E-05	0.004526039	0.033525235	ppb
No Gas	137	Ba	115 In [No Gas]	0.999999778	0.000742796	1.35E-05	0.005995495	0.018213317	ppb
He	156	[Se]	115 In [He]						ppb
No Gas	205	Tl	209 Bi [No Gas]	0.999992094	0.005290563	4.90E-05	0.002166029	0.009264289	ppb
No Gas	206	[Pb]	209 Bi [No Gas]	0.999999782	0.001765104	1.87E-05	0.011350183	0.010601933	ppb
No Gas	207	[Pb]	209 Bi [No Gas]	0.999998673	0.001573988	1.33E-05	0.012285366	0.008455618	ppb
No Gas	208	Pb	209 Bi [No Gas]	0.999997217	0.007211859	6.68E-05	0.001570415	0.009264309	ppb
No Gas	45	Sc							ppb
He	45	Sc							ppb
No Gas	72	Ge							ppb
He	72	Ge							ppb
No Gas	103	Rh							ppb
He	103	Rh							ppb
No Gas	115	In							ppb
He	115	In							ppb
No Gas	159	Tb							ppb
He	159	Tb							ppb
No Gas	175	Lu							ppb
He	175	Lu							ppb
No Gas	209	Bi							ppb
He	209	Bi							ppb

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999999985	0.002374224	0.019925808	0.569621869	8.392555682	ppb
1	9	Be	0.999999975	0.000758978	5.17E-07	0.00176918	0.000680931	ppb
1	11	B	0.999994562	0.000561038	0.000185096	0.05380177	0.329916884	ppb
2	23	Na	0.999997487	0.005146586	0.04056024	1.442514072	7.880998736	ppb
2	24	Mg	0.999999187	0.002568787	0.00049871	0.176830754	0.194142097	ppb
2	27	Al	0.999996046	0.000860063	0.000289462	0.281536389	0.336559244	ppb
2	29	Si	0.999907762	2.42E-05	0.001524375	17.55660171	62.94259638	ppb
2	39	K	0.999996522	0.001516703	0.068195099	3.242199321	44.96272322	ppb
2	44	Ca	0.999999142	7.96E-05	0.000437197	2.200629305	5.489972747	ppb
2	47	Ti	0.99999982	0.000649709	3.75E-05	0.001450782	0.057668096	ppb
2	51	V	0.999994939	0.038246387	0.001153064	0.010635602	0.030148303	ppb
2	52	Cr	0.999999244	0.048962552	0.002214808	0.001740258	0.045234739	ppb
2	55	Mn	0.999999995	0.022183902	0.000485028	0.030246724	0.021863958	ppb
2	57	Fe	0.999999959	0.00096189	0.000550665	0.851256472	0.572481813	ppb
2	59	Co	0.999999923	0.086308664	0.000131175	0.002101194	0.001519837	ppb
2	60	Ni	0.999998151	0.024287975	0.001257831	0.025416838	0.051788228	ppb
2	63	Cu	0.999978406	0.041311825	0.001506447	0.013407827	0.036465278	ppb
2	66	Zn	0.999999992	0.007958924	0.001035112	0.072438056	0.130056711	ppb
2	75	As	0.999998352	0.004602137	6.29E-05	0.015921634	0.013659433	ppb
2	78	Se	0.999987547	0.00026516	6.28E-05	0.219957209	0.236814708	ppb
1	88	Sr	0.999999455	0.043998598	0.00055769	0.010466903	0.012675166	ppb
1	90	Zr	0.999990841	0.029276255	0.000156736	0.00051478	0.005353703	ppb
1	95	Mo	0.999997795	0.001271049	2.14E-06	0.001621358	0.001682633	ppb
1	107	Ag	0.999998811	0.003028154	2.78E-05	0.006117166	0.009191395	ppb
1	111	Cd	0.999999386	0.000643362	1.08E-06	0.004994129	0.001671238	ppb
1	118	(Sn)	0.999997913	0.001965776	4.71E-05	0.008922162	0.023969017	ppb
2	118	(Sn)	0.999998424	0.002606067	8.69E-05	0.036349268	0.033344026	ppb
2	120	Sn	0.999999865	0.003775157	9.40E-05	0.013612347	0.024887867	ppb
1	121	Sb	0.999999453	0.002448731	5.69E-05	0.006146221	0.023246699	ppb
1	137	Ba	0.999978495	0.000981378	8.27E-06	0.013031863	0.008431241	ppb
2	156	[Se]						ppb
1	205	Tl	0.999996583	0.006357793	2.82E-06	0.00166908	0.000443367	ppb
1	206	(Pb)	0.999998558	0.002275423	1.34E-05	0.003721033	0.005906776	ppb
1	207	(Pb)	0.999999945	0.00197069	1.29E-05	0.008207135	0.006542392	ppb
1	208	Pb	0.999999933	0.009009767	5.50E-05	0.0031829	0.00610152	ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999989864	0.002618136	0.024820066	0.209566586	9.480052644	ppb
1	9	Be	0.999997091	0.000764874	5.60E-07	0.002002331	0.000732295	ppb
1	11	B	0.999997995	0.000545784	0.000312415	0.077840421	0.572414326	ppb
2	23	Na	0.999999868	0.004358396	0.065151505	2.357273724	14.94850531	ppb
2	24	Mg	0.999999641	0.002230307	0.000288805	0.18244405	0.12949132	ppb
2	27	Al	0.999999569	0.000757693	0.000460441	0.197390822	0.607687896	ppb
2	29	Si	0.99989446	2.05E-05	0.001572238	13.42126812	76.81832095	ppb
2	39	K	0.999994408	0.001334046	0.053691657	5.865080053	40.24724241	ppb
2	44	Ca	0.999999867	7.40E-05	0.000761141	10.23024119	10.28711523	ppb
2	47	Ti	0.999999962	0.000581852	5.78E-06	0.025833493	0.009942218	ppb
2	51	V	0.999992178	0.031684683	0.000843598	0.013342238	0.026624774	ppb
2	52	Cr	0.999998615	0.04091879	0.002333743	0.023319667	0.05703352	ppb
2	55	Mn	0.999999163	0.019486433	0.000572396	0.018898239	0.029374073	ppb
2	57	Fe	0.999999706	0.000834591	0.000409033	0.67987705	0.490100187	ppb
2	59	Co	0.999999969	0.073497184	0.000327382	0.002978318	0.00445435	ppb
2	60	Ni	0.999995281	0.020671574	0.001306595	0.05118346	0.063207316	ppb
2	63	Cu	0.999987385	0.039805555	0.0012949	0.006720165	0.032530643	ppb
2	66	Zn	0.999999221	0.007149926	0.001773311	0.107042466	0.24801813	ppb
2	75	As	0.999999953	0.004101363	3.29E-05	0.018871688	0.008013013	ppb
2	78	Se	0.999996005	0.00024176	5.23E-05	0.238917378	0.216275224	ppb
1	88	Sr	0.999999904	0.040157527	0.000550682	0.00212716	0.013713034	ppb
1	90	Zr	0.999990576	0.026928907	0.000252487	0.001701429	0.009376066	ppb
1	95	Mo	0.999996531	0.001179252	5.45E-06	0.003153864	0.004617897	ppb
1	107	Ag	0.999998922	0.002787144	2.69E-05	0.002745909	0.009635863	ppb
1	111	Cd	0.999999789	0.000594934	1.26E-06	0.002206253	0.002121487	ppb
1	118	(Sn)	0.999997007	0.00180632	4.51E-05	0.010281897	0.024960559	ppb
2	118	(Sn)	0.999998187	0.002454328	6.92E-05	0.008688516	0.028210773	ppb
2	120	Sn	0.999993994	0.003578555	0.000107538	0.024929708	0.030050728	ppb
1	121	Sb	0.999999532	0.002257664	6.34E-05	0.004898874	0.028094253	ppb
1	137	Ba	0.999978214	0.000904457	1.09E-05	0.002550615	0.012054011	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999147	0.0059788	1.50E-05	0.003273656	0.00251506	ppb
1	206	(Pb)	0.999999237	0.00211189	1.82E-05	0.011312554	0.008603479	ppb
1	207	(Pb)	0.99999997	0.001822173	1.04E-05	0.003829676	0.005681521	ppb
1	208	Pb	0.999999928	0.008392676	7.05E-05	0.004126795	0.008401646	ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999994356	0.002973506	0.028147981	0.265651585	9.466260435	ppb
1	9	Be	0.999999012	0.000797521	2.54E-06	0.00166228	0.003184244	ppb
1	11	B	0.999999818	0.000563951	0.000161169	0.030980141	0.285785071	ppb
2	23	Na	0.999995246	0.005498372	0.096836177	1.517170134	17.61179078	ppb
2	24	Mg	0.999992768	0.002021013	0.000284896	0.279813713	0.14096684	ppb
2	27	Al	0.999997244	0.000706264	0.000986947	0.777717881	1.397418955	ppb
2	29	Si	0.999898259	1.93E-05	0.002779707	34.83252716	144.3143198	ppb
2	39	K	0.99999662	0.001331111	0.048983574	4.257337392	36.79902219	ppb
2	44	Ca	0.999999959	7.41E-05	0.000489411	2.151813684	6.606410008	ppb
2	47	Ti	0.999999856	0.000573922	3.55E-06	0.016086553	0.006191259	ppb
2	51	V	0.999997997	0.029598883	0.001897359	0.015898507	0.064102389	ppb
2	52	Cr	0.999999864	0.037212776	0.00186384	0.018727855	0.050086031	ppb
2	55	Mn	0.999999966	0.018118691	0.000661046	0.039501862	0.036484204	ppb
2	57	Fe	0.999999539	0.000746279	0.000364091	0.779246206	0.487875521	ppb
2	59	Co	0.99999877	0.066136702	0.000476666	0.006183721	0.00720728	ppb
2	60	Ni	0.999998093	0.018053896	0.000701754	0.020332299	0.038869938	ppb
2	63	Cu	0.99999502	0.04961374	0.001928263	0.011639875	0.038865508	ppb
2	66	Zn	0.999999738	0.006447359	0.001161529	0.065942126	0.180155743	ppb
2	75	As	0.999999269	0.003886372	7.27E-05	0.009833225	0.018695279	ppb
2	78	Se	0.99999836	0.000236597	9.06E-05	0.138410927	0.382954762	ppb
1	88	Sr	0.999999766	0.037591529	0.000528252	0.002606254	0.014052434	ppb
1	90	Zr	0.99999591	0.024577731	0.000196769	0.000653636	0.008005977	ppb
1	95	Mo	0.999994103	0.001174693	2.00E-06	0.003428135	0.001699009	ppb
1	107	Ag	0.999997333	0.002836629	1.75E-05	0.001828405	0.006151952	ppb
1	111	Cd	0.999998855	0.00057139	1.21E-06	0.001502477	0.002113659	ppb
1	118	(Sn)	0.999999493	0.001766251	5.81E-05	0.005767715	0.032866658	ppb
2	118	(Sn)	0.999997742	0.002348077	0.000134468	0.0288131	0.057267108	ppb
2	120	Sn	0.99999728	0.003454805	0.000209534	0.00652441	0.060649951	ppb
1	121	Sb	0.999999304	0.00226949	6.62E-05	0.005453262	0.029177065	ppb
1	137	Ba	0.999994277	0.00091475	1.12E-05	0.003141092	0.012189948	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999631	0.00613899	0.00013273	0.00421136	0.021620809	ppb
1	206	(Pb)	0.999999819	0.002095021	2.34E-05	0.004503117	0.011174838	ppb
1	207	(Pb)	0.99999832	0.001874459	1.67E-05	0.00539849	0.008891315	ppb
1	208	Pb	0.999999068	0.008503777	9.68E-05	0.001000919	0.011381794	ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

PrepSheets

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1105	End: 1345	BATCH NO:	570844
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐		METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570844 [DIGM/40002]	1501884	50	50	MB		HNO3 301-1-10
2	QC ACCOUNT	LCS for HBN 570844 [DIGM/40002	1501885	↓	↓	LCS		
3	9000	SAMPLE 1	21510223601	5mL		SAMPLE		HCL 717568
4	9000	SAMPLE 2	21510223602	5mL		SAMPLE		
5	0176	SCRAP OIL & RUBBER BIN	21510222601	5mL		SAMPLE		H2O2
6	QC ACCOUNT	SCRAP OIL & RUBB... (1501765MS)	1501980	↓		MS		
7	4455	IDW02-SO-102115	21510221301	5mL		SAMPLE		SOLID MATERIAL:
8	4455	IDW03-SO-102115	21510221302	5mL		SAMPLE		
9	4455	IDW01-SL-102115	21510221303	5mL		SAMPLE		DPUS SPIKE IDW 717336
10	QC ACCOUNT	IDW01-SL-102115 (1501681MS)	1501915	↓		MS		
11	4455	IDW02-SL-102115	21510221304	5mL		SAMPLE		
12	4455	IDW01-AQ-102115	21510221305	5mL		SAMPLE		
13	4747	M114MW001	21510230401	50mL		SAMPLE		
14	4747	M114MW004	21510230402			SAMPLE		
15	4747	MA01MW002	21510230404	↓		SAMPLE		
16	4760	SS125-MW-46_1015	21510230305	5mL		SAMPLE		
17	4747	MA01MW004	21510230405	50mL		SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4747	MA01MW001	21510230407			SAMPLE		
19	4747	MA01MW001-MS	21510230408			MS		GCALI-1 - 250uL
20	4747	MA01MW001-MSD	21510230410			MSD		
21	4747	MA01MW003	21510230411			SAMPLE		GCALI-2 - 250uL
22	4747	MW114MW002	21510230413			SAMPLE		
23	4747	MW114MW003	21510230414	↓	↓	SAMPLE		ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS:

BALANCE ID: _____ TEMP: OBO

BLOCK ID	TECHNICIAN	DATE
A2 150924	JCL	10/23-15
REP/PET BOTTLES VERIFIED	REVIEW	DATE
N/A	AWG	10/27/15

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1145	End: 1345	BATCH NO:	570845
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐		METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT (mL) g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570845 [DIGM/40003]	1501886	20	20	MB		HNO3 7124371
2	QC ACCOUNT	LCS for HBN 570845 [DIGM/40003	1501887			LCS		
3	9000	SAMPLE 1	21510223601			SAMPLE		H2SO4 7173038
4	9000	SAMPLE 2	21510223602			SAMPLE		
5	0176	SCRAP OIL & RUBBER BIN	21510222601			SAMPLE		Aqua Regia
6	QC ACCOUNT	SCRAP OIL & RUBB... (1501765MS)	1501888			MS		
7	4455	IDW02-SO-102115	21510221301			SAMPLE		KMN04 276-70-3
8	4455	IDW03-SO-102115	21510221302			SAMPLE		
9	4455	IDW01-SL-102115	21510221303			SAMPLE		K2S2O6 276-70-4
10	QC ACCOUNT	IDW01-SL-102115 (1501681MS)	1501922			MS		
11	4455	IDW02-SL-102115	21510221304			SAMPLE		Hg Calib ID
12	4455	IDW01-AQ-102115	21510221305			SAMPLE		
13	4747	M114MW001	21510230401			SAMPLE		0.1 ppm CCV Working Solution
14	4747	M114MW004	21510230402			SAMPLE		
15	4747	MA01MW002	21510230404			SAMPLE		0.1 ppm ICV Working Solution
16	4747	MA01MW004	21510230405			SAMPLE		
17	4747	MA01MW001	21510230407			SAMPLE		Hg ICV
18	4747	MA01MW001-MS	21510230408			MS		
19	4747	MA01MW001-MSD	21510230410			MSD		SPIKE SOLUTIONS (LCS/MS)
20	4747	MA01MW003	21510230411			SAMPLE		
21	4747	MW114MW002	21510230413			SAMPLE		Hg Spike 1000ul 150ul 1000ul 200-97-3
22	4747	MW114MW003	21510230414	↓	↓	SAMPLE		
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
AC 150921	JH	10/23/15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

BALANCE ID: _____ TEMP: 93

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 14:13	End: 16:15	BATCH NO:	570926
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐		METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570926 [DIGM/40014]	1502426	50	50	MB		HNO3
2	QC ACCOUNT	LCS for HBN 570926 [DIGM/40014	1502427			LCS		301-1-10
3	4747	MA02MW001D	21510230416			SAMPLE		HCL
4	4747	MA02MW001D-a	21510230417			FLDDUP		217258S
5	4747	MWQ-24	21510230419			SAMPLE		H2O2
6	4760	SS125-WC-03S_1015	21510241006			SAMPLE		
7	4271	DP02	21510241201			SAMPLE		SOLID MATERIAL:
8	4271	DP01	21510241202			SAMPLE		
9	4271	DP03	21510241203			SAMPLE		
10	4476	305-18MW07	21510241302			SAMPLE		
11	4476	305-18MW19	21510241303	↓		SAMPLE		
12	4154	VB-042515	21510234101	5mL		SAMPLE		
13	4154	1S-151	21510234102	5mL		SAMPLE		
14	QC ACCOUNT	1S-151(1502210MS)	1502428			MS		
15	QC ACCOUNT	1S-151(1502210MSD)	1502429	↓		MSD		
16	4423	14F-622 HTU2	21510234401	5mL		SAMPLE		
17	4423	14F-201-HTU2	21510234402	5mL		SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4423	14F-101 HTU2	21510234403	5mL		SAMPLE		
19	4423	HTU1-CHLO ABS CAT	21510234404	5mL	↓	SAMPLE		GCALI-1 - 250uL
20								
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS:

BALANCE ID: _____ TEMP: 930

BLOCK ID	TECHNICIAN	DATE
#7 15151219	JEL	10-26-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 14:13 End: 16:15	BATCH NO:	570927
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL / g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570927 [DIGM/40015]	1502430	50	40	MB		HNO3
2	QC ACCOUNT	LCS for HBN 570927 [DIGM/40015	1502431			LCS		712431
3	4271	LB-3M	21510234601			SAMPLE		H2SO4
4	4747	MA02MW001D	21510230416			SAMPLE		7173098
5	4747	MA02MW001D-a	21510230417			FLDDUP		Aqua Regia
6	4747	MWQ-24	21510230419			SAMPLE		
7	4271	DP02	21510241201			SAMPLE		KMN04
8	4271	DP01	21510241202			SAMPLE		726203
9	4271	DP03	21510241203			SAMPLE		K2S2O6
10	4476	305-18MW07	21510241302			SAMPLE		726204
11	4476	305-18MW19	21510241303			SAMPLE		Hg Calib ID
12	4154	VB-042515	21510234101			SAMPLE		
13	4154	1S-151	21510234102			SAMPLE		0.1 ppm CCV Working Solution
14	QC ACCOUNT	1S-151(1502210MS)	1502432			MS		
15	QC ACCOUNT	1S-151(1502210MSD)	1502433			MSD		0.1 ppm ICV Working Solution
16	4423	14F-622 HTU2	21510234401			SAMPLE		
17	4423	14F-201-HTU2	21510234402			SAMPLE		Hg ICV
18	4423	14F-101 HTU2	21510234403			SAMPLE		
19	4423	HTU1-CHLO ABS CAT	21510234404	↓	↓	SAMPLE		SPIKE SOLUTIONS (LCS/MS)
20								
21								Hg Spike 1000uL / 150ul 726-203
22								
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A7 B080L9	JCL	10-7-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

BALANCE ID: _____ TEMP: 93°

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1233 End: 1433	BATCH NO:	570847
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570847 [DIGM/40004]	1501926	20	20	MB		HNO3 212391
2	QC ACCOUNT	LCS for HBN 570847 [DIGM/40004	1501927			LCS		
3	4747	M114MW001	21510230401			SAMPLE	Cool & Clear	H2SO4 717308
4	4747	M114MW004	21510230402			SAMPLE		
5	4747	MA01MW002	21510230404			SAMPLE		Aqua Regia
6	4747	MA01MW004	21510230405			SAMPLE		
7	4747	MA01MW001	21510230407			SAMPLE		KMN04 72070-3
8	4747	MA01MW001-MS	21510230408			MS		
9	4747	MA01MW001-MSD	21510230410			MSD		K2S2O6 72070-4
10	4747	MA01MW003	21510230411			SAMPLE		
11	4747	MW114MW002	21510230413			SAMPLE		Hg Calib ID
12	4747	MW114MW003	21510230414			SAMPLE		
13	4569	MRD-1B-31A	21510230601			SAMPLE		0.1 ppm CCV Working Solution
14	4569	MRD-1B-30	21510230602			SAMPLE		
15	4569	MRD-1B-15	21510230603			SAMPLE		0.1 ppm ICV Working Solution
16								
17								Hg ICV
18								
19								SPIKE SOLUTIONS (LCS/MS)
20								
21								Hg Spike 100uL 150uL 72070-3
22								
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A1 15h0424	TC	10/23/15
REHIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

BALANCE ID: _____ TEMP: 0930

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 14:30 End: 14:46	BATCH NO:	570848
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570848 [DIGM/40005]	1501928	50	50	MB		HNO3
2	QC ACCOUNT	LCS for HBN 570848 [DIGM/40005	1501929	↓	↓	LCS	Field Filtered ↓	301-146
3	4747	M114MW001	21510230401			SAMPLE		HCL
4	4747	M114MW004	21510230402			SAMPLE		
5	4747	MA01MW002	21510230404			SAMPLE		H2O2
6	4747	MA01MW004	21510230405			SAMPLE		
7	4747	MA01MW001	21510230407			SAMPLE		SOLID MATERIAL:
8	4747	MA01MW001-MS	21510230408			MS		
9	4747	MA01MW001-MSD	21510230410			MSD		[illegible]
10	4747	MA01MW003	21510230411			SAMPLE		[illegible]
11	4747	MW114MW002	21510230413			SAMPLE		[illegible]
12	4747	MW114MW003	21510230414			SAMPLE		[illegible]
13	4769	IDW-BLK04	21510231401			SAMPLE	Lab Filtered	[illegible]
14	4271	LB-3M	21510234601	↓	↓	SAMPLE	Field Filtered	[illegible]
15								[illegible]
16								[illegible]
17								SPIKING SOLUTIONS (LCS/MS)
18								
19								GCALI-1 - 250uL
20								
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS: Samples are undigested

BALANCE ID: ____________________

TEMP: Filter # 11902897
AWG 10/27/15

BLOCK ID	TECHNICIAN	DATE
N/A 130974	[illegible]	10-23-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1435	End: 1633	BATCH NO:	570929
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐		METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 570929 [DIGM/40016]	1502434	20	20	MB		HNO3 7124301
2	QC ACCOUNT	LCS for HBN 570929 [DIGM/40016	1502435			LCS		
3	4271	LB-3M	21510234601			SAMPLE	Pale Yellow	H2SO4 7123038
4	4747	MA02MW001D	21510230416			SAMPLE		
5	QC ACCOUNT	MA02MW001D (1502387MS)	1502436			MS		Aqua Regia
6	QC ACCOUNT	MA02MW001D (1502387MSD)	1502437			MSD		
7	4747	MA02MW001D-a	21510230417			FLDDUP		KMN04 TCL 70-3
8	4747	MWQ-24	21510230419			SAMPLE		
9	4271	DP02	21510241201			SAMPLE		K2S2O6 TCL 70-4
10	4271	DP01	21510241202			SAMPLE		
11	4271	DP03	21510241203			SAMPLE		Hg Calib ID
12								
13								0.1 ppm CCV Working Solution
14								
15								0.1 ppm ICV Working Solution
16								
17								Hg ICV
18								
19								SPIKE SOLUTIONS (LCS/MS)
20								
21								Hg Spike 100dL 150uL 1402-3
22								
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A1 1510819	JCL	10-26-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

BALANCE ID: _____ TEMP: 95°

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 14:20 End: 14:30	BATCH NO:	570930
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3051 ☐ 3050B ☐ Diss 6010

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS
1	QC ACCOUNT	MB for HBN 570930 [DIGM/40017]	1502438	50	50	MB	
2	QC ACCOUNT	LCS for HBN 570930 [DIGM/40017	1502439	↓	↓	LCS	
3	4747	MA02MW001D	21510230416			SAMPLE	Field Filtered
4	4747	MA02MW001D-a	21510230417			FLDDUP	↓
5	4747	MWQ-24	21510230419			SAMPLE	
6	4271	DP02	21510241201			SAMPLE	
7	QC ACCOUNT	DP02(1502417MS)	1502440			MS	
8	QC ACCOUNT	DP02(1502417MSD)	1502441			MSD	
9	4271	DP01	21510241202			SAMPLE	
10	4271	DP03	21510241203	↓	↓	SAMPLE	↓
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

REAGENTS/ STANDARDS

HNO_3 3011-10
HCL
H_2O_2
SOLID MATERIAL:
[illegible handwritten entries]
SPIKING SOLUTIONS (LCS/MS)
GCALI-1 - 250uL
GCALI-2 - 250uL
ORGANOMETALLIC ICP SPIKE 0.025g

Samples are undigested

COMMENTS:

BALANCE ID: ______________________ TEMP: ______________________

BLOCK ID	TECHNICIAN	DATE
N/A 130494	JEL	10-26-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	AWG	10/27/15

Revision 1, 08/10/2010

Sample Results

M114MW001	**Collect Date**	10/22/2015 11:10	**GCAL ID**	21510230401
	Receive Date	10/23/2015 09:48	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/23/2015 18:47	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	4.22	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1000	11/01/2015 17:56	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	2980	50.0	200	mg/L
14808-79-8	Sulfate	2050	100	200	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 17:44	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	107	0.26	1.0	mg/L CaCO3

Sample Results

M114MW001

Collect Date	10/22/2015 11:10	**GCAL ID**	21510230401
Receive Date	10/23/2015 09:48	**Matrix**	Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	7150	10.0	10.0	mg/L

M114MW004

Collect Date	10/22/2015 09:10	**GCAL ID**	21510230402
Receive Date	10/23/2015 09:48	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/23/2015 17:54	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	3.75J	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	3000	11/01/2015 18:31	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	3720	150	600	mg/L
14808-79-8	Sulfate	2090	300	600	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 17:51	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

Sample Results

M114MW004

Collect Date 10/22/2015 09:10 **GCAL ID** 21510230402
Receive Date 10/23/2015 09:48 **Matrix** Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	83.7	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	8580	10.0	10.0	mg/L

MA01MW002

Collect Date 10/22/2015 12:38 **GCAL ID** 21510230404
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	10/23/2015 19:05	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	1.08	0.500	1.00	mg/L
14797-65-0	Nitrite	0.500U	0.500	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 18:48	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	451	25.0	100	mg/L
14808-79-8	Sulfate	546	50.0	100	mg/L

Sample Results

MA01MW002

Collect Date 10/22/2015 12:38 **GCAL ID** 21510230404
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 17:53	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	190	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1670	10.0	10.0	mg/L

MA01MW004

Collect Date 10/22/2015 13:48 **GCAL ID** 21510230405
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2	10/23/2015 20:15	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	0.995	0.200	0.400	mg/L
14797-65-0	Nitrite	0.200U	0.200	0.400	mg/L

Sample Results

MA01MW004	**Collect Date**	10/22/2015 13:48	**GCAL ID**	21510230405
	Receive Date	10/23/2015 09:48	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 19:06	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	280	25.0	100	mg/L
14808-79-8	Sulfate	376	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 17:55	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0012U	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	197	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1150	10.0	10.0	mg/L

Sample Results

MA01MW001

Collect Date 10/22/2015 12:55 **GCAL ID** 21510230407
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	10/23/2015 19:22	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	0.993J	0.500	1.00	mg/L
14797-65-0	Nitrite	0.500U	0.500	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 19:58	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	444	25.0	100	mg/L
14808-79-8	Sulfate	572	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 17:57	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	175	0.26	1.0	mg/L CaCO3

Sample Results

MA01MW001

Collect Date 10/22/2015 12:55 **GCAL ID** 21510230407
Receive Date 10/23/2015 09:48 **Matrix** Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1950	10.0	10.0	mg/L

MA01MW001-MS

Collect Date 10/22/2015 12:55 **GCAL ID** 21510230408
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	10/23/2015 19:40	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	11.7	0.500	1.00	mg/L
14797-65-0	Nitrite	11.9	0.500	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 20:15	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	1690	25.0	100	mg/L
14808-79-8	Sulfate	1750	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:00	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.091	0.0012	0.0050	mg/L

Sample Results

MA01MW001-MSD

Collect Date 10/22/2015 12:55 | **GCAL ID** 21510230410
Receive Date 10/23/2015 09:48 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	10/23/2015 19:58	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	11.9	0.500	1.00	mg/L
14797-65-0	Nitrite	12.1	0.500	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 20:33	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	1700	25.0	100	mg/L
14808-79-8	Sulfate	1750	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:02	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.087	0.0012	0.0050	mg/L

MA01MW003

Collect Date 10/22/2015 14:45 | **GCAL ID** 21510230411
Receive Date 10/23/2015 09:48 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	10/23/2015 20:33	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	0.922J	0.500	1.00	mg/L
14797-65-0	Nitrite	0.500U	0.500	1.00	mg/L

Sample Results

MA01MW003

Collect Date 10/22/2015 14:45
Receive Date 10/23/2015 09:48
GCAL ID 21510230411
Matrix Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/01/2015 20:50	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	502	25.0	100	mg/L
14808-79-8	Sulfate	601	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:09	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0012U	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	162	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1790	10.0	10.0	mg/L

Sample Results

MW114MW002

Collect Date	10/22/2015 09:17	**GCAL ID**	21510230413
Receive Date	10/23/2015 09:48	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/23/2015 18:12	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	2.00U	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2000	11/01/2015 21:08	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	3570	100	400	mg/L
14808-79-8	Sulfate	2080	200	400	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:11	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0030J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	86.5	0.26	1.0	mg/L CaCO3

Sample Results

MW114MW002

Collect Date 10/22/2015 09:17 **GCAL ID** 21510230413
Receive Date 10/23/2015 09:48 **Matrix** Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/23/2015 13:35	WRW	570870

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	8010	10.0	10.0	mg/L

MW114MW003

Collect Date 10/22/2015 10:23 **GCAL ID** 21510230414
Receive Date 10/23/2015 09:48 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/23/2015 18:30	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	4.11	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	3000	11/01/2015 21:25	RXJ	571354

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	3900	150	600	mg/L
14808-79-8	Sulfate	2330	300	600	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:13	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

Sample Results

MW114MW003

Collect Date 10/22/2015 10:23 **GCAL ID** 21510230414
Receive Date 10/23/2015 09:48 **Matrix** Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 07:45	DJH	570915

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	68.2	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/26/2015 17:27	AJE	571064

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	8160	10.0	10.0	mg/L

MA02MW001D

Collect Date 10/23/2015 08:55 **GCAL ID** 21510230416
Receive Date 10/24/2015 10:00 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/24/2015 13:20	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	6.71	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/02/2015 21:59	DMT	571473

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	1890	25.0	100	mg/L
14808-79-8	Sulfate	2010	50.0	100	mg/L

Sample Results

MA02MW001D

Collect Date 10/23/2015 08:55 | **GCAL ID** 21510230416
Receive Date 10/24/2015 10:00 | **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:15	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 14:38	DJH	571213

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	151	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 09:51	WRW	571172

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	5170	10.0	10.0	mg/L

MA02MW001D-a

Collect Date 10/23/2015 08:55 | **GCAL ID** 21510230417
Receive Date 10/24/2015 10:00 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	10/24/2015 13:37	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
14797-55-8	Nitrate	6.79	2.00	4.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	4.00	mg/L

Sample Results

MA02MW001D-a

Collect Date	10/23/2015 08:55	**GCAL ID**	21510230417
Receive Date	10/24/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	11/02/2015 21:24	DMT	571473

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	1820	25.0	100	mg/L
14808-79-8	Sulfate	1910	50.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:17	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 14:38	DJH	571213

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	146	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 09:51	WRW	571172

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	4740	10.0	10.0	mg/L

Sample Results

MWQ-24

Collect Date	10/23/2015 10:55	**GCAL ID**	21510230419
Receive Date	10/24/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/24/2015 13:55	DMT	570901

CAS#	Parameter	Result	DL	LOQ	Units
16887-00-6	Chloride	4.91	0.050	0.200	mg/L
14797-55-8	Nitrate	2.96	0.100	0.200	mg/L
14797-65-0	Nitrite	0.100U	0.100	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	10	11/03/2015 11:36	DMT	571473

CAS#	Parameter	Result	DL	LOQ	Units
14808-79-8	Sulfate	56.2	1.00	2.00	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
10/26/2015 12:00	571016	Cyanide Prep	1	10/27/2015 18:18	SMR	571129

CAS#	Parameter	Result	DL	LOQ	Units
57-12-5	Cyanide	0.0020J	0.0012	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 14:38	DJH	571213

CAS#	Parameter	Result	DL	LOQ	Units
000000-00-5	Total Alkalinity	210	0.26	1.0	mg/L CaCO3

Sample Results

MWQ-24

Collect Date 10/23/2015 10:55 **GCAL ID** 21510230419
Receive Date 10/24/2015 10:00 **Matrix** Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	10/28/2015 09:51	WRW	571172

CAS#	Parameter	Result	DL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	353	10.0	10.0	mg/L

General Chemistry QC Summary

Analytical Batch	Client ID	LCS570915			
570915	GCAL ID	1502365			
	Sample Type	LCS			
	Prep Date	NA			
	Analysis Date	10/28/2015 07:45			
	Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R
Total Alkalinity	000000-00-5	200	199	100	80 - 120

Analytical Batch	Client ID	TK-471		1500835DUP		
570915	GCAL ID	21510203402		1503425		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/28/2015 07:45		10/28/2015 07:45		
	Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 DL	Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	311	0.26	313	1	11

Analytical Batch	Client ID	LCS571213			
571213	GCAL ID	1503702			
	Sample Type	LCS			
	Prep Date	NA			
	Analysis Date	10/28/2015 14:38			
	Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R
Total Alkalinity	000000-00-5	200	199	100	80 - 120

Analytical Batch	Client ID	MA01MW001		MA01MW001-MS				MA01MW001-MSD				
570901	GCAL ID	21510230407		21510230408				21510230410				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	10/23/2015 19:22		10/23/2015 19:40				10/23/2015 19:58				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	0.993	0.500	12.5	11.7	86	80 - 120	12.5	11.9	87	1	15
Nitrite	14797-65-0	0.000	0.500	12.5	11.9	95	80 - 120	12.5	12.1	97	2	15

Analytical Batch	Client ID	MA01MW001		MA01MW001-MS				MA01MW001-MSD				
571354	GCAL ID	21510230407		21510230408				21510230410				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	11/01/2015 19:58		11/01/2015 20:15				11/01/2015 20:33				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	444	25.0	1250	1690	100	79 - 109	1250	1700	100	0	15
Sulfate	14808-79-8	572	50.0	1250	1750	95	82 - 110	1250	1750	94	0	15

General Chemistry QC Summary

Analytical Batch 570901	Client ID	MB570901		LCS570901 1502331				LCSD570901 1502468				
	GCAL ID	1502330										
	Sample Type	MB		LCS				LCSD				
	Prep Date	NA		NA				NA				
	Analysis Date	10/23/2015 16:59		10/23/2015 16:41				10/23/2015 20:51				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	0.156J	0.050	2.50	2.56	102	79 - 109	2.50	2.50	100	3	15
Nitrate	14797-55-8	0.100U	0.100	2.50	2.38	95	80 - 120	2.50	2.38	95	0	15
Nitrite	14797-65-0	0.100U	0.100	2.50	2.33	93	80 - 120	2.50	2.29	92	1	15

Analytical Batch 571354	Client ID	MB571354		LCS571354 1504441			
	GCAL ID	1504440					
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	11/01/2015 12:43		11/01/2015 12:25			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.44	98	79 - 109
Sulfate	14808-79-8	0.100U	0.100	2.50	2.38	95	82 - 110

Analytical Batch 571473	Client ID	MB571473		LCS571473 1504827				LCSD571473 1505479				
	GCAL ID	1504826										
	Sample Type	MB		LCS				LCSD				
	Prep Date	NA		NA				NA				
	Analysis Date	11/02/2015 15:49		11/02/2015 15:32				11/02/2015 19:03				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	0.050U	0.050	2.50	2.51	101	79 - 109	2.50	2.52	101	0	15
Sulfate	14808-79-8	0.100U	0.100	2.50	2.28	91	82 - 110	2.50	2.34	94	3	15

Analytical Batch 571129	Client ID	MB571016		LCS571016 1502685				LCSHI571016 1502686			
Prep Batch 571016	GCAL ID	1502684									
	Sample Type	MB		LCS				LCSHI			
Prep Method Cyanide Prep	Prep Date	10/26/2015 12:00		10/26/2015 12:00				10/26/2015 12:00			
	Analysis Date	10/27/2015 17:32		10/27/2015 17:41				10/27/2015 17:35			
	Matrix	Water		Water				Water			
EPA 9012B		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.0020J	0.0012	0.020	0.018	90	80 - 120	0.10	0.092	92	80 - 120

Analytical Batch 571129	Client ID	M114MW001		1501896DUP 1502688			1501896MS 1502687			
Prep Batch 571016	GCAL ID	21510230401								
	Sample Type	SAMPLE		DUP			MS			
Prep Method Cyanide Prep	Prep Date	10/26/2015 12:00		10/26/2015 12:00			10/26/2015 12:00			
	Analysis Date	10/27/2015 17:44		10/27/2015 17:48			10/27/2015 17:46			
	Matrix	Water		Water			Water			
EPA 9012B		Units Result	mg/L DL	Result	RPD	RPD Limit	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.0020	0.0012	0.0020	0	20	0.10	0.053	**51***	80 - 120

General Chemistry QC Summary

Analytical Batch	Client ID	MA01MW001		MA01MW001-MS				MA01MW001-MSD				
571129	GCAL ID	21510230407		21510230408				21510230410				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
571016	Prep Date	10/26/2015 12:00		10/26/2015 12:00				10/26/2015 12:00				
Prep Method	Analysis Date	10/27/2015 17:57		10/27/2015 18:00				10/27/2015 18:02				
Cyanide Prep	Matrix	Water		Water				Water				
EPA 9012B		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Cyanide	57-12-5	0.0020	0.0012	0.10	0.091	89	80 - 120	0.10	0.087	85	5	20

Analytical Batch	Client ID	MB570870		LCS570870			
570870	GCAL ID	1502136		1502137			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	10/23/2015 13:35		10/23/2015 13:35			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	904	90	80 - 120

Analytical Batch	Client ID	MA01MW004		1501902DUP		
570870	GCAL ID	21510230405		1502139		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/23/2015 13:35		10/23/2015 13:35		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	1150	10.0	1130	2	5.4

Analytical Batch	Client ID	BG-2		1501985DUP		
570870	GCAL ID	21510231201		1502138		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/23/2015 13:35		10/23/2015 13:35		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	175	10.0	183	5	5.4

Analytical Batch	Client ID	MB571064		LCS571064			
571064	GCAL ID	1502964		1502965			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	10/26/2015 17:27		10/26/2015 17:27			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	922	92	80 - 120

Analytical Batch	Client ID	CSSW-12		1501994DUP		
571064	GCAL ID	21510231210		1502966		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/26/2015 17:27		10/26/2015 17:27		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	956	10.0	960	0	5.4

General Chemistry QC Summary

Analytical Batch 571172	Client ID	MB571172		LCS571172			
	GCAL ID	1503426		1503427			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	10/28/2015 09:51		10/28/2015 09:51			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L DL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	978	98	80 - 120

Analytical Batch 571172	Client ID	CSSW-16		1501990DUP		
	GCAL ID	21510231206		1503428		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/28/2015 09:51		10/28/2015 09:51		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	1280	10.0	1290	0	5.4

Analytical Batch 571172	Client ID	TK-470		1503219DUP		
	GCAL ID	21510273401		1503429		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	10/28/2015 09:51		10/28/2015 09:51		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L DL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	540	10.0	547	1	5.4

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 10/24/15
Analyst: DMT
HBN: 570901
Batch: 5111

Instrument ID: IC 1

Secondary Reviewer/Date: JEM 10-26-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2124249 Expiration Date: 11/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1042-13-2
Calibration Date 9/11/15
Calibration Expiration 11/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-38-8
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1042-38-9 Expiration Date: 4/23/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

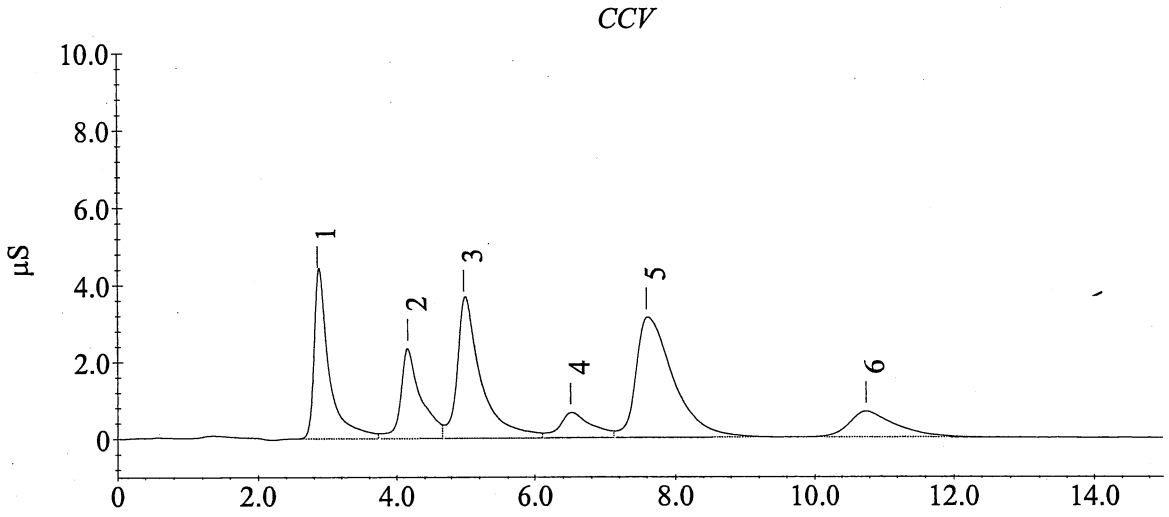
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_D002.DXD

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 10/23/2015 16:41:32
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 2

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.85	2.267	674760	42284
2	CHLORIDE,16887-00-6	4.16	2.561 102	473946	23385
3	NITRITE,14797-65-	4.99	2.327 93	866880	35985
4	BROMIDE,24959-67-9	6.51	2.677	204755	6544
5	NITRATE,14797-55-	7.60	2.383 95	1148369	31136
6	SULFATE,14808-79-	10.75	2.410 96	307758	6668



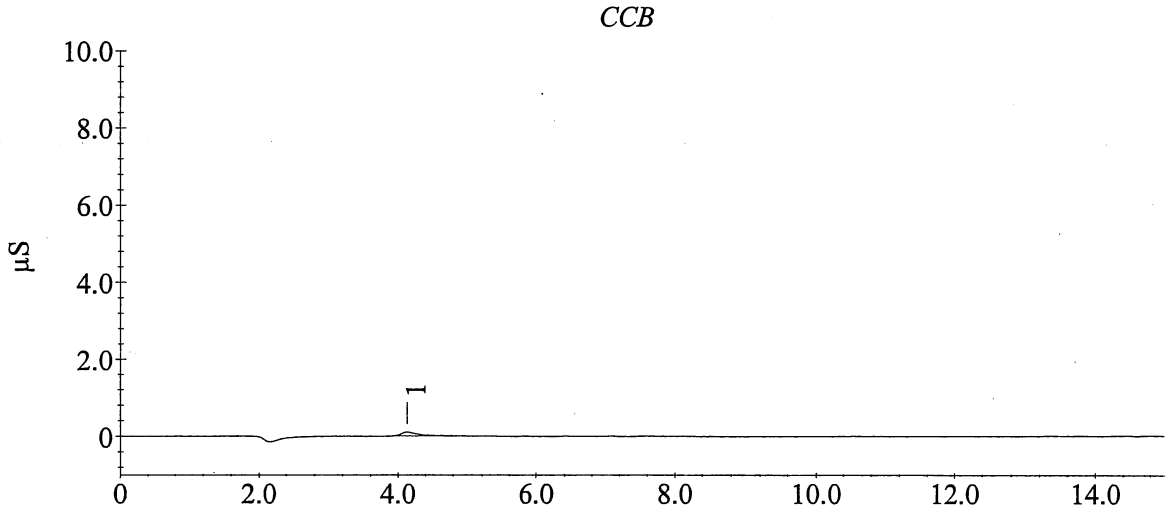
Sample Analysis Report

Sample Name : CCB
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_C003.DXD

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 10/23/2015 16:59:11
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 3

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.13	0.156	14721	956



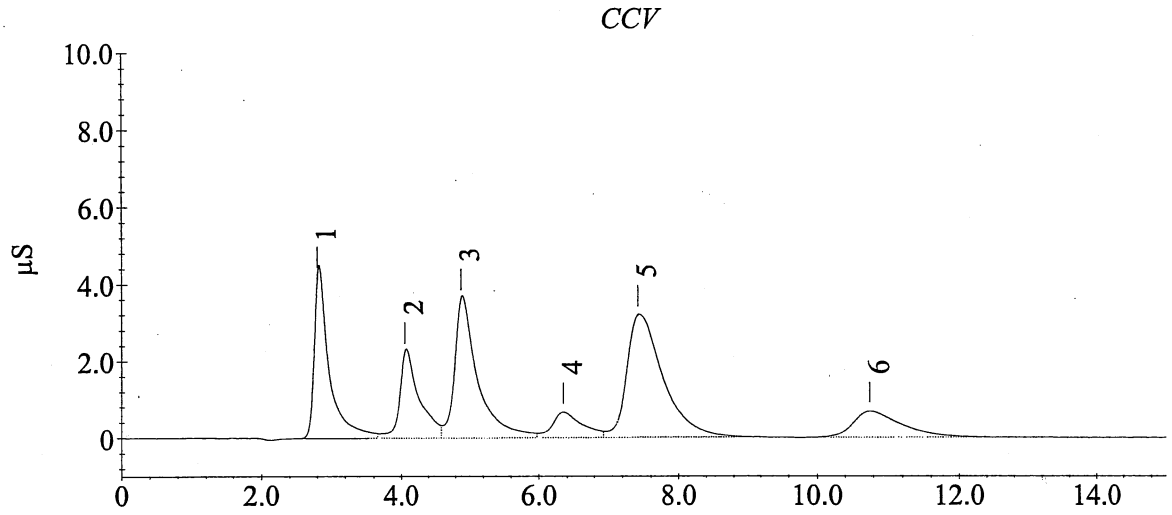
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_014.DXD

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 10/23/2015 20:51:01
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 14

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.80	2.268	675236	42161
2	CHLORIDE,16887-00-6	4.05	2.498	461968	22457
3	NITRITE,14797-65-	4.88	2.294	853980	36292
4	BROMIDE,24959-67-	6.35	2.599	198630	6622
5	NITRATE,14797-55-	7.41	2.378	1146028	31892
6	SULFATE,14808-79-	10.75	2.474	316223	6778



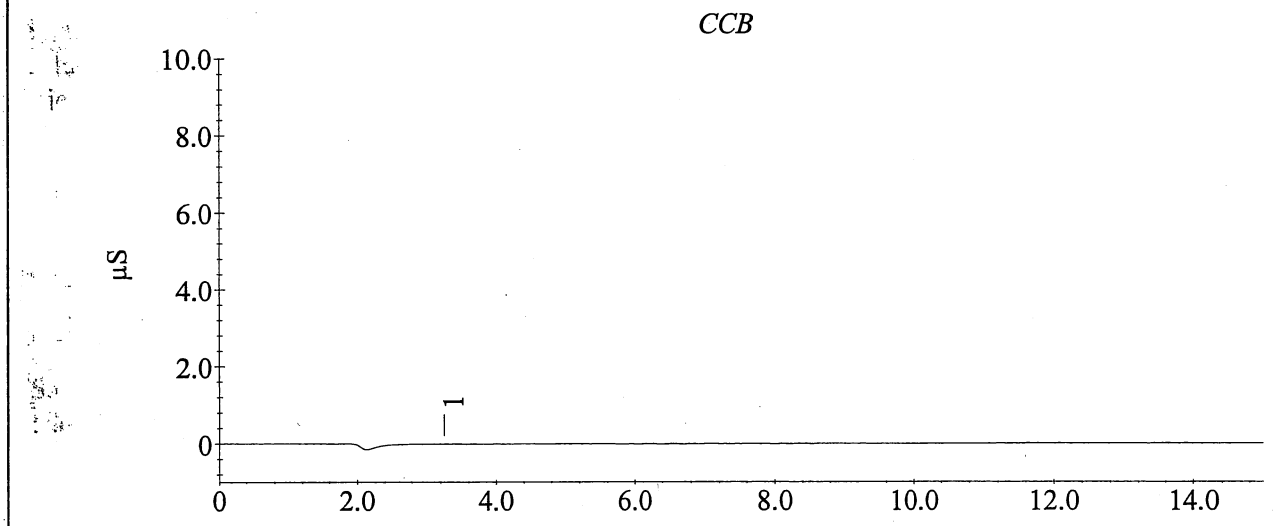
Sample Analysis Report

Sample Name : CCB
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_015.DXD

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 10/23/2015 21:08:38
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 15

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.25	0.116	2157	66



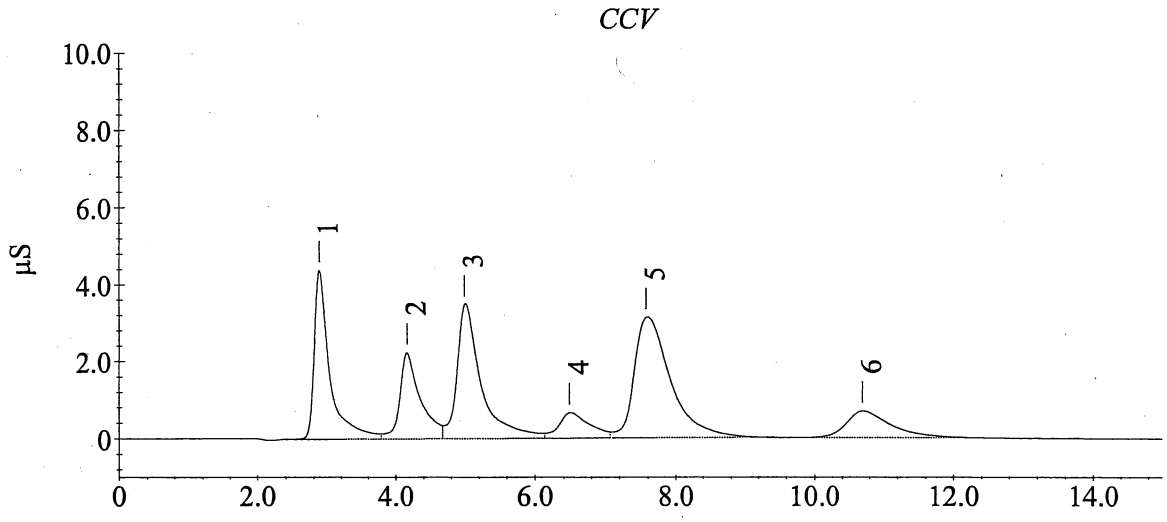
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_A017.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 10/24/2015 12:45:04
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 17

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.88	2.300	685081	43771
2	CHLORIDE,16887-00-6	4.16	2.470	456585	22234
3	NITRITE,14797-65-	4.99	2.254	838004	34672
4	BROMIDE,24959-67-9	6.48	2.622	200389	6548
5	NITRATE,14797-55-	7.57	2.310	1111116	31129
6	SULFATE,14808-79-	10.69	2.392	305446	6839



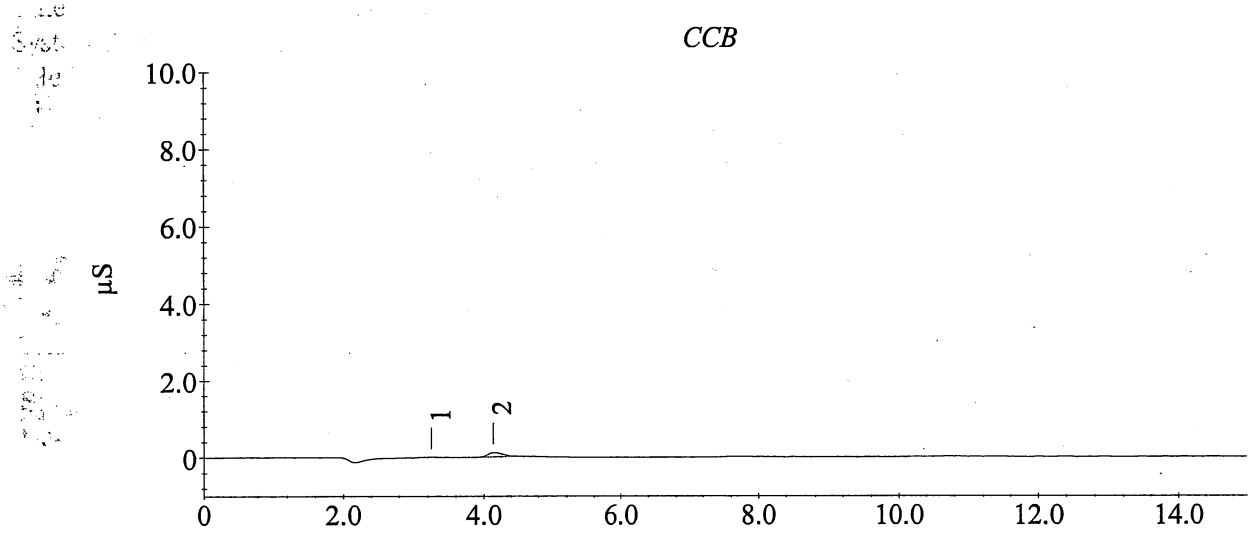
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\102015\1023_A018.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 10/24/2015 13:02:41
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 18

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.25	0.115	1801	136
2	CHLORIDE,16887-00-6	4.13	0.171	17637	1170



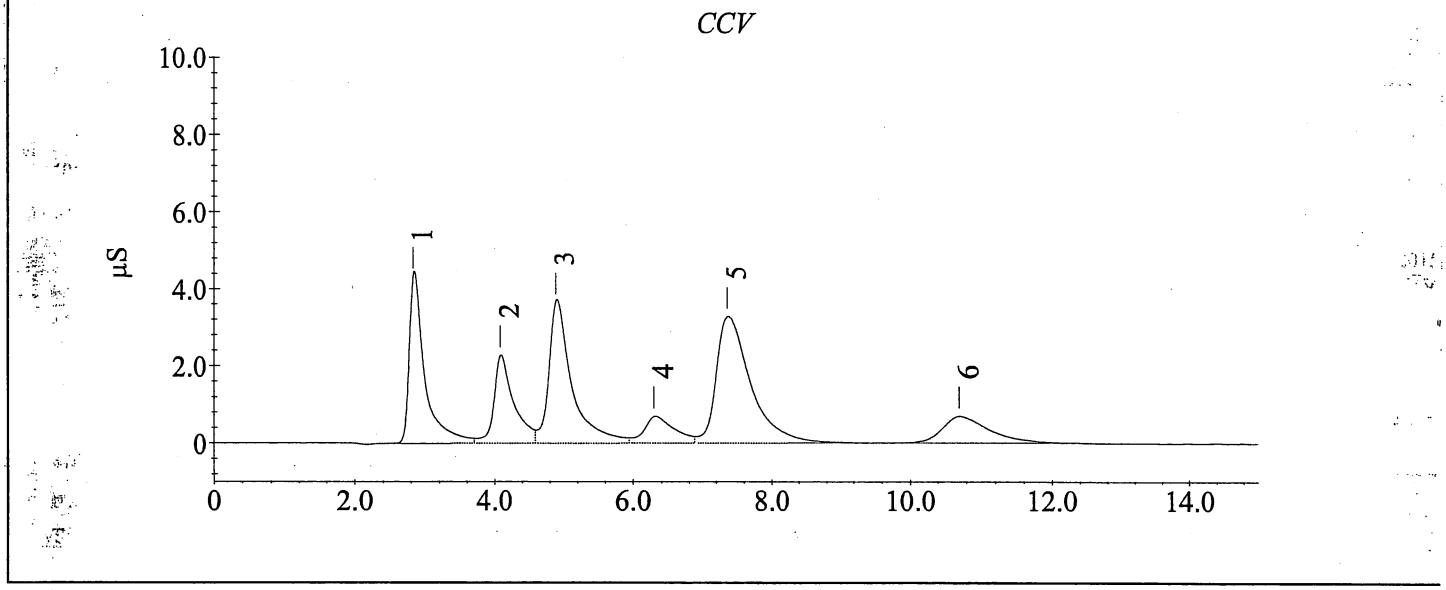
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\102015\1023_024.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 10/24/2015 14:48:22
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 24

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.83	2.281	679137	43120
2	CHLORIDE,16887-00-6	4.08	2.463	455293	22652
3	NITRITE,14797-65-	4.88	2.292	853263	36406
4	BROMIDE,24959-67-	6.29	2.692	206009	6896
5	NITRATE,14797-55-	7.36	2.350	1131626	32658
6	SULFATE,14808-79-	10.69	2.466	315233	6893



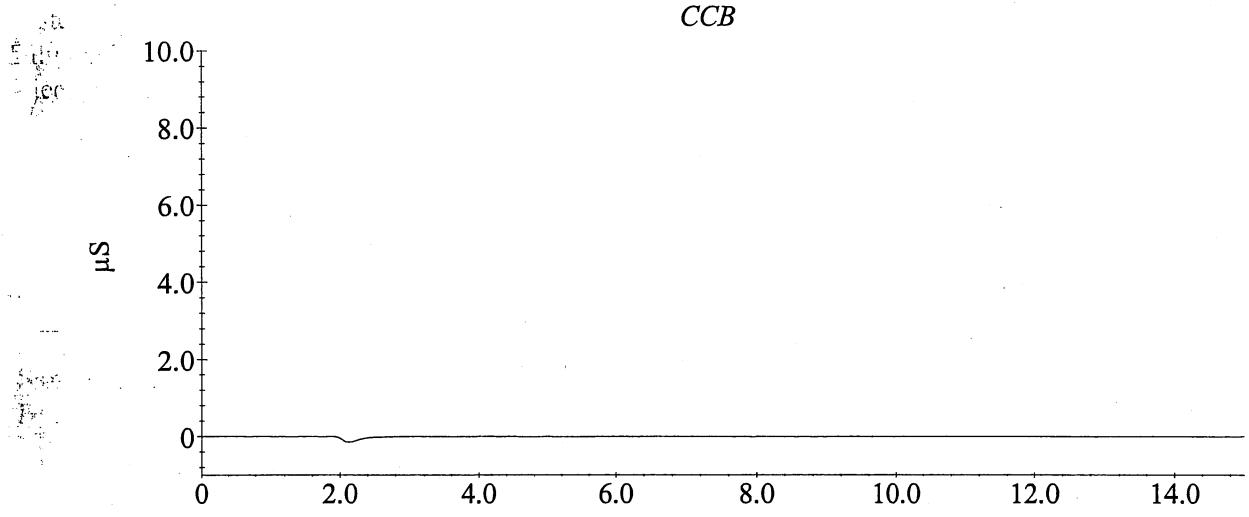
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\102015\1023_025.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 10/24/2015 15:06:01
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 25

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 11/2/15
Analyst: DMT
HBN: 571473
Batch: 5123

Instrument ID: IC1

Secondary Reviewer/Date: JEM 11-3-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2124249 Expiration Date: 11/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1042-13-2
Calibration Date 9/11/15
Calibration Expiration 11/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-48-1
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1042-38-9 Expiration Date: 4/23/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

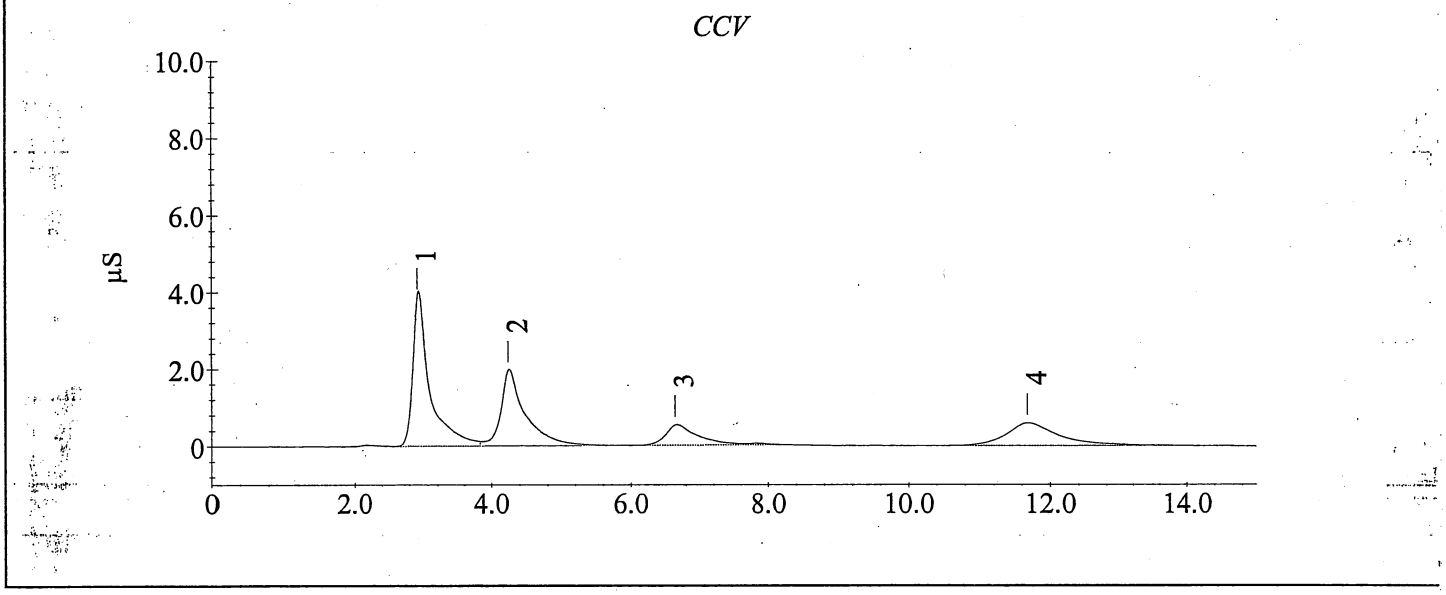
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\112015\1102_014.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/02/2015 19:03:28
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 14

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.91	2.270	675836	38504
2	CHLORIDE,16887-00-6	4.24	2.523	466712	19440
3	BROMIDE,24959-67-9	6.64	2.362	179774	5215
4	SULFATE,14808-79-8	11.68	2.344	299130	5801



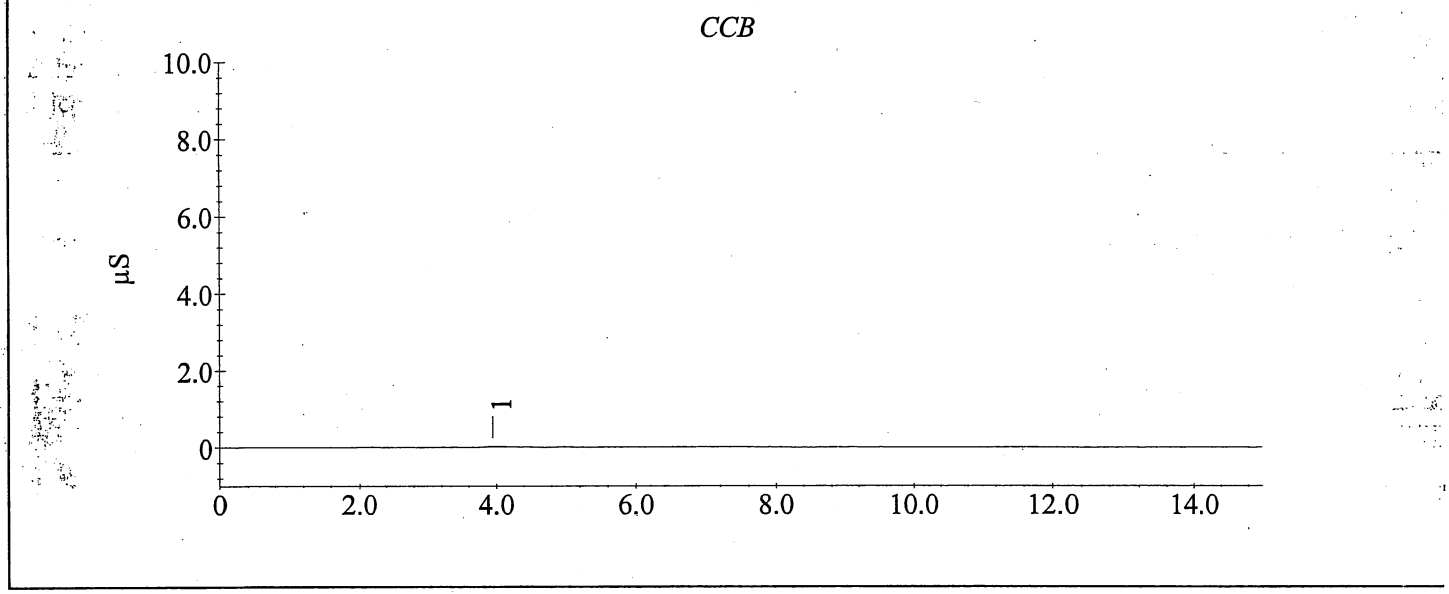
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\112015\1102_015.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/02/2015 19:21:04
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 15

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	3.95	0.092	2625	160



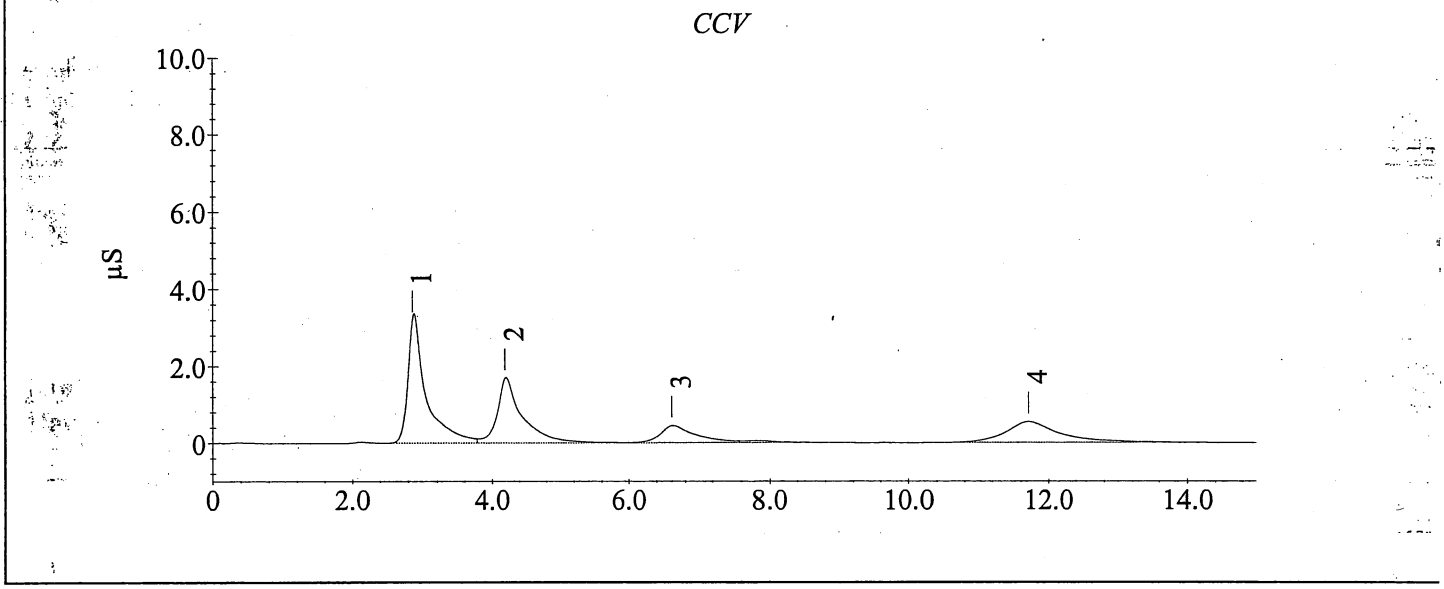
Sample Analysis Report

Sample Name : CCV
Data File Name : D:\PEAKNET\DATA\2015\112015\1102_026.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/02/2015 22:34:50
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 26

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.85	2.002	592028	31837
2	CHLORIDE,16887-00-6	4.19	2.32493	428649	16788
3	BROMIDE,24959-67-9	6.61	2.25590	171325	4455
4	SULFATE,14808-79-8	11.71	2.26691	288735	5387



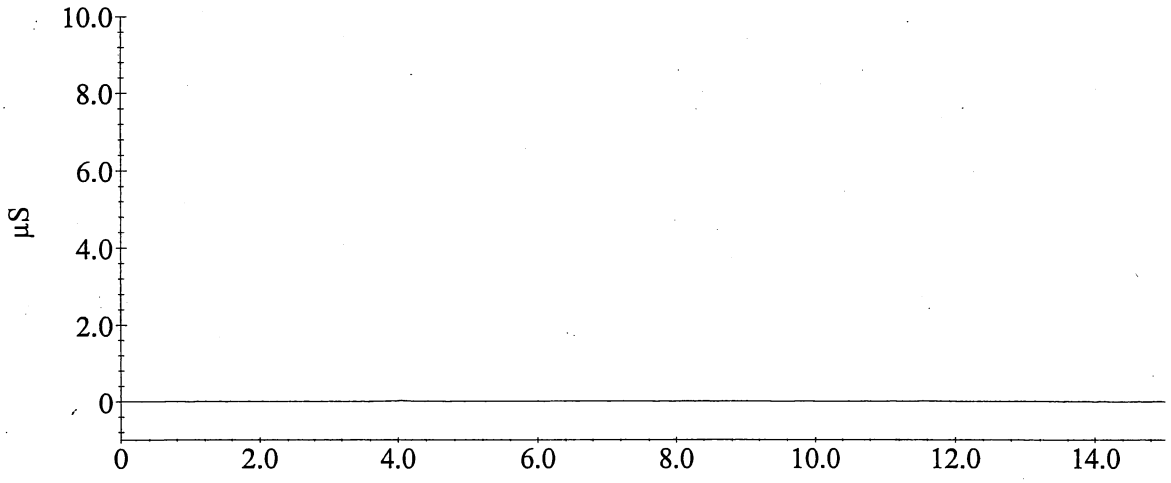
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\112015\1102_027.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/02/2015 22:52:27
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 27

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



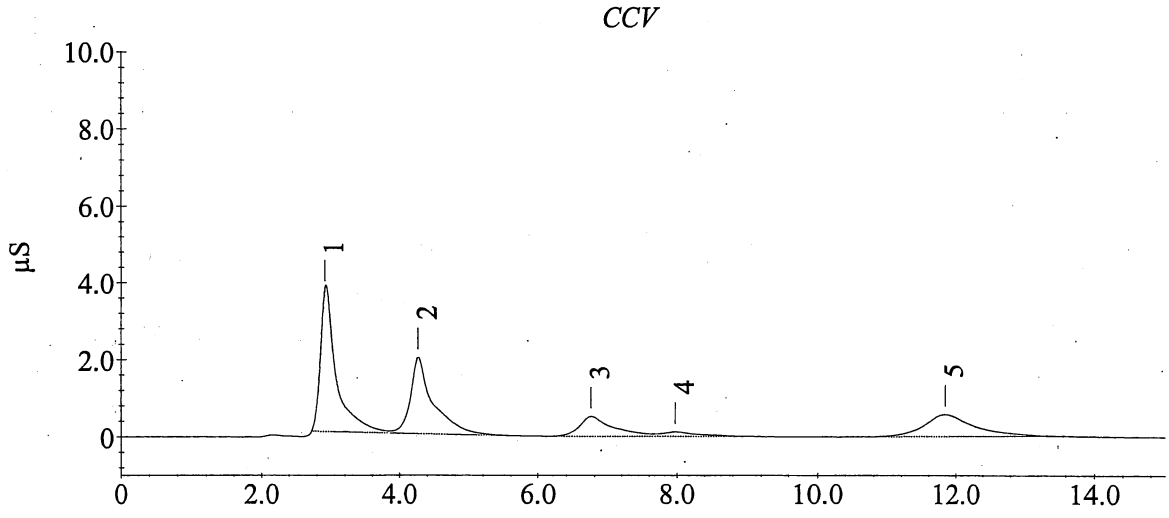
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\112015\1102_044.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/03/2015 11:01:06
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 44

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.91	2.011	594882	36772
2	CHLORIDE,16887-00-6	4.27	2.432	449278	19697
3	BROMIDE,24959-67-9	6.75	2.310	175708	5159
4	NITRATE,14797-55-8	7.97	0.242	41379	1124
5	SULFATE,14808-79-8	11.84	2.313	295041	5688



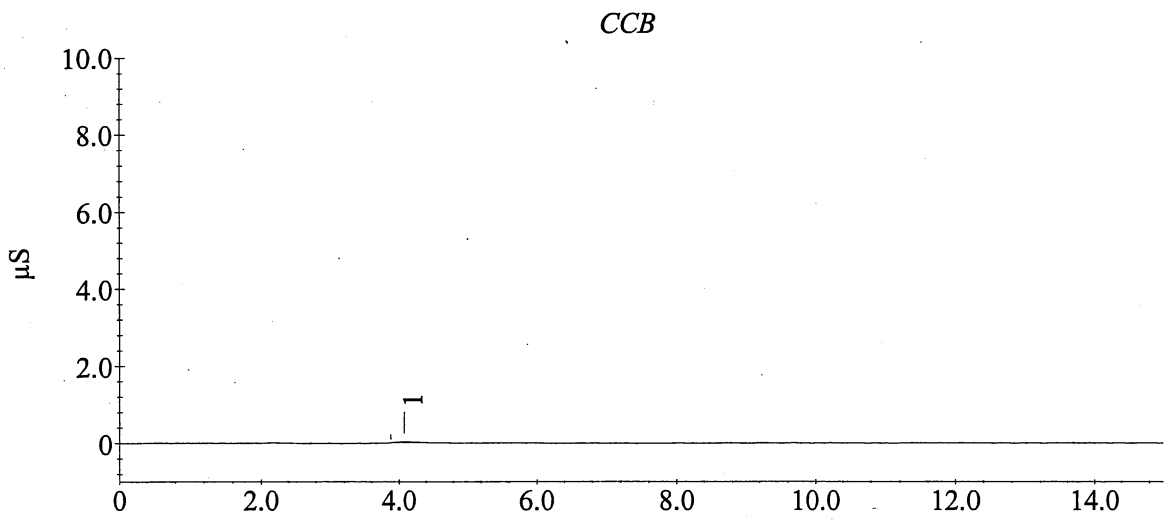
Sample Analysis Report

Sample Name : CCB
Data File Name : D:\PEAKNET\DATA\2015\112015\1102_045.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/03/2015 11:18:42
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 45

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.08	0.097	3437	212



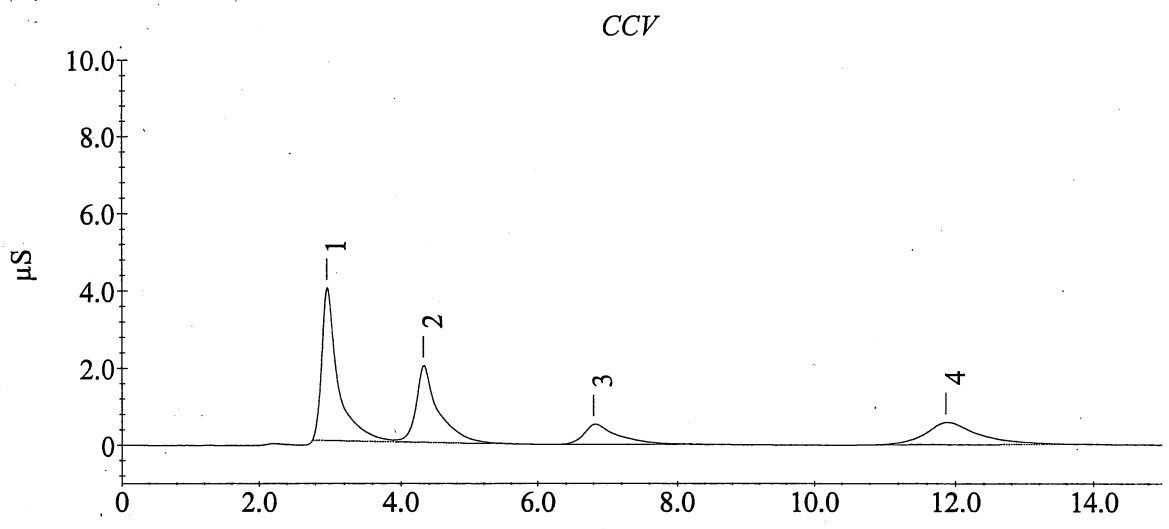
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\112015\1102_050.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/03/2015 14:09:09
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 50

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.96	2.112	626290	39454
2	CHLORIDE,16887-00-6	4.32	2.395	442342	19801
3	BROMIDE,24959-67-9	6.80	2.383	181452	5212
4	SULFATE,14808-79-8	11.87	2.372	302812	5777



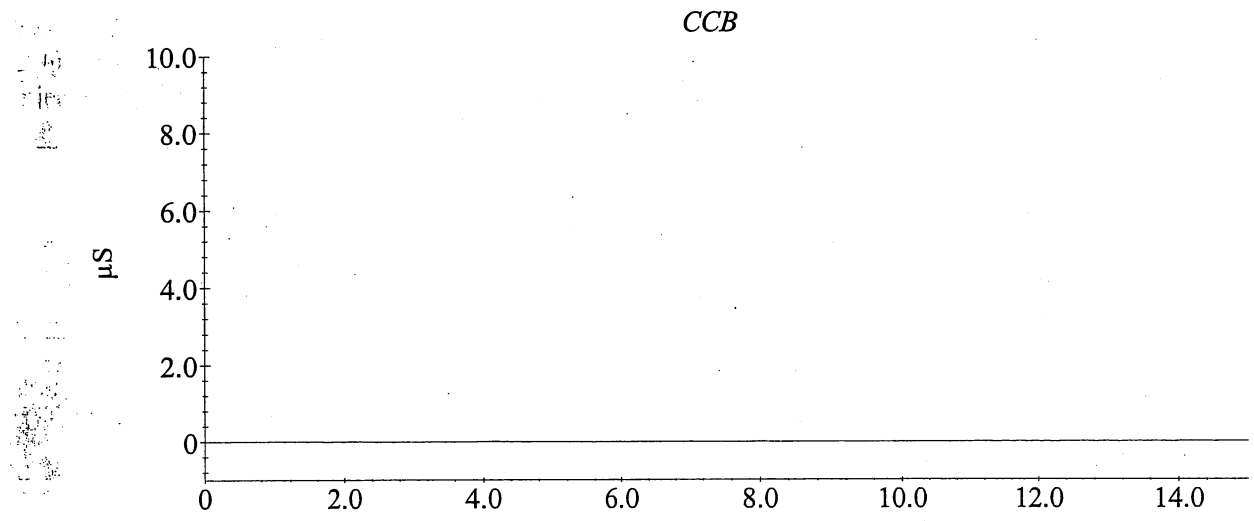
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\112015\1102_051.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 11/03/2015 14:26:45
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 51

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 9/19/15
Analyst: RAT
HBN:
Batch: ICAL

Instrument ID: IC1

Secondary Reviewer/Date: _____

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2124249 Expiration Date: 11/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1042-13-2
Calibration Date 9/11/15
Calibration Expiration 11/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-13-7
Eluent Lot #: 1042-6-5 Expiration Date: 3/11/16

VOLATILE FATTY ACIDS – GCAL SOP WL-070

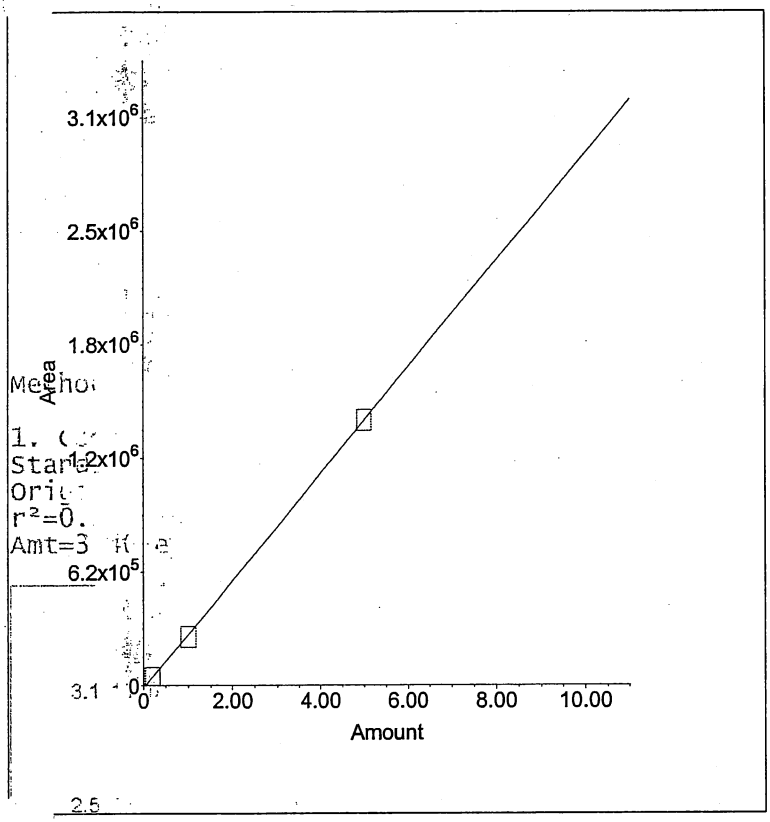
Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

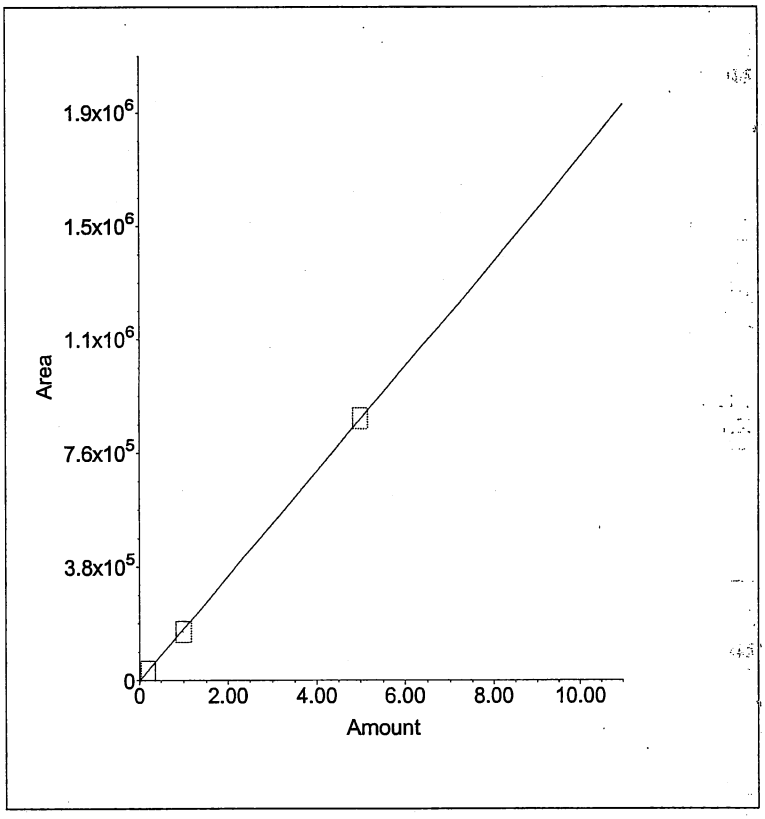
Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

Method:D:\PEAKNET\METHOD\DX500LOWNO3.MET Updated:09/19/2015 17:57:45 Total:6

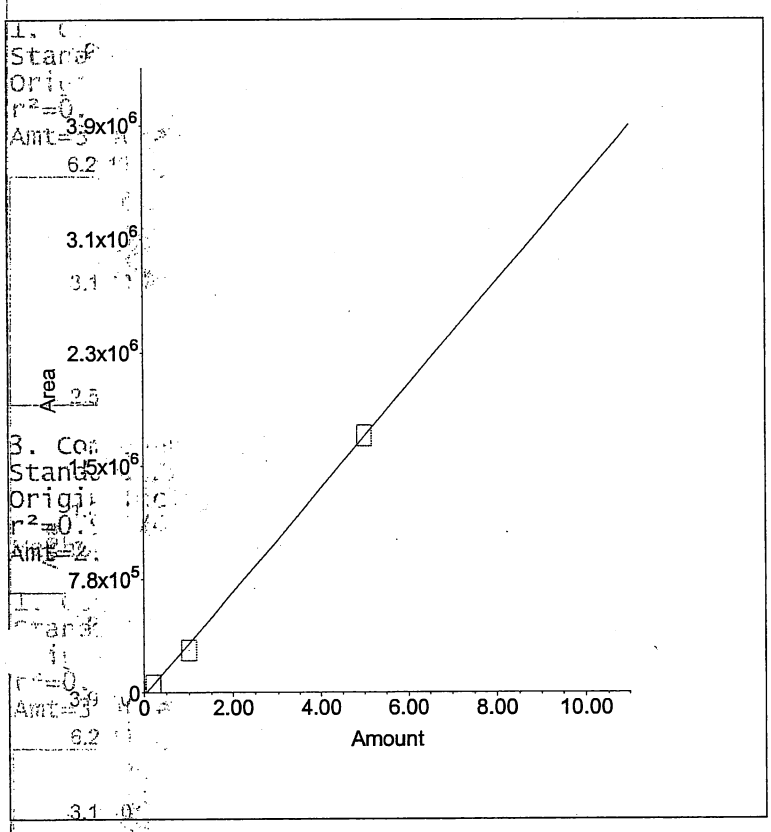
1. Component:FLUORIDE,16984-48-8
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999770
Amt=3.405e-006*Resp+0.04478



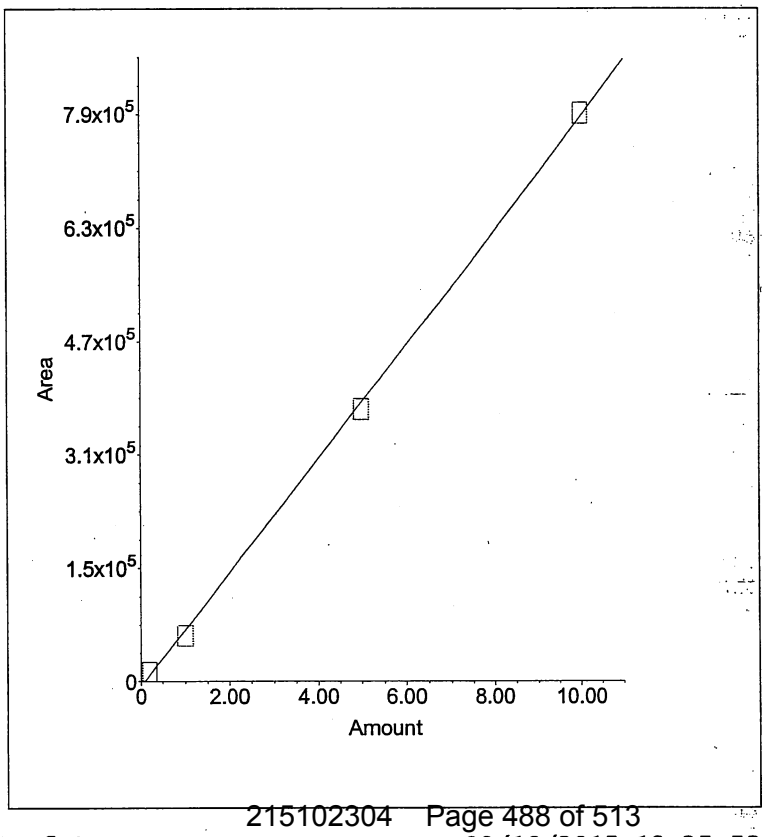
2. Component:CHLORIDE,16887-00-6
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999784
Amt=5.648e-006*Resp+0.01747



3. Component:NITRITE,14797-65-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.998741
Amt=2.781e-006*Resp+0.05271

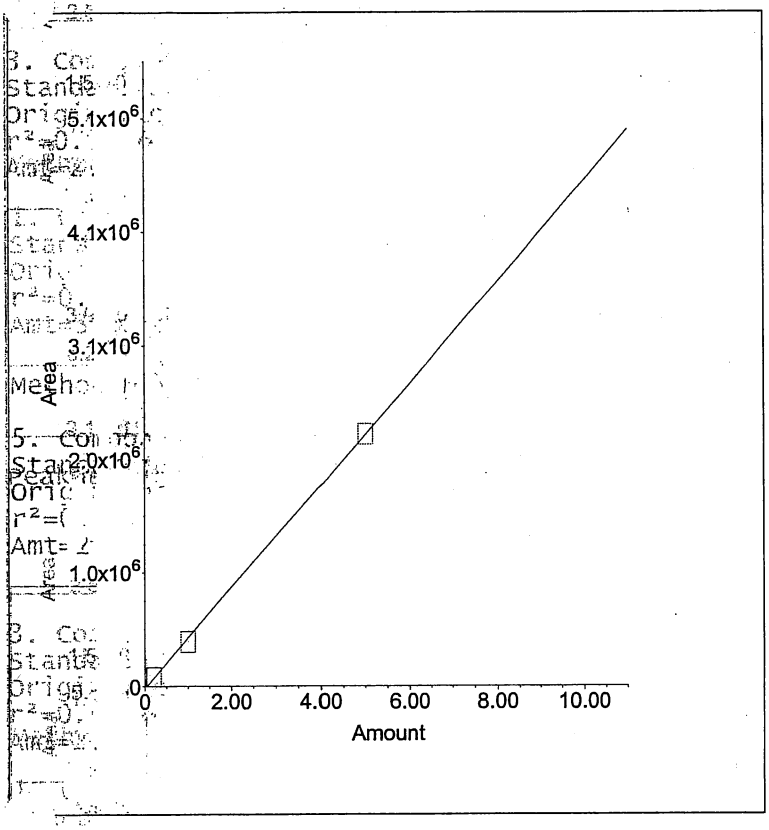


4. Component:BROMIDE,24959-67-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999458
Amt=1.261e-005*Resp+0.09561

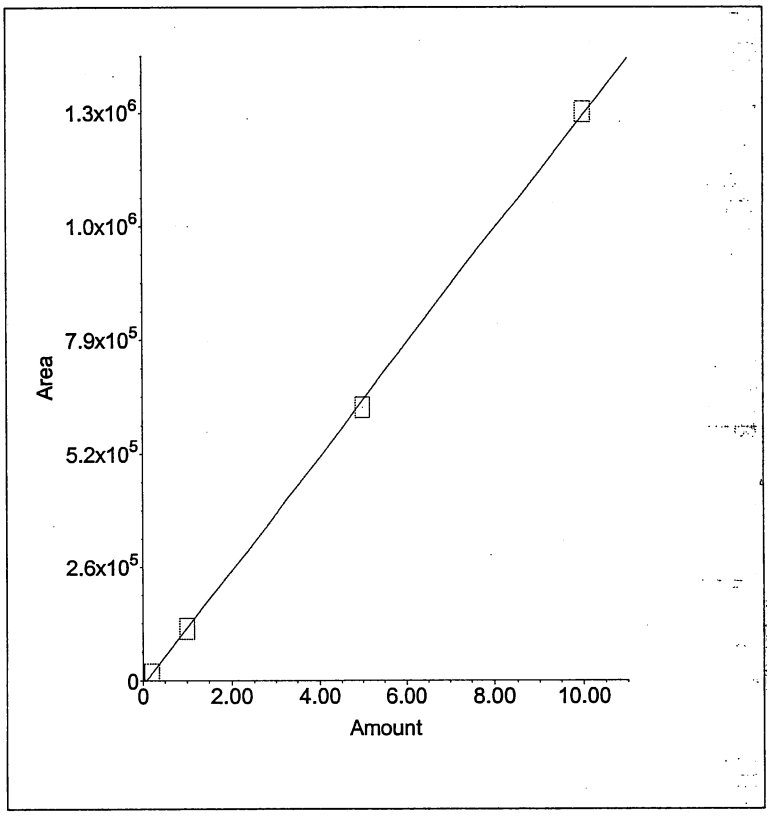


Method:D:\PEAKNET\METHOD\DX500LOWNO3.MET Updated:09/19/2015 17:57:45 Total:6

5. Component:NITRATE,14797-55-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999446
Amt=2.163e-006*Resp+0.04707



6. Component:SULFATE,14808-79-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999648
Amt=7.566e-006*Resp+0.08095



GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 11/1/15
Analyst: RXJ
HBN: 571354 / 571362
Batch: 5120 / 5121

Instrument ID: IC3

Secondary Reviewer/Date: JEM 11-2-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2124345 Expiration Date: 2/28/16
Calibration Standard (NO_3) Lot #: 2124395 Expiration Date: 1/31/17
Calibration ID 1042-46-1
Calibration Date 10/31/15
Calibration Expiration 2/28/16 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-46-8
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1042-30-2 Expiration Date: 4/12/16

VOLATILE FATTY ACIDS – GCAL SOP WL-070

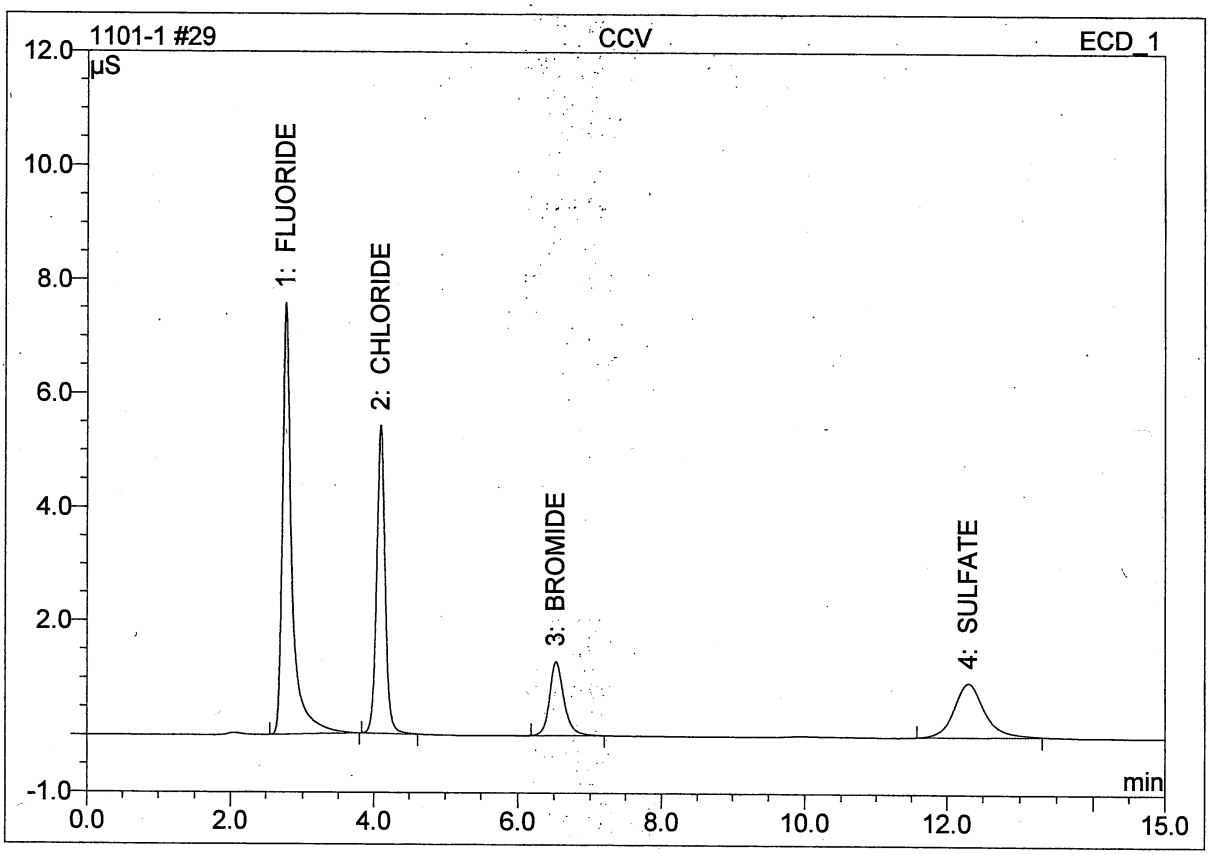
Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

Sample Analysis Report

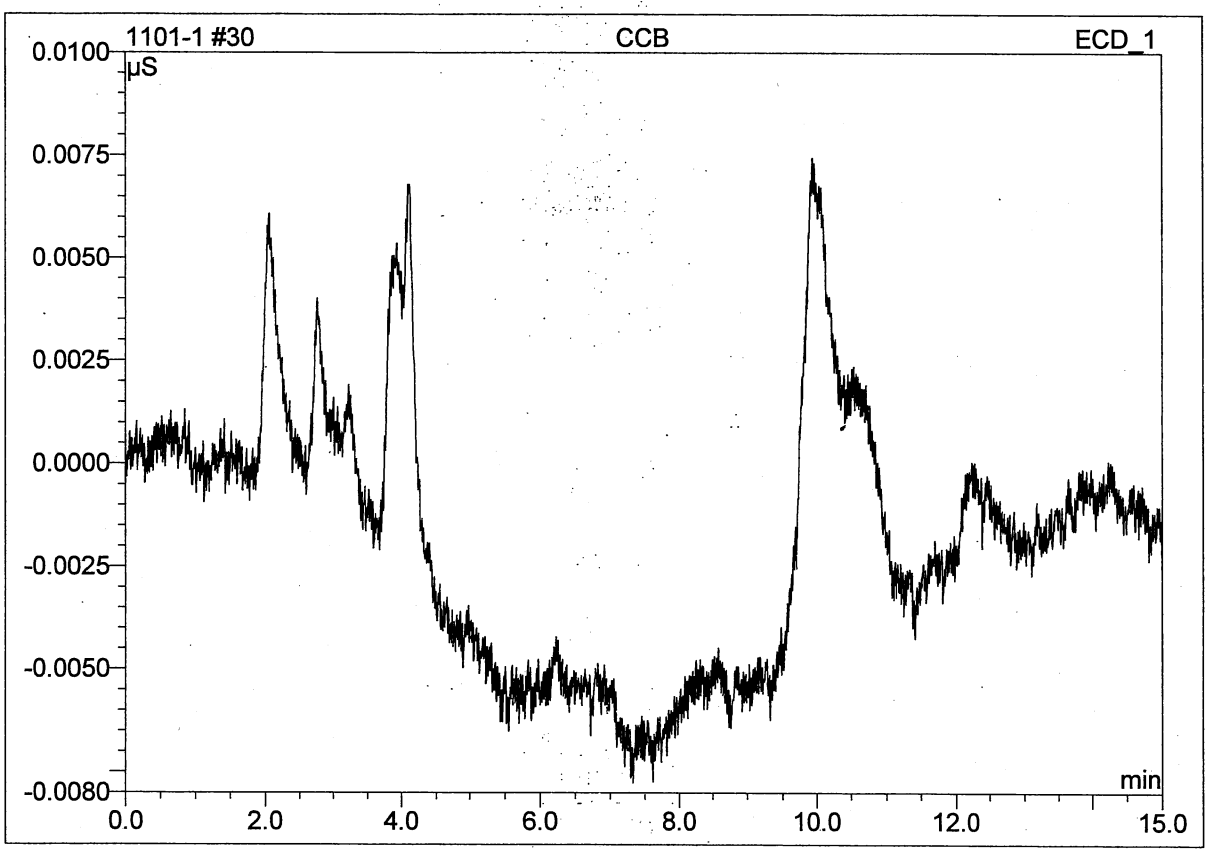
Sample Name:	CCV	**Sample No.:**	29
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 3:54 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	FLUORIDE	2.77	1.132	7.571	2.291	92
2	CHLORIDE	4.09	0.739	5.414	2.448	98
3	BROMIDE	6.52	0.301	1.292	2.480	99
4	SULFATE	12.30	0.469	0.945	2.399	96

Sample Analysis Report

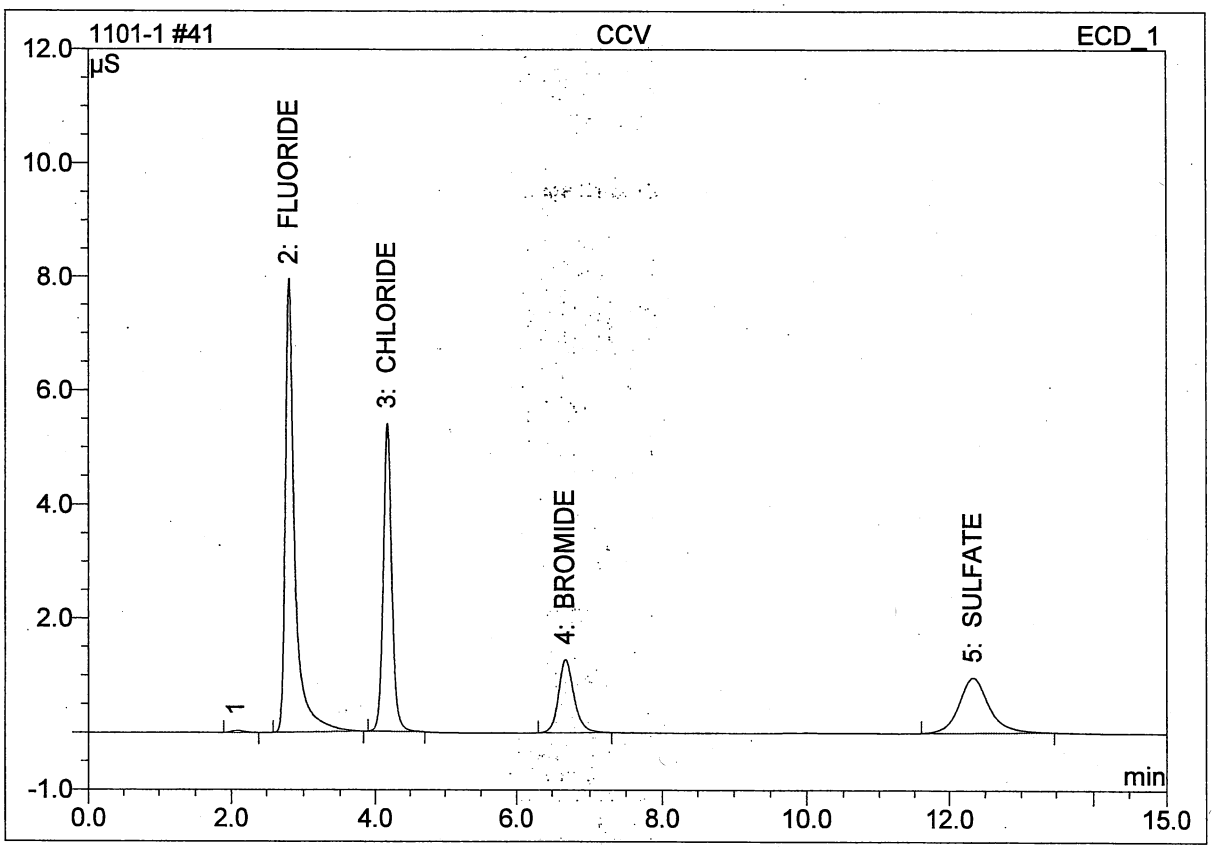
Sample Name:	CCB	**Sample No.:**	30
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 4:12 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L

Sample Analysis Report

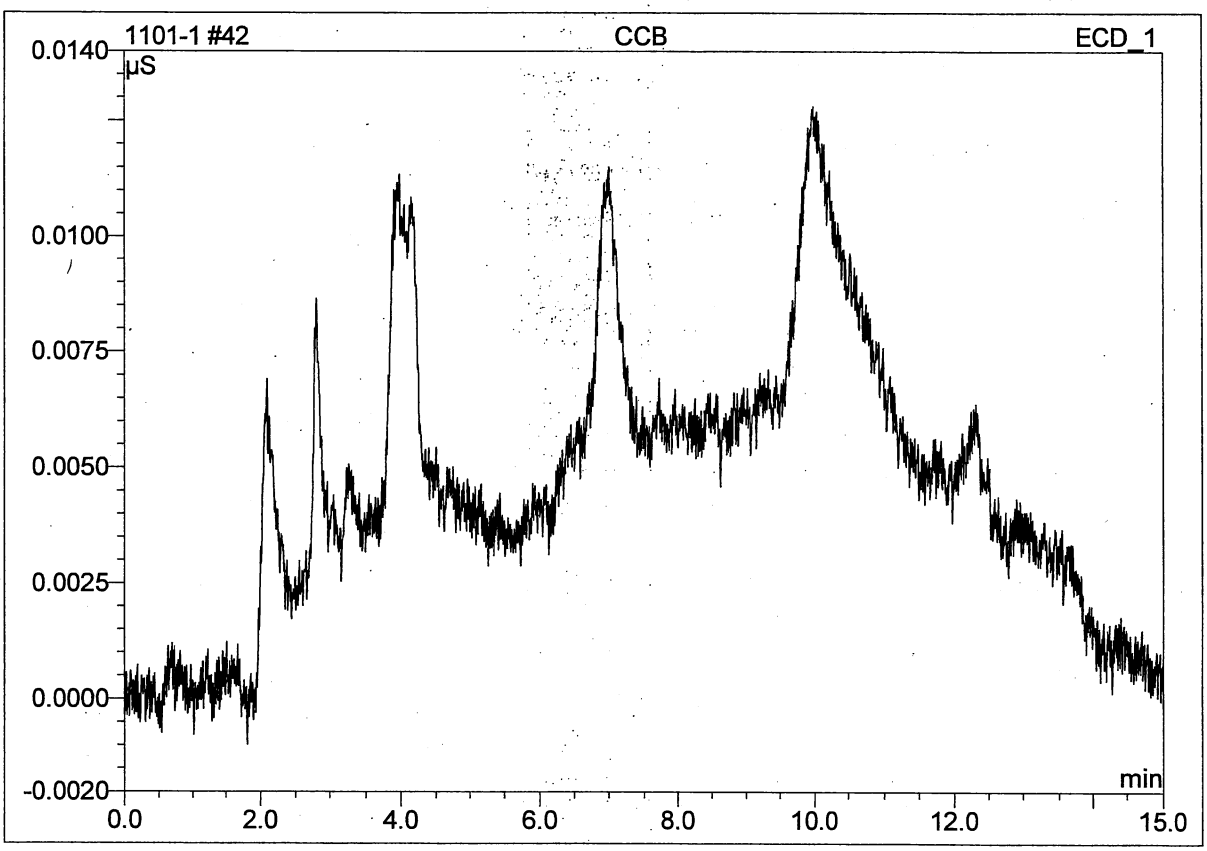
Sample Name:	CCV	**Sample No.:**	41
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 7:23 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.81	1.172	7.960	2.370	95
3	CHLORIDE	4.17	0.751	5.390	2.489	100
4	BROMIDE	6.67	0.302	1.280	2.492	100
5	SULFATE	12.33	0.472	0.967	2.413	97

Sample Analysis Report

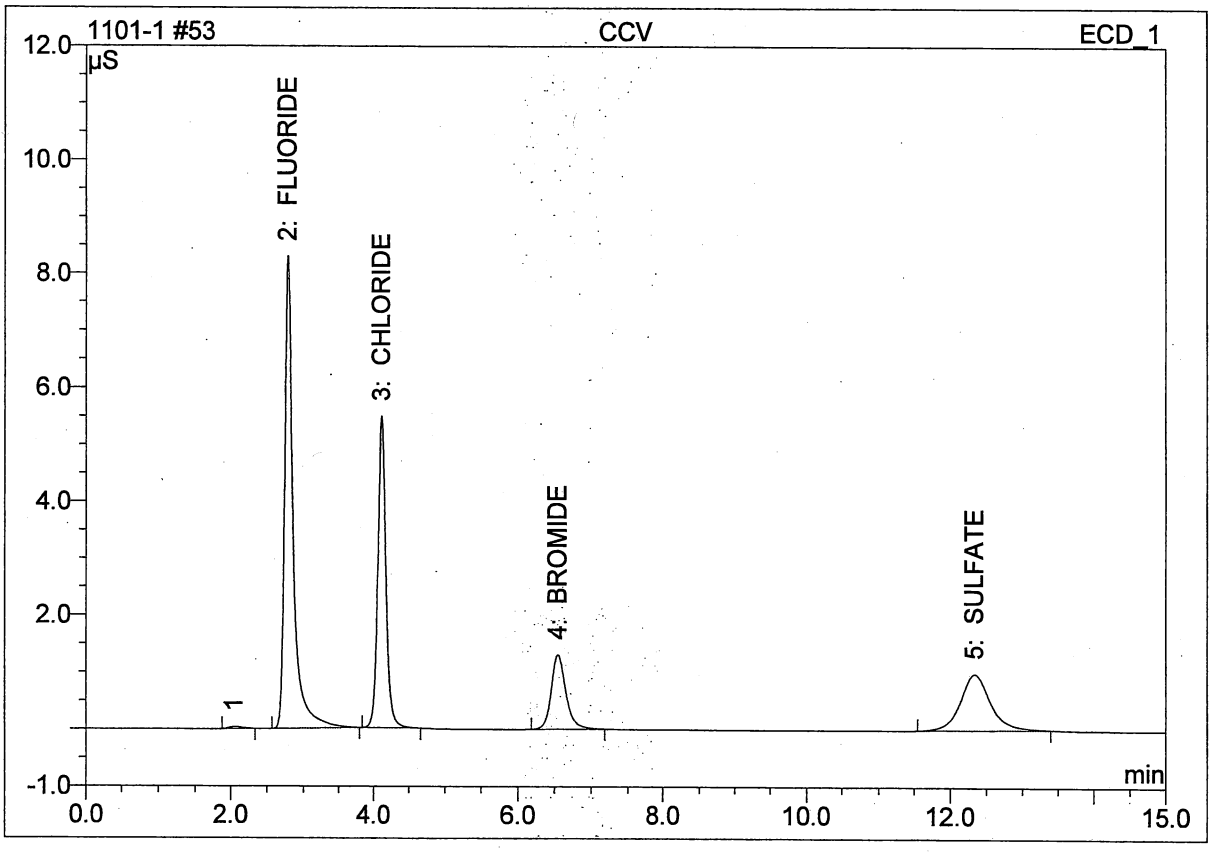
Sample Name:	CCB	**Sample No.:**	42
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 7:41 PM	**System Operator:**	RXJ



Peak No	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L

Sample Analysis Report

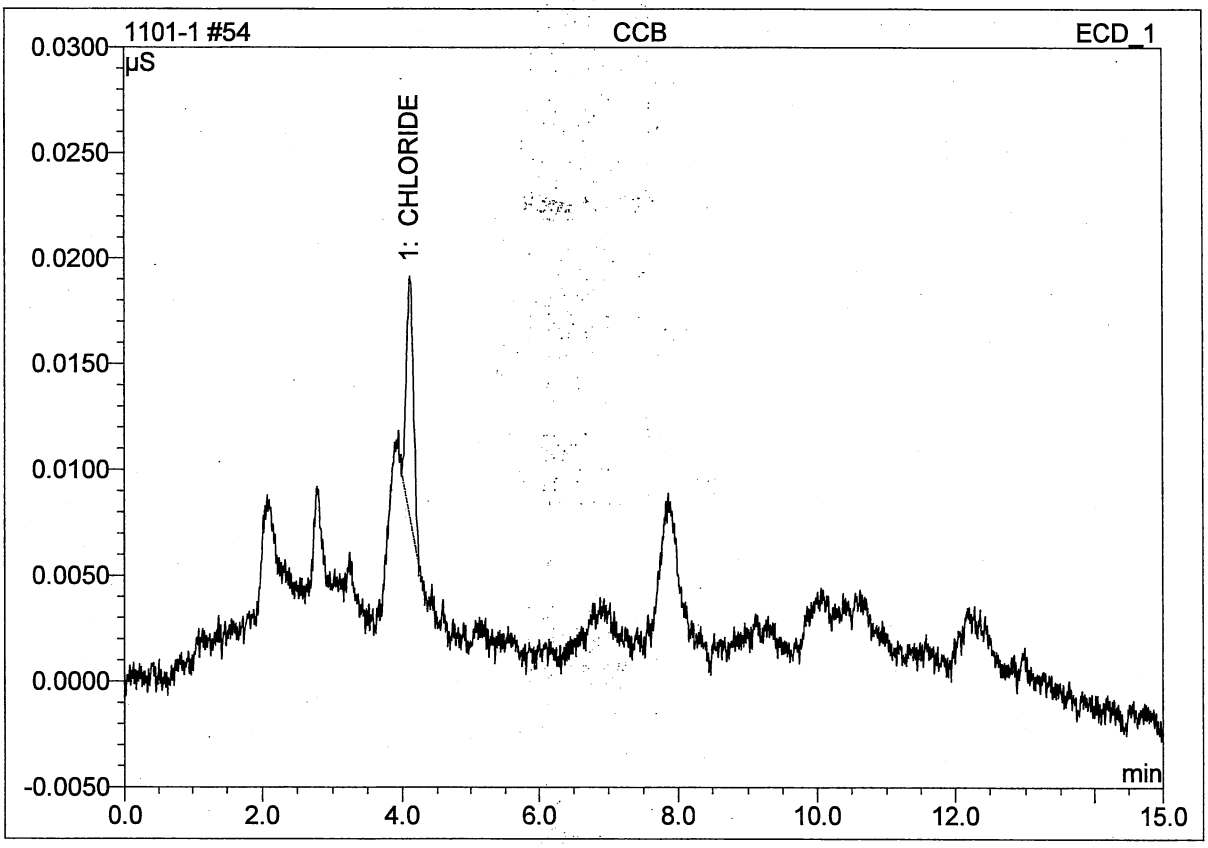
Sample Name:	CCV	**Sample No.:**	53
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 10:52 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.79	1.167	8.296	2.360	94
3	CHLORIDE	4.12	0.747	5.474	2.473	99
4	BROMIDE	6.54	0.303	1.309	2.501	100
5	SULFATE	12.34	0.480	0.987	2.452	98

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	54
Sequence Name:	1101-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	11/1/2015 11:09 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	CHLORIDE	4.11	0.001	0.011	0.068	n.a.

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 11/1/15
Analyst: RXJ
HBN: ICAL
Batch:

Instrument ID: IC3

Secondary Reviewer/Date: DMT 11/2/15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 124345 Expiration Date: 2/28/16
Calibration Standard (NO_3) Lot #: 124395 Expiration Date: 1/31/17
Calibration ID 1042-46-1
Calibration Date 10/31/15
Calibration Expiration 2/28/16 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1042-46-7
Eluent Lot #: 1042-30-2 Expiration Date: 4/12/16

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

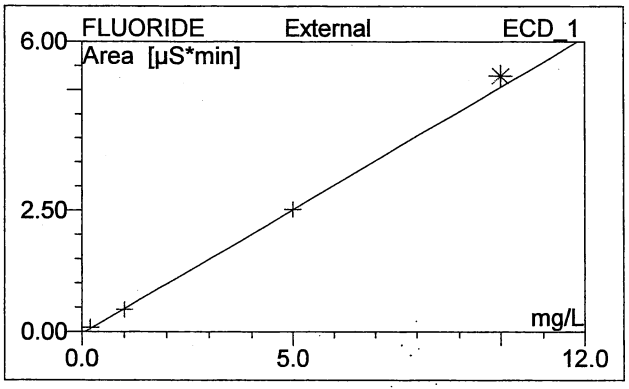
PERCHLORATE – EPA 314.0

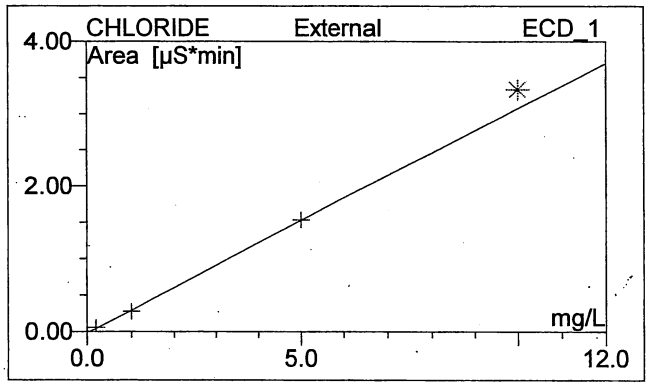
Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

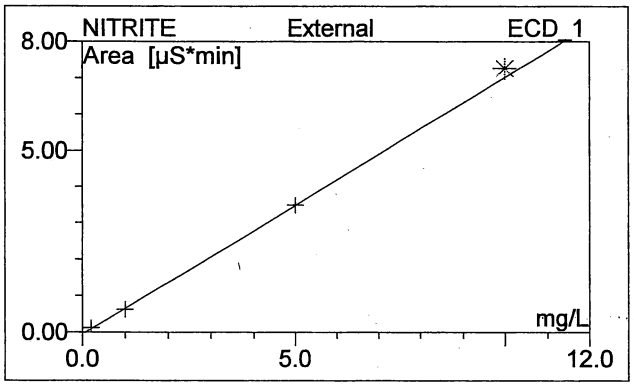
No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev	Corr.Coeff.	Offset	Slope	Curve
				%	%			
2	FLUORIDE	LOff	3	2.7729	99.9884	-0.037	0.5102	0
3	CHLORIDE	LOff	3	3.0516	99.9859	-0.0198	0.3099	0
4	NITRITE	LOff	3	3.0379	99.9862	-0.0534	0.7073	0
5	BROMIDE	LOff	4	1.9362	99.9903	-0.0109	0.1257	0
6	NITRATE	LOff	3	3.9719	99.9768	-0.0752	0.7954	0
7	SULFATE	LOff	4	4.0586	99.9596	-0.0429	0.2133	0

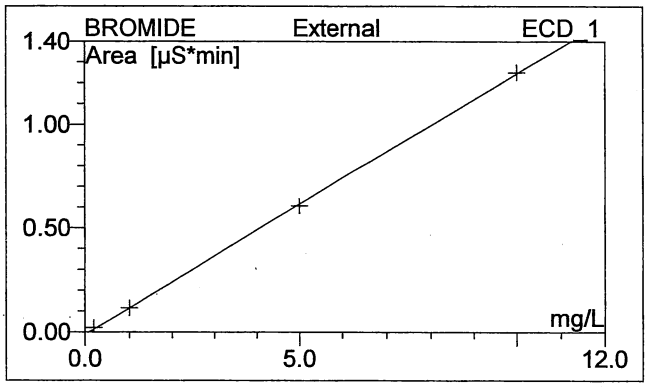
INITIAL CALIBRATION REPORT

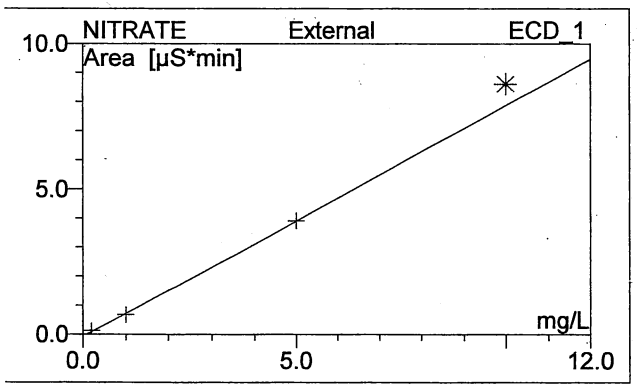
Recording Time:	##########	*Injection Volume:*	**50.0**
Control Program:	**9056**	*Channel:*	**ECD_1**
Quantif. Method:	**9056**		
Run Time (min):	**15.00**		

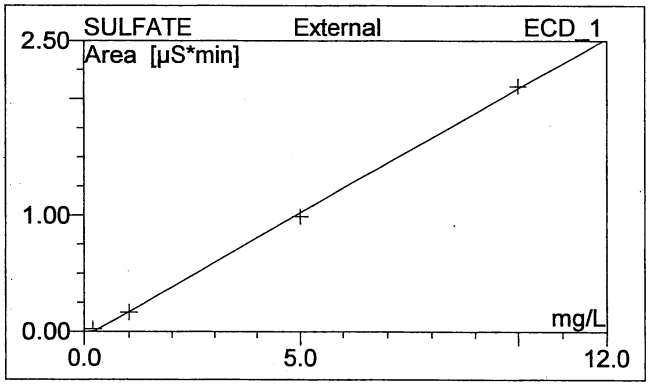












INITIAL CALIBRATION REPORT (Continued)

Recording Time: **###############**
Control Program: **9056**
Quantif. Method: **9056**
Run Time (min): **15.00**

Injection Volume: **50.0**
Channel: **ECD_'**

No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff.	Rel.Std.Dev. %
2	2.78	FLUORIDE	Loff	3	0.99988	2.773
3	4.13	CHLORIDE	Loff	3	0.99986	3.052
4	5.05	NITRITE	Loff	3	0.99986	3.038
5	6.62	BROMIDE	Loff	4	0.99990	1.936
6	7.80	NITRATE	Loff	3	0.99977	3.972
7	12.33	SULFATE	Loff	4	0.99960	4.059

GCAL ANALYTICAL LABORATORIES, LLC

SEAL AQ2 STANDARD IDs

Date: 10-27-15
Analyst: SMR
HBN: 571128/571129
Batch: 141591141160

Test: Cyanide
Secondary Reviewer/Date: JEM 10-28-15

Calibration Standard Lot: 2124462
Calibration Std. Exp: 4/30/16
Calibration ID: 1042-40-10
Calibration Date: 10-27-15
Calibration Exp: 4-27-16

Note: Calibration expires 6 months from calibration date or on the calibration standard expiration date, whichever is sooner.

CHLORIDE - SM 4500-Cl E-2011 / EPA 9251

CCV (LCS) Standard ID _____
ICV Standard ID _____
Color Reagent Lot/Exp. _____

N+N/NITRATE/NITRITE - EPA 353.2

N+N:
CCV (LCS) Standard ID _____
ICV Standard ID _____
Reagents:
Ammonium Chloride Buffer Lot/Exp. _____
Sulfanilamide Color Reagent Lot/Exp. _____

Nitrite (NO_2):
CCV (LCS) Standard ID _____
ICV Standard ID _____
Reagents:
Ammonium Chloride Buffer Lot/Exp. _____
Sulfanilamide Color Reagent Lot/Exp. _____
Sodium Thiosulfate 0.025N Lot/Exp. _____
Calculations:
$NO_3 = N+N - NO_2$
Column Efficiency = (LCS N+N*100) / LCS NO_2 (must be 90-110%)
Column Efficiency _____

pH check and adjustment (if necessary):
Reagent used for pH adjustment: HCl or NH_4OH
HCl Concentrated Lot/Exp. _____
NH_4OH Concentrated Lot/Exp. _____
Initial and final pH for each sample recorded on Batch Sheet

CYANIDE - EPA 335.4 / SM 4500-Cn G-2011 / EPA 9012B

CCV Standard ID 1042-40-12
ICV Standard ID N/A
Phosphate Buffer Lot/Exp. 1042-34-2/1-19-16
Chloramine T Lot/Exp. 1042-40-13/10-28-15
Pyridine Lot/Exp. 2123050/11-30-15
0.25N NaOH Lot/Exp. 1039-40-9/2-25-16
Prep Batch HBN 571013/571016

PHENOLICS - EPA 420.4 / EPA 9066

CCV Standard ID _____
ICV Standard ID _____
Phenol Buffer Lot/Exp. _____
4-Aminoantipyrine Lot/Exp. _____
Prep Batch HBN _____

PHOSPHORUS - EPA 365.1

CCV Standard ID _____
ICV Standard ID _____
Ascorbic Acid Lot/Exp. _____
5N H2SO4 Lot/Exp. _____
Molybdate Color Lot/Exp. _____
Prep Batch HBN _____

Revision 0: 04/23/15

AQ-2 Report

Report Requested By: dmt
Date & Time: Wed Oct 28 08:19:09 2015
Tray Number: 9
Tray Name: 15.10.27 (15-08)

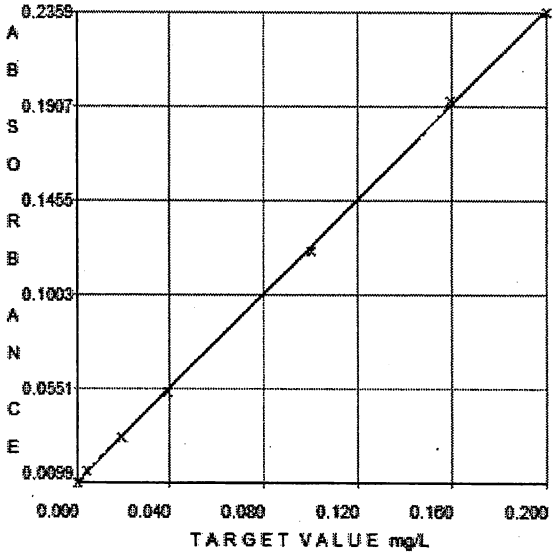
CYANIDE

Calibration Chart

Type	Observed	Calculated	Target	% Error
S1	0.0099	0.001	0.000	
S90	0.0149	0.005	0.004	30.03
S91	0.0309	0.019	0.020	-3.51
S92	0.0531	0.039	0.040	-3.06
S93	0.1211	0.099	0.100	-1.33
S94	0.1926	0.162	0.160	0.99
S95	0.2359	0.200	0.200	-0.15
S0	0.0100	0.001	0.000	

Polynomial Order: 1
Correlation Coefficient: 0.9999
Carryover(%): 0.0
Calibration Equation: y = bx + a
y =: Concentration mg/L
x =: Measured Absorbance
a =: -7.917373E-003
b =: 8.800171E-001
Date & Time: Tue Oct 27 15:59:35 2015

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
CN buffer			
Chloramine T			
Pyridine			

Cup	Type	ID	Result	Units	Raw Data	Test Dil.	Cup Dil.	User	Time/Date
	C11	C C V	0.100	mg/L	0.122125	100%		dmt	Tue Oct 27 17:10:02 2015
	C12	C C B	0.001	mg/L	0.010419			dmt	Tue Oct 27 17:12:19 2015
2	U1	ICV	0.102	mg/L	0.124693			dmt	Tue Oct 27 17:14:36 2015
3	U2	1502674	0.001	mg/L	0.010569			dmt	Tue Oct 27 17:16:53 2015
4	U3	1502675	2.599	mg/L	0.068069	x 50.000		dmt	Tue Oct 27 17:19:10 2015
5	U4	21510234401	0.002	mg/L	0.010807			dmt	Tue Oct 27 17:21:26 2015
6	U5	1502676	0.004	mg/L	0.014066			dmt	Tue Oct 27 17:23:45 2015
7	U6	21510234402	0.002	mg/L	0.011756			dmt	Tue Oct 27 17:26:03 2015
8	U7	21510234403	0.003	mg/L	0.012198			dmt	Tue Oct 27 17:28:20 2015
9	U8	21510234404	0.001	mg/L	0.010701			dmt	Tue Oct 27 17:30:36 2015
10	U9	1502684	0.002	mg/L	0.010987			dmt	Tue Oct 27 17:32:52 2015
11	U10	~~1502685~~	0.092	mg/L	0.113179	92%		dmt	Tue Oct 27 17:35:09 2015
	C11	C C V	0.100	mg/L	0.122765	100%		dmt	Tue Oct 27 17:37:25 2015
	C12	C C B	0.001	mg/L	0.009936			dmt	Tue Oct 27 17:39:42 2015

GMR 10/28/15 1502685

12	U11	~~1502686~~	0.018	mg/L	0.029485 90%.	dmt	Tue Oct 27 17:41:59 2015
13	U12	21510230401	0.002	mg/L	0.011034	dmt	Tue Oct 27 17:44:15 2015
14	U13	1502687	0.053	mg/L	0.068988 52%. Matrix interference	dmt	Tue Oct 27 17:46:32 2015
15	U14	1502688	0.002	mg/L	0.011414	dmt	Tue Oct 27 17:48:48 2015
16	U15	21510230402	0.002	mg/L	0.010787	dmt	Tue Oct 27 17:51:07 2015
17	U16	21510230404	0.002	mg/L	0.010765	dmt	Tue Oct 27 17:53:25 2015
18	U17	21510230405	0.001	mg/L	0.009938	dmt	Tue Oct 27 17:55:41 2015
19	U18	21510230407	0.002	mg/L	0.011597	dmt	Tue Oct 27 17:57:58 2015
20	U19	21510230408MS	0.091	mg/L	0.112516 85%.	dmt	Tue Oct 27 18:00:14 2015
21	U20	21510230410MSD	0.087	mg/L	0.108199 85%.	dmt	Tue Oct 27 18:02:31 2015
	C11	C C V	0.099	mg/L	0.121010 99%.	dmt	Tue Oct 27 18:04:48 2015
	C12	C C B	0.001	mg/L	0.010270	dmt	Tue Oct 27 18:07:06 2015
22	U21	21510230411	0.001	mg/L	0.009856	dmt	Tue Oct 27 18:09:26 2015
23	U22	21510230413	0.003	mg/L	0.012061	dmt	Tue Oct 27 18:11:45 2015
24	U23	21510230414	0.002	mg/L	0.010797	dmt	Tue Oct 27 18:13:39 2015
25	U24	21510230416	0.002	mg/L	0.011069	dmt	Tue Oct 27 18:15:31 2015
26	U25	21510230417	0.002	mg/L	0.011279	dmt	Tue Oct 27 18:17:13 2015
27	U26	21510230419	0.002	mg/L	0.010853	dmt	Tue Oct 27 18:18:55 2015
	C11	C C V	0.104	mg/L	0.126624 104%	dmt	Tue Oct 27 18:20:36 2015
	C12	C C B	0.002	mg/L	0.010720	dmt	Tue Oct 27 18:22:20 2015

CYANIDE DISTILLATION
EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

START	10-26-15 1200	END	1645	ANALYST	MOS
MATRIX	WATER SOLID			HBN:	571016

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	CHLORINE Yes	CHLORINE No	SULFIDE Yes	SULFIDE No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 571016 [INPR/14928]	1502684	50	50		/		/	MB		1.25M NaOH:1
2	QC ACCOUNT	LCS for HBN 571016 [INPR/14928	1502685	50	50		/		/	LCS		9-10-2
3	QC ACCOUNT	LCSHI for HBN 571016 [INPR/149	1502686	50	50		/		/	LCSHI		Ca(OCl2):1
4	4747	M114MW001	21510230401	50	50		/		/	SAMPLE		N/A
5	QC ACCOUNT	M114MW001(1501896MS)	1502687	50	50		/		/	MS		0.1 NaS2O3:1
6	QC ACCOUNT	M114MW001(1501896DUP)	1502688	50	50		/		/	DUP		N/A
7	4747	M114MW004	21510230402	50	50		/		/	SAMPLE		Bi(NO3):2,3
8	4747	MA01MW002	21510230404	50	50		/		/	SAMPLE		N/A
9	4747	MA01MW004	21510230405	50	50		/		/	SAMPLE		Ascorbic Acid:2,3
10	4747	MA01MW001	21510230407	50	50		/		/	SAMPLE		N/A
11	4747	MA01MW001-MS	21510230408	50	50		/		/	MS		Sulfamic Acid:2,3
12	4747	MA01MW001-MSD	21510230410	50	50		/		/	MSD		9-10-4
13	4747	MA01MW003	21510230411	50	50		/		/	SAMPLE		1:1 H2SO4:2
14	4747	MW114MW002	21510230413	50	50		/		/	SAMPLE		9-10-13
15	4747	MW114MW003	21510230414	50	50		/		/	SAMPLE		2.5M MgCl:2
16	4747	MA02MW001D	21510230416	50	50		/		/	SAMPLE		9-10-10
17	4747	MA02MW001D-a	21510230417	50	50		/		/	FLDDUP		Zn(C2H3O2):3
18	4747	MWQ-24	21510230419	50	50		/		/	SAMPLE		N/A
19												0.1% Methyl Red:3
20												N/A
21												Acetate Buffer:3
22												N/A
23												5% NaOH (CLP):4
24												N/A
25												1.0N NaOH:1,2,3
26												N/A

Type of cyanide prep: CNC-Total=2, CNAC-Amenable=1, CNFR-Free=3, CNC-CLP=4
COMMENTS:

BALANCE ID: N/A

TEMP: 150°C

LCS/MS SPIKE ID	9-15-8	CONC:	10ppm			Analyst Review	DATE
LCS LOW VOL	100ul	LCS HIGH VOL	500ul	LCS CLP VOL	N/A	MOS	10-26-15
MS WATER VOL	500ul	MS SOLID VOL	N/A				
						Secondary Review	DATE
SPIKE WITNESS	N/A					RJ-M	10/26/15

Revision 1, 08/10/2010

REACTIVITY CYANIDE AND SULFIDE DISTILLATION
SW-846 7.3.3.2, 7.3.4.2

START	10-26-15 1145	END	1530	ANALYST	MOS
				CN R HBN:	571013
MATRIX	WATER (SOLID)			S R HBN:	571014

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 571013 [INPR/14926]	1502674	10	100	MB		0.01N H2SO4:
2	QC ACCOUNT	LCS for HBN 571013 [INPR/14926	1502675	10	100	LCS		9-15-2
3	4423	14F-622 HTU2	21510234401	10	100	SAMPLE		Sodium Sulfide
4	QC ACCOUNT	14F-622 HTU2 (1502249DUP)	1502676	10	100	DUP		N/A
5	4423	14F-201-HTU2	21510234402	10	100	SAMPLE		1N Sodium Hydroxide:
6	4423	14F-101 HTU2	21510234403	10	100	SAMPLE		9-15-4
7	4423	HTU1-CHLO ABS CAT	21510234404	10	100	SAMPLE		
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
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21								
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23								
24								
25								
26								

COMMENTS:

BALANCE ID: 1127492894 TEMP: N/A

SULFIDE SPIKE ID	2124237	CONCENTRATION	10,000ppm	Analyst Review	DATE
SULFIDE LCS VOLUME	1.0mL			MOS	10-26-15
CYANIDE LCS SPIKE ID	2124406	CONCENTRATION	1,000ppm		
CYANIDE LCS VOLUME	2.5mL			Secondary Review	DATE
SPIKE WITNESS	N/A			RJM	10/26/15

195817/L1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151022002

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW001		10222015	1110		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			1	A
M114MW004		10222015	0910		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			2	A
TB-01		10222015	0910	-	TB	1	WG	3	X													3	A
				-																			
				-																			
				-																			
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				-																			
				-																			
				-																			
				-																			

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to ALS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		102215	1700	Fedex		
2.	Fedex	10-23-15	948	[illegible]	10-23-15	948
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 7815 6966 3510

Delivery Location:

Delivery Date/Time: 2.7 ECM

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR150223

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA01MW002		10 22 2015	1238		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-4	C
MA01MW004		10 22 2015	1348		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-5	C
TB-03		10 22 2015	1238	-	TB	1	WQ	3	X													-6	C
				-																			
				-																			
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				-																			
				-																			

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to TLS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		102215	1700			
2.	FedEx	10-23-15	9:48	Drew McClure	10-23-15	9:48
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781569590362 3.4 EA

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

215102304 Page 507 of 513

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151022O4

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5) / **Quality Assurance Samples (6)**

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MAOIMW001		10222015	1255		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-7	D
MAOIMW001-MS		10222015	1255		MS	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-8	D
TB-04		10222015	1255	-	TB	1	WQ	3	X													-9	D
				-																			
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GLS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1.						
2.	FedEx	10/23/15	0760	Dodie McClure	10-23-15	9:48
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781510961545 0.35#

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

215102304 Page 508 of 513

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151022O5

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA01MW001-MSD		10 22 2015	1255		SD	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-10	E
MA01MW003		10 22 2015	1445		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-11	E
TB-05		10 22 2015	1445	-	TB	1	WQ	3	X	X	X	X	~~X~~									-12	E
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GALS. * VOCs for MA01MW001-MSD are in cooler "D"

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10-22-15	1700			
2.	FedEx	10-23-15	9:48	Doug McClure	10-23-15	9:48
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781569160761813504

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-114

Chain of Custody Number (1): MAFR1510220 1

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW002		10/22/2015	0917		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-13	B
M114MW003		10/22/2015	1023		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-14	B
TB-02		10/22/2015	0917	-	TB	1	WQ	3	X													-15	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to TALS.

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
	10/23/15	1700	1. FedEx		
FedEx	10-23-15	948	2. [signature]	10-23-15	948
			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 7815 6961 1058

Delivery Location:

Delivery Date/Time: 3.7 BCM

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR20151027301

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5) / **Quality Assurance Samples (6)**

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA02MW0010		10/23/2015	0855		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-16	A
MA02MW0010-a		10/23/2015	0855		FD	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-17	A
TB-06		10/23/2015	0855	-	TB	1	WQ	3	X													-18	A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GALS. 4.4 E29

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1.		10-23-15	1400			
2.	Fedex	10/24/15	1000		10/24/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No.

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 2

Airbill Number: 7815 7558 6416

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-114

Chain of Custody Number (1): MAFR20151023O7

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MWQ-24		10-23-2015	1055		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-19	B
TB-08		10-23-2015	1055		TB	1	WQ	3	X													-20	B
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to CALS. 1.0 E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10-23-15	1400			
2.	Fedex	10/24/15	1000	Nate Sutton	10/24/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: Fedex

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 2

Airbill Number: 8071 4854 8918

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215102304

SAMPLE DELIVERY GROUP 215102304

Client **PM** RCH2 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N. Lofton, Katie E.
Line Item(s) 1 - Waters	**Receive Date(s)** 10/23/15 10/24/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☐	☑	☐
Was preservative added to any container at the lab?	☑	☐	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☑	☐	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
781569603510		2.7
781569599362		3.4
781569615145		0.3
781569607618		1.3
781569611058		3.7
7815 7558 6416		4.4
8071 4854 8918		1.0

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

November 10, 2015 Service Request No:R1509086

Ms. Regina Haney
Gulf Coast Analytical Laboratories
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Laboratory Results for: Melrose AFR/215102304

Dear Ms.Haney,

Enclosed are the results of the sample(s) submitted to our laboratory October 23, 2015
For your reference, these analyses have been assigned our service request number **R1509086.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7473. You may also contact me via email at Tracy.Christ@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Tracy Christ
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

ALS Environmental

Client:	Gulf Coast Analytical Laboratories	**Service Request No.:**	R1509086
Project:	Melrose	**Date Received:**	10/23-24/15
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS. This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS).

Sample Receipt

Eleven water samples were received for analysis at ALS. The samples were received in good condition. The samples were stored in a refrigerator between 1ºC and 6°C upon receipt at the laboratory.

Hexavalent Chromium

The Method Blank on 11/8/15 contained a low level hit. No data was affected.

The Continuing Calibration Blanks, CCB8 and CCB9, on 11/8/15 contained low level hits. No data was affected.

The Laboratory Control Samples were within control limits.

No other analytical or quality control problems were encountered during analysis.

Client: Gulf Coast Analytical Labs **Service Request:**R1509086
Project: Melrose AFR/215102304/A012-114

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R1509086-001	M114MW004	10/22/2015	0910
R1509086-002	M114MW002	10/22/2015	0917
R1509086-003	M114MW003	10/22/2015	1023
R1509086-004	M114MW001	10/22/2015	1110
R1509086-005	MA01MW002	10/22/2015	1238
R1509086-006	MA01MW001	10/22/2015	1255
R1509086-007	MA01MW004	10/22/2015	1348
R1509086-008	MA01MW003	10/22/2015	1445
R1509086-009	MA02MW001D	10/23/2015	0855
R1509086-010	MA02MW001D-A	10/23/2015	0855
R1509086-011	MWQ-24	10/23/2015	1055

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the ñNotesò column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an ñimmediateò hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (Ó100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratoryôs NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

Analytical Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509086
Project:	Melrose AFR/215102304/A012-114	**Date Collected:**	10/22/15 - 10/23/15
Sample Matrix:	Water	**Date Received:**	10/23/15 - 10/24/15
Analysis Method:	218.6 LL	**Units:**	ug/L
		Basis:	NA

Chromium, Hexavalent, Dissolved

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
M114MW004	R1509086-001	**1.32**	0.20	0.10	10	11/08/15 12:45	
M114MW002	R1509086-002	**2.10**	0.10	0.05	5	11/08/15 13:28	
M114MW003	R1509086-003	**0.90**	0.20	0.10	10	11/08/15 13:42	
M114MW001	R1509086-004	**4.26**	0.20	0.10	10	11/06/15 19:22	
MA01MW002	R1509086-005	**1.28**	0.080	0.040	4	11/06/15 20:49	
MA01MW001	R1509086-006	**0.554**	0.020	0.010	1	11/06/15 21:18	
MA01MW004	R1509086-007	**0.609**	0.020	0.010	1	11/06/15 22:01	
MA01MW003	R1509086-008	**0.353**	0.020	0.010	1	11/06/15 22:16	
MA02MW001D	R1509086-009	0.020 U	0.020	0.010	1	11/06/15 22:59	
MA02MW001D-A	R1509086-010	0.020 U	0.020	0.010	1	11/06/15 23:13	
MWQ-24	R1509086-011	**0.724**	0.020	0.010	1	11/06/15 23:28	
Method Blank	R1509086-MB1	0.020 U	0.020	0.010	1	11/06/15 19:51	
Method Blank	R1509086-MB2	0.020 U	0.020	0.010	1	11/06/15 13:37	
Method Blank	R1509086-MB3	**0.017 J**	0.020	0.010	1	11/08/15 12:08	

Client: Gulf Coast Analytical Labs
Project: Melrose AFR/215102304/A012-114
Sample Matrix: Water

Service Request: R1509086
Date Analyzed: 11/06/15

Lab Control Sample Summary
General Chemistry Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1509086-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.201	0.200	101	90-110

Client: Gulf Coast Analytical Labs
Project: Melrose AFR/215102304/A012-114
Sample Matrix: Water

Service Request: R1509086
Date Analyzed: 11/06/15

Lab Control Sample Summary
General Chemistry Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1509086-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.206	0.200	103	90-110

Client: Gulf Coast Analytical Labs
Project: Melrose AFR/215102304/A012-114
Sample Matrix: Water

Service Request: R1509086
Date Analyzed: 11/08/15

Lab Control Sample Summary
General Chemistry Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1509086-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Chromium, Hexavalent, Dissolved	218.6 LL	0.208	0.200	104	90-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509086
Project:	Melrose AFR/215102304/A012-114	**Date Collected:**	10/22/15
Sample Matrix:	Water	**Date Received:**	10/23/15
		Date Analyzed:	11/8/15

Duplicate Matrix Spike Summary
Chromium, Hexavalent, Dissolved

Sample Name:	M114MW004	**Units:**	ug/L
Lab Code:	R1509086-001	**Basis:**	NA
Analysis Method:	218.6 LL		

		Matrix Spike R1509086-001MS			Duplicate Matrix Spike R1509086-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chromium, Hexavalent, Dissolved	1.32	3.21	2.00	95	3.21	2.00	95	90-110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Gulf Coast Analytical Labs	**Service Request:**	R1509086
Project:	Melrose AFR/215102304/A012-114	**Date Collected:**	10/22/15
Sample Matrix:	Water	**Date Received:**	10/23/15
		Date Analyzed:	11/6/15

Duplicate Matrix Spike Summary
Chromium, Hexavalent, Dissolved

Sample Name:	MA01MW001	**Units:**	ug/L
Lab Code:	R1509086-006	**Basis:**	NA
Analysis Method:	218.6 LL		

		Matrix Spike R1509086-006MS			Duplicate Matrix Spike R1509086-006DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Chromium, Hexavalent, Dissolved	0.554	0.747	0.200	96	0.743	0.200	95	90-110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: □□□□□□□□□□□□□□□□□□□□□ **Service Request:** □150□0□□
Project: M□r□□□□□□/□1510□□04/□01□□114

Continuing Calibration Verification (CCV) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: □1□□□□□ **Units:** □□/□

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
□□□1	4□1□□□	□□151□□05□04	11/□/15□1□□□□	0□500	0□510	10□	□5□□105
□□□□	4□1□□□	□□151□□05□0□	11/□/15□1□□0□	0□500	0□50□	10□	□5□□105
□□□□	4□1□□5	□□151□□0□□05	11/□/15□1□□□□	0□500	0□501	100	□5□□105
□□□4	4□1□□□	□□151□□05□0□	11/□/15□1□□□□	0□500	0□501	100	□5□□105
□□□5	4□1□□5	□□151□□0□□04	11/□/15□□□□0	0□500	0□4□□	100	□5□□105
□□□□	4□1□□□	□□151□□05□01	11/□/15□□□□0	0□500	0□4□□	100	□5□□105
□□□□	4□1□□5	□□151□□0□□0□	11/□/15□00□□5	0□500	0□4□1	□□	□5□□105
□□□□	4□1□□□	□□151□□04□04	11/□/15□11□4□	0□500	0□51□	10□	□5□□105
□□□□	4□1□□□	□□151□□04□0□	11/□/15□1□□4□	0□500	0□4□□	□5	□5□□105

ALS Group USA, Corp. dba ALS Environmental

□□/□□□□□r□

Client: □□□□□ □□□□□ □□□□□□□□□ □□□ **Service Request:** □150□0□□
Project: M□r□□□□ □□/□1510□□04/□01□□114

Continuing Calibration Blank (CCB) Summary
Chromium, Hexavalent, Dissolved

Analytical Method: □1□□□□□ **Units:** □□/□

	Analysis Lot	Lab Code	Date Analyzed	MDL	MRL	Result	Q
□□□1	4□1□□□	□□151□□05□0□	11/□/15□1□□□□	0□010	0□0□0	0□0□0	□
□□□□	4□1□□□	□□151□□05□0□	11/□/15□1□□□4	0□010	0□0□0	0□0□0	□
□□□□	4□1□□5	□□151□□0□□0□	11/□/15□1□□51	0□010	0□0□0	0□0□0	□
□□□4	4□1□□□	□□151□□05□0□	11/□/15□1□□51	0□010	0□0□0	0□0□0	□
□□□5	4□1□□5	□□151□□0□□0□	11/□/15□□□44	0□010	0□0□0	0□0□0	□
□□□□	4□1□□□	□□151□□05□05	11/□/15□□□44	0□010	0□0□0	0□0□0	□
□□□□	4□1□□5	□□151□□0□□0□	11/□/15□00□40	0□010	0□0□0	0□0□0	□
□□□□	4□1□□□	□□151□□04□0□	11/□/15□1□□0□	0□010	0□0□0	**0.017**	□
□□□□	4□1□□□	□□151□□04□05	11/□/15□1□□14	0□010	0□0□0	**0.013**	□

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151023006

Project Name / Site Name: Melrose AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Tony Lucero	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Sample Analysis Requested [5]: Number of containers	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW004		10/22/15	0910		N	1	WG	1	X				F
M114MW002			0917		N	1	WG	1	X				F
M114MW003			1023	-	N	1	WG	1	X				F
M114MW001			1110	-	N	1	WG	1	X				F
MA01MW002			1238	-	N	1	WG	1	X				F
MA01MW001			1255	-	N	1	WG	1	X				F
MA01MW001-MS			1255	-	MS	1	WG	1	X				F
MA01MW001-MSD			1255	-	SD	1	WG	1	X				F
~~MA01MW005~~				-									
MA01MW004			1348	-	N	1	WG	1	X				F
MA01MW003			1445	-	N	1	WG	1	X				F
				-									
				-									
				-									
				-									

Comments: ~~Dissolved metals were field~~ filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received By (Signed)	Date	Time
1.		10/22/15	1700		10/23/15	0930
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	
Method of Shipment:	Lexi	Airbill Number:	
Analytical Lab:	ALS	Delivery Location:	
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be desig

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

R1509086 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

R1509086 5
Gulf Coast Analytical Laboratories
Hex Chrome in Water - CH2MHill

Cooler Receipt and Preservation Check Form

Project/Client Trinity Folder Number R15-9086

Cooler received on 10/23/15 by: MDS COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N	5a	**Perchlorate** samples have required headspace?	Y N NA
2	**Custody papers** properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	Y N	7	Soil VOA received as:	Bulk Encore 5035set NA

8. Temperature Readings Date: 10/23/15 Time: 0956 ID: IR#3 IR#5 From: Temp Blank Sample Bottle

Observed Temp (°C)	3.5						
Correction Factor (°C)	—						
Corrected Temp (°C)	3.5						
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by MDS on 10/23/15 at 0956
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: [signature]

Cooler Breakdown: Date: 10/23/15 Time: 1201 by: [signature]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 0824/15-21AO

Other Comments:

10 2/816 Cr+6 Buffer 84012 Exp. 3/16

10/22
0910-1145

PC Secondary Review: [signature]

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r9.doc 9/24/15

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAT-TR2015N03304

Project Name / Site Name: Melorse AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Tony Lucero	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Chromium (VI) 218.6										Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA02MW001D		10/23/2015	0855		N	1	WG	1	X								1					D
MA02MW001D-a		10/23/2015	0855		FD	1	WG	1	X													D
MWQ-24		10/23/2015	1055	-	N	1	WG	1	X													D
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		
				-																		

Comments Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10/23/15	1400		10/24/15	0900
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No
Method of Shipment: FedEx
Analytical Lab: ALS
Lab Recipient:
Shipped: No.: 1
Airbill Number:
Delivery Location:
Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

R1509086 5
Gulf Coast Analytical Laboratories
Melrose AFR

Cooler Receipt and Preservat

R1509086 5

Gulf Coast Analytical Laboratories
Melrose AFR

Project/Client Gulf Coast Folder Number

Cooler received on 10/24/15 by: @ COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 10/24/15 Time: 0938 ID: (IR#3) IR#5 From: Temp Blank (Sample Bottle)

Observed Temp (°C)	1.7						
Correction Factor (°C)	+1.0						
Corrected Temp (°C)	2.7°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 10/24/15 at 0940
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: TC/MS

Cooler Breakdown: Date: 10/24/15 Time: 1055 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (NA)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 082415-2AAB, Bottle Lot: 84012 exp: 3/16

Other Comments:

218.6 (3)
10/23/15
0855 - 1055

PC Secondary Review: TC/MS

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

November 06, 2015

Regina Haney
GCAL LAB
7979 GSRI AVENUE
BATON ROUGE, LA 70820
TEL: (225) 769-4900
FAX (225) 767-5717

Order No.: 1510215

RE: Melrose AFR

Dear Regina Haney:

DHL Analytical, Inc. received 11 sample(s) on 10/23/2015 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory Certification Number: T104704211-15-15 & DoD-ELAP #L14-26-R1

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ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

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Project Number: A012-114

Chain of Custody and Analytical Request

Chain of Custody Number (1): MAFR15102267

1510215

Project Name / Site Name: Melorse AFR	Turn Around Time	Sample Analysis Requested (5)	Quality Assurance Samples (6)
Facility: Melrose AFR	24 Hour		
Client Name: Trinity (850) 613-6800	5 Day		
Project Manager: Jonathan Kramer	Standard X		
Collected by: Benjamin Stewart, Tony Lucero	Other		

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Perchlorate 6860	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
1 M114MW004		10222015	0910		N	1	WG	1	X				6
2 M114MW002		10222015	0917		N	1	WG	1	X				6
3 M114MW003		10222015	1023	-	N	1	WG	1	X				6
4 M114MW001		10222015	1110	-	N	1	WG	1	X				6
5 MA01MW002		10222015	1238	-	N	1	WG	1	X				6
6 MA01MW001		10222015	1255	-	N	1	WG	1	X				6
MA01MW001-MS		10222015	1255	-	MS	1	WG	1	X				6
MA01MW001-MSD		10222015	1255	-	SD	1	WG	1	X				6
7 MA01MW004		10222015	1348	-	N	1	WG	1	X				6
8 MA01MW003		10222015	1445	-	N	1	WG	1	X				6
				-									
				-									
				-									
				-									

Comments ~~Dissolved metals were field filtered~~

Rec temp 1.4 Therm #28 Seal intact

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	[signature]	10-22-15	1700	[signature]	10/22/15	1700
2.	[signature]	10/23/15	1050	[signature]	10/23/15	1050
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	
Method of Shipment:	Fedex	Airbill Number:	
Analytical Lab:	DHL	Delivery Location:	Rochester [signature]
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Page 1 of 1

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFB2015102305

1510215

Project Name / Site Name: Melorse AFR	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Tony Lucero	Other

	Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Sample Analysis Requested (5): Number of containers	Perchlorate 6860	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Quality Assurance Samples (6): Cooler ID
9	MA02MW0017		10232015	0855		N	1	WG	1	X				1
10	MA02MW0017-a		10232015	0855		FD	1	WG	1	X				1
11	MWQ-24		10232015	1055	-	N	1	WG	1	X				1
					-									
					-									
					-									
					-									
					-									
					-									
					-									
					-									
					-									
					-									
					-									

Comments: Dissolved metals were field filtered

Rec temp 1.9 therm # 78 Seal Intact

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10/23/15	1400	Fedex	10/24/15	1100
2.	Fedex	10/24/15	1130	MB		
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No
Method of Shipment:	Fedex
Analytical Lab:	DHL
Lab Recipient:	
Shipped: No.:	1
Airbill Number:	
Delivery Location:	
Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

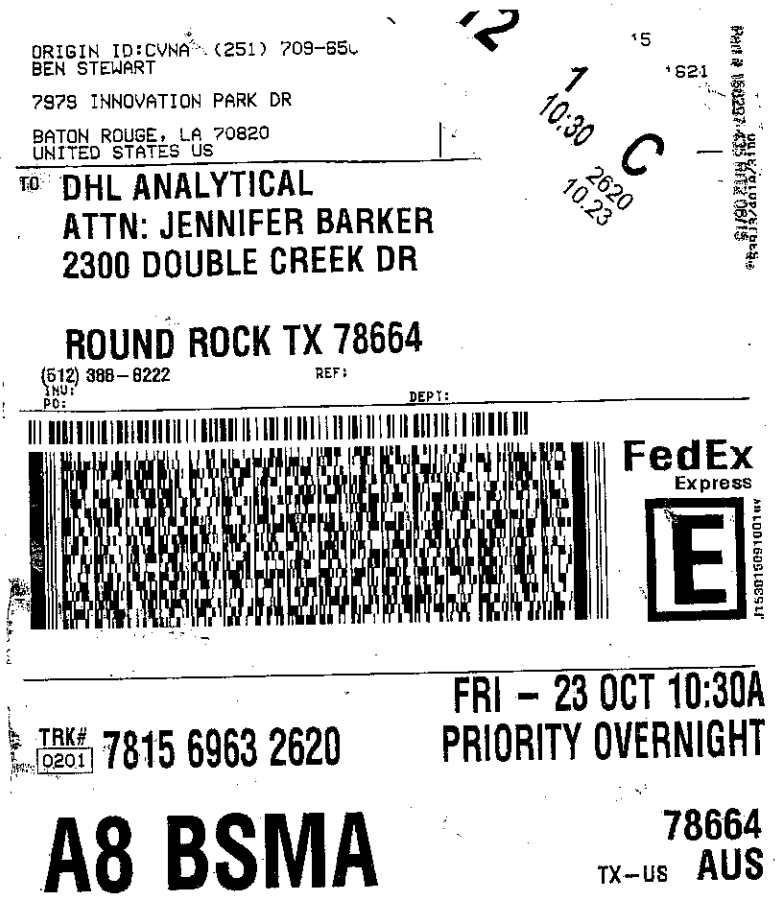
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) *Quality* assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c



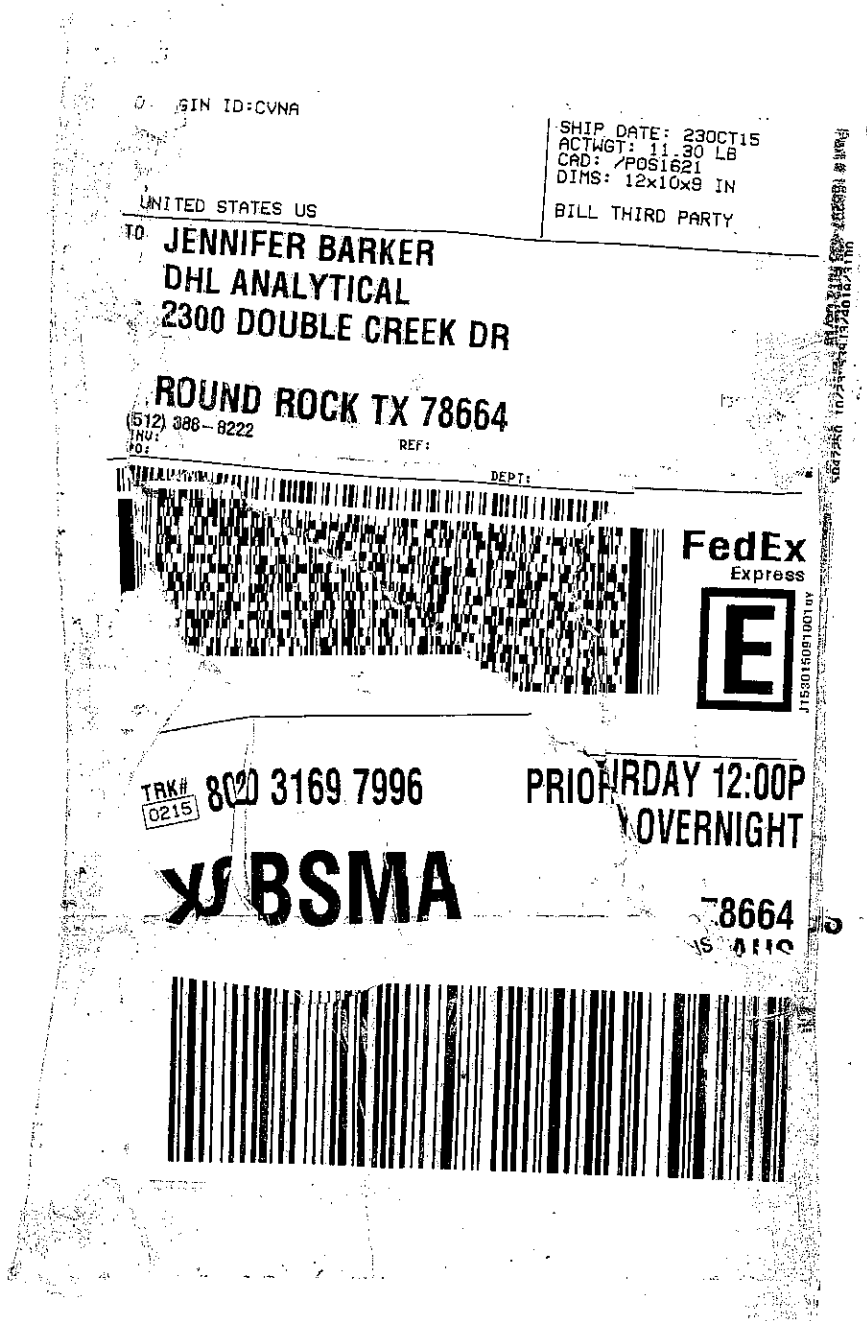
GCAL
ANALYTICAL LABORATORIES, LLC

CUSTODY SEAL

Date Sealed: 10/23/15

This package conforms to the conditions and limitations specified in 49 CFR 173.4

Sealed By:



CUSTODY SEAL

DATE 10/23/15

SIGNATURE

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GCAL LAB | Date Received: 10/23/2015

Work Order Number 1510215 | Received by JB

Checklist completed by: Signature 10/23/2015 Date | Reviewed by Initials 10/23/2015 Date

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.4 °C -1.9
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: Melrose AFR	**Date: 11/6/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1510215**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	**X**				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	**X**				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	**X**				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	**X**				
		3) Were calculations checked by a peer or supervisor?	**X**				
		4) Were all analyte identifications checked by a peer or supervisor?	**X**				
		5) Were sample quantitation limits reported for all analytes not detected?	**X**				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			**X**		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			**X**		
		8) If required for the project, TICs reported?			**X**		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	**X**				
		2) Were blanks analyzed at the appropriate frequency?	**X**				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	**X**				
		4) Were blank concentrations < MQL?	**X**				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	**X**				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	**X**				
		3) Were LCSs analyzed at the required frequency?	**X**				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	**X**				
		6) Was the LCSD RPD within QC limits (if applicable)?			**X**		
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	**X**				
		2) Were MS/MSD analyzed at the appropriate frequency?	**X**				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		4) Were MS/MSD RPDs within laboratory QC limits?	**X**				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?			**X**		
		2) Were analytical duplicates analyzed at the appropriate frequency?			**X**		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			**X**		
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	**X**				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	**X**				
		3) Are unadjusted MQLs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	**X**				
		2) Were all necessary corrective actions performed for the reported data?	**X**				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.
Laboratory Review Checklist (continued): Supporting Data

Project Name: Melrose AFR	**Date: 11/6/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1510215**

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	**X**				
		2) Were percent RSDs or correlation coefficient criteria met?	**X**				
		3) Was the number of standards recommended in the method used for all analytes?	**X**				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	**X**				
		5) Are ICAL data available for all instruments used?	**X**				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	**X**				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)**					
		1) Was the CCV analyzed at the method-required frequency?	**X**				
		2) Were percent differences for each analyte within the method-required QC limits?	**X**				
		3) Was the ICAL curve verified for each analyte?	**X**				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	**X**				
S3	O	**Mass Spectral Tuning**					
		1) Was the appropriate compound for the method used for tuning?	**X**				
		2) Were ion abundance data within the method-required QC limits?	**X**				
S4	O	**Internal Standards (IS)**					
		1) Were IS area counts and retention times within the method-required QC limits?	**X**				
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	**X**				
		2) Were data associated with manual integrations flagged on the raw data?	**X**				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			**X**		
S7	O	**Tentatively Identified Compounds (TICs)**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			**X**		
S8	I	**Interference Check Sample (ICS) Results**					
		1) Were percent recoveries within method QC limits?			**X**		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			**X**		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	**X**				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	**X**				
S11	OI	**Proficiency Test Reports**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	**X**				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	**X**				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	**X**				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	**X**				
		2) Is documentation of the analyst's competency up-to-date and on file?	**X**				
S15	OI	**Verification/Validation Documentation for Methods (NELAC Chap 5)**					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	**X**				
S16	OI	**Laboratory Standard Operating Procedures (SOPs)**					
		1) Are laboratory SOPs current and on file for each method performed?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC 5.13
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
R5 Test reports/summary forms for blank samples;
R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) the amount of analyte measured in the duplicate,
  b) the calculated RPD, and
  c) the laboratory's QC limits for analytical duplicates.
R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director

Signature

11/0□/15

Date

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT: GCAL LAB
Project: Melrose AFR
Lab Order: 1510215

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC. The "U" flag , in the Analytical Report, indicates the results for that sample are nondetect.

Samples were analyzed using the methods outlined in the following references:

Method SW6860 - Perchlorate Analysis (Parameter is ELAP Accredited but not NELAC Certified)

Exception Report R1-01

The samples were received on and log-in performed on 10/22/2015 and 10/24/2015. A total of 11 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

A summary of project communication follows:

GCAL Project Number 215102304.

Request for bottlekit was sent to John DuPont of DHL Analytical from Regina Haney of GCAL, via email on 10/6/2015. DHL Bottle Kit # 6385 was sent 10/13/2015 via fedex ground to arrive by 10/16/2015.

This sample delivery group arrived at DHL Analytical on 10/22/2015 and 10/24/2015. The sample summary was sent to client on 10/23/2015 and 10/27/2015. All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder or are filed in the project/client folder as part of the Administrative records in the QA office.

DHL project manager/qa staff discussed with client the following issues:
Email communications via email between Jennifer Barker/John DuPont and Regina Haney on 10/15-16/2015 - regarding fedex shipment.
Email communications via email between John DuPont and Regina Haney on 10/15-16/2015 - regarding fedex shipment.
Email communications via email from Regina Haney to John DuPont on 10/23/2015 - regarding project number.

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT: GCAL LAB
Project: Melrose AFR
Lab Order: 1510215

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1510215-01	M114MW004		10/22/15 09:10 AM	10/23/2015
1510215-02	M114MW002		10/22/15 09:17 AM	10/23/2015
1510215-03	M114MW003		10/22/15 10:23 AM	10/23/2015
1510215-04	M114MW001		10/22/15 11:10 AM	10/23/2015
1510215-05	MA01MW002		10/22/15 12:38 PM	10/23/2015
1510215-06	MA01MW001		10/22/15 12:55 PM	10/23/2015
1510215-07	MA01MW004		10/22/15 01:48 PM	10/23/2015
1510215-08	MA01MW003		10/22/15 02:45 PM	10/23/2015
1510215-09	MA02MW001D		10/23/15 08:55 AM	10/24/2015
1510215-10	MA02MW001D-a		10/23/15 08:55 AM	10/24/2015
1510215-11	MWQ-24		10/23/15 10:55 AM	10/24/2015

Lab Order: 1510215
Client: GCAL LAB
Project: Melrose AFR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1510215-01A	M114MW004	10/22/15 09:10 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-02A	M114MW002	10/22/15 09:17 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-03A	M114MW003	10/22/15 10:23 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-04A	M114MW001	10/22/15 11:10 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-05A	MA01MW002	10/22/15 12:38 PM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-06A	MA01MW001	10/22/15 12:55 PM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-07A	MA01MW004	10/22/15 01:48 PM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-08A	MA01MW003	10/22/15 02:45 PM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-09A	MA02MW001D	10/23/15 08:55 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
	MA02MW001D	10/23/15 08:55 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-10A	MA02MW001D-a	10/23/15 08:55 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
	MA02MW001D-a	10/23/15 08:55 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183
1510215-11A	MWQ-24	10/23/15 10:55 AM	Aqueous	SW6860	Perchlorate Prep	11/05/15 08:49 AM	72183

Lab Order: 1510215
Client: GCAL LAB
Project: Melrose AFR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1510215-01A	M114MW004	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 02:25 PM	ICMS2_151105A
1510215-02A	M114MW002	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 07:10 PM	ICMS2_151105A
1510215-03A	M114MW003	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 02:57 PM	ICMS2_151105A
1510215-04A	M114MW001	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 03:13 PM	ICMS2_151105A
1510215-05A	MA01MW002	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 03:29 PM	ICMS2_151105A
1510215-06A	MA01MW001	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 03:46 PM	ICMS2_151105A
1510215-07A	MA01MW004	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 04:34 PM	ICMS2_151105A
1510215-08A	MA01MW003	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 04:50 PM	ICMS2_151105A
1510215-09A	MA02MW001D	Aqueous	SW6860	Perchlorate - Water	72183	10	11/05/15 07:26 PM	ICMS2_151105A
	MA02MW001D	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 06:21 PM	ICMS2_151105A
1510215-10A	MA02MW001D-a	Aqueous	SW6860	Perchlorate - Water	72183	10	11/05/15 07:42 PM	ICMS2_151105A
	MA02MW001D-a	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 06:37 PM	ICMS2_151105A
1510215-11A	MWQ-24	Aqueous	SW6860	Perchlorate - Water	72183	1	11/05/15 06:54 PM	ICMS2_151105A

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW004
Project:	Melrose AFR	**Lab ID:**	1510215-01
Project No:	215102304	**Collection Date:**	10/22/15 09:10 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00252	0.000100	0.000300	N	mg/L	1	11/05/15 02:25 PM
IS: Perchlorate_107	66.6	0	50-150	N	%REC	1	11/05/15 02:25 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW002
Project:	Melrose AFR	**Lab ID:**	1510215-02
Project No:	215102304	**Collection Date:**	10/22/15 09:17 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00255	0.000100	0.000300	N	mg/L	1	11/05/15 07:10 PM
IS: Perchlorate_107	91.6	0	50-150	N	%REC	1	11/05/15 07:10 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW003
Project:	Melrose AFR	**Lab ID:**	1510215-03
Project No:	215102304	**Collection Date:**	10/22/15 10:23 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00370	0.000100	0.000300	N	mg/L	1	11/05/15 02:57 PM
IS: Perchlorate_107	64.7	0	50-150	N	%REC	1	11/05/15 02:57 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW001
Project:	Melrose AFR	**Lab ID:**	1510215-04
Project No:	215102304	**Collection Date:**	10/22/15 11:10 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00316	0.000100	0.000300	N	mg/L	1	11/05/15 03:13 PM
IS: Perchlorate_107	86.8	0	50-150	N	%REC	1	11/05/15 03:13 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW002
Project:	Melrose AFR	**Lab ID:**	1510215-05
Project No:	215102304	**Collection Date:**	10/22/15 12:38 PM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00244	0.000100	0.000300	N	mg/L	1	11/05/15 03:29 PM
IS: Perchlorate_107	114	0	50-150	N	%REC	1	11/05/15 03:29 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW001
Project:	Melrose AFR	**Lab ID:**	1510215-06
Project No:	215102304	**Collection Date:**	10/22/15 12:55 PM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.000336	0.000100	0.000300	N	mg/L	1	11/05/15 03:46 PM
IS: Perchlorate_107	130	0	50-150	N	%REC	1	11/05/15 03:46 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW004
Project:	Melrose AFR	**Lab ID:**	1510215-07
Project No:	215102304	**Collection Date:**	10/22/15 01:48 PM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00375	0.000100	0.000300	N	mg/L	1	11/05/15 04:34 PM
IS: Perchlorate_107	115	0	50-150	N	%REC	1	11/05/15 04:34 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW003
Project:	Melrose AFR	**Lab ID:**	1510215-08
Project No:	215102304	**Collection Date:**	10/22/15 02:45 PM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.000351	0.000100	0.000300	N	mg/L	1	11/05/15 04:50 PM
IS: Perchlorate_107	118	0	50-150	N	%REC	1	11/05/15 04:50 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA02MW001D
Project:	Melrose AFR	**Lab ID:**	1510215-09
Project No:	215102304	**Collection Date:**	10/23/15 08:55 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.00900	0.00100	0.00300	N	mg/L	10	11/05/15 07:26 PM
IS: Perchlorate_107	128	0	50-150	N	%REC	10	11/05/15 07:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA02MW001D-a
Project:	Melrose AFR	**Lab ID:**	1510215-10
Project No:	215102304	**Collection Date:**	10/23/15 08:55 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.0120	0.00100	0.00300	N	mg/L	10	11/05/15 07:42 PM
IS: Perchlorate_107	130	0	50-150	N	%REC	10	11/05/15 07:42 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *06-Nov-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-24
Project:	Melrose AFR	**Lab ID:**	1510215-11
Project No:	215102304	**Collection Date:**	10/23/15 10:55 AM
Lab Order:	1510215	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **ABO**
Perchlorate	0.000133	0.000100	0.000300	JN	mg/L	1	11/05/15 06:54 PM
IS: Perchlorate_107	136	0	50-150	N	%REC	1	11/05/15 06:54 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: GCAL LAB
Work Order: 1510215
Project: Melrose AFR

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_151105A

The QC data in batch 72183 applies to the following samples: 1510215-01A, 1510215-02A, 1510215-03A, 1510215-04A, 1510215-05A, 1510215-06A, 1510215-07A, 1510215-08A, 1510215-09A, 1510215-10A, 1510215-11A

Sample ID **MB-72183** Batch ID: **72183** TestNo: **SW6860** Units: **mg/L**
SampType: **MBLK** Run ID: **ICMS2_151105A** Analysis Date: **11/5/2015 1:53:33 PM** Prep Date: **11/5/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000100	0.000300								NU
IS: Perchlorate_107	0.00101		0.00100		82.2	50	150			N

Sample ID **LCS-72183** Batch ID: **72183** TestNo: **SW6860** Units: **mg/L**
SampType: **LCS** Run ID: **ICMS2_151105A** Analysis Date: **11/5/2015 2:09:37 PM** Prep Date: **11/5/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000319	0.000300	0.000300	0	106	85	115			N
IS: Perchlorate_107	0.00101		0.00100		78.8	50	150			N

Sample ID **1510215-06AMS** Batch ID: **72183** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_151105A** Analysis Date: **11/5/2015 4:02:06 PM** Prep Date: **11/5/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000658	0.000300	0.000300	0.000336	107	85	115			N
IS: Perchlorate_107	0.00101		0.00100		114	50	150			N

Sample ID **1510215-06AMSD** Batch ID: **72183** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_151105A** Analysis Date: **11/5/2015 4:18:10 PM** Prep Date: **11/5/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000657	0.000300	0.000300	0.000336	107	85	115	0.154	15	N
IS: Perchlorate_107	0.00101		0.00100		111	50	150	0	0	N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1510215
Project: Melrose AFR

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_151105A

Sample ID **ICV-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 12:47:33 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00203	0.000300	0.00200	0	101	85	115			N
IS: Perchlorate_107	0.00100		0.00100		87.2	50	150			N

Sample ID **LCVL1-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 1:03:37 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000224	0.000300	0.000200	0	112	70	130			N
IS: Perchlorate_107	0.00100		0.00100		75.1	50	150			N

Sample ID **ICS1-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICS**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 1:19:41 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000314	0.000300	0.000300	0	105	70	130			N
IS: Perchlorate_107	0.00100		0.00100		71.7	50	150			N

Sample ID **CCV1-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 5:06:23 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00522	0.000300	0.00500	0	104	85	115			N
IS: Perchlorate_107	0.00100		0.00100		126	50	150			N

Sample ID **LCVL2-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 5:25:10 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000214	0.000300	0.000200	0	107	70	130			N
IS: Perchlorate_107	0.00100		0.00100		131	50	150			N

Sample ID **CCV2-151105**	Batch ID: **R82536**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_151105A**	Analysis Date: **11/5/2015 7:58:20 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00525	0.000300	0.00500	0	105	85	115			N
IS: Perchlorate_107	0.00100		0.00100		137	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1510215
Project: Melrose AFR

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_151105A

Sample ID **LCVL3-151105** Batch ID: **R82536** TestNo: **SW6860** Units: **mg/L**
SampType: **LCVL** Run ID: **ICMS2_151105A** Analysis Date: **11/5/2015 8:14:24 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000225	0.000300	0.000200	0	112	70	130			N
IS: Perchlorate_107	0.00100		0.00100		140	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Lab Order: 1510215
Client: GCAL LAB
Project: Melrose AFR

Sequence Report

Run ID: ICMS2_151105A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
LRB1-151105	-----	SW6860	R82536	1	11/5/2015 12:31:29 PM		A
ICV-151105	-----	SW6860	R82536	1	11/5/2015 12:47:33 PM		A
LCVL1-151105	-----	SW6860	R82536	1	11/5/2015 1:03:37 PM		A
ICS1-151105	-----	SW6860	R82536	1	11/5/2015 1:19:41 PM		A
MB-72183	-----	SW6860	72183	1	11/5/2015 1:53:33 PM	11/5/2015 8:49:23 AM	A
LCS-72183	-----	SW6860	72183	1	11/5/2015 2:09:37 PM	11/5/2015 8:49:23 AM	A
1510215-01A	M114MW004	SW6860	72183	1	11/5/2015 2:25:41 PM	11/5/2015 8:49:23 AM	A
1510215-03A	M114MW003	SW6860	72183	1	11/5/2015 2:57:49 PM	11/5/2015 8:49:23 AM	A
1510215-04A	M114MW001	SW6860	72183	1	11/5/2015 3:13:53 PM	11/5/2015 8:49:23 AM	A
1510215-05A	MA01MW002	SW6860	72183	1	11/5/2015 3:29:57 PM	11/5/2015 8:49:23 AM	A
1510215-06A	MA01MW001	SW6860	72183	1	11/5/2015 3:46:02 PM	11/5/2015 8:49:23 AM	A
1510215-06AMS	MA01MW001MS	SW6860	72183	1	11/5/2015 4:02:06 PM	11/5/2015 8:49:23 AM	A
1510215-06AMSD	MA01MW001MSD	SW6860	72183	1	11/5/2015 4:18:10 PM	11/5/2015 8:49:23 AM	A
1510215-07A	MA01MW004	SW6860	72183	1	11/5/2015 4:34:14 PM	11/5/2015 8:49:23 AM	A
1510215-08A	MA01MW003	SW6860	72183	1	11/5/2015 4:50:19 PM	11/5/2015 8:49:23 AM	A
CCV1-151105	-----	SW6860	R82536	1	11/5/2015 5:06:23 PM		A
LCVL2-151105	-----	SW6860	R82536	1	11/5/2015 5:25:10 PM		A
LRB2-151105	-----	SW6860	R82536	1	11/5/2015 6:05:00 PM	11/5/2015 8:49:23 AM	A
1510215-09A	MA02MW001D	SW6860	72183	1	11/5/2015 6:21:54 PM	11/5/2015 8:49:23 AM	A
1510215-10A	MA02MW001D-a	SW6860	72183	1	11/5/2015 6:37:59 PM	11/5/2015 8:49:23 AM	A
1510215-11A	MWQ-24	SW6860	72183	1	11/5/2015 6:54:03 PM	11/5/2015 8:49:23 AM	A
1510215-02A	M114MW002	SW6860	72183	1	11/5/2015 7:10:07 PM	11/5/2015 8:49:23 AM	A
1510215-09A	MA02MW001D	SW6860	72183	10	11/5/2015 7:26:11 PM	11/5/2015 8:49:23 AM	A
1510215-10A	MA02MW001D-a	SW6860	72183	10	11/5/2015 7:42:00 PM	11/5/2015 8:49:23 AM	A
CCV2-151105	-----	SW6860	R82536	1	11/5/2015 7:58:20 PM		A
LCVL3-151105	-----	SW6860	R82536	1	11/5/2015 8:14:24 PM		A
LRB3-151105	-----	SW6860	R82536	1	11/5/2015 8:30:28 PM		A

GCAL
ANALYTICAL LABORATORIES, LLC

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 04/24/2015

GCAL Report 215040304

Deliver To	Trinity A&D 1002 N Eglin Pkwy Shalimar, FL 32579 850-613-6800
Attn	Jonathan Kramer

Project Melrose

PJLA Testing DoD ELAP

ISO 17025

NELAP ACCREDITED TNI LABORATORY

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
MDL	Method Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
DL	Dilution
N	Metals Matrix Spike or Matrix Spike Duplicate Recovery is outside control limits
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
GCAL Report 215040304

Case Narrative

Client: TRINITY Analysis & Development Corp. **Report:** 215040304

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the EPA 8330 analysis for analytical batch 556031, the %D is outside ±15% for Nitroglycerin and Pentaerythritol Tetranitrate in the closing CCV. The response is high and these analytes were not detected in the associated samples.

METALS

In the EPA 6020A analysis, samples 21504030403 (MA02MW001D), 21504030501 (MA01MW002), 21504030503 (MA01MW001), 21504030601 (MA02MW001D-a), 21504030701 (MA01MW004), 21504030703 (MA01MW003), 21504040602 (MWQ-20), 21504040603 (MWQ-19), 21504040702 (MWQ-2), 21504040703 (MWQ-2-a), 21504040801 (MWQ-22), 21504040802 (MWQ-22-MS), 21504040803 (MWQ-22-MSD), 21504030401 (MWQ-24), 21504030403 (MA02MW001D) and 21504030501 (MA01MW002) had to be diluted in order to bracket the concentration of target analytes within the calibration range of the instrument.

In the EPA 6020A analysis, a chemical or physical interference necessitated a dilution for samples 21504030401 (MWQ-24), 21504030403 (MA02MW001D), 21504030601 (MA02MW001D-a), 21504030703 (MA01MW003), 21504040601 (MWQ-21), 21504040602 (MWQ-20), 21504040603 (MWQ-19), 21504040701 (MWQ-18), 21504040702 (MWQ-2), 21504040703 (MWQ-2-a), 21504040801 (MWQ-22), 21504040802 (MWQ-22-MS), and 21504040803 (MWQ-22-MSD). This is reflected in elevated detection limits.

In the EPA 6020A analysis for prep batch 555557, the MS/MSD recoveries and RPD are not applicable for Magnesium and Sodium because the sample concentration is greater than four times the spike concentration.

In the EPA 6020A analysis for prep batch 555584, the MS and/or MSD recoveries are outside control limits for Manganese. The LCS recovery is acceptable. This indicates the system is in control. A post-digestion spike was performed with a recovery of 127%. The MS/MSD recoveries are not applicable for Magnesium and Sodium because the sample concentration is greater than four times the spike concentration.

In the EPA 6020A analysis for prep batch 555556, the MS/MSD recoveries and RPD are not applicable for Magnesium because the sample concentration is greater than four times the spike concentration.

In the EPA 6020A Dissolved analysis for prep batch 555582, the MS and/or MSD recoveries are outside control limits for Nickel and Silver. The LCS recovery is acceptable. This indicates the system is in control. The MS/MSD recoveries are not applicable for Magnesium and Sodium because the sample concentration is greater than four times the spike concentration. The MS/MSD RPD is above the control limit for Nickel.

In the EPA 6020A analysis for analytical batch 555928, the recovery for Sodium is above the upper control limit in three LLCCVs (ICPMS2, 04/08/15, 2017,2118 & 2226). The concentration detected in the associated samples or QC samples is either non-detect or above the CCV concentration. Sodium was detected at a concentration > LOQ but < 10% the concentration in the associated samples in one CCB (04/08/15, 2114).

In the EPA 6020A analysis for analytical batch 556252, the recovery for Sodium is above the upper control limit in one LLCCV (ICPMS2, 04/13/15, 1709). The concentration detected in the associated sample is above the CCV concentration.

CONVENTIONALS

In the EPA 300.0 Rev 2.1 analysis, samples 21504030401 (MWQ-24), 21504030403 (MA02MW001D), 21504030501 (MA01MW002), 21504030503 (MA01MW001), 21504030601 (MA02MW001D-a), 21504040601 (MWQ-21), 21504030701 (MA01MW004), 21504030703 (MA01MW003) 21504040602 (MWQ-20), 21504040603 (MWQ-19), 21504040701 (MWQ-18), 21504040702 (MWQ-2), 21504040703 (MWQ-2-a), 21504040801 (MWQ-22), 21504040802 (MWQ-22-MS), 21504040803 (MWQ-22-MSD), and had to be diluted in order to bracket the concentration of target analytes within the calibration range of the instrument. Most samples also needed dilutions to eliminate background interference. The dilutions are reflected in elevated detection limits.

In the EPA 9012B analysis for analytical batch 556029, the MS and/or MSD recovery is outside control limits for Cyanide. The LCS recovery is acceptable. This indicates the analysis is in control and the sample is affected by a matrix interference.

Sample/Test Summary 215040304 (Page 1 of 7)

LabID	SampleID	Matrix	Procedure
21504030401	MWQ-24	W	SM 2540C TDS
21504030401	MWQ-24	W	SM 2320B Alkalinity Water
21504030401	MWQ-24	W	EPA 300.0 Inorganic Anions
21504030401	MWQ-24	W	EPA 6020A
21504030401	MWQ-24	W	EPA 6020A Dissolved
21504030401	MWQ-24	W	EPA 6020A Dissolved Prep
21504030401	MWQ-24	W	EPA 6020A Water Prep
21504030401	MWQ-24	W	EPA 7470A
21504030401	MWQ-24	W	EPA 7470A
21504030401	MWQ-24	W	EPA 7470A Dissolved Prep
21504030401	MWQ-24	W	EPA 7470A Dissolved
21504030401	MWQ-24	W	EPA 8260B
21504030401	MWQ-24	W	EPA 8330A Water
21504030401	MWQ-24	W	EPA 8330A Prep Water
21504030401	MWQ-24	W	EPA 9012B Cyanide Water
21504030401	MWQ-24	W	EPA 9012B Cyanide Prep Water
21504030401	MWQ-24	W	Need to Ship to Subcontract Laboratory
21504030401	MWQ-24	W	Ship work pending results
21504030402	MWQ-24-C	W	EPA 8260B
21504030403	MA02MW001D	W	SM 2540C TDS
21504030403	MA02MW001D	W	SM 2320B Alkalinity Water
21504030403	MA02MW001D	W	EPA 300.0 Inorganic Anions
21504030403	MA02MW001D	W	EPA 6020A
21504030403	MA02MW001D	W	EPA 6020A Dissolved
21504030403	MA02MW001D	W	EPA 6020A Dissolved Prep
21504030403	MA02MW001D	W	EPA 6020A Water Prep
21504030403	MA02MW001D	W	EPA 7470A
21504030403	MA02MW001D	W	EPA 7470A
21504030403	MA02MW001D	W	EPA 7470A Dissolved Prep
21504030403	MA02MW001D	W	EPA 7470A Dissolved
21504030403	MA02MW001D	W	EPA 8260B
21504030403	MA02MW001D	W	EPA 8330A Water
21504030403	MA02MW001D	W	EPA 8330A Prep Water
21504030403	MA02MW001D	W	EPA 9012B Cyanide Water
21504030403	MA02MW001D	W	EPA 9012B Cyanide Prep Water

Sample/Test Summary 215040304 (Page 2 of 7)

LabID	SampleID	Matrix	Procedure
21504030403	MA02MW001D	W	Need to Ship to Subcontract Laboratory
21504030403	MA02MW001D	W	Ship work pending results
21504030501	MA01MW002	W	SM 2540C TDS
21504030501	MA01MW002	W	SM 2320B Alkalinity Water
21504030501	MA01MW002	W	EPA 300.0 Inorganic Anions
21504030501	MA01MW002	W	EPA 6020A
21504030501	MA01MW002	W	EPA 6020A Dissolved
21504030501	MA01MW002	W	EPA 6020A Dissolved Prep
21504030501	MA01MW002	W	EPA 6020A Water Prep
21504030501	MA01MW002	W	EPA 7470A
21504030501	MA01MW002	W	EPA 7470A
21504030501	MA01MW002	W	EPA 7470A Dissolved Prep
21504030501	MA01MW002	W	EPA 7470A Dissolved
21504030501	MA01MW002	W	EPA 8260B
21504030501	MA01MW002	W	EPA 8330A Water
21504030501	MA01MW002	W	EPA 8330A Prep Water
21504030501	MA01MW002	W	EPA 9012B Cyanide Water
21504030501	MA01MW002	W	EPA 9012B Cyanide Prep Water
21504030501	MA01MW002	W	Need to Ship to Subcontract Laboratory
21504030501	MA01MW002	W	Ship work pending results
21504030502	MA01MW002-C	W	EPA 8260B
21504030503	MA01MW001	W	SM 2540C TDS
21504030503	MA01MW001	W	SM 2320B Alkalinity Water
21504030503	MA01MW001	W	EPA 300.0 Inorganic Anions
21504030503	MA01MW001	W	EPA 6020A
21504030503	MA01MW001	W	EPA 6020A Dissolved
21504030503	MA01MW001	W	EPA 6020A Dissolved Prep
21504030503	MA01MW001	W	EPA 6020A Water Prep
21504030503	MA01MW001	W	EPA 7470A
21504030503	MA01MW001	W	EPA 7470A
21504030503	MA01MW001	W	EPA 7470A Dissolved Prep
21504030503	MA01MW001	W	EPA 7470A Dissolved
21504030503	MA01MW001	W	EPA 8260B
21504030503	MA01MW001	W	EPA 8330A Water
21504030503	MA01MW001	W	EPA 8330A Prep Water

Sample/Test Summary 215040304 (Page 3 of 7)

LabID	SampleID	Matrix	Procedure
21504030503	MA01MW001	W	EPA 9012B Cyanide Water
21504030503	MA01MW001	W	EPA 9012B Cyanide Prep Water
21504030503	MA01MW001	W	Need to Ship to Subcontract Laboratory
21504030503	MA01MW001	W	Ship work pending results
21504030601	MA02MW001D-a	W	SM 2540C TDS
21504030601	MA02MW001D-a	W	SM 2320B Alkalinity Water
21504030601	MA02MW001D-a	W	EPA 300.0 Inorganic Anions
21504030601	MA02MW001D-a	W	EPA 6020A
21504030601	MA02MW001D-a	W	EPA 6020A Dissolved
21504030601	MA02MW001D-a	W	EPA 6020A Dissolved Prep
21504030601	MA02MW001D-a	W	EPA 6020A Water Prep
21504030601	MA02MW001D-a	W	EPA 7470A
21504030601	MA02MW001D-a	W	EPA 7470A
21504030601	MA02MW001D-a	W	EPA 7470A Dissolved Prep
21504030601	MA02MW001D-a	W	EPA 7470A Dissolved
21504030601	MA02MW001D-a	W	EPA 8260B
21504030601	MA02MW001D-a	W	EPA 8330A Water
21504030601	MA02MW001D-a	W	EPA 8330A Prep Water
21504030601	MA02MW001D-a	W	EPA 9012B Cyanide Water
21504030601	MA02MW001D-a	W	EPA 9012B Cyanide Prep Water
21504030601	MA02MW001D-a	W	Need to Ship to Subcontract Laboratory
21504030601	MA02MW001D-a	W	Ship work pending results
21504030701	MA01MW004	W	SM 2540C TDS
21504030701	MA01MW004	W	SM 2320B Alkalinity Water
21504030701	MA01MW004	W	EPA 300.0 Inorganic Anions
21504030701	MA01MW004	W	EPA 6020A
21504030701	MA01MW004	W	EPA 6020A Dissolved
21504030701	MA01MW004	W	EPA 6020A Dissolved Prep
21504030701	MA01MW004	W	EPA 6020A Water Prep
21504030701	MA01MW004	W	EPA 7470A
21504030701	MA01MW004	W	EPA 7470A
21504030701	MA01MW004	W	EPA 7470A Dissolved Prep
21504030701	MA01MW004	W	EPA 7470A Dissolved
21504030701	MA01MW004	W	EPA 8260B
21504030701	MA01MW004	W	EPA 8330A Water

Sample/Test Summary 215040304 (Page 4 of 7)

LabID	SampleID	Matrix	Procedure
21504030701	MA01MW004	W	EPA 8330A Prep Water
21504030701	MA01MW004	W	EPA 9012B Cyanide Water
21504030701	MA01MW004	W	EPA 9012B Cyanide Prep Water
21504030701	MA01MW004	W	Need to Ship to Subcontract Laboratory
21504030701	MA01MW004	W	Ship work pending results
21504030702	MA01MW004-c	W	EPA 8260B
21504030703	MA01MW003	W	SM 2540C TDS
21504030703	MA01MW003	W	SM 2320B Alkalinity Water
21504030703	MA01MW003	W	EPA 300.0 Inorganic Anions
21504030703	MA01MW003	W	EPA 6020A
21504030703	MA01MW003	W	EPA 6020A Dissolved
21504030703	MA01MW003	W	EPA 6020A Dissolved Prep
21504030703	MA01MW003	W	EPA 6020A Water Prep
21504030703	MA01MW003	W	EPA 7470A
21504030703	MA01MW003	W	EPA 7470A
21504030703	MA01MW003	W	EPA 7470A Dissolved Prep
21504030703	MA01MW003	W	EPA 7470A Dissolved
21504030703	MA01MW003	W	EPA 8260B
21504030703	MA01MW003	W	EPA 8330A Water
21504030703	MA01MW003	W	EPA 8330A Prep Water
21504030703	MA01MW003	W	EPA 9012B Cyanide Water
21504030703	MA01MW003	W	EPA 9012B Cyanide Prep Water
21504030703	MA01MW003	W	Need to Ship to Subcontract Laboratory
21504030703	MA01MW003	W	Ship work pending results
21504040601	MWQ-21	W	SM 2540C TDS
21504040601	MWQ-21	W	SM 2320B Alkalinity Water
21504040601	MWQ-21	W	EPA 300.0 Inorganic Anions
21504040601	MWQ-21	W	EPA 6020A
21504040601	MWQ-21	W	EPA 6020A Dissolved
21504040601	MWQ-21	W	EPA 6020A Dissolved Prep
21504040601	MWQ-21	W	EPA 6020A Water Prep
21504040601	MWQ-21	W	EPA 9012B Cyanide Water
21504040601	MWQ-21	W	EPA 9012B Cyanide Prep Water
21504040601	MWQ-21	W	Need to Ship to Subcontract Laboratory
21504040601	MWQ-21	W	Ship work pending results

Sample/Test Summary 215040304 (Page 5 of 7)

LabID	SampleID	Matrix	Procedure
21504040602	MWQ-20	W	SM 2540C TDS
21504040602	MWQ-20	W	SM 2320B Alkalinity Water
21504040602	MWQ-20	W	EPA 300.0 Inorganic Anions
21504040602	MWQ-20	W	EPA 6020A
21504040602	MWQ-20	W	EPA 6020A Dissolved
21504040602	MWQ-20	W	EPA 6020A Dissolved Prep
21504040602	MWQ-20	W	EPA 6020A Water Prep
21504040602	MWQ-20	W	EPA 9012B Cyanide Water
21504040602	MWQ-20	W	EPA 9012B Cyanide Prep Water
21504040602	MWQ-20	W	Need to Ship to Subcontract Laboratory
21504040602	MWQ-20	W	Ship work pending results
21504040603	MWQ-19	W	SM 2540C TDS
21504040603	MWQ-19	W	SM 2320B Alkalinity Water
21504040603	MWQ-19	W	EPA 300.0 Inorganic Anions
21504040603	MWQ-19	W	EPA 6020A
21504040603	MWQ-19	W	EPA 6020A Dissolved
21504040603	MWQ-19	W	EPA 6020A Dissolved Prep
21504040603	MWQ-19	W	EPA 6020A Water Prep
21504040603	MWQ-19	W	EPA 9012B Cyanide Water
21504040603	MWQ-19	W	EPA 9012B Cyanide Prep Water
21504040603	MWQ-19	W	Need to Ship to Subcontract Laboratory
21504040603	MWQ-19	W	Ship work pending results
21504040701	MWQ-18	W	SM 2540C TDS
21504040701	MWQ-18	W	SM 2320B Alkalinity Water
21504040701	MWQ-18	W	EPA 300.0 Inorganic Anions
21504040701	MWQ-18	W	EPA 6020A
21504040701	MWQ-18	W	EPA 6020A Dissolved
21504040701	MWQ-18	W	EPA 6020A Dissolved Prep
21504040701	MWQ-18	W	EPA 6020A Water Prep
21504040701	MWQ-18	W	EPA 9012B Cyanide Water
21504040701	MWQ-18	W	EPA 9012B Cyanide Prep Water
21504040701	MWQ-18	W	Need to Ship to Subcontract Laboratory
21504040701	MWQ-18	W	Ship work pending results
21504040702	MWQ-2	W	SM 2540C TDS
21504040702	MWQ-2	W	SM 2320B Alkalinity Water

Sample/Test Summary 215040304 (Page 6 of 7)

LabID	SampleID	Matrix	Procedure
21504040702	MWQ-2	W	EPA 300.0 Inorganic Anions
21504040702	MWQ-2	W	EPA 6020A
21504040702	MWQ-2	W	EPA 6020A Dissolved
21504040702	MWQ-2	W	EPA 6020A Dissolved Prep
21504040702	MWQ-2	W	EPA 6020A Water Prep
21504040702	MWQ-2	W	EPA 9012B Cyanide Water
21504040702	MWQ-2	W	EPA 9012B Cyanide Prep Water
21504040702	MWQ-2	W	Need to Ship to Subcontract Laboratory
21504040702	MWQ-2	W	Ship work pending results
21504040703	MWQ-2-a	W	SM 2540C TDS
21504040703	MWQ-2-a	W	SM 2320B Alkalinity Water
21504040703	MWQ-2-a	W	EPA 300.0 Inorganic Anions
21504040703	MWQ-2-a	W	EPA 6020A
21504040703	MWQ-2-a	W	EPA 6020A Dissolved
21504040703	MWQ-2-a	W	EPA 6020A Dissolved Prep
21504040703	MWQ-2-a	W	EPA 6020A Water Prep
21504040703	MWQ-2-a	W	EPA 9012B Cyanide Water
21504040703	MWQ-2-a	W	EPA 9012B Cyanide Prep Water
21504040703	MWQ-2-a	W	Need to Ship to Subcontract Laboratory
21504040703	MWQ-2-a	W	Ship work pending results
21504040801	MWQ-22	W	SM 2540C TDS
21504040801	MWQ-22	W	SM 2320B Alkalinity Water
21504040801	MWQ-22	W	EPA 300.0 Inorganic Anions
21504040801	MWQ-22	W	EPA 6020A
21504040801	MWQ-22	W	EPA 6020A Dissolved
21504040801	MWQ-22	W	EPA 6020A Dissolved Prep
21504040801	MWQ-22	W	EPA 6020A Water Prep
21504040801	MWQ-22	W	EPA 9012B Cyanide Water
21504040801	MWQ-22	W	EPA 9012B Cyanide Prep Water
21504040801	MWQ-22	W	Need to Ship to Subcontract Laboratory
21504040801	MWQ-22	W	Ship work pending results
21504040802	MWQ-22-MS	W	EPA 300.0 Inorganic Anions
21504040802	MWQ-22-MS	W	EPA 6020A
21504040802	MWQ-22-MS	W	EPA 6020A Dissolved
21504040802	MWQ-22-MS	W	EPA 6020A Dissolved Prep

Sample/Test Summary 215040304 (Page 7 of 7)

LabID	SampleID	Matrix	Procedure
21504040802	MWQ-22-MS	W	EPA 6020A Water Prep
21504040802	MWQ-22-MS	W	EPA 9012B Cyanide Water
21504040802	MWQ-22-MS	W	EPA 9012B Cyanide Prep Water
21504040802	MWQ-22-MS	W	Need to Ship to Subcontract Laboratory
21504040802	MWQ-22-MS	W	Ship work pending results
21504040803	MWQ-22-MSD	W	EPA 300.0 Inorganic Anions
21504040803	MWQ-22-MSD	W	EPA 6020A
21504040803	MWQ-22-MSD	W	EPA 6020A Dissolved
21504040803	MWQ-22-MSD	W	EPA 6020A Dissolved Prep
21504040803	MWQ-22-MSD	W	EPA 6020A Water Prep
21504040803	MWQ-22-MSD	W	EPA 9012B Cyanide Water
21504040803	MWQ-22-MSD	W	EPA 9012B Cyanide Prep Water
21504040803	MWQ-22-MSD	W	Need to Ship to Subcontract Laboratory
21504040803	MWQ-22-MSD	W	Ship work pending results

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21504030401	MWQ-24	Water	04/02/2015 12:10	04/03/2015 09:50
21504030402	MWQ-24-C	Water	04/02/2015 12:10	04/03/2015 09:50
21504030403	MA02MW001D	Water	04/02/2015 14:06	04/03/2015 09:50
21504030501	MA01MW002	Water	04/02/2015 09:25	04/03/2015 09:50
21504030502	MA01MW002-C	Water	04/02/2015 09:25	04/03/2015 09:50
21504030503	MA01MW001	Water	04/02/2015 10:20	04/03/2015 09:50
21504030601	MA02MW001D-a	Water	04/02/2015 14:06	04/03/2015 09:50
21504030701	MA01MW004	Water	04/02/2015 09:40	04/03/2015 09:50
21504030702	MA01MW004-c	Water	04/02/2015 09:40	04/03/2015 09:50
21504030703	MA01MW003	Water	04/02/2015 10:59	04/03/2015 09:50
21504040601	MWQ-21	Water	04/03/2015 10:45	04/04/2015 09:45
21504040602	MWQ-20	Water	04/03/2015 12:07	04/04/2015 09:45
21504040603	MWQ-19	Water	04/03/2015 12:10	04/04/2015 09:45
21504040701	MWQ-18	Water	04/03/2015 12:50	04/04/2015 09:45
21504040702	MWQ-2	Water	04/03/2015 14:20	04/04/2015 09:45
21504040703	MWQ-2-a	Water	04/03/2015 14:20	04/04/2015 09:45
21504040801	MWQ-22	Water	04/03/2015 09:35	04/04/2015 09:45
21504040802	MWQ-22-MS	Water	04/03/2015 09:35	04/04/2015 09:45
21504040803	MWQ-22-MSD	Water	04/03/2015 09:35	04/04/2015 09:45

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030401

Lab File ID: 2150406/m4449

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2006

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030401

Lab File ID: 2150406/m4449

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2006

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030401

Lab File ID: 2150406/m4449

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2006

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030402

Lab File ID: 2150406/m4450

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2029

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030402

Lab File ID: 2150406/m4450

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2029

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MWQ-24-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030402

Lab File ID: 2150406/m4450

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2029

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030403

Lab File ID: 2150406/m4451

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2051

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030403

Lab File ID: 2150406/m4451

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2051

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030403

Lab File ID: 2150406/m4451

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2051

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030501

Lab File ID: 2150406/m4452

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030501

Lab File ID: 2150406/m4452

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030501

Lab File ID: 2150406/m4452

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2114

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030502

Lab File ID: 2150406/m4453

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2136

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030502

Lab File ID: 2150406/m4453

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2136

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW002-C

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030502

Lab File ID: 2150406/m4453

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Analyzed: 04/06/15 Time: 2136

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030503

Lab File ID: 2150408/g2654

Date Collected: 04/02/15 Time: 1020

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1426

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030503

Lab File ID: 2150408/g2654

Date Collected: 04/02/15 Time: 1020

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1426

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030503

Lab File ID: 2150408/g2654

Date Collected: 04/02/15 Time: 1020

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1426

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030601

Lab File ID: 2150408/g2655

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1447

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030601

Lab File ID: 2150408/g2655

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1447

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.345	J	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA02MW001D-a

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030601

Lab File ID: 2150408/g2655

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1447

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030701

Lab File ID: 2150408/g2656

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1508

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030701

Lab File ID: 2150408/g2656

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1508

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030701

Lab File ID: 2150408/g2656

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1508

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030702

Lab File ID: 2150408/g2657

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1530

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030702

Lab File ID: 2150408/g2657

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1530

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW004-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030702

Lab File ID: 2150408/g2657

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1530

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030703

Lab File ID: 2150408/g2658

Date Collected: 04/02/15 Time: 1059

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1551

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030703

Lab File ID: 2150408/g2658

Date Collected: 04/02/15 Time: 1059

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1551

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MA01MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504030703

Lab File ID: 2150408/g2658

Date Collected: 04/02/15 Time: 1059

Date Received: 04/03/15

Date Analyzed: 04/08/15 Time: 1551

Dilution Factor: 1 Analyst: JCK

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1431562

Lab File ID: 2150406/m4440

Date Collected: Time:

Date Received:

Date Analyzed: 04/06/15 Time: 1643

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.193	U	0.193	5.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1431562

Lab File ID: 2150406/m4440

Date Collected: Time:

Date Received:

Date Analyzed: 04/06/15 Time: 1643

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.111	U	0.111	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
108-88-3	Toluene	0.122	U	0.122	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1431562

Lab File ID: 2150406/m4440

Date Collected: Time:

Date Received:

Date Analyzed: 04/06/15 Time: 1643

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.083	U	0.083	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1432379

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1432379

Lab File ID: 2150408/g2653D

Date Collected: Time:

Date Received:

Date Analyzed: 04/08/15 Time: 1405

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.193	U	0.193	5.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1432379

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1432379

Lab File ID: 2150408/g2653D

Date Collected: Time:

Date Received:

Date Analyzed: 04/08/15 Time: 1405

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.111	U	0.111	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
108-88-3	Toluene	0.122	U	0.122	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1432379

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV11

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1432379

Lab File ID: 2150408/g2653D

Date Collected: Time:

Date Received:

Date Analyzed: 04/08/15 Time: 1405

Dilution Factor: 1 Analyst: LBH

Prep Batch: Analytical Batch: 555851

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.083	U	0.083	1.00

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 8260B

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	MWQ-24	96		101		105		99		0
2.	MA01MW003	102		103		109		102		0
3.	LCS1431563	100		99		100		97		0
4.	LCS1432380	112		101		100		98		0
5.	LCSD1431564	101		101		101		102		0
6.	LCSD1432381	110		100		100		97		0
7.	MB1431562	96		99		104		97		0
8.	MB1432379	103		104		108		101		0
9.	MWQ-24-C	98		99		105		100		0
10.	MA02MW001D	99		100		102		99		0
11.	MA01MW002	97		98		103		98		0
12.	MA01MW002-C	98		99		105		98		0
13.	MA01MW001	104		103		107		101		0
14.	MA02MW001D-a	102		102		107		101		0
15.	MA01MW004	103		103		106		101		0
16.	MA01MW004-c	104		103		108		101		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	75 - 120
SMC 2	Dibromofluoromethane	85 - 115
SMC 3	Toluene-d8	85 - 120
SMC 4	1,2-Dichloroethane-d4	70 - 120

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555851

SAMPLE NO. : 1432380

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	54.1	108		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	46.9	94		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	48.1	96		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	52.1	104		75 - 125
1,1-Dichloroethane	ug/L	50	0	47.6	95		70 - 135
1,1-Dichloroethene	ug/L	50	0	41.3	83		70 - 130
1,1-Dichloropropene	ug/L	50	0	48.8	98		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	57.5	115		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	47.1	94		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	58.1	116		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	53	106		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	54.1	108		50 - 130
1,2-Dibromoethane	ug/L	50	0	54.5	109		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	51.6	103		70 - 120
1,2-Dichloroethane	ug/L	50	0	49.4	99		70 - 130
1,2-Dichloropropane	ug/L	50	0	49.7	99		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	51.5	103		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	50.7	101		75 - 125
1,3-Dichloropropane	ug/L	50	0	52.5	105		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	48.8	98		75 - 125
2,2-Dichloropropane	ug/L	50	0	48.6	97		70 - 135
2-Butanone	ug/L	50	0	53.1	106		30 - 150
2-Chlorotoluene	ug/L	50	0	49.9	100		75 - 125
2-Hexanone	ug/L	50	0	56.5	113		55 - 130
4-Chlorotoluene	ug/L	50	0	51.4	103		75 - 130
4-Isopropyltoluene	ug/L	50	0	52.2	104		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	55.5	111		60 - 135
Acetone	ug/L	50	0	43.8	88		40 - 140
Benzene	ug/L	50	0	49.9	100		80 - 120
Bromobenzene	ug/L	50	0	47.7	95		75 - 125
Bromochloromethane	ug/L	50	0	53	106		65 - 130
Bromodichloromethane	ug/L	50	0	50.4	101		75 - 120
Bromoform	ug/L	50	0	56.6	113		70 - 130
Bromomethane	ug/L	50	0	47.7	95		30 - 145
Carbon disulfide	ug/L	50	0	41.2	82		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555851

Carbon tetrachloride	ug/L	50	0	48.3	97		65 - 140
Chlorobenzene	ug/L	50	0	50	100		80 - 120
Chloroethane	ug/L	50	0	43.1	86		60 - 135
Chloroform	ug/L	50	0	48.9	98		65 - 135
Chloromethane	ug/L	50	0	46.1	92		40 - 125
Dibromomethane	ug/L	50	0	51.9	104		75 - 125
Dichlorodifluoromethane	ug/L	50	0	45.2	90		30 - 155
Ethylbenzene	ug/L	50	0	51.9	104		75 - 125
Hexachlorobutadiene	ug/L	50	0	53	106		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	49.3	99		75 - 125
Methylene chloride	ug/L	50	0	40.1	80		55 - 140
Naphthalene	ug/L	50	0	50.4	101		55 - 140
Styrene	ug/L	50	0	51.3	103		65 - 135
Tetrachloroethene	ug/L	50	0	50.7	101		45 - 150
Toluene	ug/L	50	0	48.9	98		75 - 120
Trichloroethene	ug/L	50	0	50.1	100		70 - 125
Trichlorofluoromethane	ug/L	50	0	41.6	83		60 - 145
Vinyl chloride	ug/L	50	0	41.7	83		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	49.6	99		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	47.5	95		70 - 130
m,p-Xylene	ug/L	100	0	97.8	98		75 - 130
n-Butylbenzene	ug/L	50	0	49.9	100		70 - 135
n-Propylbenzene	ug/L	50	0	48.3	97		70 - 130
o-Xylene	ug/L	50	0	51	102		80 - 120
sec-Butylbenzene	ug/L	50	0	50.7	101		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	45.6	91		65 - 125
tert-Butylbenzene	ug/L	50	0	50.7	101		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	42.1	84		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	47.6	95		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555851

SAMPLE NO. : 1432381

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
1,1,1,2-Tetrachloroethane	ug/L	50	52	104		4		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	45.2	90		4		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	48.1	96		0		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	51.1	102		2		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	45.2	90		5		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	39	78		6		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	45.9	92		6		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	56.3	113		2		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	46.9	94		.4		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	56.7	113		2		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	51.6	103		3		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	54.3	109		.4		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	53.9	108		1		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	50	100		3		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	48.6	97		2		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	47.3	95		5		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	49.7	99		4		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	49.2	98		3		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	51.2	102		3		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	47	94		4		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	45.1	90		7		70 - 135	0 - 30
2-Butanone	ug/L	50	52.7	105		.8		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	48.4	97		3		75 - 125	0 - 30
2-Hexanone	ug/L	50	56	112		.9		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	49.6	99		4		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	50.6	101		3		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	54.2	108		2		60 - 135	0 - 30
Acetone	ug/L	50	43.3	87		1		40 - 140	0 - 30
Benzene	ug/L	50	48	96		4		80 - 120	0 - 30
Bromobenzene	ug/L	50	46.6	93		2		75 - 125	0 - 30
Bromochloromethane	ug/L	50	52.1	104		2		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	48.4	97		4		75 - 120	0 - 30
Bromoform	ug/L	50	55.5	111		2		70 - 130	0 - 30
Bromomethane	ug/L	50	46.2	92		3		30 - 145	0 - 30
Carbon disulfide	ug/L	50	38.5	77		7		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555851

Carbon tetrachloride	ug/L	50	46.1	92		5		65 - 140	0 - 30
Chlorobenzene	ug/L	50	48.2	96		4		80 - 120	0 - 30
Chloroethane	ug/L	50	41.2	82		5		60 - 135	0 - 30
Chloroform	ug/L	50	46.7	93		5		65 - 135	0 - 30
Chloromethane	ug/L	50	43.3	87		6		40 - 125	0 - 30
Dibromomethane	ug/L	50	50.4	101		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	42.8	86		5		30 - 155	0 - 30
Ethylbenzene	ug/L	50	49.4	99		5		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	50.9	102		4		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	47.5	95		4		75 - 125	0 - 30
Methylene chloride	ug/L	50	38.4	77		4		55 - 140	0 - 30
Naphthalene	ug/L	50	49.8	100		1		55 - 140	0 - 30
Styrene	ug/L	50	50	100		3		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	49.1	98		3		45 - 150	0 - 30
Toluene	ug/L	50	47.4	95		3		75 - 120	0 - 30
Trichloroethene	ug/L	50	48	96		4		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	39.4	79		5		60 - 145	0 - 30
Vinyl chloride	ug/L	50	39.1	78		6		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	47.9	96		3		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	45.8	92		4		70 - 130	0 - 30
m,p-Xylene	ug/L	100	95.6	96		2		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	47.9	96		4		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	46.4	93		4		70 - 130	0 - 30
o-Xylene	ug/L	50	49.3	99		3		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	48.9	98		4		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	43.9	88		4		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	49.5	99		2		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	39.9	80		5		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	45.8	92		4		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555683

SAMPLE NO. : 1431563

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	50.8	102		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	50	100		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	50.2	100		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	50.9	102		75 - 125
1,1-Dichloroethane	ug/L	50	0	50.7	101		70 - 135
1,1-Dichloroethene	ug/L	50	0	52.6	105		70 - 130
1,1-Dichloropropene	ug/L	50	0	51.2	102		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	54.3	109		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	53.4	107		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	57.3	115		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	53.9	108		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	52.3	105		50 - 130
1,2-Dibromoethane	ug/L	50	0	55.9	112		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	52	104		70 - 120
1,2-Dichloroethane	ug/L	50	0	50.1	100		70 - 130
1,2-Dichloropropane	ug/L	50	0	54.3	109		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	53.5	107		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	51.4	103		75 - 125
1,3-Dichloropropane	ug/L	50	0	52.7	105		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	51.2	102		75 - 125
2,2-Dichloropropane	ug/L	50	0	50.9	102		70 - 135
2-Butanone	ug/L	50	0	49.9	100		30 - 150
2-Chlorotoluene	ug/L	50	0	50.9	102		75 - 125
2-Hexanone	ug/L	50	0	52.4	105		55 - 130
4-Chlorotoluene	ug/L	50	0	53.1	106		75 - 130
4-Isopropyltoluene	ug/L	50	0	55.1	110		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	55.7	111		60 - 135
Acetone	ug/L	50	0	51.8	104		40 - 140
Benzene	ug/L	50	0	49.6	99		80 - 120
Bromobenzene	ug/L	50	0	51.3	103		75 - 125
Bromochloromethane	ug/L	50	0	48	96		65 - 130
Bromodichloromethane	ug/L	50	0	51.4	103		75 - 120
Bromoform	ug/L	50	0	53.4	107		70 - 130
Bromomethane	ug/L	50	0	52.9	106		30 - 145
Carbon disulfide	ug/L	50	0	51.5	103		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555683

Carbon tetrachloride	ug/L	50	0	50.8	102		65	-	140
Chlorobenzene	ug/L	50	0	51.2	102		80	-	120
Chloroethane	ug/L	50	0	49.7	99		60	-	135
Chloroform	ug/L	50	0	50	100		65	-	135
Chloromethane	ug/L	50	0	56.4	113		40	-	125
Dibromomethane	ug/L	50	0	49.2	98		75	-	125
Dichlorodifluoromethane	ug/L	50	0	51.1	102		30	-	155
Ethylbenzene	ug/L	50	0	51.1	102		75	-	125
Hexachlorobutadiene	ug/L	50	0	53.7	107		50	-	140
Isopropylbenzene (Cumene)	ug/L	50	0	53	106		75	-	125
Methylene chloride	ug/L	50	0	49.6	99		55	-	140
Naphthalene	ug/L	50	0	53.4	107		55	-	140
Styrene	ug/L	50	0	54.5	109		65	-	135
Tetrachloroethene	ug/L	50	0	50.5	101		45	-	150
Toluene	ug/L	50	0	51	102		75	-	120
Trichloroethene	ug/L	50	0	52.4	105		70	-	125
Trichlorofluoromethane	ug/L	50	0	49.8	100		60	-	145
Vinyl chloride	ug/L	50	0	55.5	111		50	-	145
cis-1,2-Dichloroethene	ug/L	50	0	52.3	105		70	-	125
cis-1,3-Dichloropropene	ug/L	50	0	47.9	96		70	-	130
m,p-Xylene	ug/L	100	0	104	104		75	-	130
n-Butylbenzene	ug/L	50	0	54.6	109		70	-	135
n-Propylbenzene	ug/L	50	0	52.5	105		70	-	130
o-Xylene	ug/L	50	0	52.1	104		80	-	120
sec-Butylbenzene	ug/L	50	0	51.9	104		70	-	125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	49.4	99		65	-	125
tert-Butylbenzene	ug/L	50	0	52.6	105		70	-	130
trans-1,2-Dichloroethene	ug/L	50	0	50.9	102		60	-	140
trans-1,3-Dichloropropene	ug/L	50	0	45.4	91		55	-	140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555683

SAMPLE NO. : 1431564

COMPOUND	UNITS	SPIKE ADDED	LCSD CONC.	LCSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
1,1,1,2-Tetrachloroethane	ug/L	50	50.3	101		1		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	48.4	97		3		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	47.8	96		5		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	52.4	105		3		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	48.8	98		4		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	47.9	96		9		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	50.8	102		.8		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	51.7	103		5		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	50.8	102		5		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	56.1	112		2		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	50.7	101		6		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	52.8	106		1		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	55.4	111		.9		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	49.3	99		5		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	50.5	101		.8		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	53.6	107		1		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	49.4	99		8		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	49.4	99		4		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	52.8	106		.2		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	48.6	97		5		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	48.2	96		5		70 - 135	0 - 30
2-Butanone	ug/L	50	50.8	102		2		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	47.3	95		7		75 - 125	0 - 30
2-Hexanone	ug/L	50	51.6	103		2		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	49.9	100		6		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	51.1	102		8		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	55.2	110		.9		60 - 135	0 - 30
Acetone	ug/L	50	50.8	102		2		40 - 140	0 - 30
Benzene	ug/L	50	49	98		1		80 - 120	0 - 30
Bromobenzene	ug/L	50	48.4	97		6		75 - 125	0 - 30
Bromochloromethane	ug/L	50	46.8	94		3		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	50.7	101		1		75 - 120	0 - 30
Bromoform	ug/L	50	51.7	103		3		70 - 130	0 - 30
Bromomethane	ug/L	50	50.9	102		4		30 - 145	0 - 30
Carbon disulfide	ug/L	50	47.8	96		7		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Analytical Batch: 555683

Carbon tetrachloride	ug/L	50	48.3	97		5		65 - 140	0 - 30
Chlorobenzene	ug/L	50	49	98		4		80 - 120	0 - 30
Chloroethane	ug/L	50	46.6	93		6		60 - 135	0 - 30
Chloroform	ug/L	50	49.7	99		.6		65 - 135	0 - 30
Chloromethane	ug/L	50	50.9	102		10		40 - 125	0 - 30
Dibromomethane	ug/L	50	47.7	95		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	48.3	97		6		30 - 155	0 - 30
Ethylbenzene	ug/L	50	49.2	98		4		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	50.6	101		6		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	50.1	100		6		75 - 125	0 - 30
Methylene chloride	ug/L	50	47.3	95		5		55 - 140	0 - 30
Naphthalene	ug/L	50	54	108		1		55 - 140	0 - 30
Styrene	ug/L	50	51.8	104		5		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	48.5	97		4		45 - 150	0 - 30
Toluene	ug/L	50	49.2	98		4		75 - 120	0 - 30
Trichloroethene	ug/L	50	50.8	102		3		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	46.5	93		7		60 - 145	0 - 30
Vinyl chloride	ug/L	50	51.8	104		7		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	51.9	104		.8		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	46.4	93		3		70 - 130	0 - 30
m,p-Xylene	ug/L	100	97.9	98		6		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	49.9	100		9		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	48.4	97		8		70 - 130	0 - 30
o-Xylene	ug/L	50	50.1	100		4		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	48.2	96		7		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	49.5	99		.2		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	47.2	94		11		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	49.1	98		4		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	44.5	89		2		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID: 2150406/m4440 Lab Sample ID: 1431562 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 04/06/15 Time: 1643

Instrument ID: MSV12 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 555683

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1431563	1431563	2150406/m4436	04/06/15	1512
2.	LCSD1431564	1431564	2150406/m4437	04/06/15	1535
3.	MWQ-24	21504030401	2150406/m4449	04/06/15	2006
4.	MWQ-24-C	21504030402	2150406/m4450	04/06/15	2029
5.	MA02MW001D	21504030403	2150406/m4451	04/06/15	2051
6.	MA01MW002	21504030501	2150406/m4452	04/06/15	2114
7.	MA01MW002-C	21504030502	2150406/m4453	04/06/15	2136

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1432379

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID: 2150408/g2653D

Lab Sample ID: 1432379 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 04/08/15 Time: 1405

Instrument ID: MSV11 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 555851

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1432380	1432380	2150408/g2646D	04/08/15	1137
2.	LCSD1432381	1432381	2150408/g2647D	04/08/15	1158
3.	MA01MW001	21504030503	2150408/g2654	04/08/15	1426
4.	MA02MW001D-a	21504030601	2150408/g2655	04/08/15	1447
5.	MA01MW004	21504030701	2150408/g2656	04/08/15	1508
6.	MA01MW004-c	21504030702	2150408/g2657	04/08/15	1530
7.	MA01MW003	21504030703	2150408/g2658	04/08/15	1551

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID: 2150406q/g2545 BFB Injection Date: 04/06/15

Instrument ID: MSV11 BFB Injection Time: 2021

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555902

m / e	*ION ABUNDANCE CRITERIA*	*% Relative Abundance*			
50	15.0 - 40.0% of mass 95	20.34	(	)	
75	30.0 - 60.0% of mass 95	50.95	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	7.15	(	)	
173	Less than 2.0% of mass 174	1.22	(1.35	)	1
174	50.0 - 120.0% of mass 95	90.59	(	)	
175	5.0 - 9.0% of mass 174	6.89	(7.61	)	1
176	95.0 - 101.0% of mass 174	87.36	(96.44	)	1
177	5.0 - 9.0% of mass 176	6.05	(6.93	)	2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	*LAB SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	V11STD001	1203	2150406q/g2547	04/06/15	2128
2.	V11STD005	1204	2150406q/g2548	04/06/15	2149
3.	V11STD010	1205	2150406q/g2549	04/06/15	2210
4.	V11STD020	1206	2150406q/g2550	04/06/15	2232
5.	V11STD050	1207	2150406q/g2551	04/06/15	2253
6.	V11STD100	1208	2150406q/g2553	04/06/15	2335
7.	V11STD200	1209	2150406q/g2555	04/07/15	0017
8.	ICV050	1600	2150406q/g2557	04/07/15	0059

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL

Contract:

Lab Code: LA024 Case No.:

SAS No.: SDG No.: 215040304

Lab File ID: 2150408/g2643D

BFB Injection Date: 04/08/15

Instrument ID: MSV11

BFB Injection Time: 1012

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555851

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	19.25	(	)	
75	30.0 - 60.0% of mass 95	48.46	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.84	(	)	
173	Less than 2.0% of mass 174	1.13	(1.2	)	1
174	50.0 - 120.0% of mass 95	94.22	(	)	
175	5.0 - 9.0% of mass 174	6.91	(7.34	)	1
176	95.0 - 101.0% of mass 174	90.65	(96.22	)	1
177	5.0 - 9.0% of mass 176	5.81	(6.42	)	2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V11STD050	1400	2150408/g2645D	04/08/15	1116
2.	LCS1432380	1432380	2150408/g2646D	04/08/15	1137
3.	LCSD1432381	1432381	2150408/g2647D	04/08/15	1158
4.	MB1432379	1432379	2150408/g2653D	04/08/15	1405
5.	MA01MW001	21504030503	2150408/g2654	04/08/15	1426
6.	MA02MW001D-a	21504030601	2150408/g2655	04/08/15	1447
7.	MA01MW004	21504030701	2150408/g2656	04/08/15	1508
8.	MA01MW004-c	21504030702	2150408/g2657	04/08/15	1530
9.	MA01MW003	21504030703	2150408/g2658	04/08/15	1551

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID: 2150406/m4423d BFB Injection Date: 04/06/15

Instrument ID: MSV12 BFB Injection Time: 0949

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555683

m / e	*ION ABUNDANCE CRITERIA*	*% Relative Abundance*			
50	15.0 - 40.0% of mass 95	19.4	(	)	
75	30.0 - 60.0% of mass 95	52.13	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	5.94	(	)	
173	Less than 2.0% of mass 174	.89	(.8	)	1
174	50.0 - 120.0% of mass 95	111.7	(	)	
175	5.0 - 9.0% of mass 174	8.34	(7.47	)	1
176	95.0 - 101.0% of mass 174	108.4	(97.05	)	1
177	5.0 - 9.0% of mass 176	6.99	(6.45	)	2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	*LAB SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	V12STD001	1203	2150406/m4425d	04/06/15	1104
2.	V12STD005	1204	2150406/m4426d	04/06/15	1126
3.	V12STD010	1205	2150406/m4427d	04/06/15	1149
4.	V12STD020	1206	2150406/m4428d	04/06/15	1211
5.	V12STD050	1207	2150406/m4429d	04/06/15	1234
6.	V12STD100	1208	2150406/m4431d	04/06/15	1319
7.	V12STD200	1209	2150406/m4433d	04/06/15	1404
8.	ICV050	1600	2150406/m4435d	04/06/15	1450
9.	LCS1431563	1431563	2150406/m4436	04/06/15	1512
10.	LCSD1431564	1431564	2150406/m4437	04/06/15	1535
11.	MB1431562	1431562	2150406/m4440	04/06/15	1643
12.	MWQ-24	21504030401	2150406/m4449	04/06/15	2006
13.	MWQ-24-C	21504030402	2150406/m4450	04/06/15	2029
14.	MA02MW001D	21504030403	2150406/m4451	04/06/15	2051
15.	MA01MW002	21504030501	2150406/m4452	04/06/15	2114
16.	MA01MW002-C	21504030502	2150406/m4453	04/06/15	2136

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Calibration File Names:
Level 3: /var/chem/msv11.i/2150406q.s.b/g2547d.d
Level 4: /var/chem/msv11.i/2150406q.s.b/g2548d.d
Level 5: /var/chem/msv11.i/2150406q.s.b/g2549d.d
Level 6: /var/chem/msv11.i/2150406q.s.b/g2550d.d
Level 7: /var/chem/msv11.i/2150406q.s.b/g2551d.d
Level 8: /var/chem/msv11.i/2150406q.s.b/g2553d.d
Level 9: /var/chem/msv11.i/2150406q.s.b/g2555d.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
1 Dichlorodifluoromethane	0.34778	0.37324	0.34960	0.32990	0.34537	0.28972					
	0.29062						AVRG		0.33232		9.46938
4 1-3 Butadiene	0.20229	0.21506	0.27906	0.29771	0.28025	0.25254					
	0.26054						AVRG		0.25535		13.79921
2 Chloromethane ++	0.36276	0.35956	0.33309	0.32779	0.32223	0.28603					
	0.29000						AVRG		0.32592		9.23734
3 Vinyl Chloride +	0.49417	0.44501	0.43116	0.43137	0.43452	0.37830					
	0.38538						AVRG		0.42856		9.04521

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 Bromomethane	0.24862	0.22790	0.21163	0.21460	0.23695	0.21729	0.24564	AVRG		0.22895		6.60536	
6 Chloroethane	3384	12967	26362	50735	147205	292505	+++++	LINR	-0.02606	0.30492		0.99747	
9 Trichlorofluoromethane	0.57124	0.56166	0.56265	0.52731	0.55472	0.49636	0.55367	AVRG		0.54680		4.78238	
7 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
12 Ethyl Ether	0.29871	0.34010	0.41183	0.40033	0.40497	0.42299	0.41804	AVRG		0.38528		12.24311	
156 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
13 1,1-Dichloroethene +	0.40371	0.35035	0.33826	0.33248	0.33437	0.30895	0.33662	AVRG		0.34353		8.52461	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
21 Carbon Disulfide	1.34013	1.09862	1.12327	1.09487	1.14120	1.07435					
	1.18161						AVRG		1.15058		7.88130
19 1,1,2Trichlotrifluoroethane	0.41522	0.35304	0.35055	0.32111	0.33774	0.30590					
	0.32837						AVRG		0.34456		10.22894
14 Methyl Iodide	1583	7077	16004	34752	116479	275662					
	639821						LINR	0.09165	0.31896		0.99715
17 Allyl chloride	0.39068	0.39366	0.45714	0.44826	0.43715	0.41426					
	0.37631						AVRG		0.41678		7.52106
8 Acrolein	0.02757	0.02770	0.02680	0.02591	0.02638	0.02390					
	0.02659						AVRG		0.02641		4.82268
18 Methylene Chloride	0.78909	0.65258	0.63423	0.59367	0.56918	0.52771					
	0.54140						AVRG		0.61541		14.48515
11 Acetone	+++++	0.27718	0.28583	0.26945	0.23237	0.21481					
	0.20859						AVRG		0.24804		13.54308

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
15 tert-Butyl Alcohol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 trans-1,2-Dichloroethene	0.59667 0.53161	0.53785	0.56551	0.53337	0.53851	0.50225	AVRG		0.54368		5.47367
20 Methyl Acetate	0.52240 0.39939	0.47875	0.45443	0.43006	0.45414	0.37427	AVRG		0.44478		11.09401
32 Hexane	0.67535 0.56772	0.59395	0.57851	0.53862	0.59918	0.53615	AVRG		0.58421		8.06428
10 Acetonitrile	+++++ 0.04406	0.04684	0.04230	0.05495	0.04933	0.04210	AVRG		0.04660		10.62153
25 MTBE	1.12603 1.08786	1.11299	1.11403	1.09935	1.09842	1.04473	AVRG		1.09763		2.41282
152 Ethyl Tert-butyl Ether	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00 <-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
28 Isopropyl Ether	0.96527	0.65936	0.69329	0.82646	0.83526	0.86551	0.89816	AVRG		0.82047		13.29725	
27 Chloroprene	2054	9674	23109	58267	158211	362712	849406	LINR	0.06271	0.40866		0.99865	
26 1,1-Dichloroethane ++	0.53056	0.53574	0.51049	0.49743	0.51481	0.49204	0.52076	AVRG		0.51455		3.13403	
16 Acrylonitrile	0.10071	0.11288	0.10890	0.11422	0.12221	0.12048	0.12181	AVRG		0.11446		6.88815	
29 Vinyl Acetate	0.19309	0.19250	0.17987	0.17718	0.22557	0.21492	0.20349	AVRG		0.19809		8.96521	
154 Tert-butyl formate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
157 1,3-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
153 tert-amyl Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
23 cis-1,2-Dichloroethene	0.34176	0.33772	0.33353	0.34355	0.36495	0.36349	0.39360	AVRG		0.35408		6.01393	
M 80 Total 1,2-Dichloroethene	0.46921	0.43779	0.44952	0.43846	0.45173	0.43287	0.46260	AVRG		0.44888		3.01398	
38 2,2-Dichloropropane	0.38886	0.35725	0.35585	0.35494	0.38641	0.37279	0.38818	AVRG		0.37204		4.28275	
53 Ethyl Acetate	+++++	0.29868	0.36255	0.38988	0.42720	0.42755	0.44092	AVRG		0.39113		13.75515	
35 Tetrahydrofuran	0.08141	0.08284	0.09845	0.10235	0.11545	0.11375	0.11556	AVRG		0.10140		14.53803	
155 Tert-amyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 06-APR-2015 07:46
End Cal Date : 07-APR-2015 00:17
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
158 1,4-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
45 Cyclohexane	0.37293	0.38026	0.38943	0.41245	0.47696	0.47539	0.51313	AVRG		0.43151		12.98788	
31 sec-butanol	+++++	529	1425	3803	10173	20880	49158	LINR	0.04767	0.02363		0.99852	
36 Bromochloromethane	0.12485	0.14869	0.14027	0.13965	0.13788	0.13332	0.13470	AVRG		0.13705		5.34303	
37 Chloroform +	0.49510	0.48777	0.48619	0.47448	0.49405	0.47906	0.50155	AVRG		0.48832		1.93577	
54 2,2,4 Trimethylpentane	3126	16283	42362	109235	326174	720692	1768445	LINR	0.08541	0.85079		0.99710	
46 Carbon Tetrachloride	0.29760	0.32440	0.31627	0.32028	0.34076	0.33589	0.35787	AVRG		0.32758		5.91243	

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
43 1,1,1-Trichloroethane	0.43047	0.40304	0.38777	0.38144	0.41199	0.39946						
	0.42280						AVRG		0.40528		4.39149	
159 1,2-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
M 161 Total Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
33 2-Butanone	0.17489	0.16767	0.17306	0.18555	0.19124	0.19225						
	0.19361						AVRG		0.18261		5.79131	
24 Propionitrile	0.04279	0.04271	0.04561	0.04965	0.05336	0.05361						
	0.05491						AVRG		0.04895		10.72242	
30 Methylacrylonitrile	+++++	0.13762	0.16063	0.17835	0.19640	0.20258						
	0.20591						AVRG		0.18025		14.93596	
44 1,1-Dichloropropene	0.32597	0.31852	0.31942	0.33013	0.37996	0.38150						
	0.41047						AVRG		0.35228		10.62651	

GCAL, Inc.

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Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
162 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
34 Isobutyl Alcohol	+++++	1849	4212	10417	31477	67944	158923	LINR	0.36040	0.01538		0.99906	<-
47 Benzene	1.07625	1.10695	1.09905	1.13247	1.22015	1.21513	1.27632	AVRG		1.16090		6.53032	
42 1,2-Dichloroethane	0.36691	0.38384	0.37541	0.37342	0.38404	0.37683	0.39024	AVRG		0.37867		2.07150	
61 Methyl Cyclohexane	0.38926	0.40603	0.42073	0.42876	0.50955	0.50374	0.54338	AVRG		0.45735		13.15121	
57 Trichloroethene	0.32757	0.29854	0.30323	0.30646	0.32275	0.31882	0.34097	AVRG		0.31691		4.75728	
40 n-Butanol	+++++	932	2352	5234	17068	38401	95764	LINR	0.61885	0.00930		0.99645	<-

GCAL, Inc.

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Integrator : HP RTE
Method file : /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
48 2-3 Dichloro-1-Proprene	2203 / 932673	11253	26634	62527	176549	398437	LINR	0.05966	0.44850		0.99875
55 Dibromomethane	0.15509 / 0.19474	0.18681	0.18072	0.17793	0.18436	0.18366	AVRG		0.18047		6.86083
52 Methyl methacrylate	1246 / 631765	6241	15252	37733	118078	277051	LINR	0.07291	0.30620		0.99917
51 1,4- Dioxane	676 / 157779	1915	4311	9133	32957	66364	LINR	1.41641	0.00304		0.99791 <-
56 1,2-Dichloropropane +	0.28582 / 0.32261	0.28420	0.28723	0.29151	0.30540	0.30589	AVRG		0.29752		4.78897
58 Bromodichloromethane	0.37909 / 0.40874	0.36197	0.35720	0.36484	0.38540	0.38877	AVRG		0.37800		4.80555
60 1-Bromo-2-chloroethane	+++++ / 0.05141	0.04789	0.04357	0.04685	0.04819	0.04924	AVRG		0.04786		5.44955

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
160 Methyldisulfide	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
62 2-Chloroethyl vinyl ether	578 410944	3800	9298	21839	77475	173827	LINR	0.09715	0.20490		0.99691	
63 cis-1,3-Dichloropropene	2519 1071981	13291	30571	68589	214514	477374	LINR	0.05795	0.53297		0.99891	
49 2-Nitropropane	0.07650 0.09390	0.06690	0.07156	0.07753	0.08193	0.08697	AVRG		0.07933		11.54933	
70 Toluene +	3.41614 2.97457	3.13311	2.99794	2.97599	3.05168	2.95148	AVRG		3.07156		5.33804	
64 Ethyl Methacrylate	1353 647614	5720	14017	35431	114750	275790	LINR	0.08526	0.79298		0.99883	
78 Tetrachloroethene	0.61730 0.55968	0.57654	0.53460	0.53233	0.56781	0.54382	AVRG		0.56173		5.27603	

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8 / 200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2
65 4-methyl-2-pentanone	0.57640 / 0.77987	0.61679	0.61754	0.68524	0.74799	0.76605	AVRG		0.68427		12.01131
66 trans-1,3-Dichloropropene	2634 / 1041080	13325	29019	65145	205986	462598	LINR	0.06136	0.51777		0.99876
M 87 1-3 Dichloropropene total	5153 / 2113061	26616	59590	133734	420500	939972	LINR	0.11926	0.52537		0.99884
67 1,1,2-Trichloroethane	0.68480 / 0.64124	0.71436	0.66518	0.66452	0.67558	0.64340	AVRG		0.66987		3.75980
59 1-Nitropropane	+++++ / 0.12646	0.08354	0.10015	0.10792	0.11836	0.12419	AVRG		0.11010		14.88980
72 Dibromochloromethane	0.68514 / 0.71468	0.67309	0.65889	0.66947	0.70076	0.69957	AVRG		0.68594		2.91556
71 1,3-Dichloropropane	1.07884 / 1.12942	1.12757	1.11581	1.13827	1.16606	1.13144	AVRG		1.12677		2.32662

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GCAL, Inc.

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
151 3,3 Dimethyl-1-butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
74 1,2-Dibromoethane(EDB)	0.59515	0.66058	0.63044	0.64447	0.66458	0.65551	0.66657	AVRG		0.64533		3.94995	
73 2-Hexanone	+++++	0.43898	0.46380	0.51395	0.57752	0.59159	0.59549	AVRG		0.53022		12.86483	
86 1-Chlorohexane	0.98851	0.82316	0.83055	0.86472	0.98296	0.95736	0.98164	AVRG		0.91841		8.22906	
85 Chlorobenzene ++	2.32197	2.13194	2.07478	2.02305	2.10317	2.02827	2.04561	AVRG		2.10411		4.94059	
88 Ethylbenzene +	1.10508	1.05291	1.04173	1.06515	1.14728	1.09700	1.12135	AVRG		1.09007		3.52605	
82 1,1,1,2-Tetrachloroethane	0.64866	0.64562	0.64497	0.64636	0.69278	0.66313	0.67206	AVRG		0.65908		2.74967	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
89 p,m-Xylene	6639	35387	79939	178566	575580	1264295						
	2900163						LINR	0.05755	1.47524		0.99954	
69 3-ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
93 o-Xylene	2678	14297	33456	79422	263933	581658						
	1327980						LINR	0.03571	1.35518		0.99958	
M 120 TOTAL XYLENE	9317	49684	113395	257988	839513	1845953						
	4228143						LINR	0.09286	1.43521		0.99956	
91 Styrene	4415	25826	63606	146828	474689	1047054						
	2344265						LINR	0.02412	2.39355		0.99979	
90 Bromoform ++	0.53209	0.51520	0.49272	0.52829	0.59281	0.57540						
	0.60337						AVRG		0.54855		7.66046	
75 2-ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
96 Isopropylbenzene	6770	38547	91628	214218	728707	1598934					
	3595974						LINR	0.03090	3.67650		0.99965
76 Cyclohexanone	+++++	0.12910	0.14050	0.15204	0.18017	0.17983					
	0.18282						AVRG		0.16074		14.49866
98 Bromobenzene	1.50141	1.36686	1.36197	1.29315	1.33758	1.33688					
	1.39508						AVRG		1.37042		4.80567
100 n-Propylbenzene	3.56450	3.42846	3.48139	3.48836	3.73515	3.76799					
	3.88727						AVRG		3.62187		4.82030
92 1,1,2,2-Tetrachloroethane++	1.01749	1.01458	0.95750	0.91398	0.91776	0.88029					
	0.87174						AVRG		0.93905		6.33936
104 1,3,5-Trimethylbenzene	2.14739	2.29597	2.44212	2.50667	2.70032	2.70672					
	2.81147						AVRG		2.51581		9.56566
94 1,2,3-Trichloropropane	0.87993	0.85795	0.84211	0.80140	0.78718	0.76631					
	0.76553						AVRG		0.81435		5.62058

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Cal Date : 08-Apr-2015 21:05 jck2

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
84 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
95 trans-1,4-Dichloro-2-Butene	0.23787	0.24774	0.25128	0.24739	0.25339	0.25348	0.25108	AVRG		0.24889		2.18069
101 2-Chlorotoluene	2.20915	2.18648	2.19874	2.22040	2.37390	2.36979	2.45959	AVRG		2.28829		4.80610
102 4-Chlorotoluene	1.92161	2.02833	2.09404	2.10746	2.24650	2.19399	2.25847	AVRG		2.12149		5.74832
112 Dicyclopentadiene	6351	36235	85128	212195	617062	1428270	3495818	LINR	0.06122	3.72725		0.99893
105 tert-butylbenzene	1.04037	1.13262	1.20465	1.26437	1.38944	1.38188	1.43130	AVRG		1.26352		11.57846
106 1,2,4-Trimethylbenzene	1.88991	2.27208	2.48349	2.56987	2.76593	2.75830	2.84616	AVRG		2.51225		13.45466

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
81 1-3 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
107 sec-Butylbenzene	2.69861	3.02815	3.16277	3.26929	3.58389	3.56704						
	3.66522						AVRG		3.28214		10.68837	
79 1-4 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
111 p-Isopropyltoluene	2.12680	2.37187	2.52640	2.74460	3.06558	3.01557						
	3.18565						AVRG		2.71950		14.51409	
77 1-2 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
M 121 Total Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
108 1,3-Dichlorobenzene	1.69452	1.59445	1.58941	1.58629	1.65945	1.65611						
	1.70296						AVRG		1.64045		3.05716	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	200 Level 9										
110 1,4-Dichlorobenzene	2.01865 1.73238	1.78174	1.72386	1.67252	1.71988	1.69131	AVRG		1.76291		6.68627
114 n-Butylbenzene	2.29214 2.87180	2.21563	2.32865	2.49033	2.78906	2.76772	AVRG		2.53647		10.64815
113 1,2-Dichlorobenzene	1.55957 1.66706	1.53894	1.56441	1.55503	1.62333	1.63181	AVRG		1.59145		3.05608
115 1,2-Dibromo-3-Chloropropane	0.17873 0.23335	0.20833	0.20207	0.19543	0.21122	0.22697	AVRG		0.20801		8.91418
99 Benzal Chloride	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
118 Hexachlorobutadiene	0.55253 0.51897	0.46797	0.45039	0.45294	0.49956	0.50717	AVRG		0.49279		7.64159
116 1,2,4-Trichlorobenzene	0.95018 1.23845	0.88982	0.93212	0.98934	1.15285	1.20872	AVRG		1.05164		13.69526

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
117 Naphthalene	5629 3828796	32702	84241	216360	766859	1736540	LINR	0.05157	3.43797		0.99972	
103 2-methylnapthalene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
119 1,2,3-Trichlorobenzene	0.93711 1.20795	0.93886	0.97991	1.04451	1.15257	1.18038	AVRG		1.06304		10.95111	
$ 39 Dibromofluoromethane	0.24668 0.25075	0.24898	0.24566	0.24692	0.24736	0.24763	AVRG		0.24771		0.67761	
$ 41 1,2-Dichloroethane-d4	0.15692 0.15522	0.15516	0.15620	0.15409	0.15634	0.15683	AVRG		0.15582		0.66464	
$ 68 Toluene-d8	2.49226 2.11693	2.44453	2.40183	2.36454	2.29119	2.19015	AVRG		2.32877		5.87337	
$ 97 Bromofluorobenzene	0.76406 0.76452	0.76197	0.76362	0.77750	0.81477	0.77883	AVRG		0.77504		2.43174	

Data File: /var/chem/msv11.i/2150406q.s.b/g2557d.d
Report Date: 08-Apr-2015 21:05

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: ICV.spk
Sublist File: 8260b.sub
Client SDG: 2150406q.s
Fraction: VOA
Client Smp ID: ICV050
Operator: CLH
SampleType: LCS
Quant Type: ISTD
Method File: /var/chem/msv11.i/2150406q.s.b/8260bw11dod.m
Misc Info: MSV~33130~*1*CLH

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1 Dichlorodifluoromethane	50.0	45.3	90.51	80-120
	2 Chloromethane ++	50.0	44.4	88.86	80-120
	3 Vinyl Chloride +	50.0	44.6	89.21	80-120
	5 Bromomethane	50.0	47.3	94.65	80-120
	6 Chloroethane	50.0	45.7	91.37	80-120
	9 Trichlorofluoromethane	50.0	46.0	91.95	80-120
	13 1,1-Dichloroethene +	50.0	44.6	89.23	80-120
	21 Carbon Disulfide	50.0	46.3	92.51	80-120
	19 1,1,2Trichlotrifluoroethane	50.0	44.3	88.61	80-120
	14 Methyl Iodide	50.0	42.2	84.47	80-120
	8 Acrolein	250	249	99.47	80-120
	18 Methylene Chloride	50.0	43.1	86.12	80-120
	11 Acetone	50.0	42.9	85.90	80-120
	22 trans-1,2-Dichloroethene	50.0	44.3	88.66	80-120
	20 Methyl Acetate	50.0	43.2	86.34	80-120
	32 Hexane	50.0	44.5	89.05	80-120
	25 MTBE	50.0	46.6	93.15	80-120
	26 1,1-Dichloroethane ++	50.0	46.7	93.38	80-120
	16 Acrylonitrile	250	244	97.51	80-120
	29 Vinyl Acetate	50.0	47.0	93.97	80-120
	23 cis-1,2-Dichloroethene	50.0	48.8	97.68	80-120
	38 2,2-Dichloropropane	50.0	48.3	96.69	80-120
	45 Cyclohexane	50.0	51.6	103.19	80-120
	36 Bromochloromethane	50.0	47.8	95.55	80-120
	37 Chloroform +	50.0	47.3	94.62	80-120
	46 Carbon Tetrachloride	50.0	48.8	97.60	80-120
	43 1,1,1-Trichloroethane	50.0	47.4	94.82	80-120
	33 2-Butanone	50.0	50.9	101.86	80-120
	44 1,1-Dichloropropene	50.0	50.0	99.92	80-120
	47 Benzene	50.0	49.7	99.39	80-120
	42 1,2-Dichloroethane	50.0	48.6	97.24	80-120
M	80 Total 1,2-Dichloroethene	100	93.2	93.17	80-120
	61 Methyl Cyclohexane	50.0	52.0	104.06	80-120

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	57 Trichloroethene	50.0	48.2	96.31	80-120
	55 Dibromomethane	50.0	49.3	98.63	80-120
	56 1,2-Dichloropropane +	50.0	48.6	97.25	80-120
	58 Bromodichloromethane	50.0	49.4	98.76	80-120
	60 1-Bromo-2-chloroethane	50.0	49.2	98.45	80-120
	63 cis-1,3-Dichloropropene	50.0	46.6	93.22	80-120
	70 Toluene +	50.0	47.2	94.37	80-120
	78 Tetrachloroethene	50.0	47.5	94.95	80-120
	65 4-methyl-2-pentanone	50.0	54.5	109.01	80-120
	66 trans-1,3-Dichloropropene	50.0	46.6	93.24	80-120
	67 1,1,2-Trichloroethane	50.0	48.6	97.20	80-120
	72 Dibromochloromethane	50.0	50.0	100.00	80-120
	71 1,3-Dichloropropane	50.0	50.2	100.34	80-120
	74 1,2-Dibromoethane(EDB)	50.0	51.3	102.51	80-120
	73 2-Hexanone	50.0	52.6	105.22	80-120
M	87 1-3 Dichloropropene total	100	93.2	93.23	80-120
	86 1-Chlorohexane	50.0	52.0	104.03	80-120
	85 Chlorobenzene ++	50.0	47.7	95.40	80-120
	88 Ethylbenzene +	50.0	49.9	99.79	80-120
	82 1,1,1,2-Tetrachloroethane	50.0	51.0	102.02	80-120
	89 p,m-Xylene	100	96.5	96.51	80-120
	93 o-Xylene	50.0	48.4	96.79	80-120
	91 Styrene	50.0	49.9	99.72	80-120
	90 Bromoform ++	50.0	53.4	106.81	80-120
	96 Isopropylbenzene	50.0	49.0	98.07	80-120
M	120 TOTAL XYLENE	150	145	96.60	80-120
	98 Bromobenzene	50.0	46.6	93.25	80-120
	100 n-Propylbenzene	50.0	48.6	97.21	80-120
	92 1,1,2,2-Tetrachloroethane++	50.0	48.2	96.34	80-120
	101 2-Chlorotoluene	50.0	49.2	98.44	80-120
	104 1,3,5-Trimethylbenzene	50.0	50.9	101.73	80-120
	94 1,2,3-Trichloropropane	50.0	48.3	96.62	80-120
	95 trans-1,4-Dichloro-2-Butene	50.0	50.6	101.19	80-120
	102 4-Chlorotoluene	50.0	50.3	100.63	80-120
	105 tert-butylbenzene	50.0	51.5	102.96	80-120
	106 1,2,4-Trimethylbenzene	50.0	52.5	104.92	80-120
	107 sec-Butylbenzene	50.0	51.5	102.94	80-120
	111 p-Isopropyltoluene	50.0	53.3	106.62	80-120
	108 1,3-Dichlorobenzene	50.0	49.0	97.90	80-120
	110 1,4-Dichlorobenzene	50.0	47.0	93.93	80-120
	114 n-Butylbenzene	50.0	51.4	102.88	80-120
	113 1,2-Dichlorobenzene	50.0	49.4	98.77	80-120
	115 1,2-Dibromo-3-Chloropropane	50.0	52.8	105.55	80-120
	118 Hexachlorobutadiene	50.0	49.1	98.20	80-120
	116 1,2,4-Trichlorobenzene	50.0	53.3	106.68	80-120
	117 Naphthalene	50.0	48.4	96.85	80-120
	119 1,2,3-Trichlorobenzene	50.0	53.3	106.57	80-120

Data File: /var/chem/msv11.i/2150408.s.b/g2645D.d
Report Date: 08-Apr-2015 21:07

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv11.i
Lab File ID: g2645D.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv11.i/2150408.s.b/8260bw11dod.m

Injection Date: 08-APR-2015 11:16
Init. Cal. Date(s): 06-APR-2015 07-APR-2015
Init. Cal. Times: 07:46 00:17
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Dichlorodifluoromethane	0.33232	0.31218	0.31218	0.010	-6.06151	20.00000	Averaged
2 Chloromethane ++	0.32592	0.32338	0.32338	0.100	-0.78204	20.00000	Averaged
3 Vinyl Chloride +	0.42856	0.36910	0.36910	0.010	-13.87428	20.00000	Averaged
5 Bromomethane	0.22895	0.22710	0.22710	0.010	-0.80918	20.00000	Averaged
6 Chloroethane	45.09635	50.00000	0.28296	0.010	-9.80731	20.00000	Linear
9 Trichlorofluoromethane	0.54680	0.48624	0.48624	0.010	-11.07534	20.00000	Averaged
13 1,1-Dichloroethene +	0.34353	0.29815	0.29815	0.010	-13.21040	20.00000	Averaged
21 Carbon Disulfide	1.15058	0.99093	0.99093	0.010	-13.87560	20.00000	Averaged
19 1,1,2Trichlotrifluoroethane	0.34456	0.29225	0.29225	0.010	-15.18273	20.00000	Averaged
14 Methyl Iodide	42.54209	50.00000	0.24216	0.010	-14.91582	20.00000	Linear
8 Acrolein	0.02641	0.03181	0.03181	0.010	20.45228	20.00000	Averaged <-NT
18 Methylene Chloride	0.61541	0.52686	0.52686	0.010	-14.38798	20.00000	Averaged
11 Acetone	0.24804	0.23768	0.23768	0.010	-4.17764	20.00000	Averaged
22 trans-1,2-Dichloroethene	0.54368	0.48877	0.48877	0.010	-10.09944	20.00000	Averaged
20 Methyl Acetate	0.44478	0.41930	0.41930	0.010	-5.72871	20.00000	Averaged
32 Hexane	0.58421	0.48595	0.48595	0.010	-16.81960	20.00000	Averaged
25 MTBE	1.09763	1.04600	1.04600	0.010	-4.70382	20.00000	Averaged
26 1,1-Dichloroethane ++	0.51455	0.50250	0.50250	0.100	-2.34131	20.00000	Averaged
16 Acrylonitrile	0.11446	0.12715	0.12715	0.010	11.09320	20.00000	Averaged
29 Vinyl Acetate	0.19809	0.21691	0.21691	0.010	9.50226	20.00000	Averaged
23 cis-1,2-Dichloroethene	0.35408	0.36115	0.36115	0.010	1.99624	20.00000	Averaged
M 80 Total 1,2-Dichloroethene	0.44888	0.42496	0.42496	0.010	-5.32881	20.00000	Averaged
38 2,2-Dichloropropane	0.37204	0.37505	0.37505	0.010	0.80798	20.00000	Averaged
45 Cyclohexane	0.43151	0.42271	0.42271	0.010	-2.03861	20.00000	Averaged
36 Bromochloromethane	0.13705	0.14942	0.14942	0.010	9.02329	20.00000	Averaged
37 Chloroform +	0.48832	0.49089	0.49089	0.010	0.52767	20.00000	Averaged
46 Carbon Tetrachloride	0.32758	0.32678	0.32678	0.010	-0.24379	20.00000	Averaged
$ 39 Dibromofluoromethane	0.24771	0.25438	0.25438	0.010	2.69163	20.00000	Averaged
43 1,1,1-Trichloroethane	0.40528	0.39444	0.39444	0.010	-2.67389	20.00000	Averaged
44 1,1-Dichloropropene	0.35228	0.35244	0.35244	0.010	0.04506	20.00000	Averaged
33 2-Butanone	0.18261	0.20101	0.20101	0.010	10.07323	20.00000	Averaged
47 Benzene	1.16090	1.19099	1.19099	0.010	2.59135	20.00000	Averaged
$ 41 1,2-Dichloroethane-d4	0.15582	0.15263	0.15263	0.010	-2.04680	20.00000	Averaged
42 1,2-Dichloroethane	0.37867	0.38931	0.38931	0.010	2.80943	20.00000	Averaged
61 Methyl Cyclohexane	0.45735	0.45940	0.45940	0.010	0.44795	20.00000	Averaged

Data File: /var/chem/msv11.i/2150408.s.b/g2645D.d
Report Date: 08-Apr-2015 21:07

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv11.i
Lab File ID: g2645D.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv11.i/2150408.s.b/8260bw11dod.m

Injection Date: 08-APR-2015 11:16
Init. Cal. Date(s): 06-APR-2015 07-APR-2015
Init. Cal. Times: 07:46 00:17
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
57 Trichloroethene	0.31691	0.32688	0.32688	0.010	3.14638	20.00000	Averaged
55 Dibromomethane	0.18047	0.19215	0.19215	0.010	6.46905	20.00000	Averaged
56 1,2-Dichloropropane +	0.29752	0.30135	0.30135	0.010	1.28784	20.00000	Averaged
58 Bromodichloromethane	0.37800	0.39183	0.39183	0.010	3.65985	20.00000	Averaged
60 1-Bromo-2-chloroethane	0.04786	0.05351	0.05351	0.010	11.81626	20.00000	Averaged
62 2-Chloroethyl vinyl ether	44.73920	50.00000	0.16344	0.010	-10.52160	20.00000	Linear
63 cis-1,3-Dichloropropene	48.71767	50.00000	0.48841	0.010	-2.56465	20.00000	Linear
$ 68 Toluene-d8	2.32877	2.32105	2.32105	0.010	-0.33151	20.00000	Averaged
70 Toluene +	3.07156	3.08835	3.08835	0.010	0.54670	20.00000	Averaged
78 Tetrachloroethene	0.56173	0.58899	0.58899	0.010	4.85360	20.00000	Averaged
65 4-methyl-2-pentanone	0.68427	0.78890	0.78890	0.010	15.29120	20.00000	Averaged
66 trans-1,3-Dichloropropene	48.55982	50.00000	0.47108	0.010	-2.88036	20.00000	Linear
M 87 1-3 Dichloropropene total	97.27749	100	0.47975	0.010	-2.72251	20.00000	Linear
67 1,1,2-Trichloroethane	0.66987	0.71184	0.71184	0.010	6.26530	20.00000	Averaged
72 Dibromochloromethane	0.68594	0.75410	0.75410	0.010	9.93580	20.00000	Averaged
71 1,3-Dichloropropane	1.12677	1.22037	1.22037	0.010	8.30684	20.00000	Averaged
74 1,2-Dibromoethane(EDB)	0.64533	0.71853	0.71853	0.010	11.34352	20.00000	Averaged
73 2-Hexanone	0.53022	0.62615	0.62615	0.010	18.09322	20.00000	Averaged
86 1-Chlorohexane	0.91841	0.92742	0.92742	0.010	0.98091	20.00000	Averaged
85 Chlorobenzene ++	2.10411	2.15426	2.15426	0.300	2.38324	20.00000	Averaged
88 Ethylbenzene +	1.09007	1.15965	1.15965	0.010	6.38278	20.00000	Averaged
82 1,1,1,2-Tetrachloroethane	0.65908	0.73022	0.73022	0.010	10.79291	20.00000	Averaged
89 p,m-Xylene	101	100	1.45193	0.010	1.29806	20.00000	Linear
93 o-Xylene	51.92718	50.00000	1.35902	0.010	3.85436	20.00000	Linear
M 120 TOTAL XYLENE	153	150	1.42096	0.010	2.15016	20.00000	Linear
91 Styrene	52.40875	50.00000	2.45113	0.010	4.81750	20.00000	Linear
90 Bromoform ++	0.54855	0.63066	0.63066	0.100	14.96764	20.00000	Averaged
96 Isopropylbenzene	50.68968	50.00000	3.61362	0.010	1.37935	20.00000	Linear
$ 97 Bromofluorobenzene	0.77504	0.85512	0.85512	0.010	10.33262	20.00000	Averaged
98 Bromobenzene	1.37042	1.32954	1.32954	0.010	-2.98285	20.00000	Averaged
100 n-Propylbenzene	3.62187	3.60566	3.60566	0.010	-0.44761	20.00000	Averaged
92 1,1,2,2-Tetrachloroethane++	0.93905	0.94380	0.94380	0.300	0.50564	20.00000	Averaged
101 2-Chlorotoluene	2.28829	2.36359	2.36359	0.010	3.29065	20.00000	Averaged
104 1,3,5-Trimethylbenzene	2.51581	2.67970	2.67970	0.010	6.51456	20.00000	Averaged
94 1,2,3-Trichloropropane	0.81435	0.79603	0.79603	0.010	-2.24929	20.00000	Averaged

Data File: /var/chem/msv11.i/2150408.s.b/g2645D.d
Report Date: 08-Apr-2015 21:07

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msv11.i
Lab File ID: g2645D.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/msv11.i/2150408.s.b/8260bw11dod.m

Injection Date: 08-APR-2015 11:16
Init. Cal. Date(s): 06-APR-2015 07-APR-2015
Init. Cal. Times: 07:46 00:17
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
95 trans-1,4-Dichloro-2-Butene	0.24889	0.25368	0.25368	0.010	1.92621	20.00000	Averaged
102 4-Chlorotoluene	2.12149	2.23412	2.23412	0.010	5.30919	20.00000	Averaged
105 tert-butylbenzene	1.26352	1.33370	1.33370	0.010	5.55403	20.00000	Averaged
106 1,2,4-Trimethylbenzene	2.51225	2.73373	2.73373	0.010	8.81615	20.00000	Averaged
107 sec-Butylbenzene	3.28214	3.41076	3.41076	0.010	3.91895	20.00000	Averaged
111 p-Isopropyltoluene	2.71950	2.96501	2.96501	0.010	9.02793	20.00000	Averaged
108 1,3-Dichlorobenzene	1.64045	1.69982	1.69982	0.010	3.61870	20.00000	Averaged
110 1,4-Dichlorobenzene	1.76291	1.75620	1.75620	0.010	-0.38034	20.00000	Averaged
114 n-Butylbenzene	2.53647	2.61956	2.61956	0.010	3.27553	20.00000	Averaged
113 1,2-Dichlorobenzene	1.59145	1.68296	1.68296	0.010	5.74979	20.00000	Averaged
115 1,2-Dibromo-3-Chloropropane	0.20801	0.23510	0.23510	0.010	13.02086	20.00000	Averaged
118 Hexachlorobutadiene	0.49279	0.53598	0.53598	0.010	8.76407	20.00000	Averaged
116 1,2,4-Trichlorobenzene	1.05164	1.24266	1.24266	0.010	18.16392	20.00000	Averaged
117 Naphthalene	52.06766	50.00000	3.40283	0.010	4.13533	20.00000	Linear
119 1,2,3-Trichlorobenzene	1.06304	1.25486	1.25486	0.010	18.04409	20.00000	Averaged

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Calibration File Names:
Level 3: /var/chem/msv12.i/2150406.s.b/m4425d.d
Level 4: /var/chem/msv12.i/2150406.s.b/m4426d.d
Level 5: /var/chem/msv12.i/2150406.s.b/m4427d.d
Level 6: /var/chem/msv12.i/2150406.s.b/m4428d.d
Level 7: /var/chem/msv12.i/2150406.s.b/m4429d.d
Level 8: /var/chem/msv12.i/2150406.s.b/m4431d.d
Level 9: /var/chem/msv12.i/2150406.s.b/m4433d.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
1 Dichlorodifluoromethane	0.31232	0.39598	0.39224	0.40062	0.39697	0.38929					
	0.38034						AVRG		0.38111		8.14184
2 Chloromethane ++	0.10934	0.13554	0.15447	0.15546	0.16145	0.15785					
	0.15748						AVRG		0.14737		12.73355
3 Vinyl Chloride +	0.20869	0.26779	0.28036	0.27453	0.29164	0.28732					
	0.30572						AVRG		0.27372		11.39701
4 1-3 Butadiene	+++++	0.18673	0.22092	0.21037	0.24115	0.25584					
	0.26254						AVRG		0.22959		12.60860

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
5 Bromomethane	166	1278	2874	6078	16727	35928						
	79844						LINR	0.06446	0.17473		0.99838	
6 Chloroethane	0.23864	0.19446	0.19619	0.20148	0.19719	0.17870						
	+++++						AVRG		0.20111		9.93122	
7 Trichlorofluoromethane	0.57045	0.58105	0.60770	0.62476	0.61794	0.62795						
	0.61081						AVRG		0.60581		3.62205	
18 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
8 Ethyl Ether	0.26148	0.25285	0.25906	0.25141	0.28099	0.28042						
	0.28557						AVRG		0.26740		5.41193	
11 1,1-Dichloroethene +	0.23911	0.28124	0.29086	0.29777	0.30576	0.31240						
	0.30483						AVRG		0.29028		8.55148	
14 Carbon Disulfide	0.81954	0.85822	0.85611	0.87951	0.91987	0.92521						
	0.91359						AVRG		0.88172		4.49912	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
10 1,1,2Trichlotrifluoroethane	0.25337	0.30291	0.31438	0.32081	0.32018	0.31878						
	0.31922						AVRG		0.30709		7.97586	
13 Methyl Iodide	42.00000	1096	2949	7041	23912	55843						
	135872						LINR	0.14552	0.29996		0.99314	
158 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
9 Acrolein	+++++	667	1875	4168	12560	24195						
	53307						LINR	0.30016	0.02344		0.99907	
16 Allyl chloride	0.28722	0.30084	0.28820	0.27610	0.29636	0.29355						
	0.30117						AVRG		0.29192		3.04364	
17 Methylene Chloride	0.38600	0.34354	0.34704	0.36034	0.35817	0.35863						
	0.35602						AVRG		0.35853		3.81252	
12 Acetone	0.19110	0.21700	0.23406	0.24097	0.22884	0.23580						
	0.23388						AVRG		0.22595		7.56763	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
19 trans-1,2-Dichloroethene	0.37507	0.38262	0.40717	0.43777	0.42255	0.43899					
	0.44221						AVRG		0.41520		6.66516
20 Methyl Acetate	0.40929	0.44928	0.44085	0.45701	0.45584	0.46255					
	0.45591						AVRG		0.44725		4.04481
23 Hexane	0.20964	0.28811	0.29554	0.29876	0.30600	0.29568					
	0.29427						AVRG		0.28400		11.69891
21 MTBE	1.08860	1.08238	1.06247	1.14068	1.06257	1.10186					
	1.09144						AVRG		1.09000		2.45079
26 tert-Butyl Alcohol	+++++	562	1521	3431	8977	16231					
	32481						LINR	0.00851	0.05366		0.99787
15 Acetonitrile	+++++	0.04394	0.04887	0.04348	0.05732	0.04834					
	0.05363						AVRG		0.04926		11.00104
27 Isopropyl Ether	0.78498	0.72766	0.73276	0.73813	0.82503	0.82969					
	0.88453						AVRG		0.78897		7.60629

GCAL, Inc.

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Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8 / 200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
29 Chloroprene	973 / 266841	5121	9060	23902	55368	127290	LINR	0.07761	0.44207		0.99752	
24 1,1-Dichloroethane ++	0.50104 / 0.44447	0.50772	0.51736	0.51800	0.49918	0.50665	AVRG		0.49920		5.04797	
22 Acrylonitrile	0.07283 / 0.10859	0.09150	0.10022	0.10281	0.10225	0.10357	AVRG		0.09740		12.31242	
25 Vinyl Acetate	220 / 86149	1637	3418	7496	24344	44879	LINR	-0.01512	0.19131		0.99684	
156 Ethyl Tert-butyl Ether	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
30 cis-1,2-Dichloroethene	0.28950 / 0.36032	0.33154	0.34333	0.36544	0.35181	0.37122	AVRG		0.34474		8.07515	
M 48 Total 1,2-Dichloroethene	0.33228 / 0.40127	0.35708	0.37525	0.40160	0.38718	0.40510	AVRG		0.37997		7.14727	

GCAL, Inc.

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Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
31 2,2-Dichloropropane	0.42308	0.46350	0.47303	0.48313	0.50599	0.50626	0.48795	AVRG		0.47756		6.01858
38 Cyclohexane	0.22057	0.31577	0.31601	0.32862	0.34042	0.34076	0.34304	AVRG		0.31503		13.71446
34 Bromochloromethane	153	1476	3340	6984	17363	35156	71804	LINR	-0.00156	0.15697		0.99995
41 Chloroform +	0.52624	0.54564	0.55080	0.56547	0.54623	0.56843	0.55432	AVRG		0.55102		2.55480
39 Carbon Tetrachloride	0.41738	0.48663	0.50671	0.52184	0.52303	0.54473	0.53900	AVRG		0.50562		8.60537
33 Ethyl Acetate	0.38123	0.37061	0.40272	0.39840	0.44256	0.44188	0.45680	AVRG		0.41346		8.11198
141 Tetrahydrofuran	0.09030	0.10310	0.11104	0.11313	0.11041	0.10498	0.10868	AVRG		0.10595		7.29774

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
37 1,1,1-Trichloroethane	0.51578	0.54844	0.54482	0.56641	0.54343	0.56593						
	0.56070						AVRG		0.54936		3.22048	
28 sec-Butanol	+++++	125	745	1877	5099	9259						
	19367						LINR	0.05634	0.03220		0.99718	<-
42 1,1-Dichloropropene	0.30899	0.35409	0.35403	0.37619	0.38049	0.39435						
	0.40226						AVRG		0.36720		8.58096	
32 2-Butanone	207	1504	3403	8020	20061	42733						
	89922						LINR	0.03347	0.19708		0.99973	
146 2,2,4 Trimethylpentane	0.38762	0.40986	0.45869	0.40879	0.48366	0.50550						
	0.55285						AVRG		0.45814		13.09755	
44 Benzene	0.94837	0.99183	0.98900	1.03535	1.01479	1.05115						
	1.07531						AVRG		1.01511		4.22025	
35 Propionitrile	+++++	0.04131	0.04348	0.04374	0.05459	0.04694						
	0.05259						AVRG		0.04711		11.40170	

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
142 Methylacrylonitrile	+++++ / 0.20205	0.15257	0.16089	0.16475	0.19401	0.19096	AVRG		0.17754		11.58833	
152 Heptane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
46 1,2-Dichloroethane	0.43211 / 0.49200	0.44802	0.46831	0.50218	0.47547	0.49020	AVRG		0.47261		5.34657	
154 tert-amyl Methyl Ether	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
157 Tert-butyl formate	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
45 Isobutyl Alcohol	+++++ / 0.01631	0.01319	0.01475	0.01563	0.01907	0.01520	AVRG		0.01569		12.47867	
50 Methyl Cyclohexane	0.28522 / 0.37287	0.34364	0.34049	0.35739	0.36451	0.36271	AVRG		0.34669		8.49140	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
49 Trichloroethene	0.29711	0.32661	0.34560	0.36540	0.34361	0.37218						
	0.38176						AVRG		0.34746		8.38871	
155 Tert-amyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
148 1,3-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
40 n-Butanol	+++++	422	1127	2702	8953	15437						
	34578						LINR	0.46360	0.01152		0.99372	<-
52 Dibromomethane	265	1581	3640	8201	21139	45473						
	95257						LINR	0.03557	0.20901		0.99973	
53 2-3 Dichloro-1-Proprene	0.34777	0.38273	0.36945	0.36897	0.44875	0.44865						
	0.46755						AVRG		0.40484		11.95957	
51 1,2-Dichloropropane +	0.15545	0.20607	0.21474	0.22585	0.22408	0.23449						
	0.23953						AVRG		0.21431		13.20442	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
54 Bromodichloromethane	0.34559	0.39714	0.41502	0.43625	0.43739	0.45523	0.46529	AVRG		0.42170		9.64338	
63 Methyl methacrylate	+++++	0.22786	0.23872	0.24469	0.30294	0.28888	0.30808	AVRG		0.26853		13.19065	
55 1,4- Dioxane	+++++	705	1810	3784	12525	20185	44872	LINR	1.49299	0.00297		0.99196	<-
149 1,4-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
150 1,2-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
M 151 Total Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
57 1-Bromo-2-chloroethane	+++++	343	1045	2320	5980	+++++	+++++	LINR	0.02682	0.05615		0.99906	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
56 2-Chloroethyl vinyl ether	+++++	423	1228	3240	9334	21872						
	51086						LINR	0.15066	0.11380		0.99623	<-
58 cis-1,3-Dichloropropene	677	3593	8038	18155	49223	105794						
	227226						LINR	0.05121	0.49844		0.99934	
61 Toluene +	2.87103	2.79503	2.83091	2.79871	2.70384	2.78725						
	2.80845						AVRG		2.79932		1.81599	
144 2-Nitropropane	202	1433	2996	6981	20155	42993						
	87596						LINR	0.06164	0.32200		0.99949	
66 Tetrachloroethene	0.81410	0.73561	0.71006	0.73214	0.70767	0.72435						
	0.72481						AVRG		0.73553		4.91769	
59 4-methyl-2-pentanone	0.61263	0.66722	0.71802	0.74989	0.70101	0.73278						
	0.76499						AVRG		0.70665		7.42370	
62 trans-1,3-Dichloropropene	582	3259	7551	18112	50223	111356						
	241300						LINR	0.06900	0.53088		0.99892	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
M 145 1-3 Dichloropropene total	1259	6852	15589	36267	99446	217150						
	468526						LINR	0.12074	0.51465		0.99914	
64 Ethyl Methacrylate	0.43116	0.55058	0.52456	0.55891	0.65254	0.64039						
	0.66342						AVRG		0.57451		14.59634	
65 1,1,2-Trichloroethane	0.58451	0.66376	0.67524	0.68075	0.65360	0.65860						
	0.67597						AVRG		0.65606		5.04163	
159 Methyldisulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
69 Dibromochloromethane	0.87970	0.88971	0.94652	0.96976	0.94095	0.96969						
	0.99723						AVRG		0.94193		4.59182	
162 3,4-dichloro-1-butene	+++++	0.47713	0.50164	0.56883	0.64179	0.65061						
	0.68704						AVRG		0.58784		14.58221	
67 1,3-Dichloropropane	0.98044	0.93406	0.99238	1.02553	0.98372	1.02176						
	1.05519						AVRG		0.99901		3.92342	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
143 1-Nitropropane	+++++	629	1443	3433	10876	22429	46557	LINR	0.08965	0.17235		0.99946	
70 1,2-Dibromoethane(EDB)	0.50369	0.62125	0.65817	0.73526	0.70680	0.74798	0.76692	AVRG		0.67715		13.60241	
68 2-Hexanone	265	1804	4573	10398	28358	61189	129420	LINR	0.03692	0.62163		0.99977	
104 1-2 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
140 1-Chlorohexane	1.02846	0.72151	0.74260	0.76918	0.76968	0.78858	0.88774	AVRG		0.81539		13.21723	
72 Chlorobenzene ++	1.90582	1.95292	2.07931	2.03227	1.99222	2.10498	2.08001	AVRG		2.02107		3.65783	
73 Ethylbenzene +	0.99332	1.03133	1.04904	1.03857	1.03773	1.07947	1.07554	AVRG		1.04357		2.78677	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
153 3,3 Dimethyl-1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
74 1,1,1,2-Tetrachloroethane	0.82582	0.80307	0.87927	0.86686	0.83646	0.89753	0.89645	AVRG		0.85792		4.27991	
75 p,m-Xylene	1.14384	1.18381	1.25768	1.27504	1.26067	1.32222	1.33322	AVRG		1.25378		5.49609	
101 1-3 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
103 1-4 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
M 105 Total Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
76 o-Xylene	1.11515	1.14777	1.19982	1.23378	1.22453	1.28256	1.28002	AVRG		1.21195		5.20674	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
77 Styrene	1.49584	1.77179	1.97622	2.00225	2.07333	2.19225						
	2.17943						AVRG		1.95587		12.65751	
M 99 TOTAL XYLENE	1.13428	1.17180	1.23839	1.26129	1.24862	1.30900						
	1.31548						AVRG		1.23984		5.39226	
78 Bromoform ++	0.71337	0.69495	0.79609	0.80912	0.80639	0.86369						
	0.87754						AVRG		0.79445		8.68053	
163 1,5-Cyclooctadiene	0.45661	0.54126	0.52883	0.54307	0.62487	0.61858						
	0.64496						AVRG		0.56545		11.85196	
79 Isopropylbenzene	2.80778	2.94982	3.15658	3.21839	3.23911	3.36148						
	3.30681						AVRG		3.14857		6.34080	
161 cis-1,4-dichloro-2-butene	44.00000	929	2208	5183	16463	30635						
	66504						LINR	0.05133	0.20505		0.99900	<-
84 Bromobenzene	1.16955	1.12979	1.15913	1.14316	1.14588	1.16884						
	1.14663						AVRG		1.15185		1.26814	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
86 n-Propylbenzene	2.70081	2.83357	3.06660	2.97346	3.04198	3.00965					
	2.91234						AVRG		2.93406		4.43193
81 1,1,2,2-Tetrachloroethane++	0.83414	0.78638	0.83323	0.79142	0.79876	0.78833					
	0.75903						AVRG		0.79876		3.36504
87 2-Chlorotoluene	2.29196	2.09791	2.22518	2.16834	2.20256	2.21440					
	2.16087						AVRG		2.19446		2.76221
88 1,3,5-Trimethylbenzene	2.24483	2.02794	2.26689	2.31014	2.41799	2.40902					
	2.37407						AVRG		2.29298		5.88369
85 1,2,3-Trichloropropane	0.84839	0.88781	0.94141	0.96025	0.94968	0.96522					
	0.98811						AVRG		0.93441		5.23455
83 trans-1,4-Dichloro-2-Butene	+++++	537	1420	3805	11106	25583					
	54184						LINR	0.07085	0.21713		0.99980
82 Cyclohexanone	0.18764	0.17732	0.17712	0.19039	0.21491	0.19748					
	0.18821						AVRG		0.19044		6.81531

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
90 4-Chlorotoluene	1.77788	1.86607	1.94208	1.96624	2.01648	2.04399					
	2.00956						AVRG		1.94604		4.86075
91 tert-butylbenzene	1.13995	1.25668	1.36266	1.34819	1.31330	1.30074					
	1.29178						AVRG		1.28761		5.75196
95 Pentachloroethane	0.53218	0.50017	0.47940	0.48273	0.56224	0.53001					
	0.54546						AVRG		0.51888		6.14657
93 1,2,4-Trimethylbenzene	2.07493	2.02608	2.22114	2.21186	2.33401	2.39864					
	2.36990						AVRG		2.23379		6.45543
94 sec-Butylbenzene	2.43993	2.43469	2.66389	2.64199	2.73207	2.64622					
	2.59685						AVRG		2.59366		4.39884
147 Dicyclopentadiene	2.01281	2.04230	2.04345	2.01033	2.27706	2.32320					
	2.35281						AVRG		2.15171		7.31233
92 p-Isopropyltoluene	1.93353	1.93873	2.17026	2.29341	2.45075	2.43724					
	2.38808						AVRG		2.23029		9.97556

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
96 1,3-Dichlorobenzene	1.53345	1.40903	1.49115	1.52260	1.49774	1.50417	1.50220	AVRG		1.49433		2.70272	
160 4-Methylstyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
98 1,4-Dichlorobenzene	1.60032	1.51956	1.51284	1.54088	1.53904	1.53339	1.53560	AVRG		1.54023		1.84738	
100 n-Butylbenzene	1.44686	1.53157	1.63837	1.71113	1.78686	1.75583	1.73059	AVRG		1.65732		7.60108	
102 1,2-Dichlorobenzene	1.39096	1.48686	1.47547	1.49798	1.46941	1.46872	1.45005	AVRG		1.46278		2.39742	
106 1,2-Dibromo-3-Chloropropane	127	1147	2737	5804	15757	33940	71326	LINR	0.01373	0.28168		0.99998	
107 Benzal Chloride	0.12456	0.12282	0.12126	0.11380	0.13940	0.10593	+++++	AVRG		0.12130		9.27783	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	200 Level 9										
109 Hexachlorobutadiene	0.41433	0.48209	0.49343	0.51122	0.49777	0.45384					
	0.43869						AVRG		0.47020		7.52256
108 1,2,4-Trichlorobenzene	0.69164	0.79797	0.84763	0.93152	0.97978	0.97376					
	0.98177						AVRG		0.88630		12.59231
110 Naphthalene	1207	8421	20376	48273	134150	295370					
	635105						LINR	0.03870	2.51352		0.99977
111 1,2,3-Trichlorobenzene	501	3971	9149	19881	54477	113639					
	236219						LINR	0.00141	0.93278		0.99994
$ 36 Dibromofluoromethane	0.30035	0.29071	0.29058	0.29412	0.29423	0.29511					
	0.28894						AVRG		0.29343		1.30086
$ 43 1,2-Dichloroethane-d4	0.17627	0.17190	0.17108	0.18112	0.17760	0.17385					
	0.17218						AVRG		0.17486		2.08812
$ 60 Toluene-d8	2.49188	2.45763	2.43780	2.40837	2.31002	2.30862					
	2.29560						AVRG		2.38713		3.39675

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
$ 80 Bromofluorobenzene	0.97866	0.98972	1.02713	0.99461	0.99665	1.02433					
	0.99459						AVRG		1.00081		1.80312

SST RECALCULATED

Data File: /var/chem/msv12.i/2150406.s.b/m4435d.d
Report Date: 06-Apr-2015 22:51

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Misc Info: MSV~33100~*1*CLH

Client SDG: 2150406.s
Fraction: VOA
Client Smp ID: ICV050
Operator: CLH
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluoromethane	50.0	52.5	104.96	80-120
2 Chloromethane ++	50.0	57.2	114.48	80-120
3 Vinyl Chloride +	50.0	56.5	112.94	80-120
5 Bromomethane	50.0	51.4	102.82	80-120
6 Chloroethane	50.0	52.3	104.57	80-120
7 Trichlorofluoromethane	50.0	53.2	106.45	80-120
11 1,1-Dichloroethene +	50.0	54.8	109.67	80-120
14 Carbon Disulfide	50.0	53.1	106.11	80-120
10 1,1,2Trichlotrifluoroethane	50.0	56.4	112.77	80-120
13 Methyl Iodide	50.0	44.4	88.82	80-120
9 Acrolein	250	251	100.48	80-120
17 Methylene Chloride	50.0	50.9	101.82	80-120
12 Acetone	50.0	52.6	105.22	80-120
19 trans-1,2-Dichloroethene	50.0	55.4	110.78	80-120
20 Methyl Acetate	50.0	53.8	107.67	80-120
23 Hexane	50.0	55.9	111.72	80-120
21 MTBE	50.0	53.1	106.22	80-120
24 1,1-Dichloroethane ++	50.0	53.8	107.69	80-120
22 Acrylonitrile	250	256	102.58	80-120
25 Vinyl Acetate	50.0	48.6	97.18	80-120
30 cis-1,2-Dichloroethene	50.0	55.7	111.46	80-120
31 2,2-Dichloropropane	50.0	55.8	111.60	80-120
38 Cyclohexane	50.0	58.8	117.66	80-120
34 Bromochloromethane	50.0	49.5	98.92	80-120
41 Chloroform +	50.0	53.8	107.69	80-120
39 Carbon Tetrachloride	50.0	54.9	109.70	80-120
37 1,1,1-Trichloroethane	50.0	53.7	107.44	80-120
42 1,1-Dichloropropene	50.0	56.0	112.00	80-120
32 2-Butanone	50.0	52.0	104.05	80-120
44 Benzene	50.0	53.4	106.82	80-120
46 1,2-Dichloroethane	50.0	54.2	108.33	80-120
50 Methyl Cyclohexane	50.0	54.9	109.73	80-120
49 Trichloroethene	50.0	53.8	107.55	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
52 Dibromomethane	50.0	51.9	103.89	80-120
51 1,2-Dichloropropane +	50.0	56.0	111.93	80-120
54 Bromodichloromethane	50.0	55.2	110.41	80-120
57 1-Bromo-2-chloroethane	50.0	52.9	105.70	80-120
56 2-Chloroethyl vinyl ether	50.0	49.1	98.16	80-120
58 cis-1,3-Dichloropropene	50.0	50.5	101.02	80-120
61 Toluene +	50.0	52.8	105.69	80-120
66 Tetrachloroethene	50.0	52.6	105.27	80-120
59 4-methyl-2-pentanone	50.0	57.5	115.08	80-120
62 trans-1,3-Dichloropropene	50.0	48.1	96.15	80-120
65 1,1,2-Trichloroethane	50.0	53.6	107.23	80-120
69 Dibromochloromethane	50.0	53.5	107.05	80-120
67 1,3-Dichloropropane	50.0	54.1	108.20	80-120
70 1,2-Dibromoethane(EDB)	50.0	57.3	114.69	80-120
68 2-Hexanone	50.0	52.6	105.15	80-120
140 1-Chlorohexane	50.0	50.8	101.61	80-120
72 Chlorobenzene ++	50.0	52.7	105.49	80-120
73 Ethylbenzene +	50.0	53.6	107.26	80-120
74 1,1,1,2-Tetrachloroethane	50.0	53.5	106.97	80-120
75 p,m-Xylene	100	107	107.20	80-120
76 o-Xylene	50.0	55.2	110.45	80-120
77 Styrene	50.0	56.5	112.98	80-120
78 Bromoform ++	50.0	54.3	108.54	80-120
79 Isopropylbenzene	50.0	54.8	109.68	80-120
84 Bromobenzene	50.0	52.9	105.81	80-120
86 n-Propylbenzene	50.0	54.5	109.06	80-120
81 1,1,2,2-Tetrachloroethane++	50.0	52.3	104.58	80-120
87 2-Chlorotoluene	50.0	53.0	105.92	80-120
88 1,3,5-Trimethylbenzene	50.0	55.6	111.23	80-120
85 1,2,3-Trichloropropane	50.0	54.5	109.04	80-120
83 trans-1,4-Dichloro-2-Butene	50.0	51.4	102.75	80-120
90 4-Chlorotoluene	50.0	54.2	108.43	80-120
91 tert-butylbenzene	50.0	53.5	107.03	80-120
93 1,2,4-Trimethylbenzene	50.0	56.5	113.06	80-120
94 sec-Butylbenzene	50.0	53.2	106.44	80-120
92 p-Isopropyltoluene	50.0	57.7	115.49	80-120
96 1,3-Dichlorobenzene	50.0	53.4	106.85	80-120
98 1,4-Dichlorobenzene	50.0	53.6	107.13	80-120
100 n-Butylbenzene	50.0	56.5	113.09	80-120
102 1,2-Dichlorobenzene	50.0	53.8	107.53	80-120
106 1,2-Dibromo-3-Chloropropane	50.0	53.7	107.36	80-120
109 Hexachlorobutadiene	50.0	56.5	113.00	80-120
108 1,2,4-Trichlorobenzene	50.0	58.7	117.44	80-120
110 Naphthalene	50.0	55.8	111.51	80-120
111 1,2,3-Trichlorobenzene	50.0	55.5	111.04	80-120

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID (Standard): 2150406q/g2551d Date Analyzed: 04/06/15 Time: 2253

Instrument ID: MSV11 GC Column: RTX-VMS-30M ID: .25 (mm)

Analytical Batch: 555851 Heated Burge: (Y/N) N

	IS1		IS2		IS3	
	Area	RT	Area	RT	Area	RT
STANDARD	438888	6.79	196003	9.67	241318	11.37

EPA Sample No.		#		#		#		#		#
LCS1432380	502725		6.79	217917		9.67	264910		11.37	
LCSD1432381	516694		6.79	221808		9.67	267954		11.37	
MB1432379	387249		6.79	151183		9.67	160606		11.38	
MA01MW001	381006		6.79	148015		9.67	158242		11.38	
MA02MW001D-a	384532		6.79	149391		9.67	157873		11.38	
MA01MW004	382421		6.79	148642		9.67	155833		11.38	
MA01MW004-c	378945		6.79	145264		9.67	155548		11.37	
MA01MW003	380192		6.80	145798		9.67	155056		11.38	

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Lab File ID (Standard): 2150406/m4429d Date Analyzed: 04/06/15 Time: 1234

Instrument ID: MSV12 GC Column: RTX-VMS-30M ID: .25 (mm)

Analytical Batch: 555683 Heated Burge: (Y/N) N

	IS1		IS2		IS3	
	Area	RT	Area	RT	Area	RT
STANDARD	110088	6.46	49584	8.98	57508	10.44
EPA Sample No.	#	#	#	#	#	#
LCS1431563	116648	6.47	49839	8.99	58259	10.44
LCSD1431564	119312	6.46	49728	8.99	59315	10.45
MB1431562	117123	6.46	46907	8.98	49513	10.44
MWQ-24	108189	6.46	44790	8.99	45520	10.44
MWQ-24-C	107102	6.46	44037	8.99	46387	10.44
MA02MW001D	102360	6.46	44236	8.98	45753	10.44
MA01MW002	106219	6.47	44226	8.98	46306	10.44
MA01MW002-C	106645	6.46	43763	8.99	45930	10.44

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv11.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		g2545.d	0.00 ml	06-APR-2015 20:21	1.000	CLH	2
1000		g2545d.d	0.00 ml	06-APR-2015 20:21	1.000	CLH	2
1201		g2546.d	5.00 ml	06-APR-2015 21:07	1.000	CLH	1
1203		g2547.d	5.00 ml	06-APR-2015 21:28	1.000	CLH	2
1203		g2547d.d	5.00 ml	06-APR-2015 21:28	1.000	CLH	2
1204		g2548.d	5.00 ml	06-APR-2015 21:49	1.000	CLH	3
1204		g2548d.d	5.00 ml	06-APR-2015 21:49	1.000	CLH	3
1205		g2549.d	5.00 ml	06-APR-2015 22:10	1.000	CLH	4
1205		g2549d.d	5.00 ml	06-APR-2015 22:10	1.000	CLH	4
1206		g2550.d	5.00 ml	06-APR-2015 22:32	1.000	CLH	5
1206		g2550d.d	5.00 ml	06-APR-2015 22:32	1.000	CLH	5
1207		g2551.d	5.00 ml	06-APR-2015 22:53	1.000	CLH	6
1207		g2551d.d	5.00 ml	06-APR-2015 22:53	1.000	CLH	6
BLANK		g2552.d	5.00 ml	06-APR-2015 23:14	1.000	CLH	7
1208		g2553.d	5.00 ml	06-APR-2015 23:35	1.000	CLH	8
1208		g2553d.d	5.00 ml	06-APR-2015 23:35	1.000	CLH	8
BLANK		g2554.d	5.00 ml	06-APR-2015 23:56	1.000	CLH	9
1209		g2555.d	5.00 ml	07-APR-2015 00:17	1.000	CLH	10
1209		g2555d.d	5.00 ml	07-APR-2015 00:17	1.000	CLH	10
BLANK		g2556.d	5.00 ml	07-APR-2015 00:38	1.000	CLH	11
1600		g2557.d	5.00 ml	07-APR-2015 00:59	1.000	CLH	12
1600		g2557d.d	5.00 ml	07-APR-2015 00:59	1.000	CLH	12
1431558		g2558.d	5.00 ml	07-APR-2015 01:21	1.000	5CLH	13
1431559		g2559.d	5.00 ml	07-APR-2015 01:42	1.000	LBH	14
1400		g2560.d	5.00 ml	07-APR-2015 02:12	1.000	LBH	15
1431560		g2561.d	5.00 ml	07-APR-2015 02:33	1.000	LBH	16
1431561		g2562.d	5.00 ml	07-APR-2015 02:54	1.000	LBH	17
MB		g2563.d	5.00 ml	07-APR-2015 03:15	1.000	LBH	18
1431557		g2564.d	5.00 ml	07-APR-2015 03:36	1.000	LBH	19
21503312431		g2565.d	5.00 ml	07-APR-2015 03:57	1.000	LBH	20
21503312432		g2566.d	5.00 ml	07-APR-2015 04:19	1.000	LBH	21
21503312433		g2567.d	5.00 ml	07-APR-2015 04:40	1.000	LBH	22
BLANK		g2568.d	5.00 ml	07-APR-2015 05:01	1.000	LBH	23
BLANK		g2569.d	5.00 ml	07-APR-2015 05:22	1.000	LBH	24
21503312414		g2570.d	5.00 ml	07-APR-2015 05:43	1.000	LBH	25
21503312427		g2571.d	5.00 ml	07-APR-2015 06:04	1.000	LBH	26

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv11.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
21503312428		g2572.d	5.00 ml	07-APR-2015 06:25	1.000	LBH	27
21503312429		g2573.d	5.00 ml	07-APR-2015 06:47	1.000	LBH	28
21503312430		g2574.d	5.00 ml	07-APR-2015 07:08	1.000	LBH	29
21503312434		g2575.d	5.00 ml	07-APR-2015 07:29	1.000	LBH	30
21503312435		g2576.d	5.00 ml	07-APR-2015 07:50	1.000	LBH	31
BLANK		g2577.d	5.00 ml	07-APR-2015 08:11	1.000	CLH	32

REVISED 1-28-15 Supervisor Review: TUNE TIME: :

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 08-APR-2015
Instrument: msv11.i
Analyst(s): LBH

	Standard	Conc	ID	EXP
	8260 IS/SS	50	126-33-1	09/21/15
1000 (BFB)	BFB IS/SS	50	126-33-1	09/21/15
1400 (CCV)	8260	250	126-34-1	04/21/15
	AC/AC/VA	MC	126-33-10	04/30/15
	2-CVE	250	126-32-12	09/17/15
1400 (A9CCV)	APP9-1	250	126-30-8	08/21/15
	APP9-2	250	126-30-10	08/21/15
	THF	250	126-32-3	09/11/15

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		g2643.d	0.00 ml	08-APR-2015 10:12	1.000	LBH	2
1000		g2643D.d	0.00 ml	08-APR-2015 10:12	1.000	LBH	2
1000		g2643Ds.d	0.00 ml	08-APR-2015 10:12	1.000	LBH	2
1400	RR	g2644.d	5.00 ml	08-APR-2015 10:55	1.000	LBH	1
1400	8260	g2645.d	5.00 ml	08-APR-2015 11:16	1.000	LBH	1
1400		g2645D.d	5.00 ml	08-APR-2015 11:16	1.000	LBH	1
1400		g2645Ds.d	5.00 ml	08-APR-2015 11:16	1.000	LBH	1
1432392		g2646.d	5.00 ml	08-APR-2015 11:37	1.000	LBH	2
1432380		g2646D.d	5.00 ml	08-APR-2015 11:37	1.000	LBH	2
1432630		g2646Ds.d	5.00 g	08-APR-2015 11:37	50.000	LBH	2
1432393		g2647.d	5.00 ml	08-APR-2015 11:58	1.000	LBH	2
1432381		g2647D.d	5.00 ml	08-APR-2015 11:58	1.000	LBH	2
1432631		g2647Ds.d	5.00 g	08-APR-2015 11:58	50.000	LBH	2
1400	APP9 NOT USED	g2648.d	5.00 ml	08-APR-2015 12:19	1.000	LBH	4
LCS		g2649.d	5.00 ml	08-APR-2015 12:40	1.000	LBH	4
LCS		g2650.d	5.00 ml	08-APR-2015 13:01	1.000	LBH	5
LCS		g2651.d	5.00 ml	08-APR-2015 13:23	1.000	LBH	5
BLANK		g2652.d	5.00 ml	08-APR-2015 13:44	1.000	LBH	6
1432391		g2653.d	5.00 ml	08-APR-2015 14:05	1.000	LBH	7
1432379 pH		g2653D.d	5.00 ml	08-APR-2015 14:05	1.000	LBH	7
21504030503 1		g2654.d	5.00 ml	08-APR-2015 14:26	1.000	JCK	8
21504030601 1		g2655.d	5.00 ml	08-APR-2015 14:47	1.000	JCK	9
21504030701 1		g2656.d	5.00 ml	08-APR-2015 15:08	1.000	JCK	10
21504030702 1		g2657.d	5.00 ml	08-APR-2015 15:30	1.000	JCK	11
21504030703 1		g2658.d	5.00 ml	08-APR-2015 15:51	1.000	JCK	12
21504077901 1		g2659.d	5.00 ml	08-APR-2015 16:12	1.000	JCK	13
21504077902 1		g2660.d	5.00 ml	08-APR-2015 16:33	1.000	JCK	14
21504027203 1	RR, DOES NOT MATCH PREV RUNS	g2661.d	5.00 ml	08-APR-2015 16:54	500.000	JCK	15
21504027205 1		g2662.d	5.00 ml	08-APR-2015 17:15	500.000	JCK	16
21504027203 1		g2663.d	5.00 ml	08-APR-2015 17:36	50.000	JCK	17
21504027205 1		g2664.d	5.00 ml	08-APR-2015 17:58	50.000	JCK	18
1432629		g2665Ds.d	5.00 g	08-APR-2015 20:00	50.000	JCK	19
21503300501	DIL DUE TO NT	g2666.d	6.29 g	08-APR-2015 20:27	100.000	LBH	20
21503300503	DIL DUE TO NT	g2667.d	6.44 g	08-APR-2015 20:48	50.000	LBH	21

REVISED 1-28-15 Supervisor Review: JCK TUNE TIME: 22:12

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv12.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		m4423.d	0.00 ml	06-APR-2015 09:49	1.000	CLH	2
1000		m4423d.d	0.00 ml	06-APR-2015 09:49	1.000	CLH	2
1201		m4424.d	5.00 ml	06-APR-2015 10:41	1.000	JCK	1
1203		m4425.d	5.00 ml	06-APR-2015 11:04	1.000	JCK	2
1203		m4425d.d	5.00 ml	06-APR-2015 11:04	1.000	CLH	2
1203		m4425L.d	5.00 ml	06-APR-2015 11:04	1.000	JCK	2
1204		m4426.d	5.00 ml	06-APR-2015 11:26	1.000	JCK	3
1204		m4426d.d	5.00 ml	06-APR-2015 11:26	1.000	CLH	3
1204		m4426L.d	5.00 ml	06-APR-2015 11:26	1.000	JCK	3
1205		m4427.d	5.00 ml	06-APR-2015 11:49	1.000	JCK	4
1205		m4427d.d	5.00 ml	06-APR-2015 11:49	1.000	CLH	4
1206		m4428.d	5.00 ml	06-APR-2015 12:11	1.000	JCK	5
1206		m4428d.d	5.00 ml	06-APR-2015 12:11	1.000	CLH	5
1207		m4429.d	5.00 ml	06-APR-2015 12:34	1.000	JCK	6
1207		m4429d.d	5.00 ml	06-APR-2015 12:34	1.000	CLH	6
BLANK		m4430.d	5.00 ml	06-APR-2015 12:56	1.000	CLH	7
1208		m4431.d	5.00 ml	06-APR-2015 13:19	1.000	CLH	8
1208		m4431d.d	5.00 ml	06-APR-2015 13:19	1.000	CLH	8
BLANK		m4432.d	5.00 ml	06-APR-2015 13:41	1.000	CLH	9
1209		m4433.d	5.00 ml	06-APR-2015 14:04	1.000	CLH	10
1209		m4433d.d	5.00 ml	06-APR-2015 14:04	1.000	CLH	10
BLANK		m4434.d	5.00 ml	06-APR-2015 14:27	1.000	CLH	11
1600		m4435.d	5.00 ml	06-APR-2015 14:50	1.000	CLH	12
1600		m4435d.d	5.00 ml	06-APR-2015 14:50	1.000	CLH	12
LCS		m4436.d	5.00 ml	06-APR-2015 15:12	1.000	CLH	13
LCSD		m4437.d	5.00 ml	06-APR-2015 15:35	1.000	CLH	14
1400		m4438.d	5.00 ml	06-APR-2015 15:58	1.000	CLH	15
MB		m4439.d	5.00 ml	06-APR-2015 16:20	1.000	CLH	18
MB		m4440.d	5.00 ml	06-APR-2015 16:43	1.000	CLH	19
21503300708		m4441.d	5.00 ml	06-APR-2015 17:05	1.000	CLH	20
21503312301		m4442.d	5.00 ml	06-APR-2015 17:28	1.000	CLH	21
21504021701		m4443.d	5.00 ml	06-APR-2015 17:51	1.000	CLH	22
21504021702		m4444.d	5.00 ml	06-APR-2015 18:13	1.000	CLH	23
21504021703		m4445.d	5.00 ml	06-APR-2015 18:36	1.000	CLH	24
21504021704		m4446.d	5.00 ml	06-APR-2015 18:59	1.000	CLH	25
21504021705		m4447.d	5.00 ml	06-APR-2015 19:21	1.000	CLH	26

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv12.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
21504021707		m4448.d	5.00 ml	06-APR-2015 19:44	1.000	CLH	27
21504030401		m4449.d	5.00 ml	06-APR-2015 20:06	1.000	CLH	28
21504030402		m4450.d	5.00 ml	06-APR-2015 20:29	1.000	CLH	29
21504030403		m4451.d	5.00 ml	06-APR-2015 20:51	1.000	CLH	30
21504030501		m4452.d	5.00 ml	06-APR-2015 21:14	1.000	CLH	31
21504030502		m4453.d	5.00 ml	06-APR-2015 21:36	1.000	CLH	32
BLANK		m4454.d	5.00 ml	06-APR-2015 21:59	1.000	CLH	33

REVISED 1-28-15 Supervisor Review: TUNE TIME: :

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MWQ-24

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030401

Date Collected: 04/02/15 Time: 1210

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1109

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2006

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MA02MW001D

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030403

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1148

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2007

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW002

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030501

Date Collected: 04/02/15 Time: 0925

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1227

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2008

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW001

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030503

Date Collected: 04/02/15 Time: 1020

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1306

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2009

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

Sample ID: MA02MW001D-a

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030601

Date Collected: 04/02/15 Time: 1406

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1345

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2010

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW004

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030701

Date Collected: 04/02/15 Time: 0940

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 1424

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2011

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556032

CONCENTRATION UNITS: ug/L

Sample ID: MA01MW003

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 21504030703

Date Collected: 04/02/15 Time: 1059

Date Received: 04/03/15

Date Extracted: 04/06/15

Date Analyzed: 04/09/15 Time: 1840

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150409q/a2004

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
2691-41-0	HMX	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
121-82-4	RDX	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 20000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 555535 Analytical Batch: 556031

CONCENTRATION UNITS: ug/L

Sample ID: MB1430933

Contract:

SAS No.: SDG No.: 215040304

Lab Sample ID: 1430933

Date Collected: Time:

Date Received:

Date Extracted: 04/06/15

Date Analyzed: 04/08/15 Time: 0951

Dilution Factor: 1 Analyst: DLB

Prep Method: 8330A

Analytical Method: SW-846 8330A

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 2

Lab File ID: 2150408/a2004

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
2691-41-0	HMX	0.500	U	0.500	2.00
121-82-4	RDX	0.500	U	0.500	2.00
99-35-4	1,3,5-Trinitrobenzene	0.500	U	0.500	2.00
99-65-0	1,3-Dinitrobenzene	0.500	U	0.500	2.00
479-45-8	Tetryl	0.500	U	0.500	2.00
98-95-3	Nitrobenzene	0.500	U	0.500	2.00
118-96-7	2,4,6-Trinitrotoluene	0.500	U	0.500	2.00
19406-51-0	4-Amino-2,6-dinitrotoluene	0.500	U	0.500	2.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.500	U	0.500	2.00
121-14-2	2,4-Dinitrotoluene	0.500	U	0.500	2.00
606-20-2	2,6-Dinitrotoluene	0.500	U	0.500	2.00
88-72-2	2-Nitrotoluene	0.500	U	0.500	2.00
99-08-1	3-Nitrotoluene	0.500	U	0.500	2.00
99-99-0	4-Nitrotoluene	0.500	U	0.500	2.00
55-63-0	Nitroglycerin	0.500	U	0.500	2.00
78-11-5	Pentaerythritol Tetranitrate	0.750	U	0.750	2.00

2E

ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: SW-846 8330A

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC2 2	Lo	Hi	F	SMC3 3	Lo	Hi	F	SMC4 4	Lo	Hi	F	TOT OUT
1.	MWQ-24	82	60	140														0
2.	MA02MW001D	84	60	140														0
3.	MA01MW002	67	60	140														0
4.	MA01MW001	92	60	140														0
5.	MA02MW001D-a	66	60	140														0
6.	MA01MW004	76	60	140														0
7.	MA01MW003	89	60	140														0
8.	MB1430933	73	60	140														0
9.	LCS1430934	70	60	140														0
10.	LCSD1430935	80	60	140														0

SMC 1 : 1,2-Dinitrobenzene SMC 2 :

SMC 3 : SMC 4 :

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Contract: Method: SW-846 8330A

Prep Batch: 555535 Analytical Batch: 556031

SAMPLE NO : 1430934

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1,3,5-Trinitrobenzene	ug/L	4	0	2.61	65		65 - 140
1,3-Dinitrobenzene	ug/L	4	0	2.71	68		45 - 160
2,4,6-Trinitrotoluene	ug/L	4	0	2	50		50 - 145
2,4-Dinitrotoluene	ug/L	4	0	2.82	71		60 - 135
2,6-Dinitrotoluene	ug/L	4	0	3.11	78		60 - 135
2-Amino-4,6-dinitrotoluene	ug/L	4	0	3.01	75		50 - 155
2-Nitrotoluene	ug/L	4	0	3.12	78		45 - 135
3-Nitrotoluene	ug/L	4	0	2.62	66		50 - 130
4-Amino-2,6-dinitrotoluene	ug/L	4	0	2.59	65		55 - 155
4-Nitrotoluene	ug/L	4	0	2.67	67		50 - 130
HMX	ug/L	4	0	3.76	94		80 - 115
Nitrobenzene	ug/L	4	0	2.75	69		50 - 140
Nitroglycerin	ug/L	4	0	2.41	60		40 - 140
Pentaerythritol Tetranitrate	ug/L	4	0	2.64	66		40 - 140
RDX	ug/L	4	0	3.48	87		50 - 160
Tetryl	ug/L	4	0	1.53	38		20 - 175

RPD : 0 out of 16 outside limits

Spike Recovery: 0 out of 32 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Contract: Method: SW-846 8330A

Prep Batch: 555535 Analytical Batch: 556031

SAMPLE NO : ***1430935***

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
1,3,5-Trinitrobenzene	ug/L	4	2.63	66		.8		65 - 140	0 - 30
1,3-Dinitrobenzene	ug/L	4	3.22	81		17		45 - 160	0 - 30
2,4,6-Trinitrotoluene	ug/L	4	2.21	55		10		50 - 145	0 - 30
2,4-Dinitrotoluene	ug/L	4	2.76	69		2		60 - 135	0 - 30
2,6-Dinitrotoluene	ug/L	4	3.03	76		3		60 - 135	0 - 30
2-Amino-4,6-dinitrotoluene	ug/L	4	3.35	84		11		50 - 155	0 - 30
2-Nitrotoluene	ug/L	4	4.19	105		29		45 - 135	0 - 30
3-Nitrotoluene	ug/L	4	2.91	73		10		50 - 130	0 - 30
4-Amino-2,6-dinitrotoluene	ug/L	4	3.44	86		28		55 - 155	0 - 30
4-Nitrotoluene	ug/L	4	3.49	87		27		50 - 130	0 - 30
HMX	ug/L	4	3.61	90		4		80 - 115	0 - 30
Nitrobenzene	ug/L	4	3.1	78		12		50 - 140	0 - 30
Nitroglycerin	ug/L	4	2.88	72		18		40 - 140	0 - 30
Pentaerythritol Tetranitrate	ug/L	4	2.27	57		15		40 - 140	0 - 30
RDX	ug/L	4	3.47	87		.3		50 - 160	0 - 30
Tetryl	ug/L	4	1.69	42		10		20 - 175	0 - 30

RPD : 0 out of 16 outside limits

Spike Recovery: 0 out of 32 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL

Lab Code: LA024 Case No.:

Lab Sample ID: 1430933

Matrix: Water Sulfur Cleanup: (Y/N) N

Date Analyzed (1): 04/08/15 Time (1): 0951

Instrument ID (1): HPLC 2

GC Column (1): ID: (mm)

Method: SW-846 8330A

Lab File ID: 2150408/a2004

Sample ID: MB1430933

Contract:

SAS No.: SDG No.: 215040304

Date Extracted: 04/06/15

Date Analyzed (2): Time (2):

Instrument ID (2):

GC Column (2): ID: (mm)

Prep Batch: 555535 Analytical Batch: 556031

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1430934	1430934	04/08/15	0912	HPLC2
2.	LCSD1430935	1430935	04/08/15	1030	HPLC2
3.	MWQ-24	21504030401	04/08/15	1109	HPLC2
4.	MA02MW001D	21504030403	04/08/15	1148	HPLC2
5.	MA01MW002	21504030501	04/08/15	1227	HPLC2
6.	MA01MW001	21504030503	04/08/15	1306	HPLC2
7.	MA02MW001D-a	21504030601	04/08/15	1345	HPLC2
8.	MA01MW004	21504030701	04/08/15	1424	HPLC2
9.	MA01MW003	21504030703	04/09/15	1840	HPLC2

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-APR-2015 11:48
End Cal Date : 03-APR-2015 15:03
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc2.i/2150408.b/LC8-8330B.m
Cal Date : 10-Apr-2015 10:24 dlb
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/hplc2.i/2150403.b/a2007.d
Level 2: /var/chem/hplc2.i/2150403.b/a2006.d
Level 3: /var/chem/hplc2.i/2150403.b/a2005.d
Level 4: /var/chem/hplc2.i/2150403.b/a2004.d
Level 5: /var/chem/hplc2.i/2150403.b/a2003.d
Level 6: /var/chem/hplc2.i/2150403.b/a2002.d

Compound	50.000 Level 1	100.000 Level 2	200.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	RRF	% RSD
1 HMX	234	227	219	199	216	206	217	5.940
2 RDX	232	222	217	220	210	213	219	3.423
3 1,3,5-TNB	395	371	371	325	361	347	361	6.610
5 1,3-DNB	227	234	217	176	206	195	209	10.309
6 Nitrobenzene	196	215	197	169	214	185	196	8.948
7 Tetryl	376	282	304	243	312	274	298	15.114
8 2,4,6-TNT	297	257	288	230	294	272	273	9.543
9 3,5-Dinitroaniline	344	308	315	265	336	293	310	9.301
10 Nitroglycerin	95.52000	105	94.96500	81.39400	96.93333	89.95400	93.93272	8.306
11 2,4-DNT	302	203	196	209	194	190	216	19.773
12 2,6-DNT	298	264	243	273	239	222	257	10.669
13 4-Am-26DNT	263	323	255	296	259	209	268	14.468
14 2-Am-46DNT	285	279	222	226	232	245	248	11.116
15 2-NT	193	273	263	271	262	231	249	12.558
16 4-NT	195	183	180	205	190	164	186	7.659
17 3-NT	332	312	299	264	304	278	298	8.233
18 PETN	96.94000	109	125	90.71400	102	105	105	11.346
$ 4 1,2-Dinitrobenzene	271	270	253	212	258	233	250	9.197

Data File: /var/chem/hplc2.i/2150403.b/a2008.d
Report Date: 04-Apr-2015 07:38

GCAL, Inc.

RECOVERY REPORT

Client Name: 1
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: LC DATA
SpikeList File: icv.spk
Sublist File: all.sub
Method File: /var/chem/hplc2.i/2150403.b/LC8-8330B.m
Misc Info:

Client SDG: 2150403
Fraction: OTHER

Operator: dlb
SampleType: LCS
Quant Type: ESTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 HMX	0.400	0.403	100.74	85-115
2 RDX	0.400	0.399	99.66	85-115
3 1,3,5-TNB	0.400	0.410	102.65	85-115
5 1,3-DNB	0.400	0.398	99.65	85-115
6 Nitrobenzene	0.400	0.402	100.46	85-115
7 Tetryl	0.400	0.389	97.33	85-115
8 2,4,6-TNT	0.400	0.400	100.10	85-115
9 3,5-Dinitroaniline	0.400	0.408	101.91	85-115
10 Nitroglycerin	0.400	0.453	113.20	85-115
11 2,4-DNT	0.400	0.364	91.11	85-115
12 2,6-DNT	0.400	0.364	90.89	85-115
15 2-NT	0.400	0.388	97.11	85-115
16 4-NT	0.400	0.381	95.26	85-115
17 3-NT	0.400	0.407	101.79	85-115
18 PETN	0.400	0.391	97.65	85-115

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 1,2-Dinitrobenzene	0.400	0.412	102.90	83-119

Data File: /var/chem/hplc2.i/2150408.b/a2002.d
Report Date: 08-Apr-2015 09:11

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2002.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150408.b/LC8-8330B.m

Injection Date: 08-APR-2015 08:31
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 HMX	217	226	0.010	-4.11489	15.00000	Averaged
2 RDX	219	201	0.010	8.27080	15.00000	Averaged
3 1,3,5-TNB	361	351	0.010	2.96906	15.00000	Averaged
$ 4 1,2-Dinitrobenzene	250	243	0.010	2.60196	15.00000	Averaged
5 1,3-DNB	209	226	0.010	-8.10444	15.00000	Averaged
6 Nitrobenzene	196	176	0.010	10.01607	15.00000	Averaged
7 Tetryl	298	264	0.010	11.54692	15.00000	Averaged
8 2,4,6-TNT	273	272	0.010	0.26256	15.00000	Averaged
9 3,5-Dinitroaniline	310	298	0.010	3.72961	15.00000	Averaged
10 Nitroglycerin	93.93272	95.36000	0.010	-1.51947	15.00000	Averaged
11 2,4-DNT	216	194	0.010	10.27471	15.00000	Averaged
12 2,6-DNT	257	243	0.010	5.17408	15.00000	Averaged
13 4-Am-26DNT	268	243	0.010	9.21480	15.00000	Averaged
14 2-Am-46DNT	248	266	0.010	-7.33021	15.00000	Averaged
15 2-NT	249	224	0.010	9.83791	15.00000	Averaged
16 4-NT	186	169	0.010	8.87579	15.00000	Averaged
17 3-NT	298	284	0.010	4.78159	15.00000	Averaged
18 PETN	105	114	0.010	-8.61145	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.51313
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/hplc2.i/2150408.b/a2013.d
Report Date: 09-Apr-2015 06:45

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2013.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150408.b/LC8-8330B.m

Injection Date: 08-APR-2015 15:41
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 HMX	217	215	0.010	1.16745	15.00000	Averaged	
2 RDX	219	213	0.010	2.97404	15.00000	Averaged	
3 1,3,5-TNB	361	358	0.010	0.96606	15.00000	Averaged	
$ 4 1,2-Dinitrobenzene	250	267	0.010	-6.98757	15.00000	Averaged	
5 1,3-DNB	209	222	0.010	-5.96599	15.00000	Averaged	
6 Nitrobenzene	196	172	0.010	12.36071	15.00000	Averaged	
7 Tetryl	298	284	0.010	4.70223	15.00000	Averaged	
8 2,4,6-TNT	273	278	0.010	-1.82802	15.00000	Averaged	
9 3,5-Dinitroaniline	310	309	0.010	0.36540	15.00000	Averaged	
10 Nitroglycerin	93.93272	142	0.010	-51.55528	15.00000	Averaged	<-
11 2,4-DNT	216	200	0.010	7.22885	15.00000	Averaged	
12 2,6-DNT	257	228	0.010	11.26101	15.00000	Averaged	
13 4-Am-26DNT	268	273	0.010	-1.89322	15.00000	Averaged	
14 2-Am-46DNT	248	242	0.010	2.50876	15.00000	Averaged	
15 2-NT	249	256	0.010	-2.67880	15.00000	Averaged	
16 4-NT	186	169	0.010	9.30598	15.00000	Averaged	
17 3-NT	298	263	0.010	11.85152	15.00000	Averaged	
18 PETN	105	173	0.010	-64.67159	15.00000	Averaged	<-

Average %D / Drift Results.

Calculated Average %D/Drift = 11.12625
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/hplc2.i/2150409q.b/a2002.d
Report Date: 09-Apr-2015 17:59

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2002.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150409q.b/LC8-8330B.m

Injection Date: 09-APR-2015 17:18
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	MIN %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 HMX	217	212	0.010	2.43909	15.00000	Averaged
2 RDX	219	215	0.010	1.83755	15.00000	Averaged
3 1,3,5-TNB	361	372	0.010	-2.99430	15.00000	Averaged
$ 4 1,2-Dinitrobenzene	250	262	0.010	-5.16023	15.00000	Averaged
5 1,3-DNB	209	228	0.010	-9.03494	15.00000	Averaged
6 Nitrobenzene	196	211	0.010	-7.75365	15.00000	Averaged
7 Tetryl	298	290	0.010	2.82560	15.00000	Averaged
8 2,4,6-TNT	273	268	0.010	1.97203	15.00000	Averaged
11 2,4-DNT	216	226	0.010	-4.85259	15.00000	Averaged
12 2,6-DNT	257	242	0.010	5.52101	15.00000	Averaged
13 4-Am-26DNT	268	259	0.010	3.03849	15.00000	Averaged
14 2-Am-46DNT	248	240	0.010	3.13931	15.00000	Averaged
15 2-NT	249	246	0.010	1.34479	15.00000	Averaged
16 4-NT	186	172	0.010	7.70891	15.00000	Averaged
17 3-NT	298	291	0.010	2.22199	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.12296
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/hplc2.i/2150409q.b/a2012.d
Report Date: 10-Apr-2015 08:42

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2012.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150409q.b/LC8-8330B.m

Injection Date: 09-APR-2015 23:50
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 HMX	217	221	0.010	-1.80660	15.00000	Averaged
2 RDX	219	218	0.010	0.67368	15.00000	Averaged
3 1,3,5-TNB	361	348	0.010	3.67316	15.00000	Averaged
$ 4 1,2-Dinitrobenzene	250	249	0.010	0.30576	15.00000	Averaged
5 1,3-DNB	209	207	0.010	0.92778	15.00000	Averaged
6 Nitrobenzene	196	201	0.010	-2.61025	15.00000	Averaged
7 Tetryl	298	268	0.010	10.07912	15.00000	Averaged
8 2,4,6-TNT	273	254	0.010	6.82011	15.00000	Averaged
11 2,4-DNT	216	203	0.010	5.68506	15.00000	Averaged
12 2,6-DNT	257	285	0.010	-11.20587	15.00000	Averaged
13 4-Am-26DNT	268	289	0.010	-7.84340	15.00000	Averaged
14 2-Am-46DNT	248	246	0.010	0.69166	15.00000	Averaged
15 2-NT	249	251	0.010	-0.87290	15.00000	Averaged
16 4-NT	186	166	0.010	10.65568	15.00000	Averaged
17 3-NT	298	299	0.010	-0.41980	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.28472
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

8330 SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 4/6/15	Start: 16:00	End: 13:05	BATCH NO: 555535	
MATRIX:	WATER ☒	SOIL ☐ OTHER ☐	LEVEL:	LOW ☒ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	SAMPLE TYPE	COMMENT	METHOD
1	QC ACCOUNT	MB for HBN 555535 [EXTO/42538]	1430933	1005	20.0		MB		WATER BATCH SONICATION
2	QC ACCOUNT	LCS for HBN 555535 [EXTO/42538	1430934	1000	2020		LCS		
3	QC ACCOUNT	LCSD for HBN 555535 [EXTO/4253	1430935	1000	2020		LCSD		SEA SAND
4	4747	MWQ-24	21504030401	1000	2020		SAMPLE		
5	4747	MAO2MW001D	21504030403	1000	20.0		SAMPLE		ACETONITILE LOT# 145737
6	4747	MAO1MW002	21504030501	1000	20.0		SAMPLE		
7	4747	MAO1MW001	21504030503	1000	20.0		SAMPLE		CALCIUM CHLORIDE LOT#
8	4747	MA02MW001D-a	21504030601	1000	20.0		SAMPLE		
9	4747	MA01MW004	21504030701	1000	20.0		SAMPLE		FLORISIL CLEANUP/3620
10	4747	MA01MW003	21504030703	1000	20.0		SAMPLE		
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: _____ TEMP: _____

							TECHNICIAN	DATE
8330 ID	583-25-7	8330 SPIKE ID	583-23-2				Emily	4/6/15
VOLUME	1.0mL		1.0mL					
CONCENTRATION	4µg/mL		4µg/mL				SUPERVISOR	DATE
ACID								
SPIKE WITNESS	MD							4-7-15

Revision 3, 10/04/2010

LABORATORY CHRONICLE: HPLC DEPARTMENT

Date: 03-APR-2015
Instrument: hplc2.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions: _____

MISC: _____

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
solvblk	1	a2001.d	1000.00 ml	03-APR-2015 11:10	1.000	dlb	1	all
1206	1	a2002.d	1000.00 ml	03-APR-2015 11:48	1.000	dlb	1	all
1205	1	a2003.d	1000.00 ml	03-APR-2015 12:27	1.000	dlb	1	all
1204	1	a2004.d	1000.00 ml	03-APR-2015 13:06	1.000	dlb	1	all
1203	1	a2005.d	1000.00 ml	03-APR-2015 13:45	1.000	dlb	1	all
1202	1	a2006.d	1000.00 ml	03-APR-2015 14:24	1.000	dlb	1	all
1201	1	a2007.d	1000.00 ml	03-APR-2015 15:03	1.000	dlb	1	all
1600	1	a2008.d	1.00 ml	03-APR-2015 15:41	1.000	dlb	1	all
1400	1 53-76-10	a2009.d	1000.00 ml	03-APR-2015 16:20	1.000	dlb	1	all
21503301103	5	a2010.d	10.00 g	03-APR-2015 16:59	5.000	dlb	1	all
21503301103	0080	a2011.d	10.00 g	03-APR-2015 17:38	1.000	dlb	1	all
21411030128	0080	a2012.d	10.00 g	03-APR-2015 18:17	1.000	dlb	1	all
21503301201	0080	a2013.d	1000.00 ml	03-APR-2015 18:56	1.000	dlb	1	all
1429294	mb s	a2014.d	10.00 g	03-APR-2015 19:34	1.000	dlb	1	all
1429295	lcs	a2015.d	10.00 g	03-APR-2015 20:13	1.000	dlb	1	all
1429296	lcsd	a2016.d	10.00 g	03-APR-2015 20:52	1.000	dlb	1	all
1429297	mb w	a2017.d	1000.00 ml	03-APR-2015 21:31	1.000	dlb	1	all
1429298	lcs	a2018.d	1000.00 ml	03-APR-2015 22:10	1.000	dlb	1	all
1429299	lcsd	a2019.d	1000.00 ml	03-APR-2015 22:49	1.000	dlb	1	all
1400	1 53-76-10	a2020.d	1000.00 ml	03-APR-2015 23:27	1.000	dlb	1	all
1430484	mb w	a2021.d	1000.00 ml	04-APR-2015 00:06	1.000	dlb	1	all
1430485	lcs	a2022.d	1000.00 ml	04-APR-2015 00:45	1.000	dlb	1	all
1430486	lcsd	a2023.d	1000.00 ml	04-APR-2015 01:24	1.000	dlb	1	all
21504021701	4747	a2024.d	1000.00 ml	04-APR-2015 02:03	1.000	dlb	1	all
21504021703	4747	a2025.d	1000.00 ml	04-APR-2015 02:42	1.000	dlb	1	all
21504021704	4747	a2026.d	1000.00 ml	04-APR-2015 03:21	1.000	dlb	1	all
21504021706	4747	a2027.d	1000.00 ml	04-APR-2015 04:00	1.000	dlb	1	all
21504021708	ms	a2028.d	1000.00 ml	04-APR-2015 04:38	1.000	dlb	1	all
21504021709	msd	a2029.d	1000.00 ml	04-APR-2015 05:17	1.000	dlb	1	all
1400	1 53-76-10	a2030.d	1000.00 ml	04-APR-2015 05:56	1.000	dlb	1	all

LABORATORY CHRONICLE: HPLC DEPARTMENT

Date: 08-APR-2015
Instrument: hplc2.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions: _____

MISC: _____

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
solvblk	1	a2001.d	10.00 g	08-APR-2015 07:53	1.000	dlb	1	8330A
1400	1 53-76-10	a2002.d	1000.00 ml	08-APR-2015 08:31	1.000	dlb	1	all
1430934	mb w	a2003.d	1000.00 ml	08-APR-2015 09:12	1.000	dlb	1	all
1430933	lcs	a2004.d	1000.00 ml	08-APR-2015 09:51	1.000	dlb	1	all
1430935	lcsd	a2005.d	1000.00 ml	08-APR-2015 10:30	1.000	dlb	1	all
21504030401	4747	a2006.d	1000.00 ml	08-APR-2015 11:09	1.000	dlb	1	all
21504030403	4747	a2007.d	1000.00 ml	08-APR-2015 11:48	1.000	dlb	1	all
21504030501	4747	a2008.d	1000.00 ml	08-APR-2015 12:27	1.000	dlb	1	all
21504030503	4747	a2009.d	1000.00 ml	08-APR-2015 13:06	1.000	dlb	1	all
21504030601	4747	a2010.d	1000.00 ml	08-APR-2015 13:45	1.000	dlb	1	all
21504030701	4747	a2011.d	1000.00 ml	08-APR-2015 14:24	1.000	dlb	1	all
21504030703	4747	a2012.d	1000.00 ml	08-APR-2015 15:02	1.000	dlb	1	all
1400	1 53-77-11	a2013.d	1000.00 ml	08-APR-2015 15:41	1.000	dlb	1	all
1430714	mb s	a2014.d	10.00 g	08-APR-2015 16:20	1.000	dlb	1	8330A
1430715	lcs	a2015.d	10.00 g	08-APR-2015 16:59	1.000	dlb	1	8330A
1430716	lcsd	a2016.d	10.00 g	08-APR-2015 17:38	1.000	dlb	1	8330A
21504026816	4574	a2017.d	10.00 g	08-APR-2015 18:17	1.000	dlb	1	8330A
1430717	ms	a2018.d	10.00 g	08-APR-2015 18:55	1.000	dlb	1	8330A
1430718	msd	a2019.d	10.00 g	08-APR-2015 19:34	1.000	dlb	1	8330A
21504026817	4574	a2020.d	10.00 g	08-APR-2015 20:13	1.000	dlb	1	8330A
21504026818	4574	a2021.d	10.00 g	08-APR-2015 20:52	1.000	dlb	1	8330A
21504026819	4574	a2022.d	10.00 g	08-APR-2015 21:31	1.000	dlb	1	8330A
21504026820	4574	a2023.d	10.00 g	08-APR-2015 22:10	1.000	dlb	1	8330A
1400	1 53-77-11	a2024.d	1000.00 ml	08-APR-2015 22:48	1.000	dlb	1	8330A
21504026821	4574	a2025.d	10.00 g	08-APR-2015 23:27	1.000	dlb	1	8330A
21504026822	4574	a2026.d	10.00 g	09-APR-2015 00:06	1.000	dlb	1	8330A
21504026823	4574	a2027.d	10.00 g	09-APR-2015 00:45	1.000	dlb	1	8330A
21504026824	4574	a2028.d	10.00 g	09-APR-2015 01:24	1.000	dlb	1	8330A
21504026825	4574	a2029.d	10.00 g	09-APR-2015 02:03	1.000	dlb	1	8330A
21504027106	4574	a2030.d	10.00 g	09-APR-2015 02:42	1.000	dlb	1	4574
21504027107	4574	a2031.d	10.00 g	09-APR-2015 03:21	1.000	dlb	1	4574
21504027108	4574	a2032.d	10.00 g	09-APR-2015 04:00	1.000	dlb	1	4574
21504027109	4574	a2033.d	10.00 g	09-APR-2015 04:39	1.000	dlb	1	4574
21504027110	4574	a2034.d	10.00 g	09-APR-2015 05:18	1.000	dlb	1	4574
1400	1 53-77-11	a2035.d	1000.00 ml	09-APR-2015 05:56	1.000	dlb	1	8330A
1400	1 53-77-11	a2036.d	1000.00 ml	09-APR-2015 08:20	1.000	dlb	1	8330A

LABORATORY CHRONICLE: HPLC DEPARTMENT

Date: 09-APR-2015
Instrument: hplc2.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions: _____

MISC: _____

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
solvblk	1	a2001.d	1000.00 ml	09-APR-2015 17:06	1.000	dlb	1	8330A
1400	1 53-76-10	a2002.d	1000.00 ml	09-APR-2015 17:18	1.000	dlb	1	8330A
1430710	lcs	a2003.d	10.00 g	09-APR-2015 18:01	1.000	dlb	1	8330A
21504030703	4747	a2004.d	1000.00 ml	09-APR-2015 18:40	1.000	dlb	1	8330A
1430716	lcsd	a2005.d	10.00 g	09-APR-2015 19:19	1.000	dlb	1	8330A
1430718	msd	a2006.d	10.00 g	09-APR-2015 19:57	1.000	dlb	1	8330A
21504026806	4574	a2007.d	10.00 g	09-APR-2015 20:36	1.000	dlb	1	8330A
21504026807	4574	a2008.d	10.00 g	09-APR-2015 21:15	1.000	dlb	1	8330A
21504026808	4574	a2009.d	10.00 g	09-APR-2015 21:54	1.000	dlb	1	8330A
21504026809	4574	a2010.d	10.00 g	09-APR-2015 22:33	1.000	dlb	1	8330A
21504026810	4574	a2011.d	10.00 g	09-APR-2015 23:12	1.000	dlb	1	8330A
1400	1 53-77-11	a2012.d	1000.00 ml	09-APR-2015 23:50	1.000	dlb	1	8330A
21504026811	4574	a2013.d	10.00 g	10-APR-2015 00:29	1.000	dlb	1	8330A
21504026812	4574	a2014.d	10.00 g	10-APR-2015 01:08	1.000	dlb	1	8330A
21504026813	4574	a2015.d	10.00 g	10-APR-2015 01:47	1.000	dlb	1	8330A
21504026814	4574	a2016.d	10.00 g	10-APR-2015 02:26	1.000	dlb	1	8330A
21504026815	4574	a2017.d	10.00 g	10-APR-2015 03:05	1.000	dlb	1	8330A
1400	1 53-77-11	a2018.d	1000.00 ml	10-APR-2015 03:43	1.000	dlb	1	8330A
21504027106	1000	a2019.d	10.00 g	10-APR-2015 04:22	1000.000	dlb	1	4574
21504027109	1000	a2020.d	10.00 g	10-APR-2015 05:01	1000.000	dlb	1	4574
21504027107	5000	a2021.d	10.00 g	10-APR-2015 05:40	5000.000	dlb	1	4574
21504027108	5000	a2022.d	10.00 g	10-APR-2015 06:19	5000.000	dlb	1	4574
21504027110	5000	a2023.d	10.00 g	10-APR-2015 06:58	5000.000	dlb	1	4574
21504027106	10	a2024.d	10.00 g	10-APR-2015 07:37	10.000	dlb	1	4574
21504027109	10	a2025.d	10.00 g	10-APR-2015 08:15	10.000	dlb	1	4574
21504027107	20	a2026.d	10.00 g	10-APR-2015 08:54	20.000	dlb	1	4574
21504027108	20	a2027.d	10.00 g	10-APR-2015 09:33	20.000	dlb	1	4574
21504027110	100	a2028.d	10.00 g	10-APR-2015 10:12	100.000	dlb	1	4574

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: 1 SDG No.: 215040304

SOW No.:

EPA Sample No	Lab Sample ID
MWQ-24	21504030401
MA02MW001D	21504030403
MA01MW002	21504030501
MA01MW001	21504030503
MA02MW001D-a	21504030601
MA01MW004	21504030701
MA01MW003	21504030703
MWQ-21	21504040601
MWQ-20	21504040602
MWQ-19	21504040603
MWQ-18	21504040701
MWQ-2	21504040702
MWQ-2-a	21504040703
MWQ-22	21504040801
MWQ-22-MS	21504040802
MWQ-22-MSD	21504040803
MWQ-24	21504030401
MA02MW001D	21504030403
MA01MW002	21504030501
MA01MW001	21504030503
MA02MW001D-a	21504030601
MA01MW004	21504030701
MA01MW003	21504030703
MWQ-21	21504040601
MWQ-20	21504040602

Were ICP interelement corrections applied ? Yes / No YES

Were ICP background corrections applied ? Yes / No YES

If yes-were raw data generated before application of background corrections ? Yes / No NO

U.S. EPA - CLP
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: 1 SDG No.: 215040304

SOW No.:

EPA Sample No	Lab Sample ID
MWQ-19	21504040603
MWQ-18	21504040701
MWQ-2	21504040702
MWQ-2-a	21504040703
MWQ-22	21504040801
MWQ-22-MS	21504040802
MWQ-22-MSD	21504040803

Were ICP interelement corrections applied ?	Yes / No	YES
Were ICP background corrections applied ?	Yes / No	YES
If yes-were raw data generated before application of background corrections ?	Yes / No	NO

215040304 139

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-24

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030401

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1210

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1358
Antimony	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1358
Arsenic	4.32	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Barium	53.4	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Beryllium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Cadmium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Calcium	40200	ug/L		625	2500	SW-846 6020A	MS	04/10/15 1358
Chromium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Cobalt	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Copper	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Iron	125	ug/L	U	125	500	SW-846 6020A	MS	04/10/15 1358
Lead	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Magnesium	20000	ug/L		125	500	SW-846 6020A	MS	04/10/15 1358
Manganese	6.25	ug/L	U	6.25	25.0	SW-846 6020A	MS	04/10/15 1358
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2226
Molybdenum	15.1	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Nickel	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1358
Potassium	4160	ug/L		125	500	SW-846 6020A	MS	04/10/15 1358
Selenium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Silver	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Sodium	58100	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1355
Thallium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Titanium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Vanadium	28.3	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1358
Zinc	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1358

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-24

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030401

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1210

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2044
Antimony (Disso	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Arsenic (Dissolv	4.23	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Barium (Dissolv	55.5	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Calcium (Dissol	41300	ug/L		125	500	SW-846 6020A Dissolved	MS	04/08/15 2044
Chromium (Diss	0.38	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Copper (Dissolv	0.46	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Iron (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2044
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Magnesium (Dis	20900	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/08/15 2047
Manganese (Dis	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2309
Molybdenum (Di	15.6	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Potassium (Diss	4360	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2044
Selenium (Disso	0.56	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Sodium (Dissolv	57800	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/08/15 2047
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Titanium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Vanadium (Diss	29.1	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2044
Zinc (Dissolved)	22.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2044

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA02MW001D

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030403

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1406

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1408
Antimony	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1408
Arsenic	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Barium	9.28	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Beryllium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Cadmium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Calcium	135000	ug/L		625	2500	SW-846 6020A	MS	04/10/15 1408
Chromium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Cobalt	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Copper	1.97	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Iron	125	ug/L	U	125	500	SW-846 6020A	MS	04/10/15 1408
Lead	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Magnesium	57000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1405
Manganese	183	ug/L		6.25	25.0	SW-846 6020A	MS	04/10/15 1408
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2237
Molybdenum	18.5	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Nickel	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1408
Potassium	6660	ug/L		125	500	SW-846 6020A	MS	04/10/15 1408
Selenium	46.3	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Silver	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Sodium	2170000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1405
Thallium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Titanium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Vanadium	5.05	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1408
Zinc	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1408

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA02MW001D

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030403

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1406

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2057
Antimony (Disso	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/08/15 2057
Arsenic (Dissolv	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Barium (Dissolv	9.18	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Beryllium (Disso	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Cadmium (Diss	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Calcium (Dissol	137000	ug/L		625	2500	SW-846 6020A Dissolved	MS	04/08/15 2057
Chromium (Diss	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Cobalt (Dissolve	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Copper (Dissolv	2.35	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Iron (Dissolved)	125	ug/L	U	125	500	SW-846 6020A Dissolved	MS	04/08/15 2057
Lead (Dissolved	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Magnesium (Dis	58100	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 1400
Manganese (Dis	186	ug/L		6.25	25.0	SW-846 6020A Dissolved	MS	04/08/15 2057
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2311
Molybdenum (Di	18.7	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Nickel (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/08/15 2057
Potassium (Diss	6780	ug/L		125	500	SW-846 6020A Dissolved	MS	04/08/15 2057
Selenium (Disso	49.3	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Silver (Dissolve	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Sodium (Dissolv	2240000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 1400
Thallium (Dissol	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Titanium (Dissol	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Vanadium (Diss	4.77	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2057
Zinc (Dissolved)	26.2	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2057

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA01MW002

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030501

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 0925

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/13/15 1722
Antimony	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/13/15 1722
Arsenic	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Barium	14.8	ug/L		1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Beryllium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Cadmium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Calcium	46400	ug/L		625	2500	SW-846 6020A	MS	04/13/15 1722
Chromium	1.87	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Cobalt	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Copper	1.27	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Iron	125	ug/L	U	125	500	SW-846 6020A	MS	04/13/15 1722
Lead	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Magnesium	39900	ug/L		125	500	SW-846 6020A	MS	04/13/15 1722
Manganese	6.25	ug/L	U	6.25	25.0	SW-846 6020A	MS	04/13/15 1722
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2239
Molybdenum	6.74	ug/L		1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Nickel	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/13/15 1722
Potassium	6030	ug/L		125	500	SW-846 6020A	MS	04/13/15 1722
Selenium	3.91	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Silver	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Sodium	575000	ug/L		12500	50000	SW-846 6020A	MS	04/13/15 1729
Thallium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Titanium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Vanadium	11.2	ug/L		1.25	5.00	SW-846 6020A	MS	04/13/15 1722
Zinc	36.0	ug/L	J	25.0	100	SW-846 6020A	MS	04/13/15 1722

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MA01MW002
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med) % Solids:
Lab Sample ID: 21504030501
Date Received: 04/03/15 Time: 0950
Date Collected: 04/02/15 Time: 0925

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	5.61	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2108
Antimony (Disso	0.96	ug/L	J	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Arsenic (Dissolv	0.70	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Barium (Dissolv	15.4	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Calcium (Dissol	49100	ug/L		125	500	SW-846 6020A Dissolved	MS	04/08/15 2108
Chromium (Diss	1.59	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Copper (Dissolv	1.27	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Iron (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2108
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Magnesium (Dis	41800	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/08/15 2104
Manganese (Dis	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2313
Molybdenum (Di	7.39	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Potassium (Diss	6510	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2108
Selenium (Disso	4.55	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Sodium (Dissolv	551000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/08/15 2104
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Titanium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Vanadium (Diss	12.8	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2108
Zinc (Dissolved)	31.4	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2108

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA01MW001

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030503

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1020

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	8.05	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/08/15 1953
Antimony	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/08/15 1953
Arsenic	0.64	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Barium	13.7	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Beryllium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Cadmium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Calcium	80100	ug/L	J	62500	250000	SW-846 6020A	MS	04/08/15 1950
Chromium	0.51	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Cobalt	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Copper	0.63	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Iron	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/08/15 1953
Lead	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Magnesium	50000	ug/L	J	12500	50000	SW-846 6020A	MS	04/08/15 1950
Manganese	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 1953
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2241
Molybdenum	6.12	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Nickel	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/08/15 1953
Potassium	6360	ug/L		25.0	100	SW-846 6020A	MS	04/08/15 1953
Selenium	4.09	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Silver	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Sodium	645000	ug/L		12500	50000	SW-846 6020A	MS	04/08/15 1950
Thallium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Titanium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Vanadium	10.9	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 1953
Zinc	21.6	ug/L		5.00	20.0	SW-846 6020A	MS	04/08/15 1953

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MA01MW001
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med) % Solids:
Lab Sample ID: 21504030503
Date Received: 04/03/15 Time: 0950
Date Collected: 04/02/15 Time: 1020

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2128
Antimony (Disso	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Arsenic (Dissolv	0.64	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Barium (Dissolv	13.3	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Calcium (Dissol	82700	ug/L	J	62500	250000	SW-846 6020A Dissolved	MS	04/08/15 2125
Chromium (Diss	0.41	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Copper (Dissolv	0.65	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Iron (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2128
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Magnesium (Dis	50900	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/08/15 2125
Manganese (Dis	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2315
Molybdenum (Di	5.85	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Potassium (Diss	6530	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2128
Selenium (Disso	4.00	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Sodium (Dissolv	666000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/08/15 2125
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Titanium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Vanadium (Diss	10.9	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2128
Zinc (Dissolved)	21.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2128

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MA02MW001D-a
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med) % Solids:
Lab Sample ID: 21504030601
Date Received: 04/03/15 Time: 0950
Date Collected: 04/02/15 Time: 1406

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/08/15 2003
Antimony	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/08/15 2003
Arsenic	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Barium	8.30	ug/L		1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Beryllium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Cadmium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Calcium	145000	ug/L		625	2500	SW-846 6020A	MS	04/08/15 2003
Chromium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Cobalt	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Copper	1.94	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Iron	125	ug/L	U	125	500	SW-846 6020A	MS	04/08/15 2003
Lead	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Magnesium	63100	ug/L		12500	50000	SW-846 6020A	MS	04/08/15 2000
Manganese	190	ug/L		6.25	25.0	SW-846 6020A	MS	04/08/15 2003
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2243
Molybdenum	19.7	ug/L		1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Nickel	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/08/15 2003
Potassium	7060	ug/L		125	500	SW-846 6020A	MS	04/08/15 2003
Selenium	48.1	ug/L		1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Silver	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Sodium	2260000	ug/L		12500	50000	SW-846 6020A	MS	04/08/15 2000
Thallium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Titanium	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Vanadium	5.38	ug/L		1.25	5.00	SW-846 6020A	MS	04/08/15 2003
Zinc	25.9	ug/L	J	25.0	100	SW-846 6020A	MS	04/08/15 2003

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA02MW001D-a

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030601

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1406

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2138
Antimony (Disso	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/08/15 2138
Arsenic (Dissolv	1.34	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Barium (Dissolv	8.22	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Beryllium (Disso	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Cadmium (Diss	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Calcium (Dissol	138000	ug/L		625	2500	SW-846 6020A Dissolved	MS	04/08/15 2138
Chromium (Diss	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Cobalt (Dissolve	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Copper (Dissolv	1.94	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Iron (Dissolved)	125	ug/L	U	125	500	SW-846 6020A Dissolved	MS	04/08/15 2138
Lead (Dissolved	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Magnesium (Dis	62600	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/08/15 2135
Manganese (Dis	187	ug/L		6.25	25.0	SW-846 6020A Dissolved	MS	04/08/15 2138
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2317
Molybdenum (Di	19.5	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Nickel (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/08/15 2138
Potassium (Diss	7120	ug/L		125	500	SW-846 6020A Dissolved	MS	04/08/15 2138
Selenium (Disso	58.3	ug/L		1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Silver (Dissolve	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Sodium (Dissolv	2300000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/08/15 2135
Thallium (Dissol	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Titanium (Dissol	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Vanadium (Diss	4.60	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2138
Zinc (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2138

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MA01MW004
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med) % Solids:
Lab Sample ID: 21504030701
Date Received: 04/03/15 Time: 0950
Date Collected: 04/02/15 Time: 0940

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/08/15 2027
Antimony	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/08/15 2027
Arsenic	1.34	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Barium	21.4	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Beryllium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Cadmium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Calcium	47100	ug/L		125	500	SW-846 6020A	MS	04/08/15 2027
Chromium	0.77	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Cobalt	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Copper	0.46	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Iron	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/08/15 2027
Lead	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Magnesium	40600	ug/L		2500	10000	SW-846 6020A	MS	04/08/15 2023
Manganese	1.25	ug/L	U	1.25	5.00	SW-846 6020A	MS	04/08/15 2027
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2245
Molybdenum	6.37	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Nickel	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/08/15 2027
Potassium	5740	ug/L		25.0	100	SW-846 6020A	MS	04/08/15 2027
Selenium	7.03	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Silver	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Sodium	361000	ug/L		2500	10000	SW-846 6020A	MS	04/08/15 2023
Thallium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Titanium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Vanadium	20.3	ug/L		0.25	1.00	SW-846 6020A	MS	04/08/15 2027
Zinc	24.4	ug/L		5.00	20.0	SW-846 6020A	MS	04/08/15 2027

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA01MW004

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030701

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 0940

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2149
Antimony (Disso	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Arsenic (Dissolv	1.29	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Barium (Dissolv	20.7	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Calcium (Dissol	45500	ug/L		125	500	SW-846 6020A Dissolved	MS	04/08/15 2149
Chromium (Diss	0.66	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Copper (Dissolv	0.53	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Iron (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2149
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Magnesium (Dis	41500	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/08/15 2145
Manganese (Dis	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Mercury (Dissol	0.25700	ug/L		0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2328
Molybdenum (Di	5.92	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Potassium (Diss	5680	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2149
Selenium (Disso	7.09	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Sodium (Dissolv	376000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/08/15 2145
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Titanium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Vanadium (Diss	19.6	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2149
Zinc (Dissolved)	22.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2149

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MA01MW003
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040304
Level: (low / med)
% Solids:
Lab Sample ID: 21504030703
Date Received: 04/03/15
Time: 0950
Date Collected: 04/02/15
Time: 1059

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	5.54	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 1403
Antimony	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/09/15 1403
Arsenic	1.08	ug/L		0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Barium	14.8	ug/L		0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Beryllium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Cadmium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Calcium	86100	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 1413
Chromium	0.49	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Cobalt	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Copper	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Iron	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/09/15 1403
Lead	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Magnesium	71700	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 1413
Manganese	1.67	ug/L	J	1.25	5.00	SW-846 6020A	MS	04/09/15 1403
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2247
Molybdenum	4.46	ug/L		0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Nickel	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/09/15 1403
Potassium	7900	ug/L		25.0	100	SW-846 6020A	MS	04/09/15 1403
Selenium	4.03	ug/L		0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Silver	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Sodium	545000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 1413
Thallium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Titanium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Vanadium	14.2	ug/L		0.25	1.00	SW-846 6020A	MS	04/09/15 1403
Zinc	30.4	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 1403

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MA01MW003

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504030703

Date Received: 04/03/15 | Time: 0950 | Date Collected: 04/02/15 | Time: 1059

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2159
Antimony (Disso	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Arsenic (Dissolv	0.99	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Barium (Dissolv	14.4	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Calcium (Dissol	91400	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/08/15 2155
Chromium (Diss	0.41	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Copper (Dissolv	0.27	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Iron (Dissolved)	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2159
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Magnesium (Dis	73800	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/08/15 2155
Manganese (Dis	1.25	ug/L	U	1.25	5.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Mercury (Dissol	0.07900	ug/L	J	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2331
Molybdenum (Di	4.25	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Potassium (Diss	7830	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/08/15 2159
Selenium (Disso	3.96	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Sodium (Dissolv	493000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1043
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Titanium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Vanadium (Diss	14.2	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/08/15 2159
Zinc (Dissolved)	28.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/08/15 2159

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-21

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040601

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1045

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	880	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1152
Antimony	0.50	ug/L	U	0.50	2.00	SW-846 6020A	MS	04/10/15 1152
Arsenic	6.07	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Barium	33.8	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Beryllium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Cadmium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Calcium	122000	ug/L		6250	25000	SW-846 6020A	MS	04/10/15 1149
Chromium	1.23	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Cobalt	0.25	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Copper	1.99	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Iron	500	ug/L		25.0	100	SW-846 6020A	MS	04/10/15 1152
Lead	0.64	ug/L	J	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Magnesium	53500	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1149
Manganese	13.9	ug/L		1.25	5.00	SW-846 6020A	MS	04/10/15 1152
Molybdenum	12.2	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Nickel	0.67	ug/L	J	0.50	2.00	SW-846 6020A	MS	04/10/15 1152
Potassium	8770	ug/L		25.0	100	SW-846 6020A	MS	04/10/15 1152
Selenium	9.72	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Silver	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Sodium	191000	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1149
Thallium	0.25	ug/L	U	0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Titanium	8.69	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Vanadium	51.9	ug/L		0.25	1.00	SW-846 6020A	MS	04/10/15 1152
Zinc	84.4	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1152

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-21

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040601

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1045

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	44.1	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1550
Antimony (Disso	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Arsenic (Dissolv	5.71	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Barium (Dissolv	24.4	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Beryllium (Disso	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Cadmium (Diss	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Calcium (Dissol	109000	ug/L		6250	25000	SW-846 6020A Dissolved	MS	04/10/15 1547
Chromium (Diss	0.54	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Cobalt (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Copper (Dissolv	0.63	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Iron (Dissolved)	28.6	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1550
Lead (Dissolved	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Magnesium (Dis	48200	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1547
Manganese (Dis	1.26	ug/L	J	1.25	5.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Molybdenum (Di	11.2	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Nickel (Dissolve	0.50	ug/L	U	0.50	2.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Potassium (Diss	8300	ug/L		25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1550
Selenium (Disso	9.68	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Silver (Dissolve	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Sodium (Dissolv	173000	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1547
Thallium (Dissol	0.25	ug/L	U	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Titanium (Dissol	0.62	ug/L	J	0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Vanadium (Diss	48.0	ug/L		0.25	1.00	SW-846 6020A Dissolved	MS	04/10/15 1550
Zinc (Dissolved)	23.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1550

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-20

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040602

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1207

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1203
Antimony	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1203
Arsenic	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Barium	93.6	ug/L	J	25.0	100	SW-846 6020A	MS	04/10/15 1203
Beryllium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Cadmium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Calcium	844000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1203
Chromium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Cobalt	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Copper	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Iron	2500	ug/L	U	2500	10000	SW-846 6020A	MS	04/10/15 1203
Lead	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Magnesium	426000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1203
Manganese	1130	ug/L		125	500	SW-846 6020A	MS	04/10/15 1203
Molybdenum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Nickel	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1203
Potassium	14200	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1203
Selenium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Silver	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Sodium	3800000	ug/L		25000	100000	SW-846 6020A	MS	04/10/15 1159
Thallium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Titanium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Vanadium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1203
Zinc	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1203

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MWQ-20
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040304
Level: (low / med)
% Solids:
Lab Sample ID: 21504040602
Date Received: 04/04/15
Time: 0945
Date Collected: 04/03/15
Time: 1207

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1600
Antimony (Disso	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1600
Arsenic (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Barium (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Beryllium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Cadmium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Calcium (Dissol	774000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/10/15 1600
Chromium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Cobalt (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Copper (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Iron (Dissolved)	2500	ug/L	U	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1600
Lead (Dissolved	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Magnesium (Dis	386000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1600
Manganese (Dis	1000	ug/L		125	500	SW-846 6020A Dissolved	MS	04/10/15 1600
Molybdenum (Di	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Nickel (Dissolve	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1600
Potassium (Diss	12000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1600
Selenium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Silver (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Sodium (Dissolv	3510000	ug/L		25000	100000	SW-846 6020A Dissolved	MS	04/10/15 1557
Thallium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Titanium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Vanadium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1600
Zinc (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1600

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-19

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040603

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1210

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1226
Antimony	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1226
Arsenic	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Barium	99.3	ug/L	J	25.0	100	SW-846 6020A	MS	04/10/15 1226
Beryllium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Cadmium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Calcium	381000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1226
Chromium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Cobalt	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Copper	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Iron	2500	ug/L	U	2500	10000	SW-846 6020A	MS	04/10/15 1226
Lead	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Magnesium	214000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1226
Manganese	432	ug/L	J	125	500	SW-846 6020A	MS	04/10/15 1226
Molybdenum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Nickel	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1226
Potassium	9810	ug/L	J	2500	10000	SW-846 6020A	MS	04/10/15 1226
Selenium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Silver	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Sodium	1280000	ug/L		25000	100000	SW-846 6020A	MS	04/10/15 1209
Thallium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Titanium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Vanadium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1226
Zinc	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1226

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-19

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040603

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1210

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1621
Antimony (Disso	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1621
Arsenic (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Barium (Dissolv	28.9	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Beryllium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Cadmium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Calcium (Dissol	333000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/10/15 1621
Chromium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Cobalt (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Copper (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Iron (Dissolved)	2500	ug/L	U	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1621
Lead (Dissolved	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Magnesium (Dis	190000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1621
Manganese (Dis	358	ug/L	J	125	500	SW-846 6020A Dissolved	MS	04/10/15 1621
Molybdenum (Di	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Nickel (Dissolve	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1621
Potassium (Diss	8840	ug/L	J	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1621
Selenium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Silver (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Sodium (Dissolv	1130000	ug/L		25000	100000	SW-846 6020A Dissolved	MS	04/10/15 1617
Thallium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Titanium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Vanadium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1621
Zinc (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1621

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-18

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040701

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1250

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1230
Antimony	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/10/15 1230
Arsenic	7.42	ug/L	J	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Barium	31.7	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Beryllium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Cadmium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Calcium	47600	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1230
Chromium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Cobalt	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Copper	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Iron	250	ug/L	U	250	1000	SW-846 6020A	MS	04/10/15 1230
Lead	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Magnesium	20100	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1230
Manganese	12.5	ug/L	U	12.5	50.0	SW-846 6020A	MS	04/10/15 1230
Molybdenum	4.68	ug/L	J	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Nickel	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/10/15 1230
Potassium	2580	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1230
Selenium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Silver	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Sodium	67500	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1230
Thallium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Titanium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Vanadium	57.4	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1230
Zinc	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1230

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-18

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040701

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1250

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1634
Antimony (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Arsenic (Dissolv	7.43	ug/L	J	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Barium (Dissolv	29.5	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Beryllium (Disso	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Cadmium (Diss	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Calcium (Dissol	48000	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1634
Chromium (Diss	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Cobalt (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Copper (Dissolv	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Iron (Dissolved)	250	ug/L	U	250	1000	SW-846 6020A Dissolved	MS	04/10/15 1634
Lead (Dissolved	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Magnesium (Dis	20000	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1634
Manganese (Dis	12.5	ug/L	U	12.5	50.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Molybdenum (Di	4.55	ug/L	J	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Nickel (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Potassium (Diss	2500	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1634
Selenium (Disso	3.60	ug/L	J	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Silver (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Sodium (Dissolv	67000	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1634
Thallium (Dissol	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Titanium (Dissol	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Vanadium (Diss	57.6	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1634
Zinc (Dissolved)	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1634

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-2

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040702

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1420

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1240
Antimony	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1240
Arsenic	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Barium	95.9	ug/L	J	25.0	100	SW-846 6020A	MS	04/10/15 1240
Beryllium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Cadmium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Calcium	281000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1240
Chromium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Cobalt	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Copper	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Iron	2500	ug/L	U	2500	10000	SW-846 6020A	MS	04/10/15 1240
Lead	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Magnesium	149000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1240
Manganese	615	ug/L		125	500	SW-846 6020A	MS	04/10/15 1240
Molybdenum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Nickel	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1240
Potassium	9030	ug/L	J	2500	10000	SW-846 6020A	MS	04/10/15 1240
Selenium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Silver	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Sodium	2440000	ug/L		25000	100000	SW-846 6020A	MS	04/21/15 1808
Thallium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Titanium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Vanadium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1240
Zinc	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1240

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-2

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040702

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1420

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1641
Antimony (Disso	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1641
Arsenic (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Barium (Dissolv	26.5	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Beryllium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Cadmium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Calcium (Dissol	249000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/10/15 1641
Chromium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Cobalt (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Copper (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Iron (Dissolved)	2500	ug/L	U	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1641
Lead (Dissolved	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Magnesium (Dis	139000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1641
Manganese (Dis	550	ug/L		125	500	SW-846 6020A Dissolved	MS	04/10/15 1641
Molybdenum (Di	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Nickel (Dissolve	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1641
Potassium (Diss	8140	ug/L	J	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1641
Selenium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Silver (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Sodium (Dissolv	2450000	ug/L		25000	100000	SW-846 6020A Dissolved	MS	04/10/15 1638
Thallium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Titanium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Vanadium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1641
Zinc (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1641

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-2-a

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040703

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1420

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1250
Antimony	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1250
Arsenic	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Barium	95.5	ug/L	J	25.0	100	SW-846 6020A	MS	04/10/15 1250
Beryllium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Cadmium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Calcium	265000	ug/L		12500	50000	SW-846 6020A	MS	04/10/15 1250
Chromium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Cobalt	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Copper	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Iron	2500	ug/L	U	2500	10000	SW-846 6020A	MS	04/10/15 1250
Lead	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Magnesium	148000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1250
Manganese	624	ug/L		125	500	SW-846 6020A	MS	04/10/15 1250
Molybdenum	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Nickel	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1250
Potassium	9230	ug/L	J	2500	10000	SW-846 6020A	MS	04/10/15 1250
Selenium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Silver	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Sodium	2520000	ug/L		25000	100000	SW-846 6020A	MS	04/10/15 1247
Thallium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Titanium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Vanadium	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/10/15 1250
Zinc	500	ug/L	U	500	2000	SW-846 6020A	MS	04/10/15 1250

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-2-a

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040703

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 1420

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1651
Antimony (Disso	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1651
Arsenic (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Barium (Dissolv	27.0	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Beryllium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Cadmium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Calcium (Dissol	244000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/10/15 1651
Chromium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Cobalt (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Copper (Dissolv	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Iron (Dissolved)	2500	ug/L	U	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1651
Lead (Dissolved	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Magnesium (Dis	136000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1651
Manganese (Dis	522	ug/L		125	500	SW-846 6020A Dissolved	MS	04/10/15 1651
Molybdenum (Di	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Nickel (Dissolve	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1651
Potassium (Diss	8550	ug/L	J	2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1651
Selenium (Disso	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Silver (Dissolve	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Sodium (Dissolv	2390000	ug/L		25000	100000	SW-846 6020A Dissolved	MS	04/13/15 1840
Thallium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Titanium (Dissol	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Vanadium (Diss	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/10/15 1651
Zinc (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/10/15 1651

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-22

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040801

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1300
Antimony	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/10/15 1300
Arsenic	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Barium	36.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Beryllium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Cadmium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Calcium	54300	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1300
Chromium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Cobalt	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Copper	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Iron	392	ug/L	J	250	1000	SW-846 6020A	MS	04/10/15 1300
Lead	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Magnesium	21700	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1300
Manganese	168	ug/L		12.5	50.0	SW-846 6020A	MS	04/10/15 1300
Molybdenum	13.0	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Nickel	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/10/15 1300
Potassium	3100	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1300
Selenium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Silver	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Sodium	354000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1257
Thallium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Titanium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Vanadium	2.50	ug/L	U	2.50	10.0	SW-846 6020A	MS	04/10/15 1300
Zinc	50.0	ug/L	U	50.0	200	SW-846 6020A	MS	04/10/15 1300

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-22

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040801

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1702
Antimony (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Arsenic (Dissolv	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Barium (Dissolv	32.4	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Beryllium (Disso	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Cadmium (Diss	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Calcium (Dissol	52300	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1702
Chromium (Diss	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Cobalt (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Copper (Dissolv	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Iron (Dissolved)	333	ug/L	J	250	1000	SW-846 6020A Dissolved	MS	04/10/15 1702
Lead (Dissolved	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Magnesium (Dis	21200	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1702
Manganese (Dis	191	ug/L		12.5	50.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Molybdenum (Di	13.1	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Nickel (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Potassium (Diss	3020	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1702
Selenium (Disso	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Silver (Dissolve	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Sodium (Dissolv	365000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1658
Thallium (Dissol	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Titanium (Dissol	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Vanadium (Diss	2.50	ug/L	U	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1702
Zinc (Dissolved)	50.0	ug/L	U	50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1702

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-22-MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040802

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	1140	ug/L		50.0	200	SW-846 6020A	MS	04/10/15 1311
Antimony	104	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1311
Arsenic	50.8	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Barium	88.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Beryllium	52.4	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Cadmium	53.2	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Calcium	83700	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1311
Chromium	49.7	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Cobalt	52.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Copper	55.3	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Iron	5610	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1311
Lead	53.7	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Magnesium	28300	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1311
Manganese	229	ug/L		12.5	50.0	SW-846 6020A	MS	04/10/15 1311
Molybdenum	66.0	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Nickel	106	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1311
Potassium	8330	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1311
Selenium	11.3	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Silver	50.1	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Sodium	392000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1307
Thallium	52.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Titanium	52.4	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Vanadium	52.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1311
Zinc	1070	ug/L		50.0	200	SW-846 6020A	MS	04/10/15 1311

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-22-MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040802

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	968	ug/L		50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1722
Antimony (Disso	96.6	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Arsenic (Dissolv	45.0	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Barium (Dissolv	79.5	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Beryllium (Disso	48.2	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Cadmium (Diss	49.3	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Calcium (Dissol	74700	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1722
Chromium (Diss	44.8	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Cobalt (Dissolve	47.9	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Copper (Dissolv	49.9	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Iron (Dissolved)	5120	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1722
Lead (Dissolved	49.0	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Magnesium (Dis	25300	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1722
Manganese (Dis	236	ug/L		12.5	50.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Molybdenum (Di	60.7	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Nickel (Dissolve	130	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Potassium (Diss	7660	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1722
Selenium (Disso	10.1	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Silver (Dissolve	24.5	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Sodium (Dissolv	368000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1705
Thallium (Dissol	48.0	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Titanium (Dissol	46.9	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Vanadium (Diss	48.6	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1722
Zinc (Dissolved)	984	ug/L		50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1722

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MWQ-22-MSD

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040304

Level: (low / med) | % Solids: | Lab Sample ID: 21504040803

Date Received: 04/04/15 | Time: 0945 | Date Collected: 04/03/15 | Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	1130	ug/L		50.0	200	SW-846 6020A	MS	04/10/15 1331
Antimony	104	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1331
Arsenic	49.2	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Barium	86.0	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Beryllium	52.2	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Cadmium	53.1	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Calcium	80100	ug/L		1250	5000	SW-846 6020A	MS	04/10/15 1331
Chromium	48.6	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Cobalt	51.7	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Copper	54.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Iron	5510	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1331
Lead	52.7	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Magnesium	26900	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1331
Manganese	217	ug/L		12.5	50.0	SW-846 6020A	MS	04/10/15 1331
Molybdenum	64.8	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Nickel	105	ug/L		5.00	20.0	SW-846 6020A	MS	04/10/15 1331
Potassium	8130	ug/L		250	1000	SW-846 6020A	MS	04/10/15 1331
Selenium	9.44	ug/L	J	2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Silver	49.8	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Sodium	351000	ug/L		2500	10000	SW-846 6020A	MS	04/10/15 1327
Thallium	51.5	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Titanium	52.8	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Vanadium	52.3	ug/L		2.50	10.0	SW-846 6020A	MS	04/10/15 1331
Zinc	1060	ug/L		50.0	200	SW-846 6020A	MS	04/10/15 1331

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID MWQ-22-MSD
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med) % Solids:
Lab Sample ID: 21504040803
Date Received: 04/04/15 Time: 0945
Date Collected: 04/03/15 Time: 0935

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	1010	ug/L		50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1732
Antimony (Disso	99.1	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Arsenic (Dissolv	48.0	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Barium (Dissolv	81.3	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Beryllium (Disso	50.3	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Cadmium (Diss	50.7	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Calcium (Dissol	76000	ug/L		1250	5000	SW-846 6020A Dissolved	MS	04/10/15 1732
Chromium (Diss	46.9	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Cobalt (Dissolve	48.8	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Copper (Dissolv	51.8	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Iron (Dissolved)	5350	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1732
Lead (Dissolved	50.4	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Magnesium (Dis	25800	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1732
Manganese (Dis	238	ug/L		12.5	50.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Molybdenum (Di	62.8	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Nickel (Dissolve	101	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Potassium (Diss	7780	ug/L		250	1000	SW-846 6020A Dissolved	MS	04/10/15 1732
Selenium (Disso	9.74	ug/L	J	2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Silver (Dissolve	29.1	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Sodium (Dissolv	346000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/10/15 1725
Thallium (Dissol	49.2	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Titanium (Dissol	51.4	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Vanadium (Diss	49.8	ug/L		2.50	10.0	SW-846 6020A Dissolved	MS	04/10/15 1732
Zinc (Dissolved)	1010	ug/L		50.0	200	SW-846 6020A Dissolved	MS	04/10/15 1732

FORM I - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/04/15 Time: 2017

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1040	104	ug/L	SW-846 6020A	MS
Antimony	50.0	46.1	92	ug/L	SW-846 6020A	MS
Arsenic	50.0	54.5	109	ug/L	SW-846 6020A	MS
Barium	50.0	51.5	103	ug/L	SW-846 6020A	MS
Beryllium	50.0	51.0	102	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.7	103	ug/L	SW-846 6020A	MS
Calcium	25000	25600	103	ug/L	SW-846 6020A	MS
Chromium	50.0	51.8	104	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.2	102	ug/L	SW-846 6020A	MS
Copper	50.0	52.7	105	ug/L	SW-846 6020A	MS
Iron	5000	5130	103	ug/L	SW-846 6020A	MS
Lead	50.0	51.1	102	ug/L	SW-846 6020A	MS
Magnesium	5000	5200	104	ug/L	SW-846 6020A	MS
Manganese	50.0	50.5	101	ug/L	SW-846 6020A	MS
Molybdenum	50.0	50.1	100	ug/L	SW-846 6020A	MS
Nickel	100	102	102	ug/L	SW-846 6020A	MS
Potassium	5000	5100	102	ug/L	SW-846 6020A	MS
Selenium	25.0	24.8	99	ug/L	SW-846 6020A	MS
Silver	50.0	50.1	100	ug/L	SW-846 6020A	MS
Sodium	5000	5160	103	ug/L	SW-846 6020A	MS
Thallium	50.0	51.5	103	ug/L	SW-846 6020A	MS
Titanium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Vanadium	50.0	51.4	103	ug/L	SW-846 6020A	MS
Zinc	1000	1010	101	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/04/15 Time: 2024

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.0	100	ug/L	SW-846 6020A	MS
Antimony	2.00	2.10	105	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.00	100	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	521	104	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.06	106	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	99.6	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.07	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	1.71	85	ug/L	SW-846 6020A	MS
Potassium	100	99.9	100	ug/L	SW-846 6020A	MS
Selenium	1.00	0.800	80	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	101	101	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	20.7	103	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0416

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	24.2	121	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.00	100	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Calcium	500	545	109	ug/L	SW-846 6020A	MS
Chromium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.08	108	ug/L	SW-846 6020A	MS
Copper	1.00	1.04	104	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	1.02	102	ug/L	SW-846 6020A	MS
Magnesium	100	105	105	ug/L	SW-846 6020A	MS
Manganese	5.00	5.10	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	1.49	75	ug/L	SW-846 6020A	MS
Potassium	100	97.6	98	ug/L	SW-846 6020A	MS
Selenium	1.00	1.06	106	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	91.5	91	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Zinc	20.0	21.0	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0420

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Beryllium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.94	99	ug/L	SW-846 6020A	MS
Calcium	5000	5090	102	ug/L	SW-846 6020A	MS
Chromium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.2	102	ug/L	SW-846 6020A	MS
Copper	10.0	10.4	104	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	9.89	99	ug/L	SW-846 6020A	MS
Magnesium	1000	1020	102	ug/L	SW-846 6020A	MS
Manganese	50.0	50.2	100	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.73	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.1	101	ug/L	SW-846 6020A	MS
Potassium	1000	969	97	ug/L	SW-846 6020A	MS
Selenium	10.0	9.68	97	ug/L	SW-846 6020A	MS
Silver	10.0	9.94	99	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Titanium	10.0	9.94	99	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.89	99	ug/L	SW-846 6020A	MS
Zinc	200	200	100	ug/L	SW-846 6020A	MS
Aluminum	200	199	100	ug/L	SW-846 6020A	MS
Antimony	20.0	20.1	100	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.96	100	ug/L	SW-846 6020A	MS
Barium	10.0	10.0	100	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0505

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	22.6	113	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.01	101	ug/L	SW-846 6020A	MS
Barium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	529	106	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.03	103	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	0.980	98	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.10	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	1.60	80	ug/L	SW-846 6020A	MS
Potassium	100	94.7	95	ug/L	SW-846 6020A	MS
Selenium	1.00	1.06	106	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	85.0	85	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Zinc	20.0	20.8	104	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0508

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	197	98	ug/L	SW-846 6020A	MS
Antimony	20.0	19.8	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.82	98	ug/L	SW-846 6020A	MS
Barium	10.0	9.87	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.90	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.86	99	ug/L	SW-846 6020A	MS
Calcium	5000	5020	100	ug/L	SW-846 6020A	MS
Chromium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.84	98	ug/L	SW-846 6020A	MS
Magnesium	1000	999	100	ug/L	SW-846 6020A	MS
Manganese	50.0	49.7	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.64	96	ug/L	SW-846 6020A	MS
Nickel	20.0	20.0	100	ug/L	SW-846 6020A	MS
Potassium	1000	971	97	ug/L	SW-846 6020A	MS
Selenium	10.0	9.70	97	ug/L	SW-846 6020A	MS
Silver	10.0	9.87	99	ug/L	SW-846 6020A	MS
Sodium	1000	999	100	ug/L	SW-846 6020A	MS
Thallium	10.0	9.93	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.93	99	ug/L	SW-846 6020A	MS
Zinc	200	200	100	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 1933

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1040	104	ug/L	SW-846 6020A	MS
Antimony	50.0	49.0	98	ug/L	SW-846 6020A	MS
Arsenic	50.0	53.6	107	ug/L	SW-846 6020A	MS
Barium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Beryllium	50.0	49.8	100	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.9	104	ug/L	SW-846 6020A	MS
Calcium	25000	25500	102	ug/L	SW-846 6020A	MS
Chromium	50.0	49.9	100	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.2	102	ug/L	SW-846 6020A	MS
Copper	50.0	52.6	105	ug/L	SW-846 6020A	MS
Iron	5000	5200	104	ug/L	SW-846 6020A	MS
Lead	50.0	53.0	106	ug/L	SW-846 6020A	MS
Magnesium	5000	5190	104	ug/L	SW-846 6020A	MS
Manganese	50.0	52.1	104	ug/L	SW-846 6020A	MS
Molybdenum	50.0	49.9	100	ug/L	SW-846 6020A	MS
Nickel	100	104	104	ug/L	SW-846 6020A	MS
Potassium	5000	5030	101	ug/L	SW-846 6020A	MS
Selenium	25.0	25.3	101	ug/L	SW-846 6020A	MS
Silver	50.0	51.1	102	ug/L	SW-846 6020A	MS
Sodium	5000	5200	104	ug/L	SW-846 6020A	MS
Thallium	50.0	52.0	104	ug/L	SW-846 6020A	MS
Titanium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Vanadium	50.0	52.0	104	ug/L	SW-846 6020A	MS
Zinc	1000	1050	105	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 1939

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.1	106	ug/L	SW-846 6020A	MS
Antimony	2.00	2.01	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.960	96	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	564	113	ug/L	SW-846 6020A	MS
Chromium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	1.09	109	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	4.97	99	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.15	107	ug/L	SW-846 6020A	MS
Potassium	100	100	100	ug/L	SW-846 6020A	MS
Selenium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	104	104	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	21.0	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

215040304 175

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2017

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.7	99	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Calcium	500	551	110	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.08	108	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	4.98	100	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.970	97	ug/L	SW-846 6020A	MS
Nickel	2.00	2.11	105	ug/L	SW-846 6020A	MS
Potassium	100	105	105	ug/L	SW-846 6020A	MS
Selenium	1.00	1.08	108	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	136	136	ug/L	SW-846 6020A	MS
Thallium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Titanium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	21.3	107	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2020

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	201	100	ug/L	SW-846 6020A	MS
Antimony	20.0	20.1	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.66	97	ug/L	SW-846 6020A	MS
Barium	10.0	9.81	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.92	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5140	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.64	96	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	51.0	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.90	99	ug/L	SW-846 6020A	MS
Nickel	20.0	20.7	103	ug/L	SW-846 6020A	MS
Potassium	1000	999	100	ug/L	SW-846 6020A	MS
Selenium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1040	104	ug/L	SW-846 6020A	MS
Thallium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Titanium	10.0	10.5	105	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Zinc	200	206	103	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2118

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	18.4	92	ug/L	SW-846 6020A	MS
Antimony	2.00	2.01	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.930	93	ug/L	SW-846 6020A	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Calcium	500	554	111	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.02	102	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	105	105	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	4.96	99	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.06	103	ug/L	SW-846 6020A	MS
Potassium	100	104	104	ug/L	SW-846 6020A	MS
Selenium	1.00	0.840	84	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	183	183	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	21.1	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2121

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	206	103	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.66	97	ug/L	SW-846 6020A	MS
Barium	10.0	9.91	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	5120	102	ug/L	SW-846 6020A	MS
Chromium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.4	104	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1040	104	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	51.6	103	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.92	99	ug/L	SW-846 6020A	MS
Nickel	20.0	21.1	106	ug/L	SW-846 6020A	MS
Potassium	1000	993	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1100	110	ug/L	SW-846 6020A	MS
Thallium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	209	105	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2226

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	17.0	85	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	551	110	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.06	106	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	106	106	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	105	105	ug/L	SW-846 6020A	MS
Manganese	5.00	5.09	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.08	104	ug/L	SW-846 6020A	MS
Potassium	100	101	101	ug/L	SW-846 6020A	MS
Selenium	1.00	1.10	110	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	165	165	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	21.3	106	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 2229

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	204	102	ug/L	SW-846 6020A	MS
Antimony	20.0	20.3	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.42	94	ug/L	SW-846 6020A	MS
Barium	10.0	9.93	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.99	100	ug/L	SW-846 6020A	MS
Calcium	5000	5170	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.86	99	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.2	102	ug/L	SW-846 6020A	MS
Magnesium	1000	1030	103	ug/L	SW-846 6020A	MS
Manganese	50.0	50.6	101	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.82	98	ug/L	SW-846 6020A	MS
Nickel	20.0	20.8	104	ug/L	SW-846 6020A	MS
Potassium	1000	996	100	ug/L	SW-846 6020A	MS
Selenium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1100	110	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	9.96	100	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	207	104	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0558

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	16.0	80	ug/L	SW-846 6020A	MS
Antimony	2.00	2.04	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.970	97	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	556	111	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.10	110	ug/L	SW-846 6020A	MS
Iron	100	101	101	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	103	103	ug/L	SW-846 6020A	MS
Manganese	5.00	5.13	103	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.13	106	ug/L	SW-846 6020A	MS
Potassium	100	104	104	ug/L	SW-846 6020A	MS
Selenium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Silver	1.00	1.03	103	ug/L	SW-846 6020A	MS
Sodium	100	99.0	99	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Zinc	20.0	21.6	108	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0601

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	200	199	99	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.56	96	ug/L	SW-846 6020A	MS
Barium	10.0	9.85	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.59	96	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5040	101	ug/L	SW-846 6020A	MS
Chromium	10.0	9.74	97	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.6	106	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	50.9	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.88	99	ug/L	SW-846 6020A	MS
Nickel	20.0	21.0	105	ug/L	SW-846 6020A	MS
Potassium	1000	987	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Zinc	200	208	104	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0659

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	16.7	84	ug/L	SW-846 6020A	MS
Antimony	2.00	2.04	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.960	96	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Calcium	500	564	113	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.07	107	ug/L	SW-846 6020A	MS
Copper	1.00	1.08	108	ug/L	SW-846 6020A	MS
Iron	100	106	106	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.72	114	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.970	97	ug/L	SW-846 6020A	MS
Nickel	2.00	2.11	105	ug/L	SW-846 6020A	MS
Potassium	100	99.9	100	ug/L	SW-846 6020A	MS
Selenium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	89.4	89	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	21.5	107	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0702

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	201	101	ug/L	SW-846 6020A	MS
Antimony	20.0	20.4	102	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.56	96	ug/L	SW-846 6020A	MS
Barium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.41	94	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Calcium	5000	5140	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.5	105	ug/L	SW-846 6020A	MS
Copper	10.0	10.8	108	ug/L	SW-846 6020A	MS
Iron	1000	1030	103	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	51.9	104	ug/L	SW-846 6020A	MS
Molybdenum	10.0	10.0	100	ug/L	SW-846 6020A	MS
Nickel	20.0	21.1	105	ug/L	SW-846 6020A	MS
Potassium	1000	1010	101	ug/L	SW-846 6020A	MS
Selenium	10.0	9.99	100	ug/L	SW-846 6020A	MS
Silver	10.0	10.3	103	ug/L	SW-846 6020A	MS
Sodium	1000	1030	103	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.3	103	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	210	105	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1133

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1010	101	ug/L	SW-846 6020A	MS
Antimony	50.0	46.9	94	ug/L	SW-846 6020A	MS
Arsenic	50.0	51.7	103	ug/L	SW-846 6020A	MS
Barium	50.0	49.2	98	ug/L	SW-846 6020A	MS
Beryllium	50.0	49.9	100	ug/L	SW-846 6020A	MS
Cadmium	50.0	50.8	102	ug/L	SW-846 6020A	MS
Calcium	25000	24900	100	ug/L	SW-846 6020A	MS
Chromium	50.0	48.2	96	ug/L	SW-846 6020A	MS
Cobalt	50.0	50.0	100	ug/L	SW-846 6020A	MS
Copper	50.0	50.9	102	ug/L	SW-846 6020A	MS
Iron	5000	4990	100	ug/L	SW-846 6020A	MS
Lead	50.0	51.7	103	ug/L	SW-846 6020A	MS
Magnesium	5000	5050	101	ug/L	SW-846 6020A	MS
Manganese	50.0	50.4	101	ug/L	SW-846 6020A	MS
Molybdenum	50.0	48.3	97	ug/L	SW-846 6020A	MS
Nickel	100	101	101	ug/L	SW-846 6020A	MS
Potassium	5000	4840	97	ug/L	SW-846 6020A	MS
Selenium	25.0	24.5	98	ug/L	SW-846 6020A	MS
Silver	50.0	46.5	93	ug/L	SW-846 6020A	MS
Sodium	5000	5080	102	ug/L	SW-846 6020A	MS
Thallium	50.0	51.1	102	ug/L	SW-846 6020A	MS
Titanium	50.0	49.5	99	ug/L	SW-846 6020A	MS
Vanadium	50.0	50.5	101	ug/L	SW-846 6020A	MS
Zinc	1000	1010	101	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1156

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.3	101	ug/L	SW-846 6020A	MS
Antimony	2.00	2.05	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Calcium	500	548	110	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.02	102	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	101	101	ug/L	SW-846 6020A	MS
Lead	1.00	1.07	107	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.00	100	ug/L	SW-846 6020A	MS
Molybdenum	1.00	1.00	100	ug/L	SW-846 6020A	MS
Nickel	2.00	2.13	107	ug/L	SW-846 6020A	MS
Potassium	100	91.8	92	ug/L	SW-846 6020A	MS
Selenium	1.00	0.780	78	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	105	105	ug/L	SW-846 6020A	MS
Thallium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Zinc	20.0	21.3	106	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

215040304 151

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1344

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.9	109	ug/L	SW-846 6020A	MS
Antimony	2.00	2.04	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.960	96	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Calcium	500	539	108	ug/L	SW-846 6020A	MS
Chromium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.06	106	ug/L	SW-846 6020A	MS
Copper	1.00	1.06	106	ug/L	SW-846 6020A	MS
Iron	100	95.3	95	ug/L	SW-846 6020A	MS
Lead	1.00	1.04	104	ug/L	SW-846 6020A	MS
Magnesium	100	105	105	ug/L	SW-846 6020A	MS
Manganese	5.00	5.12	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.16	108	ug/L	SW-846 6020A	MS
Potassium	100	99.5	100	ug/L	SW-846 6020A	MS
Selenium	1.00	0.840	84	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	112	112	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Zinc	20.0	20.9	104	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1347

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	207	104	ug/L	SW-846 6020A	MS
Antimony	20.0	20.3	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.45	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.78	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Calcium	5000	5080	102	ug/L	SW-846 6020A	MS
Chromium	10.0	9.64	96	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1010	101	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1030	103	ug/L	SW-846 6020A	MS
Manganese	50.0	51.0	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.72	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.8	104	ug/L	SW-846 6020A	MS
Potassium	1000	985	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Silver	10.0	10.0	100	ug/L	SW-846 6020A	MS
Sodium	1000	1050	105	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	9.90	99	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Zinc	200	205	103	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1505

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.0	105	ug/L	SW-846 6020A	MS
Antimony	2.00	2.10	105	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.920	92	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	533	107	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	104	104	ug/L	SW-846 6020A	MS
Lead	1.00	1.04	104	ug/L	SW-846 6020A	MS
Magnesium	100	103	103	ug/L	SW-846 6020A	MS
Manganese	5.00	5.05	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	1.00	100	ug/L	SW-846 6020A	MS
Nickel	2.00	2.07	103	ug/L	SW-846 6020A	MS
Potassium	100	89.4	89	ug/L	SW-846 6020A	MS
Selenium	1.00	0.890	89	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	120	120	ug/L	SW-846 6020A	MS
Thallium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Titanium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	20.9	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 4

Date Analyzed: 04/09/15 Time: 1508

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	206	103	ug/L	SW-846 6020A	MS
Antimony	20.0	20.4	102	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.53	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.90	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.6	106	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.3	103	ug/L	SW-846 6020A	MS
Calcium	5000	5100	102	ug/L	SW-846 6020A	MS
Chromium	10.0	9.81	98	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.2	102	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1030	103	ug/L	SW-846 6020A	MS
Manganese	50.0	51.1	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.94	99	ug/L	SW-846 6020A	MS
Nickel	20.0	20.6	103	ug/L	SW-846 6020A	MS
Potassium	1000	982	98	ug/L	SW-846 6020A	MS
Selenium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1060	106	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	204	102	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI
Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 0722

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1000	100	ug/L	SW-846 6020A	MS
Antimony	50.0	46.8	94	ug/L	SW-846 6020A	MS
Arsenic	50.0	51.3	103	ug/L	SW-846 6020A	MS
Barium	50.0	48.8	98	ug/L	SW-846 6020A	MS
Beryllium	50.0	49.8	100	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.0	102	ug/L	SW-846 6020A	MS
Calcium	25000	24800	99	ug/L	SW-846 6020A	MS
Chromium	50.0	47.8	96	ug/L	SW-846 6020A	MS
Cobalt	50.0	49.6	99	ug/L	SW-846 6020A	MS
Copper	50.0	50.8	102	ug/L	SW-846 6020A	MS
Iron	5000	5010	100	ug/L	SW-846 6020A	MS
Lead	50.0	50.8	102	ug/L	SW-846 6020A	MS
Magnesium	5000	5100	102	ug/L	SW-846 6020A	MS
Manganese	50.0	50.2	100	ug/L	SW-846 6020A	MS
Molybdenum	50.0	48.1	96	ug/L	SW-846 6020A	MS
Nickel	100	100	100	ug/L	SW-846 6020A	MS
Potassium	5000	4850	97	ug/L	SW-846 6020A	MS
Selenium	25.0	24.6	98	ug/L	SW-846 6020A	MS
Silver	50.0	46.5	93	ug/L	SW-846 6020A	MS
Sodium	5000	4970	99	ug/L	SW-846 6020A	MS
Thallium	50.0	49.4	99	ug/L	SW-846 6020A	MS
Titanium	50.0	49.9	100	ug/L	SW-846 6020A	MS
Vanadium	50.0	49.8	100	ug/L	SW-846 6020A	MS
Zinc	1000	984	98	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 0729

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.5	98	ug/L	SW-846 6020A	MS
Antimony	2.00	2.04	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.04	104	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Calcium	500	524	105	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.960	96	ug/L	SW-846 6020A	MS
Copper	1.00	1.02	102	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	99.9	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.05	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.06	103	ug/L	SW-846 6020A	MS
Potassium	100	95.9	96	ug/L	SW-846 6020A	MS
Selenium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	104	104	ug/L	SW-846 6020A	MS
Thallium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Titanium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	19.8	99	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1023

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.1	96	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.01	101	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	517	103	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.920	92	ug/L	SW-846 6020A	MS
Copper	1.00	1.01	101	ug/L	SW-846 6020A	MS
Iron	100	106	106	ug/L	SW-846 6020A	MS
Lead	1.00	0.970	97	ug/L	SW-846 6020A	MS
Magnesium	100	99.2	99	ug/L	SW-846 6020A	MS
Manganese	5.00	7.77	155	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.03	101	ug/L	SW-846 6020A	MS
Potassium	100	92.5	93	ug/L	SW-846 6020A	MS
Selenium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	104	104	ug/L	SW-846 6020A	MS
Thallium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Zinc	20.0	19.6	98	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1026

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	198	99	ug/L	SW-846 6020A	MS
Antimony	20.0	20.0	100	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.33	93	ug/L	SW-846 6020A	MS
Barium	10.0	9.75	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.92	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	4960	99	ug/L	SW-846 6020A	MS
Chromium	10.0	9.49	95	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.0	100	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A	MS
Magnesium	1000	994	99	ug/L	SW-846 6020A	MS
Manganese	50.0	51.4	103	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.77	98	ug/L	SW-846 6020A	MS
Nickel	20.0	20.4	102	ug/L	SW-846 6020A	MS
Potassium	1000	964	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.74	97	ug/L	SW-846 6020A	MS
Silver	10.0	9.90	99	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.89	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.73	97	ug/L	SW-846 6020A	MS
Zinc	200	195	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1111

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	195	98	ug/L	SW-846 6020A	MS
Antimony	20.0	19.8	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.30	93	ug/L	SW-846 6020A	MS
Barium	10.0	9.58	96	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	5010	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.43	94	ug/L	SW-846 6020A	MS
Cobalt	10.0	9.95	99	ug/L	SW-846 6020A	MS
Copper	10.0	10.2	102	ug/L	SW-846 6020A	MS
Iron	1000	986	99	ug/L	SW-846 6020A	MS
Lead	10.0	10.0	100	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	49.6	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.54	95	ug/L	SW-846 6020A	MS
Nickel	20.0	20.0	100	ug/L	SW-846 6020A	MS
Potassium	1000	949	95	ug/L	SW-846 6020A	MS
Selenium	10.0	9.56	96	ug/L	SW-846 6020A	MS
Silver	10.0	9.77	98	ug/L	SW-846 6020A	MS
Sodium	1000	1080	108	ug/L	SW-846 6020A	MS
Thallium	10.0	9.79	98	ug/L	SW-846 6020A	MS
Titanium	10.0	9.88	99	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.69	97	ug/L	SW-846 6020A	MS
Zinc	200	193	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1117

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.9	100	ug/L	SW-846 6020A	MS
Antimony	2.00	1.98	99	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.940	94	ug/L	SW-846 6020A	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	550	110	ug/L	SW-846 6020A	MS
Chromium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.940	94	ug/L	SW-846 6020A	MS
Copper	1.00	1.04	104	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	0.970	97	ug/L	SW-846 6020A	MS
Magnesium	100	110	110	ug/L	SW-846 6020A	MS
Manganese	5.00	5.40	108	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.960	96	ug/L	SW-846 6020A	MS
Nickel	2.00	2.10	105	ug/L	SW-846 6020A	MS
Potassium	100	96.9	97	ug/L	SW-846 6020A	MS
Selenium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	139	139	ug/L	SW-846 6020A	MS
Thallium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Titanium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	20.1	100	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1142

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.6	98	ug/L	SW-846 6020A	MS
Antimony	2.00	1.98	99	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	529	106	ug/L	SW-846 6020A	MS
Chromium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.910	91	ug/L	SW-846 6020A	MS
Copper	1.00	1.14	114	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	0.960	96	ug/L	SW-846 6020A	MS
Magnesium	100	100	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.03	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.970	97	ug/L	SW-846 6020A	MS
Nickel	2.00	2.04	102	ug/L	SW-846 6020A	MS
Potassium	100	95.8	96	ug/L	SW-846 6020A	MS
Selenium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Silver	1.00	0.980	98	ug/L	SW-846 6020A	MS
Sodium	100	104	104	ug/L	SW-846 6020A	MS
Thallium	1.00	0.900	90	ug/L	SW-846 6020A	MS
Titanium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	19.8	99	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1146

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	200	100	ug/L	SW-846 6020A	MS
Antimony	20.0	19.8	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.31	93	ug/L	SW-846 6020A	MS
Barium	10.0	9.68	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.90	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	4990	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.57	96	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.1	101	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1010	101	ug/L	SW-846 6020A	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	50.1	100	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.69	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.5	103	ug/L	SW-846 6020A	MS
Potassium	1000	962	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.85	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.82	98	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.91	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.96	100	ug/L	SW-846 6020A	MS
Zinc	200	197	99	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1220

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.2	101	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.980	98	ug/L	SW-846 6020A	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	540	108	ug/L	SW-846 6020A	MS
Chromium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.930	93	ug/L	SW-846 6020A	MS
Copper	1.00	1.08	108	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	0.950	95	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.14	103	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.06	103	ug/L	SW-846 6020A	MS
Potassium	100	98.0	98	ug/L	SW-846 6020A	MS
Selenium	1.00	1.06	106	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	108	108	ug/L	SW-846 6020A	MS
Thallium	1.00	0.890	89	ug/L	SW-846 6020A	MS
Titanium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Zinc	20.0	20.0	100	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1223

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	200	197	99	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.44	94	ug/L	SW-846 6020A	MS
Barium	10.0	9.65	96	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.89	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	4990	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.49	95	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.1	101	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.93	99	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	49.8	100	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.59	96	ug/L	SW-846 6020A	MS
Nickel	20.0	20.5	103	ug/L	SW-846 6020A	MS
Potassium	1000	963	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.64	96	ug/L	SW-846 6020A	MS
Silver	10.0	9.87	99	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.80	98	ug/L	SW-846 6020A	MS
Titanium	10.0	10.3	103	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.87	99	ug/L	SW-846 6020A	MS
Zinc	200	195	98	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1321

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.4	102	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	511	102	ug/L	SW-846 6020A	MS
Chromium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.940	94	ug/L	SW-846 6020A	MS
Copper	1.00	1.11	111	ug/L	SW-846 6020A	MS
Iron	100	101	101	ug/L	SW-846 6020A	MS
Lead	1.00	0.960	96	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	5.05	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.960	96	ug/L	SW-846 6020A	MS
Nickel	2.00	2.07	104	ug/L	SW-846 6020A	MS
Potassium	100	93.9	94	ug/L	SW-846 6020A	MS
Selenium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Silver	1.00	0.980	98	ug/L	SW-846 6020A	MS
Sodium	100	109	109	ug/L	SW-846 6020A	MS
Thallium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Zinc	20.0	19.6	98	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1324

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	200	200	100	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	100	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.45	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.64	96	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.84	98	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5020	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.38	94	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.1	101	ug/L	SW-846 6020A	MS
Copper	10.0	10.4	104	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	49.4	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.73	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.4	102	ug/L	SW-846 6020A	MS
Potassium	1000	965	97	ug/L	SW-846 6020A	MS
Selenium	10.0	9.54	95	ug/L	SW-846 6020A	MS
Silver	10.0	9.92	99	ug/L	SW-846 6020A	MS
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS
Thallium	10.0	9.89	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.3	103	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.73	97	ug/L	SW-846 6020A	MS
Zinc	200	195	98	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1509

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Beryllium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	523	105	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.930	93	ug/L	SW-846 6020A	MS
Copper	1.00	1.09	109	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	0.960	96	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.12	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.08	104	ug/L	SW-846 6020A	MS
Potassium	100	97.7	98	ug/L	SW-846 6020A	MS
Selenium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	117	117	ug/L	SW-846 6020A	MS
Thallium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Titanium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	19.7	98	ug/L	SW-846 6020A	MS
Aluminum	20.0	20.2	101	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.930	93	ug/L	SW-846 6020A	MS
Barium	1.00	0.970	97	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1513

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	200	100	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.39	94	ug/L	SW-846 6020A	MS
Barium	10.0	9.74	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.95	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.95	100	ug/L	SW-846 6020A	MS
Calcium	5000	4990	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.39	94	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.1	101	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1010	101	ug/L	SW-846 6020A	MS
Lead	10.0	10.0	100	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	49.5	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.61	96	ug/L	SW-846 6020A	MS
Nickel	20.0	20.4	102	ug/L	SW-846 6020A	MS
Potassium	1000	962	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.78	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.79	98	ug/L	SW-846 6020A	MS
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS
Thallium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Titanium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Zinc	200	195	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1611

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.3	101	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.930	93	ug/L	SW-846 6020A	MS
Barium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	521	104	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.920	92	ug/L	SW-846 6020A	MS
Copper	1.00	1.08	108	ug/L	SW-846 6020A	MS
Iron	100	104	104	ug/L	SW-846 6020A	MS
Lead	1.00	0.980	98	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	5.01	100	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.04	102	ug/L	SW-846 6020A	MS
Potassium	100	97.5	98	ug/L	SW-846 6020A	MS
Selenium	1.00	1.07	107	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	115	115	ug/L	SW-846 6020A	MS
Thallium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Titanium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	19.9	100	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1614

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	200	197	99	ug/L	SW-846 6020A	MS
Antimony	20.0	19.8	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.21	92	ug/L	SW-846 6020A	MS
Barium	10.0	9.73	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	4940	99	ug/L	SW-846 6020A	MS
Chromium	10.0	9.30	93	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.0	100	ug/L	SW-846 6020A	MS
Copper	10.0	10.2	102	ug/L	SW-846 6020A	MS
Iron	1000	986	99	ug/L	SW-846 6020A	MS
Lead	10.0	10.0	100	ug/L	SW-846 6020A	MS
Magnesium	1000	991	99	ug/L	SW-846 6020A	MS
Manganese	50.0	49.2	98	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.59	96	ug/L	SW-846 6020A	MS
Nickel	20.0	20.2	101	ug/L	SW-846 6020A	MS
Potassium	1000	962	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.80	98	ug/L	SW-846 6020A	MS
Sodium	1000	1030	103	ug/L	SW-846 6020A	MS
Thallium	10.0	9.79	98	ug/L	SW-846 6020A	MS
Titanium	10.0	9.71	97	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.85	99	ug/L	SW-846 6020A	MS
Zinc	200	194	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1715

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	19.6	98	ug/L	SW-846 6020A	MS
Antimony	2.00	2.02	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.890	89	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.910	91	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Calcium	500	523	105	ug/L	SW-846 6020A	MS
Chromium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.920	92	ug/L	SW-846 6020A	MS
Copper	1.00	1.08	108	ug/L	SW-846 6020A	MS
Iron	100	99.3	99	ug/L	SW-846 6020A	MS
Lead	1.00	0.970	97	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	4.92	98	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.11	105	ug/L	SW-846 6020A	MS
Potassium	100	93.7	94	ug/L	SW-846 6020A	MS
Selenium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	113	113	ug/L	SW-846 6020A	MS
Thallium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Titanium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	19.6	98	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1719

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	197	98	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	100	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.24	92	ug/L	SW-846 6020A	MS
Barium	10.0	9.70	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.88	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Calcium	5000	4910	98	ug/L	SW-846 6020A	MS
Chromium	10.0	9.32	93	ug/L	SW-846 6020A	MS
Cobalt	10.0	9.92	99	ug/L	SW-846 6020A	MS
Copper	10.0	10.1	101	ug/L	SW-846 6020A	MS
Iron	1000	990	99	ug/L	SW-846 6020A	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A	MS
Magnesium	1000	986	99	ug/L	SW-846 6020A	MS
Manganese	50.0	49.1	98	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.67	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.0	100	ug/L	SW-846 6020A	MS
Potassium	1000	965	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.71	97	ug/L	SW-846 6020A	MS
Silver	10.0	9.81	98	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.86	99	ug/L	SW-846 6020A	MS
Titanium	10.0	9.59	96	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Zinc	200	193	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1854

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.5	103	ug/L	SW-846 6020A	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.940	94	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Calcium	500	512	102	ug/L	SW-846 6020A	MS
Chromium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.920	92	ug/L	SW-846 6020A	MS
Copper	1.00	1.06	106	ug/L	SW-846 6020A	MS
Iron	100	97.9	98	ug/L	SW-846 6020A	MS
Lead	1.00	0.960	96	ug/L	SW-846 6020A	MS
Magnesium	100	99.9	100	ug/L	SW-846 6020A	MS
Manganese	5.00	4.98	100	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.08	104	ug/L	SW-846 6020A	MS
Potassium	100	93.7	94	ug/L	SW-846 6020A	MS
Selenium	1.00	0.880	88	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	105	105	ug/L	SW-846 6020A	MS
Thallium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Titanium	1.00	1.15	115	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	19.6	98	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 5

Date Analyzed: 04/10/15 Time: 1857

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	200	100	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.49	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.67	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.92	99	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	5020	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.37	94	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.0	100	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	997	100	ug/L	SW-846 6020A	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A	MS
Magnesium	1000	994	99	ug/L	SW-846 6020A	MS
Manganese	50.0	49.6	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.65	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.4	102	ug/L	SW-846 6020A	MS
Potassium	1000	959	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.57	96	ug/L	SW-846 6020A	MS
Silver	10.0	9.87	99	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	9.96	100	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Zinc	200	194	97	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1023

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	998	100	ug/L	SW-846 6020A	MS
Antimony	50.0	47.4	95	ug/L	SW-846 6020A	MS
Arsenic	50.0	51.9	104	ug/L	SW-846 6020A	MS
Barium	50.0	49.7	99	ug/L	SW-846 6020A	MS
Beryllium	50.0	48.9	98	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.2	102	ug/L	SW-846 6020A	MS
Calcium	25000	24800	99	ug/L	SW-846 6020A	MS
Chromium	50.0	48.2	96	ug/L	SW-846 6020A	MS
Cobalt	50.0	49.7	99	ug/L	SW-846 6020A	MS
Copper	50.0	51.0	102	ug/L	SW-846 6020A	MS
Iron	5000	5010	100	ug/L	SW-846 6020A	MS
Lead	50.0	52.3	105	ug/L	SW-846 6020A	MS
Magnesium	5000	5060	101	ug/L	SW-846 6020A	MS
Manganese	50.0	50.4	101	ug/L	SW-846 6020A	MS
Molybdenum	50.0	48.4	97	ug/L	SW-846 6020A	MS
Nickel	100	101	101	ug/L	SW-846 6020A	MS
Potassium	5000	4830	97	ug/L	SW-846 6020A	MS
Selenium	25.0	24.7	99	ug/L	SW-846 6020A	MS
Silver	50.0	46.7	93	ug/L	SW-846 6020A	MS
Sodium	5000	4980	100	ug/L	SW-846 6020A	MS
Thallium	50.0	49.5	99	ug/L	SW-846 6020A	MS
Titanium	50.0	49.7	99	ug/L	SW-846 6020A	MS
Vanadium	50.0	50.5	101	ug/L	SW-846 6020A	MS
Zinc	1000	1020	102	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1040

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.1	106	ug/L	SW-846 6020A	MS
Antimony	2.00	1.99	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.990	99	ug/L	SW-846 6020A	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Calcium	500	526	105	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	0.990	99	ug/L	SW-846 6020A	MS
Copper	1.00	1.01	101	ug/L	SW-846 6020A	MS
Iron	100	104	104	ug/L	SW-846 6020A	MS
Lead	1.00	1.05	105	ug/L	SW-846 6020A	MS
Magnesium	100	100	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.09	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.09	104	ug/L	SW-846 6020A	MS
Potassium	100	89.6	90	ug/L	SW-846 6020A	MS
Selenium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	99.7	100	ug/L	SW-846 6020A	MS
Thallium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Titanium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Zinc	20.0	20.0	100	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1709

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.5	108	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.970	97	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.09	109	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Calcium	500	547	109	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.01	101	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	1.02	102	ug/L	SW-846 6020A	MS
Magnesium	100	104	104	ug/L	SW-846 6020A	MS
Manganese	5.00	5.08	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.02	101	ug/L	SW-846 6020A	MS
Potassium	100	104	104	ug/L	SW-846 6020A	MS
Selenium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	158	158	ug/L	SW-846 6020A	MS
Thallium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Titanium	1.00	1.11	111	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	20.5	103	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1713

CONTINUING CALIBRATION VERIFICATION

Analyte	True	Found	CAL %R	Units	Method	Type
Aluminum	200	203	102	ug/L	SW-846 6020A	MS
Antimony	20.0	19.5	98	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.16	92	ug/L	SW-846 6020A	MS
Barium	10.0	9.66	97	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.9	109	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Calcium	5000	4860	97	ug/L	SW-846 6020A	MS
Chromium	10.0	9.23	92	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.0	100	ug/L	SW-846 6020A	MS
Copper	10.0	10.1	101	ug/L	SW-846 6020A	MS
Iron	1000	992	99	ug/L	SW-846 6020A	MS
Lead	10.0	10.0	100	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	48.9	98	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.52	95	ug/L	SW-846 6020A	MS
Nickel	20.0	20.2	101	ug/L	SW-846 6020A	MS
Potassium	1000	947	95	ug/L	SW-846 6020A	MS
Selenium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.65	97	ug/L	SW-846 6020A	MS
Sodium	1000	1070	107	ug/L	SW-846 6020A	MS
Thallium	10.0	9.56	96	ug/L	SW-846 6020A	MS
Titanium	10.0	10.3	103	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.75	97	ug/L	SW-846 6020A	MS
Zinc	200	197	99	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1851

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.3	106	ug/L	SW-846 6020A	MS
Antimony	2.00	2.02	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.990	99	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.09	109	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	522	104	ug/L	SW-846 6020A	MS
Chromium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.01	101	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	99.7	100	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	106	106	ug/L	SW-846 6020A	MS
Manganese	5.00	4.99	100	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.970	97	ug/L	SW-846 6020A	MS
Nickel	2.00	2.14	107	ug/L	SW-846 6020A	MS
Potassium	100	101	101	ug/L	SW-846 6020A	MS
Selenium	1.00	0.850	85	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	124	124	ug/L	SW-846 6020A	MS
Thallium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Zinc	20.0	20.2	101	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 6

Date Analyzed: 04/13/15 Time: 1854

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	199	99	ug/L	SW-846 6020A	MS
Antimony	20.0	19.5	97	ug/L	SW-846 6020A	MS
Arsenic	10.0	8.99	90	ug/L	SW-846 6020A	MS
Barium	10.0	9.62	96	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.6	106	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.80	98	ug/L	SW-846 6020A	MS
Calcium	5000	4850	97	ug/L	SW-846 6020A	MS
Chromium	10.0	9.25	92	ug/L	SW-846 6020A	MS
Cobalt	10.0	9.84	98	ug/L	SW-846 6020A	MS
Copper	10.0	10.1	101	ug/L	SW-846 6020A	MS
Iron	1000	974	97	ug/L	SW-846 6020A	MS
Lead	10.0	10.0	100	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	47.8	96	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.37	94	ug/L	SW-846 6020A	MS
Nickel	20.0	19.9	100	ug/L	SW-846 6020A	MS
Potassium	1000	934	93	ug/L	SW-846 6020A	MS
Selenium	10.0	9.10	91	ug/L	SW-846 6020A	MS
Silver	10.0	9.56	96	ug/L	SW-846 6020A	MS
Sodium	1000	1030	103	ug/L	SW-846 6020A	MS
Thallium	10.0	9.58	96	ug/L	SW-846 6020A	MS
Titanium	10.0	9.79	98	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.66	97	ug/L	SW-846 6020A	MS
Zinc	200	196	98	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-78-2 CPI Instrument ID: ICPMS2 ICAL ID: 12

Date Analyzed: 04/13/15 Time: 1023

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	998	100	ug/L	SW-846 6020A Dissolved	MS
Antimony	50.0	47.4	95	ug/L	SW-846 6020A Dissolved	MS
Arsenic	50.0	51.9	104	ug/L	SW-846 6020A Dissolved	MS
Barium	50.0	49.7	99	ug/L	SW-846 6020A Dissolved	MS
Beryllium	50.0	48.9	98	ug/L	SW-846 6020A Dissolved	MS
Cadmium	50.0	51.2	102	ug/L	SW-846 6020A Dissolved	MS
Calcium	25000	24800	99	ug/L	SW-846 6020A Dissolved	MS
Chromium	50.0	48.2	96	ug/L	SW-846 6020A Dissolved	MS
Cobalt	50.0	49.7	99	ug/L	SW-846 6020A Dissolved	MS
Copper	50.0	51.0	102	ug/L	SW-846 6020A Dissolved	MS
Iron	5000	5010	100	ug/L	SW-846 6020A Dissolved	MS
Lead	50.0	52.3	105	ug/L	SW-846 6020A Dissolved	MS
Magnesium	5000	5060	101	ug/L	SW-846 6020A Dissolved	MS
Manganese	50.0	50.4	101	ug/L	SW-846 6020A Dissolved	MS
Molybdenum	50.0	48.4	97	ug/L	SW-846 6020A Dissolved	MS
Nickel	100	101	101	ug/L	SW-846 6020A Dissolved	MS
Potassium	5000	4830	97	ug/L	SW-846 6020A Dissolved	MS
Selenium	25.0	24.7	99	ug/L	SW-846 6020A Dissolved	MS
Silver	50.0	46.7	93	ug/L	SW-846 6020A Dissolved	MS
Sodium	5000	4980	100	ug/L	SW-846 6020A Dissolved	MS
Thallium	50.0	49.5	99	ug/L	SW-846 6020A Dissolved	MS
Titanium	50.0	49.7	99	ug/L	SW-846 6020A Dissolved	MS
Vanadium	50.0	50.5	101	ug/L	SW-846 6020A Dissolved	MS
Zinc	1000	1020	102	ug/L	SW-846 6020A Dissolved	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 12

Date Analyzed: 04/13/15 Time: 1040

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.1	106	ug/L	SW-846 6020A Dissolved	MS
Antimony	2.00	1.99	100	ug/L	SW-846 6020A Dissolved	MS
Arsenic	1.00	0.990	99	ug/L	SW-846 6020A Dissolved	MS
Barium	1.00	0.980	98	ug/L	SW-846 6020A Dissolved	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A Dissolved	MS
Cadmium	1.00	1.03	103	ug/L	SW-846 6020A Dissolved	MS
Calcium	500	526	105	ug/L	SW-846 6020A Dissolved	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A Dissolved	MS
Cobalt	1.00	0.990	99	ug/L	SW-846 6020A Dissolved	MS
Copper	1.00	1.01	101	ug/L	SW-846 6020A Dissolved	MS
Iron	100	104	104	ug/L	SW-846 6020A Dissolved	MS
Lead	1.00	1.05	105	ug/L	SW-846 6020A Dissolved	MS
Magnesium	100	100	100	ug/L	SW-846 6020A Dissolved	MS
Manganese	5.00	5.09	102	ug/L	SW-846 6020A Dissolved	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A Dissolved	MS
Nickel	2.00	2.09	104	ug/L	SW-846 6020A Dissolved	MS
Potassium	100	89.6	90	ug/L	SW-846 6020A Dissolved	MS
Selenium	1.00	1.00	100	ug/L	SW-846 6020A Dissolved	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A Dissolved	MS
Sodium	100	99.7	100	ug/L	SW-846 6020A Dissolved	MS
Thallium	1.00	0.980	98	ug/L	SW-846 6020A Dissolved	MS
Titanium	1.00	0.980	98	ug/L	SW-846 6020A Dissolved	MS
Vanadium	1.00	0.930	93	ug/L	SW-846 6020A Dissolved	MS
Zinc	20.0	20.0	100	ug/L	SW-846 6020A Dissolved	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 12

Date Analyzed: 04/13/15 Time: 1229

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.2	106	ug/L	SW-846 6020A Dissolved	MS
Antimony	2.00	2.00	100	ug/L	SW-846 6020A Dissolved	MS
Arsenic	1.00	0.970	97	ug/L	SW-846 6020A Dissolved	MS
Barium	1.00	0.970	97	ug/L	SW-846 6020A Dissolved	MS
Beryllium	1.00	1.06	106	ug/L	SW-846 6020A Dissolved	MS
Cadmium	1.00	1.02	102	ug/L	SW-846 6020A Dissolved	MS
Calcium	500	535	107	ug/L	SW-846 6020A Dissolved	MS
Chromium	1.00	1.00	100	ug/L	SW-846 6020A Dissolved	MS
Cobalt	1.00	0.990	99	ug/L	SW-846 6020A Dissolved	MS
Copper	1.00	0.970	97	ug/L	SW-846 6020A Dissolved	MS
Iron	100	97.7	98	ug/L	SW-846 6020A Dissolved	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A Dissolved	MS
Magnesium	100	104	104	ug/L	SW-846 6020A Dissolved	MS
Manganese	5.00	5.06	101	ug/L	SW-846 6020A Dissolved	MS
Molybdenum	1.00	0.950	95	ug/L	SW-846 6020A Dissolved	MS
Nickel	2.00	2.10	105	ug/L	SW-846 6020A Dissolved	MS
Potassium	100	90.7	91	ug/L	SW-846 6020A Dissolved	MS
Selenium	1.00	1.08	108	ug/L	SW-846 6020A Dissolved	MS
Silver	1.00	0.980	98	ug/L	SW-846 6020A Dissolved	MS
Sodium	100	99.1	99	ug/L	SW-846 6020A Dissolved	MS
Thallium	1.00	0.950	95	ug/L	SW-846 6020A Dissolved	MS
Titanium	1.00	1.00	100	ug/L	SW-846 6020A Dissolved	MS
Vanadium	1.00	0.950	95	ug/L	SW-846 6020A Dissolved	MS
Zinc	20.0	19.8	99	ug/L	SW-846 6020A Dissolved	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-76-4 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 12

Date Analyzed: 04/13/15 Time: 1233

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	206	103	ug/L	SW-846 6020A Dissolved	MS
Antimony	20.0	19.7	98	ug/L	SW-846 6020A Dissolved	MS
Arsenic	10.0	9.21	92	ug/L	SW-846 6020A Dissolved	MS
Barium	10.0	9.78	98	ug/L	SW-846 6020A Dissolved	MS
Beryllium	10.0	10.9	109	ug/L	SW-846 6020A Dissolved	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A Dissolved	MS
Calcium	5000	5010	100	ug/L	SW-846 6020A Dissolved	MS
Chromium	10.0	9.57	96	ug/L	SW-846 6020A Dissolved	MS
Cobalt	10.0	10.1	101	ug/L	SW-846 6020A Dissolved	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A Dissolved	MS
Iron	1000	1000	100	ug/L	SW-846 6020A Dissolved	MS
Lead	10.0	10.1	101	ug/L	SW-846 6020A Dissolved	MS
Magnesium	1000	1020	102	ug/L	SW-846 6020A Dissolved	MS
Manganese	50.0	49.9	100	ug/L	SW-846 6020A Dissolved	MS
Molybdenum	10.0	9.53	95	ug/L	SW-846 6020A Dissolved	MS
Nickel	20.0	20.5	103	ug/L	SW-846 6020A Dissolved	MS
Potassium	1000	968	97	ug/L	SW-846 6020A Dissolved	MS
Selenium	10.0	10.0	100	ug/L	SW-846 6020A Dissolved	MS
Silver	10.0	9.72	97	ug/L	SW-846 6020A Dissolved	MS
Sodium	1000	1040	104	ug/L	SW-846 6020A Dissolved	MS
Thallium	10.0	9.74	97	ug/L	SW-846 6020A Dissolved	MS
Titanium	10.0	10.4	104	ug/L	SW-846 6020A Dissolved	MS
Vanadium	10.0	9.90	99	ug/L	SW-846 6020A Dissolved	MS
Zinc	200	202	101	ug/L	SW-846 6020A Dissolved	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Calibration Source: 245-78-2 CPI
Instrument ID: ICPMS2 ICAL ID: 7
Date Analyzed: 04/21/15 Time: 1628

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	5000	5180	104	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Calibration Source: 245-79-2 Absolute Standards
Instrument ID: ICPMS2 ICAL ID: 7
Date Analyzed: 04/21/15 Time: 1634

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	100	103	103	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

FORM II - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Calibration Source: 245-79-2 Absolute Standards
Instrument ID: ICPMS2 ICAL ID: 7
Date Analyzed: 04/21/15 Time: 1714

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	100	115	115	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

FORM II - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-79-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 7

Date Analyzed: 04/21/15 Time: 1717

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-79-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 7

Date Analyzed: 04/21/15 Time: 1902

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	100	106	106	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-79-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 7

Date Analyzed: 04/21/15 Time: 1906

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Sodium	1000	1030	103	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-2 CPI Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2050

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00520	104	mg/L	SW-846 7470A	AV

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

FORM II - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2206

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00480	97	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

FORM II - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2232

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00490	98	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2256

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00480	96	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2321

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00510	103	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

FORM II - IN

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2349

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00480	96	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

215040304 237

BLANKS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: ICB ICAL ID: 2

Lab Sample DESC: ICB FOR HBN 555607 [ICP/9906] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/04/15 Time: 2021

INITIAL CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/05/15 Time: 0413

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: 1431074
ICAL ID: 2

Lab Sample DESC: MB1431074
Preparation Blank Matrix: (soil / water) Water

Instrument ID: ICPMS2
Date Analyzed: 04/05/15 Time: 0424

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	5.00	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	1.25	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0501

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: ICB | ICAL ID: 3

Lab Sample DESC: ICB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/08/15 | Time: 1936

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/08/15 | Time: 2013

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	36.2	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/08/15 Time: 2114

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	109		ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/08/15 Time: 2223

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	66.1	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 0554

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: 1431209
ICAL ID: 3
Lab Sample DESC: MB1431209
Preparation Blank Matrix: (soil / water) Water
Instrument ID: ICPMS2
Date Analyzed: 04/09/15 Time: 0605

PREPARATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	5.00	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	1.69	J	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 0656

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	3.26	J	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: ICB | ICAL ID: 4

Lab Sample DESC: ICB FOR HBN 555948 [ICP/9914] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 1136

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 4

Lab Sample DESC: CCB FOR HBN 555948 [ICP/9914] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 1340

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: 1431070 | ICAL ID: 10

Lab Sample DESC: MB1431070 | Preparation Blank Matrix: (soil / water) Water

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 1455

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Barium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A Dissolved	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Copper	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Manganese	2.07	J	ug/L	1.25	5.00	SW-846 6020A Dissolved	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Sodium	29.5	J	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: CCB
ICAL ID: 4
Lab Sample DESC: CCB FOR HBN 555948 [ICP/9914]
Preparation Blank Matrix: (soil / water)
Instrument ID: ICPMS2
Date Analyzed: 04/09/15 Time: 1502

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: ICB | ICAL ID: 5

Lab Sample DESC: ICB FOR HBN 556171 [ICP/9918] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/10/15 | Time: 0726

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/10/15 | Time: 1020

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	3.28	J	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/10/15 | Time: 1114

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	33.8	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/10/15 Time: 1139

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/10/15 | Time: 1216

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/10/15 Time: 1317

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: CCB
ICAL ID: 5
Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918]
Preparation Blank Matrix: (soil / water)
Instrument ID: ICPMS2
Date Analyzed: 04/10/15 Time: 1506

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/10/15 Time: 1607

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/10/15 Time: 1712

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 5

Lab Sample DESC: CCB FOR HBN 556171 [ICP/9918] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/10/15 | Time: 1850

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: ICB
ICAL ID: 6
Lab Sample DESC: ICB FOR HBN 556252 [ICP/9921]
Preparation Blank Matrix: (soil / water)
Instrument ID: ICPMS2
Date Analyzed: 04/13/15 Time: 1026

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 6

Lab Sample DESC: CCB FOR HBN 556252 [ICP/9921] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/13/15 | Time: 1706

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	80.6	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 6

Lab Sample DESC: CCB FOR HBN 556252 [ICP/9921] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/13/15 Time: 1847

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: ICB | ICAL ID: 12

Lab Sample DESC: ICB FOR HBN 556182 [ICP/9919] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/13/15 | Time: 1026

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A Dissolved	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A Dissolved	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: 1431203
ICAL ID: 12

Lab Sample DESC: MB1431203
Preparation Blank Matrix: (soil / water) Water

Instrument ID: ICPMS2
Date Analyzed: 04/13/15 Time: 1044

PREPARATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Barium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A Dissolved	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Copper	0.53	J	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Manganese	1.25	U	ug/L	1.25	5.00	SW-846 6020A Dissolved	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Sodium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 12

Lab Sample DESC: CCB FOR HBN 556182 [ICP/9919] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/13/15 | Time: 1226

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Aluminum	10.0	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS
Antimony	1.00	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Arsenic	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Barium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Beryllium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cadmium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Calcium	250	U	ug/L	125	500	SW-846 6020A Dissolved	MS
Chromium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cobalt	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Copper	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Iron	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Lead	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Magnesium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Manganese	2.50	U	ug/L	1.25	5.00	SW-846 6020A Dissolved	MS
Molybdenum	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Nickel	1.00	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Potassium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Selenium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Silver	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Thallium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Titanium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Vanadium	0.50	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Zinc	10.0	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: ICB
ICAL ID: 7

Lab Sample DESC: ICB FOR HBN 556796 [ICP/9938]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/21/15 Time: 1631

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS

FORM III - IN

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 7

Lab Sample DESC: CCB FOR HBN 556796 [ICP/9938]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/21/15 Time: 1710

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 7

Lab Sample DESC: CCB FOR HBN 556796 [ICP/9938]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/21/15 Time: 1859

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Sodium	50.0	U	ug/L	25.0	100	SW-846 6020A	MS

BLANKS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: ICB ICAL ID: 1

Lab Sample DESC: ICB FOR HBN 555576 [HG/6388] Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd Date Analyzed: 04/04/15 Time: 2052

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040304

Lab Sample ID: CCB ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388] Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd Date Analyzed: 04/04/15 Time: 2209

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: 1431078
ICAL ID: 1
Lab Sample DESC: MB1431078
Preparation Blank Matrix: (soil / water) Water
Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2211

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.043	U	ug/L	0.043	0.20	SW-846 7470A	AV

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388] | Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd | Date Analyzed: 04/04/15 | Time: 2235

CONTINUING CALIBRATION BLANK

Analyte	Conc.	C	Units	MDL	LOQ	Method	Type
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040304

Lab Sample ID: CCB | ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388] | Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd | Date Analyzed: 04/04/15 | Time: 2258

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

Lab Name: GCAL
Contract:
Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304
Lab Sample ID: 1431086
ICAL ID: 7
Lab Sample DESC: MB1431086
Preparation Blank Matrix: (soil / water) Water
Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2305

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.043	U	ug/L	0.043	0.20	SW-846 7470A Dissolved	AV

215040304 277

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388]
Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2324

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040304

Lab Sample ID: CCB
ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388]
Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2351

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 555607

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1100	1120	112			
Antimony	0	0	0.050	0.044				
Arsenic	0	10.0	0.010	11.4	114			
Barium	0	0	0.21	0.20				
Beryllium	0	0	0.0060	0.0040				
Boron	0	20.0	2.54	23.1	116			
Cadmium	0	10.0	0.029	11.0	110			
Calcium	3000	3000	3480	3460	115			
Chromium	0	20.0	0.021	22.9	114			
Cobalt	0	20.0	0.053	23.3	116			
Copper	0	20.0	0.055	22.3	112			
Iron	2500	2500	2740	2770	111			
Lead	0	0	0.0070	0.0090				
Lithium	0	20.0	0.019	21.6	108			
Magnesium	1000	1000	1110	1120	112			
Manganese	0	20.0	0.64	21.4	107			
Molybdenum	20.0	20.0	21.5	21.7	108			
Nickel	0	20.0	-0.30	22.3	112			
Potassium	1000	1000	1080	1080	108			
Selenium	0	10.0	-0.060	10.5	105			
Silicon	0	1000	-13	1210	121			
Silver	0	5.00	0.0080	5.46	109			
Sodium	2500	2500	2780	2820	113			
Strontium	0	10.0	0.063	11.3	113			
Thallium	0	0	0.0030	0.0020				
Tin	0	10.0	0.12	10.9	109			
Titanium	20.0	20.0	21.7	22.1	110			
Vanadium	0	20.0	0.0090	22.1	110			
Zinc	0	20.0	4.72	22.8	114			
Zirconium	0	20.0	0.31	17.6	88			
Hardness	0	0						

FORM IV - IN

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 555928

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1110	1050	105	1110	1050	105
Antimony	0	0	0.019	0.013		0.017	0.010	
Arsenic	0	10.0	0.014	10.3	103	-0.0010	10.2	102
Barium	0	0	0.26	0.19		0.25	0.19	
Beryllium	0	0	0.0050	0.0030		0.0060	0.0020	
Boron	0	20.0	1.68	20.1	100	0.21	17.9	90
Cadmium	0	10.0	0.039	10.6	106	0.017	10.6	106
Calcium	3000	3000	3520	3240	108	3580	3240	108
Chromium	0	20.0	0.042	20.8	104	0.031	21.0	105
Cobalt	0	20.0	0.045	22.4	112	0.055	22.4	112
Copper	0	20.0	0.35	21.4	107	0.34	21.5	108
Iron	2500	2500	2810	2670	107	2860	2690	108
Lead	0	0	0.024	0.14		-0.032	0.087	
Lithium	0	20.0	-0.41	19.6	98	-0.90	18.7	94
Magnesium	1000	1000	1100	1050	105	1120	1060	106
Manganese	0	20.0	0.91	21.0	105	1.43	21.1	106
Molybdenum	20.0	20.0	21.7	20.7	104	21.8	20.9	104
Nickel	0	20.0	0.14	21.8	109	0.11	21.7	108
Potassium	1000	1000	1090	1030	103	1100	1020	102
Selenium	0	10.0	0.0060	10.1	101	-0.017	10.0	100
Silicon	0	1000	9.18	1150	115	5.74	1160	116
Silver	0	5.00	0.0060	5.28	106	0.0040	5.29	106
Sodium	2500	2500	2790	2660	106	2820	2660	106
Strontium	0	10.0	0.089	10.9	109	0.083	10.8	108
Thallium	0	0	0.0040	0.0020		0.012	0.0020	
Tin	0	10.0	0.20	10.4	104	0.19	10.6	106
Titanium	20.0	20.0	21.8	21.5	108	21.6	21.3	106
Vanadium	0	20.0	-0.025	21.1	106	-0.036	21.1	106
Zinc	0	20.0	6.31	21.8	109	6.69	21.4	107
Zirconium	0	20.0	0.12	17.9	90	0.13	17.9	90
Hardness	0	0	13.3	12.4		13.5	12.5	

FORM IV - IN

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 555948

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1050	1020	102			
Antimony	0	0	0.027	0.021				
Arsenic	0	10.0	0.024	9.97	100			
Barium	0	0	0.18	0.17				
Beryllium	0	0	0.0030	0.0010				
Boron	0	20.0	1.66	20.4	102			
Cadmium	0	10.0	0.037	10.4	104			
Calcium	3000	3000	3170	3080	103			
Chromium	0	20.0	0.021	20.5	102			
Cobalt	0	20.0	0.046	21.9	110			
Copper	0	20.0	0.052	20.6	103			
Iron	2500	2500	2640	2560	102			
Lead	0	0	0.044	0.036				
Lithium	0	20.0	0.33	20.7	104			
Magnesium	1000	1000	1060	1020	102			
Manganese	0	20.0	0.55	20.5	102			
Molybdenum	20.0	20.0	20.6	20.0	100			
Nickel	0	20.0	0.069	21.1	106			
Potassium	1000	1000	1010	970	97			
Selenium	0	10.0	-0.054	9.98	100			
Silicon	0	1000	-20	1160	116			
Silver	0	5.00	0.0060	5.01	100			
Sodium	2500	2500	2700	2570	103			
Strontium	0	10.0	0.047	10.5	105			
Thallium	0	0	0.0030	0.0020				
Tin	0	10.0	0.078	10.1	101			
Titanium	20.0	20.0	20.3	19.7	98			
Vanadium	0	20.0	0.0020	20.6	103			
Zinc	0	20.0	3.45	20.9	104			
Zirconium	0	20.0	0.020	17.6	88			
Hardness	0	0	12.3	11.9				

FORM IV - IN

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 556171

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1050	1030	103	1060	1030	103
Antimony	0	0	0.026	0.022		0.010	0.016	
Arsenic	0	10.0	0.016	10.1	101	-0.0010	10.1	101
Barium	0	0	0.19	0.18		0.18	0.19	
Beryllium	0	0	-0.049	-0.049		-0.049	-0.051	
Boron	0	20.0	1.98	20.7	104	1.15	20.2	101
Cadmium	0	10.0	0.044	10.3	103	0.025	10.5	105
Calcium	3000	3000	3260	3110	104	3170	3140	105
Chromium	0	20.0	0.024	20.5	102	0.0080	20.4	102
Cobalt	0	20.0	-0.049	22.0	110	-0.048	21.9	110
Copper	0	20.0	0.011	21.0	105	0.011	20.9	104
Iron	2500	2500	2650	2580	103	2650	2550	102
Lead	0	0	-0.021	-0.028		-0.055	-0.054	
Lithium	0	20.0	0.062	21.1	106	0.069	21.3	106
Magnesium	1000	1000	1070	1030	103	1060	1040	104
Manganese	0	20.0	0.56	20.5	102	0.63	20.2	101
Molybdenum	20.0	20.0	20.5	19.8	99	20.2	19.7	98
Nickel	0	20.0	0.058	20.9	104	0.061	21.1	106
Potassium	1000	1000	1030	985	98	1030	985	98
Selenium	0	10.0	0.050	9.93	99	0.0020	9.56	96
Silicon	0	1000	56.9	1250	125	-140	1010	101
Silver	0	5.00	0.0050	5.00	100	0.0040	4.98	100
Sodium	2500	2500	2690	2620	105	2750	2630	105
Strontium	0	10.0	0.040	10.7	107	0.056	10.7	107
Thallium	0	0	-0.074	-0.073		-0.077	-0.078	
Tin	0	10.0	0.061	10.2	102	0.073	10.2	102
Titanium	20.0	20.0	21.2	20.3	102	20.4	20.6	103
Vanadium	0	20.0	0.012	20.8	104	0.0030	20.5	102
Zinc	0	20.0	3.07	20.3	102	3.06	19.9	100
Zirconium	0	20.0	0.023	17.6	88	0.021	17.6	88
Hardness	0	0	12.5	12.0		12.3	12.1	

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 556252

ICP ID Number: ICPMS2 ICS Source: 245-76-1 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1050	1000	100	1070	1020	102
Antimony	0	0	0.022	0.022		0.025	0.024	
Arsenic	0	10.0	0.023	9.93	99	-0.0070	9.85	98
Barium	0	0	0.20	0.21		0.21	0.21	
Beryllium	0	0	-0.0010	-0.0050		-0.0060	-0.0050	
Boron	0	20.0	2.49	22.0	110	1.99	20.8	104
Cadmium	0	10.0	0.057	10.5	105	0.027	10.4	104
Calcium	3000	3000	3220	3100	103	3210	3090	103
Chromium	0	20.0	0.050	20.1	100	0.047	19.9	100
Cobalt	0	20.0	0.028	21.3	106	0.024	21.3	106
Copper	0	20.0	0.030	20.6	103	-0.039	20.7	104
Iron	2500	2500	2610	2500	100	2620	2490	100
Lead	0	0	0.027	0.023		-0.027	-0.026	
Lithium	0	20.0	0.16	20.8	104	1.29	24.0	120
Magnesium	1000	1000	1060	1010	101	1080	1030	103
Manganese	0	20.0	0.55	20.0	100	0.48	20.0	100
Molybdenum	20.0	20.0	20.7	19.7	98	20.3	19.5	98
Nickel	0	20.0	0.048	20.7	104	0.010	20.5	102
Potassium	1000	1000	1030	976	98	1030	971	97
Selenium	0	10.0	0.052	9.92	99	0.057	9.92	99
Silicon	0	1000	-0.95	1140	114	-7.0	1190	119
Silver	0	5.00	0.0080	4.98	100	0.0060	4.93	99
Sodium	2500	2500	2670	2570	103	2760	2630	105
Strontium	0	10.0	0.048	10.9	109	0.045	10.7	107
Thallium	0	0	-0.0080	-0.0090		-0.013	-0.015	
Tin	0	10.0	0.068	10.3	103	0.090	10.3	103
Titanium	20.0	20.0	20.4	20.4	102	21.2	20.5	102
Vanadium	0	20.0	-0.021	20.2	101	-0.040	20.1	100
Zinc	0	20.0	2.17	20.1	100	1.94	19.6	98
Zirconium	0	20.0	0.028	17.6	88	0.026	17.2	86
Hardness	0	0	12.4	11.9		12.5	12.0	

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 556182

ICP ID Number: ICPMS2 ICS Source: 245-76-1 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Copper	0	20.0	0.030	20.6	103	-0.039	20.7	104
Iron	2500	2500	2610	2500	100	2620	2490	100
Lead	0	0	0.027	0.023		-0.027	-0.026	
Lithium	0	20.0	0.16	20.8	104	1.29	24.0	120
Magnesium	1000	1000	1060	1010	101	1080	1030	103
Manganese	0	20.0	0.55	20.0	100	0.48	20.0	100
Molybdenum	20.0	20.0	20.7	19.7	98	20.3	19.5	98
Nickel	0	20.0	0.048	20.7	104	0.010	20.5	102
Potassium	1000	1000	1030	976	98	1030	971	97
Selenium	0	10.0	0.052	9.92	99	0.057	9.92	99
Silicon	0	1000	-0.95	1140	114	-7.0	1190	119
Silver	0	5.00	0.0080	4.98	100	0.0060	4.93	99
Sodium	2500	2500	2670	2570	103	2760	2630	105
Strontium	0	10.0	0.048	10.9	109	0.045	10.7	107
Thallium	0	0	-0.0080	-0.0090		-0.013	-0.015	
Tin	0	10.0	0.068	10.3	103	0.090	10.3	103
Titanium	20.0	20.0	20.4	20.4	102	21.2	20.5	102
Vanadium	0	20.0	-0.021	20.2	101	-0.040	20.1	100
Zinc	0	20.0	2.17	20.1	100	1.94	19.6	98
Zirconium	0	20.0	0.028	17.6	88	0.026	17.2	86
Hardness	0	0	12.4	11.9		12.5	12.0	
Aluminum	1000	1000	1050	1000	100	1070	1020	102
Antimony	0	0	0.022	0.022		0.025	0.024	
Arsenic	0	10.0	0.023	9.93	99	-0.0070	9.85	98
Barium	0	0	0.20	0.21		0.21	0.21	
Beryllium	0	0	-0.0010	-0.0050		-0.0060	-0.0050	
Boron	0	20.0	2.43	21.1	106	1.99	20.8	104
Cadmium	0	10.0	0.057	10.5	105	0.027	10.4	104
Calcium	3000	3000	3220	3100	103	3210	3090	103
Chromium	0	20.0	0.050	20.1	100	0.047	19.9	100
Cobalt	0	20.0	0.028	21.3	106	0.024	21.3	106

FORM IV - IN

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040304

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 556796

ICP ID Number: ICPMS2 ICS Source: 245-80-11 Agilent~245-78-1 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1030	1000	100			
Antimony	0	0	0.024	0.010				
Arsenic	0	10.0	0.032	9.06	91			
Barium	0	0	0.16	0.16				
Beryllium	0	0	0.0070	0.0030				
Boron	0	20.0	2.48	20.5	102			
Cadmium	0	10.0	0.039	9.33	93			
Calcium	3000	3000	3200	3010	100			
Chromium	0	20.0	0.025	18.8	94			
Cobalt	0	20.0	0.046	20.3	102			
Copper	0	20.0	0.017	19.1	96			
Iron	2500	2500	2560	2500	100			
Lead	0	0	-0.0060	-0.015				
Lithium	0	20.0	1.09	20.9	104			
Magnesium	1000	1000	1020	1020	102			
Manganese	0	20.0	0.067	18.9	94			
Molybdenum	20.0	20.0	19.9	20.1	100			
Nickel	0	20.0	0.0070	19.3	96			
Potassium	1000	1000	1020	990	99			
Selenium	0	10.0	-0.0040	9.15	92			
Silicon	0	1000	-3.4	1130	113			
Silver	0	5.00	0.0090	4.86	97			
Sodium	2500	2500	2490	2460	98			
Strontium	0	10.0	0.047	10.2	102			
Thallium	0	0	0.0050	0.0020				
Tin	0	10.0	-0.027	9.78	98			
Titanium	20.0	20.0	21.1	21.1	106			
Vanadium	0	20.0	-0.0090	19.4	97			
Zinc	0	20.0	3.64	19.8	99			
Zirconium	0	20.0	0.0090	18.5	92			
Hardness	0	0	12.2	11.7				

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MA01MW002 Method SW-846 6020A

SAMPLE NO. : 1431076

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Aluminum	ug/L	1000	0	1020	102		80 - 120
Antimony	ug/L	100	0	102	102		80 - 120
Arsenic	ug/L	50	0	48.3	97		80 - 120
Barium	ug/L	50	14.8	65	100		80 - 120
Beryllium	ug/L	50	0	54.3	109		80 - 120
Cadmium	ug/L	50	0	50.8	102		80 - 120
Calcium	ug/L	25000	46400	72000	102		80 - 120
Chromium	ug/L	50	1.87	49.1	95		80 - 120
Cobalt	ug/L	50	0	51.5	103		80 - 120
Copper	ug/L	50	1.27	52.9	103		80 - 120
Iron	ug/L	5000	0	5060	101		80 - 120
Lead	ug/L	50	0	52.4	105		80 - 120
Magnesium	ug/L	5000	39900	45900	122	N	80 - 120
Manganese	ug/L	50	0	50.4	101		80 - 120
Molybdenum	ug/L	50	6.74	56.8	100		80 - 120
Nickel	ug/L	100	0	103	103		80 - 120
Potassium	ug/L	5000	6030	11000	100		80 - 120
Selenium	ug/L	10	3.91	13.9	100		80 - 120
Silver	ug/L	50	0	47.4	95		80 - 120
Sodium	ug/L	5000	575000	582000	156	N	80 - 120
Thallium	ug/L	50	0	49.8	100		80 - 120
Titanium	ug/L	50	0	49.1	98		80 - 120
Vanadium	ug/L	50	11.2	63	104		80 - 120
Zinc	ug/L	1000	36	1050	101		80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 24 outside limits

Spike Recovery: 4 out of 48 outside limits

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MA01MW002 Method SW-846 6020A

SAMPLE NO. : 1431077

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Aluminum	ug/L	1000	1060	106		3		80 - 120	0 - 20
Antimony	ug/L	100	104	104		2		80 - 120	0 - 20
Arsenic	ug/L	50	49.3	99		2		80 - 120	0 - 20
Barium	ug/L	50	67.6	106		4		80 - 120	0 - 20
Beryllium	ug/L	50	54.8	110		1		80 - 120	0 - 20
Cadmium	ug/L	50	52.7	105		4		80 - 120	0 - 20
Calcium	ug/L	25000	73500	108		2		80 - 120	0 - 20
Chromium	ug/L	50	50.2	97		2		80 - 120	0 - 20
Cobalt	ug/L	50	52.4	105		2		80 - 120	0 - 20
Copper	ug/L	50	53.2	104		1		80 - 120	0 - 20
Iron	ug/L	5000	5130	103		1		80 - 120	0 - 20
Lead	ug/L	50	53.5	107		2		80 - 120	0 - 20
Magnesium	ug/L	5000	47400	151	N	3		80 - 120	0 - 20
Manganese	ug/L	50	50.6	101		0		80 - 120	0 - 20
Molybdenum	ug/L	50	58.8	104		3		80 - 120	0 - 20
Nickel	ug/L	100	105	105		2		80 - 120	0 - 20
Potassium	ug/L	5000	11200	102		1		80 - 120	0 - 20
Selenium	ug/L	10	14.1	102		1		80 - 120	0 - 20
Silver	ug/L	50	48.5	97		2		80 - 120	0 - 20
Sodium	ug/L	5000	590000	300	N	1		80 - 120	0 - 20
Thallium	ug/L	50	51.1	102		3		80 - 120	0 - 20
Titanium	ug/L	50	51.9	104		5		80 - 120	0 - 20
Vanadium	ug/L	50	64.6	107		3		80 - 120	0 - 20
Zinc	ug/L	1000	1060	102		1		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 24 outside limits

Spike Recovery: 4 out of 48 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MWQ-22 Method SW-846 6020A

SAMPLE NO. : 21504040802

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Aluminum	ug/L	1000	0	1140	114		80 - 120
Antimony	ug/L	100	0	104	104		80 - 120
Arsenic	ug/L	50	0	50.8	102		80 - 120
Barium	ug/L	50	36.5	88.5	104		80 - 120
Beryllium	ug/L	50	0	52.4	105		80 - 120
Cadmium	ug/L	50	0	53.2	106		80 - 120
Calcium	ug/L	25000	54300	83700	117		80 - 120
Chromium	ug/L	50	0	49.7	99		80 - 120
Cobalt	ug/L	50	0	52.5	105		80 - 120
Copper	ug/L	50	0	55.3	111		80 - 120
Iron	ug/L	5000	392	5610	104		80 - 120
Lead	ug/L	50	0	53.7	107		80 - 120
Magnesium	ug/L	5000	21700	28300	133	N	80 - 120
Manganese	ug/L	50	168	229	122	N	80 - 120
Molybdenum	ug/L	50	13	66	106		80 - 120
Nickel	ug/L	100	0	106	106		80 - 120
Potassium	ug/L	5000	3100	8330	104		80 - 120
Selenium	ug/L	10	0	11.3	113		80 - 120
Silver	ug/L	50	0	50.1	100		80 - 120
Sodium	ug/L	5000	354000	392000	765	N	80 - 120
Thallium	ug/L	50	0	52.5	105		80 - 120
Titanium	ug/L	50	0	52.4	105		80 - 120
Vanadium	ug/L	50	0	52.5	105		80 - 120
Zinc	ug/L	1000	0	1070	107		80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 24 outside limits

Spike Recovery: 4 out of 48 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MWQ-22 Method SW-846 6020A

SAMPLE NO. : 21504040803

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Aluminum	ug/L	1000	1130	113		1		80 - 120	0 - 20
Antimony	ug/L	100	104	104		1		80 - 120	0 - 20
Arsenic	ug/L	50	49.2	98		3		80 - 120	0 - 20
Barium	ug/L	50	86	99		3		80 - 120	0 - 20
Beryllium	ug/L	50	52.2	104		0		80 - 120	0 - 20
Cadmium	ug/L	50	53.1	106		0		80 - 120	0 - 20
Calcium	ug/L	25000	80100	103		4		80 - 120	0 - 20
Chromium	ug/L	50	48.6	97		2		80 - 120	0 - 20
Cobalt	ug/L	50	51.7	103		2		80 - 120	0 - 20
Copper	ug/L	50	54.5	109		2		80 - 120	0 - 20
Iron	ug/L	5000	5510	102		2		80 - 120	0 - 20
Lead	ug/L	50	52.7	105		2		80 - 120	0 - 20
Magnesium	ug/L	5000	26900	106		5		80 - 120	0 - 20
Manganese	ug/L	50	217	99		5		80 - 120	0 - 20
Molybdenum	ug/L	50	64.8	104		2		80 - 120	0 - 20
Nickel	ug/L	100	105	105		1		80 - 120	0 - 20
Potassium	ug/L	5000	8130	100		2		80 - 120	0 - 20
Selenium	ug/L	10	9.44	94		18		80 - 120	0 - 20
Silver	ug/L	50	49.8	100		1		80 - 120	0 - 20
Sodium	ug/L	5000	351000	0	N	11		80 - 120	0 - 20
Thallium	ug/L	50	51.5	103		2		80 - 120	0 - 20
Titanium	ug/L	50	52.8	106		1		80 - 120	0 - 20
Vanadium	ug/L	50	52.3	105		0		80 - 120	0 - 20
Zinc	ug/L	1000	1060	106		1		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 24 outside limits

Spike Recovery: 4 out of 48 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: LF01-SW05-DIS Method SW-846 6020A Dissolved

SAMPLE NO. : 21504031110

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Arsenic	ug/L	50	1.49	49.3	96		80 - 120
Iron	ug/L	5000	32	5000	99		80 - 120
Lead	ug/L	50	0	51.8	104		80 - 120
Magnesium	ug/L	5000	24300	30800	129	N	80 - 120
Zinc	ug/L	1000	0	1000	100		80 - 120

SAMPLE NO. : 21504031111

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*#*	*% RPD*	*#*	*QC. LIMITS REC*	*QC. LIMITS RPD*
Arsenic	ug/L	50	52.1	101		5		80 - 120	0 - 20
Iron	ug/L	5000	5240	104		5		80 - 120	0 - 20
Lead	ug/L	50	54.3	109		5		80 - 120	0 - 20
Magnesium	ug/L	5000	30500	124	N	1		80 - 120	0 - 20
Zinc	ug/L	1000	1050	105		5		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 5 outside limits

Spike Recovery: 2 out of 10 outside limits

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MWQ-22 Method SW-846 6020A Dissolved

SAMPLE NO. : 21504040802

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Aluminum	ug/L	1000	0	968	97		80 - 120
Antimony	ug/L	100	0	96.6	97		80 - 120
Arsenic	ug/L	50	0	45	90		80 - 120
Barium	ug/L	50	32.4	79.5	94		80 - 120
Beryllium	ug/L	50	0	48.2	96		80 - 120
Cadmium	ug/L	50	0	49.3	99		80 - 120
Calcium	ug/L	25000	52300	74700	90		80 - 120
Chromium	ug/L	50	0	44.8	90		80 - 120
Cobalt	ug/L	50	0	47.9	96		80 - 120
Copper	ug/L	50	0	49.9	100		80 - 120
Iron	ug/L	5000	333	5120	96		80 - 120
Lead	ug/L	50	0	49	98		80 - 120
Magnesium	ug/L	5000	21200	25300	81		80 - 120
Manganese	ug/L	50	191	236	90		80 - 120
Molybdenum	ug/L	50	13.1	60.7	95		80 - 120
Nickel	ug/L	100	0	130	130	N	80 - 120
Potassium	ug/L	5000	3020	7660	93		80 - 120
Selenium	ug/L	10	0	10.1	101		80 - 120
Silver	ug/L	50	0	24.5	49	N	80 - 120
Sodium	ug/L	5000	365000	368000	52	N	80 - 120
Thallium	ug/L	50	0	48	96		80 - 120
Titanium	ug/L	50	0	46.9	94		80 - 120
Vanadium	ug/L	50	0	48.6	97		80 - 120
Zinc	ug/L	1000	0	984	98		80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 1 out of 24 outside limits

Spike Recovery: 5 out of 48 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MWQ-22 Method SW-846 6020A Dissolved

SAMPLE NO. : 21504040803

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Aluminum	ug/L	1000	1010	101		4		80 - 120	0 - 20
Antimony	ug/L	100	99.1	99		3		80 - 120	0 - 20
Arsenic	ug/L	50	48	96		6		80 - 120	0 - 20
Barium	ug/L	50	81.3	98		2		80 - 120	0 - 20
Beryllium	ug/L	50	50.3	101		4		80 - 120	0 - 20
Cadmium	ug/L	50	50.7	101		3		80 - 120	0 - 20
Calcium	ug/L	25000	76000	95		2		80 - 120	0 - 20
Chromium	ug/L	50	46.9	94		5		80 - 120	0 - 20
Cobalt	ug/L	50	48.8	98		2		80 - 120	0 - 20
Copper	ug/L	50	51.8	104		4		80 - 120	0 - 20
Iron	ug/L	5000	5350	100		4		80 - 120	0 - 20
Lead	ug/L	50	50.4	101		3		80 - 120	0 - 20
Magnesium	ug/L	5000	25800	90		2		80 - 120	0 - 20
Manganese	ug/L	50	238	93		1		80 - 120	0 - 20
Molybdenum	ug/L	50	62.8	99		3		80 - 120	0 - 20
Nickel	ug/L	100	101	101		25	*	80 - 120	0 - 20
Potassium	ug/L	5000	7780	95		1		80 - 120	0 - 20
Selenium	ug/L	10	9.74	97		4		80 - 120	0 - 20
Silver	ug/L	50	29.1	58	N	17		80 - 120	0 - 20
Sodium	ug/L	5000	346000	0	N	6		80 - 120	0 - 20
Thallium	ug/L	50	49.2	98		2		80 - 120	0 - 20
Titanium	ug/L	50	51.4	103		9		80 - 120	0 - 20
Vanadium	ug/L	50	49.8	100		2		80 - 120	0 - 20
Zinc	ug/L	1000	1010	101		3		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 1 out of 24 outside limits

Spike Recovery: 5 out of 48 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MWQ-24 Method SW-846 7470A

SAMPLE NO. : 1431080

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	#	*QC. LIMITS*
Mercury	ug/L	5	0	4.65	93		80 - 120

SAMPLE NO. : 1431081

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Mercury	ug/L	5	4.53	91		3		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Matrix Spike - EPA Sample No: MA02MW001D-a Method SW-846 7470A Dissolved

SAMPLE NO. : 1431088

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Mercury	ug/L	5	0	4.82	96		80 - 120

SAMPLE NO. : 1431089

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*#*	*% RPD*	*#*	*QC. LIMITS REC*	*RPD*
Mercury	ug/L	5	4.61	92		4		80 - 120	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits

FORM V (PART 1) - IN

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: GCAL

Sample ID: MWQ-22PDS

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 215040304

Level: (low / med)

Lab Sample ID: 1433909

Orig Lab Sample ID 21504040801

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Manganese	75	125	805		168		500	127	N	ug/L	SW-846 6020A	MS

FORM V (PART 2) - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1431075

Lab Code: LA024 Case No.:
Contract:

Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304

Lab Sample ID: 1431075
LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum	1000	1020	102	80	120	ug/L	SW-846 6020A	MS
Antimony	100	100	100	80	120	ug/L	SW-846 6020A	MS
Arsenic	50.0	49.6	99	80	120	ug/L	SW-846 6020A	MS
Barium	50.0	51.2	102	80	120	ug/L	SW-846 6020A	MS
Beryllium	50.0	50.5	101	80	120	ug/L	SW-846 6020A	MS
Cadmium	50.0	49.6	99	80	120	ug/L	SW-846 6020A	MS
Calcium	25000	25500	102	80	120	ug/L	SW-846 6020A	MS
Chromium	50.0	51.2	102	80	120	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.2	102	80	120	ug/L	SW-846 6020A	MS
Copper	50.0	52.4	105	80	120	ug/L	SW-846 6020A	MS
Iron	5000	5140	103	80	120	ug/L	SW-846 6020A	MS
Lead	50.0	50.4	101	80	120	ug/L	SW-846 6020A	MS
Magnesium	5000	5320	106	80	120	ug/L	SW-846 6020A	MS
Manganese	50.0	50.7	101	80	120	ug/L	SW-846 6020A	MS
Molybdenum	50.0	50.2	100	80	120	ug/L	SW-846 6020A	MS
Nickel	100	102	102	80	120	ug/L	SW-846 6020A	MS
Potassium	5000	4920	98	80	120	ug/L	SW-846 6020A	MS
Selenium	10.0	9.61	96	80	120	ug/L	SW-846 6020A	MS
Silver	50.0	48.9	98	80	120	ug/L	SW-846 6020A	MS
Sodium	5000	5160	103	80	120	ug/L	SW-846 6020A	MS
Thallium	50.0	51.3	103	80	120	ug/L	SW-846 6020A	MS
Titanium	50.0	50.0	100	80	120	ug/L	SW-846 6020A	MS
Vanadium	50.0	50.9	102	80	120	ug/L	SW-846 6020A	MS
Zinc	1000	976	98	80	120	ug/L	SW-846 6020A	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1431210
Lab Code: LA024 Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Lab Sample ID: 1431210
LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum	1000	1010	101	80	120	ug/L	SW-846 6020A	MS
Antimony	100	99.6	100	80	120	ug/L	SW-846 6020A	MS
Arsenic	50.0	47.6	95	80	120	ug/L	SW-846 6020A	MS
Barium	50.0	49.7	99	80	120	ug/L	SW-846 6020A	MS
Beryllium	50.0	47.7	95	80	120	ug/L	SW-846 6020A	MS
Cadmium	50.0	49.9	100	80	120	ug/L	SW-846 6020A	MS
Calcium	25000	25400	102	80	120	ug/L	SW-846 6020A	MS
Chromium	50.0	49.1	98	80	120	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.6	103	80	120	ug/L	SW-846 6020A	MS
Copper	50.0	52.2	104	80	120	ug/L	SW-846 6020A	MS
Iron	5000	5170	103	80	120	ug/L	SW-846 6020A	MS
Lead	50.0	52.5	105	80	120	ug/L	SW-846 6020A	MS
Magnesium	5000	5090	102	80	120	ug/L	SW-846 6020A	MS
Manganese	50.0	51.1	102	80	120	ug/L	SW-846 6020A	MS
Molybdenum	50.0	50.4	101	80	120	ug/L	SW-846 6020A	MS
Nickel	100	104	104	80	120	ug/L	SW-846 6020A	MS
Potassium	5000	4890	98	80	120	ug/L	SW-846 6020A	MS
Selenium	10.0	9.28	93	80	120	ug/L	SW-846 6020A	MS
Silver	50.0	49.2	98	80	120	ug/L	SW-846 6020A	MS
Sodium	5000	5050	101	80	120	ug/L	SW-846 6020A	MS
Thallium	50.0	52.1	104	80	120	ug/L	SW-846 6020A	MS
Titanium	50.0	49.3	99	80	120	ug/L	SW-846 6020A	MS
Vanadium	50.0	50.9	102	80	120	ug/L	SW-846 6020A	MS
Zinc	1000	1010	101	80	120	ug/L	SW-846 6020A	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: (soil / water) Water

Lab Sample ID: 1431071

Sample ID: LCS1431071

Contract:

SAS No.: SDG No.: 215040304

LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum (Dissolved)	1000	950	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Antimony (Dissolved)	100	90.8	91	80	120	ug/L	SW-846 6020A Dissolved	MS
Arsenic (Dissolved)	50.0	43.8	88	80	120	ug/L	SW-846 6020A Dissolved	MS
Barium (Dissolved)	50.0	45.6	91	80	120	ug/L	SW-846 6020A Dissolved	MS
Beryllium (Dissolved)	50.0	49.0	98	80	120	ug/L	SW-846 6020A Dissolved	MS
Cadmium (Dissolved)	50.0	46.7	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Calcium (Dissolved)	25000	23200	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Chromium (Dissolved)	50.0	43.9	88	80	120	ug/L	SW-846 6020A Dissolved	MS
Cobalt (Dissolved)	50.0	46.3	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Copper (Dissolved)	50.0	45.8	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Iron (Dissolved)	5000	4640	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Lead (Dissolved)	50.0	47.4	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Magnesium (Dissolved)	5000	4690	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Manganese (Dissolved)	50.0	46.3	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Molybdenum (Dissolved)	50.0	45.8	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Nickel (Dissolved)	100	92.3	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Potassium (Dissolved)	5000	4490	90	80	120	ug/L	SW-846 6020A Dissolved	MS
Selenium (Dissolved)	10.0	9.00	90	80	120	ug/L	SW-846 6020A Dissolved	MS
Silver (Dissolved)	50.0	44.7	89	80	120	ug/L	SW-846 6020A Dissolved	MS
Sodium (Dissolved)	5000	4690	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Thallium (Dissolved)	50.0	46.6	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Titanium (Dissolved)	50.0	45.5	91	80	120	ug/L	SW-846 6020A Dissolved	MS
Vanadium (Dissolved)	50.0	46.3	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Zinc (Dissolved)	1000	933	93	80	120	ug/L	SW-846 6020A Dissolved	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1431204

Lab Code: LA024
Case No.:
Contract:

Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040304

Lab Sample ID: 1431204
LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum (Dissolved)	1000	977	98	80	120	ug/L	SW-846 6020A Dissolved	MS
Antimony (Dissolved)	100	94.3	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Arsenic (Dissolved)	50.0	45.1	90	80	120	ug/L	SW-846 6020A Dissolved	MS
Barium (Dissolved)	50.0	47.7	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Beryllium (Dissolved)	50.0	50.0	100	80	120	ug/L	SW-846 6020A Dissolved	MS
Cadmium (Dissolved)	50.0	49.2	98	80	120	ug/L	SW-846 6020A Dissolved	MS
Calcium (Dissolved)	25000	24300	97	80	120	ug/L	SW-846 6020A Dissolved	MS
Chromium (Dissolved)	50.0	45.1	90	80	120	ug/L	SW-846 6020A Dissolved	MS
Cobalt (Dissolved)	50.0	47.6	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Copper (Dissolved)	50.0	47.9	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Iron (Dissolved)	5000	4780	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Lead (Dissolved)	50.0	49.4	99	80	120	ug/L	SW-846 6020A Dissolved	MS
Magnesium (Dissolved)	5000	4860	97	80	120	ug/L	SW-846 6020A Dissolved	MS
Manganese (Dissolved)	50.0	48.2	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Molybdenum (Dissolved)	50.0	47.3	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Nickel (Dissolved)	100	95.3	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Potassium (Dissolved)	5000	4690	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Selenium (Dissolved)	10.0	9.53	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Silver (Dissolved)	50.0	46.5	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Sodium (Dissolved)	5000	4760	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Thallium (Dissolved)	50.0	47.3	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Titanium (Dissolved)	50.0	47.5	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Vanadium (Dissolved)	50.0	48.0	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Zinc (Dissolved)	1000	964	96	80	120	ug/L	SW-846 6020A Dissolved	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1431079

Lab Code: LA024 Case No.:
Contract:

Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304

Lab Sample ID: 1431079
LCS Source: 245-60-1 EXAXOL

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Mercury	5.00	4.06	81	80	120	ug/L	SW-846 7470A	AV

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1431087

Lab Code: LA024
Case No.:
Contract:

Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040304

Lab Sample ID: 1431087
LCS Source: 245-60-1 EXAXOL

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Mercury (Dissolved)	5.00	4.35	87	80	120	ug/L	SW-846 7470A Dissolved	AV

FORM VII - IN

SERIAL DILUTIONS

Lab Name: GCAL

Sample ID MWQ-22SD

Lab Code: LA024 Case No.

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 215040304

Level: (low / med)

Org Lab Sample ID: 21504040801

Lab Sample ID: 1433910

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Aluminum			0	U	0	U			ug/L	SW-846 6020A	MS
Antimony			0	U	0	U			ug/L	SW-846 6020A	MS
Arsenic			0	U	0	U			ug/L	SW-846 6020A	MS
Barium			36.5		38.9	J	6.6		ug/L	SW-846 6020A	MS
Beryllium			0	U	0	U			ug/L	SW-846 6020A	MS
Cadmium			0	U	0	U			ug/L	SW-846 6020A	MS
Calcium			54300		53600		1.3		ug/L	SW-846 6020A	MS
Chromium			0	U	0	U			ug/L	SW-846 6020A	MS
Cobalt			0	U	0	U			ug/L	SW-846 6020A	MS
Copper			0	U	0	U			ug/L	SW-846 6020A	MS
Iron			392	J	0	U	100		ug/L	SW-846 6020A	MS
Lead			0	U	0	U			ug/L	SW-846 6020A	MS
Magnesium			21700		22600		4.1		ug/L	SW-846 6020A	MS
Manganese			168		175	J	4.2		ug/L	SW-846 6020A	MS
Molybdenum			13.0		13.4	J	3.1		ug/L	SW-846 6020A	MS
Nickel			0	U	0	U			ug/L	SW-846 6020A	MS
Potassium			3100		3210	J	3.5		ug/L	SW-846 6020A	MS
Selenium			0	U	0	U			ug/L	SW-846 6020A	MS
Silver			0	U	0	U			ug/L	SW-846 6020A	MS
Thallium			0	U	0	U			ug/L	SW-846 6020A	MS
Titanium			0	U	0	U			ug/L	SW-846 6020A	MS
Vanadium			0	U	0	U			ug/L	SW-846 6020A	MS
Zinc			0	U	0	U			ug/L	SW-846 6020A	MS

SERIAL DILUTIONS

Lab Name: GCAL

Lab Code: LA024 Case No.

Matrix: (soil / water) Water

Level: (low / med)

Lab Sample ID: 1433954

Sample ID MWQ-22SD

Contract:

SAS No.: SDG No.: 215040304

Org Lab Sample ID: 21504040801

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Sodium	0	10	354000		356000		.6		ug/L	SW-846 6020A	MS

FORM IX - IN

SERIAL DILUTIONS

Lab Name: GCAL
Sample ID MWQ-22SD
Lab Code: LA024 Case No.
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040304
Level: (low / med)
Org Lab Sample ID: 21504040801
Lab Sample ID: 1433918

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Aluminum (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Antimony (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Arsenic (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Barium (Dissolved)			32.4		35.2	J	8.6		ug/L	/-846 6020A Dissolv	MS
Beryllium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Cadmium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Calcium (Dissolved)			52300		53400		2.1		ug/L	/-846 6020A Dissolv	MS
Chromium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Cobalt (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Copper (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Iron (Dissolved)			333	J	0	U	100		ug/L	/-846 6020A Dissolv	MS
Lead (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Magnesium (Dissolved)			21200		21400		.9		ug/L	/-846 6020A Dissolv	MS
Manganese (Dissolved)			191		199	J	4.2		ug/L	/-846 6020A Dissolv	MS
Molybdenum (Dissolved			13.1		13.7	J	4.6		ug/L	/-846 6020A Dissolv	MS
Nickel (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Potassium (Dissolved)			3020		2930	J	3		ug/L	/-846 6020A Dissolv	MS
Selenium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Silver (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Thallium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Titanium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Vanadium (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS
Zinc (Dissolved)			0	U	0	U			ug/L	/-846 6020A Dissolv	MS

FORM IX - IN

SERIAL DILUTIONS

Lab Name: GCAL

Lab Code: LA024 Case No.

Matrix: (soil / water) Water

Level: (low / med)

Lab Sample ID: 1433956

Sample ID MWQ-22SD

Contract:

SAS No.: SDG No.: 215040304

Org Lab Sample ID: 21504040801

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Sodium	0	10	365000		359000		1.6		ug/L	SW-846 6020A	MS

FORM IX - IN

METHOD DETECTION LIMITS

Lab Name: GCAL

Lab Code: LA024

SDG No.: 215040304

Instrument ID: (MS) ICPMS1/ICPMS2 (AV) FIMS1

Analyte	*MDL*	*Units*	*Type*
Aluminum	5	ug/L	MS
Antimony	.5	ug/L	MS
Arsenic	.25	ug/L	MS
Barium	.25	ug/L	MS
Boron	2.50	ug/L	MS
Beryllium	.25	ug/L	MS
Cadmium	.25	ug/L	MS
Calcium	125	ug/L	MS
Chromium	.25	ug/L	MS
Cobalt	.25	ug/L	MS
Copper	.25	ug/L	MS
Iron	25	ug/L	MS
Lead	.25	ug/L	MS
Magnesium	25	ug/L	MS
Manganese	1.25	ug/L	MS
Molybdenum	.25	ug/L	MS
Nickel	.5	ug/L	MS
Potassium	25	ug/L	MS
Selenium	.25	ug/L	MS
Silver	.25	ug/L	MS
Sodium	25	ug/L	MS
Thallium	.25	ug/L	MS
Titanium	.25	ug/L	MS
Vanadium	.25	ug/L	MS
Zinc	5	ug/L	MS
Mercury	0.00007	mg/L	AV

FORM X - IN

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 6020A Method Type MS Prep Batch: 555557

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
COOLING TOWER DE...MS	04/04/15			50	mL
LCS1431075	04/04/15			50	mL
MA01MW001	04/04/15			50	mL
MA01MW002	04/04/15			50	mL
MA01MW003	04/04/15			50	mL
MA01MW004	04/04/15			50	mL
MA02MW001D	04/04/15			50	mL
MA02MW001D-a	04/04/15			50	mL
MAO1MW002MS	04/04/15			50	mL
MAO1MW002MSD	04/04/15			50	mL
MB1431074	04/04/15			50	mL
MWQ-24	04/04/15			50	mL

FORM XIII - IN

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 6020A Method Type MS Prep Batch: 555584

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1431210	04/04/15			50	mL
MB1431209	04/04/15			50	mL
MWQ-18	04/04/15			50	mL
MWQ-19	04/04/15			50	mL
MWQ-2	04/04/15			50	mL
MWQ-2-a	04/04/15			50	mL
MWQ-20	04/04/15			50	mL
MWQ-21	04/04/15			50	mL
MWQ-22	04/04/15			50	mL
MWQ-22-MS	04/04/15			50	mL
MWQ-22-MSD	04/04/15			50	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 6020A Dissolved Method Type MS Prep Batch: 555556

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1431071	04/04/15			50	mL
MA01MW001	04/04/15			50	mL
MA01MW002	04/04/15			50	mL
MA01MW003	04/04/15			50	mL
MA01MW004	04/04/15			50	mL
MA02MW001D	04/04/15			50	mL
MA02MW001D-a	04/04/15			50	mL
MB1431070	04/04/15			50	mL
MWQ-24	04/04/15			50	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 6020A Dissolved Method Type MS Prep Batch: 555582

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1431204	04/04/15			50	mL
MB1431203	04/04/15			50	mL
MWQ-18	04/04/15			50	mL
MWQ-19	04/04/15			50	mL
MWQ-2	04/04/15			50	mL
MWQ-2-a	04/04/15			50	mL
MWQ-20	04/04/15			50	mL
MWQ-21	04/04/15			50	mL
MWQ-22	04/04/15			50	mL
MWQ-22-MS	04/04/15			50	mL
MWQ-22-MSD	04/04/15			50	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 7470A Method Type AV Prep Batch: 555559

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
COOLING TOWER DE...MS	04/04/15			20	mL
LCS1431079	04/04/15			20	mL
MA01MW001	04/04/15			20	mL
MA01MW002	04/04/15			20	mL
MA01MW003	04/04/15			20	mL
MA01MW004	04/04/15			20	mL
MA02MW001D	04/04/15			20	mL
MA02MW001D-a	04/04/15			20	mL
MB1431078	04/04/15			20	mL
MWQ-24	04/04/15			20	mL
MWQ-24MS	04/04/15			20	mL
MWQ-24MSD	04/04/15			20	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304

Method: SW-846 7470A Dissolved Method Type AV Prep Batch: 555561

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1431087	04/04/15			20	mL
MA01MW001	04/04/15			20	mL
MA01MW002	04/04/15			20	mL
MA01MW003	04/04/15			20	mL
MA01MW004	04/04/15			20	mL
MA02MW001D	04/04/15			20	mL
MA02MW001D-a	04/04/15			20	mL
MA02MW001D-aMS	04/04/15			20	mL
MA02MW001D-aMSD	04/04/15			20	mL
MB1431086	04/04/15			20	mL
MWQ-24	04/04/15			20	mL

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/05/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555607

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	1115																															
IICALB	*	1	2000	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	2004	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	2007	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	2011	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	2014	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	2017	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	2021	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	2024	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	2027	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	2031	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0413	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0416	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0420	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1431074	*	1	0424	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1431075	*	1	0427	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0431																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0434																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0437																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0444																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0448																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0451																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0454																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0458																															
CCB	*	1	0501	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0505	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0508	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

EPA 555057

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/08/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/09/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555928

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0928																																			
IICALB	*	1	1913	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL2	*	1	1916	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL4	*	1	1920	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL5	*	1	1923	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL6	*	1	1926	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL1	*	1	1929	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICV	*	1	1933	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICB	*	1	1936	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
LLCCV	*	1	1939	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICSA	*	1	1943	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICSAB	*	1	1946	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
MA01MW001DL	*	500	1950								X							X									X										
MA01MW001	*	1	1953	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
MA02MW001D-aDL	*	500	2000															X									X										
MA02MW001D-a	*	5	2003	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
CCB	*	1	2013	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
LLCCV	*	1	2017	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
CCV	*	1	2020	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
MA01MW004DL	*	100	2023															X									X										
MA01MW004	*	1	2027	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
MWQ-24	*	1	2044	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
MWQ-24DL	*	10	2047															X									X										
MA02MW001D	*	5	2057	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
MA01MW002DL	*	100	2104															X									X										
MA01MW002	*	1	2108	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X				
CCB	*	1	2114	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/08/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/09/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555928

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
LLCCV	*	1	2118	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	2121	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW001DL	*	500	2125								X							X									X							
MA01MW001	*	1	2128	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA02MW001D-aDL	*	500	2135															X									X							
MA02MW001D-a	*	5	2138	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW004DL	*	100	2145															X									X							
MA01MW004	*	1	2149	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW003	*	100	2155								X							X																
MA01MW003	*	1	2159	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2206																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2209																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	2212																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	2216																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	2219																															
CCB	*	1	2223	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	2226	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	2229	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0554	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0558	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0601	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1431209	*	1	0605	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1431210	*	1	0608	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	0611																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	0618																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	0628																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	0635																															

215040572 215040572

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/08/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/09/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555928

Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		20	0649																															
CCB	*	1	0656	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0659	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0702	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	0706	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	0709	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/09/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/10/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555948

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0948																															
IICALB	*	1	1112	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	1116	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	1120	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	1123	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	1126	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	*	1	1130	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	1133	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	1136	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	1143	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	1146	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1156	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1340	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1344	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1347	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA02MW001D	*	5	1353																															
MA02MW001DDL	*	500	1400																															
MA01MW003	*	1	1403	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MA01MW003DL	*	100	1413								X							X									X							
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		500	1420																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		5	1441																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1448																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		5	1451																															
MB1431070	*	1	1455	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1431071	*	1	1458	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1502	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1505	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/09/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/10/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 555948

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
CCV	*	1	1508	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

CCS 05/05/15

ANALYSIS RUN LOG

Lab Name: GCAL Contract: ____ Start Date: 04/10/05

Lab Code: LA024 Case No.: ____ SAS No.: ____ SDG No.: 215040304 End Date: 04/11/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 556171

Analyte Symbols

Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0653																															
IICALB	*	1	0702	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	0706	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	0709	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	0713	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	0716	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	*	1	0719	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	0722	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	0726	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0729	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	0733	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	0736	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1020	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1023	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1026	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW003RE1	*	100	1043																								X							
CCV	*	1	1111	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1114	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1117	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1139	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1142	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1146	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-21DL	*	50	1149								X							X									X							
MWQ-21	*	1	1152	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MWQ-20DL	*	1000	1159																								X							
MWQ-20	*	100	1203	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-19DL	*	1000	1209																								X							

ANALYSIS RUN LOG

Lab Name: GCAL Contract: ____ Start Date: 04/10/05

Lab Code: LA024 Case No.: ____ SAS No.: ____ SDG No.: 215040304 End Date: 04/11/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 556171

				Analyte Symbols																														
Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
CCB	*	1	1216	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1220	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1223	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-19	*	100	1226	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-18	*	10	1230	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-2	*	1000	1237																															
MWQ-2	*	100	1240	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-2-aDL	*	1000	1247																								X							
MWQ-2-a	*	100	1250	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22DL	*	100	1257																								X							
MWQ-22	*	10	1300	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22-MSDL	*	100	1307																								X							
MWQ-22-MS	*	10	1311	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
CCB	*	1	1317	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1321	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1324	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22-MSDDL	*	100	1327																								X							
MWQ-22-MSD	*	10	1331	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22PDS	*	100	1338	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22PDS	*	10	1341	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22SD	*	500	1348	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22SD	*	50	1351	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-24DL	*	500	1355																								X							
MWQ-24	*	5	1358	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA02MW001DDL	*	500	1405															X									X							
MA02MW001D	*	5	1408	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
CCB	*	1	1506	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/10/05

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/11/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 556171

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
LLCCV	*	1	1509	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1513	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-21DL	*	50	1547								X							X									X								
MWQ-21	*	1	1550	X	X	X	X	X		X		X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
MWQ-20DL	*	1000	1557																								X								
MWQ-20	*	100	1600	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
CCB	*	1	1607	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1611	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1614	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-19DL	*	1000	1617																								X								
MWQ-19	*	100	1621	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
ICSA	*	1	1628																																
ICSAB	*	1	1631																																
MWQ-18	*	10	1634	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-2DL	*	1000	1638																								X								
MWQ-2	*	100	1641	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-2-a	*	1000	1648																																
MWQ-2-a	*	100	1651	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22DL	*	100	1658																								X								
MWQ-22	*	10	1702	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22-MSDL	*	100	1705																								X								
CCB	*	1	1712	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1715	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1719	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22-MS	*	10	1722	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22-MSDDL	*	100	1725																								X								
MWQ-22-MSD	*	10	1732	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	

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ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/10/05

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/11/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 556171

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
MWQ-22PDS	*	100	1736	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22PDS	*	10	1739	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MWQ-22SD	*	500	1746	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-22SD	*	50	1749	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1753																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1756																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		250	1759																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1803																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		250	1810																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1813																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		250	1820																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1823																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		250	1830																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1833																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1250	1840																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		50	1844																															
CCB	*	1	1850	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1854	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1857	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

SAS ACCEPTED

ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/13/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304 End Date: 04/14/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 556252

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0938																															
IICALB	*	1	1002	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	1006	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	1010	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	1013	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	1016	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	*	1	1020	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	1023	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	1026	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	1033	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	1036	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1040	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	1706	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1709	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1713	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW002	*	5	1722	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MA01MW002DL	*	500	1729																								X							
MAO1MW002MS	*	5	1736	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MAO1MW002MSDL	*	500	1746																								X							
MAO1MW002MSD	*	5	1756	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X			X		X	X	X	
MAO1MW002MSDDL	*	500	1806																								X							
MA01MW002PDS	*	5	1817	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MA01MW002SD	*	25	1827	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MWQ-2-aDL	*	1000	1840																								X							
CCB	*	1	1847	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1851	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	1854	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/13/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/14/15

Instrument ID Number: ICPMS2 | Method: SW-846 6020A | Method Type: MS | Analysis Batch: 556182

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0938																																			
IICALB	*	1	1002	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL2	*	1	1006	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL4	*	1	1010	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL5	*	1	1013	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL6	*	1	1016	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
IICAL1	*	1	1020	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICV	*	1	1023	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICB	*	1	1026	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICSA	*	1	1033	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ICSAB	*	1	1036	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
LLCCV	*	1	1040	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
MB1431203	*	1	1044	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
LCS1431204	*	1	1048	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1128																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1131																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		2000	1158																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		2000	1205																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		2000	1209																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		2000	1219																																			
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10000	1222																																			
CCB	*	1	1226	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
LLCCV	*	1	1229	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				
CCV	*	1	1233	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X				

ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/21/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040304 End Date: 04/21/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 556796

Sample No.	PF	D/F	Time	Analyte Symbols: Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Li Mg Mn Hg Mo Ni K Se Si Ag Na Sr Tl Sn Ti V Zn Zr
ITUNE	*	1	0721	
IICALB	*	1	1607	Na: X
IICAL2	*	1	1611	Na: X
IICAL4	*	1	1614	Na: X
IICAL5	*	1	1618	Na: X
IICAL6	*	1	1621	Na: X
IICAL1	*	1	1624	Na: X
ICV	*	1	1628	Na: X
ICB	*	1	1631	Na: X
LLCCV	*	1	1634	Na: X
ICSA	*	1	1638	Na: X
ICSAB	*	1	1641	Na: X
CCB	*	1	1710	Na: X
LLCCV	*	1	1714	Na: X
CCV	*	1	1717	Na: X
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	1720	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1727	
MWQ-2DL	*	1000	1808	Na: X
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1828	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1835	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		100	1839	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	1842	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		100	1845	
CCB	*	1	1859	Na: X
LLCCV	*	1	1902	Na: X
CCV	*	1	1906	Na: X

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ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/04/15

Instrument ID Number: Tekmar Hydra AA Hg Analyzer | Method: SW-846 7470A | Method Type: AV | Analysis Batch: 555576

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr				
IICALB	*	1	2037																	X																		
IICAL1	*	1	2039																	X																		
IICAL2	*	1	2041																	X																		
IICAL3	*	1	2043																	X																		
IICAL4	*	1	2045																	X																		
IICAL5	*	1	2047																	X																		
ICV	*	1	2050																	X																		
ICB	*	1	2052																	X																		
CCV	*	1	2206																	X																		
CCB	*	1	2209																	X																		
MB1431078	*	1	2211																	X																		
LCS1431079	*	1	2213																	X																		
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2215																																		
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2217																																		
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2221																																		
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2224																																		
MWQ-24	*	1	2226																	X																		
MWQ-24MS	*	1	2228																	X																		
MWQ-24MSD	*	1	2230																	X																		
CCV	*	1	2232																	X																		
CCB	*	1	2235																	X																		
MA02MW001D	*	1	2237																	X																		
MA01MW002	*	1	2239																	X																		
MA01MW001	*	1	2241																	X																		
MA02MW001D-a	*	1	2243																	X																		
MA01MW004	*	1	2245																	X																		
MA01MW003	*	1	2247																	X																		

ACCEPTED

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/04/15

Instrument ID Number: Tekmar Hydra AA Hg Analyzer | Method: SW-846 7470A | Method Type: AV | Analysis Batch: 555576

				Analyte Symbols																														
Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2249																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2251																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2253																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2254																															
CCV	*	1	2256																	X														
CCB	*	1	2258																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2301																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2303																															
MB1431086	*	1	2305																	X														
LCS1431087	*	1	2307																	X														
MWQ-24	*	1	2309																	X														
MA02MW001D	*	1	2311																	X														
MA01MW002	*	1	2313																	X														
MA01MW001	*	1	2315																	X														
MA02MW001D-a	*	1	2317																	X														
MA02MW001D-aMS	*	1	2319																	X														
CCV	*	1	2321																															
CCB	*	1	2324																															
MA02MW001D-aMSD	*	1	2327																	X														
MA01MW004	*	1	2328																	X														
MA01MW003	*	1	2331																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2333																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2335																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2337																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2340																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2342																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2344																															

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040304 | End Date: 04/04/15

Instrument ID Number: Tekmar Hydra AA Hg Analyzer | Method: SW-846 7470A | Method Type: AV | Analysis Batch: 555576

				Analyte Symbols																														
Sample No.	PF	D/F	Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2347																															
CCV	*	1	2349																	X														
CCB	*	1	2351																	X														

US EPA Tune Check Sample Report

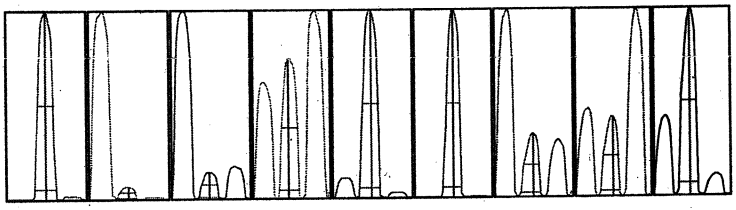
Batch Folder C:\Agilent\ICPMH\1\DATA\2150404a_ms2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10317	1.92	5.00	
24	48774	1.24	5.00	
25	6725	1.39	5.00	
26	8206	1.07	5.00	
59	150618	1.32	5.00	
115	116091	1.51	5.00	
206	25846	1.54	5.00	
207	23618	1.68	5.00	
208	56420	1.31	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10439	10574	10250	10055	10267
24	49348	49385	48597	47933	48609
25	6822	6817	6707	6674	6607
26	8273	8302	8227	8107	8123
59	151894	153039	149387	148019	150754
115	118305	117535	114949	114181	115484
206	26420	26012	25533	25426	25839
207	24304	23537	23321	23364	23565
208	57416	56665	55437	56034	56548

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1738	9.00	8.9 - 9.1		0.781	0.800	
24	8060	24.00	23.9 - 24.1		0.763	0.800	
25	1117	24.95	24.9 - 25.1		0.773	0.800	
26	1345	25.90	25.9 - 26.1		0.783	0.800	
59	25652	59.00	58.9 - 59.1		0.778	0.800	
115	21446	115.00	114.9 - 115.1		0.735	0.800	
206	4652	206.00	205.9 - 206.1		0.764	0.800	
207	4207	207.00	206.9 - 207.1		0.775	0.800	
208	9879	207.95	207.9 - 208.1		0.779	0.800	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit
RF Power	1550	W
RF Matching	1.60	V
Smpl Depth	8.0	mm
S/C Temp	2	°C

ParameterName	Value	Unit
Carrier Gas	0.90	L/min
Option Gas	0.0	%
Nebulizer Pump	0.10	rps

ParameterName	Value	Unit

Lenses Parameters

ParameterName	Value	Unit
Extract 1	0.0	V
Extract 2	-150.0	V
Omega Bias	-85	V
Deflect	15.2	V

ParameterName	Value	Unit
Omega Lens	6.5	V
Cell Entrance	-30	V
Cell Exit	-50	V

ParameterName	Value	Unit

Cell Parameters

ParameterName	Value	Unit
Use Gas	false	
He Flow	0.0	mL/min
H2 Flow	0.0	mL/min
Energy Discrimination	3.0	V

ParameterName	Value	Unit
3rd Gas Flow	0	%
OctP Bias	-8.0	V
OctP RF	160	V

ParameterName	Value	Unit

2150403004 330

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999994652	0.002366472	0.020418199	0.72398556	8.628116589	ppb
1	9	Be	0.999999989	0.000836523	2.33E-06	0.002079996	0.002781387	ppb
1	11	B	0.99999923	0.000481508	0.000411888	0.266376208	0.855412567	ppb
2	23	Na	0.999999253	0.003816506	0.22408371	1.654867646	58.71435729	ppb
2	24	Mg	0.999999867	0.002069243	0.000683851	0.13219329	0.330483375	ppb
2	27	Al	0.999998701	0.000772852	0.000504724	0.121989938	0.653067228	ppb
2	29	Si	0.999928337	2.07E-05	0.005041685	30.54170167	243.8798911	ppb
2	39	K	0.999995959	0.001554059	0.163085044	4.740172403	104.9413782	ppb
2	44	Ca	0.999999842	8.15E-05	0.000537325	5.813890024	6.591114883	ppb
2	47	Ti	0.999999516	0.000626144	1.49E-05	0.047089504	0.023859171	ppb
2	51	V	0.999999866	0.028679794	0.000646319	0.004456709	0.022535677	ppb
2	52	Cr	0.99999901	0.035169862	0.001226379	0.032034988	0.034870157	ppb
2	55	Mn	0.999999385	0.017463273	0.001730554	0.043828211	0.099096749	ppb
2	57	Fe	0.999999459	0.00071338	0.000698152	0.311204242	0.978653503	ppb
2	59	Co	0.999995282	0.064341747	0.000196984	0.003410412	0.003061521	ppb
2	60	Ni	0.999998222	0.017888404	0.011533676	0.176805498	0.644757125	ppb
2	63	Cu	0.999996771	0.041709244	0.001657067	0.01383818	0.039728999	ppb
2	66	Zn	0.999999882	0.007424819	0.00109973	0.100786149	0.148115346	ppb
2	75	As	0.999999688	0.005144431	9.32E-05	0.008190231	0.018114792	ppb
2	78	Se	0.999996	0.000246495	0.000175146	0.052157366	0.710546238	ppb
1	88	Sr	0.999998766	0.038603616	0.000564682	0.005590759	0.014627698	ppb
1	90	Zr	0.999999556	0.027757237	0.000143977	0.002263999	0.005187004	ppb
1	95	Mo	0.999998235	0.001116809	6.00E-06	0.00316427	0.005374946	ppb
1	107	Ag	0.99999976	0.003040354	1.54E-05	0.001356559	0.005050263	ppb
1	111	Cd	0.999999911	0.000638043	1.20E-06	0.003951763	0.001885912	ppb
1	118	(Sn)	0.999997647	0.001923632	2.59E-05	0.006355539	0.01347872	ppb
2	118	(Sn)	0.999996994	0.002552804	4.81E-05	0.007244035	0.018840013	ppb
2	120	Sn	0.999999107	0.003718836	7.59E-05	0.013505627	0.020401133	ppb
1	121	Sb	0.99999997	0.002867559	8.22E-05	0.006051283	0.028671607	ppb
1	137	Ba	0.999999704	0.001001766	1.99E-05	0.014073243	0.019892477	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999994	0.006305863	1.04E-05	0.002246647	0.001643266	ppb
1	206	(Pb)	0.999999551	0.002159966	1.90E-05	0.00882444	0.0088176	ppb
1	207	(Pb)	0.999999918	0.001905105	1.78E-05	0.005724379	0.00935198	ppb
1	208	Pb	0.999999813	0.00868555	9.40E-05	0.001861768	0.010823486	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

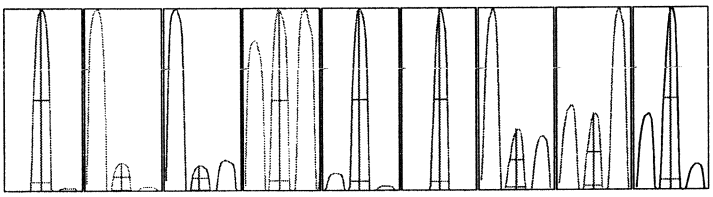
Batch Folder C:\Agilent\ICPMH\1\DATA\2150408A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8267	1.56	5.00	
24	43312	2.42	5.00	
25	6162	2.64	5.00	
26	7223	2.06	5.00	
59	173883	2.34	5.00	
115	160426	2.39	5.00	
206	45253	2.44	5.00	
207	41023	2.29	5.00	
208	98393	2.20	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8457	8321	8246	8121	8191
24	45072	43318	43133	42594	42445
25	6441	6143	6135	6037	6056
26	7483	7192	7107	7151	7182
59	180762	172966	173766	171559	170363
115	166719	160226	160523	157449	157210
206	47188	45123	44770	44534	44649
207	42492	41302	40824	40418	40080
208	101944	98010	98500	97317	96196

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1369	8.95	8.9 - 9.1		0.782	0.800	
24	6967	23.95	23.9 - 24.1		0.779	0.800	
25	968	24.90	24.9 - 25.1		0.790	0.800	
26	1161	25.95	25.9 - 26.1		0.818	0.800	[F]
59	28970	58.95	58.9 - 59.1		0.783	0.800	
115	29580	115.00	114.9 - 115.1		0.736	0.800	
206	8201	206.00	205.9 - 206.1		0.799	0.800	
207	7390	207.00	206.9 - 207.1		0.740	0.800	
208	17663	208.00	207.9 - 208.1		0.806	0.800	[F]

passed 6020 criteria

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.90	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.8	V			
Extract 2	-145.0	V	Cell Entrance	-30	V			
Omega Bias	-65	V	Cell Exit	-50	V			
Deflect	14.8	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	170	V			
Energy Discrimination	3.0	V						

2150440304 352

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999999691	0.00132616	0.01402272	0.566142266	10.57392548	ppb
1	9	Be	0.999998887	0.000486695	9.01E-07	0.004900153	0.00185107	ppb
1	11	B	0.999995629	0.000284555	0.000431322	0.038328889	1.515778856	ppb
2	23	Na	0.999996288	0.002958235	0.146690473	2.411607185	49.5871622	ppb
2	24	Mg	0.999999599	0.001601319	0.001823895	0.40072806	1.138995236	ppb
2	27	Al	0.999997399	0.000583483	0.003277792	0.788373156	5.617628326	ppb
2	29	Si	0.999881821	1.55E-05	0.00239272	38.02916476	154.2973683	ppb
2	39	K	0.999999472	0.001216382	0.112746549	5.642712493	92.6900947	ppb
2	44	Ca	0.999996175	6.59E-05	0.000874571	7.534227952	13.2710789	ppb
2	47	Ti	0.999998813	0.000513892	1.55E-05	0.080438771	0.030105077	ppb
2	51	V	0.999998996	0.022309059	0.001854502	0.047466679	0.083127771	ppb
2	52	Cr	0.999667583	0.029372977	0.003561251	0.034778261	0.12124241	ppb
2	55	Mn	0.999998524	0.01355222	0.001542228	0.036163324	0.113798914	ppb
2	57	Fe	0.999996639	0.000568052	0.0006894	0.168362173	1.213621185	ppb
2	59	Co	0.999995833	0.052388882	0.00040584	0.004134402	0.007746679	ppb
2	60	Ni	0.99998527	0.014586529	0.00174353	0.01634447	0.119530128	ppb
2	63	Cu	0.999982925	0.036856343	0.004866376	0.029502466	0.132036315	ppb
2	66	Zn	0.999989031	0.005633193	0.002941968	0.145990116	0.522255862	ppb
2	75	As	0.99993043	0.004209471	0.000211461	0.017514974	0.050234553	ppb
2	78	Se	0.999999667	0.000193019	0.000129649	0.200655738	0.671690427	ppb
1	88	Sr	0.999999965	0.033578433	0.001381898	0.010012399	0.041154339	ppb
1	90	Zr	0.999992811	0.024199825	0.000242026	0.003899533	0.010001162	ppb
1	95	Mo	0.999999336	0.0008983	1.04E-05	0.002849642	0.011582534	ppb
1	107	Ag	0.9999983	0.002416026	2.38E-05	0.002347416	0.009847402	ppb
1	111	Cd	0.999999968	0.000508223	6.33E-06	0.00073974	0.012461798	ppb
1	118	(Sn)	0.999997118	0.001598025	0.000237253	0.575559008	0.148466599	ppb
2	118	(Sn)	0.999999963	0.002088083	9.36E-05	0.019853449	0.044806808	ppb
2	120	Sn	0.99999976	0.003064135	0.000137634	0.021127521	0.044917644	ppb
1	121	Sb	0.999999237	0.002339356	0.000109383	0.002023948	0.046757845	ppb
1	137	Ba	0.999999965	0.000872668	2.08E-05	0.006380685	0.023845017	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999438	0.005263258	1.87E-05	0.00401655	0.003561488	ppb
1	206	(Pb)	0.999999592	0.001814254	0.000111613	0.000120509	0.061519957	ppb
1	207	(Pb)	0.999999778	0.001608678	9.12E-05	0.019464807	0.056719304	ppb
1	208	Pb	0.999995508	0.007095291	0.000437584	0.007091562	0.0616725	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

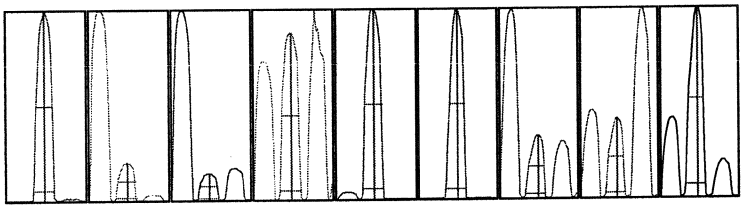
Batch Folder C:\Agilent\ICPMH\1\DATA\2150409a_ms2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7771	0.57	5.00	
24	44537	0.54	5.00	
25	6352	0.91	5.00	
26	7485	1.20	5.00	
59	167039	0.59	5.00	
115	159454	0.30	5.00	
206	45810	0.55	5.00	
207	40850	1.20	5.00	
208	97889	0.28	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7814	7731	7741	7825	7746
24	44407	44379	44963	44437	44497
25	6293	6375	6333	6441	6319
26	7368	7452	7471	7526	7610
59	167280	165854	168494	167119	166445
115	159807	158881	159974	159600	159009
206	45946	45850	45946	45369	45941
207	40566	40327	41436	41302	40620
208	98132	97442	98028	97809	98036

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1310	8.95	8.9 - 9.1		0.777	0.800	
24	7306	23.95	23.9 - 24.1		0.768	0.800	
25	1010	24.95	24.9 - 25.1		0.789	0.800	
26	1222	25.95	25.9 - 26.1		0.786	0.800	
59	27908	58.95	58.9 - 59.1		0.782	0.800	
115	29361	115.00	114.9 - 115.1		0.764	0.800	
206	8046	206.00	205.9 - 206.1		0.781	0.800	
207	7279	206.95	206.9 - 207.1		0.773	0.800	
208	17407	207.95	207.9 - 208.1		0.795	0.800	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.90	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.5	V			
Extract 2	-155.0	V	Cell Entrance	-30	V			
Omega Bias	-60	V	Cell Exit	-50	V			
Deflect	14.8	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	160	V			
Energy Discrimination	3.0	V						

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Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999988418	0.001535748	0.016214014	0.726957241	10.55773416	ppb
1	9	Be	0.999999846	0.000532466	9.50E-07	0.00178807	0.001784734	ppb
1	11	B	0.999997905	0.000310665	0.000253007	0.109250339	0.814403145	ppb
2	23	Na	0.99999915	0.002972015	0.083165684	6.17489471	27.98293284	ppb
2	24	Mg	0.999999923	0.001601099	0.000715962	0.726317874	0.447168891	ppb
2	27	Al	0.999999781	0.000584322	0.00078127	0.396372194	1.337054803	ppb
2	29	Si	0.999886364	1.54E-05	0.003357641	23.88359719	218.690317	ppb
2	39	K	0.999997288	0.001234459	0.120109926	17.58577686	97.29765918	ppb
2	44	Ca	0.999999275	6.64E-05	0.00153442	36.2307228	23.09631866	ppb
2	47	Ti	0.999994325	0.00052023	6.89E-06	0.040261557	0.013241026	ppb
2	51	V	0.999999983	0.022726456	0.00076037	0.01110461	0.033457491	ppb
2	52	Cr	0.999497495	0.030209098	0.003227874	0.014905569	0.106851062	ppb
2	55	Mn	0.999999416	0.013813568	0.002447357	0.039974841	0.177170552	ppb
2	57	Fe	0.999999085	0.000585734	0.000891549	2.153272375	1.52210631	ppb
2	59	Co	0.999998059	0.053495205	0.000337256	0.003863417	0.006304408	ppb
2	60	Ni	0.999995159	0.01505838	0.001302062	0.024107567	0.086467606	ppb
2	63	Cu	0.999995694	0.037903556	0.004473718	0.033475475	0.118028982	ppb
2	66	Zn	0.999996365	0.005797639	0.003827346	0.471650002	0.660155884	ppb
2	75	As	0.999933794	0.004322781	0.000122254	0.007818947	0.02828127	ppb
2	78	Se	0.999999266	0.000196642	0.000135187	0.164997759	0.687479474	ppb
1	88	Sr	0.999998655	0.033980849	0.000569314	0.001241153	0.016753952	ppb
1	90	Zr	0.999998874	0.024162711	0.000187602	0.000716789	0.007764095	ppb
1	95	Mo	0.999998734	0.000882516	5.06E-06	0.003552072	0.005731294	ppb
1	107	Ag	0.999999865	0.002401278	1.36E-05	0.000626185	0.005643224	ppb
1	111	Cd	0.999999626	0.000500775	1.49E-06	0.002247777	0.002970348	ppb
1	118	(Sn)	0.999999831	0.001578771	5.09E-05	0.006481611	0.032264782	ppb
2	118	(Sn)	0.999999941	0.002113395	8.98E-05	0.051859813	0.042483646	ppb
2	120	Sn	0.999999573	0.003106509	0.000150375	0.056521751	0.048406509	ppb
1	121	Sb	0.999998479	0.00232054	8.25E-05	0.007039543	0.035557715	ppb
1	137	Ba	0.999999429	0.000869288	1.90E-05	0.001946083	0.021841605	ppb
2	156	[Se]						ppb
1	205	Tl	0.999998593	0.005238433	1.29E-05	0.003181707	0.002459326	ppb
1	206	(Pb)	0.999999924	0.001813284	3.26E-05	0.00929728	0.017954648	ppb
1	207	(Pb)	0.999999956	0.001609551	2.29E-05	0.002442938	0.014212972	ppb
1	208	Pb	0.999993287	0.007059488	0.00012236	0.004056019	0.017332711	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

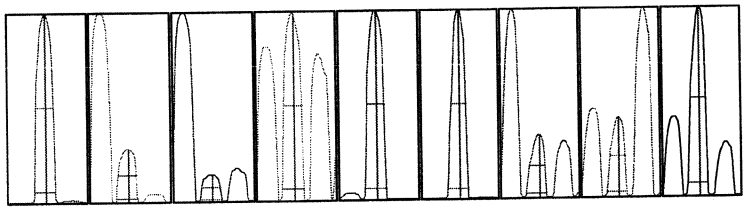
Batch Folder C:\Agilent\ICPMH\1\DATA\2150410A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10601	2.00	5.00	
24	57762	1.70	5.00	
25	8138	2.35	5.00	
26	9622	1.53	5.00	
59	193046	1.61	5.00	
115	173067	2.08	5.00	
206	42833	1.26	5.00	
207	38285	1.20	5.00	
208	92128	1.18	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10307	10841	10748	10487	10622
24	57293	58878	58626	56512	57501
25	8087	8354	8268	7856	8124
26	9615	9783	9740	9416	9555
59	190081	197127	194985	189974	193061
115	174611	177383	174623	168714	170002
206	42260	43667	42876	42460	42900
207	38122	38867	38587	37673	38176
208	91787	93950	92076	91067	91757

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1675	8.95	8.9 - 9.1		0.791	0.800	
24	8869	23.95	23.9 - 24.1		0.813	0.800	[F]
25	1234	24.95	24.9 - 25.1		0.825	0.800	[F]
26	1503	25.95	25.9 - 26.1		0.828	0.800	[F]
59	31067	58.95	58.9 - 59.1		0.822	0.800	[F]
115	31049	115.00	114.9 - 115.1		0.773	0.800	
206	7552	206.00	205.9 - 206.1		0.780	0.800	
207	6769	206.95	206.9 - 207.1		0.773	0.800	
208	16188	207.95	207.9 - 208.1		0.793	0.800	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit
RF Power	1550	W
RF Matching	1.60	V
Smpl Depth	8.0	mm
S/C Temp	2	°C

ParameterName	Value	Unit
Carrier Gas	0.90	L/min
Option Gas	0.0	%
Nebulizer Pump	0.10	rps

ParameterName	Value	Unit

Lenses Parameters

ParameterName	Value	Unit
Extract 1	0.0	V
Extract 2	-145.0	V
Omega Bias	-65	V
Deflect	14.2	V

ParameterName	Value	Unit
Omega Lens	5.9	V
Cell Entrance	-30	V
Cell Exit	-50	V

ParameterName	Value	Unit

Cell Parameters

ParameterName	Value	Unit
Use Gas	false	
He Flow	0.0	mL/min
H2 Flow	0.0	mL/min
Energy Discrimination	3.0	V

ParameterName	Value	Unit
3rd Gas Flow	0	%
OctP Bias	-8.0	V
OctP RF	160	V

ParameterName	Value	Unit

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Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999995002	0.001653215	0.017915222	0.271396183	10.83659211	ppb
1	9	Be	0.999999632	0.000581056	3.09E-05	0.013996189	0.053124432	ppb
1	11	B	0.999999764	0.000342148	8.85E-05	0.071590699	0.258794075	ppb
2	23	Na	0.999999932	0.003026746	0.064570455	3.399328272	21.33329278	ppb
2	24	Mg	0.99999991	0.001616691	0.001063749	0.194960355	0.657979154	ppb
2	27	Al	0.999999447	0.000590484	0.001316889	0.175735532	2.230186388	ppb
2	29	Si	0.999883763	1.56E-05	0.004564318	80.47741927	292.8364868	ppb
2	39	K	0.999995869	0.001250894	0.119373397	6.193836195	95.43045277	ppb
2	44	Ca	0.999999617	6.65E-05	0.002555109	12.00210973	38.41988316	ppb
2	47	Ti	0.999999079	0.000517178	1.60E-05	0.019152327	0.030928487	ppb
2	51	V	0.999999221	0.02307971	0.00058612	0.025226001	0.025395486	ppb
2	52	Cr	0.999611215	0.030608759	0.003694063	0.028908887	0.120686454	ppb
2	55	Mn	0.999999989	0.014071526	0.001854198	0.019411328	0.131769474	ppb
2	57	Fe	0.999999848	0.000589087	0.000545774	1.549902428	0.926474889	ppb
2	59	Co	0.999999263	0.053055048	0.005404696	0.020423424	0.101869583	ppb
2	60	Ni	0.999996303	0.014946916	0.001408282	0.073143062	0.09421892	ppb
2	63	Cu	0.999997999	0.036224699	0.005464264	0.024386379	0.15084359	ppb
2	66	Zn	0.999998393	0.005937645	0.005987386	0.235699012	1.008377137	ppb
2	75	As	0.999934213	0.004299357	9.36E-05	0.025816494	0.021781959	ppb
2	78	Se	0.999999619	0.000198938	0.000121025	0.113459602	0.608354896	ppb
1	88	Sr	0.999999775	0.03326538	0.000732225	0.005669225	0.022011637	ppb
1	90	Zr	0.999989908	0.023626835	0.000147867	0.001631997	0.006258432	ppb
1	95	Mo	0.999997685	0.000908702	3.00E-06	0.002179671	0.003299041	ppb
1	107	Ag	0.999999913	0.002439228	1.03E-05	0.001064915	0.004230083	ppb
1	111	Cd	0.999998545	0.000498194	1.19E-06	0.00116282	0.002385708	ppb
1	118	(Sn)	0.999998797	0.001564537	8.72E-05	0.012675263	0.05570923	ppb
2	118	(Sn)	0.999999472	0.002089489	0.000132314	0.038074937	0.063323431	ppb
2	120	Sn	0.999999982	0.003058161	0.00018978	0.02303071	0.062057054	ppb
1	121	Sb	0.999999982	0.002317034	7.67E-05	0.00701529	0.033089375	ppb
1	137	Ba	0.999999096	0.000858288	1.30E-05	0.008718869	0.01511272	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999712	0.005289974	0.00042432	0.00208455	0.080212068	ppb
1	206	(Pb)	0.999997729	0.001838611	0.000134502	0.022008546	0.07315418	ppb
1	207	(Pb)	0.999996068	0.001624292	0.00011477	0.024346044	0.0706584	ppb
1	208	Pb	0.999991617	0.007108799	0.000547036	0.012479683	0.076951985	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

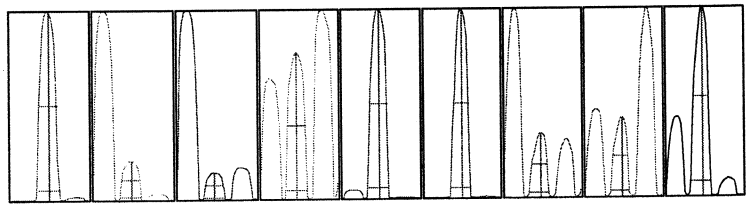
Batch Folder C:\Agilent\ICPMH\1\DATA\2150413A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8736	2.41	5.00	
24	51980	3.15	5.00	
25	7267	3.19	5.00	
26	8813	3.14	5.00	
59	169338	2.33	5.00	
115	149470	2.38	5.00	
206	40910	1.88	5.00	
207	36872	2.41	5.00	
208	88709	2.01	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8783	9016	8809	8460	8610
24	52022	53885	53224	49889	50883
25	7362	7529	7368	6933	7142
26	8798	9242	8876	8524	8626
59	169894	174590	170729	163953	167526
115	150601	153348	151331	144110	147962
206	40764	41888	41472	39997	40429
207	37142	37771	37396	35492	36561
208	89356	91101	89033	86404	87648

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1366	9.00	8.9 - 9.1		0.829	0.800	[R]
24	8086	23.95	23.9 - 24.1		0.802	0.800	[R]
25	1123	24.90	24.9 - 25.1		0.827	0.800	[R]
26	1361	25.90	25.9 - 26.1		0.830	0.800	[R]
59	27477	58.95	58.9 - 59.1		0.820	0.800	[R]
115	26568	115.00	114.9 - 115.1		0.776	0.800	
206	7376	205.95	205.9 - 206.1		0.774	0.800	
207	6669	206.95	206.9 - 207.1		0.736	0.800	
208	15970	207.95	207.9 - 208.1		0.788	0.800	

OK RJD 4/14/15

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit
RF Power	1550	W
RF Matching	1.60	V
Smpl Depth	8.0	mm
S/C Temp	2	°C

ParameterName	Value	Unit
Carrier Gas	0.90	L/min
Option Gas	0.0	%
Nebulizer Pump	0.10	rps

ParameterName	Value	Unit

Lenses Parameters

ParameterName	Value	Unit
Extract 1	0.0	V
Extract 2	-175.0	V
Omega Bias	-75	V
Deflect	14.4	V

ParameterName	Value	Unit
Omega Lens	7.0	V
Cell Entrance	-30	V
Cell Exit	-50	V

ParameterName	Value	Unit

Cell Parameters

ParameterName	Value	Unit
Use Gas	false	
He Flow	0.0	mL/min
H2 Flow	0.0	mL/min
Energy Discrimination	3.0	V

ParameterName	Value	Unit
3rd Gas Flow	0	%
OctP Bias	-8.0	V
OctP RF	160	V

ParameterName	Value	Unit

2150403O4 338

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.99999967	0.001649238	0.01651366	0.344199211	10.01290152	ppb
1	9	Be	0.999994084	0.000595189	7.95E-06	0.004738955	0.01336287	ppb
1	11	B	0.999999806	0.001758792	0.000632061	0.16591652	0.35937201	ppb
2	23	Na	0.999999122	0.003300741	0.081033268	1.560559065	24.55002234	ppb
2	24	Mg	0.999996271	0.001752503	0.001141664	0.217729854	0.651448056	ppb
2	27	Al	0.999998485	0.000610554	0.000909475	0.107107224	1.489588913	ppb
2	29	Si	0.999921067	1.59E-05	0.002741162	19.78520869	172.4312389	ppb
2	39	K	0.999989298	0.001290029	0.130825588	10.78738135	101.412909	ppb
2	44	Ca	0.999998954	6.79E-05	0.001422331	23.83335289	20.9558119	ppb
2	47	Ti	0.999993265	0.000531413	1.38E-05	0.078679064	0.025932974	ppb
2	51	V	0.999994019	0.024551369	0.001599315	0.026415413	0.065141563	ppb
2	52	Cr	0.999548496	0.032548639	0.003671095	0.009881502	0.11278798	ppb
2	55	Mn	0.999998623	0.014459673	0.00130206	0.06741691	0.090047708	ppb
2	57	Fe	0.999999104	0.000615564	0.001012682	0.510718943	1.64512907	ppb
2	59	Co	0.999999559	0.057143674	0.001875955	0.01615302	0.03282874	ppb
2	60	Ni	0.999999628	0.016014563	0.002367193	0.02150758	0.147815015	ppb
2	63	Cu	0.999999806	0.037953148	0.008169437	0.027430658	0.215250571	ppb
2	66	Zn	0.999999611	0.005942301	0.010486404	1.736359655	1.764704387	ppb
2	75	As	0.999937895	0.004440686	0.000118158	0.019243496	0.026608091	ppb
2	78	Se	0.999999634	0.000195304	0.000127415	0.313142793	0.652390941	ppb
1	88	Sr	0.999999982	0.034179026	0.000479731	0.003580543	0.014035834	ppb
1	90	Zr	0.999995067	0.024599526	0.000186082	0.003445989	0.007564435	ppb
1	95	Mo	0.999994158	0.000935092	4.33E-06	0.001810827	0.004632575	ppb
1	107	Ag	0.999999325	0.002509247	1.24E-05	0.00372607	0.004934099	ppb
1	111	Cd	0.999997305	0.00051283	1.35E-06	0.005884216	0.002622738	ppb
1	118	(Sn)	0.999993077	0.001667959	5.61E-05	0.011364052	0.033621261	ppb
2	118	(Sn)	0.999998031	0.002175861	9.83E-05	0.01699097	0.045196682	ppb
2	120	Sn	0.999997478	0.003186601	0.000154939	0.040447889	0.048622148	ppb
1	121	Sb	0.999999987	0.002466472	7.67E-05	0.004414523	0.031097078	ppb
1	137	Ba	0.999999917	0.00089844	1.31E-05	0.003368884	0.014574166	ppb
2	156	[Se]						ppb
1	205	Tl	0.999997774	0.005528898	0.000111048	0.00667253	0.020085045	ppb
1	206	(Pb)	0.999994199	0.001902903	0.000140713	0.013388015	0.073946652	ppb
1	207	(Pb)	0.999993295	0.001686232	0.0001213	0.014176237	0.071935283	ppb
1	208	Pb	0.999979233	0.007217693	0.000558662	0.010341112	0.077401702	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

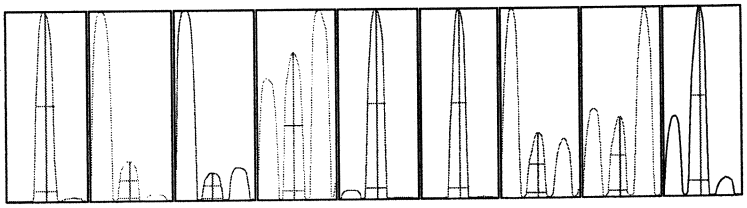
Batch Folder C:\Agilent\ICPMH\1\DATA\2150413A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8736	2.41	5.00	
24	51980	3.15	5.00	
25	7267	3.19	5.00	
26	8813	3.14	5.00	
59	169338	2.33	5.00	
115	149470	2.38	5.00	
206	40910	1.88	5.00	
207	36872	2.41	5.00	
208	88709	2.01	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8783	9016	8809	8460	8610
24	52022	53885	53224	49889	50883
25	7362	7529	7368	6933	7142
26	8798	9242	8876	8524	8626
59	169894	174590	170729	163953	167526
115	150601	153348	151331	144110	147962
206	40764	41888	41472	39997	40429
207	37142	37771	37396	35492	36561
208	89356	91101	89033	86404	87648

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1366	9.00	8.9 - 9.1		0.829	0.800	[F]
24	8086	23.95	23.9 - 24.1		0.802	0.800	[F]
25	1123	24.90	24.9 - 25.1		0.827	0.800	[F]
26	1361	25.90	25.9 - 26.1		0.830	0.800	[F]
59	27477	58.95	58.9 - 59.1		0.820	0.800	[F]
115	26568	115.00	114.9 - 115.1		0.776	0.800	
206	7376	205.95	205.9 - 206.1		0.774	0.800	
207	6669	206.95	206.9 - 207.1		0.736	0.800	
208	15970	207.95	207.9 - 208.1		0.788	0.800	

OK RJD 4/14/15

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit
RF Power	1550	W
RF Matching	1.60	V
Smpl Depth	8.0	mm
S/C Temp	2	°C

ParameterName	Value	Unit
Carrier Gas	0.90	L/min
Option Gas	0.0	%
Nebulizer Pump	0.10	rps

ParameterName	Value	Unit

Lenses Parameters

ParameterName	Value	Unit
Extract 1	0.0	V
Extract 2	-175.0	V
Omega Bias	-75	V
Deflect	14.4	V

ParameterName	Value	Unit
Omega Lens	7.0	V
Cell Entrance	-30	V
Cell Exit	-50	V

ParameterName	Value	Unit

Cell Parameters

ParameterName	Value	Unit
Use Gas	false	
He Flow	0.0	mL/min
H2 Flow	0.0	mL/min
Energy Discrimination	3.0	V

ParameterName	Value	Unit
3rd Gas Flow	0	%
OctP Bias	-8.0	V
OctP RF	160	V

ParameterName	Value	Unit

2150403O4 340

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.99999967	0.001649238	0.01651366	0.344199211	10.01290152	ppb
1	9	Be	0.999994084	0.000595189	7.95E-06	0.004738955	0.01336287	ppb
1	11	B	0.999999806	0.001758792	0.000632061	0.16591652	0.35937201	ppb
2	23	Na	0.999999122	0.003300741	0.081033268	1.560559065	24.55002234	ppb
2	24	Mg	0.999996271	0.001752503	0.001141664	0.217729854	0.651448056	ppb
2	27	Al	0.999998485	0.000610554	0.000909475	0.107107224	1.489588913	ppb
2	29	Si	0.999921067	1.59E-05	0.002741162	19.78520869	172.4312389	ppb
2	39	K	0.999989298	0.001290029	0.130825588	10.78738135	101.412909	ppb
2	44	Ca	0.999998954	6.79E-05	0.001422331	23.83335289	20.9558119	ppb
2	47	Ti	0.999993265	0.000531413	1.38E-05	0.078679064	0.025932974	ppb
2	51	V	0.999994019	0.024551369	0.001599315	0.026415413	0.065141563	ppb
2	52	Cr	0.999548496	0.032548639	0.003671095	0.009881502	0.11278798	ppb
2	55	Mn	0.999998623	0.014459673	0.00130206	0.06741691	0.090047708	ppb
2	57	Fe	0.999999104	0.000615564	0.001012682	0.510718943	1.64512907	ppb
2	59	Co	0.999999559	0.057143674	0.001875955	0.01615302	0.03282874	ppb
2	60	Ni	0.999999628	0.016014563	0.002367193	0.02150758	0.147815015	ppb
2	63	Cu	0.999999806	0.037953148	0.008169437	0.027430658	0.215250571	ppb
2	66	Zn	0.999999611	0.005942301	0.010486404	1.736359655	1.764704387	ppb
2	75	As	0.999937895	0.004440686	0.000118158	0.019243496	0.026608091	ppb
2	78	Se	0.999999634	0.000195304	0.000127415	0.313142793	0.652390941	ppb
1	88	Sr	0.999999982	0.034179026	0.000479731	0.003580543	0.014035834	ppb
1	90	Zr	0.999995067	0.024599526	0.000186082	0.003445989	0.007564435	ppb
1	95	Mo	0.999994158	0.000935092	4.33E-06	0.001810827	0.004632575	ppb
1	107	Ag	0.999999325	0.002509247	1.24E-05	0.00372607	0.004934099	ppb
1	111	Cd	0.999997305	0.00051283	1.35E-06	0.005884216	0.002622738	ppb
1	118	(Sn)	0.999993077	0.001667959	5.61E-05	0.011364052	0.033621261	ppb
2	118	(Sn)	0.999998031	0.002175861	9.83E-05	0.01699097	0.045196682	ppb
2	120	Sn	0.999997478	0.003186601	0.000154939	0.040447889	0.048622148	ppb
1	121	Sb	0.999999987	0.002466472	7.67E-05	0.004414523	0.031097078	ppb
1	137	Ba	0.999999917	0.00089844	1.31E-05	0.003368884	0.014574166	ppb
2	156	[Se]						ppb
1	205	Tl	0.999997774	0.005528898	0.000111048	0.00667253	0.020085045	ppb
1	206	(Pb)	0.999994199	0.001902903	0.000140713	0.013388015	0.073946652	ppb
1	207	(Pb)	0.999993295	0.001686232	0.0001213	0.014176237	0.071935283	ppb
1	208	Pb	0.999979233	0.007217693	0.000558662	0.010341112	0.077401702	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

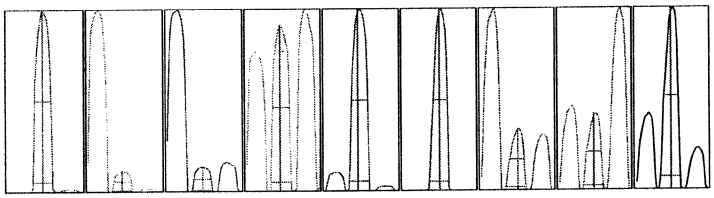
Batch Folder C:\Agilent\ICPMH\1\DATA\2150421A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10477	1.21	5.00	
24	46443	1.31	5.00	
25	6294	1.66	5.00	
26	7327	1.84	5.00	
59	115732	1.68	5.00	
115	104784	2.27	5.00	
206	31656	1.17	5.00	
207	28655	1.52	5.00	
208	68306	1.34	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10314	10389	10495	10557	10629
24	45878	46510	45815	46754	47257
25	6294	6226	6158	6389	6403
26	7301	7155	7266	7409	7506
59	116538	116445	112276	116879	116521
115	106238	105386	100683	106565	105049
206	31655	31939	31022	31873	31792
207	28731	28871	27884	28925	28863
208	67856	68928	66895	68892	68961

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1686	8.95	8.9 - 9.1		0.790	0.800	
24	7030	23.90	23.9 - 24.1		0.826	0.800	[F]
25	948	24.95	24.9 - 25.1		0.830	0.800	[F]
26	1139	25.90	25.9 - 26.1		0.831	0.800	[F]
59	18602	58.90	58.9 - 59.1		0.822	0.800	[F]
115	18457	115.00	114.9 - 115.1		0.776	0.800	
206	5506	206.05	205.9 - 206.1		0.807	0.800	[F]
207	5013	207.00	206.9 - 207.1		0.813	0.800	[F]
208	11965	208.00	207.9 - 208.1		0.821	0.800	[F]

OK RSD 4/22/15

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.90	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.2	V			
Extract 2	-140.0	V	Cell Entrance	-30	V			
Omega Bias	-65	V	Cell Exit	-50	V			
Deflect	13.4	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	150	V			
Energy Discrimination	3.0	V						

2150460304 342

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999996024	0.002113688	0.040093331	1.307422828	18.96842175	ppb
1	9	Be	0.999999834	0.00057837	4.99E-06	0.006728315	0.008626577	ppb
1	11	B	0.999999725	0.000291158	0.000528177	0.41303589	1.814059881	ppb
2	23	Na	0.99999798	0.002208439	0.036119694	0.442338267	16.3553049	ppb
2	24	Mg	0.999998965	0.001185693	0.001197879	0.314288896	1.010277369	ppb
2	27	Al	0.999997884	0.00052389	0.000788085	1.225502305	1.504296057	ppb
2	29	Si	0.999873531	9.91E-06	0.00145634	48.04040609	146.9191363	ppb
2	39	K	0.999998238	0.000672423	0.089505394	15.46245957	133.1087385	ppb
2	44	Ca	0.999999368	3.64E-05	0.000946114	12.81455931	26.01762704	ppb
2	47	Ti	0.999995871	0.000274144	1.73E-05	0.158823212	0.062964987	ppb
2	51	V	0.999999937	0.013423644	0.000710691	0.02719574	0.052943229	ppb
2	52	Cr	0.999272564	0.017943325	0.000955417	0.022563026	0.053246387	ppb
2	55	Mn	0.999999709	0.008020871	0.001186491	0.122538222	0.147925419	ppb
2	57	Fe	0.999999844	0.000336692	0.000477519	1.511515335	1.418268436	ppb
2	59	Co	0.999998355	0.030991119	0.000329595	0.006351122	0.010635158	ppb
2	60	Ni	0.999995822	0.008509528	0.001689485	0.123284918	0.198540442	ppb
2	63	Cu	0.999993039	0.019171327	0.001280514	0.039109152	0.066793187	ppb
2	66	Zn	0.999999655	0.003200152	0.002942077	0.387004038	0.919355349	ppb
2	75	As	0.99994646	0.002141936	8.42E-05	0.048620978	0.039302193	ppb
2	78	Se	0.999984145	9.49E-05	6.33E-05	0.167966783	0.66718949	ppb
1	88	Sr	0.999995757	0.01894227	0.000589479	0.010064117	0.031119757	ppb
1	90	Zr	0.999989907	0.012041117	0.000279477	0.00792923	0.02321022	ppb
1	95	Mo	0.999998129	0.000468521	3.94E-06	0.008026001	0.00839936	ppb
1	107	Ag	0.99999994	0.001284259	9.67E-06	0.002989876	0.007531701	ppb
1	111	Cd	0.999995467	0.000275852	1.83E-06	0.017050913	0.006630666	ppb
1	118	(Sn)	0.999996459	0.000857415	0.000111596	0.033872912	0.130154172	ppb
2	118	(Sn)	0.999999159	0.001191764	0.000140629	0.101773368	0.118000685	ppb
2	120	Sn	0.999998212	0.001737172	0.000208367	0.047007811	0.119946183	ppb
1	121	Sb	0.99999669	0.001294889	9.78E-05	0.003711243	0.075509886	ppb
1	137	Ba	0.999990725	0.000496393	2.52E-05	0.023492559	0.050766552	ppb
2	156	[Se]						ppb
1	205	Tl	0.999996216	0.002866786	8.80E-06	0.001959766	0.003068067	ppb
1	206	(Pb)	0.999999839	0.000961385	5.35E-05	0.016932508	0.055639086	ppb
1	207	(Pb)	0.99999948	0.000870856	4.51E-05	0.019261199	0.051751642	ppb
1	208	Pb	0.999999264	0.003893932	0.000212374	0.004645414	0.054539611	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 6:00 End: 10:00	BATCH NO:	555557
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555557 [DIGM/38623]	1431074	50	50	MB		HNO3 Ultra 7177192
2	QC ACCOUNT	LCS for HBN 555557 [DIGM/38623	1431075	"		LCS		HCl Ultra 7172118
3	4260	LL-13080	21504014101	5ml		SAMPLE		H2O2
4	QC ACCOUNT	LL-13080(1430094MS)	1431090	"		MS		
5	4183	COOLING TOWER DEBRIS (NEW LUM)	21504014301	5ml		SAMPLE		SOLID MATERIAL:
6	QC ACCOUNT	COOLING TOWER DE... (1430096MS)	1431091	"		MS		
7	4183	USED REFRACTORY TR 20560	21504014801	5ml		SAMPLE		
8	4260	LL-13076	21504015101	5ml		SAMPLE		
9	4260	LL-13078	21504015301	5ml		SAMPLE		
10	4289	WASHRACK (TCLP)	21504015801	5ml		SAMPLE		
11	4818	WWT SPILL SOIL	21504016001	5ml		SAMPLE		
12	4747	MWQ-24	21504030401	5ml		SAMPLE		
13	4747	MAO2MW001D	21504030403			SAMPLE		
14	4747	MAO1MW002	21504030501			SAMPLE		
15	QC ACCOUNT	MAO1MW002 (1430910MS)	1431076			MS		
16	QC ACCOUNT	MAO1MW002 (1430910MSD)	1431077			MSD		
17	4747	MAO1MW001	21504030503			SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4747	MA02MW001D-a	21504030601			SAMPLE		
19	4747	MA01MW004	21504030701			SAMPLE		GCALI-1 - 250uL
20	4747	MA01MW003	21504030703	↓	↓	SAMPLE		
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS:

BALANCE ID: _____ TEMP: 0830

BLOCK ID	TECHNICIAN	DATE
H7 150703	[illegible]	4-4-15
REPIPET BOTTLES VERIFIED	REVIEW	DATE
N/A	RSD	4/13/15

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 1605 End: 1805	BATCH NO:	555584
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555584 [DIGM/38631]	1431209	50	50	MB		HNO3 ultra 217792
2	QC ACCOUNT	LCS for HBN 555584 [DIGM/38631	1431210			LCS		
3	4790	MW-13	21504041601			SAMPLE		HCL ultra 217218
4	4790	MW-14	21504041602			SAMPLE		
5	4790	MW-3	21504041603			SAMPLE		H2O2
6	4790	MW-20	21504041604			SAMPLE		
7	4790	MW-18	21504041605			SAMPLE		SOLID MATERIAL:
8	4790	MW-1	21504041606			SAMPLE		
9	4790	DUP-2	21504041607			FLDDUP		
10	4790	MW-22	21504041608			SAMPLE		
11	4790	MW-21	21504041609			SAMPLE		
12	4790	MW-12	21504041610			SAMPLE		
13	4747	MWQ-21	21504040601			SAMPLE		
14	4747	MWQ-20	21504040602			SAMPLE		
15	4747	MWQ-19	21504040603			SAMPLE		
16	4747	MWQ-18	21504040701			SAMPLE		
17	4747	MWQ-2	21504040702			SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4747	MWQ-2-a	21504040703			FLDDUP		
19	4747	MWQ-22	21504040801			SAMPLE		GCALI-1 - 250uL
20	4747	MWQ-22-MS	21504040802			MS		
21	4747	MWQ-22-MSD	21504040803			MSD		GCALI-2 - 250uL
22	0042	PLURONIC F-68	21504028001	SML		SAMPLE		
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS:

BALANCE ID: _____ TEMP: 930

BLOCK ID	TECHNICIAN	DATE
A7 150212	JA	4-7-15
REPIPET BOTTLES VERIFIED	REVIEW	DATE
NA	JEL2	4/6/15

, Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 10:15 End: 10:30	BATCH NO:	555556
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐ D198 6020

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555556 [DIGM/38622]	1431070	50	50	MB		HNO3 ultra 1222192
2	QC ACCOUNT	LCS for HBN 555556 [DIGM/38622	1431071			LCS		
3	4747	MWQ-24	21504030401			SAMPLE	Cool at 4deg	HCL
4	4747	MAO2MW001D	21504030403			SAMPLE		
5	4747	MAO1MW002	21504030501			SAMPLE		H2O2
6	4747	MAO1MW001	21504030503			SAMPLE		
7	4747	MA02MW001D-a	21504030601			SAMPLE		SOLID MATERIAL:
8	4747	MA01MW004	21504030701			SAMPLE		
9	4747	MA01MW003	21504030703			SAMPLE		ICPMS3SPK 1222192
10	4700	LF01-SW04-DIS	21504031102			SAMPLE		ICPMS4SPK 1222192
11	4700	LF01-SW05-DIS	21504031104			SAMPLE		1222192
12	4700	LF01-SW104-DIS	21504031106			SAMPLE		ICPMS2SPK 1222192
13	4700	LF01-SW06-DIS	21504031113			SAMPLE		1222192
14	4700	LF01-MW34D-DIS	21504031116			SAMPLE		ICPMS1SPK 1222192
15	4700	LF01-MW34S-DIS	21504031117			SAMPLE		
16	4700	LF01-SW05-DIS-MS	21504031110			MS		SPIKING SOLUTIONS (LCS/MS)
17	4700	LF01-SW05-DIS-MSD	21504031111			MSD		GCALI-1 - 250uL
18								
19								GCALI-2 - 250uL
20								
21								
22								ORGANOMETALLIC ICP SPIKE 0.025g
23								
24								
25								
26								
27								
28								

Samples are undigested

COMMENTS:

BALANCE ID: _____ TEMP: _____

BLOCK ID	TECHNICIAN	DATE
NA 150703	JSG	4/4/15
REPIPET BOTTLES VERIFIED	REVIEW	DATE
NA	JEL2	4/6/15

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 14:10 End: 17:23	BATCH NO:	555582
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐ Diss 6020

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555582 [DIGM/38629]	1431203	50	50	MB		HNO3 277792
2	QC ACCOUNT	LCS for HBN 555582 [DIGM/38629	1431204			LCS		
3	4790	MW-13	21504041601			SAMPLE	Field Filtered	HCL
4	4790	MW-14	21504041602			SAMPLE		
5	4790	MW-3	21504041603			SAMPLE		H2O2
6	4790	MW-20	21504041604			SAMPLE		
7	4790	MW-18	21504041605			SAMPLE		SOLID MATERIAL:
8	4790	MW-1	21504041606			SAMPLE		
9	4790	DUP-2	21504041607			FLDDUP		DMS SDC SW 277792
10	4790	MW-22	21504041608			SAMPLE		DMS SDC SW 280161
11	4790	MW-21	21504041609			SAMPLE		
12	4790	MW-12	21504041610			SAMPLE		
13	4747	MWQ-21	21504040601			SAMPLE		DMS SDC SW 280161
14	4747	MWQ-20	21504040602			SAMPLE		
15	4747	MWQ-19	21504040603			SAMPLE		DMS SDC SW 277792
16	4747	MWQ-18	21504040701			SAMPLE		
17	4747	MWQ-2	21504040702			SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4747	MWQ-2-a	21504040703			FLDDUP		
19	4747	MWQ-22	21504040801			SAMPLE		GCALI-1 - 250uL
20	4747	MWQ-22-MS	21504040802			MS		
21	4747	MWQ-22-MSD	21504040803	↓	↓	MSD	↓	GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

Samples are undigested

COMMENTS:

BALANCE ID: _____ TEMP: _____

BLOCK ID	TECHNICIAN	DATE
NA 15072	JG	4-6-15
REP PET BOTTLES VERIFIED	REVIEW	DATE
NA	JEL2	4/6/15

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 09:00 End: 10:00	BATCH NO:	555559
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS
1	QC ACCOUNT	MB for HBN 555559 [DIGM/38624]	1431078	26	20	MB	
2	QC ACCOUNT	LCS for HBN 555559 [DIGM/38624	1431079	↑	↑	LCS	
3	4289	WASHRACK (TCLP)	21504015801			SAMPLE	
4	4183	COOLING TOWER DEBRIS (NEW LUM)	21504014301			SAMPLE	
5	QC ACCOUNT	COOLING TOWER DE... (1430096MS)	1431092			MS	
6	4183	USED REFRACTORY TR 20560	21504014801			SAMPLE	
7	4818	WWT SPILL SOIL	21504016001			SAMPLE	
8	4747	MWQ-24	21504030401			SAMPLE	
9	QC ACCOUNT	MWQ-24(1430906MS)	1431080			MS	
10	QC ACCOUNT	MWQ-24(1430906MSD)	1431081			MSD	
11	4747	MAO2MW001D	21504030403			SAMPLE	
12	4747	MAO1MW002	21504030501			SAMPLE	
13	4747	MAO1MW001	21504030503			SAMPLE	
14	4747	MA02MW001D-a	21504030601			SAMPLE	
15	4747	MA01MW004	21504030701			SAMPLE	
16	4747	MA01MW003	21504030703			SAMPLE	
17	4700	SS15-MW04D	21504031002			SAMPLE	
18	4700	SS15-MW02D	21504031003			SAMPLE	
19	4700	SS16-MW05	21504031004			SAMPLE	
20	4700	SS16-MW02	21504031005			SAMPLE	
21	4700	SS16-ER-040215B	21504031006			SAMPLE	
22	4700	SS16-ER-040215A	21504031007	↓	↓	TRIPBK	
23							
24							
25							
26							

REAGENTS/ STANDARDS
HNO3 1277182
H2SO4 1271971
Aqua Regia
KMN04 12a01
K2S2O6 1261742
Hg Calib ID
0.1 ppm CCV Working Solution
0.1 ppm ICV Working Solution
Hg ICV
SPIKE SOLUTIONS (LCS/MS)
Hg Spike 7000uL/ 150uL 1283-1971
ORGANOMETALLIC HG SPIKE 0.025g
SOLID MATERIAL:

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
HZ IS0703	JEL	4/6/15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	JEL2	4/6/15

BALANCE ID: _____ TEMP: 930

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 8:15 End: 10:15	BATCH NO:	555561
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS
1	QC ACCOUNT	MB for HBN 555561 [DIGM/38626]	1431086	20	20	MB	
2	QC ACCOUNT	LCS for HBN 555561 [DIGM/38626	1431087	↓	↓	LCS	
3	4747	MWQ-24	21504030401	↓	↓	SAMPLE	Field Filtered
4	4747	MAO2MW001D	21504030403	↓	↓	SAMPLE	↓
5	4747	MAO1MW002	21504030501	↓	↓	SAMPLE	↓
6	4747	MAO1MW001	21504030503	↓	↓	SAMPLE	↓
7	4747	MA02MW001D-a	21504030601	↓	↓	SAMPLE	↓
8	QC ACCOUNT	MA02MW001D-a (1430913MS)	1431088	↓	↓	MS	↓
9	QC ACCOUNT	MA02MW001D-a (1430913MSD)	1431089	↓	↓	MSD	↓
10	4747	MA01MW004	21504030701	↓	↓	SAMPLE	↓
11	4747	MA01MW003	21504030703	↓	↓	SAMPLE	↓
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							

REAGENTS/ STANDARDS	
HNO3	2122482
H2SO4	2122194
Aqua Regia	
KMN04	2260181
K2S2O6	2261742
Hg Calib ID	
0.1 ppm CCV Working Solution	
0.1 ppm ICV Working Solution	
Hg ICV	
SPIKE SOLUTIONS (LCS/MS)	
Hg Spike 100uL / 150uL	1000ug/L 2115 [illegible]
ORGANOMETALLIC HG SPIKE 0.025g	
SOLID MATERIAL:	

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A1 150203	SG	4-4-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
NA	JEL2	4/6/15

BALANCE ID: ________ TEMP: 94.0

Revision 1, 08/10/2010

Sample Results

MWQ-24

Collect Date	04/02/2015 12:10	**GCAL ID**	21504030401
Receive Date	04/03/2015 09:50	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/03/2015 11:51	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	**Nitrate**	**2.96**	**0.050**	**0.200**	**mg/L**
14797-65-0	Nitrite	0.050U	0.050	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2	04/10/2015 02:13	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	**Chloride**	**4.55**	**0.100**	**0.400**	**mg/L**

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/10/2015 02:31	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
14808-79-8	**Sulfate**	**64.6**	**1.00**	**4.00**	**mg/L**

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:37	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	**Cyanide**	**0.0024J**	**0.00050**	**0.0050**	**mg/L**

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/10/2015 14:28	RYC	556084

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	**Total Alkalinity**	**233**	**0.26**	**1.0**	**mg/L CaCO3**

Sample Results

MWQ-24

Collect Date	04/02/2015 12:10	**GCAL ID**	21504030401
Receive Date	04/03/2015 09:50	**Matrix**	Water

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	230	10.0	10.0	mg/L

MA02MW001D

Collect Date	04/02/2015 14:06	**GCAL ID**	21504030403
Receive Date	04/03/2015 09:50	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/03/2015 12:08	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	4.59	0.050	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	100	04/03/2015 17:22	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-65-0	Nitrite	5.00U	5.00	20.0	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2000	04/10/2015 02:49	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	1920	100	400	mg/L
14808-79-8	Sulfate	2070	100	400	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:40	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA02MW001D

Collect Date	04/02/2015 14:06	**GCAL ID**	21504030403
Receive Date	04/03/2015 09:50	**Matrix**	Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/10/2015 14:28	RYC	556084

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	152	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	4960	10.0	10.0	mg/L

MA01MW002

Collect Date	04/02/2015 09:25	**GCAL ID**	21504030501
Receive Date	04/03/2015 09:50	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/03/2015 12:26	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	0.528	0.050	0.200	mg/L
14797-65-0	Nitrite	0.050U	0.050	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	200	04/11/2015 14:35	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	438	10.0	40.0	mg/L
14808-79-8	Sulfate	528	10.0	40.0	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:41	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA01MW002

Collect Date 04/02/2015 09:25 | **GCAL ID** 21504030501
Receive Date 04/03/2015 09:50 | **Matrix** Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/10/2015 14:28	RYC	556084

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	200	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1490	10.0	10.0	mg/L

MA01MW001

Collect Date 04/02/2015 10:20 | **GCAL ID** 21504030503
Receive Date 04/03/2015 09:50 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	04/03/2015 12:43	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	0.676J	0.250	1.00	mg/L
14797-65-0	Nitrite	0.250U	0.250	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	04/11/2015 14:52	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	560	25.0	100	mg/L
14808-79-8	Sulfate	682	25.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:42	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA01MW001

Collect Date	04/02/2015 10:20	**GCAL ID**	21504030503
Receive Date	04/03/2015 09:50	**Matrix**	Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 13:11	RYC	555877

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	188	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1710	10.0	10.0	mg/L

MA02MW001D-a

Collect Date	04/02/2015 14:06	**GCAL ID**	21504030601
Receive Date	04/03/2015 09:50	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/03/2015 13:35	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	4.97	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1000	04/11/2015 15:10	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	2070	50.0	200	mg/L
14808-79-8	Sulfate	2130	50.0	200	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:45	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA02MW001D-a

Collect Date 04/02/2015 14:06 **GCAL ID** 21504030601
Receive Date 04/03/2015 09:50 **Matrix** Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 13:11	RYC	555877

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	149	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	4940	10.0	10.0	mg/L

MA01MW004

Collect Date 04/02/2015 09:40 **GCAL ID** 21504030701
Receive Date 04/03/2015 09:50 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	4	04/03/2015 13:01	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	1.05	0.200	0.800	mg/L
14797-65-0	Nitrite	0.200U	0.200	0.800	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	200	04/11/2015 16:03	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	257	10.0	40.0	mg/L
14808-79-8	Sulfate	346	10.0	40.0	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:43	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA01MW004

Collect Date	04/02/2015 09:40	**GCAL ID**	21504030701
Receive Date	04/03/2015 09:50	**Matrix**	Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 13:11	RYC	555877

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	199	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	922	10.0	10.0	mg/L

MA01MW003

Collect Date	04/02/2015 10:59	**GCAL ID**	21504030703
Receive Date	04/03/2015 09:50	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5	04/03/2015 13:18	RXJ	555534

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	0.612J	0.250	1.00	mg/L
14797-65-0	Nitrite	0.250U	0.250	1.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	500	04/11/2015 16:20	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	484	25.0	100	mg/L
14808-79-8	Sulfate	576	25.0	100	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:44	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

Sample Results

MA01MW003

Collect Date 04/02/2015 10:59 **GCAL ID** 21504030703
Receive Date 04/03/2015 09:50 **Matrix** Water

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 13:11	RYC	555877

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	171	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1500	10.0	10.0	mg/L

MWQ-21

Collect Date 04/03/2015 10:45 **GCAL ID** 21504040601
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2	04/04/2015 20:05	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	3.30	0.100	0.400	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/05/2015 06:58	RXJ	555599

CAS#	Parameter	Result	MDL	LOQ	Units
14797-65-0	Nitrite	0.050U	0.050	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	100	04/11/2015 16:38	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	96.2	5.00	20.0	mg/L
14808-79-8	Sulfate	385	5.00	20.0	mg/L

Sample Results

MWQ-21

Collect Date 04/03/2015 10:45 **GCAL ID** 21504040601
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:46	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00070J	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	253	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	688	10.0	10.0	mg/L

MWQ-20

Collect Date 04/03/2015 12:07 **GCAL ID** 21504040602
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	40	04/04/2015 17:11	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	2.00U	2.00	8.00	mg/L
14797-65-0	Nitrite	2.00U	2.00	8.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/10/2015 01:03	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	5490	250	1000	mg/L
14808-79-8	Sulfate	1770	250	1000	mg/L

Sample Results

MWQ-20

Collect Date 04/03/2015 12:07 | **GCAL ID** 21504040602
Receive Date 04/04/2015 09:45 | **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:47	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	77.8	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	9250	10.0	10.0	mg/L

MWQ-19

Collect Date 04/03/2015 12:10 | **GCAL ID** 21504040603
Receive Date 04/04/2015 09:45 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	10	04/04/2015 17:28	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	0.500U	0.500	2.00	mg/L
14797-65-0	Nitrite	0.500U	0.500	2.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1000	04/10/2015 01:56	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	1520	50.0	200	mg/L
14808-79-8	Sulfate	1100	50.0	200	mg/L

Sample Results

MWQ-19

Collect Date 04/03/2015 12:10 **GCAL ID** 21504040603
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:48	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	**Total Alkalinity**	**542**	**0.26**	**1.0**	**mg/L CaCO3**

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	**Total Dissolved Solids(TDS)**	**3650**	**10.0**	**10.0**	**mg/L**

MWQ-18

Collect Date 04/03/2015 12:50 **GCAL ID** 21504040701
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/04/2015 18:03	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	**Nitrate**	**0.494**	**0.050**	**0.200**	**mg/L**
14797-65-0	Nitrite	0.050U	0.050	0.200	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/08/2015 21:22	RXJ	555828

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	**Chloride**	**32.1**	**1.00**	**4.00**	**mg/L**
14808-79-8	**Sulfate**	**119**	**1.00**	**4.00**	**mg/L**

Sample Results

MWQ-18

Collect Date 04/03/2015 12:50 | **GCAL ID** 21504040701
Receive Date 04/04/2015 09:45 | **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:49	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.0015J	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	184	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	308	10.0	10.0	mg/L

MWQ-2

Collect Date 04/03/2015 14:20 | **GCAL ID** 21504040702
Receive Date 04/04/2015 09:45 | **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/04/2015 18:21	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	1.00U	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2000	04/08/2015 21:40	RXJ	555828

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3260	100	400	mg/L
14808-79-8	Sulfate	1520	100	400	mg/L

Sample Results

MWQ-2

Collect Date	04/03/2015 14:20	**GCAL ID**	21504040702
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:51	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	101	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 16:08	WRW	555688

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	5920	10.0	10.0	mg/L

MWQ-2-a

Collect Date	04/03/2015 14:20	**GCAL ID**	21504040703
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/04/2015 18:38	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	1.00U	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	2000	04/10/2015 00:10	RXJ	555950

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3250	100	400	mg/L
14808-79-8	Sulfate	1410	100	400	mg/L

Sample Results

MWQ-2-a

Collect Date	04/03/2015 14:20	**GCAL ID**	21504040703
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:52	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 15:09	RYC	555878

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	**Total Alkalinity**	**99.6**	**0.26**	**1.0**	**mg/L CaCO3**

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/07/2015 16:35	WRW	555713

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	**Total Dissolved Solids(TDS)**	**5910**	**10.0**	**10.0**	**mg/L**

MWQ-22

Collect Date	04/03/2015 09:35	**GCAL ID**	21504040801
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	3	04/04/2015 16:19	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	0.150U	0.150	0.600	mg/L
14797-65-0	Nitrite	0.150U	0.150	0.600	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	300	04/08/2015 20:30	RXJ	555828

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	**Chloride**	**320**	**15.0**	**60.0**	**mg/L**
14808-79-8	**Sulfate**	**225**	**15.0**	**60.0**	**mg/L**

Sample Results

MWQ-22

Collect Date	04/03/2015 09:35	**GCAL ID**	21504040801
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:53	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/10/2015 14:28	RYC	556084

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	198	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/10/2015 15:29	WRW	556071

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	1010	10.0	10.0	mg/L

MWQ-22-MS

Collect Date	04/03/2015 09:35	**GCAL ID**	21504040802
Receive Date	04/04/2015 09:45	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	3	04/04/2015 16:36	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	7.01	0.150	0.600	mg/L
14797-65-0	Nitrite	6.05	0.150	0.600	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	300	04/08/2015 20:48	RXJ	555828

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	987	15.0	60.0	mg/L
14808-79-8	Sulfate	981	15.0	60.0	mg/L

Sample Results

MWQ-22-MS

Collect Date 04/03/2015 09:35 **GCAL ID** 21504040802
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:54	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.073	0.00050	0.0050	mg/L

MWQ-22-MSD

Collect Date 04/03/2015 09:35 **GCAL ID** 21504040803
Receive Date 04/04/2015 09:45 **Matrix** Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	3	04/04/2015 16:53	RXJ	555590

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	7.06	0.150	0.600	mg/L
14797-65-0	Nitrite	6.06	0.150	0.600	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	300	04/08/2015 21:05	RXJ	555828

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	992	15.0	60.0	mg/L
14808-79-8	Sulfate	980	15.0	60.0	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:55	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.072	0.00050	0.0050	mg/L

General Chemistry Quality Control Summary

Analytical Batch		Client ID	LCS555877			
555877		GCAL ID	1432557			
		Sample Type	LCS			
		Prep Date	NA			
		Analysis Date	04/08/2015 13:11			
		Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R	
Total Alkalinity	000000-00-5	200	194	97	80 - 120	

Analytical Batch		Client ID	M114MW002		1430339DUP		
555877		GCAL ID	21504021701		1432558		
		Sample Type	SAMPLE		DUP		
		Prep Date	NA		NA		
		Analysis Date	04/08/2015 13:11		04/08/2015 13:11		
		Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 MDL		Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	76.8	0.26		80.5	5	11

Analytical Batch		Client ID	LCS555878			
555878		GCAL ID	1432565			
		Sample Type	LCS			
		Prep Date	NA			
		Analysis Date	04/08/2015 15:09			
		Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R	
Total Alkalinity	000000-00-5	200	200	100	80 - 120	

Analytical Batch		Client ID	MW-21		1431188DUP		
555878		GCAL ID	21504041609		1432566		
		Sample Type	SAMPLE		DUP		
		Prep Date	NA		NA		
		Analysis Date	04/08/2015 15:09		04/08/2015 15:09		
		Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 MDL		Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	46.1	0.26		43.5	6	11

Analytical Batch		Client ID	LCS556084			
556084		GCAL ID	1433595			
		Sample Type	LCS			
		Prep Date	NA			
		Analysis Date	04/10/2015 14:28			
		Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R	
Total Alkalinity	000000-00-5	200	198	99	80 - 120	

Analytical Batch		Client ID	MWQ-24		1430906DUP		
556084		GCAL ID	21504030401		1433596		
		Sample Type	SAMPLE		DUP		
		Prep Date	NA		NA		
		Analysis Date	04/10/2015 14:28		04/10/2015 14:28		
		Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 MDL		Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	233	0.26		230	2	11

General Chemistry Quality Control Summary

Analytical Batch	Client ID	MWQ-22		MWQ-22-MS				MWQ-22-MSD				
555590	GCAL ID	21504040801		21504040802				21504040803				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/04/2015 16:19		04/04/2015 16:36				04/04/2015 16:53				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	0.000	0.150	7.50	7.01	94	80 - 120	7.50	7.06	94	1	15
Nitrite	14797-65-0	0.000	0.150	7.50	6.05	81	80 - 120	7.50	6.06	81	0	15

Analytical Batch	Client ID	MWQ-22		MWQ-22-MS				MWQ-22-MSD				
555828	GCAL ID	21504040801		21504040802				21504040803				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/08/2015 20:30		04/08/2015 20:48				04/08/2015 21:05				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	320	15.0	750	987	89	79 - 109	750	992	90	0	15
Sulfate	14808-79-8	225	15.0	750	981	101	82 - 110	750	980	101	0	15

Analytical Batch	Client ID	M114MW001		M114MW001-MS				M114MW001-SD				
556078	GCAL ID	21504021706		21504021708				21504021709				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/11/2015 13:42		04/11/2015 13:59				04/11/2015 14:17				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	3250	250	12500	15100	95	79 - 109	12500	15100	95	0	15
Sulfate	14808-79-8	2190	250	12500	14000	95	82 - 110	12500	14000	94	0	15

Analytical Batch	Client ID	MB555534		LCS555534			
555534	GCAL ID	1430925		1430926			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/03/2015 11:34		04/03/2015 11:16			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Nitrate	14797-55-8	0.050U	0.050	2.50	2.38	95	80 - 120
Nitrite	14797-65-0	0.050U	0.050	2.50	2.54	101	80 - 120

Analytical Batch	Client ID	MA01MW001		1430912MS				1430912MSD				
555534	GCAL ID	21504030503		1430959				1430960				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/03/2015 12:43		04/03/2015 18:49				04/03/2015 19:06				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	0.676	0.250	12.5	12.2	92	80 - 120	12.5	12.1	92	0	15
Nitrite	14797-65-0	0.000	0.250	12.5	10.6	85	80 - 120	12.5	10.6	85	0	15

General Chemistry Quality Control Summary

Analytical Batch 555534	Client ID	MA01MW004		1430914MS				1430914MSD				
	GCAL ID	21504030701		1430957				1430958				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/03/2015 13:01		04/03/2015 18:14				04/03/2015 18:31				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	1.05	0.200	10.0	9.96	89	80 - 120	10.0	10.4	93	4	15
Nitrite	14797-65-0	0.000	0.200	10.0	8.69	87	80 - 120	10.0	8.75	88	1	15

Analytical Batch 555590	Client ID	MB555590		LCS555590			
	GCAL ID	1431231		1431232			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/04/2015 16:01		04/04/2015 15:44			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Nitrate	14797-55-8	0.050U	0.050	2.50	2.38	95	80 - 120
Nitrite	14797-65-0	0.050U	0.050	2.50	2.55	102	80 - 120

Analytical Batch 555590	Client ID	MWQ-21		1431110MS				1431110MSD				
	GCAL ID	21504040601		1431233				1431234				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/04/2015 20:05		04/04/2015 20:22				04/04/2015 20:40				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	3.30	0.100	5.00	8.31	100	80 - 120	5.00	8.27	99	1	15

Analytical Batch 555599	Client ID	MB555599		LCS555599			
	GCAL ID	1431250		1431251			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/04/2015 23:08		04/04/2015 22:50			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Nitrite	14797-65-0	0.050U	0.050	2.50	2.44	98	80 - 120

Analytical Batch 555599	Client ID	MWQ-21		1431110MS				1431110MSD				
	GCAL ID	21504040601		1431233				1431234				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/05/2015 06:58		04/05/2015 07:15				04/05/2015 07:32				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrite	14797-65-0	0.000	0.050	2.50	2.13	85	80 - 120	2.50	2.16	86	1	15

General Chemistry Quality Control Summary

Analytical Batch 555828	Client ID	MB555828		LCS555828			
	GCAL ID	1432227		1432228			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/08/2015 23:42		04/08/2015 23:24			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.31	92	79 - 109
Sulfate	14808-79-8	0.050U	0.050	2.50	2.56	102	82 - 110

Analytical Batch 555950	Client ID	MB555950		LCS555950			
	GCAL ID	1432861		1432862			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/09/2015 21:14		04/09/2015 20:56			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.43	97	79 - 109
Sulfate	14808-79-8	0.050U	0.050	2.50	2.40	96	82 - 110

Analytical Batch 555950	Client ID	MWQ-20		1431111MS				1431111MSD				
	GCAL ID	21504040602		1432863				1432864				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/10/2015 01:03		04/10/2015 01:20				04/10/2015 01:38				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	5490	250	12500	17700	98	79 - 109	12500	17700	98	0	15
Sulfate	14808-79-8	1770	250	12500	13700	95	82 - 110	12500	13700	95	0	15

Analytical Batch 555950	Client ID	HOAMW-6		1432385MS				1432385MSD				
	GCAL ID	21504081104		1432865				1432866				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA		NA				NA				
	Analysis Date	04/10/2015 03:41		04/10/2015 04:34				04/10/2015 04:52				
	Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	17.8	1.00	50.0	66.6	98	79 - 109	50.0	66.6	98	0	15
Sulfate	14808-79-8	20.5	1.00	50.0	68.8	97	82 - 110	50.0	68.5	96	0	15

Analytical Batch 556078	Client ID	MB556078		LCS556078			
	GCAL ID	1433542		1433543			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/10/2015 19:44		04/10/2015 19:26			
	Matrix	Water		Water			
EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.40	96	79 - 109
Sulfate	14808-79-8	0.050U	0.050	2.50	2.42	97	82 - 110

General Chemistry Quality Control Summary

Analytical Batch	Client ID	MB555604		LCS555604				LCSHI555604			
556029	GCAL ID	1431265		1431266				1431267			
Prep Batch	Sample Type	MB		LCS				LCSHI			
555604	Prep Date	04/05/2015 10:30		04/05/2015 10:30				04/05/2015 10:30			
Prep Method	Analysis Date	04/10/2015 10:28		04/10/2015 10:29				04/10/2015 10:30			
Cyanide Prep	Matrix	Water		Water				Water			
EPA 9012B		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.00050U	0.00050	0.020	0.020	98	80 - 120	0.10	0.10	101	80 - 120

Analytical Batch	Client ID	MWQ-22		MWQ-22-MS				MWQ-22-MSD				
556029	GCAL ID	21504040801		21504040802				21504040803				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
555604	Prep Date	04/05/2015 10:30		04/05/2015 10:30				04/05/2015 10:30				
Prep Method	Analysis Date	04/10/2015 10:53		04/10/2015 10:54				04/10/2015 10:55				
Cyanide Prep	Matrix	Water		Water				Water				
EPA 9012B		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Cyanide	57-12-5	0.0	0.00050	0.10	0.073	**73***	80 - 120	0.10	0.072	**72***	1	20

Analytical Batch	Client ID	MB555688		LCS555688			
555688	GCAL ID	1431579		1431580			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/06/2015 16:08		04/06/2015 16:08			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	956	96	80 - 120

Analytical Batch	Client ID	MW-3A		1430742DUP		
555688	GCAL ID	21503264805		1431581		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	04/06/2015 16:08		04/06/2015 16:08		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L MDL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	595	10.0	597	0	5.4

Analytical Batch	Client ID	MB555713		LCS555713			
555713	GCAL ID	1431661		1431662			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/07/2015 09:53		04/07/2015 09:53			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	950	95	80 - 120

Analytical Batch	Client ID	U43010B		1431099DUP		
555713	GCAL ID	21504040203		1431663		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	04/07/2015 09:53		04/07/2015 09:53		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L MDL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	1540	10.0	1540	0	5.4

General Chemistry Quality Control Summary

Analytical Batch 556071	Client ID	MB556071		LCS556071			
	GCAL ID	1433510		1433511			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/10/2015 15:29		04/10/2015 15:29			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	944	94	80 - 120

Analytical Batch 556071	Client ID	MWQ-22		1431116DUP		
	GCAL ID	21504040801		1433512		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	04/10/2015 15:29		04/10/2015 15:29		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L MDL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	1010	10.0	1010	0	5.4

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/4/15
Analyst: RXJ
HBN: 555534
Batch: 4823

Instrument ID: IC3

Secondary Reviewer/Date: JEM 4-6-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-26-1
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-18-7 Expiration Date: 9/30/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

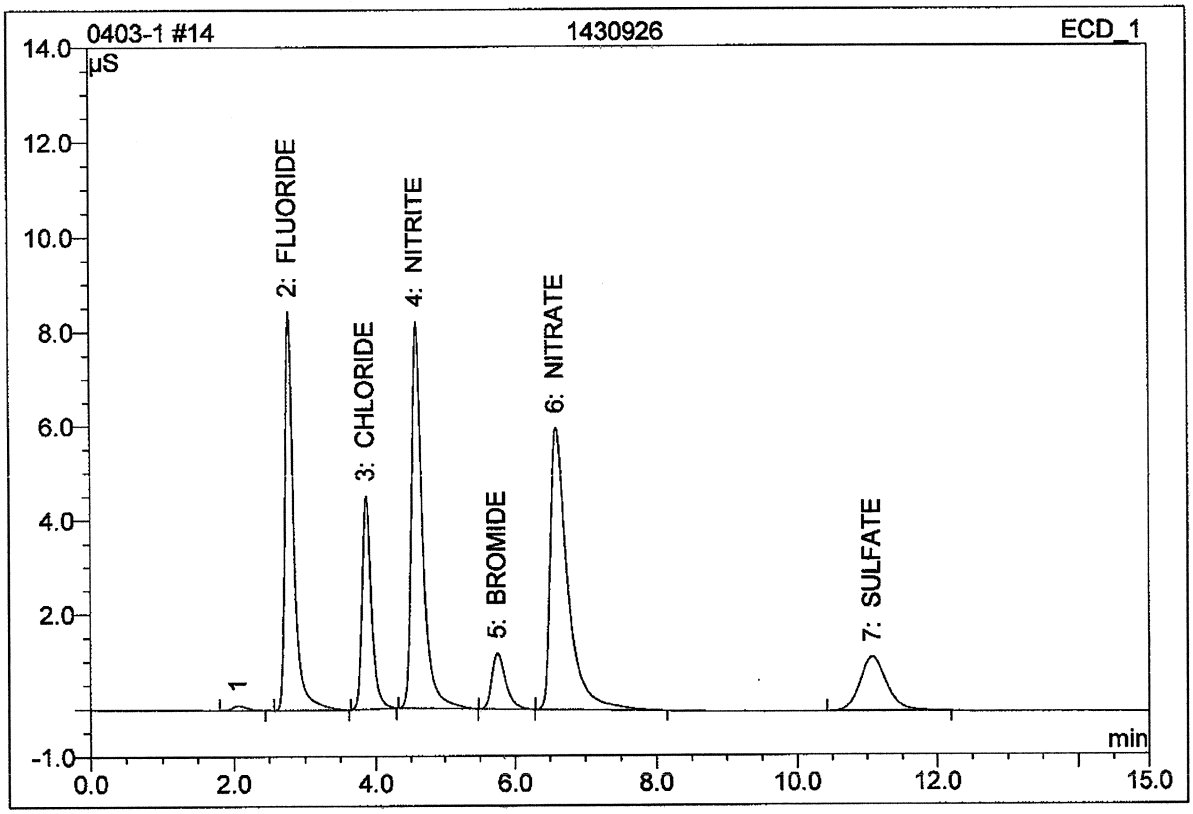
PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

2150440304 372

Sample Analysis Report

Sample Name:	1430926	**Sample No.:**	14
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 11:16 AM	**System Operator:**	RXJ

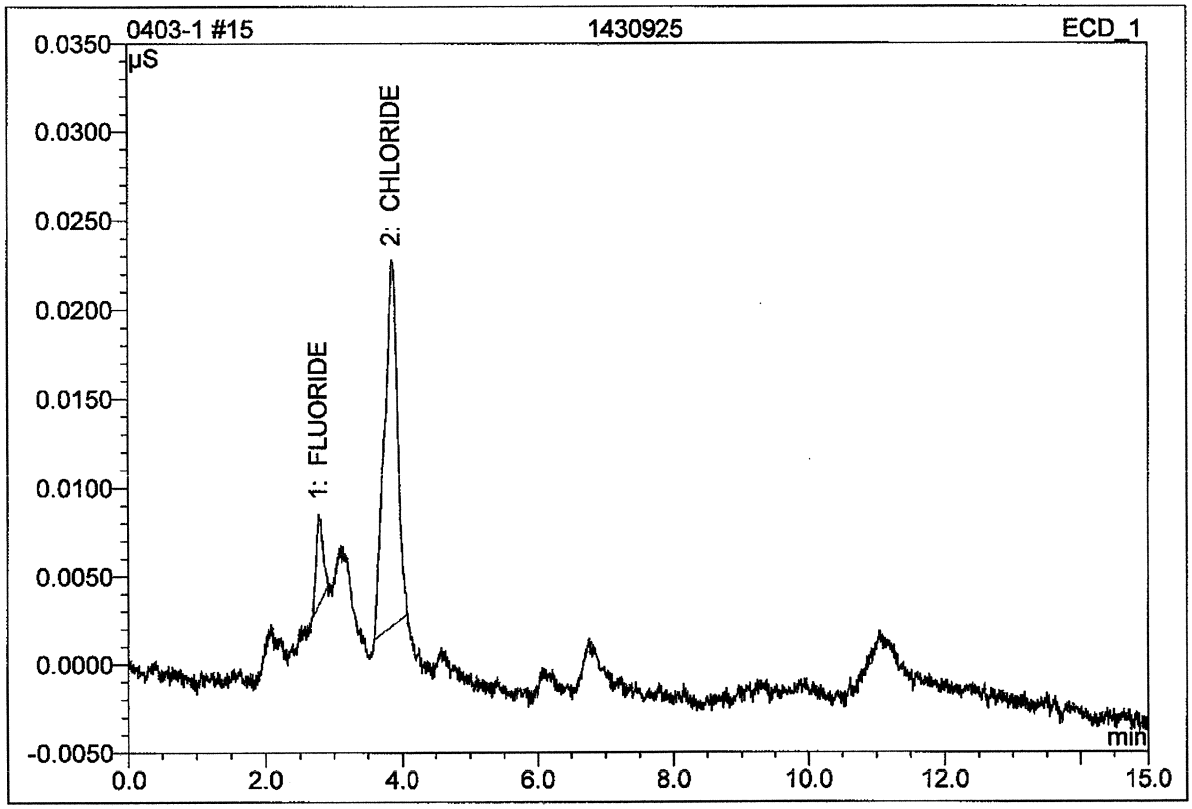


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.78	1.208	8.450	2.489	n.a.
3	CHLORIDE	3.87	0.689	4.516	2.288	92% n.a.
4	NITRITE	4.59	1.635	8.199	2.536	101% n.a.
5	BROMIDE	5.75	0.265	1.174	2.310	n.a.
6	NITRATE	6.60	1.709	5.969	2.378	95% n.a.
7	SULFATE	11.07	0.505	1.135	2.539	102% n.a.

2156440364 375

Sample Analysis Report

Sample Name:	1430925	**Sample No.:**	15
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 11:34 AM	**System Operator:**	RXJ

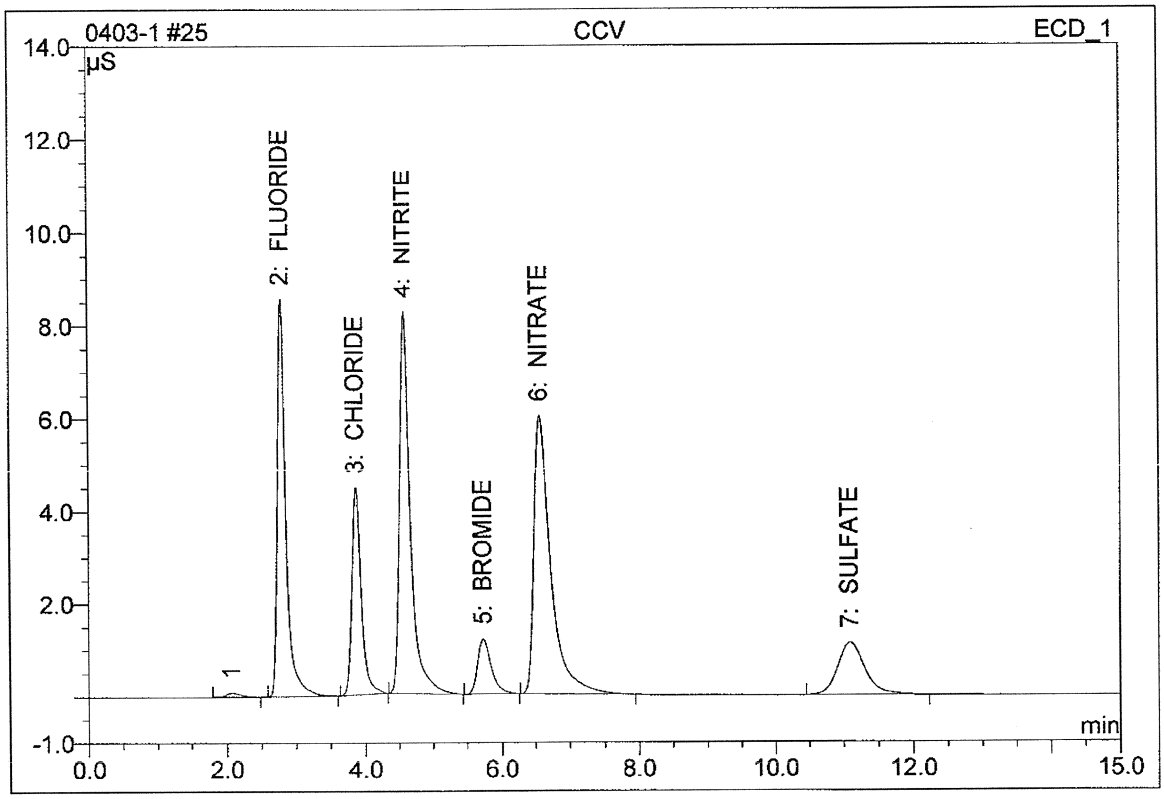


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	FLUORIDE ✓	2.78	0.001	0.005	0.073	n.a.
2	CHLORIDE ✓	3.84	0.005	0.021	0.030	n.a.

2150403604 374

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	25
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 2:28 PM	**System Operator:**	RXJ

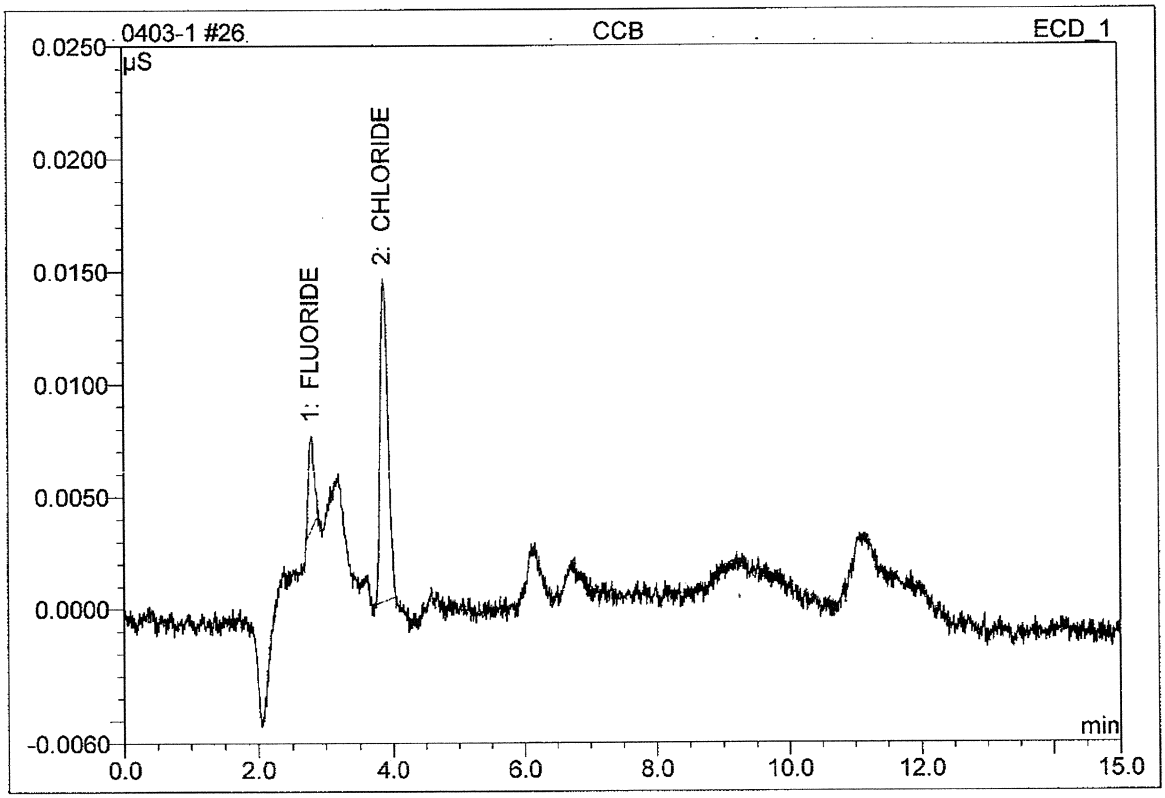


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.79	1.220	8.562	2.512	100
3	CHLORIDE	3.87	0.690	4.470	2.292 ✓	92
4	NITRITE	4.58	1.647	8.223	2.555 ✓	102
5	BROMIDE	5.73	0.269	1.186	2.341	94
6	NITRATE	6.56	1.710	6.007	2.379 ✓	95
7	SULFATE	11.09	0.510	1.131	2.562 ✓	102

2150460364 375

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	26
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 2:45 PM	**System Operator:**	RXJ

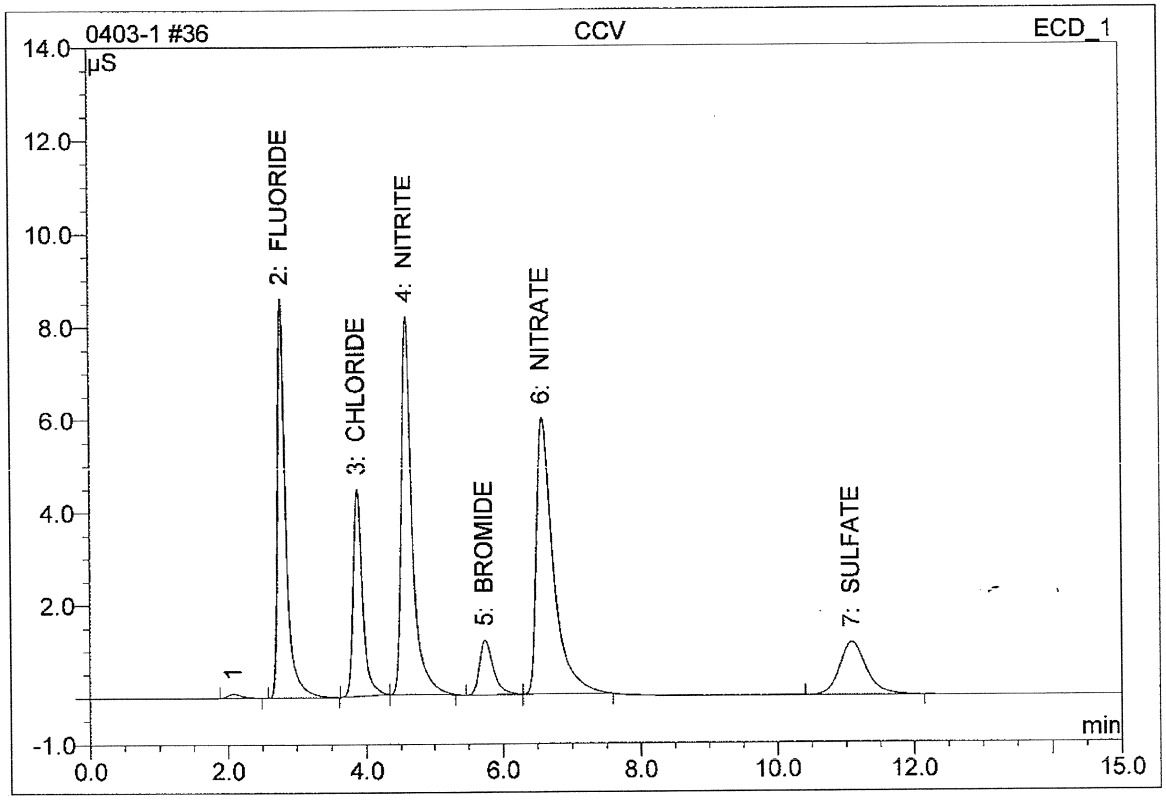


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev (abs) mg/L
1	FLUORIDE	2.79	0.000	0.004	0.073	n.a.
2	CHLORIDE ✓	3.86	0.002	0.014	0.021	n.a.

2156460304 STD

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	36
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 5:39 PM	**System Operator:**	RXJ

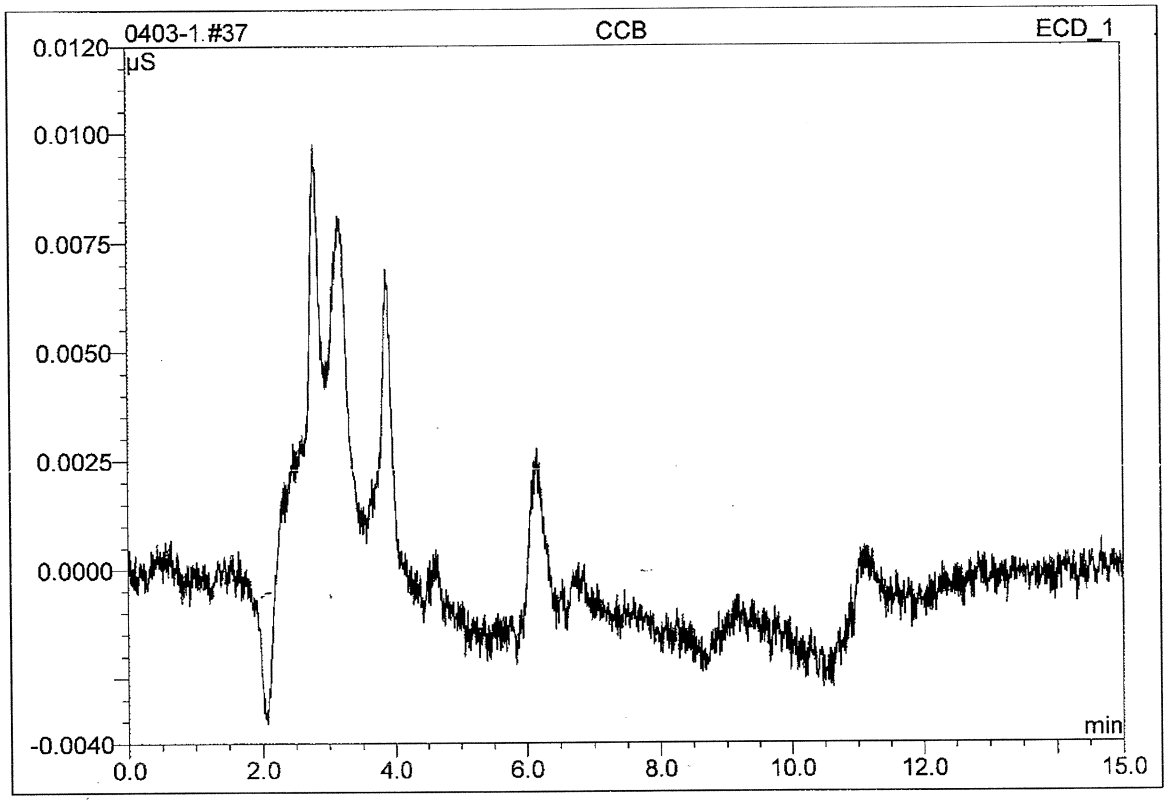


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.79	1.226	8.597	2.524		101
3	CHLORIDE	3.88	0.700	4.469	2.327	✓	93
4	NITRITE	4.59	1.650	8.158	2.558	✓	102
5	BROMIDE	5.74	0.274	1.178	2.386		95
6	NITRATE	6.58	1.697	5.961	2.362	✓	94
7	SULFATE	11.09	0.513	1.137	2.577	✓	103

2156440304 377

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	37
Sequence Name:	0403-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 5:57 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L

2156440304 378

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/4/15
Analyst: RXJ
HBN: 555590
Batch: 4824

Instrument ID: IC3

Secondary Reviewer/Date: _____

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-26-1
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-18-7 Expiration Date: 9/30/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

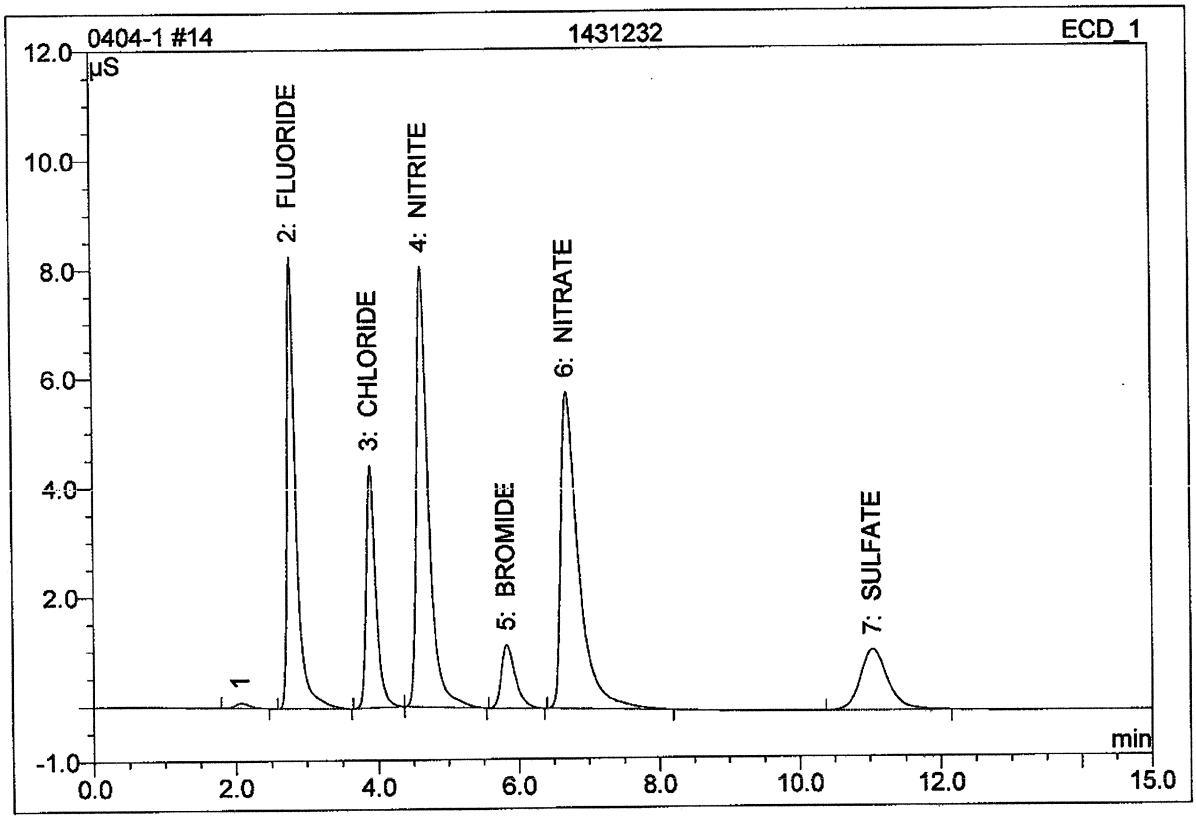
PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

2150440304 375

Sample Analysis Report

Sample Name:	1431232	**Sample No.:**	14
Sequence Name:	0404-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 3:44 PM	**System Operator:**	RXJ

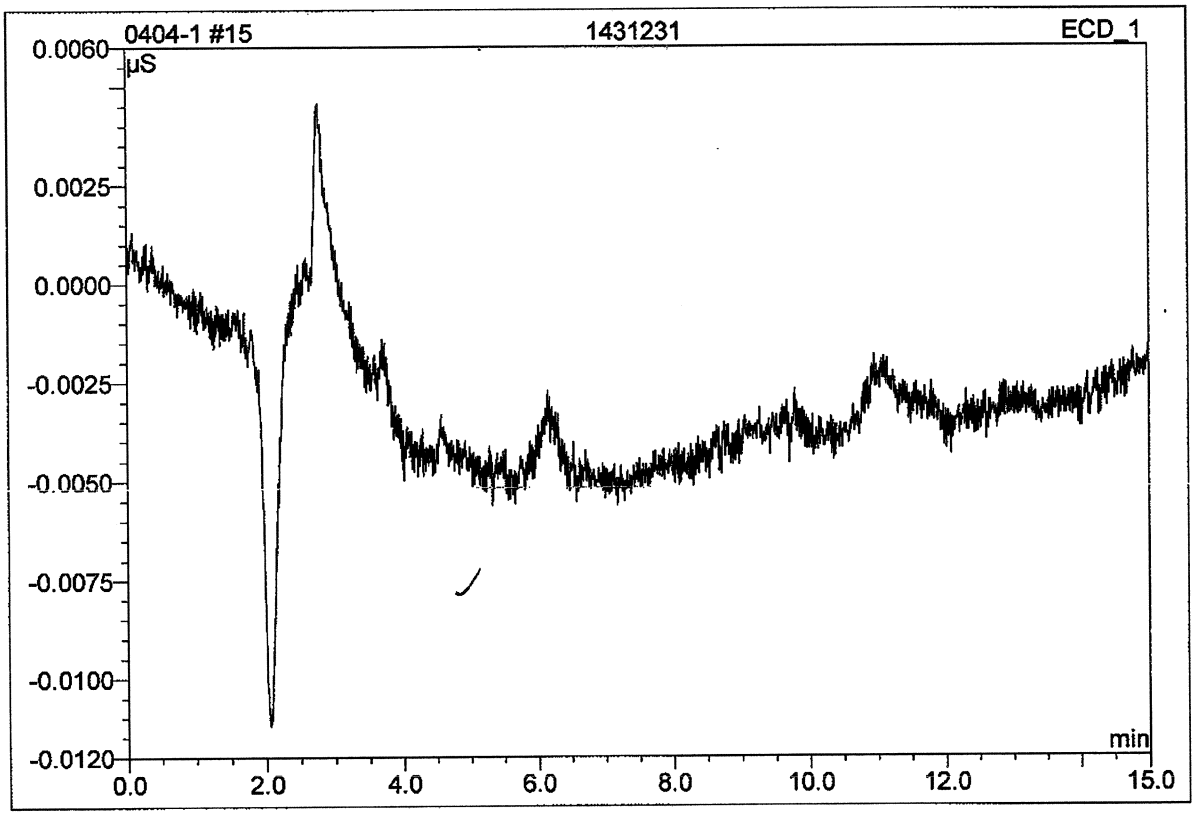


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/l	Amnt Dev (abs) mg/l
2	FLUORIDE	2.80	1.207	8.290	2.486	n.a.
3	CHLORIDE	3.90	0.685	4.440	2.276	91% n.a.
4	NITRITE	4.64	1.644	8.081	2.549	102% n.a.
5	BROMIDE	5.83	0.267	1.155	2.326	n.a.
6	NITRATE	6.69	1.712	5.807	2.381	95% n.a.
7	SULFATE	11.04	0.498	1.108	2.504	100% n.a.

2156460364 380

Sample Analysis Report

Sample Name:	1431231	**Sample No.:**	15
Sequence Name:	0404-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 4:01 PM	**System Operator:**	RXJ

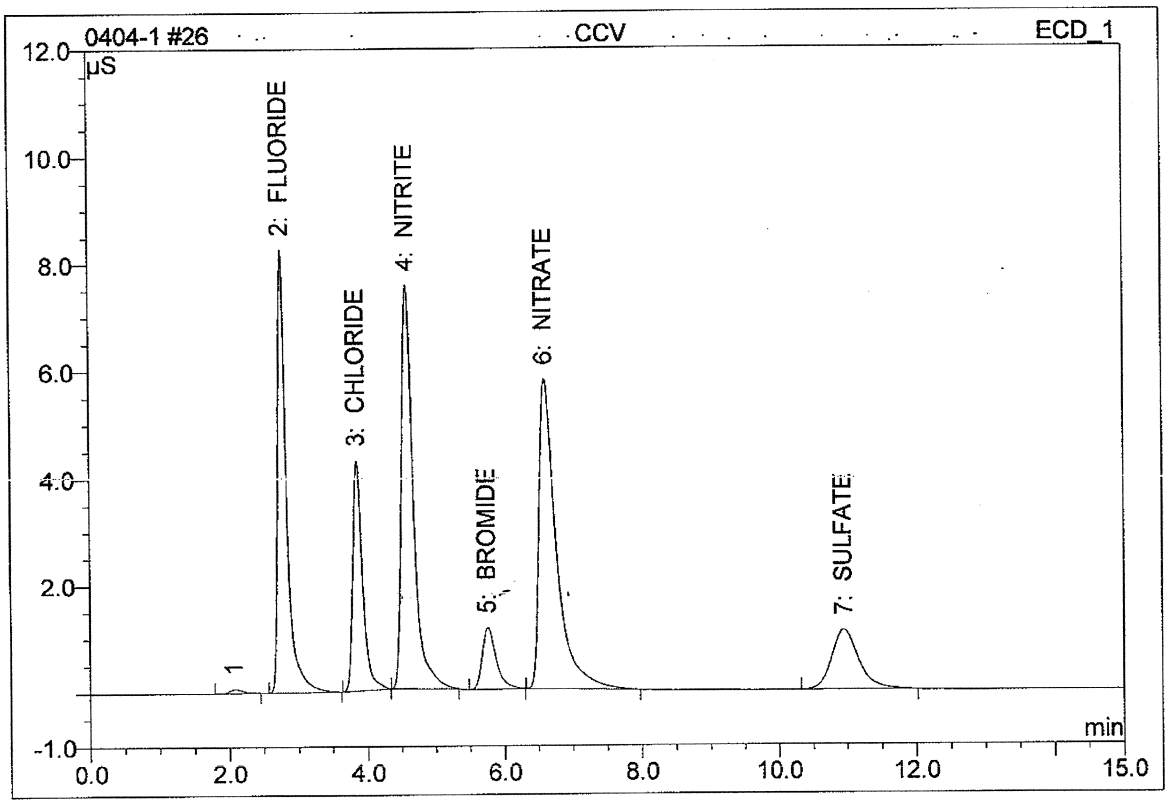


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L

2150460304 381

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	26
Sequence Name:	0404-1	**ICAL Date**	n.a
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 7:13 PM	**System Operator:**	RXJ

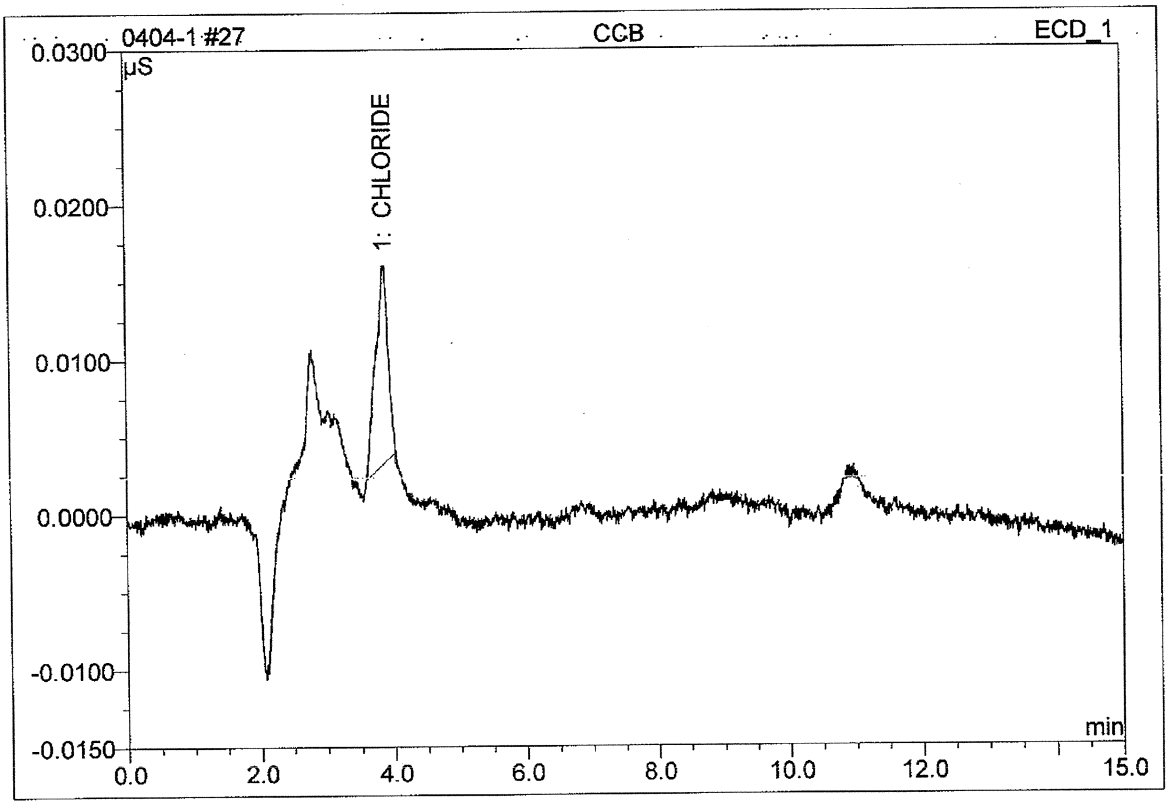


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev.(abs) mg/L
2	FLUORIDE	2.77	1.209	8.268	2.491	100
3	CHLORIDE	3.86	0.680	4.293	2.260 ✓	90
4	NITRITE	4.58	1.547	7.530	2.404 ✓	96
5	BROMIDE	5.75	0.270	1.149	2.348	94
6	NITRATE	6.60	1.706	5.786	2.373 ✓	95
7	SULFATE	10.95	0.504	1.112	2.536 ✓	101

2156460364 382

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	27
Sequence Name:	0404-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 7:30 PM	**System Operator:**	RXJ

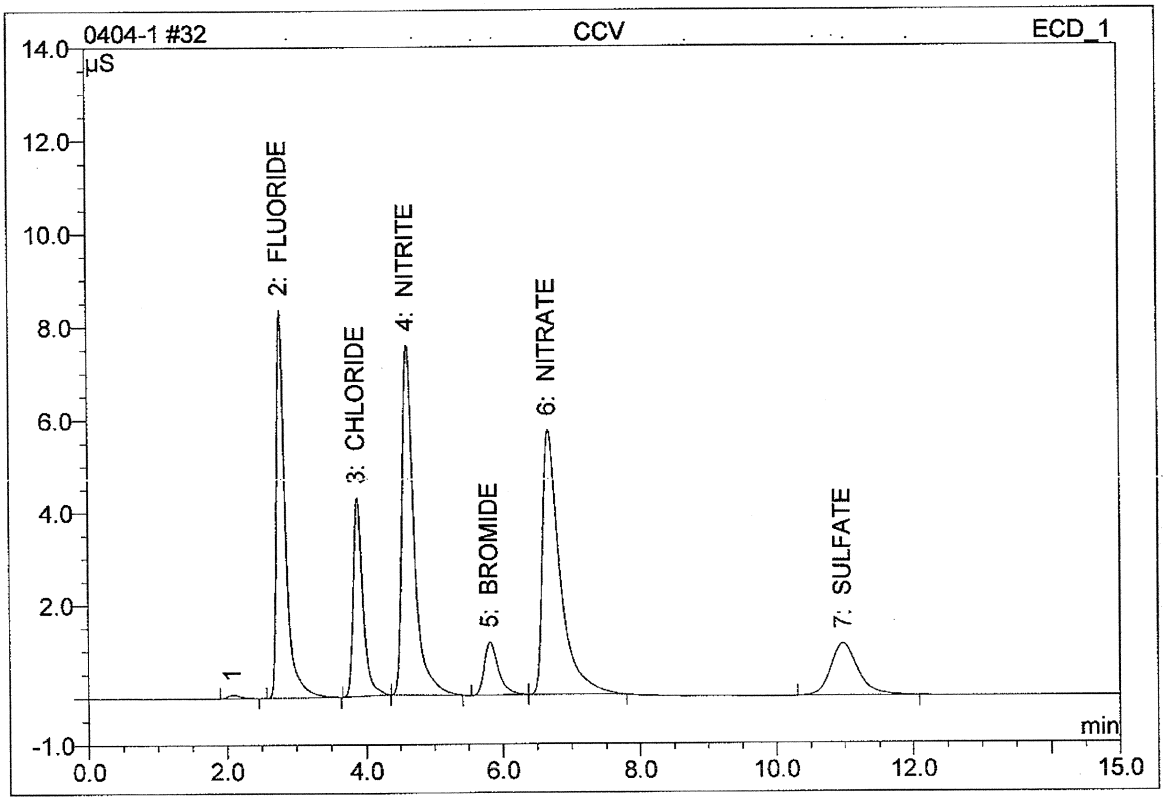


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE	3.87	0.003	0.013	0.024	n.a.

2150403G4 365

Sample Analysis Report

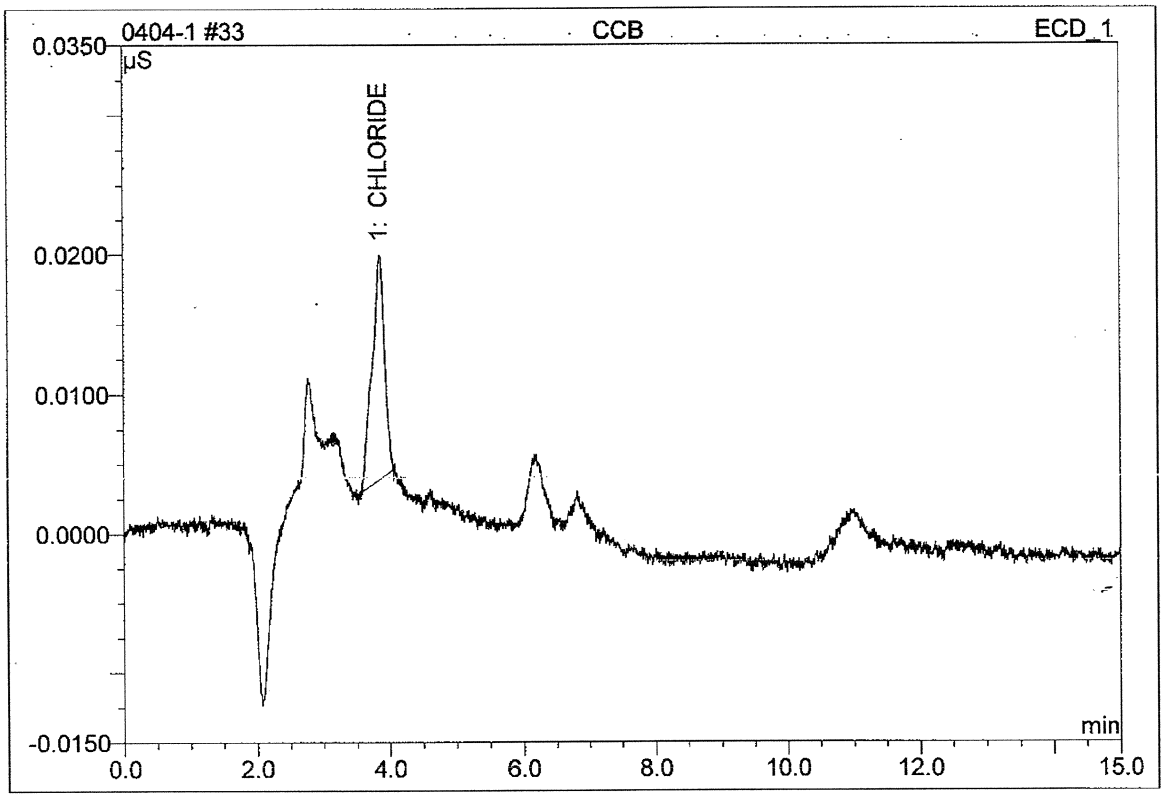
Sample Name:	CCV	**Sample No.:**	32
Sequence Name:	0404-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 8:57 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.78	1.228	8.358	2.528		101
3	CHLORIDE	3.88	0.687	4.279	2.282	✓	91
4	NITRITE	4.62	1.577	7.537	2.449	✓	98
5	BROMIDE	5.81	0.272	1.138	2.365		95
6	NITRATE	6.67	1.703	5.708	2.370	✓	95
7	SULFATE	10.98	0.512	1.119	2.574	✓	103

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	33
Sequence Name:	0404-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 9:15 PM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE	3.85	0.004	0.016	0.026	n.a.

2156460364 385

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/5/15
Analyst: RXJ
HBN: 555599
Batch: 4825

Instrument ID: IC3

Secondary Reviewer/Date: JEM 4-10-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-26-3
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-18-7 Expiration Date: 9/30/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

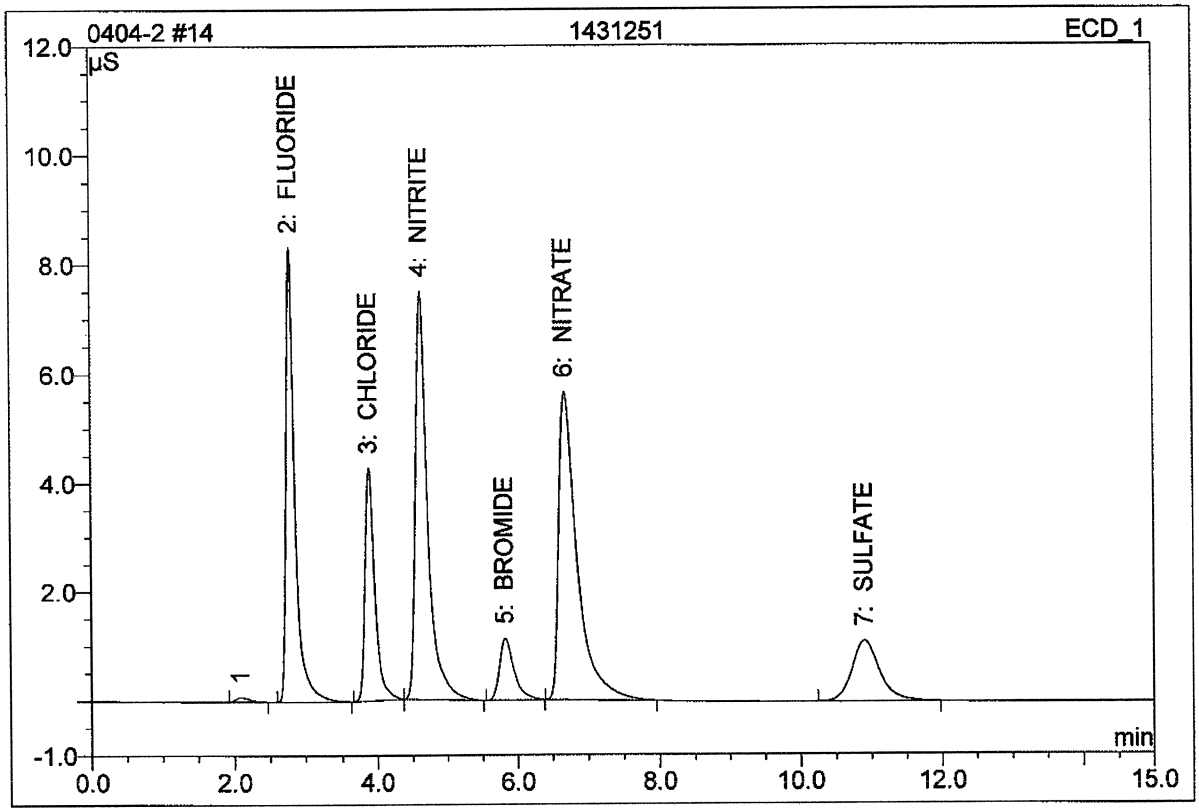
PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

2150440304 386

Sample Analysis Report

Sample Name:	1431251	**Sample No.:**	14
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 10:50 PM	**System Operator:**	RXJ

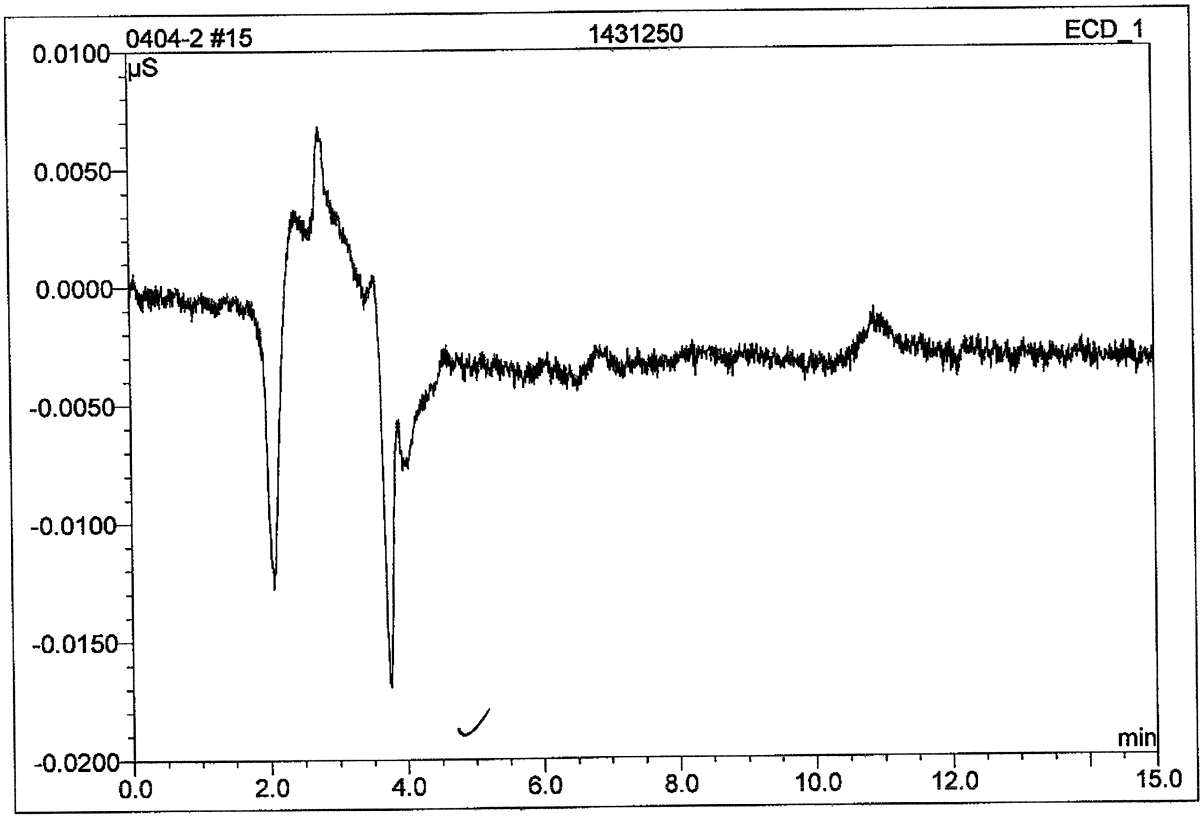


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.79	1.221	8.344	2.514	n.a.
3	CHLORIDE	3.89	0.691	4.289	2.294	n.a.
4	NITRITE	4.63	1.572	7.499	2.441	n.a.
5	BROMIDE	5.82	0.272	1.132	2.364	n.a.
6	NITRATE	6.68	1.700	5.668	2.366	n.a.
7	SULFATE	10.90	0.505	1.114	2.541	n.a.

2150403604 387

Sample Analysis Report

Sample Name:	1431250	**Sample No.:**	15
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/4/2015 11:08 PM	**System Operator:**	RXJ

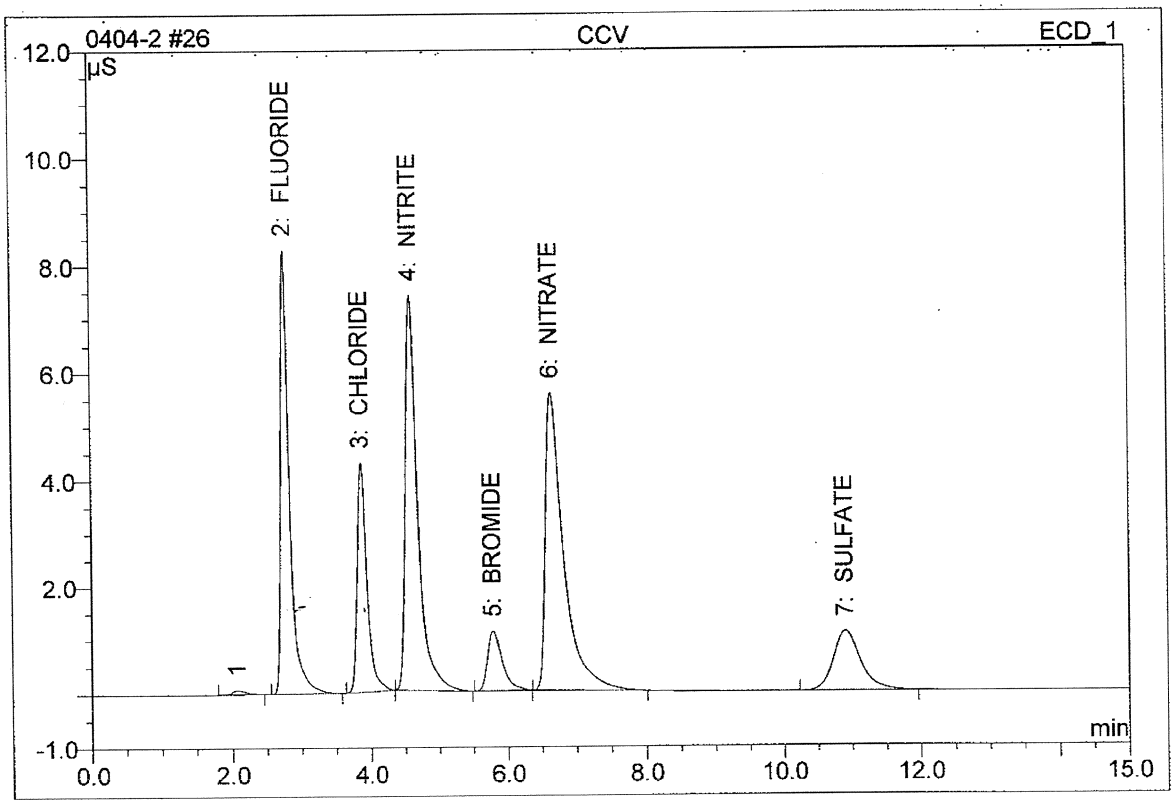


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt:Dev.(Rel) mg/L

2150403304 385

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	26
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 2:19 AM	**System Operator:**	RXJ

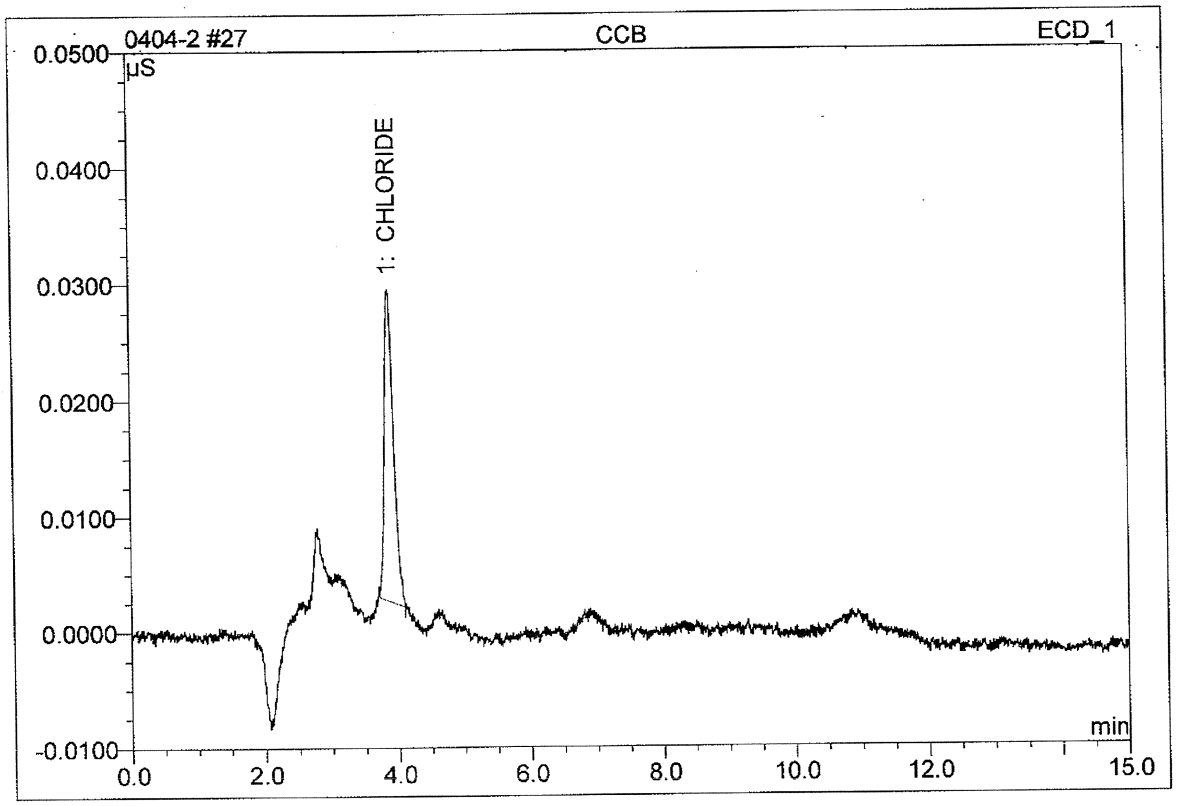


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.77	1.221	8.294	2.515	101
3	CHLORIDE	3.87	0.702	4.296	2.334	93
4	NITRITE	4.60	1.574	7.386	2.445	98
5	BROMIDE	5.79	0.272	1.113	2.368	95
6	NITRATE	6.65	1.714	5.573	2.384	95
7	SULFATE	10.90	0.514	1.109	2.583	103

2156460304 385

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	27
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 2:36 AM	**System Operator:**	RXJ

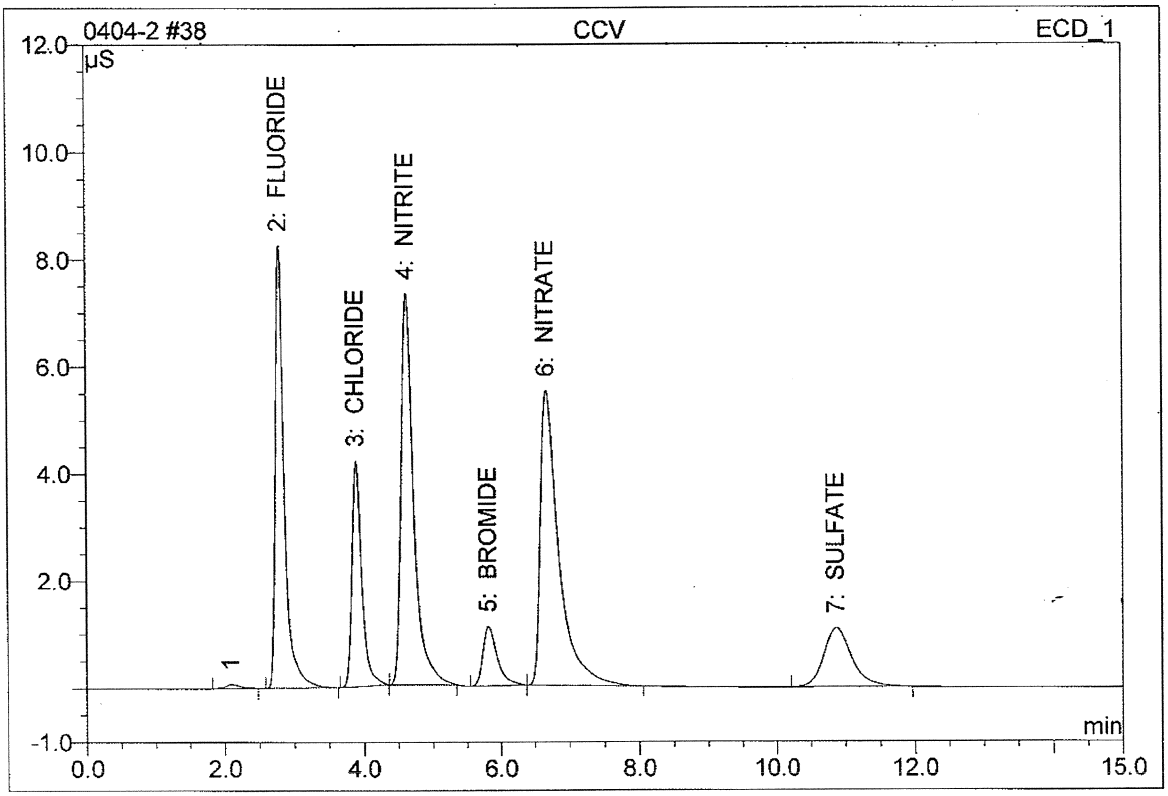


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev.(abs) mg/L
1	CHLORIDE	3.88	0.004	0.027	0.029	n.a.

2150460364 390

Sample Analysis Report

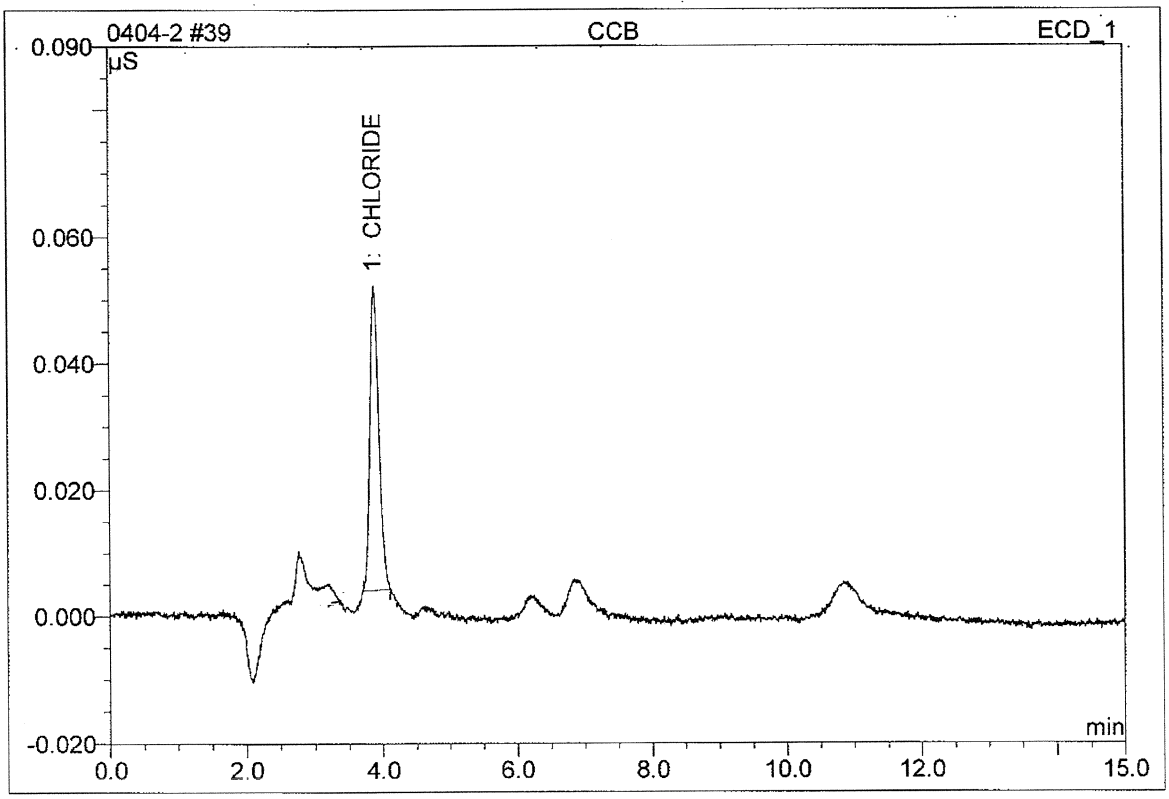
Sample Name:	CCV	**Sample No.:**	38
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 5:48 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.79	1.223	8.266	2.518	101
3	CHLORIDE	3.89	0.695	4.206	2.308 ✓	92
4	NITRITE	4.62	1.562	7.300	2.426 ✓	97
5	BROMIDE	5.81	0.271	1.097	2.359	94
6	NITRATE	6.67	1.703	5.500	2.370	95
7	SULFATE	10.87	0.512	1.094	2.575	103

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	39
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 6:05 AM	**System Operator:**	RXJ

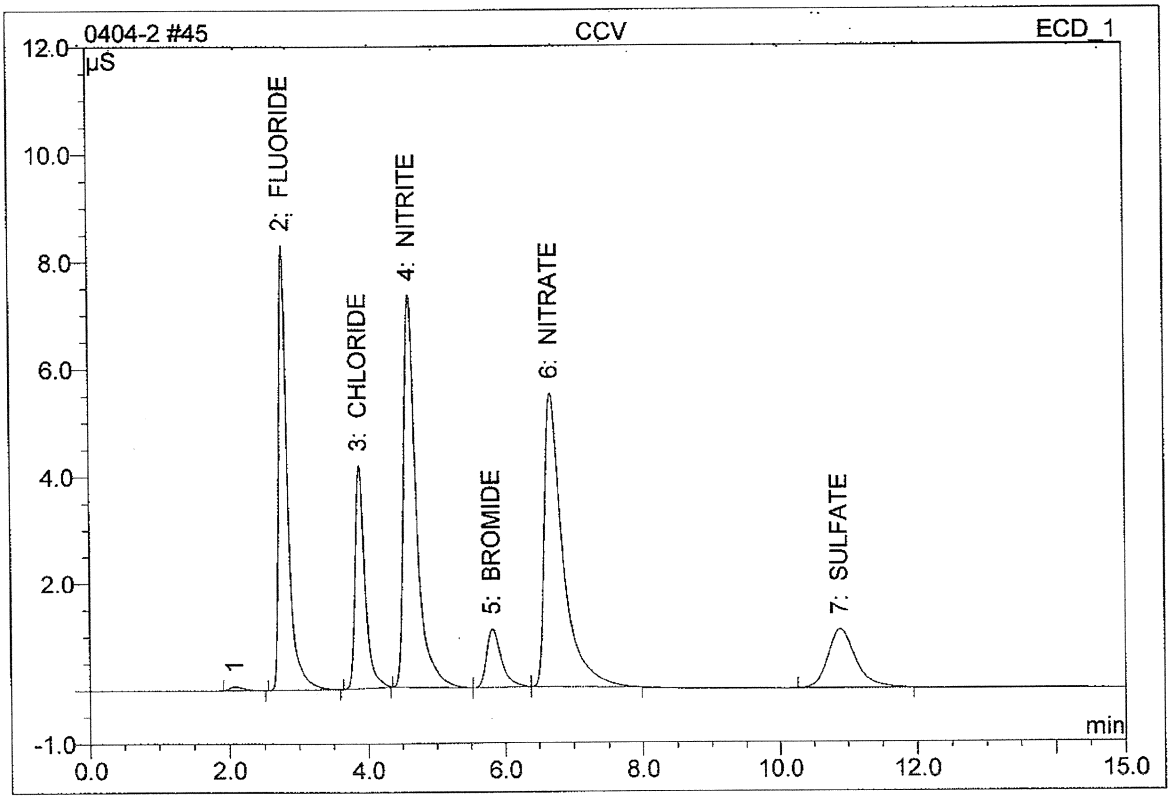


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	CHLORIDE	3.88	0.007	0.048	0.039	n.a.

2150460364 392

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	45
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 7:50 AM	**System Operator:**	RXJ

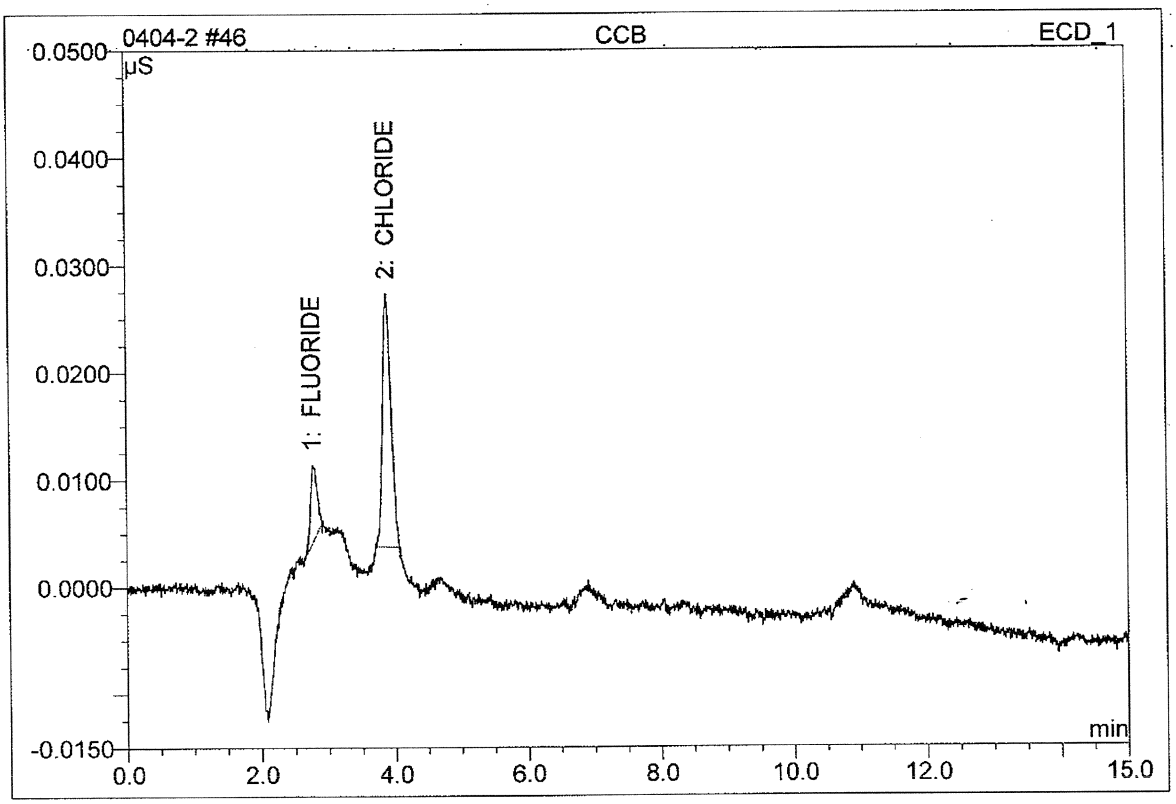


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.78	1.233	8.308	2.538	102
3	CHLORIDE	3.88	0.694	4.170	2.307 ✓	92
4	NITRITE	4.61	1.590	7.326	2.468 ✓	99
5	BROMIDE	5.81	0.274	1.099	2.380	95
6	NITRATE	6.68	1.716	5.495	2.387	95
7	SULFATE	10.89	0.515	1.099	2.590	104

2150440304 333

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	46
Sequence Name:	0404-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/5/2015 8:07 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt.Dev.(abs) mg/L
1	FLUORIDE	2.77	0.001	0.007	0.074		n.a.
2	CHLORIDE	3.89	0.003	0.024	0.026	✓	n.a.

2156460304 354

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/9/15
Analyst: RXJ
HBN: 555862 / 555828
Batch: 4835 / 4833

Instrument ID: IC3

Secondary Reviewer/Date: JEM 4-10-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-30-5
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-29-3 Expiration Date: 10/8/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

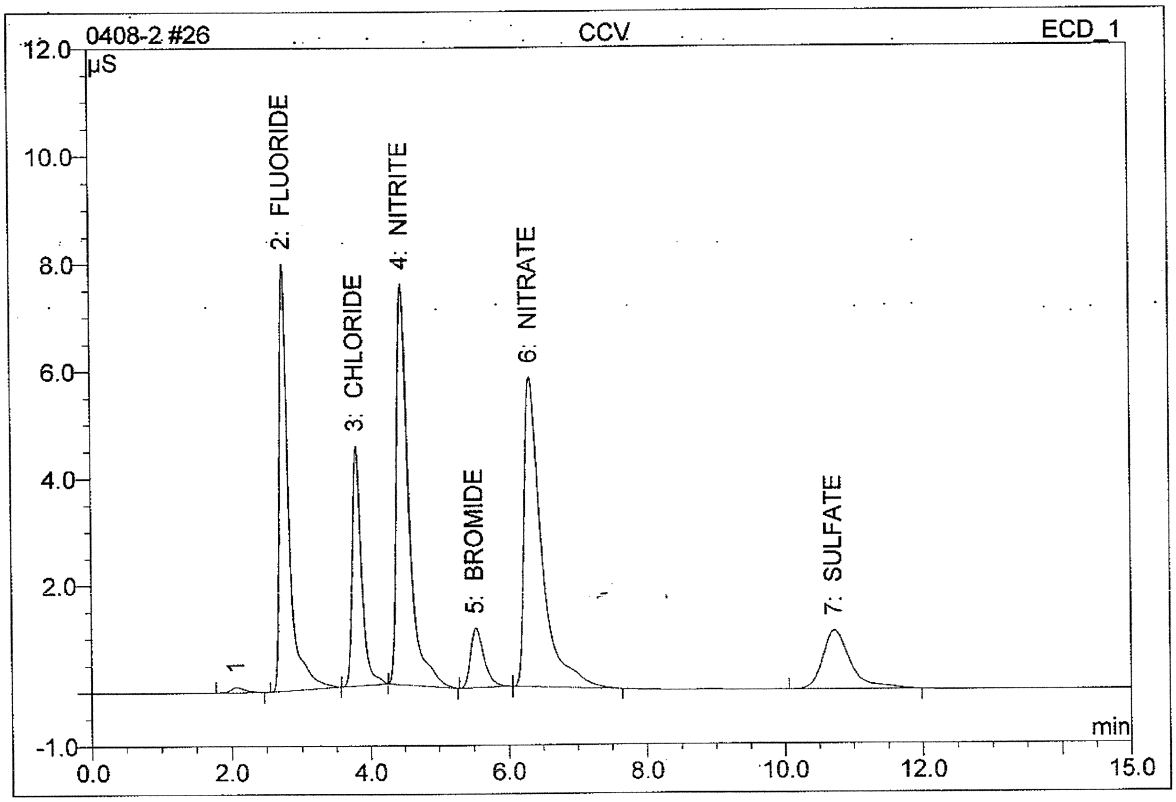
PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

2150403G4 395

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	26
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 4:44 PM	**System Operator:**	RXJ

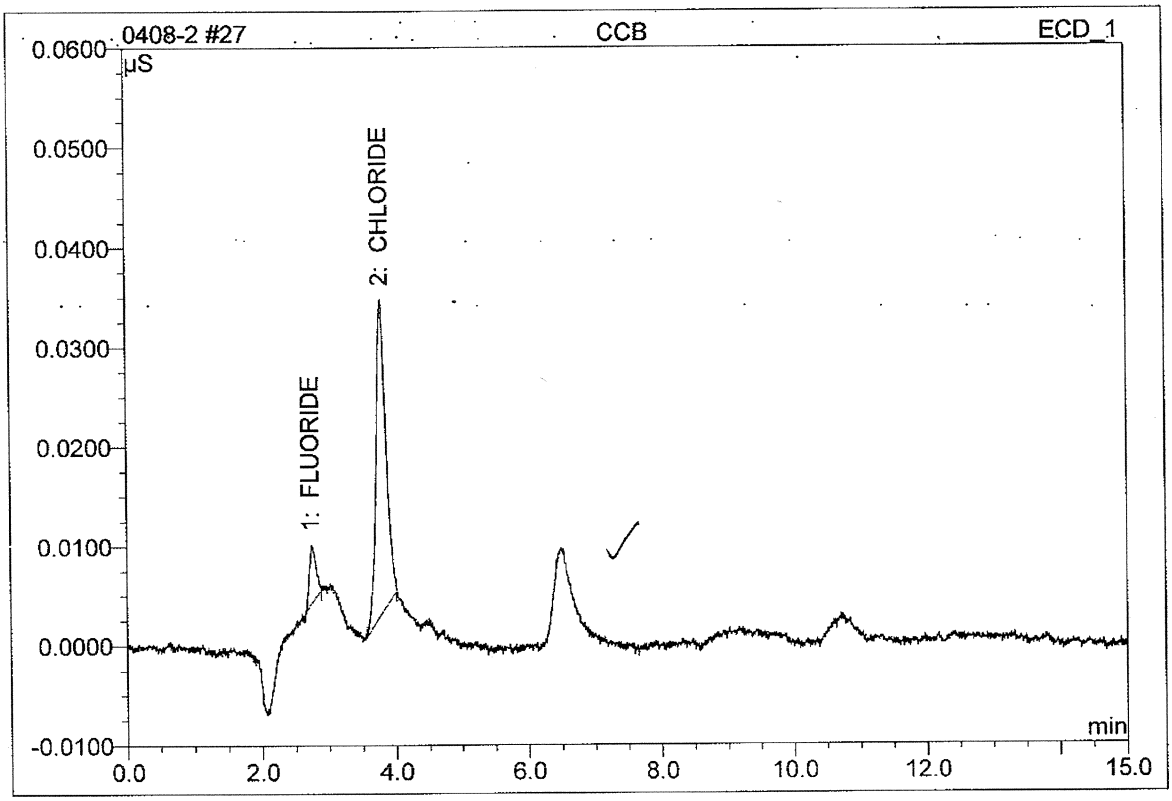


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.76	1.238	7.979	2.548		102
3	CHLORIDE	3.80	0.699	4.477	2.321		93
4	NITRITE	4.47	1.539	7.486	2.392	✓	96
5	BROMIDE	5.53	0.246	1.106	2.151		86
6	NITRATE	6.32	1.692	5.783	2.355	✓	94
7	SULFATE	10.72	0.514	1.093	2.582	✓	103

2150403604 336

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	27
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 5:01 PM	**System Operator:**	RXJ

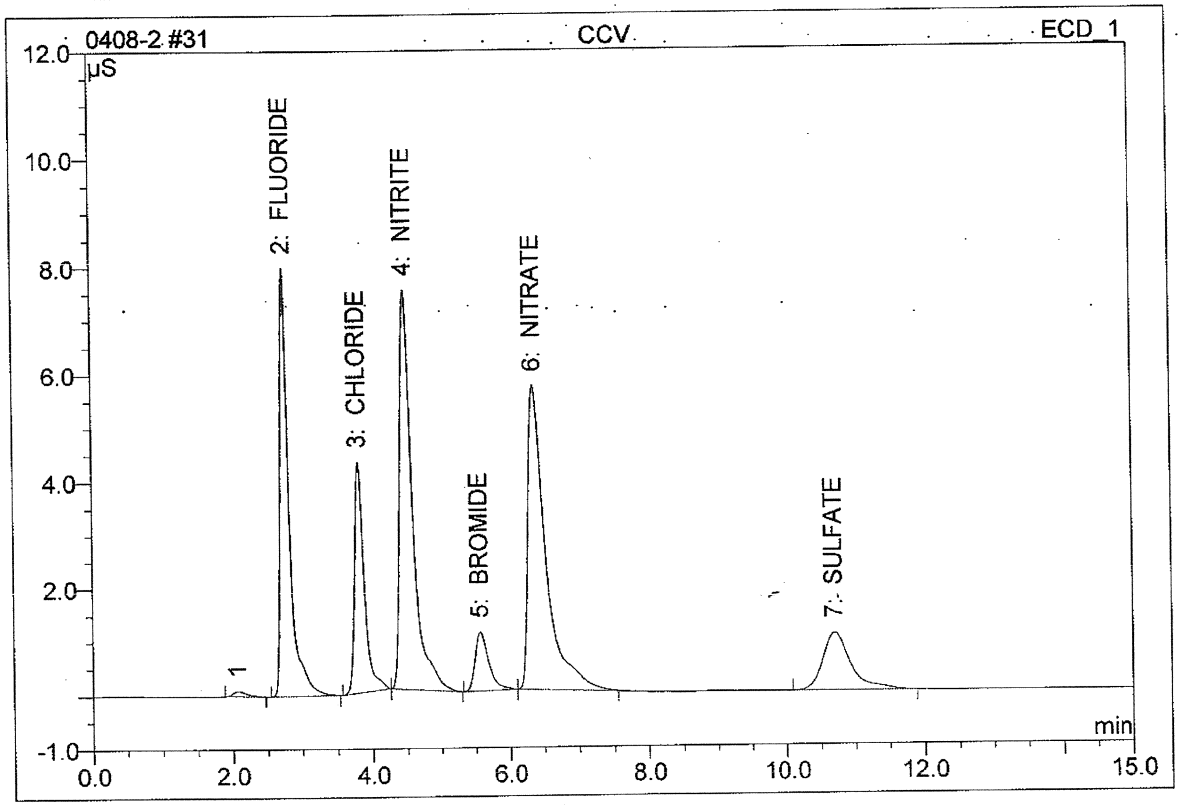


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	FLUORIDE	2.74	0.001	0.006	0.073	n.a.
2	CHLORIDE	3.79	0.005	0.032	0.033	n.a.

2150460304 397

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	31
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 6:11 PM	**System Operator:**	RXJ

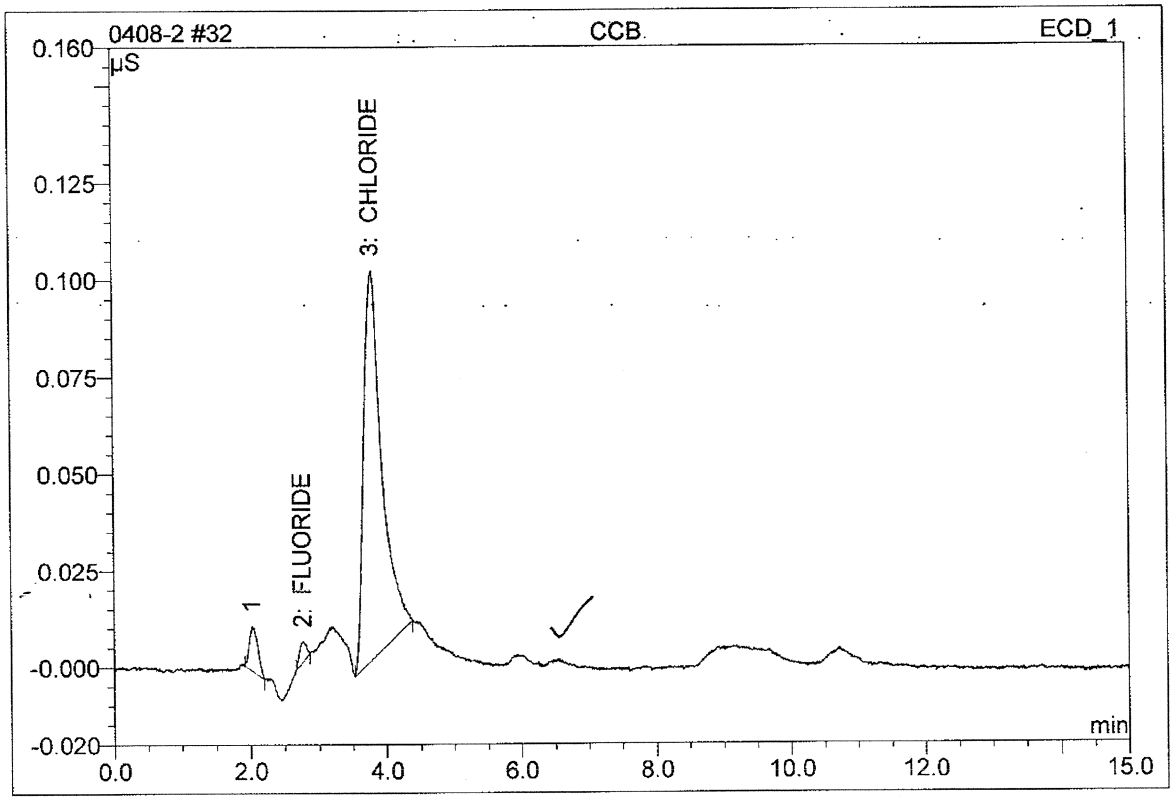


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.76	1.215	8.012	2.503	100
3	CHLORIDE	3.81	0.690	4.317	2.291	92
4	NITRITE	4.49	1.554	7.476	2.414 ✓	97
5	BROMIDE	5.57	0.253	1.105	2.205	88
6	NITRATE	6.36	1.685	5.696	2.345 ✓	94
7	SULFATE	10.70	0.504	1.076	2.535 ✓	101

2156403004 396

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	32
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 6:28 PM	**System Operator:**	RXJ

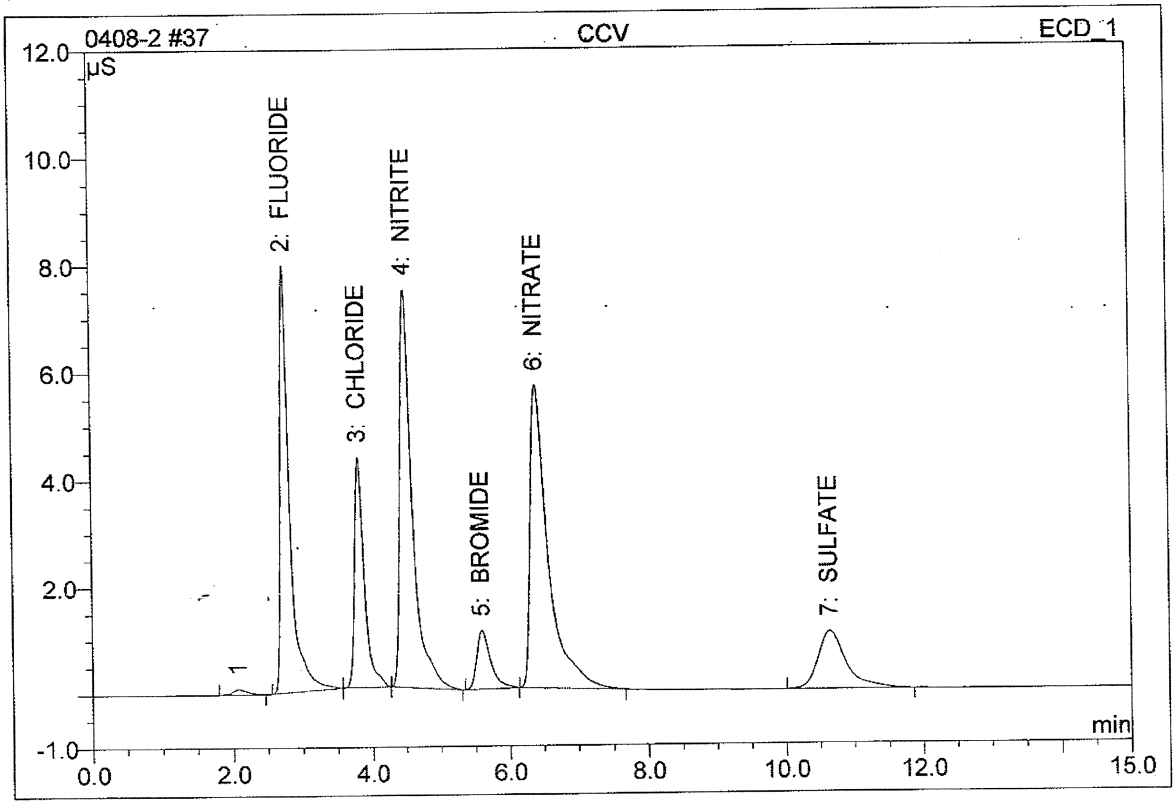


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.77	0.001	0.005	0.073	n.a.
3	CHLORIDE	3.80	0.032	0.100	0.120	n.a.

2156460304 399

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	37
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 7:55 PM	**System Operator:**	RXJ

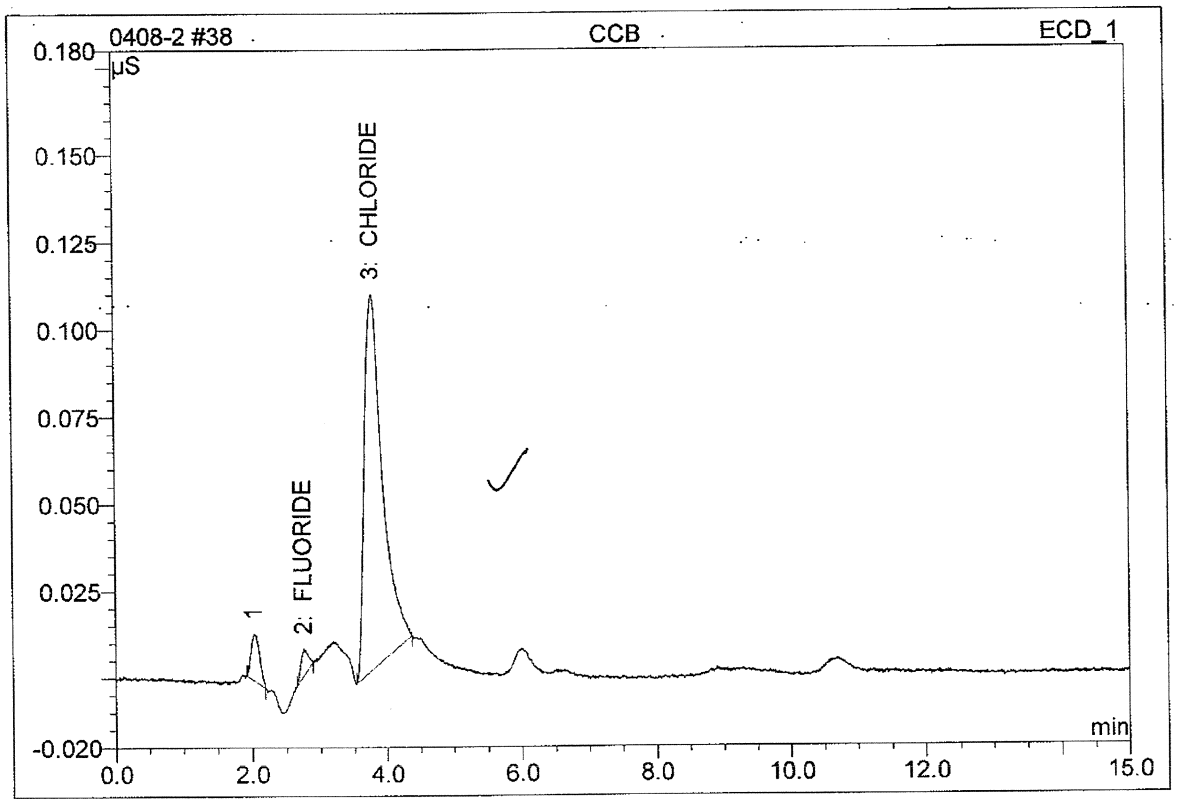


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.76	1.244	7.974	2.561		102
3	CHLORIDE	3.82	0.693	4.313	2.303	✓	92
4	NITRITE	4.50	1.563	7.420	2.428	✓	97
5	BROMIDE	5.60	0.256	1.091	2.232		89
6	NITRATE	6.40	1.709	5.664	2.377	✓	95
7	SULFATE	10.65	0.509	1.077	2.559	✓	102

2150403304 400

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	38
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 8:13 PM	**System Operator:**	RXJ

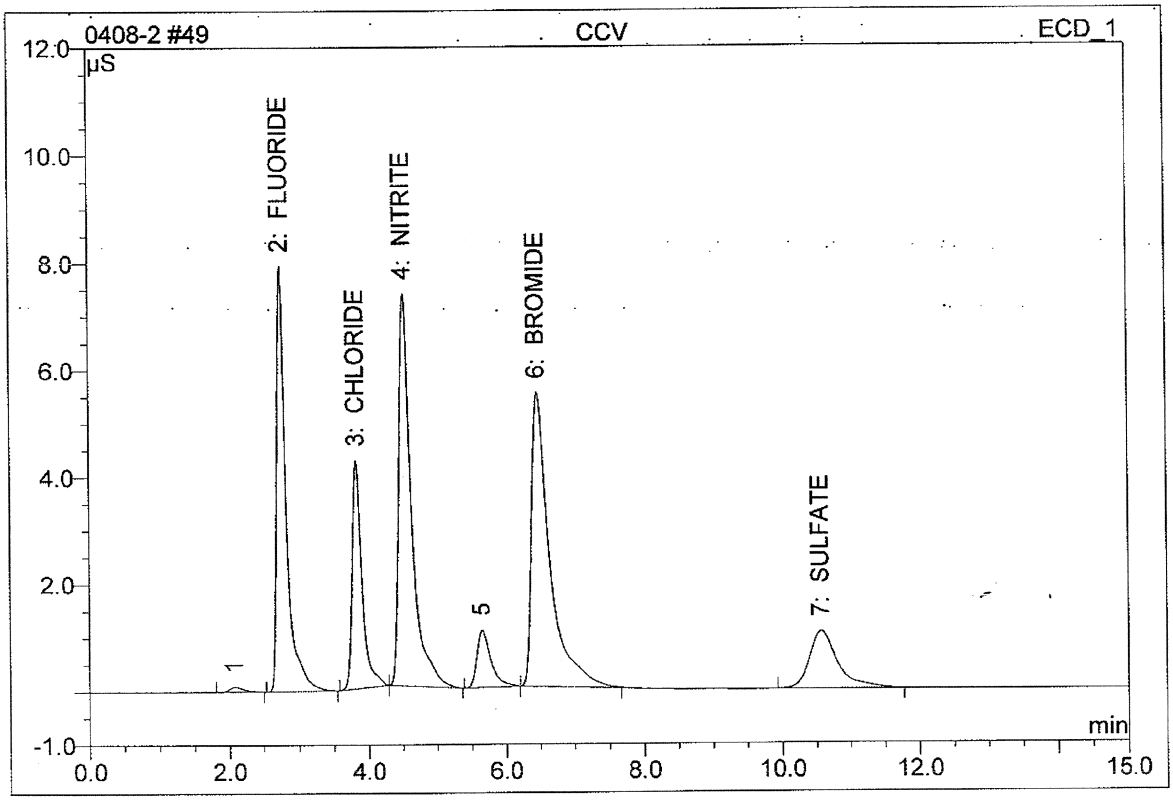


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.76	0.001	0.008	0.074	n.a.
3	CHLORIDE	3.79	0.035	0.108	0.130	n.a.

2150403304 401

Sample Analysis Report

Sample Name:	CCV/1432228 LCS	**Sample No.:**	49
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 11:24 PM	**System Operator:**	RXJ

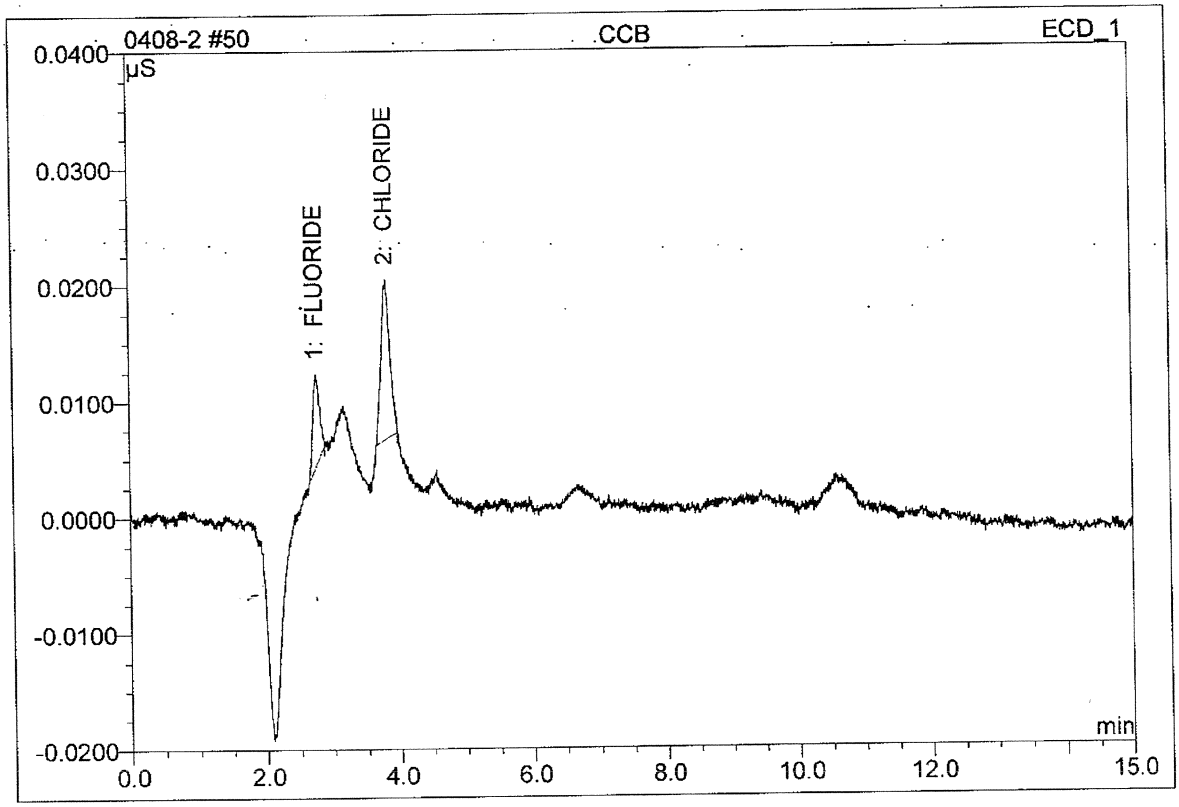


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.76	1.218	7.942	2.509	100
3	CHLORIDE	3.83	0.694	4.256	2.307 ✓	92
4	NITRITE	4.52	1.563	7.326	2.428	97
6	BROMIDE	6.47	1.685	5.493	14.139	566
7	SULFATE	10.57	0.508	1.072	2.556 ✓	102

2150460304 462

Sample Analysis Report

Sample Name:	CCB / 143222 MV	**Sample No.:**	50
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/8/2015 11:42 PM	**System Operator:**	RXJ

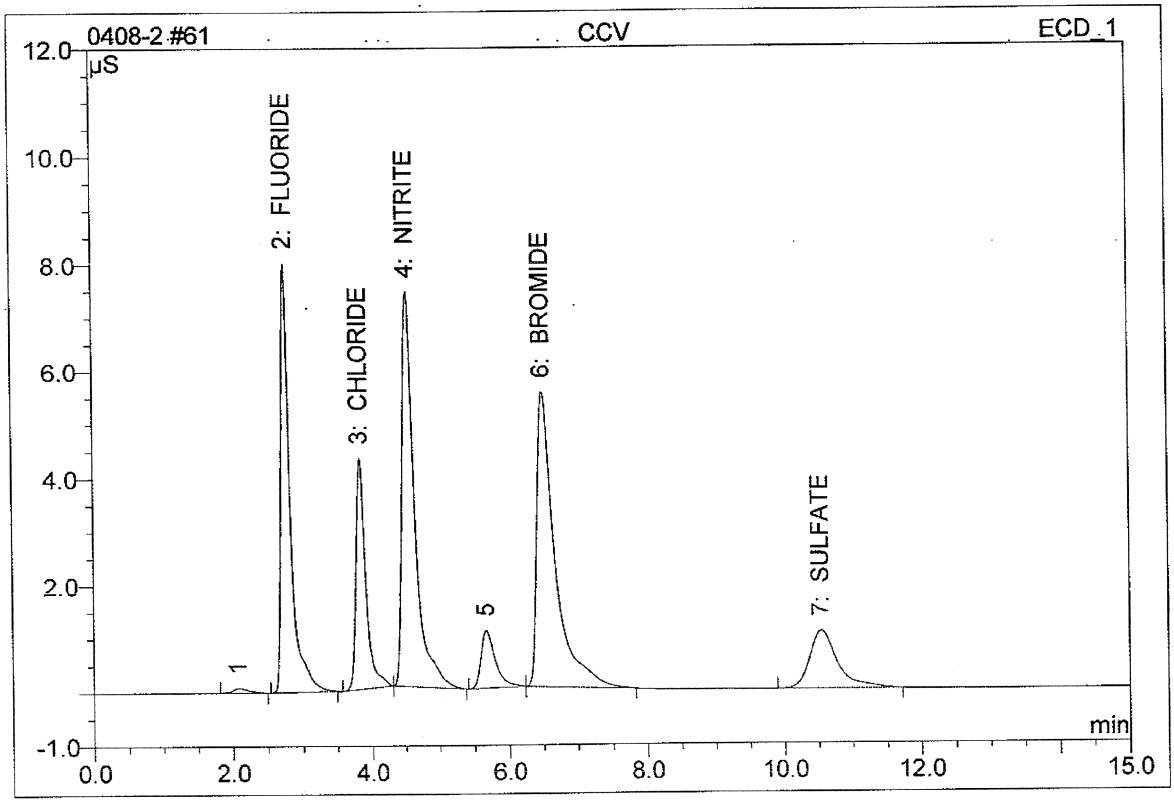


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	FLUORIDE ✓	2.76	0.001	0.008	0.074	n.a.
2	CHLORIDE ✓	3.82	0.002	0.014	0.022	n.a.

2150440304 403

Sample Analysis Report

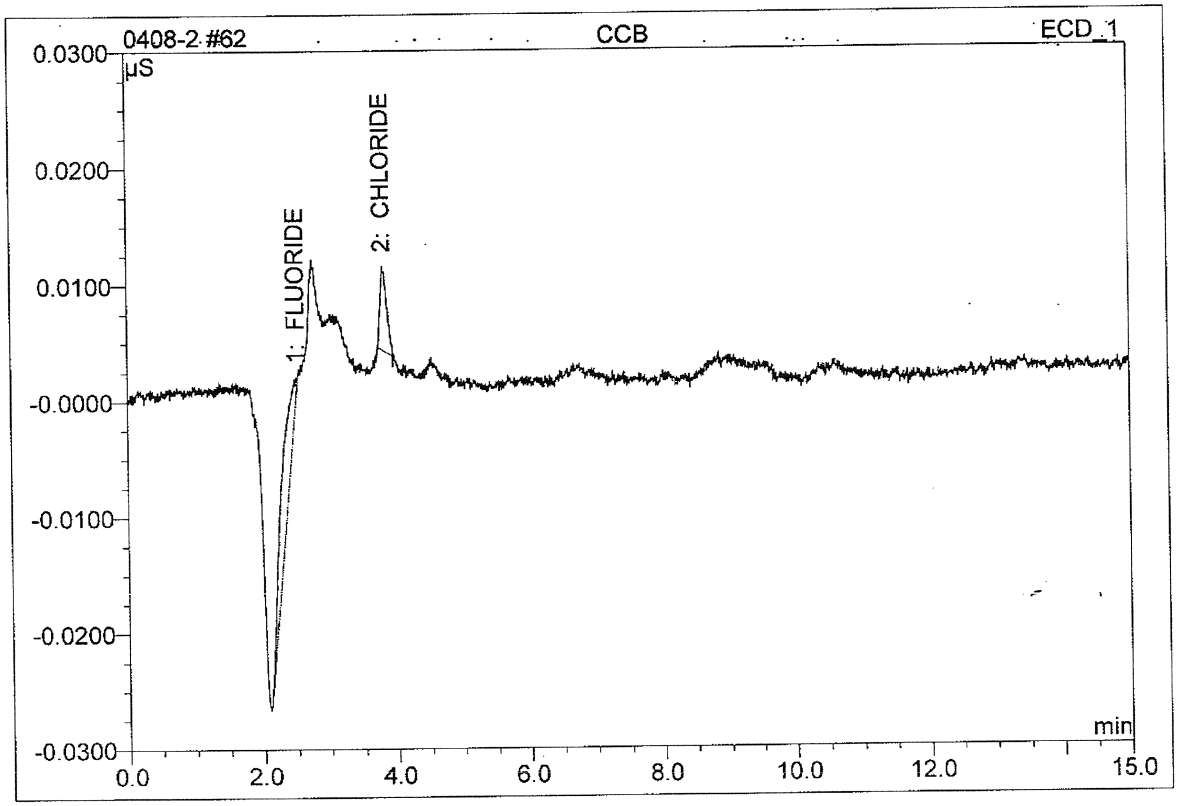
Sample Name:	CCV	**Sample No.:**	61
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/9/2015 2:53 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.76	1.224	8.027	2.522	101
3	CHLORIDE	3.83	0.699	4.316	2.321 ✓	93
4	NITRITE	4.53	1.569	7.374	2.438	98
6	BROMIDE	6.50	1.693	5.510	14.205	568
7	SULFATE	10.54	0.511	1.084	2.568 ✓	103

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	62
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/9/2015 3:11 AM	**System Operator:**	RXJ

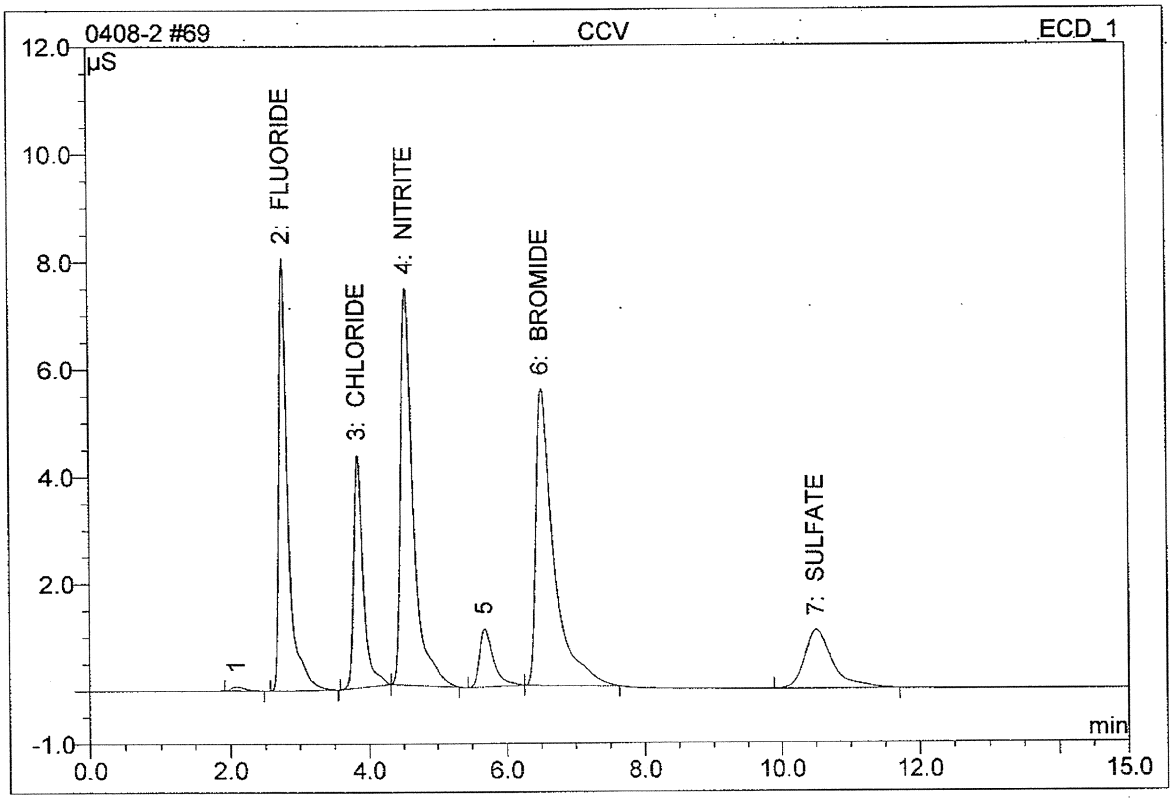


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	FLUORIDE	2.51	0.002	0.001	0.076	n.a.
2	CHLORIDE ✓	3.80	0.001	0.007	0.017	n.a.

2150403064 405

Sample Analysis Report

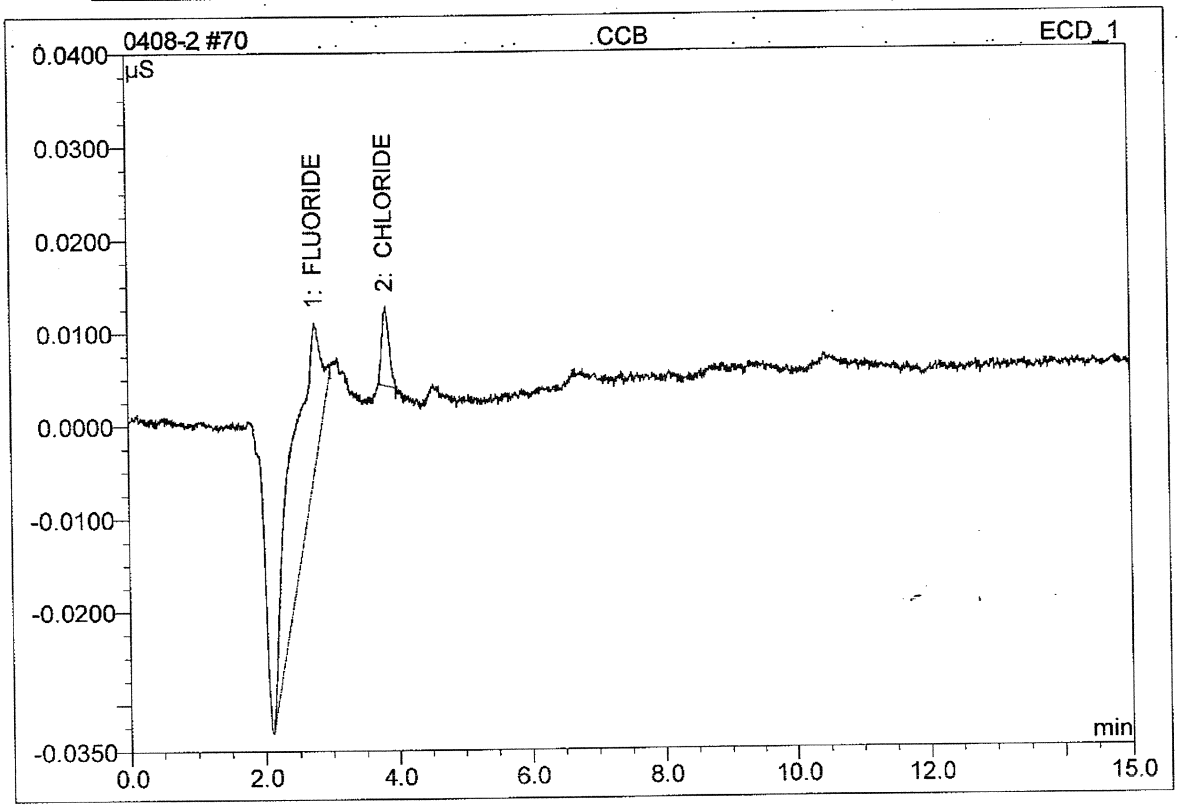
Sample Name:	CCV	**Sample No.:**	69
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/9/2015 5:12 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.77	1.229	8.083	2.531	101
3	CHLORIDE	3.84	0.703	4.350	2.334	93
4	NITRITE	4.55	1.572	7.408	2.441	98
6	BROMIDE	6.52	1.690	5.537	14.176	567
7	SULFATE	10.51	0.511	1.091	2.568	103

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	70
Sequence Name:	0408-2	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/9/2015 5:30 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
1	FLUORIDE	2.77	0.010	0.015	0.093	n.a.
2	CHLORIDE	3.84	0.001	0.009	0.018	n.a.

2150460304 467

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 3/19/15
Analyst: DMT
HBN: ICAL
Batch:

Instrument ID: IC3

Secondary Reviewer/Date: JEM 3-19-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-3-4
Eluent Lot #: 1019-99-2 Expiration Date: 9/16/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

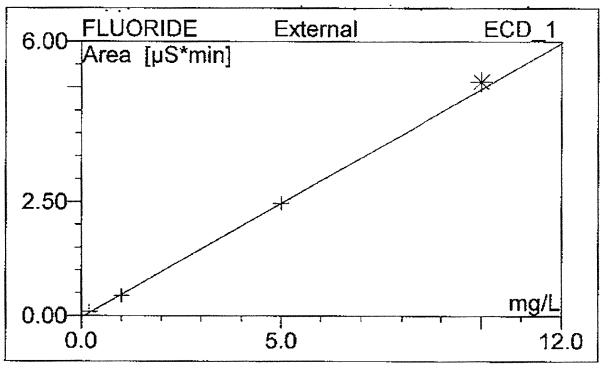
PERCHLORATE – EPA 314.0

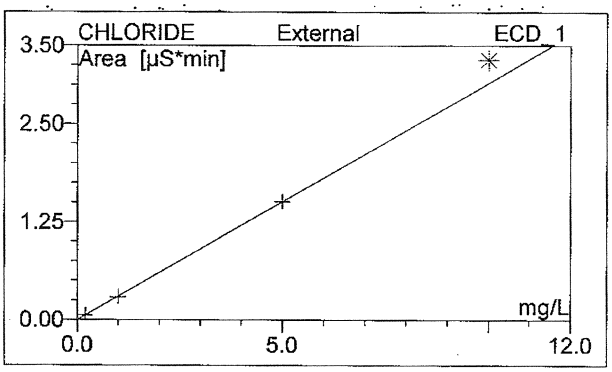
Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

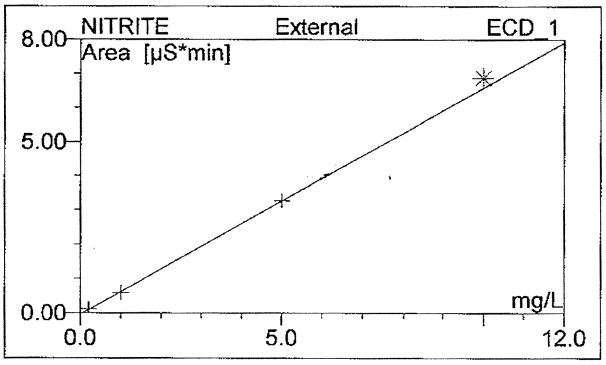
2150403604 408

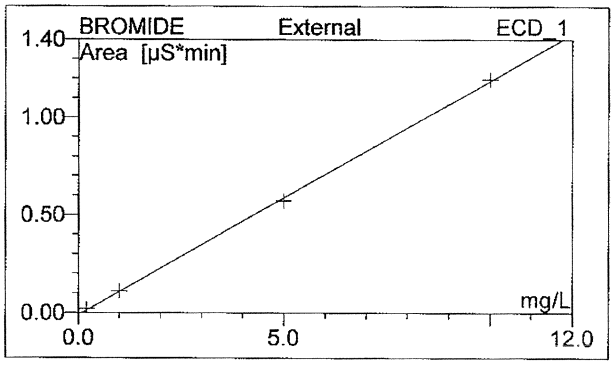
INITIAL CALIBRATION REPORT

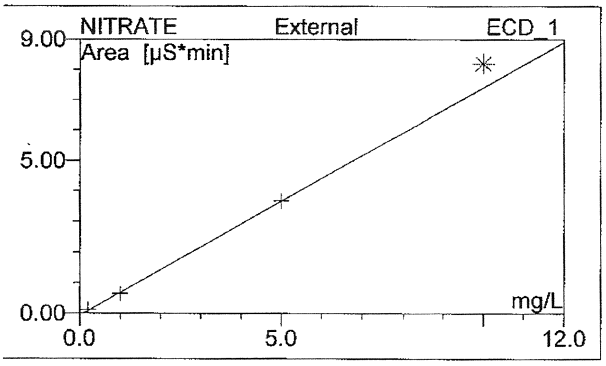
Recording Time:	**3/19/2015 8:40**	*Injection Volume:*	**50.0**
Control Program:	**9056**	*Channel:*	**ECD_1**
Quantif. Method:	**9056**		
Run Time (min):	**15.00**		

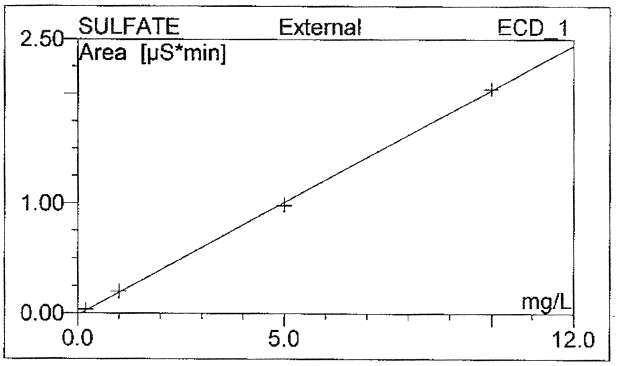












INITIAL CALIBRATION REPORT (Continued)

Recording Time: **3/19/2015 8:40**
Control Program: **9056**
Quantif. Method: **9056**
Run Time (min): **15.00**

Injection Volume: **50.0**
Channel: **ECD_**

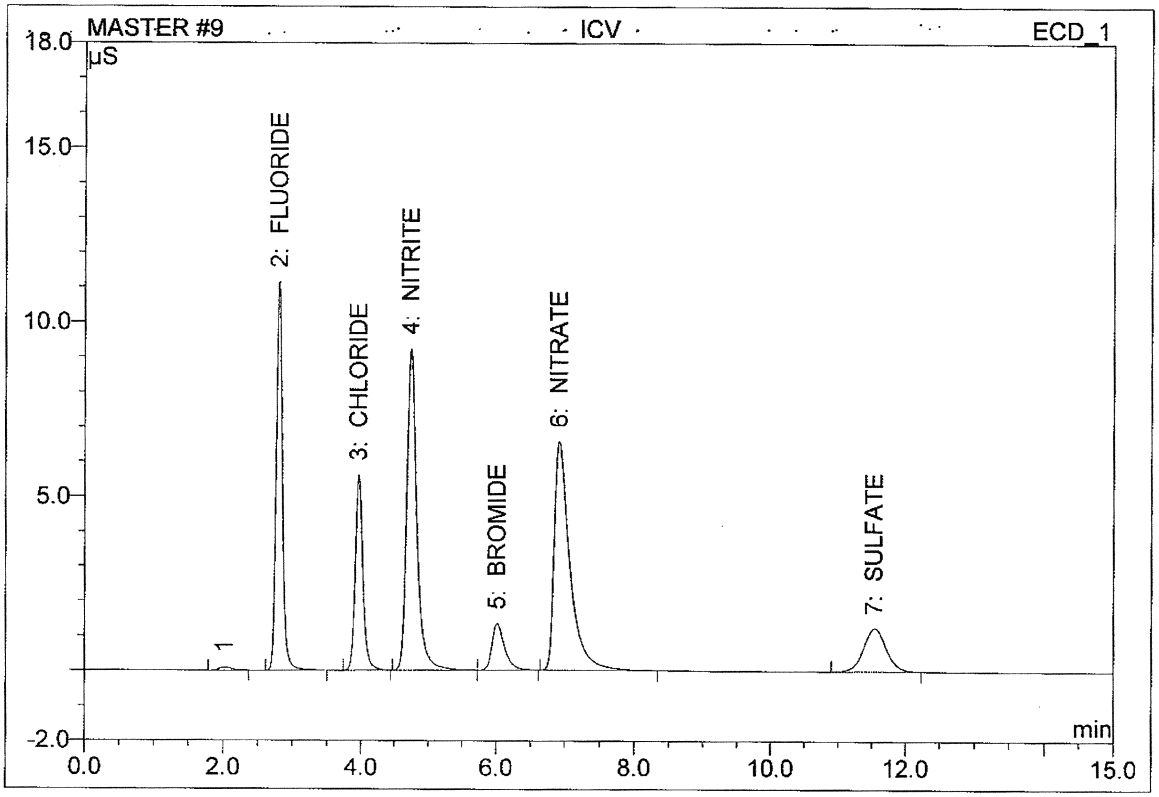
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff.	Rel.Std.Dev. %
2	2.79	FLUORIDE	LOff	3	0.99985	3.164
3	3.97	CHLORIDE	LOff	4	0.99997	1.553
4	4.77	NITRITE	LOff	3	0.99989	2.721
5	6.07	BROMIDE	LOff	4	0.99976	3.022
6	7.10	NITRATE	LOff	3	0.99981	3.562
7	11.56	SULFATE	LOff	4	0.99979	2.828

IC ICAL INST 3

No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev %	Corr.Coeff. %	Offset	Slope	Curve
2	FLUORIDE	LOff	3	3.1643	99.9849	-0.036	0.4999	0
3	CHLORIDE	LOff	4	1.5529	99.9965	-0.0044	0.3029	0
4	NITRITE	LOff	3	2.7212	99.9888	-0.0458	0.6626	0
5	BROMIDE	LOff	4	3.0223	99.9764	-0.0121	0.1201	0
6	NITRATE	LOff	3	3.5625	99.9813	-0.0691	0.7479	0
7	SULFATE	LOff	4	2.8276	99.9791	-0.0152	0.2048	0
Average:			3.5	2.8085	99.9845	-0.0304	0.423	0

Sample Analysis Report

Sample Name:	ICV	**Sample No.:**	9
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 10:24 AM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt.Dev.(abs) mg/L
2	FLUORIDE	2.81	1.190	11.147	2.453	98
3	CHLORIDE	3.97	0.723	5.597	2.401	96
4	NITRITE	4.74	1.605	9.222	2.491	100
5	BROMIDE	6.01	0.284	1.331	2.466	99
6	NITRATE	6.92	1.732	6.566	2.408	96
7	SULFATE	11.54	0.487	1.240	2.450	98

2156460304 412

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/9/15
Analyst: RXJ
RXO 4/9/15 HBN: X 555950 ~~555952~~ 555951
Batch: 4837/~~4838~~ 4838

Instrument ID: IC1

Secondary Reviewer/Date: JEM 4-10-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-11-8
Calibration Date 3/25/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-33-1
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-29-3 Expiration Date: 10/8/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

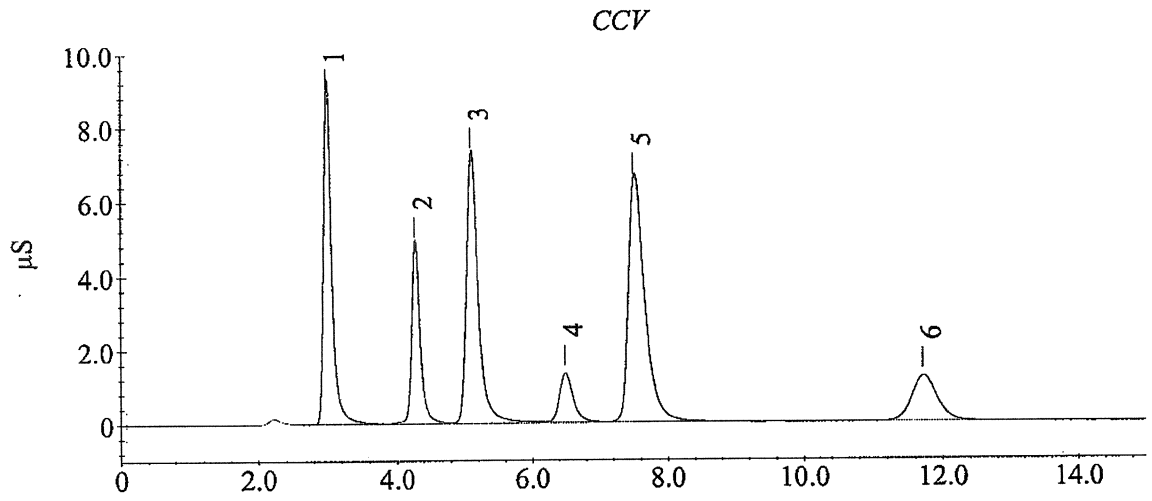
Sample Analysis Report

Sample Name : CCV/LCS 1439862
Data File Name : d:\peaknet\data\2015\042015\0409_013.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/09/2015 20:56:36
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 13

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.344	761756	88304
2	CHLORIDE,16887-00-6	4.27	2.43297	462363	48066
3	NITRITE,14797-65-0	5.09	2.435	880660	72061
4	BROMIDE,24959-67-9	6.48	2.390%	191030	13331
5	Unknown 1	7.49	0.000	1126200	64968
6	SULFATE,14808-79-8	11.71	2.400%	317452	12276



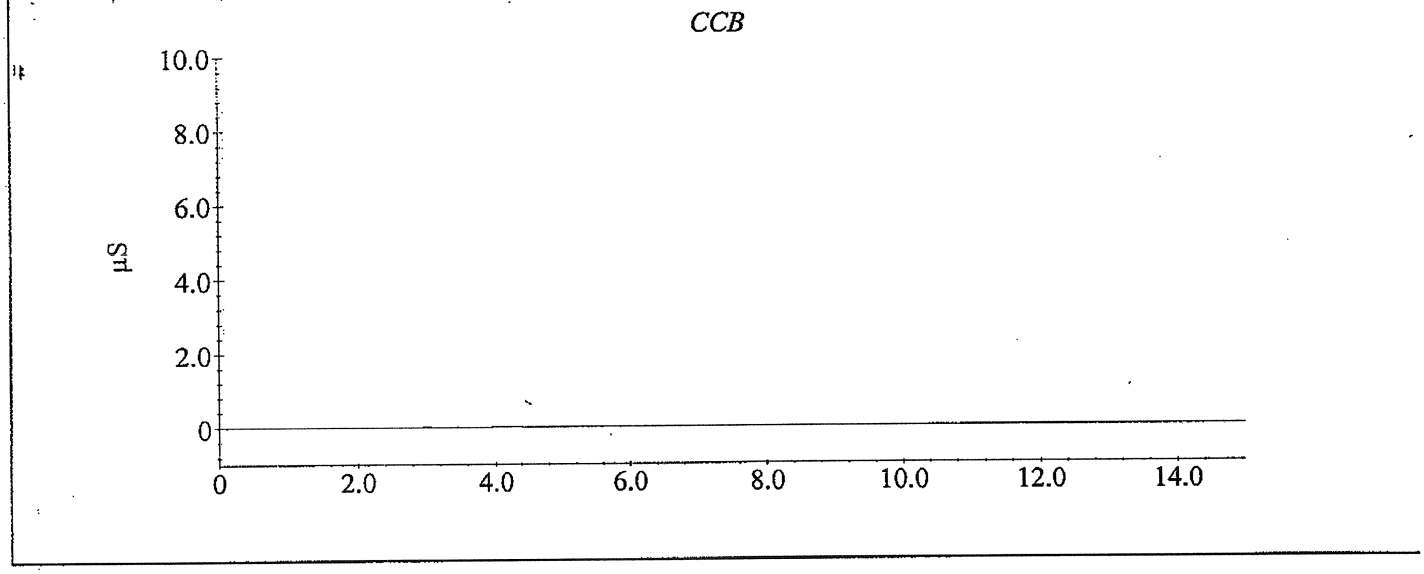
Sample Analysis Report

Sample Name : CCB 143286 1mB
Data File Name : d:\peaknet\data\2015\042015\0409_014.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/09/2015 21:14:13
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 14

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



2156440364 415

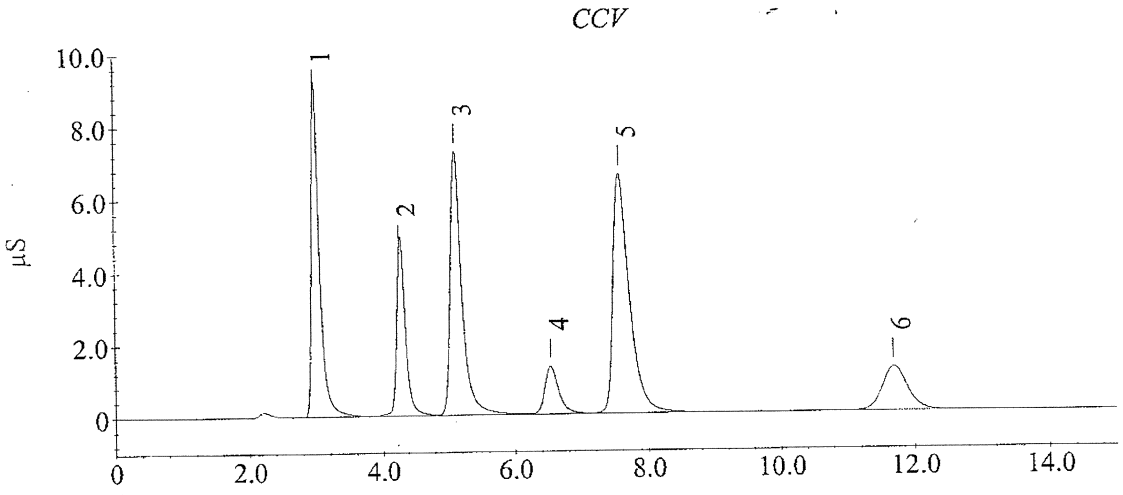
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0409_025.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 00:28:04
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 25

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.340	760587	88083
2	CHLORIDE,16887-00-6	4.27	2.44498	464661	45086
3	NITRITE,14797-65-0	5.12	2.426	876993	72476
4	BROMIDE,24959-67-9	6.53	2.370	189405	13181
5	NITRATE,14797-55-8	7.57	2.313	1132953	65874
6	SULFATE,14808-79-8	11.68	2.41096	318784	12216



2156440304 416

Sample Analysis Report

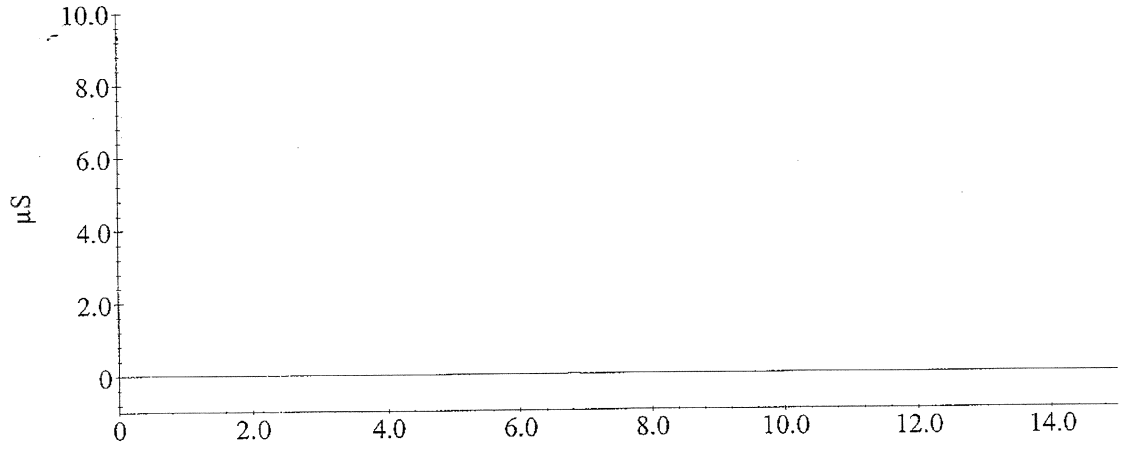
Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0409_026.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 00:45:41
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 26

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height

CCB



2156460304 417

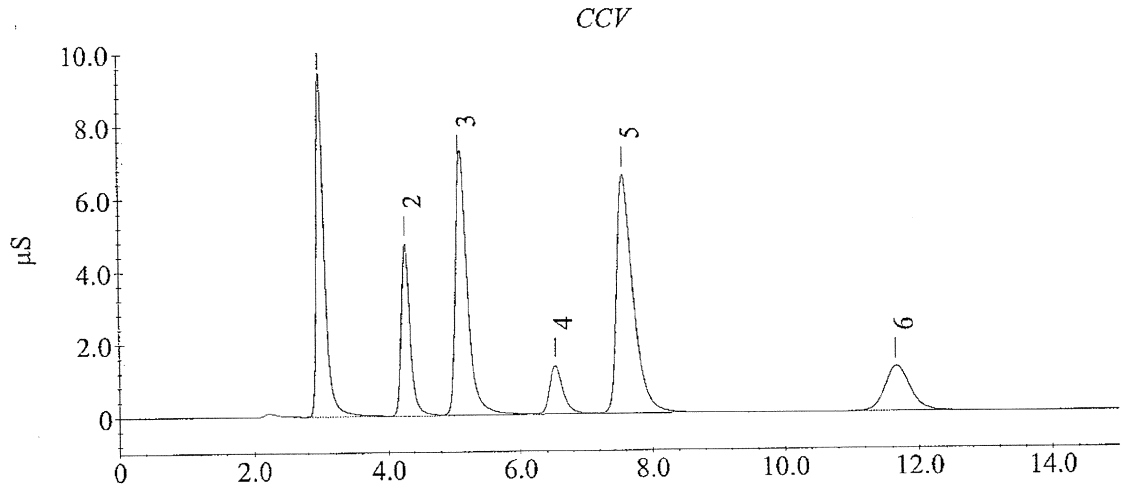
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0409_037.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 03:59:33
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 37

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.393	778064	93233
2	CHLORIDE,16887-00-6	4.27	2.40596	457097	47323
3	NITRITE,14797-65-0	5.09	2.469	893214	69469
4	BROMIDE,24959-67-9	6.53	2.418	193335	13275
5	NITRATE,14797-55-8	7.57	2.304	1127970	65616
6	SULFATE,14808-79-8	11.65	2.42797	321033	12314



2150410364 416

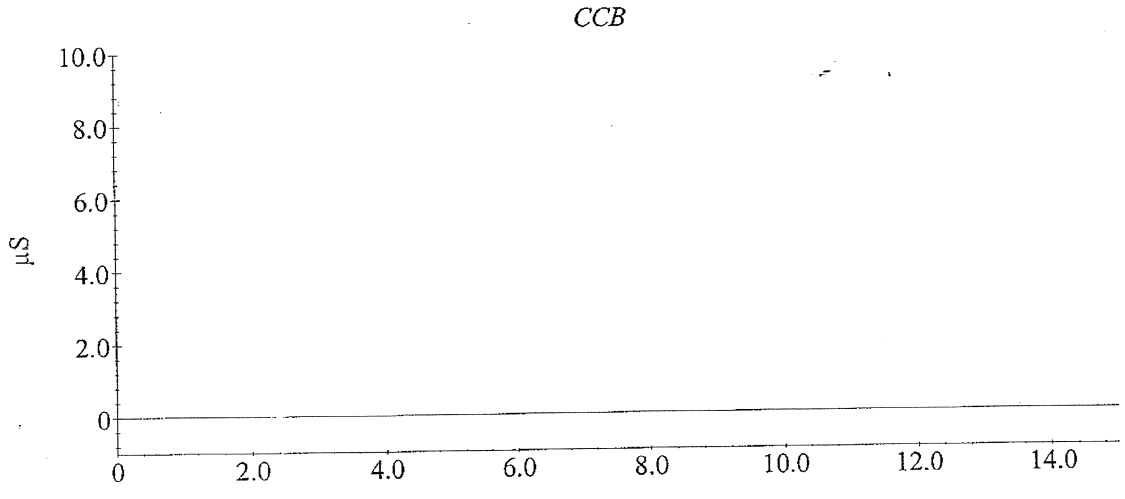
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0409_038.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 04:17:11
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 38

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/11/15
Analyst: DMT
HBN: 556078
Batch: 4839

Instrument ID: IC 1

Secondary Reviewer/Date: JEm 4-13-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-11-8
Calibration Date 3/25/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-34-14
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-29-3 Expiration Date: 10/8/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

2156460364 420

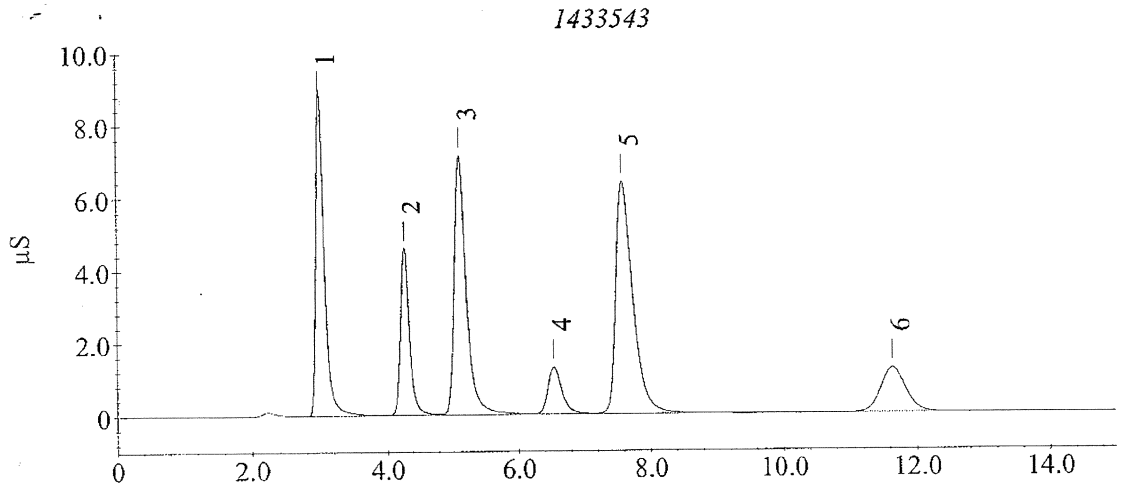
Sample Analysis Report

Sample Name : 1433543 CCV/LCS
Data File Name : d:\peaknet\data\2015\042015\0410_A002.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 19:26:24
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 2

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.360	766940	87226
2	CHLORIDE,16887-00-6	4.27	2.4049**6**	457033	45699
3	NITRITE,14797-65-0	5.12	2.479**99**	896957	71349
4	BROMIDE,24959-67-9	6.53	2.381**95**	190307	12876
5	NITRATE,14797-55-8	7.57	2.306**92**	1129126	63819
6	SULFATE,14808-79-8	11.63	2.423**97**	320465	12272



Sample Analysis Report

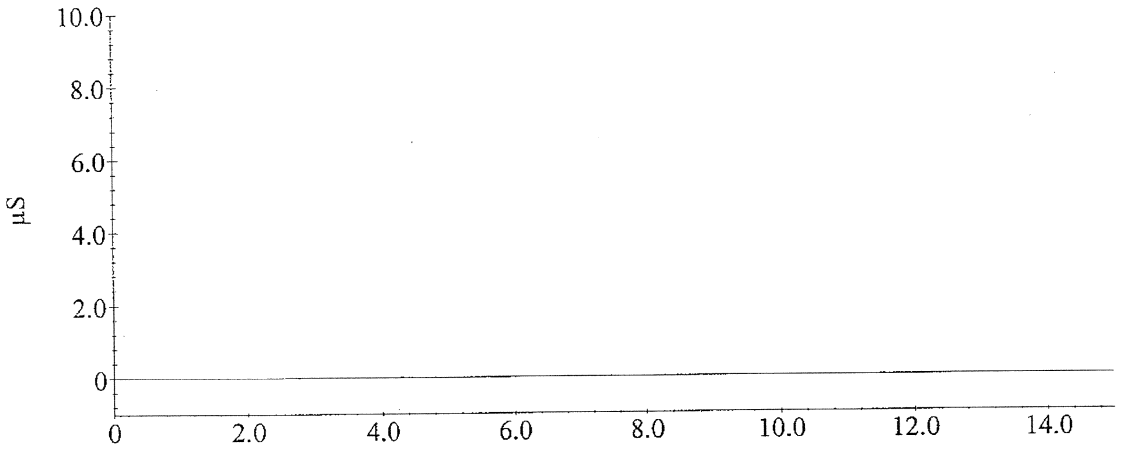
Sample Name : 1433542 MB/ccb
Data File Name : d:\peaknet\data\2015\042015\0410_A003.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 19:44:02
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 3

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height

1433542



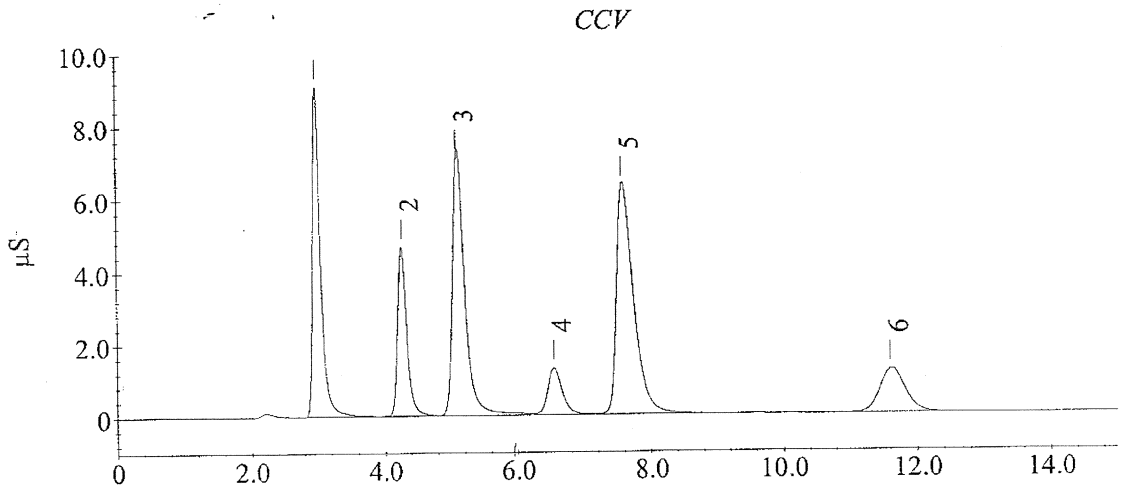
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_A007.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 20:54:32
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 7

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.365	768860	90594
2	CHLORIDE,16887-00-6	4.27	2.41497	458798	46576
3	NITRITE,14797-65-0	5.09	2.57503	932333	71059
4	BROMIDE,24959-67-9	6.53	2.43797	194943	12979
5	NITRATE,14797-55-8	7.57	2.30892	1130035	63150
6	SULFATE,14808-79-8	11.60	2.42797	321083	12177



2156440304 423

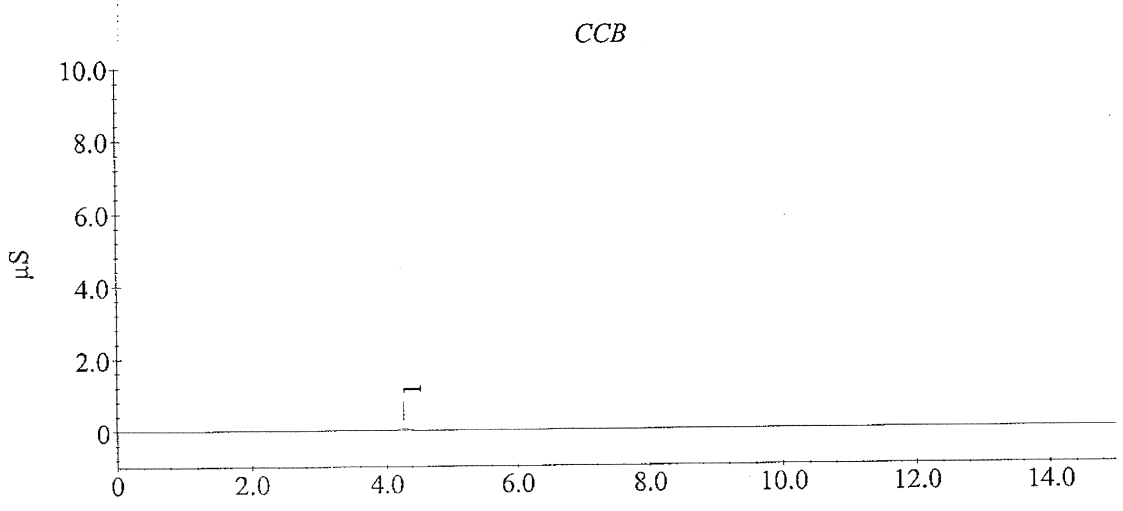
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0410_A008.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 21:12:09
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 8

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.27	0.061	4525	496



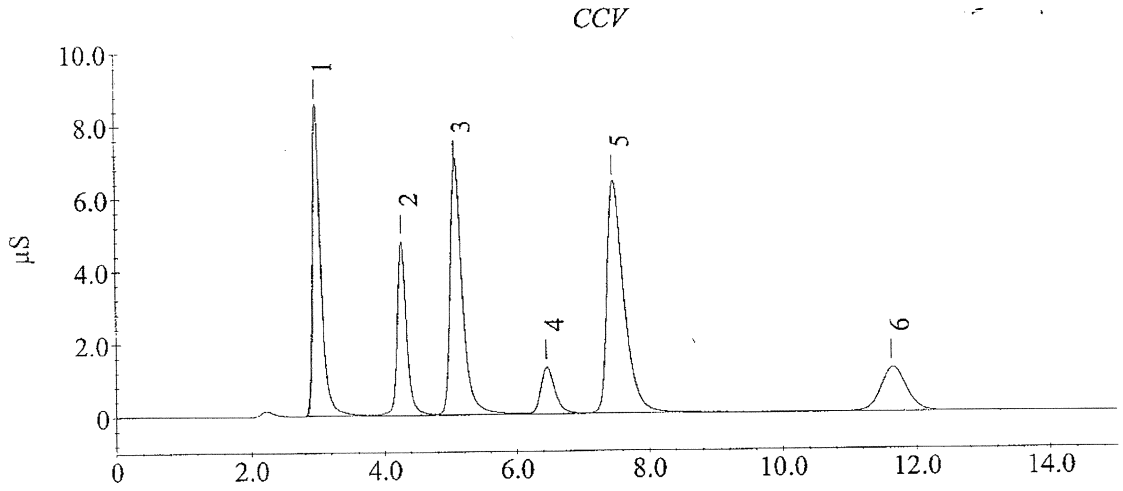
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_019.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 15:27:57
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 19

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.351	764117	84939
2	CHLORIDE,16887-00-6	4.27	2.489	473323	47675
3	NITRITE,14797-65-0	5.07	2.464	891194	67812
4	BROMIDE,24959-67-9	6.45	2.364	188911	12743
5	Unknown 1	7.47	0.000	1127851	63276
6	SULFATE,14808-79-8	11.63	2.443	323214	12036



2156460364 425

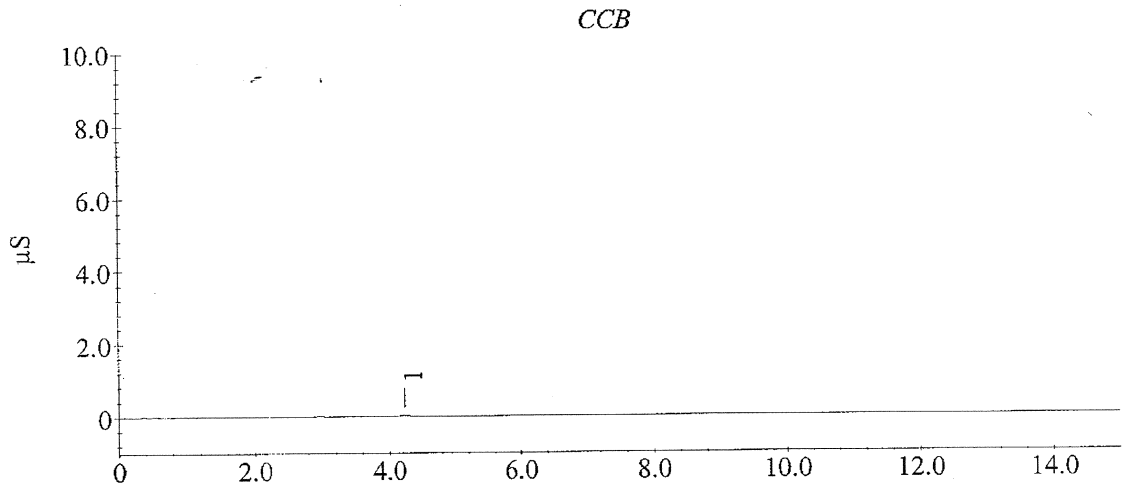
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0410_020.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 15:45:34
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 20

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.24	0.051	2533	268



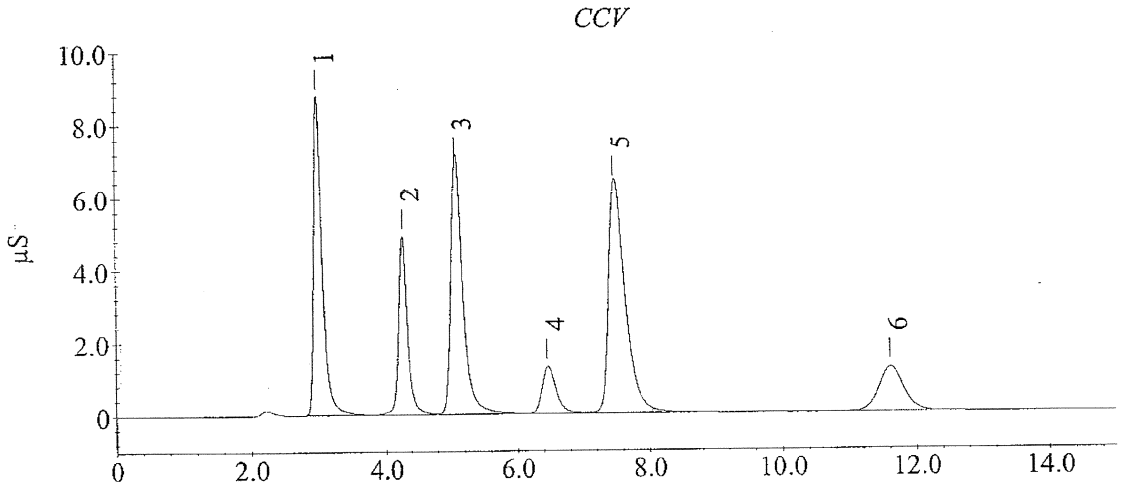
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_031.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 18:59:25
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 31

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.350	763773	87357
2	CHLORIDE,16887-00-6	4.27	2.505 100	476462	48832
3	NITRITE,14797-65-0	5.07	2.447	884942	68398
4	BROMIDE,24959-67-9	6.45	2.365 95	188986	12814
5	Unknown 1	7.47	0.000	1127461	62881
6	SULFATE,14808-79-8	11.60	2.453 98	324589	12258



2150406304 427

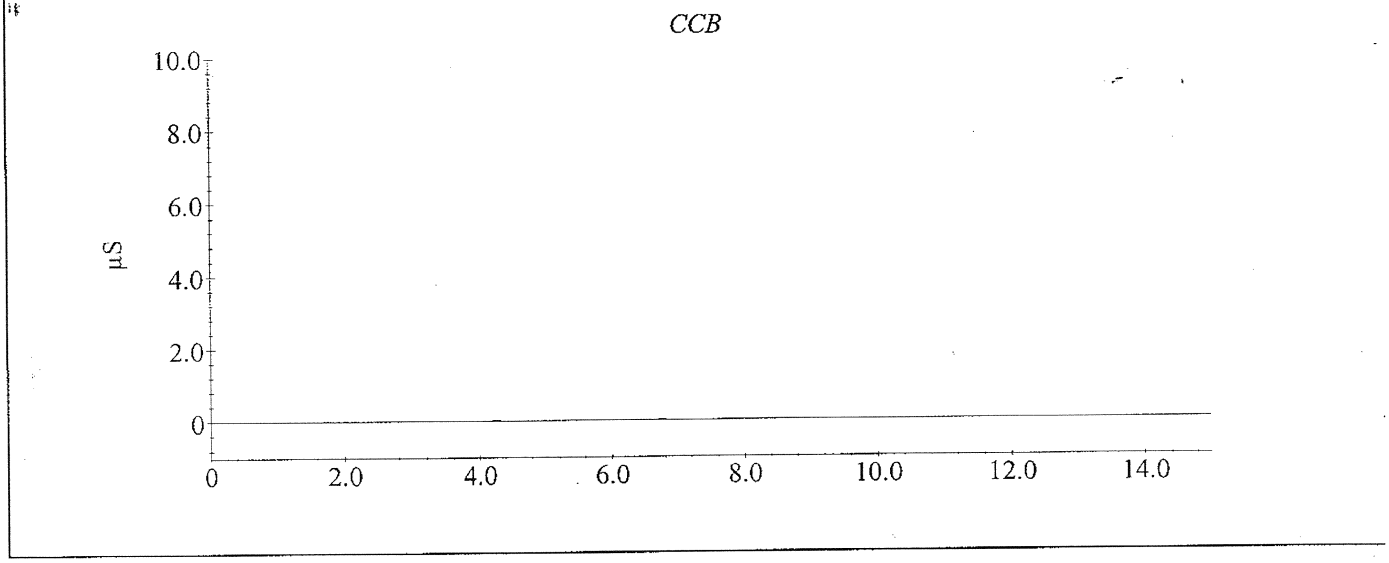
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0410_032.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 19:17:03
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 32

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height



2150460304 428

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 3/26/15
Analyst: RXJ
HBN: ICAL
Batch:

Instrument ID: IC1

Secondary Reviewer/Date: DMT 3/28/15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-11-8
Calibration Date 3/25/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-12-1
Eluent Lot #: 1027-4-11 Expiration Date: 9/21/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

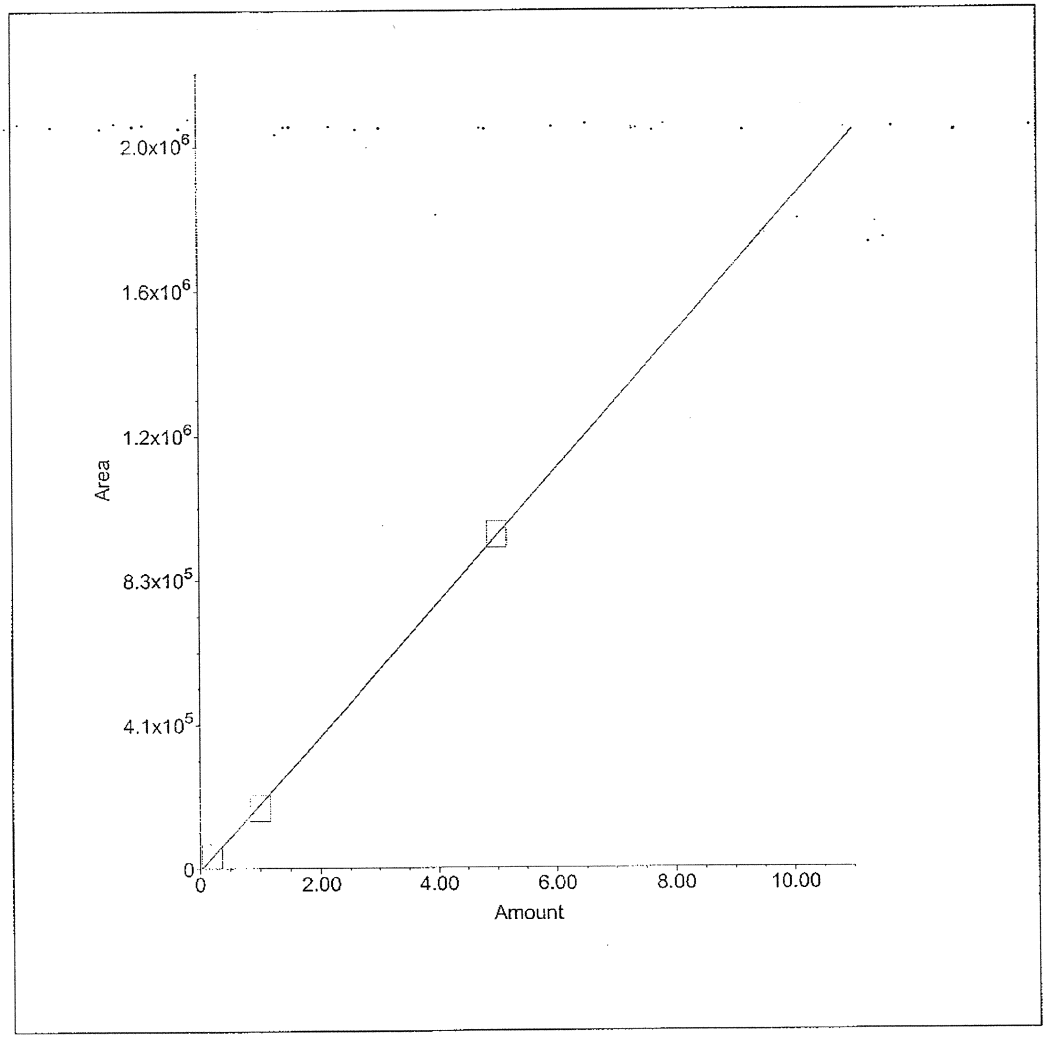
Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

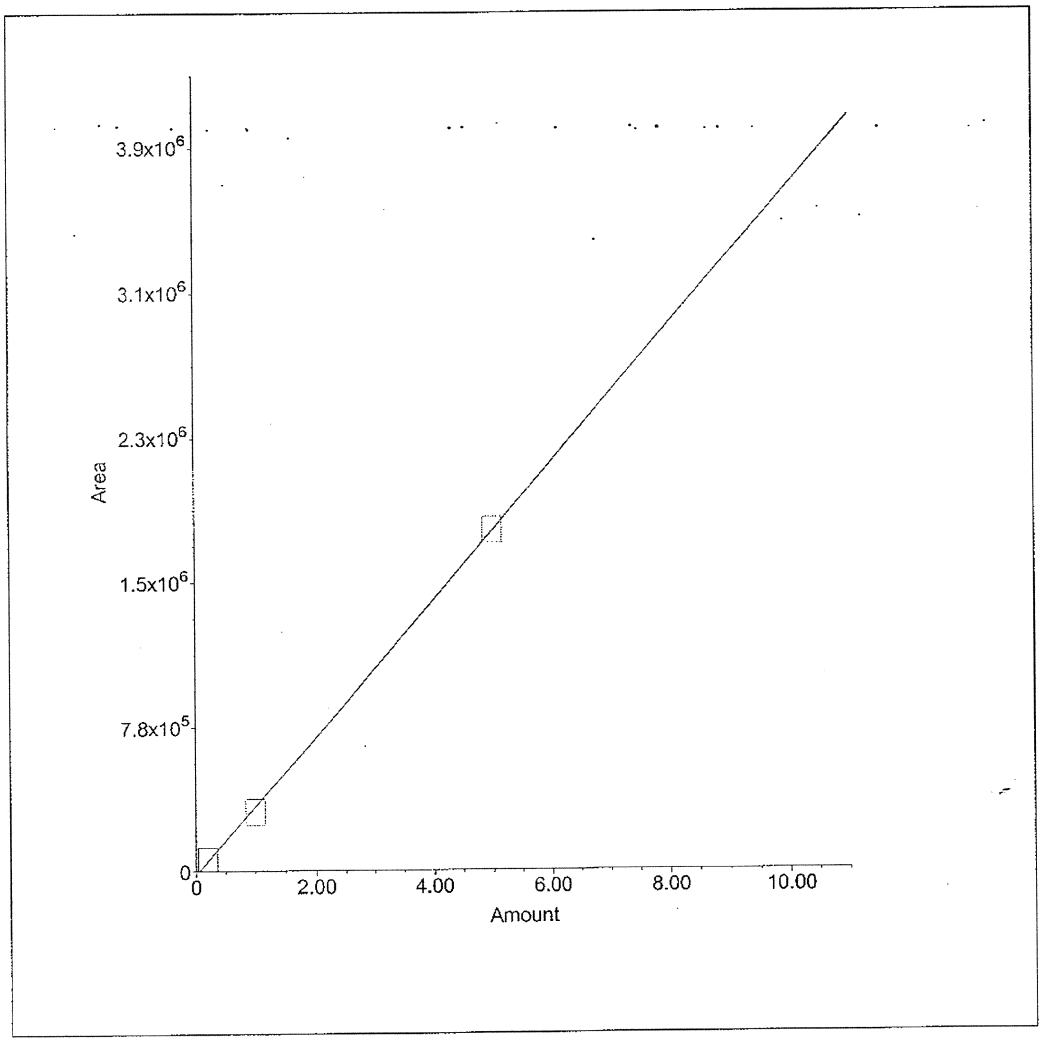
2150403604 423

2. Component:CHLORIDE,16887-00-6
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999697
Amt=5.178e-006*Resp+0.03786



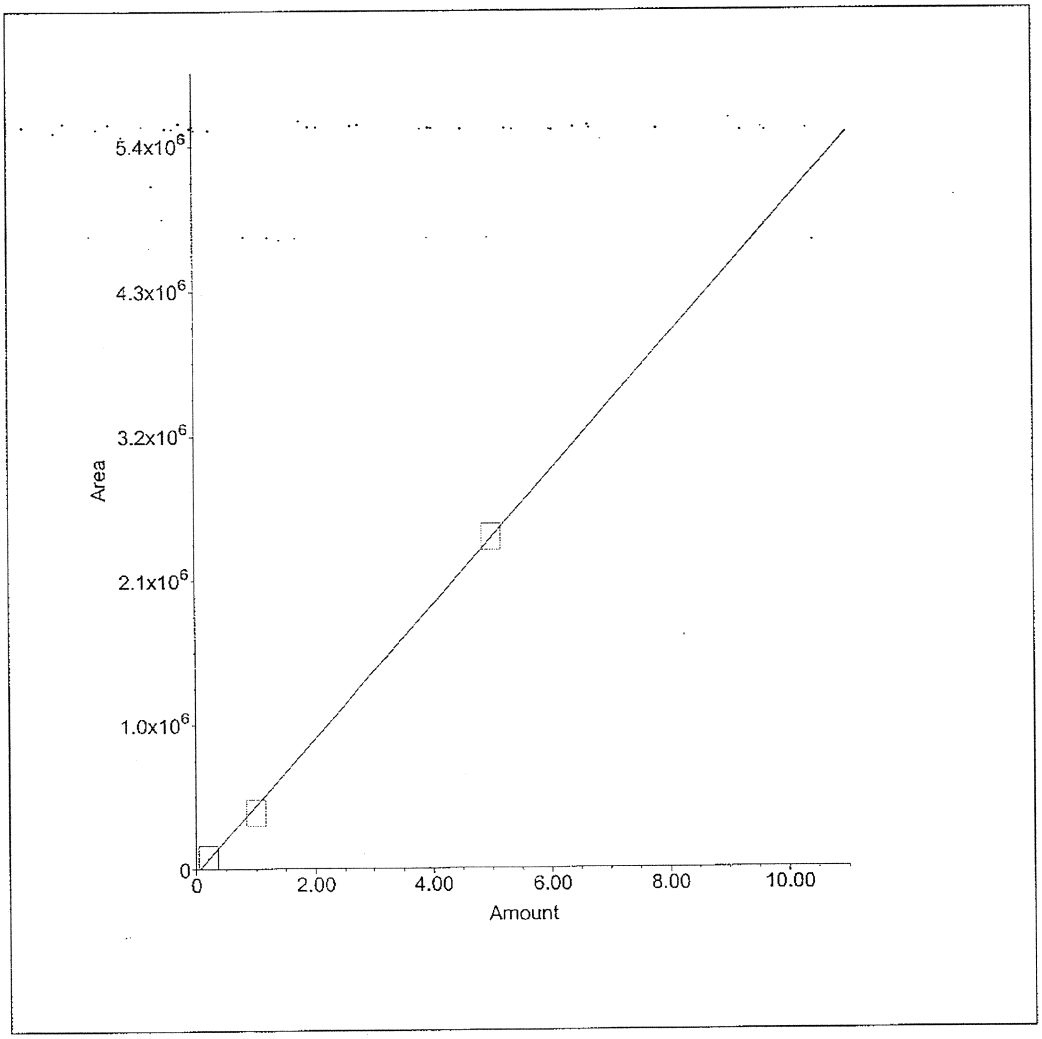
215040364 430

3. Component:NITRITE,14797-65-0
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999353
Amt=2.698e-006*Resp+0.05936



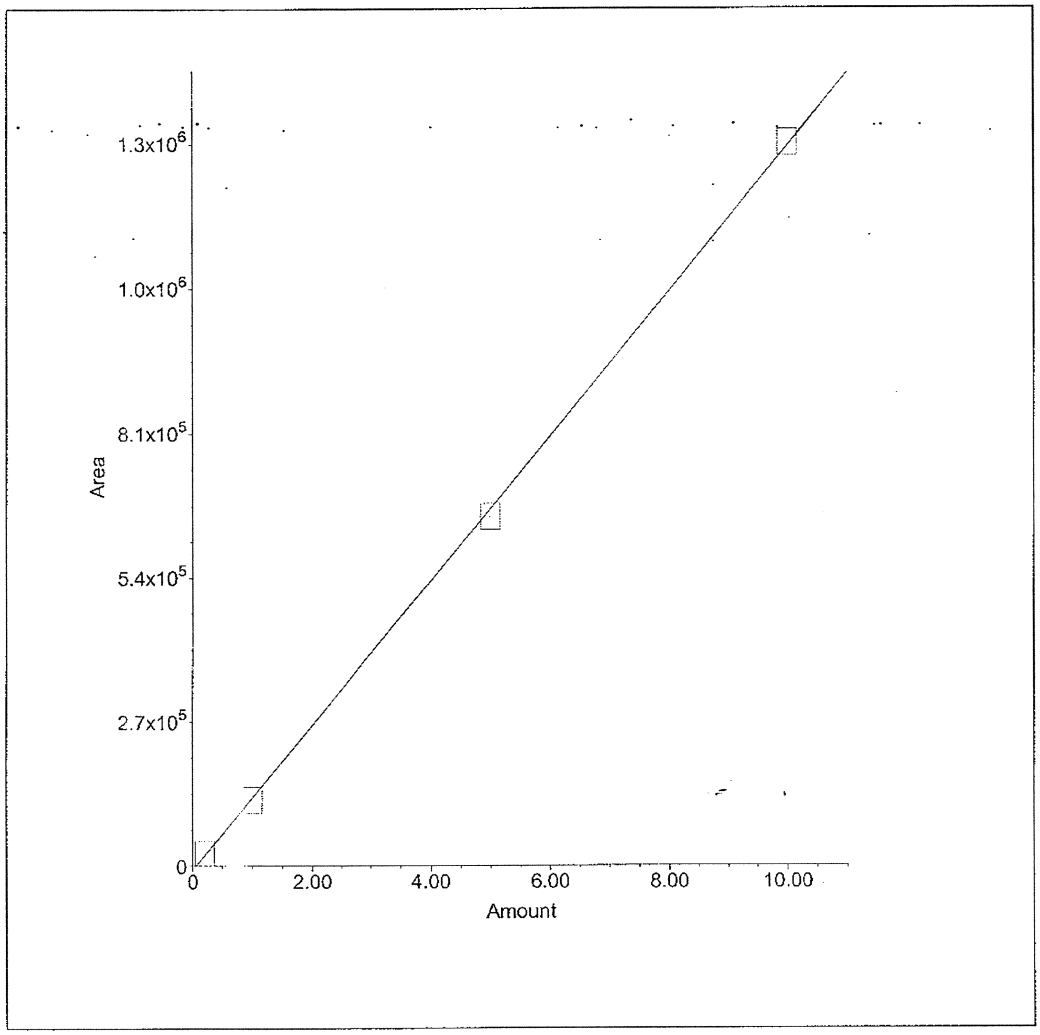
215040304 431

5. Component:NITRATE,14797-55-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999142
Amt=1.987e-006*Resp+0.06178



2150403004 432

6. Component:SULFATE,14808-79-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999736
Amt=7.385e-006*Resp+0.05606



2150406364 433

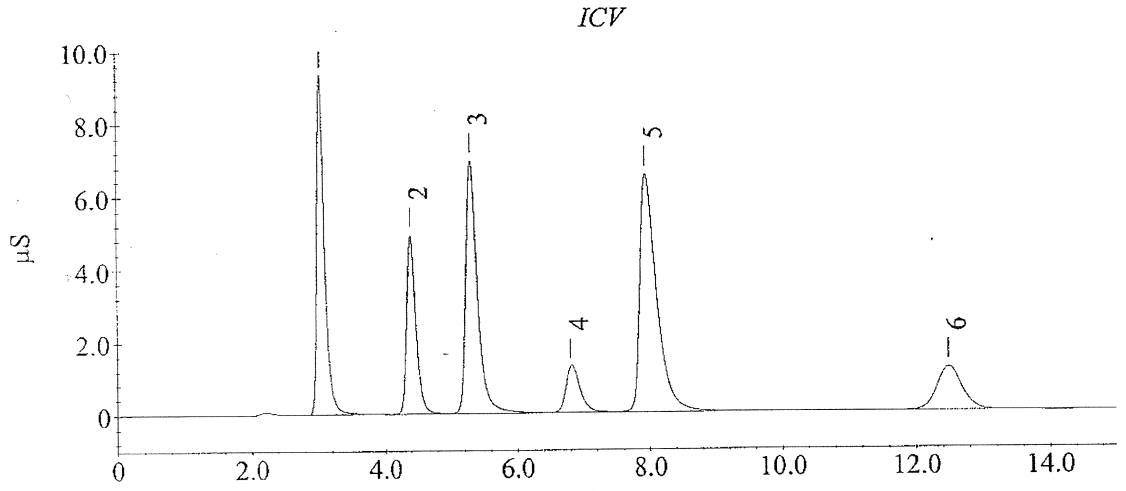
Sample Analysis Report

Sample Name : ICV
Data File Name : d:\peaknet\data\2015\032015\0325_009.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 18:05:00
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 9

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.04	2.260 90%	744790	93149
2	CHLORIDE,16887-00-6	4.40	2.363 95%	467424	49181
3	NITRITE,14797-65-0	5.31	2.303 92%	856124	69536
4	BROMIDE,24959-67-	6.80	2.424 97%	193843	12754
5	NITRATE,14797-55-	7.95	2.397 96%	1174961	65305
6	SULFATE,14808-79-	12.48	2.389 96%	315843	12016



2150400304 434

GCAL ANALYTICAL LABORATORIES, LLC

LACHAT STANDARD IDs

Date: 4-10-15
Analyst: JEM
HBN: 556029
Batch: 13682

Secondary Reviewer/Date: KMD 4-10-15

Test: Cyanide
Calibration Standard Lot: 2122618
Calibration Std. Exp: 5-31-15
Calibration ID: 1027-12-3
Calibration Date: 3-26-15
Calibration Exp: 5-31-15

Note: Calibration expires 6 months from calibration date or on the calibration standard expiration date, whichever is sooner, with the exception of chloride. The calibration for chloride expires 1 year from calibration date or on the calibration standard expiration date, whichever is sooner.

CHLORIDE - SM 4500-Cl E-2011 / EPA 9251

CCV (LCS) Standard ID _____
ICV Standard ID _____
0.5M Ferric Nitrate Lot/Exp. _____
Mercuric Thiocyanate Lot/Exp. _____
Color Reagent Lot/Exp. _____

N+N/NITRATE/NITRITE - EPA 353.2

N+N:
CCV (LCS) Standard ID _____
ICV Standard ID _____
Nitrite (NO_2):
CCV (LCS) Standard ID _____
ICV Standard ID _____
Reagents:
Ammonium Chloride Buffer Lot/Exp. _____
Sulfanilamide Color Reagent Lot/Exp. _____
Sodium Thiosulfate 0.025N Lot/Exp. _____
Calculations:
$NO_3 = N+N - NO_2$
Column Efficiency = (LCS N+N*100) / LCS NO_2 (must be 90-110%)
Column Efficiency _____

pH check and adjustment (if necessary):
Reagent used for pH adjustment: HCl or NH_4OH
HCl Concentrated Lot/Exp. _____
NH_4OH Concentrated Lot/Exp. _____
Initial and final pH for each sample recorded on Batch Sheet

CYANIDE - EPA 335.4 / SM 4500-Cn G-2011 / EPA 9012B

CCV Standard ID 1027-34-5
ICV Standard ID NA
Phosphate Buffer Lot/Exp. 1027-23-7/5-1-15
Chloramine T Lot/Exp. 1027-34-4/12-31-15
Pyridine Lot/Exp. 2122738/7-30-15
0.25N NaOH Lot/Exp. 1027-23-9/10-2-15
Prep Batch HBN 555604

PHENOLICS - EPA 420.4 / EPA 9066

CCV Standard ID _____
ICV Standard ID _____
Phenol Buffer Lot/Exp. _____
4-Aminoantipyrine Lot/Exp. _____
Prep Batch HBN _____

PHOSPHORUS - EPA 365.1

CCV Standard ID _____
ICV Standard ID _____
Ascorbic Acid Lot/Exp. _____
0.11N H2SO4 Lot/Exp. _____
Molybdate Color Lot/Exp. _____
Prep Batch HBN _____

Author: WET

Date : 04/10/2015

Original Run Filename: OM_04-10-2015_10-25-52.OMN created 04/10/2015 10:25:52
Original Run Author's Signature: [WET]
Current Run Filename: OM_04-10-2015_10-25-52.OMN last modified 04/10/2015 10:58:26
Current Run Author's Signature: [WET]
Description: Default New Run

Sample	Rep.	Channel 1 Cyanide~57-12-5 (mg/L)	Detection Time	MDF	
1800	1	0.0460	04/10/2015@10:26:44		92%
Known Conc:		0.0500			
1900	1	0.0025	04/10/2015@10:27:44		
Known Conc:		0.0000			
Calibration:		Table/Fig. 1			
1431265 mB	1	-0.0011	04/10/2015@10:28:43		
1431266 LCSLab	1	0.0195	04/10/2015@10:29:41		98%
1431267 LCS WT	1	0.1008	04/10/2015@10:30:40		101%
21504021701	1	-3.5909e-5	04/10/2015@10:31:38		
21504021703	1	-0.0007	04/10/2015@10:32:37		
21504021704	1	-0.0011	04/10/2015@10:33:35		
21504021706	1	-0.0125	04/10/2015@10:34:33		
21504021708 MS	1	0.0295	04/10/2015@10:35:30		30%
21504021709 MSD	1	0.0309	04/10/2015@10:36:28		31%
21504030401	1	0.0024	04/10/2015@10:37:25		
1800	1	0.0505	04/10/2015@10:38:22		101%
Known Conc:		0.0500			
1900	1	-0.0012	04/10/2015@10:39:18		
Known Conc:		0.0000			
21504030403	1	-0.0004	04/10/2015@10:40:14		
21504030501	1	-0.0003	04/10/2015@10:41:12		
21504030503	1	-0.0002	04/10/2015@10:42:12		
21504030701	1	-0.0002	04/10/2015@10:43:12		
21504030703	1	-0.0002	04/10/2015@10:44:10		
21504030601	1	7.5638e-5	04/10/2015@10:45:09		
21504040601	1	0.0007	04/10/2015@10:46:07		
21504040602	1	-0.0012	04/10/2015@10:47:06		
21504040603	1	-1.9435e-5	04/10/2015@10:48:05		
21504040701	1	0.0015	04/10/2015@10:49:02		
1800	1	0.0483	04/10/2015@10:50:00		97%
Known Conc:		0.0500			
1900	1	8.1177e-5	04/10/2015@10:50:57		
Known Conc:		0.0000			
21504040702	1	-0.0006	04/10/2015@10:51:55		
21504040703	1	-0.0005	04/10/2015@10:52:52		
21504040801	1	-0.0007	04/10/2015@10:53:48		
21504040802 MS	1	0.0732	04/10/2015@10:54:45		73%
21504040803 MSD	1	0.0724	04/10/2015@10:55:43		72%
~~1800~~	~~1~~	~~0.2966~~	~~04/10/2015@10:56:43~~		Rerun air spike
Known Conc:		0.0500			

Table 1: Cyanide~57-12-5

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2000	1	14.6586	1.0083	1.4	03/26/2015	10:46:41
2	0.1000	1	7.6946	0.5297	-2.8	03/26/2015	10:47:40
3	0.0500	1	3.8061	0.2588	-0.4	03/26/2015	10:48:40
4	0.0250	1	1.9361	0.1329	0.3	03/26/2015	10:49:38
5	0.0100	1	0.8219	0.0545	1.5	03/26/2015	10:50:37
6	0.0050	1	0.4677	0.0297	-0.7	03/26/2015	10:51:35
7	0.0000	1	0.0925	0.0008		03/26/2015	10:52:34

2150403004 436

Author: WET

Date : 04/10/2015

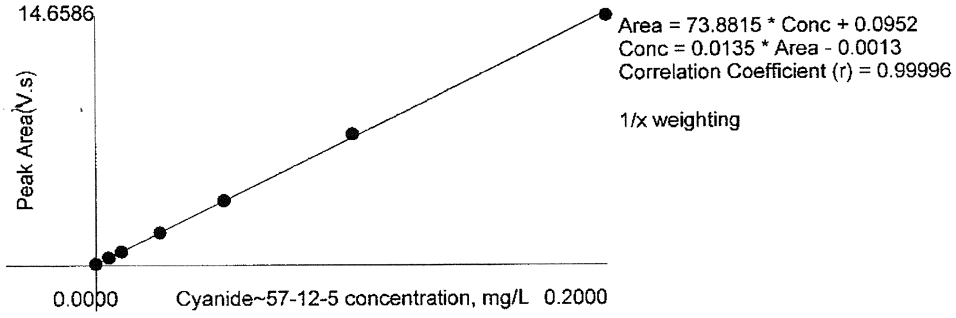
Original Run Filename: OM_04-10-2015_10-59-20.OMN created 04/10/2015 10:59:20
Original Run Author's Signature: [WET]
Current Run Filename: OM_04-10-2015_10-59-20.OMN last modified 04/10/2015 11:02:25
Current Run Author's Signature: [WET]
Description: Default New Run

Sample	Rep.	Channel 1 Cyanide~57-12-5 (mg/L)	Detection Time	MDF
1800	1	0.0513	04/10/2015@11:00:11	
Known Conc:		0.0500		
1900	1	-0.0002	04/10/2015@11:01:10	
Known Conc:		0.0000		
Calibration:		Table/Fig. 1		

Table 1: Cyanide~57-12-5

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2000	1	14.6586	1.0083	1.4	03/26/2015	10:46:41
2	0.1000	1	7.6946	0.5297	-2.8	03/26/2015	10:47:40
3	0.0500	1	3.8061	0.2588	-0.4	03/26/2015	10:48:40
4	0.0250	1	1.9361	0.1329	0.3	03/26/2015	10:49:38
5	0.0100	1	0.8219	0.0545	1.5	03/26/2015	10:50:37
6	0.0050	1	0.4677	0.0297	-0.7	03/26/2015	10:51:35
7	0.0000	1	0.0925	0.0008		03/26/2015	10:52:34

Figure 1: Cyanide~57-12-5



2159460304 437

CYANIDE DISTILLATION
EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

START	1030 4/5/15	END	1430	ANALYST	SMR
MATRIX	WATER SOLID			HBN:	555604

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	CHLORINE Yes No	SULFIDE Yes No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 555604 [INPR/14252]	1431265	50	50			MB		1.25M NaOH:1 9-10-2
2	QC ACCOUNT	LCS for HBN 555604 [INPR/14252	1431266	50	50			LCS		
3	QC ACCOUNT	LCSHI for HBN 555604 [INPR/142	1431267	50	50			LCSHI		Ca(OCl2):1 N/A
4	4747	M114MW002	21504021701	50	50			SAMPLE		
5	4747	M114MW004	21504021703	50	50			SAMPLE		0.1 NaS2O3:1
6	4747	M114MW003	21504021704	50	50			SAMPLE		
7	4747	M114MW001	21504021706	50	50			SAMPLE		Bi(NO3):2,3
8	4747	M114MW001-MS	21504021708	50	50			MS		
9	4747	M114MW001-SD	21504021709	50	50			MSD		Ascorbic Acid:2,3
10	4747	MWQ-24	21504030401	50	50			SAMPLE		
11	4747	MAO2MW001D	21504030403	50	50			SAMPLE		Sulfamic Acid:2,3 9-10-4
12	4747	MAO1MW002	21504030501	50	50			SAMPLE		
13	4747	MAO1MW001	21504030503	50	50			SAMPLE		1:1 H2SO4:2 9-9-6
14	4747	MA01MW004	21504030701	50	50			SAMPLE		
15	4747	MA01MW003	21504030703	50	50			SAMPLE		2.5M MgCl:2 9-10-10
16	4747	MA02MW001D-a	21504030601	50	50			SAMPLE		
17	4747	MWQ-21	21504040601	50	50			SAMPLE		Zn(C2H3O2):3 N/A
18	4747	MWQ-20	21504040602	50	50			SAMPLE		
19	4747	MWQ-19	21504040603	50	50			SAMPLE		0.1% Methyl Red:3
20	4747	MWQ-18	21504040701	50	50			SAMPLE		
21	4747	MWQ-2	21504040702	50	50			SAMPLE		Acetate Buffer:3
22	4747	MWQ-2-a	21504040703	50	50			FLDDUP		
23	4747	MWQ-22	21504040801	50	50			SAMPLE		5% NaOH (CLP):4
24	4747	MWQ-22-MS	21504040802	50	50			MS		
25	4747	MWQ-22-MSD	21504040803	50	50			MSD		1.0N NaOH:1,2,3
26										

Type of cyanide prep: CNC-Total=2, CNAC-Amenable=1, CNFR-Free=3, CNC-CLP=4
COMMENTS:

BALANCE ID: N/A TEMP: 150°C

LCS/MS SPIKE ID	9-9-11	CONC:	10ppm			Analyst Review	DATE
LCS LOW VOL	100µL	LCS HIGH VOL	500µL	LCS CLP VOL	N/A	SMR	4/5/15
MS WATER VOL	500µL	MS SOLID VOL	N/A				
						Secondary Review	DATE
SPIKE WITNESS	N/A					DA	4-6-15

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040203

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

- 24 Hour
- 5 Day
- Standard X
- Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Control Num	Equipment Blank	Trip Blank Lot ontrol Number	Cooler ID
MWQ-24		04022015	1210		N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-1	C
MWQ-24-C		04022015	1210		TB	1	WQ	3	X													-2	C
MA02MW001D		04022015	1406	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	C
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Client ID: 4747 - TRINITY Analysis & Development Corp.
SDG: 215040304
Due Date: 04/10/15

Comments: Dissolved metals were field filtered

Note: MA02MW001D-a VOC vials (3) are also in this cooler (C)

5958093814708 3

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1200			
2.	FedEx 4315		9:50	DocuMeine 4315		9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	4
Method of Shipment:	FedEx	Airbill Number:	
Analytical Lab:	GCAL	Delivery Location:	Baton Rouge, LA
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040202

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												Quality Assurance Samples (6)			
MA01MW002		04072015	0925		N	1	WG	13	X	X	X	X	X	X	X	X	X	X			215040305	-1	B
MA01MW002-C		04072015	0925		TB	1	WQ	3	X													-2	B
MA01MW001		04072015	1020	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

E9180 9381 4093 3 4E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1700			
2.	FedEx	4-3-15	9:50	Dodie McCune	4-3-15	950
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1 of 1

Project Number: A012-113

Chain of Custody Number (1): ~~15040306~~ 15040204

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												Quality Assurance Samples (6)			
MA02MW0010-9		04022015	1406		FD	1	WG	13	X	X	X	X	X	X	X	X	X	X			2150403306	-1	D
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments: Dissolved metals were field filtered

Note: VOC vials are in Cooler "C" 5980 9381 4719 1424

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1700			
2.	FedEx	4-3-15	9:50	Doug McClure	4-3-15	9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040201

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy) *	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
																					215040307		
MA01MW004		04022015 *	0940		N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-1	A
MA01MW004-c		↓	0940		TB	1	WQ	3	X													-2	A
MA01MW003		↓	1059	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments: Dissolved metals were field filtered 5080 9381 4682 2.6 E24 * taken from containers 4-6-15 BGM

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-2-15	1700			
2.	FedEx	4-3-15	9:50	DocuMcaine	4-3-15	9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040302

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												**Quality Assurance Samples (6)**			
																				215040406			
MWQ-21		04032015	1045		N	1	WG	8	X	X	X	X	X	X	X							-1	B
MWQ-20		04032015	1207		N	1	WG	8	X	X	X	X	X	X	X							-2	B
MWQ-19		04032015	1210	-	N	1	WG	8	X	X	X	X	X	X	X							-3	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 4999 1317 0.6E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/3/15	1630			
2.	FedEx	4-4-15	9:45	Dodie McCune	4-4-15	945
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040303

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												**Quality Assurance Samples (6)**			
MWQ-18		04032015	1250		N	1	WG	8	X	X	X	X	X	X	X						215040407	-1	C
MWQ-2		04032015	1420		N	1	WG	8	X	X	X	X	X	X	X							-2	C
MWQ-2-a		04032015	1420	-	FD	1	WG	8	X	X	X	X	X	X	X							-3	C
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 5000 3582 1.4E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-3-15	1630			
2.	FedEx 4415		9:45	Dawn Mcaure 4415		9:45
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 1504030l

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5)

Quality Assurance Samples (6)

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
																					215040408		
MWQ-22		04032015	0935		N	1	WG	8	X	X	X	X	X	X	X							-1	A
MWQ-22-MS		04032015	0935		MS	1	WG	8	X	X	X	X	X	X	X							-2	A
MWQ-22-MSD		04032015	0935	-	SD	1	WG	8	X	X	X	X	X	X	X							-3	A
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 4999 7017 3724

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-3-15	1630			
2.	FedEx	4-4-15	9:45	Dodi McCune	4-4-15	9:45
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040304

SAMPLE DELIVERY GROUP 215040304	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/03/15 04/04/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
5980 9381 4708		3.2
7804 4999 7017		3.2
7804 5000 3582		1.4
7804 4999 1317		0.6
5980 9381 4682		2.6
5980 9381 4719		1.4
5980 9381 4693		3.6

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040305

SAMPLE DELIVERY GROUP 215040305	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/03/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
598093814693		3.6

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

195 150403017

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040306

SAMPLE DELIVERY GROUP 215040306	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/03/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
598093814719		1.4

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040307

SAMPLE DELIVERY GROUP 215040307	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/03/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
598093814682		2.6

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

SEP 2015 RECEIVED

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040406

SAMPLE DELIVERY GROUP 215040406

Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/04/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
780449991317		0.6

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.4

215040304 450

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040407

SAMPLE DELIVERY GROUP 215040407	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/04/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
780450003582		1.4

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

TSP 20150407

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040408

SAMPLE DELIVERY GROUP 215040408

Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** McCune, Dodie N.
Line Item(s) 1 - Waters	**Receive Date(s)** 04/04/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E24	Temp(°C)
780449997017		3.2

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

April 14, 2015

Brenda Martinez
GCAL LAB
7979 GSRI AVENUE
BATON ROUGE, LA 70820
TEL: (225) 769-4900
FAX (225) 767-5717

Order No.: 1504057

RE: DoD Perchlorate

Dear Brenda Martinez:

DHL Analytical, Inc. received 14 sample(s) on 4/7/2015 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory Certification Number: T104704211-14-13 & DoD-ELAP #L14-26

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GCAL ANALYTICAL LABORATORIES, LLC

7979 INNOVATION PARK DR, BATON ROUGE LA 70820-7402
(225) 769-4900 FAX (225) 767-5717

Chain of Custody Record

#1504057

Submitted by		Bill to	
Client:	Gulf Coast Analytical Labs	Client:	Gulf Coast Analytical Labs
Address:	7979 Innovation Park Dr.	Address:	7979 Innovation Park Dr.
	Baton Rouge LA 70820		Baton Rouge LA 70820
Contact:	Brenda Martinez	Contact:	Brenda Martinez
Phone:	225-769-4900	Phone:	225-769-4900
Fax:	225-767-5717	Fax:	225-767-5717

P.O. Number

Project Name/Number: 215040304

Sampled By:

* Our P. O. Number must appear on the Invoice.

* Our Project Number must appear on the final report.

Matrix	Date	Time (2400)	Comp	Grab	Sample Description	Pre-servatives	No. Con-tainers	Perchlorate by 6860	Remarks(for GCAL use only. DO NOT include in final report):	Lab ID
W	4/2/2015	12:10		01	MWQ-24	NA	1	X	215040304-01	
W	4/2/2015	14:06		02	MA02MW001D	NA	1	X	215040304-03	
W	4/2/2015	14:06		03	MA02MW001D-a	NA	1	X	215040306-01	
W	4/2/2015	9:25		04	MA02MW002 03 4/7/15 from Brenda	NA	1	X	215040305-01	
W	4/2/2015	10:20		05	MA01MW001	NA	1	X	215040305-03	
W	4/2/2015	9:40		06	MA01MW004	NA	1	X	215040307-01	
W	4/2/2015	10:59		07	MA01MW003	NA	1	X	215040307-03	
W	4/3/2015	10:45		08	MWQ-21	NA	1	X	215040406-01	
W	4/3/2015	12:07		09	MWQ-20	NA	1	X	215040406-02	
W	4/3/2015	12:10		10	MWQ-19	NA	1	X	215040406-03	

Turn Around Time: ___ 24 - 48 hrs ___ 3 days ___ 1 week X standard ___ other

Relinquished by: (Signature) Marcus	Received by: (Signature) Fed Ex	Date: 4/6/15	Time: 1700
Relinquished by: (Signature) Dedeaux	Received by: (Signature) Barb	Date: 4/7/15	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note: Rec temp 0.3 Therm #37

Please emal results to brenda.martinez@gcal.com

PLEASE RETURN ICE CHESTS TO 7979 Innovation Park Dr. 5 Coolers (intact)

Matrix: W = water, S=Soil, SD=Solid, L=Liquid, SL=Sludge, O=Oil, CT=Charcoal Tube, OVM=Organic Vapor Monitor, XT=XAD Tube, A=Air Bag, SUM=Summa Canister

GCAL ANALYTICAL LABORATORIES, LLC

1504051

Submitted by
Client: Gulf Coast Analytical Labs
Address: 7979 Innovation Park Dr.
Baton Rouge LA 70820
Contact: Brenda Martinez
Phone: 225-769-4900
Fax: 225-767-5717

Bill to
Client: Gulf Coast Analytical Labs
Address: 7979 Innovation Park Dr.
Baton Rouge LA 70820
Contact: Brenda Martinez
Phone: 225-769-4900
Fax: 225-767-5717

P.O. Number

Project Name/Number: 215040304

Sampled By:

Matrix	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No. Containers	Perchlorate by 6860	Remarks(for GCAL use only. DO NOT include in final report):
W	4/3/2015	12:50		11	MWQ-18	NA	1	X	215040407-01
W	4/3/2015	14:20		12	MWQ-2	NA	1	X	215040407-02
W	4/3/2015	14:20		13	MWQ-2-a	NA	1	X	215040407-03
W	4/3/2015	9:35		14	MWQ-22	NA	1	X	215040408-01
W	4/3/2015	9:35			MWQ-22-MS	NA	1	X	215040408-02
W	4/3/2015	9:35			MWQ-22-MSD	NA	1	X	215040408-03

Turn Around Time: ___ 24 - 48 hrs ___ 3 days ___ 1 week X standard other _____

Marcus Jeedies	FedEx Ball	4/6/15 4/7/15	1700 1020

Note:
Please emal results to brenda.martinez@gcal.com
PLEASE RETURN ICE CHESTS TO 7979 Innovation Park Dr.

ORIGIN ID:OPLA (225) 769-4900
CHARLOTTE SAUCIER
GULF COAST ANALYTICAL LABS INC
7979 INNOVATION DR

BATON ROUGE, LA 70820
UNITED STATES US

SHIP DATE: 06APR15
ACTWGT: 12.0 LB MAN
CAD: 0291381/CAFE2704

BILL SENDER

TO JOHN DUPONT
DHL
2300 DOUBLE CREEK DRIVE

ROUND ROCK TX 78664
(512) 388-8222
INV:
PO:
REF:
DEPT:

518C2/8FC5/6F03

FedEx Express

J13 113052301126

TRK# 0201 5980 9381 6722

TUE - 07 APR 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US AUS

Part # 165627A-434 MAIT 08-07

GCAL
ANALYTICAL LABORATORIES, LLC

CUSTODY SEAL

Date Sealed: 4-6-15

This package conforms to the conditions and limitations specified in 49 CFR 173.4

Sealed By: JL

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GCAL LAB | Date Received: 4/7/2015

Work Order Number 1504057 | Received by JB

Checklist completed by: [signature] 4/7/2015 (Signature / Date) | Reviewed by AL 4/7/2015 (Initials / Date)

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑ 04/21/15	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	0.3 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted GCAL Date contacted: 4/7/15 Person contacted Brenda

Contacted by: JBarker Regarding Sample ID.

Comments: Per Brenda, MA02MW002 should be MA01MW002.

Corrective Action Changed sample ID on COC per clients request.

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: DoD Perchlorate	**Date: 4/14/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1504057**
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	**X**				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	**X**				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	**X**				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	**X**				
		3) Were calculations checked by a peer or supervisor?	**X**				
		4) Were all analyte identifications checked by a peer or supervisor?	**X**				
		5) Were sample quantitation limits reported for all analytes not detected?	**X**				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			**X**		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			**X**		
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?			**X**		
		9) If required for the project, TICs reported?					
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	**X**				
		2) Were blanks analyzed at the appropriate frequency?	**X**				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	**X**				
		4) Were blank concentrations < MQL?	**X**				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	**X**				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	**X**				
		3) Were LCSs analyzed at the required frequency?	**X**				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	**X**				
		6) Was the LCSD RPD within QC limits (if applicable)?			**X**		
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	**X**				
		2) Were MS/MSD analyzed at the appropriate frequency?	**X**				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		4) Were MS/MSD RPDs within laboratory QC limits?	**X**				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?			**X**		
		2) Were analytical duplicates analyzed at the appropriate frequency?			**X**		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			**X**		
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	**X**				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	**X**				
		3) Are unadjusted MQLs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	**X**				
		2) Were all necessary corrective actions performed for the reported data?	**X**				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.
Laboratory Review Checklist (continued): Supporting Data

Project Name: DoD Perchlorate	**Date: 4/14/2015**
Reviewer Name: Angie O'Donnell	**Laboratory Work Order: 1504057**

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	**X**				
		2) Were percent RSDs or correlation coefficient criteria met?	**X**				
		3) Was the number of standards recommended in the method used for all analytes?	**X**				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	**X**				
		5) Are ICAL data available for all instruments used?	**X**				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	**X**				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)**					
		1) Was the CCV analyzed at the method-required frequency?	**X**				
		2) Were percent differences for each analyte within the method-required QC limits?	**X**				
		3) Was the ICAL curve verified for each analyte?	**X**				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			**X**		
S3	O	**Mass Spectral Tuning**					
		1) Was the appropriate compound for the method used for tuning?	**X**				
		2) Were ion abundance data within the method-required QC limits?	**X**				
S4	O	**Internal Standards (IS)**					
		1) Were IS area counts and retention times within the method-required QC limits?	**X**				
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	**X**				
		2) Were data associated with manual integrations flagged on the raw data?	**X**				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			**X**		
S7	O	**Tentatively Identified Compounds (TICs)**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			**X**		
S8	I	**Interference Check Sample (ICS) Results**					
		1) Were percent recoveries within method QC limits?			**X**		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			**X**		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?			**X**		
		2) Is the MDL either adjusted or supported by the analysis of DCSs?			**X**		
S11	OI	**Proficiency Test Reports**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	**X**				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	**X**				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	**X**				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	**X**				
		2) Is documentation of the analyst's competency up-to-date and on file?	**X**				
S15	OI	**Verification/Validation Documentation for Methods (NELAC Chap 5)**					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	**X**				
S16	OI	**Laboratory Standard Operating Procedures (SOPs)**					
		1) Are laboratory SOPs current and on file for each method performed?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC 5.13
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
R5 Test reports/summary forms for blank samples;
R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) the amount of analyte measured in the duplicate,
  b) the calculated RPD, and
  c) the laboratory's QC limits for analytical duplicates.
R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director

Signature

04/14/15

Date

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT: GCAL LAB
Project: DoD Perchlorate
Lab Order: 1504057

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC. The "U" flag , in the Analytical Report, indicates the results for that sample are nondetect.

Samples were analyzed using the methods outlined in the following references:

Method E332.0/SW6860 - Perchlorate Analysis (Parameter is ELAP Accredited but not NELAC Certified)

Exception Report R1-01

The samples were received on and log-in performed on 4/3/2015. A total of 14 samples were received and analyzed. The samples arrived in good condition and were properly packaged. The Sample identification for MA01MW002 was confirmed and corrected on 4/7/2015, per the client.

A summary of project communication follows:

Request for quote was sent to DHL Analytical from the client, via email on 5/5/11 and the quote was sent to client via email on 5/5/11. Email for work approved by both parties on 5/18/11 with P.O number 12-0969.

Client sent samples in own containers.

This sample delivery group arrived at DHL Analytical and sample summary sent via email from Log-in to client on 4/7/2015. These documents are kept in the project folder.

DHL project manager/qa staff discussed with client the following issues:
via phone on 4/7/2015 - between GCAL and DHL, discussing sample IDs.

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT: GCAL LAB
Project: DoD Perchlorate
Lab Order: 1504057

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1504057-01	MWQ-24		04/02/15 12:10 PM	4/7/2015
1504057-02	MA02MW001D		04/02/15 02:06 PM	4/7/2015
1504057-03	MA02MW001D-a		04/02/15 02:06 PM	4/7/2015
1504057-04	MA01MW002		04/02/15 09:25 AM	4/7/2015
1504057-05	MA01MW001		04/02/15 10:20 AM	4/7/2015
1504057-06	MA01MW004		04/02/15 09:40 AM	4/7/2015
1504057-07	MA01MW003		04/02/15 10:59 AM	4/7/2015
1504057-08	MWQ-21		04/03/15 10:45 AM	4/7/2015
1504057-09	MWQ-20		04/03/15 12:07 PM	4/7/2015
1504057-10	MWQ-19		04/03/15 12:10 PM	4/7/2015
1504057-11	MWQ-18		04/03/15 12:50 PM	4/7/2015
1504057-12	MWQ-2		04/03/15 02:20 PM	4/7/2015
1504057-13	MWQ-2-a		04/03/15 02:20 PM	4/7/2015
1504057-14	MWQ-22		04/03/15 09:35 AM	4/7/2015

Lab Order: 1504057
Client: GCAL LAB
Project: DoD Perchlorate

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1504057-01A	MWQ-24	04/02/15 12:10 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-02A	MA02MW001D	04/02/15 02:06 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
	MA02MW001D	04/02/15 02:06 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-03A	MA02MW001D-a	04/02/15 02:06 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
	MA02MW001D-a	04/02/15 02:06 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-04A	MA01MW002	04/02/15 09:25 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-05A	MA01MW001	04/02/15 10:20 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-06A	MA01MW004	04/02/15 09:40 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-07A	MA01MW003	04/02/15 10:59 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-08A	MWQ-21	04/03/15 10:45 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-09A	MWQ-20	04/03/15 12:07 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-10A	MWQ-19	04/03/15 12:10 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-11A	MWQ-18	04/03/15 12:50 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-12A	MWQ-2	04/03/15 02:20 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-13A	MWQ-2-a	04/03/15 02:20 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504057-14A	MWQ-22	04/03/15 09:35 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037

Lab Order: 1504057
Client: GCAL LAB
Project: DoD Perchlorate

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1504057-01A	MWQ-24	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 03:30 PM	ICMS2_150409A
1504057-02A	MA02MW001D	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 03:46 PM	ICMS2_150409A
	MA02MW001D	Aqueous	SW6860	Perchlorate - Water	69037	10	04/09/15 08:38 PM	ICMS2_150409A
1504057-03A	MA02MW001D-a	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 04:02 PM	ICMS2_150409A
	MA02MW001D-a	Aqueous	SW6860	Perchlorate - Water	69037	10	04/09/15 08:55 PM	ICMS2_150409A
1504057-04A	MA01MW002	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 04:18 PM	ICMS2_150409A
1504057-05A	MA01MW001	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 04:37 PM	ICMS2_150409A
1504057-06A	MA01MW004	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 04:53 PM	ICMS2_150409A
1504057-07A	MA01MW003	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 05:58 PM	ICMS2_150409A
1504057-08A	MWQ-21	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 06:14 PM	ICMS2_150409A
1504057-09A	MWQ-20	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 06:30 PM	ICMS2_150409A
1504057-10A	MWQ-19	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 06:46 PM	ICMS2_150409A
1504057-11A	MWQ-18	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 07:02 PM	ICMS2_150409A
1504057-12A	MWQ-2	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 07:18 PM	ICMS2_150409A
1504057-13A	MWQ-2-a	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 07:34 PM	ICMS2_150409A
1504057-14A	MWQ-22	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 07:50 PM	ICMS2_150409A

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-24
Project:	DoD Perchlorate	**Lab ID:**	1504057-01
Project No:	215040304	**Collection Date:**	04/02/15 12:10 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000124	0.000100	0.000300	JN	mg/L	1	04/09/15 03:30 PM
IS: Perchlorate_107	118	0	50-150	N	%REC	1	04/09/15 03:30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA02MW001D
Project:	DoD Perchlorate	**Lab ID:**	1504057-02
Project No:	215040304	**Collection Date:**	04/02/15 02:06 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.0143	0.00100	0.00300	N	mg/L	10	04/09/15 08:38 PM
IS: Perchlorate_107	105	0	50-150	N	%REC	10	04/09/15 08:38 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA02MW001D-a
Project:	DoD Perchlorate	**Lab ID:**	1504057-03
Project No:	215040304	**Collection Date:**	04/02/15 02:06 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.0125	0.00100	0.00300	N	mg/L	10	04/09/15 08:55 PM
IS: Perchlorate_107	105	0	50-150	N	%REC	10	04/09/15 08:55 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW002
Project:	DoD Perchlorate	**Lab ID:**	1504057-04
Project No:	215040304	**Collection Date:**	04/02/15 09:25 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00186	0.000100	0.000300	N	mg/L	1	04/09/15 04:18 PM
IS: Perchlorate_107	96.9	0	50-150	N	%REC	1	04/09/15 04:18 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW001
Project:	DoD Perchlorate	**Lab ID:**	1504057-05
Project No:	215040304	**Collection Date:**	04/02/15 10:20 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000310	0.000100	0.000300	N	mg/L	1	04/09/15 04:37 PM
IS: Perchlorate_107	99.3	0	50-150	N	%REC	1	04/09/15 04:37 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW004
Project:	DoD Perchlorate	**Lab ID:**	1504057-06
Project No:	215040304	**Collection Date:**	04/02/15 09:40 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00373	0.000100	0.000300	N	mg/L	1	04/09/15 04:53 PM
IS: Perchlorate_107	104	0	50-150	N	%REC	1	04/09/15 04:53 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MA01MW003
Project:	DoD Perchlorate	**Lab ID:**	1504057-07
Project No:	215040304	**Collection Date:**	04/02/15 10:59 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000339	0.000100	0.000300	N	mg/L	1	04/09/15 05:58 PM
IS: Perchlorate_107	108	0	50-150	N	%REC	1	04/09/15 05:58 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-21
Project:	DoD Perchlorate	**Lab ID:**	1504057-08
Project No:	215040304	**Collection Date:**	04/03/15 10:45 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00918	0.000100	0.000300	N	mg/L	1	04/09/15 06:14 PM
IS: Perchlorate_107	104	0	50-150	N	%REC	1	04/09/15 06:14 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-20
Project:	DoD Perchlorate	**Lab ID:**	1504057-09
Project No:	215040304	**Collection Date:**	04/03/15 12:07 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000100	0.000100	0.000300	NU	mg/L	1	04/09/15 06:30 PM
IS: Perchlorate_107	63.7	0	50-150	N	%REC	1	04/09/15 06:30 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-19
Project:	DoD Perchlorate	**Lab ID:**	1504057-10
Project No:	215040304	**Collection Date:**	04/03/15 12:10 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000100	0.000100	0.000300	NU	mg/L	1	04/09/15 06:46 PM
IS: Perchlorate_107	68.5	0	50-150	N	%REC	1	04/09/15 06:46 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-18
Project:	DoD Perchlorate	**Lab ID:**	1504057-11
Project No:	215040304	**Collection Date:**	04/03/15 12:50 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00455	0.000100	0.000300	N	mg/L	1	04/09/15 07:02 PM
IS: Perchlorate_107	106	0	50-150	N	%REC	1	04/09/15 07:02 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-2
Project:	DoD Perchlorate	**Lab ID:**	1504057-12
Project No:	215040304	**Collection Date:**	04/03/15 02:20 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000100	0.000100	0.000300	NU	mg/L	1	04/09/15 07:18 PM
IS: Perchlorate_107	76.6	0	50-150	N	%REC	1	04/09/15 07:18 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-2-a
Project:	DoD Perchlorate	**Lab ID:**	1504057-13
Project No:	215040304	**Collection Date:**	04/03/15 02:20 PM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000100	0.000100	0.000300	NU	mg/L	1	04/09/15 07:34 PM
IS: Perchlorate_107	71.9	0	50-150	N	%REC	1	04/09/15 07:34 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *14-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	MWQ-22
Project:	DoD Perchlorate	**Lab ID:**	1504057-14
Project No:	215040304	**Collection Date:**	04/03/15 09:35 AM
Lab Order:	1504057	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.000100	0.000100	0.000300	NU	mg/L	1	04/09/15 07:50 PM
IS: Perchlorate_107	102	0	50-150	N	%REC	1	04/09/15 07:50 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

CLIENT: GCAL LAB
Work Order: 1504057
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

The QC data in batch 69037 applies to the following samples: 1504057-01A, 1504057-02A, 1504057-03A, 1504057-04A, 1504057-05A, 1504057-06A, 1504057-07A, 1504057-08A, 1504057-09A, 1504057-10A, 1504057-11A, 1504057-12A, 1504057-13A, 1504057-14A

Sample ID **MB-69037** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MBLK** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 1:21:59 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000100	0.000300								NU
IS: Perchlorate_107	0.00101		0.00100		135	50	150			N

Sample ID **LCS-69037** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **LCS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 1:38:03 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000311	0.000300	0.000300	0	104	85	115			N
IS: Perchlorate_107	0.00101		0.00100		98.7	50	150			N

Sample ID **1504041-04A MS** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 2:58:24 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00344	0.000300	0.000300	0.00310	111	85	115			N
IS: Perchlorate_107	0.00101		0.00100		68.7	50	150			N

Sample ID **1504041-04A MSD** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 3:14:28 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00336	0.000300	0.000300	0.00310	85.2	85	115	2.32	20	N
IS: Perchlorate_107	0.00101		0.00100		65.0	50	150	0	0	N

Sample ID **1504057-14A MS** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 8:06:47 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000305	0.000300	0.000300	0	102	85	115			N
IS: Perchlorate_107	0.00101		0.00100		102	50	150			N

Sample ID **1504057-14A MSD** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 8:22:51 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000313	0.000300	0.000300	0	104	85	115	2.61	20	N
IS: Perchlorate_107	0.00101		0.00100		105	50	150	0	0	N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1504057
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

Sample ID **ICV-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 11:59:56 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00196	0.000300	0.00200	0	98.1	85	115			N
IS: Perchlorate_107	0.00100		0.00100		118	50	150			N

Sample ID **LCVL1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 12:16:01 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000217	0.000300	0.000200	0	108	70	130			N
IS: Perchlorate_107	0.00100		0.00100		131	50	150			N

Sample ID **ICS1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICS**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 12:32:05 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000327	0.000300	0.000300	0	109	70	130			N
IS: Perchlorate_107	0.00100		0.00100		102	50	150			N

Sample ID **CCV1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 5:10:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00514	0.000300	0.00500	0	103	85	115			N
IS: Perchlorate_107	0.00100		0.00100		121	50	150			N

Sample ID **LCVL2-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 5:26:04 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000225	0.000300	0.000200	0	112	70	130			N
IS: Perchlorate_107	0.00100		0.00100		131	50	150			N

Sample ID **CCV2-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 9:11:04 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00513	0.000300	0.00500	0	103	85	115			N
IS: Perchlorate_107	0.00100		0.00100		113	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1504057
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

Sample ID **LCVL3-150409** Batch ID: **R79000** TestNo: **SW6860** Units: **mg/L**
SampType: **LCVL** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 9:27:09 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000220	0.000300	0.000200	0	110	70	130			N
IS: Perchlorate_107	0.00100		0.00100		124	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Lab Order: 1504057
Client: GCAL LAB
Project: DoD Perchlorate

Sequence Report

Run ID: ICMS2_150409A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
LRB1-150409	-----	SW6860	R79000	1	4/9/2015 11:43:52 AM		A
ICV-150409	-----	SW6860	R79000	1	4/9/2015 11:59:56 AM		A
LCVL1-150409	-----	SW6860	R79000	1	4/9/2015 12:16:01 PM		A
ICS1-150409	-----	SW6860	R79000	1	4/9/2015 12:32:05 PM		A
MB-69037	-----	SW6860	69037	1	4/9/2015 1:21:59 PM	4/9/2015 8:45:52 AM	A
LCS-69037	-----	SW6860	69037	1	4/9/2015 1:38:03 PM	4/9/2015 8:45:52 AM	A
1504041-04A MS	-----	SW6860	69037	1	4/9/2015 2:58:24 PM	4/9/2015 8:45:52 AM	A
1504041-04A MSD	-----	SW6860	69037	1	4/9/2015 3:14:28 PM	4/9/2015 8:45:52 AM	A
1504057-01A	MWQ-24	SW6860	69037	1	4/9/2015 3:30:32 PM	4/9/2015 8:45:52 AM	A
1504057-02A	MA02MW001D	SW6860	69037	1	4/9/2015 3:46:37 PM	4/9/2015 8:45:52 AM	A
1504057-03A	MA02MW001D-a	SW6860	69037	1	4/9/2015 4:02:41 PM	4/9/2015 8:45:52 AM	A
1504057-04A	MA01MW002	SW6860	69037	1	4/9/2015 4:18:45 PM	4/9/2015 8:45:52 AM	A
1504057-05A	MA01MW001	SW6860	69037	1	4/9/2015 4:37:51 PM	4/9/2015 8:45:52 AM	A
1504057-06A	MA01MW004	SW6860	69037	1	4/9/2015 4:53:56 PM	4/9/2015 8:45:52 AM	A
CCV1-150409	-----	SW6860	R79000	1	4/9/2015 5:10:00 PM		A
LCVL2-150409	-----	SW6860	R79000	1	4/9/2015 5:26:04 PM		A
LRB2-150409	-----	SW6860	R79000	1	4/9/2015 5:42:08 PM		A
1504057-07A	MA01MW003	SW6860	69037	1	4/9/2015 5:58:12 PM	4/9/2015 8:45:52 AM	A
1504057-08A	MWQ-21	SW6860	69037	1	4/9/2015 6:14:17 PM	4/9/2015 8:45:52 AM	A
1504057-09A	MWQ-20	SW6860	69037	1	4/9/2015 6:30:21 PM	4/9/2015 8:45:52 AM	A
1504057-10A	MWQ-19	SW6860	69037	1	4/9/2015 6:46:25 PM	4/9/2015 8:45:52 AM	A
1504057-11A	MWQ-18	SW6860	69037	1	4/9/2015 7:02:30 PM	4/9/2015 8:45:52 AM	A
1504057-12A	MWQ-2	SW6860	69037	1	4/9/2015 7:18:34 PM	4/9/2015 8:45:52 AM	A
1504057-13A	MWQ-2-a	SW6860	69037	1	4/9/2015 7:34:38 PM	4/9/2015 8:45:52 AM	A
1504057-14A	MWQ-22	SW6860	69037	1	4/9/2015 7:50:43 PM	4/9/2015 8:45:52 AM	A
1504057-14A MS	MWQ-22MS	SW6860	69037	1	4/9/2015 8:06:47 PM	4/9/2015 8:45:52 AM	A
1504057-14A MSD	MWQ-22MSD	SW6860	69037	1	4/9/2015 8:22:51 PM	4/9/2015 8:45:52 AM	A
1504057-02A	MA02MW001D	SW6860	69037	10	4/9/2015 8:38:56 PM	4/9/2015 8:45:52 AM	A
1504057-03A	MA02MW001D-a	SW6860	69037	10	4/9/2015 8:55:00 PM	4/9/2015 8:45:52 AM	A
CCV2-150409	-----	SW6860	R79000	1	4/9/2015 9:11:04 PM		A
LCVL3-150409	-----	SW6860	R79000	1	4/9/2015 9:27:09 PM		A
LRB3-150409	-----	SW6860	R79000	1	4/9/2015 9:43:13 PM		A

GCAL
ANALYTICAL LABORATORIES, LLC

NELAP CERTIFICATE NUMBER: 01955
DOD ELAP CERTIFICATE NUMBER: L14-243

ANALYTICAL RESULTS

PERFORMED BY

GCAL, LLC
7979 Innovation Park Dr.
Baton Rouge, LA 70820

Report Date 04/15/2015

GCAL Report 215040217

Deliver To	Trinity A&D 1002 N Eglin Pkwy Shalimar, FL 32579 850-613-6800
Attn	Jonathan Kramer

Project Melrose

PJLA Testing DoD ELAP

ISO 17025

NELAP ACCREDITED TNI LABORATORY

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
MDL	Method Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
DL	Dilution
N	Metals Matrix Spike or Matrix Spike Duplicate Recovery is outside control limits
00:00	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
U	Indicates the compound was analyzed for but not detected
B	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
GCAL Report 215040217

Case Narrative

Client: TRINITY Analysis & Development Corp. **Report:** 215040217

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

In the EPA 8330A analysis for prep batch 555459, the MS/MSD exhibited sporadic recovery and RPD failures. Affected analytes are flagged "J" on Form 1 for the MS/MSD parent sample. HMX was recovered outside of the established control limits for the LCS and/or LCSD. The LCS/LCSD an exhibited RPD failure for 4-Nitrotoluene.

METALS

In the EPA 6020A Total and Dissolved analyses, samples 21504021701 (M114MW002), 21504021703 (M114MW004), 21504021704 (M114MW003), 21504021706 (M114MW001), 21504021708 (M114MW001-MS) and 21504021709 (M114MW001-SD) had to be diluted in order to bracket the concentration within the calibration range of the instrument and due to a chemical or physical interference.

In the EPA 6020A analysis for prep batch 555449, the MS/MSD recoveries and RPD are not applicable for Calcium, Magnesium and Sodium because the sample concentration is greater than four times the spike concentration. The MS and/or MSD recovery is outside the control limits for Selenium. The LCS recovery is within the control limits. This indicates the analysis is in control and the sample is affected by matrix interference.

In the EPA 6020A Dissolved analysis for prep batch 555448, the MS/MSD recoveries and RPD are not applicable for Calcium, Magnesium and Sodium because the sample concentration is greater than four times the spike concentration.

CONVENTIONALS

In the EPA 300.0 and Rev 2.1 analysis, samples 21504021708 (M114MW001-MS), 21504021709 (M114MW001-SD), 21504021701 (M114MW002), 21504021703 (M114MW004), 21504021704 (M114MW003) and 21504021706 (M114MW001) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 300.0 and Rev 2.1 analysis, a chemical or physical interference necessitated a dilution for samples 21504021701 (M114MW002), 21504021703 (M114MW004), 21504021704 (M114MW003) and 21504021706 (M114MW001). This is reflected in the elevated reporting limit.

In the EPA 9012B analysis for analytical batch 556029, the MS and/or MSD recovery is outside control limits for Cyanide. The LCS recovery is acceptable. This indicates the analysis is in control and the sample is affected by a matrix interference.

MISCELLANEOUS

See Subcontract report for any case narrative.

Q Flag Summary Report
Lab Work Order ID: **215040217**

Lab Sample ID: **21504021701**

Analysis Date: **4/4/2015 2:03:00 AM**

Analyte	CAS	CCV OUL	LCS/LCSD OUL	SURROGATE OUL	ANALYTE NC	IS OUL	CLCCV OUL
4-Nitrotoluene	99-99-0		X				
HMX	2691-41-0		X				

Lab Sample ID: **21504021703**

Analysis Date: **4/4/2015 2:42:00 AM**

Analyte	CAS	CCV OUL	LCS/LCSD OUL	SURROGATE OUL	ANALYTE NC	IS OUL	CLCCV OUL
4-Nitrotoluene	99-99-0		X				
HMX	2691-41-0		X				

Lab Sample ID: **21504021704**

Analysis Date: **4/4/2015 3:21:00 AM**

Analyte	CAS	CCV OUL	LCS/LCSD OUL	SURROGATE OUL	ANALYTE NC	IS OUL	CLCCV OUL
4-Nitrotoluene	99-99-0		X				
HMX	2691-41-0		X				

Lab Sample ID: **21504021706**

Analysis Date: **4/4/2015 4:00:00 AM**

Analyte	CAS	CCV OUL	LCS/LCSD OUL	SURROGATE OUL	ANALYTE NC	IS OUL	CLCCV OUL
4-Nitrotoluene	99-99-0		X				
HMX	2691-41-0		X				

CCV OUL=CCV out of limits
LCS/LCSD OUL=LCS/LCSD out of limits
SURROGATE OUL=Surrogate out of limits
ANALYTE NC=The analyte did not confirm
IS OUL=Internal Standard out of limits
CLCCV OUL=Closing CCV out of limits

Sample Test Summary Report: 215040217

Lab Sample ID	Cust. Sample ID	Matrix	Proc. Desc.
21504021701	M114MW002	W	SM 2540C TDS
21504021701	M114MW002	W	SM 2320B Alkalinity Water
21504021701	M114MW002	W	EPA 300.0 Inorganic Anions
21504021701	M114MW002	W	EPA 6020A
21504021701	M114MW002	W	EPA 6020A Dissolved
21504021701	M114MW002	W	EPA 6020A Dissolved Prep
21504021701	M114MW002	W	EPA 6020A Water Prep
21504021701	M114MW002	W	EPA 7470A
21504021701	M114MW002	W	EPA 7470A
21504021701	M114MW002	W	EPA 7470A Dissolved Prep
21504021701	M114MW002	W	EPA 7470A Dissolved
21504021701	M114MW002	W	EPA 8260B
21504021701	M114MW002	W	EPA 8330A Water
21504021701	M114MW002	W	EPA 8330A Prep Water
21504021701	M114MW002	W	EPA 9012B Cyanide Water
21504021701	M114MW002	W	EPA 9012B Cyanide Prep Water
21504021701	M114MW002	W	Ship work pending results
21504021702	M114MW002-c	W	EPA 8260B
21504021703	M114MW004	W	SM 2540C TDS
21504021703	M114MW004	W	SM 2320B Alkalinity Water
21504021703	M114MW004	W	EPA 300.0 Inorganic Anions
21504021703	M114MW004	W	EPA 6020A
21504021703	M114MW004	W	EPA 6020A Dissolved
21504021703	M114MW004	W	EPA 6020A Dissolved Prep
21504021703	M114MW004	W	EPA 6020A Water Prep
21504021703	M114MW004	W	EPA 7470A
21504021703	M114MW004	W	EPA 7470A
21504021703	M114MW004	W	EPA 7470A Dissolved Prep
21504021703	M114MW004	W	EPA 7470A Dissolved
21504021703	M114MW004	W	EPA 8260B
21504021703	M114MW004	W	EPA 8330A Water
21504021703	M114MW004	W	EPA 8330A Prep Water
21504021703	M114MW004	W	EPA 9012B Cyanide Water
21504021703	M114MW004	W	EPA 9012B Cyanide Prep Water
21504021703	M114MW004	W	Ship work pending results
21504021704	M114MW003	W	SM 2540C TDS
21504021704	M114MW003	W	SM 2320B Alkalinity Water
21504021704	M114MW003	W	EPA 300.0 Inorganic Anions
21504021704	M114MW003	W	EPA 6020A
21504021704	M114MW003	W	EPA 6020A Dissolved
21504021704	M114MW003	W	EPA 6020A Dissolved Prep
21504021704	M114MW003	W	EPA 6020A Water Prep
21504021704	M114MW003	W	EPA 7470A
21504021704	M114MW003	W	EPA 7470A
21504021704	M114MW003	W	EPA 7470A Dissolved Prep
21504021704	M114MW003	W	EPA 7470A Dissolved
21504021704	M114MW003	W	EPA 8260B

21504021704	M114MW003	W	EPA 8330A Water
21504021704	M114MW003	W	EPA 8330A Prep Water
21504021704	M114MW003	W	EPA 9012B Cyanide Water
21504021704	M114MW003	W	EPA 9012B Cyanide Prep Water
21504021704	M114MW003	W	Ship work pending results
21504021705	M114MW003-c	W	EPA 8260B
21504021706	M114MW001	W	SM 2540C TDS
21504021706	M114MW001	W	SM 2320B Alkalinity Water
21504021706	M114MW001	W	EPA 300.0 Inorganic Anions
21504021706	M114MW001	W	EPA 6020A
21504021706	M114MW001	W	EPA 6020A Dissolved
21504021706	M114MW001	W	EPA 6020A Dissolved Prep
21504021706	M114MW001	W	EPA 6020A Water Prep
21504021706	M114MW001	W	EPA 7470A
21504021706	M114MW001	W	EPA 7470A
21504021706	M114MW001	W	EPA 7470A Dissolved Prep
21504021706	M114MW001	W	EPA 7470A Dissolved
21504021706	M114MW001	W	EPA 8260B
21504021706	M114MW001	W	EPA 8330A Water
21504021706	M114MW001	W	EPA 8330A Prep Water
21504021706	M114MW001	W	EPA 9012B Cyanide Water
21504021706	M114MW001	W	EPA 9012B Cyanide Prep Water
21504021706	M114MW001	W	Ship work pending results
21504021707	M114MW001-c	W	EPA 8260B
21504021708	M114MW001-MS	W	EPA 300.0 Inorganic Anions
21504021708	M114MW001-MS	W	EPA 6020A
21504021708	M114MW001-MS	W	EPA 6020A Dissolved
21504021708	M114MW001-MS	W	EPA 6020A Dissolved Prep
21504021708	M114MW001-MS	W	EPA 6020A Water Prep
21504021708	M114MW001-MS	W	EPA 7470A
21504021708	M114MW001-MS	W	EPA 7470A
21504021708	M114MW001-MS	W	EPA 7470A Dissolved Prep
21504021708	M114MW001-MS	W	EPA 7470A Dissolved
21504021708	M114MW001-MS	W	EPA 8260B
21504021708	M114MW001-MS	W	EPA 8330A Water
21504021708	M114MW001-MS	W	EPA 8330A Prep Water
21504021708	M114MW001-MS	W	EPA 9012B Cyanide Water
21504021708	M114MW001-MS	W	EPA 9012B Cyanide Prep Water
21504021708	M114MW001-MS	W	Ship work pending results
21504021709	M114MW001-SD	W	EPA 300.0 Inorganic Anions
21504021709	M114MW001-SD	W	EPA 6020A
21504021709	M114MW001-SD	W	EPA 6020A Dissolved
21504021709	M114MW001-SD	W	EPA 6020A Dissolved Prep
21504021709	M114MW001-SD	W	EPA 6020A Water Prep
21504021709	M114MW001-SD	W	EPA 7470A
21504021709	M114MW001-SD	W	EPA 7470A
21504021709	M114MW001-SD	W	EPA 7470A Dissolved Prep
21504021709	M114MW001-SD	W	EPA 7470A Dissolved
21504021709	M114MW001-SD	W	EPA 8260B
21504021709	M114MW001-SD	W	EPA 8330A Water

21504021709	M114MW001-SD	W	EPA 8330A Prep Water	
21504021709	M114MW001-SD	W	EPA 9012B Cyanide Water	
21504021709	M114MW001-SD	W	EPA 9012B Cyanide Prep Water	
21504021709	M114MW001-SD	W	Ship work pending results	

Manual Integrations: 215040217

Lab Sample ID	Cust. Sample ID	Prod. Desc.	Compound	Comp. Name	
21504021708	M114MW001-MS	EPA 8330A	121-14-2	2,4-Dinitrotoluene	
21504021708	M114MW001-MS	EPA 8330A	19406-51-0	4-Amino-2,6-dinitrotoluene	
21504021708	M114MW001-MS	EPA 8330A	35572-78-2	2-Amino-4,6-dinitrotoluene	
21504021708	M114MW001-MS	EPA 8330A	606-20-2	2,6-Dinitrotoluene	
21504021708	M114MW001-MS	EPA 8330A	78-11-5	Pentaerythritol Tetranitrate	
21504021708	M114MW001-MS	EPA 8330A	88-72-2	2-Nitrotoluene	
21504021708	M114MW001-MS	EPA 8330A	99-99-0	4-Nitrotoluene	
21504021709	M114MW001-SD	EPA 8260B	98-06-6	tert-Butylbenzene	

Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21504021701	M114MW002	Water	04/01/2015 11:45	04/02/2015 10:00
21504021702	M114MW002-c	Water	04/01/2015 11:45	04/02/2015 10:00
21504021703	M114MW004	Water	04/01/2015 13:25	04/02/2015 10:00
21504021704	M114MW003	Water	04/01/2015 11:26	04/02/2015 10:00
21504021705	M114MW003-c	Water	04/01/2015 11:26	04/02/2015 10:00
21504021706	M114MW001	Water	04/01/2015 12:53	04/02/2015 10:00
21504021707	M114MW001-c	Water	04/01/2015 12:53	04/02/2015 10:00
21504021708	M114MW001-MS	Water	04/01/2015 12:53	04/02/2015 10:00
21504021709	M114MW001-SD	Water	04/01/2015 12:53	04/02/2015 10:00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504021701

Lab File ID: 2150406/m4443

Date Collected: 04/01/15 Time: 1145

Date Received: 04/02/15

Date Analyzed: 04/06/15 Time: 1751

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021701

Level: (low/med)

Lab File ID: 2150406/m4443

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1145

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV12

Date Analyzed: 04/06/15 Time: 1751

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021701

Level: (low/med) Lab File ID: 2150406/m4443

% Moisture: not dec. Date Collected: 04/01/15 Time: 1145

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1751

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021702

Level: (low/med) Lab File ID: 2150406/m4444

% Moisture: not dec. Date Collected: 04/01/15 Time: 1145

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1813

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021702

Level: (low/med) Lab File ID: 2150406/m4444

% Moisture: not dec. Date Collected: 04/01/15 Time: 1145

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1813

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW002-c
-

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021702

Level: (low/med)

Lab File ID: 2150406/m4444

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1145

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV12

Date Analyzed: 04/06/15 Time: 1813

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021703

Level: (low/med) Lab File ID: 2150406/m4445

% Moisture: not dec. Date Collected: 04/01/15 Time: 1325

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1836

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504021703

Lab File ID: 2150406/m4445

Date Collected: 04/01/15 Time: 1325

Date Received: 04/02/15

Date Analyzed: 04/06/15 Time: 1836

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW004

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021703

Level: (low/med)

Lab File ID: 2150406/m4445

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1325

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV12

Date Analyzed: 04/06/15 Time: 1836

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021704

Level: (low/med) Lab File ID: 2150406/m4446

% Moisture: not dec. Date Collected: 04/01/15 Time: 1126

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1859

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021704

Level: (low/med) Lab File ID: 2150406/m4446

% Moisture: not dec. Date Collected: 04/01/15 Time: 1126

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1859

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021704

Level: (low/med) Lab File ID: 2150406/m4446

% Moisture: not dec. Date Collected: 04/01/15 Time: 1126

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1859

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504021705

Lab File ID: 2150406/m4447

Date Collected: 04/01/15 Time: 1126

Date Received: 04/02/15

Date Analyzed: 04/06/15 Time: 1921

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021705

Level: (low/med) Lab File ID: 2150406/m4447

% Moisture: not dec. Date Collected: 04/01/15 Time: 1126

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1921

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW003-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021705

Level: (low/med) Lab File ID: 2150406/m4447

% Moisture: not dec. Date Collected: 04/01/15 Time: 1126

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1921

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021706

Level: (low/med) Lab File ID: 2150402/a3033

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2137

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021706

Level: (low/med) Lab File ID: 2150402/a3033

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2137

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021706

Level: (low/med) Lab File ID: 2150402/a3033

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2137

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021707

Level: (low/med) Lab File ID: 2150406/m4448

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1944

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
67-64-1	Acetone	0.193	U	0.193	5.00
71-43-2	Benzene	0.111	U	0.111	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 21504021707

Lab File ID: 2150406/m4448

Date Collected: 04/01/15 Time: 1253

Date Received: 04/02/15

Date Analyzed: 04/06/15 Time: 1944

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
108-90-7	Chlorobenzene	0.083	U	0.083	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
108-88-3	Toluene	0.122	U	0.122	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-c

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021707

Level: (low/med)

Lab File ID: 2150406/m4448

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV12

Date Analyzed: 04/06/15 Time: 1944

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021708

Level: (low/med)

Lab File ID: 2150402/a3034

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV13

Date Analyzed: 04/02/15 Time: 2159

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	55.9		0.120	1.00
71-55-6	1,1,1-Trichloroethane	58.9		0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	54.1		0.109	1.00
79-00-5	1,1,2-Trichloroethane	54.1		0.159	1.00
75-34-3	1,1-Dichloroethane	57.0		0.171	1.00
75-35-4	1,1-Dichloroethene	60.4		0.200	1.00
563-58-6	1,1-Dichloropropene	52.8		0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	52.4		0.079	1.00
96-18-4	1,2,3-Trichloropropane	53.0		0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	51.5		0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	54.2		0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	50.1		0.194	1.00
106-93-4	1,2-Dibromoethane	55.7		0.102	1.00
95-50-1	1,2-Dichlorobenzene	58.0		0.135	1.00
107-06-2	1,2-Dichloroethane	56.8		0.116	1.00
78-87-5	1,2-Dichloropropane	58.8		0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	54.5		0.066	1.00
541-73-1	1,3-Dichlorobenzene	57.3		0.138	1.00
142-28-9	1,3-Dichloropropane	56.6		0.059	1.00
106-46-7	1,4-Dichlorobenzene	55.8		0.083	1.00
594-20-7	2,2-Dichloropropane	61.6		0.170	1.00
78-93-3	2-Butanone	41.3		0.142	5.00
95-49-8	2-Chlorotoluene	53.7		0.080	1.00
591-78-6	2-Hexanone	40.7		0.122	5.00
106-43-4	4-Chlorotoluene	53.5		0.124	1.00
99-87-6	4-Isopropyltoluene	53.4		0.070	1.00
108-10-1	4-Methyl-2-pentanone	53.3		0.120	5.00
67-64-1	Acetone	31.2		0.193	5.00
71-43-2	Benzene	60.0		0.111	1.00
108-86-1	Bromobenzene	55.8		0.145	1.00
74-97-5	Bromochloromethane	61.9		0.127	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021708

Level: (low/med) Lab File ID: 2150402/a3034

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2159

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	56.9		0.083	1.00
75-25-2	Bromoform	52.8		0.215	1.00
74-83-9	Bromomethane	60.1		0.427	1.00
75-15-0	Carbon disulfide	59.4		0.190	1.00
56-23-5	Carbon tetrachloride	59.0		0.248	1.00
108-90-7	Chlorobenzene	56.4		0.083	1.00
75-00-3	Chloroethane	62.2		0.235	1.00
67-66-3	Chloroform	56.6		0.155	1.00
74-87-3	Chloromethane	55.5		0.144	1.00
74-95-3	Dibromomethane	55.3		0.211	1.00
75-71-8	Dichlorodifluoromethane	57.2		0.145	1.00
100-41-4	Ethylbenzene	54.9		0.109	1.00
87-68-3	Hexachlorobutadiene	50.7		0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	53.5		0.130	1.00
75-09-2	Methylene chloride	56.9		0.149	5.00
91-20-3	Naphthalene	50.1		0.176	1.00
100-42-5	Styrene	36.0		0.089	1.00
127-18-4	Tetrachloroethene	57.6		0.193	1.00
108-88-3	Toluene	55.8		0.122	1.00
79-01-6	Trichloroethene	56.2		0.161	1.00
75-69-4	Trichlorofluoromethane	61.9		0.157	1.00
75-01-4	Vinyl chloride	58.5		0.127	1.00
156-59-2	cis-1,2-Dichloroethene	59.5		0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	50.7		0.124	1.00
136777-61-2	m,p-Xylene	110		0.123	2.00
104-51-8	n-Butylbenzene	52.1		0.123	1.00
103-65-1	n-Propylbenzene	53.4		0.727	1.00
95-47-6	o-Xylene	54.4		0.055	1.00
135-98-8	sec-Butylbenzene	52.5		0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	59.7		0.078	5.00
98-06-6	tert-Butylbenzene	52.6		0.087	1.00
156-60-5	trans-1,2-Dichloroethene	63.4		0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-MS

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 21504021708

Level: (low/med)

Lab File ID: 2150402/a3034

% Moisture: not dec.

Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received: 04/02/15

Instrument ID: MSV13

Date Analyzed: 04/02/15 Time: 2159

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	54.0		0.128	1.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-SD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021709

Level: (low/med) Lab File ID: 2150402/a3035

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2222

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
630-20-6	1,1,1,2-Tetrachloroethane	54.6		0.120	1.00
71-55-6	1,1,1-Trichloroethane	56.4		0.123	1.00
79-34-5	1,1,2,2-Tetrachloroethane	55.0		0.109	1.00
79-00-5	1,1,2-Trichloroethane	54.0		0.159	1.00
75-34-3	1,1-Dichloroethane	55.4		0.171	1.00
75-35-4	1,1-Dichloroethene	56.8		0.200	1.00
563-58-6	1,1-Dichloropropene	50.9		0.052	1.00
87-61-6	1,2,3-Trichlorobenzene	51.9		0.079	1.00
96-18-4	1,2,3-Trichloropropane	51.9		0.065	1.00
120-82-1	1,2,4-Trichlorobenzene	50.8		0.105	1.00
95-63-6	1,2,4-Trimethylbenzene	53.0		0.084	1.00
96-12-8	1,2-Dibromo-3-chloropropane	51.5		0.194	1.00
106-93-4	1,2-Dibromoethane	55.2		0.102	1.00
95-50-1	1,2-Dichlorobenzene	57.4		0.135	1.00
107-06-2	1,2-Dichloroethane	55.6		0.116	1.00
78-87-5	1,2-Dichloropropane	57.5		0.150	1.00
108-67-8	1,3,5-Trimethylbenzene	53.3		0.066	1.00
541-73-1	1,3-Dichlorobenzene	56.8		0.138	1.00
142-28-9	1,3-Dichloropropane	56.0		0.059	1.00
106-46-7	1,4-Dichlorobenzene	54.4		0.083	1.00
594-20-7	2,2-Dichloropropane	59.2		0.170	1.00
78-93-3	2-Butanone	40.9		0.142	5.00
95-49-8	2-Chlorotoluene	52.7		0.080	1.00
591-78-6	2-Hexanone	41.6		0.122	5.00
106-43-4	4-Chlorotoluene	52.5		0.124	1.00
99-87-6	4-Isopropyltoluene	51.9		0.070	1.00
108-10-1	4-Methyl-2-pentanone	53.3		0.120	5.00
67-64-1	Acetone	31.4		0.193	5.00
71-43-2	Benzene	58.1		0.111	1.00
108-86-1	Bromobenzene	55.5		0.145	1.00
74-97-5	Bromochloromethane	61.3		0.127	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-SD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021709

Level: (low/med) Lab File ID: 2150402/a3035

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2222

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
75-27-4	Bromodichloromethane	56.1		0.083	1.00
75-25-2	Bromoform	52.1		0.215	1.00
74-83-9	Bromomethane	59.8		0.427	1.00
75-15-0	Carbon disulfide	56.6		0.190	1.00
56-23-5	Carbon tetrachloride	57.3		0.248	1.00
108-90-7	Chlorobenzene	54.5		0.083	1.00
75-00-3	Chloroethane	59.5		0.235	1.00
67-66-3	Chloroform	55.1		0.155	1.00
74-87-3	Chloromethane	52.9		0.144	1.00
74-95-3	Dibromomethane	53.8		0.211	1.00
75-71-8	Dichlorodifluoromethane	56.2		0.145	1.00
100-41-4	Ethylbenzene	53.1		0.109	1.00
87-68-3	Hexachlorobutadiene	49.1		0.265	1.00
98-82-8	Isopropylbenzene (Cumene)	51.5		0.130	1.00
75-09-2	Methylene chloride	56.1		0.149	5.00
91-20-3	Naphthalene	50.6		0.176	1.00
100-42-5	Styrene	32.5		0.089	1.00
127-18-4	Tetrachloroethene	54.6		0.193	1.00
108-88-3	Toluene	53.7		0.122	1.00
79-01-6	Trichloroethene	53.6		0.161	1.00
75-69-4	Trichlorofluoromethane	59.7		0.157	1.00
75-01-4	Vinyl chloride	58.2		0.127	1.00
156-59-2	cis-1,2-Dichloroethene	58.8		0.103	1.00
10061-01-5	cis-1,3-Dichloropropene	49.4		0.124	1.00
136777-61-2	m,p-Xylene	106		0.123	2.00
104-51-8	n-Butylbenzene	50.9		0.123	1.00
103-65-1	n-Propylbenzene	52.2		0.727	1.00
95-47-6	o-Xylene	52.6		0.055	1.00
135-98-8	sec-Butylbenzene	50.7		0.107	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	59.4		0.078	5.00
98-06-6	tert-Butylbenzene	51.1		0.087	1.00
156-60-5	trans-1,2-Dichloroethene	57.1		0.077	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

M114MW001-SD

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 21504021709

Level: (low/med) Lab File ID: 2150402/a3035

% Moisture: not dec. Date Collected: 04/01/15 Time: 1253

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received: 04/02/15

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2222

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
10061-02-6	trans-1,3-Dichloropropene	52.5		0.128	1.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1430749

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 1430749

Level: (low/med) Lab File ID: 2150402/a3029

% Moisture: not dec. Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received:

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2006

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.193	U	0.193	5.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1430749

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 1430749

Level: (low/med) Lab File ID: 2150402/a3029

% Moisture: not dec. Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received:

Instrument ID: MSV13 Date Analyzed: 04/02/15 Time: 2006

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555492

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.111	U	0.111	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
108-88-3	Toluene	0.122	U	0.122	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1430749

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 1430749

Level: (low/med)

Lab File ID: 2150402/a3029

% Moisture: not dec.

Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm)

Date Received:

Instrument ID: MSV13

Date Analyzed: 04/02/15 Time: 2006

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 555492

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.083	U	0.083	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 1431562

Level: (low/med) Lab File ID: 2150406/m4440

% Moisture: not dec. Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received:

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1643

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
67-64-1	Acetone	0.193	U	0.193	5.00
74-97-5	Bromochloromethane	0.127	U	0.127	1.00
75-27-4	Bromodichloromethane	0.083	U	0.083	1.00
75-25-2	Bromoform	0.215	U	0.215	1.00
74-83-9	Bromomethane	0.427	U	0.427	1.00
75-15-0	Carbon disulfide	0.190	U	0.190	1.00
56-23-5	Carbon tetrachloride	0.248	U	0.248	1.00
75-00-3	Chloroethane	0.235	U	0.235	1.00
136777-61-2	m,p-Xylene	0.123	U	0.123	2.00
67-66-3	Chloroform	0.155	U	0.155	1.00
74-87-3	Chloromethane	0.144	U	0.144	1.00
74-95-3	Dibromomethane	0.211	U	0.211	1.00
75-71-8	Dichlorodifluoromethane	0.145	U	0.145	1.00
75-34-3	1,1-Dichloroethane	0.171	U	0.171	1.00
107-06-2	1,2-Dichloroethane	0.116	U	0.116	1.00
156-59-2	cis-1,2-Dichloroethene	0.103	U	0.103	1.00
156-60-5	trans-1,2-Dichloroethene	0.077	U	0.077	1.00
75-09-2	Methylene chloride	0.149	U	0.149	5.00
78-87-5	1,2-Dichloropropane	0.150	U	0.150	1.00
10061-01-5	cis-1,3-Dichloropropene	0.124	U	0.124	1.00
10061-02-6	trans-1,3-Dichloropropene	0.128	U	0.128	1.00
100-41-4	Ethylbenzene	0.109	U	0.109	1.00
591-78-6	2-Hexanone	0.122	U	0.122	5.00
98-82-8	Isopropylbenzene (Cumene)	0.130	U	0.130	1.00
78-93-3	2-Butanone	0.142	U	0.142	5.00
108-10-1	4-Methyl-2-pentanone	0.120	U	0.120	5.00
103-65-1	n-Propylbenzene	0.727	U	0.727	1.00
100-42-5	Styrene	0.089	U	0.089	1.00
127-18-4	Tetrachloroethene	0.193	U	0.193	1.00
630-20-6	1,1,1,2-Tetrachloroethane	0.120	U	0.120	1.00
79-34-5	1,1,2,2-Tetrachloroethane	0.109	U	0.109	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 1431562

Level: (low/med) Lab File ID: 2150406/m4440

% Moisture: not dec. Date Collected: Time:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Received:

Instrument ID: MSV12 Date Analyzed: 04/06/15 Time: 1643

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CLH

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 555683

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260B

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
120-82-1	1,2,4-Trichlorobenzene	0.105	U	0.105	1.00
71-55-6	1,1,1-Trichloroethane	0.123	U	0.123	1.00
79-00-5	1,1,2-Trichloroethane	0.159	U	0.159	1.00
75-69-4	Trichlorofluoromethane	0.157	U	0.157	1.00
96-18-4	1,2,3-Trichloropropane	0.065	U	0.065	1.00
95-63-6	1,2,4-Trimethylbenzene	0.084	U	0.084	1.00
108-67-8	1,3,5-Trimethylbenzene	0.066	U	0.066	1.00
75-01-4	Vinyl chloride	0.127	U	0.127	1.00
95-47-6	o-Xylene	0.055	U	0.055	1.00
96-12-8	1,2-Dibromo-3-chloropropane	0.194	U	0.194	1.00
106-93-4	1,2-Dibromoethane	0.102	U	0.102	1.00
1634-04-4	tert-Butyl methyl ether (MTBE)	0.078	U	0.078	5.00
99-87-6	4-Isopropyltoluene	0.070	U	0.070	1.00
594-20-7	2,2-Dichloropropane	0.170	U	0.170	1.00
563-58-6	1,1-Dichloropropene	0.052	U	0.052	1.00
142-28-9	1,3-Dichloropropane	0.059	U	0.059	1.00
108-86-1	Bromobenzene	0.145	U	0.145	1.00
95-49-8	2-Chlorotoluene	0.080	U	0.080	1.00
106-43-4	4-Chlorotoluene	0.124	U	0.124	1.00
98-06-6	tert-Butylbenzene	0.087	U	0.087	1.00
135-98-8	sec-Butylbenzene	0.107	U	0.107	1.00
541-73-1	1,3-Dichlorobenzene	0.138	U	0.138	1.00
106-46-7	1,4-Dichlorobenzene	0.083	U	0.083	1.00
104-51-8	n-Butylbenzene	0.123	U	0.123	1.00
95-50-1	1,2-Dichlorobenzene	0.135	U	0.135	1.00
87-68-3	Hexachlorobutadiene	0.265	U	0.265	1.00
91-20-3	Naphthalene	0.176	U	0.176	1.00
87-61-6	1,2,3-Trichlorobenzene	0.079	U	0.079	1.00
75-35-4	1,1-Dichloroethene	0.200	U	0.200	1.00
71-43-2	Benzene	0.111	U	0.111	1.00
79-01-6	Trichloroethene	0.161	U	0.161	1.00
108-88-3	Toluene	0.122	U	0.122	1.00

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med)

% Moisture: not dec.

GC Column: RTX-VMS-30 ID: .25 (mm)

Instrument ID: MSV12

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 1431562

Lab File ID: 2150406/m4440

Date Collected: Time:

Date Received:

Date Analyzed: 04/06/15 Time: 1643

Dilution Factor: 1 Analyst: CLH

Prep Batch: Analytical Batch: 555683

Analytical Method: SW-846 8260B

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
108-90-7	Chlorobenzene	0.083	U	0.083	1.00

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Method: SW-846 8260B

	SAMPLE NO.	SMC1	#	SMC2	#	SMC3	#	SMC4	#	TOT OUT
1.	M114MW002	98		99		106		98		0
2.	LCS1430750	100		100		100		97		0
3.	LCS1431563	100		99		100		97		0
4.	LCSD1430751	100		99		100		95		0
5.	LCSD1431564	101		101		101		102		0
6.	MB1430749	100		102		104		100		0
7.	MB1431562	96		99		104		97		0
8.	M114MW002-c	98		97		106		99		0
9.	M114MW004	97		98		106		98		0
10.	M114MW003	97		99		102		98		0
11.	M114MW003-c	97		99		104		98		0
12.	M114MW001	101		104		103		103		0
13.	M114MW001-c	98		99		104		99		0
14.	M114MW001-MS	100		100		98		99		0
15.	M114MW001-SD	99		99		98		97		0

		QC LIMITS
SMC 1	4-Bromofluorobenzene	75 - 120
SMC 2	Dibromofluoromethane	85 - 115
SMC 3	Toluene-d8	85 - 120
SMC 4	1,2-Dichloroethane-d4	70 - 120

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555683

SAMPLE NO. : 1431563

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	50.8	102		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	50	100		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	50.2	100		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	50.9	102		75 - 125
1,1-Dichloroethane	ug/L	50	0	50.7	101		70 - 135
1,1-Dichloroethene	ug/L	50	0	52.6	105		70 - 130
1,1-Dichloropropene	ug/L	50	0	51.2	102		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	54.3	109		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	53.4	107		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	57.3	115		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	53.9	108		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	52.3	105		50 - 130
1,2-Dibromoethane	ug/L	50	0	55.9	112		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	52	104		70 - 120
1,2-Dichloroethane	ug/L	50	0	50.1	100		70 - 130
1,2-Dichloropropane	ug/L	50	0	54.3	109		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	53.5	107		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	51.4	103		75 - 125
1,3-Dichloropropane	ug/L	50	0	52.7	105		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	51.2	102		75 - 125
2,2-Dichloropropane	ug/L	50	0	50.9	102		70 - 135
2-Butanone	ug/L	50	0	49.9	100		30 - 150
2-Chlorotoluene	ug/L	50	0	50.9	102		75 - 125
2-Hexanone	ug/L	50	0	52.4	105		55 - 130
4-Chlorotoluene	ug/L	50	0	53.1	106		75 - 130
4-Isopropyltoluene	ug/L	50	0	55.1	110		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	55.7	111		60 - 135
Acetone	ug/L	50	0	51.8	104		40 - 140
Benzene	ug/L	50	0	49.6	99		80 - 120
Bromobenzene	ug/L	50	0	51.3	103		75 - 125
Bromochloromethane	ug/L	50	0	48	96		65 - 130
Bromodichloromethane	ug/L	50	0	51.4	103		75 - 120
Bromoform	ug/L	50	0	53.4	107		70 - 130
Bromomethane	ug/L	50	0	52.9	106		30 - 145
Carbon disulfide	ug/L	50	0	51.5	103		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555683

Carbon tetrachloride	ug/L	50	0	50.8	102		65 - 140
Chlorobenzene	ug/L	50	0	51.2	102		80 - 120
Chloroethane	ug/L	50	0	49.7	99		60 - 135
Chloroform	ug/L	50	0	50	100		65 - 135
Chloromethane	ug/L	50	0	56.4	113		40 - 125
Dibromomethane	ug/L	50	0	49.2	98		75 - 125
Dichlorodifluoromethane	ug/L	50	0	51.1	102		30 - 155
Ethylbenzene	ug/L	50	0	51.1	102		75 - 125
Hexachlorobutadiene	ug/L	50	0	53.7	107		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	53	106		75 - 125
Methylene chloride	ug/L	50	0	49.6	99		55 - 140
Naphthalene	ug/L	50	0	53.4	107		55 - 140
Styrene	ug/L	50	0	54.5	109		65 - 135
Tetrachloroethene	ug/L	50	0	50.5	101		45 - 150
Toluene	ug/L	50	0	51	102		75 - 120
Trichloroethene	ug/L	50	0	52.4	105		70 - 125
Trichlorofluoromethane	ug/L	50	0	49.8	100		60 - 145
Vinyl chloride	ug/L	50	0	55.5	111		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	52.3	105		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	47.9	96		70 - 130
m,p-Xylene	ug/L	100	0	104	104		75 - 130
n-Butylbenzene	ug/L	50	0	54.6	109		70 - 135
n-Propylbenzene	ug/L	50	0	52.5	105		70 - 130
o-Xylene	ug/L	50	0	52.1	104		80 - 120
sec-Butylbenzene	ug/L	50	0	51.9	104		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	49.4	99		65 - 125
tert-Butylbenzene	ug/L	50	0	52.6	105		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	50.9	102		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	45.4	91		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555683

SAMPLE NO. : 1431564

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
1,1,1,2-Tetrachloroethane	ug/L	50	50.3	101		1		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	48.4	97		3		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	47.8	96		5		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	52.4	105		3		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	48.8	98		4		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	47.9	96		9		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	50.8	102		.8		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	51.7	103		5		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	50.8	102		5		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	56.1	112		2		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	50.7	101		6		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	52.8	106		1		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	55.4	111		.9		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	49.3	99		5		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	50.5	101		.8		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	53.6	107		1		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	49.4	99		8		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	49.4	99		4		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	52.8	106		.2		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	48.6	97		5		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	48.2	96		5		70 - 135	0 - 30
2-Butanone	ug/L	50	50.8	102		2		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	47.3	95		7		75 - 125	0 - 30
2-Hexanone	ug/L	50	51.6	103		2		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	49.9	100		6		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	51.1	102		8		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	55.2	110		.9		60 - 135	0 - 30
Acetone	ug/L	50	50.8	102		2		40 - 140	0 - 30
Benzene	ug/L	50	49	98		1		80 - 120	0 - 30
Bromobenzene	ug/L	50	48.4	97		6		75 - 125	0 - 30
Bromochloromethane	ug/L	50	46.8	94		3		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	50.7	101		1		75 - 120	0 - 30
Bromoform	ug/L	50	51.7	103		3		70 - 130	0 - 30
Bromomethane	ug/L	50	50.9	102		4		30 - 145	0 - 30
Carbon disulfide	ug/L	50	47.8	96		7		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555683

Carbon tetrachloride	ug/L	50	48.3	97		5		65 - 140	0 - 30
Chlorobenzene	ug/L	50	49	98		4		80 - 120	0 - 30
Chloroethane	ug/L	50	46.6	93		6		60 - 135	0 - 30
Chloroform	ug/L	50	49.7	99		.6		65 - 135	0 - 30
Chloromethane	ug/L	50	50.9	102		10		40 - 125	0 - 30
Dibromomethane	ug/L	50	47.7	95		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	48.3	97		6		30 - 155	0 - 30
Ethylbenzene	ug/L	50	49.2	98		4		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	50.6	101		6		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	50.1	100		6		75 - 125	0 - 30
Methylene chloride	ug/L	50	47.3	95		5		55 - 140	0 - 30
Naphthalene	ug/L	50	54	108		1		55 - 140	0 - 30
Styrene	ug/L	50	51.8	104		5		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	48.5	97		4		45 - 150	0 - 30
Toluene	ug/L	50	49.2	98		4		75 - 120	0 - 30
Trichloroethene	ug/L	50	50.8	102		3		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	46.5	93		7		60 - 145	0 - 30
Vinyl chloride	ug/L	50	51.8	104		7		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	51.9	104		.8		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	46.4	93		3		70 - 130	0 - 30
m,p-Xylene	ug/L	100	97.9	98		6		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	49.9	100		9		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	48.4	97		8		70 - 130	0 - 30
o-Xylene	ug/L	50	50.1	100		4		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	48.2	96		7		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	49.5	99		.2		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	47.2	94		11		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	49.1	98		4		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	44.5	89		2		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555492

SAMPLE NO. : 1430750

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	50.9	102		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	53.4	107		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	47.4	95		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	48.7	97		75 - 125
1,1-Dichloroethane	ug/L	50	0	54.2	108		70 - 135
1,1-Dichloroethene	ug/L	50	0	53.9	108		70 - 130
1,1-Dichloropropene	ug/L	50	0	50.2	100		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	50.5	101		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	46.6	93		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	51.5	103		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	51.5	103		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	43.1	86		50 - 130
1,2-Dibromoethane	ug/L	50	0	50	100		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	53.8	108		70 - 120
1,2-Dichloroethane	ug/L	50	0	50.6	101		70 - 130
1,2-Dichloropropane	ug/L	50	0	53.3	107		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	52.3	105		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	54.4	109		75 - 125
1,3-Dichloropropane	ug/L	50	0	51.4	103		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	52.8	106		75 - 125
2,2-Dichloropropane	ug/L	50	0	57.6	115		70 - 135
2-Butanone	ug/L	50	0	43.1	86		30 - 150
2-Chlorotoluene	ug/L	50	0	51.5	103		75 - 125
2-Hexanone	ug/L	50	0	38.9	78		55 - 130
4-Chlorotoluene	ug/L	50	0	51.6	103		75 - 130
4-Isopropyltoluene	ug/L	50	0	52.1	104		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	45.8	92		60 - 135
Acetone	ug/L	50	0	41.3	83		40 - 140
Benzene	ug/L	50	0	54.9	110		80 - 120
Bromobenzene	ug/L	50	0	52.5	105		75 - 125
Bromochloromethane	ug/L	50	0	53.5	107		65 - 130
Bromodichloromethane	ug/L	50	0	51.6	103		75 - 120
Bromoform	ug/L	50	0	46.6	93		70 - 130
Bromomethane	ug/L	50	0	58.9	118		30 - 145
Carbon disulfide	ug/L	50	0	54.8	110		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555492

Carbon tetrachloride	ug/L	50	0	53	106		65 - 140
Chlorobenzene	ug/L	50	0	51.6	103		80 - 120
Chloroethane	ug/L	50	0	61.7	123		60 - 135
Chloroform	ug/L	50	0	51.1	102		65 - 135
Chloromethane	ug/L	50	0	55.8	112		40 - 125
Dibromomethane	ug/L	50	0	48.9	98		75 - 125
Dichlorodifluoromethane	ug/L	50	0	50.6	101		30 - 155
Ethylbenzene	ug/L	50	0	51.3	103		75 - 125
Hexachlorobutadiene	ug/L	50	0	53	106		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	50.7	101		75 - 125
Methylene chloride	ug/L	50	0	51.6	103		55 - 140
Naphthalene	ug/L	50	0	46.3	93		55 - 140
Styrene	ug/L	50	0	50.7	101		65 - 135
Tetrachloroethene	ug/L	50	0	54.3	109		45 - 150
Toluene	ug/L	50	0	52.7	105		75 - 120
Trichloroethene	ug/L	50	0	51.5	103		70 - 125
Trichlorofluoromethane	ug/L	50	0	52.8	106		60 - 145
Vinyl chloride	ug/L	50	0	55.8	112		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	56.1	112		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	49.9	100		70 - 130
m,p-Xylene	ug/L	100	0	104	104		75 - 130
n-Butylbenzene	ug/L	50	0	53.2	106		70 - 135
n-Propylbenzene	ug/L	50	0	52.2	104		70 - 130
o-Xylene	ug/L	50	0	50.4	101		80 - 120
sec-Butylbenzene	ug/L	50	0	51.4	103		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	54	108		65 - 125
tert-Butylbenzene	ug/L	50	0	50.9	102		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	59.2	118		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	48.2	96		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555492

SAMPLE NO. : 1430751

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
1,1,1,2-Tetrachloroethane	ug/L	50	49.4	99		3		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	49.9	100		7		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	45.7	91		4		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	47.6	95		2		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	51.6	103		5		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	50.7	101		6		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	46.3	93		8		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	48.2	96		5		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	45	90		3		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	47.9	96		7		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	48.2	96		7		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	43.4	87		.7		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	48.5	97		3		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	51.5	103		4		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	48.3	97		5		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	50.8	102		5		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	48.3	97		8		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	51.2	102		6		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	49.6	99		4		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	49.4	99		7		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	52.2	104		10		70 - 135	0 - 30
2-Butanone	ug/L	50	43.2	86		.2		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	48	96		7		75 - 125	0 - 30
2-Hexanone	ug/L	50	38.7	77		.5		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	48.1	96		7		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	48.1	96		8		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	45.4	91		.9		60 - 135	0 - 30
Acetone	ug/L	50	41.9	84		1		40 - 140	0 - 30
Benzene	ug/L	50	52.3	105		5		80 - 120	0 - 30
Bromobenzene	ug/L	50	50.3	101		4		75 - 125	0 - 30
Bromochloromethane	ug/L	50	53.2	106		.6		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	49.2	98		5		75 - 120	0 - 30
Bromoform	ug/L	50	45.3	91		3		70 - 130	0 - 30
Bromomethane	ug/L	50	54.7	109		7		30 - 145	0 - 30
Carbon disulfide	ug/L	50	51.4	103		6		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE LCS/LCSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Analytical Batch: 555492

Carbon tetrachloride	ug/L	50	49.6	99		7		65 - 140	0 - 30
Chlorobenzene	ug/L	50	48.9	98		5		80 - 120	0 - 30
Chloroethane	ug/L	50	54.9	110		12		60 - 135	0 - 30
Chloroform	ug/L	50	48.9	98		4		65 - 135	0 - 30
Chloromethane	ug/L	50	50.5	101		10		40 - 125	0 - 30
Dibromomethane	ug/L	50	47.2	94		4		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	45.7	91		10		30 - 155	0 - 30
Ethylbenzene	ug/L	50	48.3	97		6		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	48.5	97		9		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	47.4	95		7		75 - 125	0 - 30
Methylene chloride	ug/L	50	49.7	99		4		55 - 140	0 - 30
Naphthalene	ug/L	50	45.5	91		2		55 - 140	0 - 30
Styrene	ug/L	50	48.7	97		4		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	50	100		8		45 - 150	0 - 30
Toluene	ug/L	50	49.6	99		6		75 - 120	0 - 30
Trichloroethene	ug/L	50	49.4	99		4		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	49.4	99		7		60 - 145	0 - 30
Vinyl chloride	ug/L	50	51	102		9		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	53.3	107		5		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	48	96		4		70 - 130	0 - 30
m,p-Xylene	ug/L	100	97.5	98		6		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	48.5	97		9		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	48.1	96		8		70 - 130	0 - 30
o-Xylene	ug/L	50	48.2	96		4		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	47.3	95		8		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	53.1	106		2		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	55.1	110		8		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	54	108		9		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	46.9	94		3		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001

Analytical Batch: 555492

SAMPLE NO. : 21504021708

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
1,1,1,2-Tetrachloroethane	ug/L	50	0	55.9	112		80 - 130
1,1,1-Trichloroethane	ug/L	50	0	58.9	118		65 - 130
1,1,2,2-Tetrachloroethane	ug/L	50	0	54.1	108		65 - 130
1,1,2-Trichloroethane	ug/L	50	0	54.1	108		75 - 125
1,1-Dichloroethane	ug/L	50	0	57	114		70 - 135
1,1-Dichloroethene	ug/L	50	0	60.4	121		70 - 130
1,1-Dichloropropene	ug/L	50	0	52.8	106		75 - 130
1,2,3-Trichlorobenzene	ug/L	50	0	52.4	105		55 - 140
1,2,3-Trichloropropane	ug/L	50	0	53	106		75 - 125
1,2,4-Trichlorobenzene	ug/L	50	0	51.5	103		65 - 135
1,2,4-Trimethylbenzene	ug/L	50	0	54.2	108		75 - 130
1,2-Dibromo-3-chloropropane	ug/L	50	0	50.1	100		50 - 130
1,2-Dibromoethane	ug/L	50	0	55.7	111		80 - 120
1,2-Dichlorobenzene	ug/L	50	0	58	116		70 - 120
1,2-Dichloroethane	ug/L	50	0	56.8	114		70 - 130
1,2-Dichloropropane	ug/L	50	0	58.8	118		75 - 125
1,3,5-Trimethylbenzene	ug/L	50	0	54.5	109		75 - 130
1,3-Dichlorobenzene	ug/L	50	0	57.3	115		75 - 125
1,3-Dichloropropane	ug/L	50	0	56.6	113		75 - 125
1,4-Dichlorobenzene	ug/L	50	0	55.8	112		75 - 125
2,2-Dichloropropane	ug/L	50	0	61.6	123		70 - 135
2-Butanone	ug/L	50	0	41.3	83		30 - 150
2-Chlorotoluene	ug/L	50	0	53.7	107		75 - 125
2-Hexanone	ug/L	50	0	40.7	81		55 - 130
4-Chlorotoluene	ug/L	50	0	53.5	107		75 - 130
4-Isopropyltoluene	ug/L	50	0	53.4	107		75 - 130
4-Methyl-2-pentanone	ug/L	50	0	53.3	107		60 - 135
Acetone	ug/L	50	0	31.2	62		40 - 140
Benzene	ug/L	50	0	60	120		80 - 120
Bromobenzene	ug/L	50	0	55.8	112		75 - 125
Bromochloromethane	ug/L	50	0	61.9	124		65 - 130
Bromodichloromethane	ug/L	50	0	56.9	114		75 - 120
Bromoform	ug/L	50	0	52.8	106		70 - 130
Bromomethane	ug/L	50	0	60.1	120		30 - 145
Carbon disulfide	ug/L	50	0	59.4	119		35 - 160

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001

Analytical Batch: 555492

Carbon tetrachloride	ug/L	50	0	59	118		65 - 140
Chlorobenzene	ug/L	50	0	56.4	113		80 - 120
Chloroethane	ug/L	50	0	62.2	124		60 - 135
Chloroform	ug/L	50	0	56.6	113		65 - 135
Chloromethane	ug/L	50	0	55.5	111		40 - 125
Dibromomethane	ug/L	50	0	55.3	111		75 - 125
Dichlorodifluoromethane	ug/L	50	0	57.2	114		30 - 155
Ethylbenzene	ug/L	50	0	54.9	110		75 - 125
Hexachlorobutadiene	ug/L	50	0	50.7	101		50 - 140
Isopropylbenzene (Cumene)	ug/L	50	0	53.5	107		75 - 125
Methylene chloride	ug/L	50	0	56.9	114		55 - 140
Naphthalene	ug/L	50	0	50.1	100		55 - 140
Styrene	ug/L	50	0	36	72		65 - 135
Tetrachloroethene	ug/L	50	0	57.6	115		45 - 150
Toluene	ug/L	50	0	55.8	112		75 - 120
Trichloroethene	ug/L	50	0	56.2	112		70 - 125
Trichlorofluoromethane	ug/L	50	0	61.9	124		60 - 145
Vinyl chloride	ug/L	50	0	58.5	117		50 - 145
cis-1,2-Dichloroethene	ug/L	50	0	59.5	119		70 - 125
cis-1,3-Dichloropropene	ug/L	50	0	50.7	101		70 - 130
m,p-Xylene	ug/L	100	0	110	110		75 - 130
n-Butylbenzene	ug/L	50	0	52.1	104		70 - 135
n-Propylbenzene	ug/L	50	0	53.4	107		70 - 130
o-Xylene	ug/L	50	0	54.4	109		80 - 120
sec-Butylbenzene	ug/L	50	0	52.5	105		70 - 125
tert-Butyl methyl ether (MTBE)	ug/L	50	0	59.7	119		65 - 125
tert-Butylbenzene	ug/L	50	0	52.6	105		70 - 130
trans-1,2-Dichloroethene	ug/L	50	0	63.4	127		60 - 140
trans-1,3-Dichloropropene	ug/L	50	0	54	108		55 - 140

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

FORM III VOA-1

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001

Analytical Batch: 555492

SAMPLE NO. : 21504021709

COMPOUND	UNITS	SPIKE ADDED	MSD CONC.	MSD % REC	#	% RPD	#	QC. LIMITS REC	QC. LIMITS RPD
1,1,1,2-Tetrachloroethane	ug/L	50	54.6	109		2		80 - 130	0 - 30
1,1,1-Trichloroethane	ug/L	50	56.4	113		4		65 - 130	0 - 30
1,1,2,2-Tetrachloroethane	ug/L	50	55	110		2		65 - 130	0 - 30
1,1,2-Trichloroethane	ug/L	50	54	108		.2		75 - 125	0 - 30
1,1-Dichloroethane	ug/L	50	55.4	111		3		70 - 135	0 - 30
1,1-Dichloroethene	ug/L	50	56.8	114		6		70 - 130	0 - 30
1,1-Dichloropropene	ug/L	50	50.9	102		4		75 - 130	0 - 30
1,2,3-Trichlorobenzene	ug/L	50	51.9	104		1		55 - 140	0 - 30
1,2,3-Trichloropropane	ug/L	50	51.9	104		2		75 - 125	0 - 30
1,2,4-Trichlorobenzene	ug/L	50	50.8	102		1		65 - 135	0 - 30
1,2,4-Trimethylbenzene	ug/L	50	53	106		2		75 - 130	0 - 30
1,2-Dibromo-3-chloropropane	ug/L	50	51.5	103		3		50 - 130	0 - 30
1,2-Dibromoethane	ug/L	50	55.2	110		.9		80 - 120	0 - 30
1,2-Dichlorobenzene	ug/L	50	57.4	115		1		70 - 120	0 - 30
1,2-Dichloroethane	ug/L	50	55.6	111		2		70 - 130	0 - 30
1,2-Dichloropropane	ug/L	50	57.5	115		2		75 - 125	0 - 30
1,3,5-Trimethylbenzene	ug/L	50	53.3	107		2		75 - 130	0 - 30
1,3-Dichlorobenzene	ug/L	50	56.8	114		.9		75 - 125	0 - 30
1,3-Dichloropropane	ug/L	50	56	112		1		75 - 125	0 - 30
1,4-Dichlorobenzene	ug/L	50	54.4	109		3		75 - 125	0 - 30
2,2-Dichloropropane	ug/L	50	59.2	118		4		70 - 135	0 - 30
2-Butanone	ug/L	50	40.9	82		1		30 - 150	0 - 30
2-Chlorotoluene	ug/L	50	52.7	105		2		75 - 125	0 - 30
2-Hexanone	ug/L	50	41.6	83		2		55 - 130	0 - 30
4-Chlorotoluene	ug/L	50	52.5	105		2		75 - 130	0 - 30
4-Isopropyltoluene	ug/L	50	51.9	104		3		75 - 130	0 - 30
4-Methyl-2-pentanone	ug/L	50	53.3	107		0		60 - 135	0 - 30
Acetone	ug/L	50	31.4	63		.6		40 - 140	0 - 30
Benzene	ug/L	50	58.1	116		3		80 - 120	0 - 30
Bromobenzene	ug/L	50	55.5	111		.5		75 - 125	0 - 30
Bromochloromethane	ug/L	50	61.3	123		1		65 - 130	0 - 30
Bromodichloromethane	ug/L	50	56.1	112		1		75 - 120	0 - 30
Bromoform	ug/L	50	52.1	104		1		70 - 130	0 - 30
Bromomethane	ug/L	50	59.8	120		.5		30 - 145	0 - 30
Carbon disulfide	ug/L	50	56.6	113		5		35 - 160	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

3A

WATER VOLATILE MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001

Analytical Batch: 555492

Carbon tetrachloride	ug/L	50	57.3	115		3		65 - 140	0 - 30
Chlorobenzene	ug/L	50	54.5	109		3		80 - 120	0 - 30
Chloroethane	ug/L	50	59.5	119		4		60 - 135	0 - 30
Chloroform	ug/L	50	55.1	110		3		65 - 135	0 - 30
Chloromethane	ug/L	50	52.9	106		5		40 - 125	0 - 30
Dibromomethane	ug/L	50	53.8	108		3		75 - 125	0 - 30
Dichlorodifluoromethane	ug/L	50	56.2	112		2		30 - 155	0 - 30
Ethylbenzene	ug/L	50	53.1	106		3		75 - 125	0 - 30
Hexachlorobutadiene	ug/L	50	49.1	98		3		50 - 140	0 - 30
Isopropylbenzene (Cumene)	ug/L	50	51.5	103		4		75 - 125	0 - 30
Methylene chloride	ug/L	50	56.1	112		1		55 - 140	0 - 30
Naphthalene	ug/L	50	50.6	101		1		55 - 140	0 - 30
Styrene	ug/L	50	32.5	65		10		65 - 135	0 - 30
Tetrachloroethene	ug/L	50	54.6	109		5		45 - 150	0 - 30
Toluene	ug/L	50	53.7	107		4		75 - 120	0 - 30
Trichloroethene	ug/L	50	53.6	107		5		70 - 125	0 - 30
Trichlorofluoromethane	ug/L	50	59.7	119		4		60 - 145	0 - 30
Vinyl chloride	ug/L	50	58.2	116		.5		50 - 145	0 - 30
cis-1,2-Dichloroethene	ug/L	50	58.8	118		1		70 - 125	0 - 30
cis-1,3-Dichloropropene	ug/L	50	49.4	99		3		70 - 130	0 - 30
m,p-Xylene	ug/L	100	106	106		4		75 - 130	0 - 30
n-Butylbenzene	ug/L	50	50.9	102		2		70 - 135	0 - 30
n-Propylbenzene	ug/L	50	52.2	104		2		70 - 130	0 - 30
o-Xylene	ug/L	50	52.6	105		3		80 - 120	0 - 30
sec-Butylbenzene	ug/L	50	50.7	101		3		70 - 125	0 - 30
tert-Butyl methyl ether (MTBE)	ug/L	50	59.4	119		.5		65 - 125	0 - 30
tert-Butylbenzene	ug/L	50	51.1	102		3		70 - 130	0 - 30
trans-1,2-Dichloroethene	ug/L	50	57.1	114		10		60 - 140	0 - 30
trans-1,3-Dichloropropene	ug/L	50	52.5	105		3		55 - 140	0 - 30

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 64 outside limits

Spike Recovery: 0 out of 128 outside limits

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1430749

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID: 2150402/a3029 Lab Sample ID: 1430749 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 04/02/15 Time: 2006

Instrument ID: MSV13 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 555492

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1430750	1430750	2150402/a3025	04/02/15	1816
2.	LCSD1430751	1430751	2150402/a3026	04/02/15	1839
3.	M114MW001	21504021706	2150402/a3033	04/02/15	2137
4.	M114MW001-MS	21504021708	2150402/a3034	04/02/15	2159
5.	M114MW001-SD	21504021709	2150402/a3035	04/02/15	2222

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

MB1431562

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID: 2150406/m4440

Lab Sample ID: 1431562 Date Extracted:

GC Column: RTX-VMS-30 ID: .25 (mm) Date Analyzed: 04/06/15 Time: 1643

Instrument ID: MSV12 Matrix: Water Heated Purge: N

Level:

Prep Batch: Analytical Batch: 555683

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS1431563	1431563	2150406/m4436	04/06/15	1512
2.	LCSD1431564	1431564	2150406/m4437	04/06/15	1535
3.	M114MW002	21504021701	2150406/m4443	04/06/15	1751
4.	M114MW002-c	21504021702	2150406/m4444	04/06/15	1813
5.	M114MW004	21504021703	2150406/m4445	04/06/15	1836
6.	M114MW003	21504021704	2150406/m4446	04/06/15	1859
7.	M114MW003-c	21504021705	2150406/m4447	04/06/15	1921
8.	M114MW001-c	21504021707	2150406/m4448	04/06/15	1944

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID: 2150406/m4423d BFB Injection Date: 04/06/15

Instrument ID: MSV12 BFB Injection Time: 0949

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555683

m / e	ION ABUNDANCE CRITERIA	% Relative Abundance			
50	15.0 - 40.0% of mass 95	19.4	(	)	
75	30.0 - 60.0% of mass 95	52.13	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	5.94	(	)	
173	Less than 2.0% of mass 174	.89	(.8	)	1
174	50.0 - 120.0% of mass 95	111.7	(	)	
175	5.0 - 9.0% of mass 174	8.34	(7.47	)	1
176	95.0 - 101.0% of mass 174	108.4	(97.05	)	1
177	5.0 - 9.0% of mass 176	6.99	(6.45	)	2

1- Value is % mass 174

2- Value is % mass 176

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	V12STD001	1203	2150406/m4425d	04/06/15	1104
2.	V12STD005	1204	2150406/m4426d	04/06/15	1126
3.	V12STD010	1205	2150406/m4427d	04/06/15	1149
4.	V12STD020	1206	2150406/m4428d	04/06/15	1211
5.	V12STD050	1207	2150406/m4429d	04/06/15	1234
6.	V12STD100	1208	2150406/m4431d	04/06/15	1319
7.	V12STD200	1209	2150406/m4433d	04/06/15	1404
8.	ICV050	1600	2150406/m4435d	04/06/15	1450
9.	LCS1431563	1431563	2150406/m4436	04/06/15	1512
10.	LCSD1431564	1431564	2150406/m4437	04/06/15	1535
11.	MB1431562	1431562	2150406/m4440	04/06/15	1643
12.	M114MW002	21504021701	2150406/m4443	04/06/15	1751
13.	M114MW002-c	21504021702	2150406/m4444	04/06/15	1813
14.	M114MW004	21504021703	2150406/m4445	04/06/15	1836
15.	M114MW003	21504021704	2150406/m4446	04/06/15	1859
16.	M114MW003-c	21504021705	2150406/m4447	04/06/15	1921

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID: 2150406/m4423d BFB Injection Date: 04/06/15

Instrument ID: MSV12 BFB Injection Time: 0949

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555683

17.	M114MW001-c	21504021707	2150406/m4448	04/06/15	1944

5A

VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID: 2150402/a3012D BFB Injection Date: 04/02/15

Instrument ID: MSV13 BFB Injection Time: 1118

GC Column: RTX-VMS-30 ID: .25 (mm)

Analytical Batch: 555492

m / e	*ION ABUNDANCE CRITERIA*	*% Relative Abundance*			
50	15.0 - 40.0% of mass 95	15.06	(	)	
75	30.0 - 60.0% of mass 95	44.24	(	)	
95	Base Peak, 100% relative abundance	100	(	)	
96	5.0 -9.0% of mass 95	6.25	(	)	
173	Less than 2.0% of mass 174	1.01	(1.04	)	1
174	50.0 - 120.0% of mass 95	97.9	(	)	
175	5.0 - 9.0% of mass 174	7.32	(7.48	)	1
176	95.0 - 101.0% of mass 174	96.31	(98.38	)	1
177	5.0 - 9.0% of mass 176	6.32	(6.57	)	2

1- Value is % mass 174 2- Value is % mass 176

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

	SAMPLE NO.	*LAB SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	V13STD001	1203	2150402/a3015D	04/02/15	1328
2.	V13STD005	1204	2150402/a3016D	04/02/15	1351
3.	V13STD010	1205	2150402/a3017D	04/02/15	1415
4.	V13STD020	1206	2150402/a3018D	04/02/15	1438
5.	V13STD050	1207	2150402/a3019D	04/02/15	1501
6.	V13STD100	1208	2150402/a3020D	04/02/15	1524
7.	V13STD200	1209	2150402/a3022D	04/02/15	1611
8.	V13ICV050	1600	2150402/a3024D	04/02/15	1700
9.	LCS1430750	1430750	2150402/a3025	04/02/15	1816
10.	LCSD1430751	1430751	2150402/a3026	04/02/15	1839
11.	MB1430749	1430749	2150402/a3029	04/02/15	2006
12.	M114MW001	21504021706	2150402/a3033	04/02/15	2137
13.	M114MW001-MS	21504021708	2150402/a3034	04/02/15	2159
14.	M114MW001-SD	21504021709	2150402/a3035	04/02/15	2222

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Calibration File Names:
Level 3: /var/chem/msv12.i/2150406.s.b/m4425d.d
Level 4: /var/chem/msv12.i/2150406.s.b/m4426d.d
Level 5: /var/chem/msv12.i/2150406.s.b/m4427d.d
Level 6: /var/chem/msv12.i/2150406.s.b/m4428d.d
Level 7: /var/chem/msv12.i/2150406.s.b/m4429d.d
Level 8: /var/chem/msv12.i/2150406.s.b/m4431d.d
Level 9: /var/chem/msv12.i/2150406.s.b/m4433d.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2
1 Dichlorodifluoromethane	0.31232	0.39598	0.39224	0.40062	0.39697	0.38929	0.38034	AVRG		0.38111		8.14184
2 Chloromethane ++	0.10934	0.13554	0.15447	0.15546	0.16145	0.15785	0.15748	AVRG		0.14737		12.73355
3 Vinyl Chloride +	0.20869	0.26779	0.28036	0.27453	0.29164	0.28732	0.30572	AVRG		0.27372		11.39701
4 1-3 Butadiene	+++++	0.18673	0.22092	0.21037	0.24115	0.25584	0.26254	AVRG		0.22959		12.60860

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
5 Bromomethane	166 79844	1278	2874	6078	16727	35928	LINR	0.06446	0.17473		0.99838
6 Chloroethane	0.23864 +++++	0.19446	0.19619	0.20148	0.19719	0.17870	AVRG		0.20111		9.93122
7 Trichlorofluoromethane	0.57045 0.61081	0.58105	0.60770	0.62476	0.61794	0.62795	AVRG		0.60581		3.62205
18 2-Chloropropene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00 <-
8 Ethyl Ether	0.26148 0.28557	0.25285	0.25906	0.25141	0.28099	0.28042	AVRG		0.26740		5.41193
11 1,1-Dichloroethene +	0.23911 0.30483	0.28124	0.29086	0.29777	0.30576	0.31240	AVRG		0.29028		8.55148
14 Carbon Disulfide	0.81954 0.91359	0.85822	0.85611	0.87951	0.91987	0.92521	AVRG		0.88172		4.49912

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
10 1,1,2Trichlotrifluoroethane	0.25337	0.30291	0.31438	0.32081	0.32018	0.31878	0.31922	AVRG		0.30709		7.97586	
13 Methyl Iodide	42.00000	1096	2949	7041	23912	55843	135872	LINR	0.14552	0.29996		0.99314	
158 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
9 Acrolein	+++++	667	1875	4168	12560	24195	53307	LINR	0.30016	0.02344		0.99907	
16 Allyl chloride	0.28722	0.30084	0.28820	0.27610	0.29636	0.29355	0.30117	AVRG		0.29192		3.04364	
17 Methylene Chloride	0.38600	0.34354	0.34704	0.36034	0.35817	0.35863	0.35602	AVRG		0.35853		3.81252	
12 Acetone	0.19110	0.21700	0.23406	0.24097	0.22884	0.23580	0.23388	AVRG		0.22595		7.56763	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
19 trans-1,2-Dichloroethene	0.37507	0.38262	0.40717	0.43777	0.42255	0.43899	0.44221	AVRG		0.41520		6.66516
20 Methyl Acetate	0.40929	0.44928	0.44085	0.45701	0.45584	0.46255	0.45591	AVRG		0.44725		4.04481
23 Hexane	0.20964	0.28811	0.29554	0.29876	0.30600	0.29568	0.29427	AVRG		0.28400		11.69891
21 MTBE	1.08860	1.08238	1.06247	1.14068	1.06257	1.10186	1.09144	AVRG		1.09000		2.45079
26 tert-Butyl Alcohol	+++++	562	1521	3431	8977	16231	32481	LINR	0.00851	0.05366		0.99787
15 Acetonitrile	+++++	0.04394	0.04887	0.04348	0.05732	0.04834	0.05363	AVRG		0.04926		11.00104
27 Isopropyl Ether	0.78498	0.72766	0.73276	0.73813	0.82503	0.82969	0.88453	AVRG		0.78897		7.60629

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	m1	m2	%RSD or R^2	
29 Chloroprene	973	5121	9060	23902	55368	127290	266841	LINR	0.07761	0.44207		0.99752	
24 1,1-Dichloroethane ++	0.50104	0.50772	0.51736	0.51800	0.49918	0.50665	0.44447	AVRG		0.49920		5.04797	
22 Acrylonitrile	0.07283	0.09150	0.10022	0.10281	0.10225	0.10357	0.10859	AVRG		0.09740		12.31242	
25 Vinyl Acetate	220	1637	3418	7496	24344	44879	86149	LINR	-0.01512	0.19131		0.99684	
156 Ethyl Tert-butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
30 cis-1,2-Dichloroethene	0.28950	0.33154	0.34333	0.36544	0.35181	0.37122	0.36032	AVRG		0.34474		8.07515	
M 48 Total 1,2-Dichloroethene	0.33228	0.35708	0.37525	0.40160	0.38718	0.40510	0.40127	AVRG		0.37997		7.14727	

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	b	Coefficients m1	m2	%RSD or R^2
31 2,2-Dichloropropane	0.42308 0.48795	0.46350	0.47303	0.48313	0.50599	0.50626	AVRG		0.47756		6.01858
38 Cyclohexane	0.22057 0.34304	0.31577	0.31601	0.32862	0.34042	0.34076	AVRG		0.31503		13.71446
34 Bromochloromethane	153 71804	1476	3340	6984	17363	35156	LINR	-0.00156	0.15697		0.99995
41 Chloroform +	0.52624 0.55432	0.54564	0.55080	0.56547	0.54623	0.56843	AVRG		0.55102		2.55480
39 Carbon Tetrachloride	0.41738 0.53900	0.48663	0.50671	0.52184	0.52303	0.54473	AVRG		0.50562		8.60537
33 Ethyl Acetate	0.38123 0.45680	0.37061	0.40272	0.39840	0.44256	0.44188	AVRG		0.41346		8.11198
141 Tetrahydrofuran	0.09030 0.10868	0.10310	0.11104	0.11313	0.11041	0.10498	AVRG		0.10595		7.29774

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
37 1,1,1-Trichloroethane	0.51578	0.54844	0.54482	0.56641	0.54343	0.56593						
	0.56070						AVRG		0.54936		3.22048	
28 sec-Butanol	+++++	125	745	1877	5099	9259						
	19367						LINR	0.05634	0.03220		0.99718	<-
42 1,1-Dichloropropene	0.30899	0.35409	0.35403	0.37619	0.38049	0.39435						
	0.40226						AVRG		0.36720		8.58096	
32 2-Butanone	207	1504	3403	8020	20061	42733						
	89922						LINR	0.03347	0.19708		0.99973	
146 2,2,4 Trimethylpentane	0.38762	0.40986	0.45869	0.40879	0.48366	0.50550						
	0.55285						AVRG		0.45814		13.09755	
44 Benzene	0.94837	0.99183	0.98900	1.03535	1.01479	1.05115						
	1.07531						AVRG		1.01511		4.22025	
35 Propionitrile	+++++	0.04131	0.04348	0.04374	0.05459	0.04694						
	0.05259						AVRG		0.04711		11.40170	

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Compound	1 Level 3 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
142 Methylacrylonitrile	+++++ 0.20205	0.15257	0.16089	0.16475	0.19401	0.19096	AVRG		0.17754		11.58833	
152 Heptane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
46 1,2-Dichloroethane	0.43211 0.49200	0.44802	0.46831	0.50218	0.47547	0.49020	AVRG		0.47261		5.34657	
154 tert-amyl Methyl Ether	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
157 Tert-butyl formate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
45 Isobutyl Alcohol	+++++ 0.01631	0.01319	0.01475	0.01563	0.01907	0.01520	AVRG		0.01569		12.47867	
50 Methyl Cyclohexane	0.28522 0.37287	0.34364	0.34049	0.35739	0.36451	0.36271	AVRG		0.34669		8.49140	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
49 Trichloroethene	0.29711	0.32661	0.34560	0.36540	0.34361	0.37218						
	0.38176						AVRG		0.34746		8.38871	
155 Tert-amyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
148 1,3-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
40 n-Butanol	+++++	422	1127	2702	8953	15437						
	34578						LINR	0.46360	0.01152		0.99372	<-
52 Dibromomethane	265	1581	3640	8201	21139	45473						
	95257						LINR	0.03557	0.20901		0.99973	
53 2-3 Dichloro-1-Proprene	0.34777	0.38273	0.36945	0.36897	0.44875	0.44865						
	0.46755						AVRG		0.40484		11.95957	
51 1,2-Dichloropropane +	0.15545	0.20607	0.21474	0.22585	0.22408	0.23449						
	0.23953						AVRG		0.21431		13.20442	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
54 Bromodichloromethane	0.34559	0.39714	0.41502	0.43625	0.43739	0.45523						
	0.46529						AVRG		0.42170		9.64338	
63 Methyl methacrylate	+++++	0.22786	0.23872	0.24469	0.30294	0.28888						
	0.30808						AVRG		0.26853		13.19065	
55 1,4- Dioxane	+++++	705	1810	3784	12525	20185						
	44872						LINR	1.49299	0.00297		0.99196	<-
149 1,4-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
150 1,2-Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
M 151 Total Difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
57 1-Bromo-2-chloroethane	+++++	343	1045	2320	5980	+++++						
	+++++						LINR	0.02682	0.05615		0.99906	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
56 2-Chloroethyl vinyl ether	+++++	423	1228	3240	9334	21872						
	51086						LINR	0.15066	0.11380		0.99623	<-
58 cis-1,3-Dichloropropene	677	3593	8038	18155	49223	105794						
	227226						LINR	0.05121	0.49844		0.99934	
61 Toluene +	2.87103	2.79503	2.83091	2.79871	2.70384	2.78725						
	2.80845						AVRG		2.79932		1.81599	
144 2-Nitropropane	202	1433	2996	6981	20155	42993						
	87596						LINR	0.06164	0.32200		0.99949	
66 Tetrachloroethene	0.81410	0.73561	0.71006	0.73214	0.70767	0.72435						
	0.72481						AVRG		0.73553		4.91769	
59 4-methyl-2-pentanone	0.61263	0.66722	0.71802	0.74989	0.70101	0.73278						
	0.76499						AVRG		0.70665		7.42370	
62 trans-1,3-Dichloropropene	582	3259	7551	18112	50223	111356						
	241300						LINR	0.06900	0.53088		0.99892	

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
M 145 1-3 Dichloropropene total	1259	6852	15589	36267	99446	217150						
	468526						LINR	0.12074	0.51465		0.99914	
64 Ethyl Methacrylate	0.43116	0.55058	0.52456	0.55891	0.65254	0.64039						
	0.66342						AVRG		0.57451		14.59634	
65 1,1,2-Trichloroethane	0.58451	0.66376	0.67524	0.68075	0.65360	0.65860						
	0.67597						AVRG		0.65606		5.04163	
159 Methyldisulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
69 Dibromochloromethane	0.87970	0.88971	0.94652	0.96976	0.94095	0.96969						
	0.99723						AVRG		0.94193		4.59182	
162 3,4-dichloro-1-butene	+++++	0.47713	0.50164	0.56883	0.64179	0.65061						
	0.68704						AVRG		0.58784		14.58221	
67 1,3-Dichloropropane	0.98044	0.93406	0.99238	1.02553	0.98372	1.02176						
	1.05519						AVRG		0.99901		3.92342	

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	200 Level 9											
143 1-Nitropropane	+++++	629	1443	3433	10876	22429						
	46557						LINR	0.08965	0.17235		0.99946	
70 1,2-Dibromoethane(EDB)	0.50369	0.62125	0.65817	0.73526	0.70680	0.74798						
	0.76692						AVRG		0.67715		13.60241	
68 2-Hexanone	265	1804	4573	10398	28358	61189						
	129420						LINR	0.03692	0.62163		0.99977	
104 1-2 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
140 1-Chlorohexane	1.02846	0.72151	0.74260	0.76918	0.76968	0.78858						
	0.88774						AVRG		0.81539		13.21723	
72 Chlorobenzene ++	1.90582	1.95292	2.07931	2.03227	1.99222	2.10498						
	2.08001						AVRG		2.02107		3.65783	
73 Ethylbenzene +	0.99332	1.03133	1.04904	1.03857	1.03773	1.07947						
	1.07554						AVRG		1.04357		2.78677	

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	200 Level 9											
153 3,3 Dimethyl-1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
74 1,1,1,2-Tetrachloroethane	0.82582	0.80307	0.87927	0.86686	0.83646	0.89753						
	0.89645						AVRG		0.85792		4.27991	
75 p,m-Xylene	1.14384	1.18381	1.25768	1.27504	1.26067	1.32222						
	1.33322						AVRG		1.25378		5.49609	
101 1-3 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
103 1-4 Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
M 105 Total Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
76 o-Xylene	1.11515	1.14777	1.19982	1.23378	1.22453	1.28256						
	1.28002						AVRG		1.21195		5.20674	

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
77 Styrene	1.49584	1.77179	1.97622	2.00225	2.07333	2.19225						
	2.17943						AVRG		1.95587		12.65751	
M 99 TOTAL XYLENE	1.13428	1.17180	1.23839	1.26129	1.24862	1.30900						
	1.31548						AVRG		1.23984		5.39226	
78 Bromoform ++	0.71337	0.69495	0.79609	0.80912	0.80639	0.86369						
	0.87754						AVRG		0.79445		8.68053	
163 1,5-Cyclooctadiene	0.45661	0.54126	0.52883	0.54307	0.62487	0.61858						
	0.64496						AVRG		0.56545		11.85196	
79 Isopropylbenzene	2.80778	2.94982	3.15658	3.21839	3.23911	3.36148						
	3.30681						AVRG		3.14857		6.34080	
161 cis-1,4-dichloro-2-butene	44.00000	929	2208	5183	16463	30635						
	66504						LINR	0.05133	0.20505		0.99900	<-
84 Bromobenzene	1.16955	1.12979	1.15913	1.14316	1.14588	1.16884						
	1.14663						AVRG		1.15185		1.26814	

7/29/2015

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
86 n-Propylbenzene	2.70081	2.83357	3.06660	2.97346	3.04198	3.00965					
	2.91234						AVRG		2.93406		4.43193
81 1,1,2,2-Tetrachloroethane++	0.83414	0.78638	0.83323	0.79142	0.79876	0.78833					
	0.75903						AVRG		0.79876		3.36504
87 2-Chlorotoluene	2.29196	2.09791	2.22518	2.16834	2.20256	2.21440					
	2.16087						AVRG		2.19446		2.76221
88 1,3,5-Trimethylbenzene	2.24483	2.02794	2.26689	2.31014	2.41799	2.40902					
	2.37407						AVRG		2.29298		5.88369
85 1,2,3-Trichloropropane	0.84839	0.88781	0.94141	0.96025	0.94968	0.96522					
	0.98811						AVRG		0.93441		5.23455
83 trans-1,4-Dichloro-2-Butene	+++++	537	1420	3805	11106	25583					
	54184						LINR	0.07085	0.21713		0.99980
82 Cyclohexanone	0.18764	0.17732	0.17712	0.19039	0.21491	0.19748					
	0.18821						AVRG		0.19044		6.81531

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
90 4-Chlorotoluene	1.77788	1.86607	1.94208	1.96624	2.01648	2.04399					
	2.00956						AVRG		1.94604		4.86075
91 tert-butylbenzene	1.13995	1.25668	1.36266	1.34819	1.31330	1.30074					
	1.29178						AVRG		1.28761		5.75196
95 Pentachloroethane	0.53218	0.50017	0.47940	0.48273	0.56224	0.53001					
	0.54546						AVRG		0.51888		6.14657
93 1,2,4-Trimethylbenzene	2.07493	2.02608	2.22114	2.21186	2.33401	2.39864					
	2.36990						AVRG		2.23379		6.45543
94 sec-Butylbenzene	2.43993	2.43469	2.66389	2.64199	2.73207	2.64622					
	2.59685						AVRG		2.59366		4.39884
147 Dicyclopentadiene	2.01281	2.04230	2.04345	2.01033	2.27706	2.32320					
	2.35281						AVRG		2.15171		7.31233
92 p-Isopropyltoluene	1.93353	1.93873	2.17026	2.29341	2.45075	2.43724					
	2.38808						AVRG		2.23029		9.97556

Z150406T2

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
96 1,3-Dichlorobenzene	1.53345	1.40903	1.49115	1.52260	1.49774	1.50417						
	1.50220						AVRG		1.49433		2.70272	
160 4-Methylstyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
98 1,4-Dichlorobenzene	1.60032	1.51956	1.51284	1.54088	1.53904	1.53339						
	1.53560						AVRG		1.54023		1.84738	
100 n-Butylbenzene	1.44686	1.53157	1.63837	1.71113	1.78686	1.75583						
	1.73059						AVRG		1.65732		7.60108	
102 1,2-Dichlorobenzene	1.39096	1.48686	1.47547	1.49798	1.46941	1.46872						
	1.45005						AVRG		1.46278		2.39742	
106 1,2-Dibromo-3-Chloropropane	127	1147	2737	5804	15757	33940						
	71326						LINR	0.01373	0.28168		0.99998	
107 Benzal Chloride	0.12456	0.12282	0.12126	0.11380	0.13940	0.10593						
	+++++						AVRG		0.12130		9.27783	

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GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
109 Hexachlorobutadiene	0.41433 / 0.43869	0.48209	0.49343	0.51122	0.49777	0.45384	AVRG		0.47020		7.52256
108 1,2,4-Trichlorobenzene	0.69164 / 0.98177	0.79797	0.84763	0.93152	0.97978	0.97376	AVRG		0.88630		12.59231
110 Naphthalene	1207 / 635105	8421	20376	48273	134150	295370	LINR	0.03870	2.51352		0.99977
111 1,2,3-Trichlorobenzene	501 / 236219	3971	9149	19881	54477	113639	LINR	0.00141	0.93278		0.99994
$ 36 Dibromofluoromethane	0.30035 / 0.28894	0.29071	0.29058	0.29412	0.29423	0.29511	AVRG		0.29343		1.30086
$ 43 1,2-Dichloroethane-d4	0.17627 / 0.17218	0.17190	0.17108	0.18112	0.17760	0.17385	AVRG		0.17486		2.08812
$ 60 Toluene-d8	2.49188 / 2.29560	2.45763	2.43780	2.40837	2.31002	2.30862	AVRG		2.38713		3.39675

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 25-MAR-2015 14:07
End Cal Date : 06-APR-2015 14:04
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Cal Date : 06-Apr-2015 22:51 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
$ 80 Bromofluorobenzene	0.97866	0.98972	1.02713	0.99461	0.99665	1.02433					
	0.99459						AVRG		1.00081		1.80312

215040217

Data File: /var/chem/msv12.i/2150406.s.b/m4435d.d
Report Date: 06-Apr-2015 22:51

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv12.i/2150406.s.b/8260dodw12.m
Misc Info: MSV~33100~*1*CLH

Client SDG: 2150406.s
Fraction: VOA
Client Smp ID: ICV050
Operator: CLH
SampleType: LCS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Dichlorodifluoromethane	50.0	52.5	104.96	80-120
2	Chloromethane ++	50.0	57.2	114.48	80-120
3	Vinyl Chloride +	50.0	56.5	112.94	80-120
5	Bromomethane	50.0	51.4	102.82	80-120
6	Chloroethane	50.0	52.3	104.57	80-120
7	Trichlorofluoromethane	50.0	53.2	106.45	80-120
11	1,1-Dichloroethene +	50.0	54.8	109.67	80-120
14	Carbon Disulfide	50.0	53.1	106.11	80-120
10	1,1,2Trichlotrifluoroethane	50.0	56.4	112.77	80-120
13	Methyl Iodide	50.0	44.4	88.82	80-120
9	Acrolein	250	251	100.48	80-120
17	Methylene Chloride	50.0	50.9	101.82	80-120
12	Acetone	50.0	52.6	105.22	80-120
19	trans-1,2-Dichloroethene	50.0	55.4	110.78	80-120
20	Methyl Acetate	50.0	53.8	107.67	80-120
23	Hexane	50.0	55.9	111.72	80-120
21	MTBE	50.0	53.1	106.22	80-120
24	1,1-Dichloroethane ++	50.0	53.8	107.69	80-120
22	Acrylonitrile	250	256	102.58	80-120
25	Vinyl Acetate	50.0	48.6	97.18	80-120
30	cis-1,2-Dichloroethene	50.0	55.7	111.46	80-120
31	2,2-Dichloropropane	50.0	55.8	111.60	80-120
38	Cyclohexane	50.0	58.8	117.66	80-120
34	Bromochloromethane	50.0	49.5	98.92	80-120
41	Chloroform +	50.0	53.8	107.69	80-120
39	Carbon Tetrachloride	50.0	54.9	109.70	80-120
37	1,1,1-Trichloroethane	50.0	53.7	107.44	80-120
42	1,1-Dichloropropene	50.0	56.0	112.00	80-120
32	2-Butanone	50.0	52.0	104.05	80-120
44	Benzene	50.0	53.4	106.82	80-120
46	1,2-Dichloroethane	50.0	54.2	108.33	80-120
50	Methyl Cyclohexane	50.0	54.9	109.73	80-120
49	Trichloroethene	50.0	53.8	107.55	80-120

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
52 Dibromomethane	50.0	51.9	103.89	80-120
51 1,2-Dichloropropane +	50.0	56.0	111.93	80-120
54 Bromodichloromethane	50.0	55.2	110.41	80-120
57 1-Bromo-2-chloroethane	50.0	52.9	105.70	80-120
56 2-Chloroethyl vinyl ether	50.0	49.1	98.16	80-120
58 cis-1,3-Dichloropropene	50.0	50.5	101.02	80-120
61 Toluene +	50.0	52.8	105.69	80-120
66 Tetrachloroethene	50.0	52.6	105.27	80-120
59 4-methyl-2-pentanone	50.0	57.5	115.08	80-120
62 trans-1,3-Dichloropropene	50.0	48.1	96.15	80-120
65 1,1,2-Trichloroethane	50.0	53.6	107.23	80-120
69 Dibromochloromethane	50.0	53.5	107.05	80-120
67 1,3-Dichloropropane	50.0	54.1	108.20	80-120
70 1,2-Dibromoethane(EDB)	50.0	57.3	114.69	80-120
68 2-Hexanone	50.0	52.6	105.15	80-120
140 1-Chlorohexane	50.0	50.8	101.61	80-120
72 Chlorobenzene ++	50.0	52.7	105.49	80-120
73 Ethylbenzene +	50.0	53.6	107.26	80-120
74 1,1,1,2-Tetrachloroethane	50.0	53.5	106.97	80-120
75 p,m-Xylene	100	107	107.20	80-120
76 o-Xylene	50.0	55.2	110.45	80-120
77 Styrene	50.0	56.5	112.98	80-120
78 Bromoform ++	50.0	54.3	108.54	80-120
79 Isopropylbenzene	50.0	54.8	109.68	80-120
84 Bromobenzene	50.0	52.9	105.81	80-120
86 n-Propylbenzene	50.0	54.5	109.06	80-120
81 1,1,2,2-Tetrachloroethane++	50.0	52.3	104.58	80-120
87 2-Chlorotoluene	50.0	53.0	105.92	80-120
88 1,3,5-Trimethylbenzene	50.0	55.6	111.23	80-120
85 1,2,3-Trichloropropane	50.0	54.5	109.04	80-120
83 trans-1,4-Dichloro-2-Butene	50.0	51.4	102.75	80-120
90 4-Chlorotoluene	50.0	54.2	108.43	80-120
91 tert-butylbenzene	50.0	53.5	107.03	80-120
93 1,2,4-Trimethylbenzene	50.0	56.5	113.06	80-120
94 sec-Butylbenzene	50.0	53.2	106.44	80-120
92 p-Isopropyltoluene	50.0	57.7	115.49	80-120
96 1,3-Dichlorobenzene	50.0	53.4	106.85	80-120
98 1,4-Dichlorobenzene	50.0	53.6	107.13	80-120
100 n-Butylbenzene	50.0	56.5	113.09	80-120
102 1,2-Dichlorobenzene	50.0	53.8	107.53	80-120
106 1,2-Dibromo-3-Chloropropane	50.0	53.7	107.36	80-120
109 Hexachlorobutadiene	50.0	56.5	113.00	80-120
108 1,2,4-Trichlorobenzene	50.0	58.7	117.44	80-120
110 Naphthalene	50.0	55.8	111.51	80-120
111 1,2,3-Trichlorobenzene	50.0	55.5	111.04	80-120

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Calibration File Names:
Level 3: /var/chem/msv13.i/2150402.s.b/a3015D.d
Level 4: /var/chem/msv13.i/2150402.s.b/a3016D.d
Level 5: /var/chem/msv13.i/2150402.s.b/a3017D.d
Level 6: /var/chem/msv13.i/2150402.s.b/a3018D.d
Level 7: /var/chem/msv13.i/2150402.s.b/a3019D.d
Level 8: /var/chem/msv13.i/2150402.s.b/a3020D.d
Level 9: /var/chem/msv13.i/2150402.s.b/a3022D.d

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
1 Dichlorodifluoromethane	0.23756	0.22118	0.18238	0.17753	0.22584	0.25162						
	0.23370						AVRG		0.21854		12.85501	
2 Chloromethane ++	0.24288	0.20021	0.18129	0.17852	0.20658	0.21996						
	0.19534						AVRG		0.20354		11.03325	
3 Vinyl Chloride +	0.26868	0.26090	0.22099	0.21603	0.27820	0.30845						
	0.29022						AVRG		0.26335		13.01045	
5 1-3 Butadiene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
6 Bromomethane	1498 / 226332	6584	11717	22140	56027	118517	LINR	-0.02837	0.15875		0.99936	
7 Chloroethane	0.18063 / 0.15215	0.17274	0.14944	0.14569	0.16692	0.16865	AVRG		0.16232		8.15365	
8 Trichlorofluoromethane	0.36432 / 0.32405	0.34168	0.27450	0.26764	0.33210	0.34943	AVRG		0.32196		11.51667	
4 2-Chloropropene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
9 Ethyl Ether	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
10 1,1-Dichloroethene +	0.22772 / 0.20891	0.20416	0.17253	0.17037	0.20126	0.22205	AVRG		0.20100		11.08429	
11 Carbon Disulfide	0.80557 / 0.70000	0.70054	0.58502	0.58073	0.69209	0.74873	AVRG		0.68752		11.86677	

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GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
12 1,1,2Trichlotrifluoroethane	0.23175	0.21325	0.16684	0.16713	0.20223	0.21951						
	0.20708						AVRG		0.20111		12.49801	
168 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
13 Methyl Iodide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	
14 Acrolein	0.01197	0.01605	0.01575	0.01555	0.01672	0.01676						
	0.01657						AVRG		0.01562		10.76133	
15 Allyl chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
16 Methylene Chloride	3566	12423	21638	43514	111064	244588						
	472519						LINR	-0.00654	0.33222		0.99944	
17 Acetone	1827	6445	12557	25697	67928	141229						
	273151						LINR	-0.01333	0.19205		0.99954	

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GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
18 trans-1,2-Dichloroethene	0.33626	0.30573	0.28714	0.29457	0.33129	0.35167						
	0.34192						AVRG		0.32123		7.82892	
19 Methyl Acetate	2664	9976	19021	42750	97119	213840						
	415955						LINR	-0.01031	0.29179		0.99954	
20 Hexane	1738	7918	13224	30628	101566	239212						
	466586						LINR	0.05863	0.33342		0.99847	
21 MTBE	0.64107	0.66906	0.65489	0.74395	0.75923	0.84580						
	0.84260						AVRG		0.73666		11.63693	
22 tert-Butyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
23 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
24 Isopropyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
25 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
26 1,1-Dichloroethane ++	0.40819	0.41196	0.36466	0.37387	0.41443	0.44697						
	0.43651						AVRG		0.40808		7.37374	
27 Acrylonitrile	0.10628	0.10741	0.10436	0.11335	0.12634	0.12340						
	0.12277						AVRG		0.11485		8.02050	
165 Ethyl Tert-butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
28 Vinyl Acetate	718	3692	6604	14091	53887	111276						
	+++++						LINR	0.05725	0.16185		0.99589	
29 cis-1,2-Dichloroethene	0.27417	0.26099	0.24924	0.26152	0.29648	0.33393						
	0.32690						AVRG		0.28618		11.76023	
M 75 Total 1,2-Dichloroethene	0.30521	0.28336	0.26819	0.27805	0.31388	0.34280						
	0.33441						AVRG		0.30370		9.42002	

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GCAL, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
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Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
30 2,2-Dichloropropane	0.30207	0.29780	0.24699	0.24612	0.31834	0.34763						
	0.32078						AVRG		0.29710		12.81685	
32 Cyclohexane	1429	8224	14797	32924	121222	287873						
	576086						LINR	0.08009	0.41201		0.99841	
34 Bromochloromethane	0.12547	0.13722	0.13533	0.13442	0.13245	0.13744						
	0.13228						AVRG		0.13351		3.06610	
35 Chloroform +	0.44657	0.42053	0.38312	0.38132	0.41280	0.44382						
	0.42614						AVRG		0.41633		6.29867	
36 Carbon Tetrachloride	0.29981	0.31185	0.26360	0.25950	0.31545	0.35265						
	0.34373						AVRG		0.30666		11.69619	
37 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
38 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

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GCAL, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
41 1,1,1-Trichloroethane	0.35368	0.34146	0.29967	0.28968	0.34848	0.38265						
	0.37640						AVRG		0.34172		10.37589	
42 sec-butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
43 1,1-Dichloropropene	1373	7700	13640	29702	99673	239481						
	482016						LINR	0.07495	0.34359		0.99850	
44 2-Butanone	0.13563	0.16132	0.15562	0.16997	0.18715	0.20670						
	0.20162						AVRG		0.17400		14.82406	
45 2,2,4 Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
31 Heptane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
46 Benzene	0.85847	0.85925	0.80276	0.83807	0.95640	1.03652						
	1.02642						AVRG		0.91113		10.37455	

QC JL2502517

GCAL, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	200 Level 9	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
47 Propionitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
48 Methylacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
166 Tert-butyl formate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
51 1,2-Dichloroethane	0.32432	0.33794	0.31085	0.31071	0.32013	0.34310	0.33524	AVRG		0.32604		4.00085	
52 Isobutyl Alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
55 Methyl Cyclohexane	2153	10283	17327	36452	131220	309083	615269	LINR	0.07016	0.43922		0.99844	
56 Trichloroethene	0.30368	0.28800	0.25862	0.26617	0.29177	0.31909	0.32186	AVRG		0.29274		8.31533	

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GCAL, Inc.

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Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
167 tert-amyl Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
39 1,3-difluorobenzene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
33 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
57 Dibromomethane	0.17756	0.16453	0.15845	0.15908	0.15885	0.17266						
	0.16986						AVRG		0.16586		4.61250	
58 2-3 Dichloro-1-Proprene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
59 1,2-Dichloropropane +	0.21998	0.22440	0.20832	0.21243	0.23029	0.25368						
	0.25379						AVRG		0.22898		8.03366	
60 Bromodichloromethane	0.33207	0.32723	0.30320	0.30957	0.32516	0.35422						
	0.35357						AVRG		0.32929		5.95853	

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GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
164 Tert-amyl alcohol	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
61 Methyl methacrylate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
62 1,4- Dioxane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
49 1,4-difluorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
54 1,2-difluorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
65 1-Bromo-2-chloroethane	0.03742 0.05271	0.04382	0.04509	0.04494	0.04853	0.05183	AVRG		0.04633		11.31885	
64 2-Chloroethyl vinyl ether	398 244548	2851	6016	15161	53035	113332	LINR	0.08633	0.17311		0.99872	

GCAL, Inc.

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
67 cis-1,3-Dichloropropene	1904 629943	10080	20747	47298	137431	313093	LINR	0.05112	0.44642		0.99944	
69 Toluene +	2.79300 2.56521	2.40422	2.20084	2.14462	2.38624	2.59610	AVRG		2.44146		9.35885	
66 3-ethyltoluene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
81 2-Nitropropane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
71 Tetrachloroethene	0.61260 0.57148	0.53747	0.45820	0.45294	0.53649	0.58589	AVRG		0.53644		11.43235	
73 4-methyl-2-pentanone	0.54589 0.75635	0.56950	0.55062	0.60997	0.65721	0.75521	AVRG		0.63496		14.32594	
74 trans-1,3-Dichloropropene	1979 625501	10904	21784	47489	134403	309191	LINR	0.04999	0.44243		0.99936	

GCAL, Inc.

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
M 82 1-3 Dichloropropene total	3883 1255444	20984	42531	94787	271834	622284	LINR	0.10110	0.44442		0.99941	
77 Ethyl Methacrylate	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
76 1,1,2-Trichloroethane	0.64891 0.59645	0.63653	0.58843	0.58495	0.57367	0.61392	AVRG		0.60612		4.62946	
78 Dibromochloromethane	0.70693 0.73905	0.70196	0.65673	0.65349	0.67378	0.74102	AVRG		0.69614		5.20499	
170 3,4-dichloro-1-butene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
79 1,3-Dichloropropane	0.94929 1.02695	0.95247	0.90327	0.91547	0.94048	1.02510	AVRG		0.95900		5.12051	
70 1-Nitropropane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2	
	200 Level 9											
80 1,2-Dibromoethane(EDB)	0.60707 0.65050	0.60341	0.57819	0.58232	0.59742	0.65266	AVRG		0.61023		4.93814	
72 2-ethyltoluene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
112 1-3 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
111 1-4 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
83 2-Hexanone	1041 392989	5232	11305	26309	80242	192555	LINR	0.07128	0.61892		0.99882	
116 1-2 Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
M 126 Total Diethylbenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-

GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
86 1-Chlorohexane	1581	5692	12366	27669	100270	245314						
	509827						LINR	0.09598	0.80581		0.99801	
85 Chlorobenzene ++	2.00633	1.76103	1.58705	1.59742	1.71183	1.82601						
	1.79551						AVRG		1.75502		8.21725	
87 Ethylbenzene +	2146	10725	21572	45693	135029	310595						
	611358						LINR	0.03715	0.96128		0.99917	
88 1,1,1,2-Tetrachloroethane	0.65325	0.63971	0.59021	0.57707	0.60934	0.66136						
	0.64968						AVRG		0.62580		5.33759	
89 p,m-Xylene	4227	24659	50300	111662	331768	768417						
	1511851						LINR	0.08576	1.19069		0.99912	
63 Methyldisulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
90 o-Xylene	1877	10457	21267	49020	154715	359272						
	733932						LINR	0.06602	1.15474		0.99912	

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GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
M 121 TOTAL XYLENE	6104	35116	71567	160682	486483	1127689						
	2245783						LINR	0.15110	1.17862		0.99919	
91 Styrene	2657	16991	37724	91267	276749	633929						
	1269960						LINR	0.05507	2.00077		0.99937	
92 Bromoform ++	2275	9153	17077	35963	91696	208414						
	415257						LINR	0.01540	0.64693		0.99951	
93 Isopropylbenzene	4335	27349	55380	128245	410392	953998						
	1949868						LINR	0.06837	3.06973		0.99909	
169 cis-1,4-dichloro-2-butene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
96 Bromobenzene	1.16807	1.05455	0.97166	0.99930	1.05294	1.13332						
	1.12794						AVRG		1.07254		6.82388	
97 n-Propylbenzene	6724	36240	69411	152551	470003	1085795						
	2178188						LINR	0.05264	2.99321		0.99931	

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GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
98 1,1,2,2-Tetrachloroethane++	0.87941	0.79302	0.71611	0.72375	0.75126	0.78152						
	0.75217						AVRG		0.77103		7.16991	
99 2-Chlorotoluene	4750	25577	51169	110913	327960	744447						
	1492309						LINR	0.04314	2.04606		0.99955	
102 1,3,5-Trimethylbenzene	3358	21608	46274	110887	351120	817082						
	1638483						LINR	0.06376	2.25949		0.99926	
100 1,2,3-Trichloropropane	0.95673	0.96890	0.93104	0.95764	0.97552	1.07264						
	1.07696						AVRG		0.99135		5.91974	
101 trans-1,4-Dichloro-2-Butene	0.16805	0.17544	0.17594	0.18366	0.19848	0.22005						
	0.21926						AVRG		0.19155		11.16843	
103 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
104 4-Chlorotoluene	4185	23789	47749	105184	300959	688646						
	1387111						LINR	0.04432	1.90011		0.99954	

21504S12

GCAL, Inc.

INITIAL CALIBRATION DATA

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Compound	1 Level 3 / 200 Level 9	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
105 tert-butylbenzene	2452 886018	13902	27113	61437	191415	437254	LINR	0.05689	1.21700		0.99939	
106 Pentachloroethane	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
107 1,2,4-Trimethylbenzene	3047 1666280	19644	44907	110252	346337	818075	LINR	0.07425	2.29678		0.99913	
108 sec-Butylbenzene	4952 2117391	31939	63247	143592	455818	1054735	LINR	0.05935	2.91542		0.99927	
110 p-Isopropyltoluene	3390 1859543	21926	48230	115275	389897	919166	LINR	0.07682	2.56906		0.99900	
109 Dicyclopentadiene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00	<-
113 1,3-Dichlorobenzene	1.37426 1.42050	1.24110	1.19896	1.25606	1.34567	1.45171	AVRG		1.32690		7.26020	

GCAL, Inc.

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Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2	
	200 Level 9											
115 1,4-Dichlorobenzene	1.55743	1.33369	1.27513	1.27210	1.37558	1.45435						
	1.42304						AVRG		1.38447		7.43209	
117 n-Butylbenzene	3847	21498	41071	96478	325111	756411						
	1519062						LINR	0.06749	2.09650		0.99906	
118 1,2-Dichlorobenzene	1.27426	1.21650	1.14185	1.22215	1.29849	1.39063						
	1.38079						AVRG		1.27495		7.09220	
94 2-methylnapthalene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
119 1,2-Dibromo-3-Chloropropane	0.19760	0.20915	0.19973	0.21187	0.21472	0.23867						
	0.24278						AVRG		0.21636		8.22311	
163 3,3 Dimethyl-1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-
123 Benzal Chloride	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+00		0.000e+00	<-

12/04/2015

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	m1	m2	%RSD or R^2
	200 Level 9										
120 Hexachlorobutadiene	1660	7316	13262	26504	84633	193544					
	373571						LINR	0.03218	0.51468		0.99887
122 1,2,4-Trichlorobenzene	2205	11165	22679	52236	162994	393425					
	779225						LINR	0.06339	1.07616		0.99882
124 Naphthalene	3903	23551	52589	142136	446225	1076501					
	2158223						LINR	0.07658	2.98565		0.99893
125 1,2,3-Trichlorobenzene	2222	12087	25277	60386	175231	400094					
	777658						LINR	0.03658	1.07150		0.99929
$ 40 Dibromofluoromethane	0.27173	0.26704	0.26697	0.26424	0.26000	0.25902					
	0.26165						AVRG		0.26438		1.71325
$ 50 1,2-Dichloroethane-d4	0.15802	0.15659	0.15582	0.15385	0.15116	0.15230					
	0.14542						AVRG		0.15331		2.76106
$ 68 Toluene-d8	2.39505	2.36924	2.35112	2.31738	2.28120	2.27281					
	2.26341						AVRG		2.32146		2.22104

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-APR-2015 13:28
End Cal Date : 02-APR-2015 16:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Cal Date : 06-Apr-2015 11:49 clh

Compound	1 Level 3	5 Level 4	10 Level 5	20 Level 6	50 Level 7	100 Level 8	Curve	Coefficients b	 m1	 m2	%RSD or R^2
	200 Level 9										
$ 95 Bromofluorobenzene	0.89351	0.89265	0.90118	0.88613	0.87584	0.86754					
	0.87187						AVRG		0.88410		1.42284

2150402L17 153

Data File: /var/chem/msv13.i/2150402.s.b/a3024Dicv.d
Report Date: 06-Apr-2015 11:49

GCAL, Inc.

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 1600
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 8260b.sub
Method File: /var/chem/msv13.i/2150402.s.b/8260dodw13.m
Misc Info: MSV~33077~*1*TJB

Client SDG: 2150402.s
Fraction: VOA
Client Smp ID: V13ICV050
Operator: TJB
SampleType: LCS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS	
1	Dichlorodifluoromethane	50.0	57.2	114.34	80-120	
2	Chloromethane ++	50.0	57.7	115.47	80-120	
3	Vinyl Chloride +	50.0	57.5	114.92	80-120	
6	Bromomethane	50.0	59.6	119.18	80-120	
7	Chloroethane	50.0	55.2	110.33	80-120	
8	Trichlorofluoromethane	50.0	56.4	112.75	80-120	
10	1,1-Dichloroethene +	50.0	55.7	111.43	80-120	
11	Carbon Disulfide	50.0	53.8	107.66	80-120	
12	1,1,2Trichlotrifluoroethane	50.0	54.4	108.79	80-120	
13	Methyl Iodide	50.0	0.00	0.00*	80-120	NT
14	Acrolein	250	213	85.22	80-120	
16	Methylene Chloride	50.0	52.7	105.35	80-120	
17	Acetone	50.0	53.3	106.70	80-120	
18	trans-1,2-Dichloroethene	50.0	59.4	118.85	80-120	
19	Methyl Acetate	50.0	52.1	104.13	80-120	
20	Hexane	50.0	53.1	106.26	80-120	
21	MTBE	50.0	56.5	113.09	80-120	
26	1,1-Dichloroethane ++	50.0	54.0	108.01	80-120	
27	Acrylonitrile	250	252	100.88	80-120	
28	Vinyl Acetate	50.0	41.6	83.18	80-120	
29	cis-1,2-Dichloroethene	50.0	57.6	115.20	80-120	
30	2,2-Dichloropropane	50.0	59.7	119.37	80-120	
32	Cyclohexane	50.0	50.6	101.23	80-120	
34	Bromochloromethane	50.0	54.9	109.80	80-120	
35	Chloroform +	50.0	53.0	106.04	80-120	
36	Carbon Tetrachloride	50.0	55.2	110.36	80-120	
41	1,1,1-Trichloroethane	50.0	56.4	112.77	80-120	
43	1,1-Dichloropropene	50.0	51.3	102.64	80-120	
44	2-Butanone	50.0	55.9	111.71	80-120	
46	Benzene	50.0	56.8	113.69	80-120	
51	1,2-Dichloroethane	50.0	53.3	106.66	80-120	
55	Methyl Cyclohexane	50.0	52.6	105.20	80-120	
56	Trichloroethene	50.0	54.9	109.72	80-120	

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
57 Dibromomethane	50.0	52.0	103.94	80-120
59 1,2-Dichloropropane +	50.0	55.1	110.23	80-120
60 Bromodichloromethane	50.0	54.5	108.95	80-120
65 1-Bromo-2-chloroethane	50.0	55.5	111.08	80-120
64 2-Chloroethyl vinyl ether	50.0	47.7	95.48	80-120
67 cis-1,3-Dichloropropene	50.0	53.1	106.13	80-120
69 Toluene +	50.0	54.6	109.27	80-120
71 Tetrachloroethene	50.0	57.7	115.39	80-120
73 4-methyl-2-pentanone	50.0	55.8	111.59	80-120
74 trans-1,3-Dichloropropene	50.0	51.7	103.34	80-120
76 1,1,2-Trichloroethane	50.0	53.9	107.75	80-120
78 Dibromochloromethane	50.0	54.8	109.66	80-120
79 1,3-Dichloropropane	50.0	56.0	111.93	80-120
80 1,2-Dibromoethane(EDB)	50.0	55.1	110.11	80-120
83 2-Hexanone	50.0	51.2	102.30	80-120
86 1-Chlorohexane	50.0	48.7	97.45	80-120
85 Chlorobenzene ++	50.0	56.0	111.97	80-120
87 Ethylbenzene +	50.0	55.1	110.27	80-120
88 1,1,1,2-Tetrachloroethane	50.0	56.5	113.05	80-120
89 p,m-Xylene	100	111	110.62	80-120
90 o-Xylene	50.0	54.7	109.42	80-120
91 Styrene	50.0	55.5	111.03	80-120
92 Bromoform ++	50.0	53.6	107.12	80-120
93 Isopropylbenzene	50.0	54.0	108.07	80-120
96 Bromobenzene	50.0	56.9	113.80	80-120
97 n-Propylbenzene	50.0	55.6	111.10	80-120
98 1,1,2,2-Tetrachloroethane++	50.0	55.2	110.42	80-120
99 2-Chlorotoluene	50.0	54.9	109.77	80-120
102 1,3,5-Trimethylbenzene	50.0	55.1	110.23	80-120
100 1,2,3-Trichloropropane	50.0	54.8	109.53	80-120
101 trans-1,4-Dichloro-2-Butene	50.0	58.1	116.15	80-120
104 4-Chlorotoluene	50.0	54.8	109.66	80-120
105 tert-butylbenzene	50.0	54.3	108.62	80-120
107 1,2,4-Trimethylbenzene	50.0	54.3	108.65	80-120
108 sec-Butylbenzene	50.0	54.5	108.91	80-120
110 p-Isopropyltoluene	50.0	54.0	108.02	80-120
113 1,3-Dichlorobenzene	50.0	59.1	118.16	80-120
115 1,4-Dichlorobenzene	50.0	57.5	115.06	80-120
117 n-Butylbenzene	50.0	56.4	112.71	80-120
118 1,2-Dichlorobenzene	50.0	59.0	118.08	80-120
119 1,2-Dibromo-3-Chloropropane	50.0	52.7	105.35	80-120
120 Hexachlorobutadiene	50.0	57.2	114.50	80-120
122 1,2,4-Trichlorobenzene	50.0	56.2	112.31	80-120
124 Naphthalene	50.0	53.1	106.23	80-120
125 1,2,3-Trichlorobenzene	50.0	56.5	113.10	80-120

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID (Standard): 2150406/m4429d Date Analyzed: 04/06/15 Time: 1234

Instrument ID: MSV12 GC Column: RTX-VMS-30M ID: .25 (mm)

Analytical Batch: 555683 Heated Burge: (Y/N) N

	IS1 Area		IS1 RT		IS2 Area		IS2 RT		IS3 Area		IS3 RT	
STANDARD	110088		6.46		49584		8.98		57508		10.44	
EPA Sample No.		#		#		#		#		#		#
LCS1431563	116648		6.47		49839		8.99		58259		10.44	
LCSD1431564	119312		6.46		49728		8.99		59315		10.45	
MB1431562	117123		6.46		46907		8.98		49513		10.44	
M114MW002	112614		6.47		44117		8.99		46867		10.45	
M114MW002-c	110769		6.47		44180		8.98		46710		10.44	
M114MW004	110477		6.47		44132		8.98		46742		10.44	
M114MW003	106093		6.46		44371		8.98		45577		10.44	
M114MW003-c	104497		6.46		43246		8.99		44703		10.44	
M114MW001-c	105472		6.46		44144		8.98		46259		10.44	

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Lab File ID (Standard): 2150402/a3019D Date Analyzed: 04/02/15 Time: 1501

Instrument ID: MSV13 GC Column: RTX-VMS-30M ID: .25 (mm)

Analytical Batch: 555492 Heated Burge: (Y/N) N

	IS1		IS2		IS3	
	Area	RT	Area	RT	Area	RT
STANDARD	342400	6.66	153551	9.14	174802	10.59

EPA Sample No.		#		#		#		#		#		#
LCS1430750	373682		6.66		162414		9.14		184150		10.59	
LCSD1430751	367872		6.66		160890		9.14		183021		10.59	
MB1430749	331569		6.66		133485		9.14		145966		10.59	
M114MW001	270058		6.66		110306		9.14		122812		10.59	
M114MW001-MS	320621		6.66		143154		9.14		166902		10.59	
M114MW001-SD	324437		6.66		144390		9.14		165341		10.59	

IS 1 ID: Fluorobenzene
IS 2 ID: Chlorobenzene d5
IS 3 ID: 1,4-Dichlorobenzene-d4

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 internal standard values with an asterisk.
* Values outside of QC limits.

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv12.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		m4423.d	0.00 ml	06-APR-2015 09:49	1.000	CLH	2
1000		m4423d.d	0.00 ml	06-APR-2015 09:49	1.000	CLH	2
1201		m4424.d	5.00 ml	06-APR-2015 10:41	1.000	JCK	1
1203		m4425.d	5.00 ml	06-APR-2015 11:04	1.000	JCK	2
1203		m4425d.d	5.00 ml	06-APR-2015 11:04	1.000	CLH	2
1203		m4425L.d	5.00 ml	06-APR-2015 11:04	1.000	JCK	2
1204		m4426.d	5.00 ml	06-APR-2015 11:26	1.000	JCK	3
1204		m4426d.d	5.00 ml	06-APR-2015 11:26	1.000	CLH	3
1204		m4426L.d	5.00 ml	06-APR-2015 11:26	1.000	JCK	3
1205		m4427.d	5.00 ml	06-APR-2015 11:49	1.000	JCK	4
1205		m4427d.d	5.00 ml	06-APR-2015 11:49	1.000	CLH	4
1206		m4428.d	5.00 ml	06-APR-2015 12:11	1.000	JCK	5
1206		m4428d.d	5.00 ml	06-APR-2015 12:11	1.000	CLH	5
1207		m4429.d	5.00 ml	06-APR-2015 12:34	1.000	JCK	6
1207		m4429d.d	5.00 ml	06-APR-2015 12:34	1.000	CLH	6
BLANK		m4430.d	5.00 ml	06-APR-2015 12:56	1.000	CLH	7
1208		m4431.d	5.00 ml	06-APR-2015 13:19	1.000	CLH	8
1208		m4431d.d	5.00 ml	06-APR-2015 13:19	1.000	CLH	8
BLANK		m4432.d	5.00 ml	06-APR-2015 13:41	1.000	CLH	9
1209		m4433.d	5.00 ml	06-APR-2015 14:04	1.000	CLH	10
1209		m4433d.d	5.00 ml	06-APR-2015 14:04	1.000	CLH	10
BLANK		m4434.d	5.00 ml	06-APR-2015 14:27	1.000	CLH	11
1600		m4435.d	5.00 ml	06-APR-2015 14:50	1.000	CLH	12
1600		m4435d.d	5.00 ml	06-APR-2015 14:50	1.000	CLH	12
LCS		m4436.d	5.00 ml	06-APR-2015 15:12	1.000	CLH	13
LCSD		m4437.d	5.00 ml	06-APR-2015 15:35	1.000	CLH	14
1400		m4438.d	5.00 ml	06-APR-2015 15:58	1.000	CLH	15
MB		m4439.d	5.00 ml	06-APR-2015 16:20	1.000	CLH	18
MB		m4440.d	5.00 ml	06-APR-2015 16:43	1.000	CLH	19
21503300708		m4441.d	5.00 ml	06-APR-2015 17:05	1.000	CLH	20
21503312301		m4442.d	5.00 ml	06-APR-2015 17:28	1.000	CLH	21
21504021701		m4443.d	5.00 ml	06-APR-2015 17:51	1.000	CLH	22
21504021702		m4444.d	5.00 ml	06-APR-2015 18:13	1.000	CLH	23
21504021703		m4445.d	5.00 ml	06-APR-2015 18:36	1.000	CLH	24
21504021704		m4446.d	5.00 ml	06-APR-2015 18:59	1.000	CLH	25
21504021705		m4447.d	5.00 ml	06-APR-2015 19:21	1.000	CLH	26

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 06-APR-2015
Instrument: msv12.i
Analyst(s): CLH

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
21504021707		m4448.d	5.00 ml	06-APR-2015 19:44	1.000	CLH	27
21504030401		m4449.d	5.00 ml	06-APR-2015 20:06	1.000	CLH	28
21504030402		m4450.d	5.00 ml	06-APR-2015 20:29	1.000	CLH	29
21504030403		m4451.d	5.00 ml	06-APR-2015 20:51	1.000	CLH	30
21504030501		m4452.d	5.00 ml	06-APR-2015 21:14	1.000	CLH	31
21504030502		m4453.d	5.00 ml	06-APR-2015 21:36	1.000	CLH	32
BLANK		m4454.d	5.00 ml	06-APR-2015 21:59	1.000	CLH	33

REVISED 1-28-15 Supervisor Review: TUNE TIME: :

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 02-APR-2015
Instrument: msv7.i
Analyst(s): TJB

	Standard	Conc	ID#	EXP
	8260 IS/SS	50	126-33-1	09/21/15
1000 (BFB)	BFB IS/SS	50	126-33-1	09/21/15
1201-1209 (ICAL)	8260	250	126-33-9	04/16/15
	AC/AC/VA	MC	126-33-5	04/30/15
	2-CVE	250	126-32-12	09/17/15
1600 (ICV)	8260 ICV	250	126-27-1	06/05/15
	AC/AC/VA ICV	MC	126-32-10	04/30/15
	2-CVE ICV	250	126-30-6	07/02/15

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
1000		a3012.d	0.00 ml	02-APR-2015 11:18	1.000	TJB	2
1000		a3012D.d	0.00 ml	02-APR-2015 11:18	1.000	TJB	2
1201		a3013.d	5.00 ml	02-APR-2015 12:42	1.000	TJB	1
1202		a3014.d	5.00 ml	02-APR-2015 13:05	1.000	TJB	1
1203		a3015.d	5.00 ml	02-APR-2015 13:28	1.000	TJB	1
1203		a3015D.d	5.00 ml	02-APR-2015 13:28	1.000	TJB	1
1204		a3016.d	5.00 ml	02-APR-2015 13:51	1.000	TJB	1
1204		a3016D.d	5.00 ml	02-APR-2015 13:51	1.000	TJB	1
1205		a3017.d	5.00 ml	02-APR-2015 14:15	1.000	TJB	1
1205		a3017D.d	5.00 ml	02-APR-2015 14:15	1.000	TJB	1
1206		a3018.d	5.00 ml	02-APR-2015 14:38	1.000	TJB	1
1206		a3018D.d	5.00 ml	02-APR-2015 14:38	1.000	TJB	1
1207		a3019.d	5.00 ml	02-APR-2015 15:01	1.000	TJB	1
1207		a3019D.d	5.00 ml	02-APR-2015 15:01	1.000	TJB	1
1208		a3020.d	5.00 ml	02-APR-2015 15:24	1.000	TJB	1
1208		a3020D.d	5.00 ml	02-APR-2015 15:24	1.000	TJB	1
BLANK		a3021.d	5.00 ml	02-APR-2015 15:48	1.000	TJB	1
1209		a3022.d	5.00 ml	02-APR-2015 16:11	1.000	TJB	1
1209		a3022D.d	5.00 ml	02-APR-2015 16:11	1.000	TJB	1
BLANK		a3023.d	5.00 ml	02-APR-2015 16:34	1.000	TJB	1
1600		a3024.d	5.00 ml	02-APR-2015 17:00	1.000	TJB	1
1600		a3024Dicv.d	5.00 ml	02-APR-2015 17:00	1.000	TJB	1
1430750		a3025.d	5.00 ml	02-APR-2015 18:16	1.000	TJB	1
1430751		a3026.d	5.00 ml	02-APR-2015 18:39	1.000	TJB	1
BLANK		a3027.d	5.00 ml	02-APR-2015 19:20	1.000	JCK	1
BLANK		a3028.d	5.00 ml	02-APR-2015 19:43	1.000	JCK	1
1430749		a3029.d	5.00 ml	02-APR-2015 20:06	1.000	JCK	1
BLANK	AF BLANK	a3030.d	5.00 ml	02-APR-2015 20:29	1.000	JCK	1
21503300706	AF ADDED	a3031.d	5.00 ml	02-APR-2015 20:51	10.000	JCK	1
21503300707		a3032.d	5.00 ml	02-APR-2015 21:14	20.000	JCK	1
21504021706		a3033.d	5.00 ml	02-APR-2015 21:37	1.000	JCK	1
21504021708		a3034.d	5.00 ml	02-APR-2015 21:59	1.000	JCK	1
21504021709		a3035.d	5.00 ml	02-APR-2015 22:22	1.000	JCK	1
BLANK		a3036.d	5.00 ml	02-APR-2015 22:45	1.000	JCK	1
BLANK		a3037.d	5.00 ml	02-APR-2015 23:08	1.000	JCK	1
21503300708	RR OOT	a3038.d	5.00 ml	02-APR-2015 23:30	1.000	JCK	1

LABORATORY CHRONICLE: MSV DEPARTMENT

Date: 02-APR-2015
Instrument: msv13.i
Analyst(s): TJB

	Standard	Conc	ID	EXP
	8260 IS/SS	50		
1000 (BFB)	BFB IS/SS	50		
1400 (CCV)	8260	250		
	Ac/Ac/VA	MC		
	CVE	250		

Sample ID	Comments	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS
21503312301	RR OOT	a3039.d	5.00 ml	02-APR-2015 23:53	1.000	JCK	1
21504021701		a3040.d	5.00 ml	03-APR-2015 00:16	10.000	JCK	1
21504021702		a3041.d	5.00 ml	03-APR-2015 00:39	1.000	JCK	1
21504021703		a3042.d	5.00 ml	03-APR-2015 01:01	1.000	JCK	1
21504021704		a3043.d	5.00 ml	03-APR-2015 01:24	1.000	JCK	1
21504021705		a3044.d	5.00 ml	03-APR-2015 01:47	1.000	JCK	1
21504021707		a3045.d	5.00 ml	03-APR-2015 02:09	1.000	JCK	1
BLANK		a3046.d	5.00 ml	03-APR-2015 02:32	1.000	JCK	1
BLANK		a3047.d	5.00 ml	03-APR-2015 02:55	1.000	JCK	1

REVISED 1-28-15 Supervisor Review: TUNE TIME: 23:18 04/3/15

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW002

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021701

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1145

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0203

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2150403/a2024

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.360	U	0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.300	U	0.300	1.00
99-65-0	1,3-Dinitrobenzene	0.150	U	0.150	1.00
121-14-2	2,4-Dinitrotoluene	0.290	U	0.290	1.00
606-20-2	2,6-Dinitrotoluene	0.260	U	0.260	1.00
2691-41-0	HMX	0.130	UQ	0.130	1.00
98-95-3	Nitrobenzene	0.230	U	0.230	1.00
55-63-0	Nitroglycerin	0.380	U	0.380	1.00
88-72-2	2-Nitrotoluene	0.170	U	0.170	1.00
99-08-1	3-Nitrotoluene	0.330	U	0.330	1.00
99-99-0	4-Nitrotoluene	0.420	UQ	0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	0.590	U	0.590	1.00
121-82-4	RDX	0.170	U	0.170	1.00
479-45-8	Tetryl	0.240	U	0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	0.150	U	0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	0.270	U	0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW004

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021703

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1325

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0242

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2150403/a2025

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.360	U	0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.300	U	0.300	1.00
99-65-0	1,3-Dinitrobenzene	0.150	U	0.150	1.00
121-14-2	2,4-Dinitrotoluene	0.290	U	0.290	1.00
606-20-2	2,6-Dinitrotoluene	0.260	U	0.260	1.00
2691-41-0	HMX	0.130	UQ	0.130	1.00
98-95-3	Nitrobenzene	0.230	U	0.230	1.00
55-63-0	Nitroglycerin	0.380	U	0.380	1.00
88-72-2	2-Nitrotoluene	0.170	U	0.170	1.00
99-08-1	3-Nitrotoluene	0.330	U	0.330	1.00
99-99-0	4-Nitrotoluene	0.420	UQ	0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	0.590	U	0.590	1.00
121-82-4	RDX	0.170	U	0.170	1.00
479-45-8	Tetryl	0.240	U	0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	0.150	U	0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	0.270	U	0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW003

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021704

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1126

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0321

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: ug/L | Lab File ID: 2150403/a2026

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.360	U	0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.300	U	0.300	1.00
99-65-0	1,3-Dinitrobenzene	0.150	U	0.150	1.00
121-14-2	2,4-Dinitrotoluene	0.290	U	0.290	1.00
606-20-2	2,6-Dinitrotoluene	0.260	U	0.260	1.00
2691-41-0	HMX	0.130	UQ	0.130	1.00
98-95-3	Nitrobenzene	0.230	U	0.230	1.00
55-63-0	Nitroglycerin	0.380	U	0.380	1.00
88-72-2	2-Nitrotoluene	0.170	U	0.170	1.00
99-08-1	3-Nitrotoluene	0.330	U	0.330	1.00
99-99-0	4-Nitrotoluene	0.420	UQ	0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	0.590	U	0.590	1.00
121-82-4	RDX	0.170	U	0.170	1.00
479-45-8	Tetryl	0.240	U	0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	0.150	U	0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	0.270	U	0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021706

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1253

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0400

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2150403/a2027

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	0.360	UJ	0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.300	U	0.300	1.00
99-65-0	1,3-Dinitrobenzene	0.150	U	0.150	1.00
121-14-2	2,4-Dinitrotoluene	0.290	UJ	0.290	1.00
606-20-2	2,6-Dinitrotoluene	0.260	UJ	0.260	1.00
2691-41-0	HMX	0.130	UQJ	0.130	1.00
98-95-3	Nitrobenzene	0.230	UJ	0.230	1.00
55-63-0	Nitroglycerin	0.380	U	0.380	1.00
88-72-2	2-Nitrotoluene	0.170	UJ	0.170	1.00
99-08-1	3-Nitrotoluene	0.330	UJ	0.330	1.00
99-99-0	4-Nitrotoluene	0.420	UQ	0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	0.590	UJ	0.590	1.00
121-82-4	RDX	0.170	U	0.170	1.00
479-45-8	Tetryl	0.240	U	0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	0.150	UJ	0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	0.270	U	0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021708

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1253

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0438

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2150403/a2028

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	2.15		0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	2.26		0.300	1.00
99-65-0	1,3-Dinitrobenzene	2.84		0.150	1.00
121-14-2	2,4-Dinitrotoluene	1.97		0.290	1.00
606-20-2	2,6-Dinitrotoluene	2.41		0.260	1.00
2691-41-0	HMX	1.95		0.130	1.00
98-95-3	Nitrobenzene	2.43		0.230	1.00
55-63-0	Nitroglycerin	3.60		0.380	1.00
88-72-2	2-Nitrotoluene	2.82		0.170	1.00
99-08-1	3-Nitrotoluene	2.37		0.330	1.00
99-99-0	4-Nitrotoluene	2.80		0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	2.79		0.590	1.00
121-82-4	RDX	2.70		0.170	1.00
479-45-8	Tetryl	1.63		0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	2.30		0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	2.19		0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-SD

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 21504021709

Level: (low/med) LOW | Date Collected: 04/01/15 | Time: 1253

% Moisture: | decanted: (Y/N) | Date Received: 04/02/15

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/04/15 | Time: 0517

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555563 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: ug/L | Lab File ID: 2150403/a2029

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
19406-51-0	4-Amino-2,6-dinitrotoluene	3.40		0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	3.04		0.300	1.00
99-65-0	1,3-Dinitrobenzene	3.75		0.150	1.00
121-14-2	2,4-Dinitrotoluene	3.64		0.290	1.00
606-20-2	2,6-Dinitrotoluene	3.62		0.260	1.00
2691-41-0	HMX	2.88		0.130	1.00
98-95-3	Nitrobenzene	3.42		0.230	1.00
55-63-0	Nitroglycerin	3.64		0.380	1.00
88-72-2	2-Nitrotoluene	3.96		0.170	1.00
99-08-1	3-Nitrotoluene	3.74		0.330	1.00
99-99-0	4-Nitrotoluene	3.77		0.420	1.00
78-11-5	Pentaerythritol Tetranitrate	3.90		0.590	1.00
121-82-4	RDX	3.65		0.170	1.00
479-45-8	Tetryl	2.19		0.240	1.00
99-35-4	1,3,5-Trinitrobenzene	3.02		0.150	1.00
118-96-7	2,4,6-Trinitrotoluene	2.59		0.270	1.00

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: MB1430484

Lab Code: LA024 | Case No.: | Contract:

Matrix: Water | SAS No.: | SDG No.: 215040217

Sample wt/vol: 1000 | Units: mL | Lab Sample ID: 1430484

Level: (low/med) LOW | Date Collected: | Time:

% Moisture: | decanted: (Y/N) | Date Received:

GC Column: | ID: | (mm) | Date Extracted: 04/02/15

Concentrated Extract Volume: 20000 | (µL) | Date Analyzed: 04/07/15 | Time: 1100

Soil Aliquot Volume: | (µL) | Dilution Factor: 1 | Analyst: DLB

Injection Volume: 1 | (µL) | Prep Method: 8330A

GPC Cleanup: (Y/N) N | pH: | Analytical Method: SW-846 8330A

Prep Batch: 555459 | Analytical Batch: 555747 | Sulfur Cleanup: (Y/N) N | Instrument ID: HPLC 2

CONCENTRATION UNITS: *ug/L* | Lab File ID: 2150407/a2003

CAS NO.	COMPOUND	RESULT	Q	MDL	LOQ
2691-41-0	HMX	0.130	U	0.130	1.00
121-82-4	RDX	0.170	U	0.170	1.00
99-35-4	1,3,5-Trinitrobenzene	0.150	U	0.150	1.00
99-65-0	1,3-Dinitrobenzene	0.150	U	0.150	1.00
479-45-8	Tetryl	0.240	U	0.240	1.00
98-95-3	Nitrobenzene	0.230	U	0.230	1.00
118-96-7	2,4,6-Trinitrotoluene	0.270	U	0.270	1.00
19406-51-0	4-Amino-2,6-dinitrotoluene	0.360	U	0.360	1.00
35572-78-2	2-Amino-4,6-dinitrotoluene	0.300	U	0.300	1.00
121-14-2	2,4-Dinitrotoluene	0.290	U	0.290	1.00
606-20-2	2,6-Dinitrotoluene	0.260	U	0.260	1.00
88-72-2	2-Nitrotoluene	0.170	U	0.170	1.00
99-08-1	3-Nitrotoluene	0.330	U	0.330	1.00
99-99-0	4-Nitrotoluene	0.420	U	0.420	1.00
55-63-0	Nitroglycerin	0.380	U	0.380	1.00
78-11-5	Pentaerythritol Tetranitrate	0.590	U	0.590	1.00

2E

ORGANIC SURROGATE RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

GC Column (1): ID: (mm) GC Cloumn (2): ID: (mm)

Method: SW-846 8330A

	EPA SAMPLE NO.	SMC1 1-(1)	Lo	Hi	F	SMC2 2	Lo	Hi	F	SMC3 3	Lo	Hi	F	SMC4 4	Lo	Hi	F	TOT OUT
1.	M114MW002	79	60	140														0
2.	M114MW004	90	60	140														0
3.	M114MW003	65	60	140														0
4.	M114MW001	79	60	140														0
5.	M114MW001-MS	67	60	140														0
6.	M114MW001-SD	88	60	140														0
7.	LCS1430485	76	60	140														0
8.	LCSD1430486	81	60	140														0
9.	MB1430484	84	60	140														0

SMC 1 : 1,2-Dinitrobenzene SMC 2 :

SMC 3 : SMC 4 :

Column to be used to flag recovery limits

* Value outside of contract required limits

D Surrogate diluted out

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: M114MW001

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Contract: Method: SW-846 8330A

Prep Batch: 555459 Analytical Batch: 555563

SAMPLE NO : 21504021708

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*MS % REC FLAG*	*QC. LIMITS*
1,3,5-Trinitrobenzene	ug/L	4	0	2.3	58	*	65 - 140
1,3-Dinitrobenzene	ug/L	4	0	2.84	71		45 - 160
2,4,6-Trinitrotoluene	ug/L	4	0	2.19	55		50 - 145
2,4-Dinitrotoluene	ug/L	4	0	1.97	49	*	60 - 135
2,6-Dinitrotoluene	ug/L	4	0	2.41	60		60 - 135
2-Amino-4,6-dinitrotoluene	ug/L	4	0	2.26	57		50 - 155
2-Nitrotoluene	ug/L	4	0	2.82	71		45 - 135
3-Nitrotoluene	ug/L	4	0	2.37	59		50 - 130
4-Amino-2,6-dinitrotoluene	ug/L	4	0	2.15	54	*	55 - 155
4-Nitrotoluene	ug/L	4	0	2.8	70		50 - 130
HMX	ug/L	4	0	1.95	49	*	80 - 115
Nitrobenzene	ug/L	4	0	2.43	61		50 - 140
Nitroglycerin	ug/L	4	0	3.6	90		40 - 140
Pentaerythritol Tetranitrate	ug/L	4	0	2.79	70		40 - 140
RDX	ug/L	4	0	2.7	68		50 - 160
Tetryl	ug/L	4	0	1.63	41		20 - 175

RPD : 8 out of 16 outside limits

Spike Recovery: 5 out of 32 outside limits

3E

WATER ORGANICS MS/MSD RECOVERY

Lab Name: GCAL Sample ID: M114MW001

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Contract: Method: SW-846 8330A

Prep Batch: 555459 Analytical Batch: 555563

SAMPLE NO : ***21504021709***

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
1,3,5-Trinitrobenzene	ug/L	4	3.02	76		27		65 - 140	0 - 30
1,3-Dinitrobenzene	ug/L	4	3.75	94		28		45 - 160	0 - 30
2,4,6-Trinitrotoluene	ug/L	4	2.59	65		17		50 - 145	0 - 30
2,4-Dinitrotoluene	ug/L	4	3.64	91		60	*	60 - 135	0 - 30
2,6-Dinitrotoluene	ug/L	4	3.62	91		40	*	60 - 135	0 - 30
2-Amino-4,6-dinitrotoluene	ug/L	4	3.04	76		29		50 - 155	0 - 30
2-Nitrotoluene	ug/L	4	3.96	99		34	*	45 - 135	0 - 30
3-Nitrotoluene	ug/L	4	3.74	94		45	*	50 - 130	0 - 30
4-Amino-2,6-dinitrotoluene	ug/L	4	3.4	85		45	*	55 - 155	0 - 30
4-Nitrotoluene	ug/L	4	3.77	94		30		50 - 130	0 - 30
HMX	ug/L	4	2.88	72	*	39	*	80 - 115	0 - 30
Nitrobenzene	ug/L	4	3.42	86		34	*	50 - 140	0 - 30
Nitroglycerin	ug/L	4	3.64	91		1		40 - 140	0 - 30
Pentaerythritol Tetranitrate	ug/L	4	3.9	98		33	*	40 - 140	0 - 30
RDX	ug/L	4	3.65	91		30		50 - 160	0 - 30
Tetryl	ug/L	4	2.19	55		29		20 - 175	0 - 30

RPD : 8 out of 16 outside limits

Spike Recovery: 5 out of 32 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Contract: Method: SW-846 8330A

Prep Batch: 555459 Analytical Batch: 555563

SAMPLE NO : 1430485

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*LCS CONCENTRATION*	*LCS % REC*	*LCS % REC FLAG*	*QC. LIMITS*
1,3,5-Trinitrobenzene	ug/L	4	0	2.87	72		65 - 140
1,3-Dinitrobenzene	ug/L	4	0	2.97	74		45 - 160
2,4,6-Trinitrotoluene	ug/L	4	0	2.02	51		50 - 145
2,4-Dinitrotoluene	ug/L	4	0	2.57	64		60 - 135
2,6-Dinitrotoluene	ug/L	4	0	2.6	65		60 - 135
2-Amino-4,6-dinitrotoluene	ug/L	4	0	2.62	66		50 - 155
2-Nitrotoluene	ug/L	4	0	2.63	66		45 - 135
3-Nitrotoluene	ug/L	4	0	2.74	69		50 - 130
4-Amino-2,6-dinitrotoluene	ug/L	4	0	2.53	63		55 - 155
4-Nitrotoluene	ug/L	4	0	2.17	54		50 - 130
HMX	ug/L	4	0	3.23	81		80 - 115
Nitrobenzene	ug/L	4	0	3.17	79		50 - 140
Nitroglycerin	ug/L	4	0	3.46	87		40 - 140
Pentaerythritol Tetranitrate	ug/L	4	0	2.71	68		40 - 140
RDX	ug/L	4	0	3.28	82		50 - 160
Tetryl	ug/L	4	0	1.76	44		20 - 175

RPD : 1 out of 16 outside limits

Spike Recovery: 1 out of 32 outside limits

3E

WATER ORGANICS LCS/LCSD RECOVERY

Lab Name: GCAL

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Contract: Method: SW-846 8330A

Prep Batch: 555459 Analytical Batch: 555563

SAMPLE NO : 1430486

COMPOUND	*UNITS*	*SPIKE ADDED*	*LCSD CONC.*	*LCSD % REC*	*REC FLAG*	*% RPD*	*RPD FLAG*	*QC. LIMITS REC*	*RPD*
1,3,5-Trinitrobenzene	ug/L	4	3.03	76		5		65 - 140	0 - 30
1,3-Dinitrobenzene	ug/L	4	3.15	79		6		45 - 160	0 - 30
2,4,6-Trinitrotoluene	ug/L	4	2.66	67		27		50 - 145	0 - 30
2,4-Dinitrotoluene	ug/L	4	3	75		15		60 - 135	0 - 30
2,6-Dinitrotoluene	ug/L	4	3.23	81		22		60 - 135	0 - 30
2-Amino-4,6-dinitrotoluene	ug/L	4	2.9	73		10		50 - 155	0 - 30
2-Nitrotoluene	ug/L	4	2.99	75		13		45 - 135	0 - 30
3-Nitrotoluene	ug/L	4	3.29	82		18		50 - 130	0 - 30
4-Amino-2,6-dinitrotoluene	ug/L	4	2.83	71		11		55 - 155	0 - 30
4-Nitrotoluene	ug/L	4	3.11	78		36	*	50 - 130	0 - 30
HMX	ug/L	4	2.72	68	*	17		80 - 115	0 - 30
Nitrobenzene	ug/L	4	2.98	75		6		50 - 140	0 - 30
Nitroglycerin	ug/L	4	3.53	88		2		40 - 140	0 - 30
Pentaerythritol Tetranitrate	ug/L	4	3.19	80		16		40 - 140	0 - 30
RDX	ug/L	4	3.36	84		2		50 - 160	0 - 30
Tetryl	ug/L	4	2.12	53		19		20 - 175	0 - 30

RPD : 1 out of 16 outside limits

Spike Recovery: 1 out of 32 outside limits

4C

ORGANIC METHOD BLANK SUMMARY

Lab Name: GCAL Sample ID: MB1430484

Lab Code: LA024 Case No.: Contract:

Lab Sample ID: 1430484 SAS No.: SDG No.: 215040217

Matrix: Water Sulfur Cleanup: (Y/N) N Date Extracted: 04/02/15

Date Analyzed (1): 04/07/15 Time (1): 1100 Date Analyzed (2): Time (2):

Instrument ID (1): HPLC 2 Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

Method: SW-846 8330A Prep Batch: 555459 Analytical Batch: 555747

Lab File ID: 2150407/a2003

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	INSTRUMENT ID
1.	LCS1430485	1430485	04/04/15	0045	HPLC2
2.	LCSD1430486	1430486	04/04/15	0124	HPLC2
3.	M114MW002	21504021701	04/04/15	0203	HPLC2
4.	M114MW004	21504021703	04/04/15	0242	HPLC2
5.	M114MW003	21504021704	04/04/15	0321	HPLC2
6.	M114MW001	21504021706	04/04/15	0400	HPLC2
7.	M114MW001-MS	21504021708	04/04/15	0438	HPLC2
8.	M114MW001-SD	21504021709	04/04/15	0517	HPLC2

GCAL, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 03-APR-2015 11:48
End Cal Date : 03-APR-2015 15:03
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /var/chem/hplc2.i/2150403.b/LC8-8330B.m
Cal Date : 07-Apr-2015 08:47 dlb
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/hplc2.i/2150403.b/a2007.d
Level 2: /var/chem/hplc2.i/2150403.b/a2006.d
Level 3: /var/chem/hplc2.i/2150403.b/a2005.d
Level 4: /var/chem/hplc2.i/2150403.b/a2004.d
Level 5: /var/chem/hplc2.i/2150403.b/a2003.d
Level 6: /var/chem/hplc2.i/2150403.b/a2002.d

Compound	50.000 Level 1	100.000 Level 2	200.000 Level 3	500.000 Level 4	750.000 Level 5	1000.000 Level 6	___ RRF	% RSD
1 HMX	234	227	219	199	216	206	217	5.940
2 RDX	232	222	217	220	210	213	219	3.423
3 1,3,5-TNB	395	371	371	325	361	347	361	6.610
5 1,3-DNB	227	234	217	176	206	195	209	10.309
6 Nitrobenzene	196	215	197	169	214	185	196	8.948
7 Tetryl	376	282	304	243	312	274	298	15.114
8 2,4,6-TNT	297	257	288	230	294	272	273	9.543
9 3,5-Dinitroaniline	344	308	315	265	336	293	310	9.301
10 Nitroglycerin	95.52000	105	94.96500	81.39400	96.93333	89.95400	93.93272	8.306
11 2,4-DNT	302	203	196	209	194	190	216	19.773
12 2,6-DNT	298	264	243	273	239	222	257	10.669
13 4-Am-26DNT	263	323	255	296	259	209	268	14.468
14 2-Am-46DNT	285	279	222	226	232	245	248	11.116
15 2-NT	193	273	263	271	262	231	249	12.558
16 4-NT	195	183	180	205	190	164	186	7.659
17 3-NT	332	312	299	264	304	278	298	8.233
18 PETN	96.94000	109	125	90.71400	102	105	105	11.346
$ 4 1,2-Dinitrobenzene	271	270	253	212	258	233	250	9.197

Data File: /var/chem/hplc2.i/2150403.b/a2008.d
Report Date: 04-Apr-2015 07:38

GCAL, Inc.

RECOVERY REPORT

Client Name: 1
Client SDG: 2150403
Sample Matrix: LIQUID
Fraction: OTHER
Lab Smp Id: 1600
Level: LOW
Operator: dlb
Data Type: LC DATA
SampleType: LCS
SpikeList File: icv.spk
Quant Type: ESTD
Sublist File: all.sub
Method File: /var/chem/hplc2.i/2150403.b/LC8-8330B.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 HMX	0.400	0.403	100.74	85-115
2 RDX	0.400	0.399	99.66	85-115
3 1,3,5-TNB	0.400	0.410	102.65	85-115
5 1,3-DNB	0.400	0.398	99.65	85-115
6 Nitrobenzene	0.400	0.402	100.46	85-115
7 Tetryl	0.400	0.389	97.33	85-115
8 2,4,6-TNT	0.400	0.400	100.10	85-115
9 3,5-Dinitroaniline	0.400	0.408	101.91	85-115
10 Nitroglycerin	0.400	0.453	113.20	85-115
11 2,4-DNT	0.400	0.364	91.11	85-115
12 2,6-DNT	0.400	0.364	90.89	85-115
15 2-NT	0.400	0.388	97.11	85-115
16 4-NT	0.400	0.381	95.26	85-115
17 3-NT	0.400	0.407	101.79	85-115
18 PETN	0.400	0.391	97.65	85-115

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 1,2-Dinitrobenzene	0.400	0.412	102.90	83-119

Data File: /var/chem/hplc2.i/2150403.b/a2020.d
Report Date: 04-Apr-2015 07:40

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2020.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150403.b/LC8-8330B.m

Injection Date: 03-APR-2015 23:27
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 HMX	217	230	0.010	-6.16747	15.00000	Averaged
2 RDX	219	220	0.010	-0.23232	15.00000	Averaged
3 1,3,5-TNB	361	372	0.010	-2.96387	15.00000	Averaged
$ 4 1,2-Dinitrobenzene	250	244	0.010	2.19321	15.00000	Averaged
5 1,3-DNB	209	222	0.010	-6.42525	15.00000	Averaged
6 Nitrobenzene	196	182	0.010	7.17649	15.00000	Averaged
7 Tetryl	298	303	0.010	-1.57946	15.00000	Averaged
8 2,4,6-TNT	273	299	0.010	-9.53804	15.00000	Averaged
9 3,5-Dinitroaniline	310	329	0.010	-5.99048	15.00000	Averaged
10 Nitroglycerin	93.93272	96.62000	0.010	-2.86085	15.00000	Averaged
11 2,4-DNT	216	205	0.010	4.92012	15.00000	Averaged
12 2,6-DNT	257	250	0.010	2.50191	15.00000	Averaged
13 4-Am-26DNT	268	262	0.010	2.18072	15.00000	Averaged
14 2-Am-46DNT	248	230	0.010	7.16233	15.00000	Averaged
15 2-NT	249	237	0.010	4.79989	15.00000	Averaged
16 4-NT	186	168	0.010	9.42428	15.00000	Averaged
17 3-NT	298	263	0.010	11.66030	15.00000	Averaged
18 PETN	91.82111	88.67000	0.010	3.43179	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.06715
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

Data File: /var/chem/hplc2.i/2150403.b/a2030.d
Report Date: 04-Apr-2015 07:40

GCAL, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: hplc2.i
Lab File ID: a2030.d
Analysis Type: WATER
Lab Sample ID: 1400
Method: /var/chem/hplc2.i/2150403.b/LC8-8330B.m

Injection Date: 04-APR-2015 05:56
Init. Cal. Date(s): 03-APR-2015 03-APR-2015
Init. Cal. Times: 11:48 15:03
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF200	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 HMX	217	231	0.010	-6.29187	15.00000	Averaged
2 RDX	219	219	0.010	-0.12962	15.00000	Averaged
3 1,3,5-TNB	361	366	0.010	-1.23199	15.00000	Averaged
$ 4 1,2-Dinitrobenzene	250	261	0.010	-4.65331	15.00000	Averaged
5 1,3-DNB	209	232	0.010	-11.13512	15.00000	Averaged
6 Nitrobenzene	196	180	0.010	8.18680	15.00000	Averaged
7 Tetryl	298	276	0.010	7.64117	15.00000	Averaged
8 2,4,6-TNT	273	261	0.010	4.46753	15.00000	Averaged
9 3,5-Dinitroaniline	310	288	0.010	7.02932	15.00000	Averaged
10 Nitroglycerin	93.93272	107	0.010	-13.58662	15.00000	Averaged
11 2,4-DNT	216	211	0.010	2.20574	15.00000	Averaged
12 2,6-DNT	257	239	0.010	6.96916	15.00000	Averaged
13 4-Am-26DNT	268	248	0.010	7.32920	15.00000	Averaged
14 2-Am-46DNT	248	282	0.010	-13.73440	15.00000	Averaged
15 2-NT	249	249	0.010	0.08930	15.00000	Averaged
16 4-NT	186	159	0.010	14.61878	15.00000	Averaged
17 3-NT	298	265	0.010	11.11349	15.00000	Averaged
18 PETN	91.82111	90.41500	0.010	1.53136	15.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.77471
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

8330 SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME: 4/2/15	Start: 1538	End: 1620	BATCH NO: 555459
MATRIX:	WATER ☑ SOIL ☐ OTHER ☐		LEVEL:	LOW ☑ MEDIUM ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	Init pH	SAMPLE TYPE	COMMENT	METHOD
1	QC ACCOUNT	MB for HBN 555459 [EXTO/42522]	1430484	1000	20.0		MB		WATER BATCH SONICATION
2	QC ACCOUNT	LCS for HBN 555459 [EXTO/42522	1430485	1000	20.0		LCS		
3	QC ACCOUNT	LCSD for HBN 555459 [EXTO/4252	1430486	1000	20.0		LCSD		SEA SAND
4	4747	M114MW002	21504021701	1000	20.0		SAMPLE		
5	4747	M114MW004	21504021703	1000	20.0		SAMPLE		ACETONITILE LOT# 195737
6	4747	M114MW003	21504021704	1000	20.0		SAMPLE		
7	4747	M114MW001	21504021706	1000	20.0		SAMPLE		CALCIUM CHLORIDE LOT#
8	4747	M114MW001-MS	21504021708	1000	20.0		MS		
9	4747	M114MW001-SD	21504021709	1000	20.0		MSD		FLORISIL CLEANUP/3620
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
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24									
25									
26									
27									
28									

COMMENTS: SAMPLE PREPARATION INCLUDE DETERMINATION OF SAMPLE VOLUME/WEIGHT, SOLVENT EXTRACTION AND EVAPORATION OF SOLVENT TO FINAL VOLUME

BALANCE ID: _____ TEMP: _____

8330 ID	583-25-7	8330 SPIKE ID	583-23-2			TECHNICIAN	DATE
VOLUME	1.0ml		1.0ml			Erin Ryan	4/2/15
CONCENTRATION	4ug/L		4ug/L				
ACID						SUPERVISOR	DATE
SPIKE WITNESS	NA					DY	4-3-15

Revision 3, 10/04/2010

LABORATORY CHRONICLE: HPLC DEPARTMENT

Date: 03-APR-2015
Instrument: hplc2.i

Standard	Conc ppm	Lot No.
DFTPP	50	
Int. Standard	4000	

Inst. Conditions: _____

MISC: _____

Sample ID	ClientName	DataFile	Wgt/Vol	Injection Time	Dil	Anal	ALS	Comments
solvblk	1	a2001.d	1000.00 ml	03-APR-2015 11:10	1.000	dlb	1	all
1206	1	a2002.d	1000.00 ml	03-APR-2015 11:48	1.000	dlb	1	all
1205	1	a2003.d	1000.00 ml	03-APR-2015 12:27	1.000	dlb	1	all
1204	1	a2004.d	1000.00 ml	03-APR-2015 13:06	1.000	dlb	1	all
1203	1	a2005.d	1000.00 ml	03-APR-2015 13:45	1.000	dlb	1	all
1202	1	a2006.d	1000.00 ml	03-APR-2015 14:24	1.000	dlb	1	all
1201	1	a2007.d	1000.00 ml	03-APR-2015 15:03	1.000	dlb	1	all
1600	1	a2008.d	1.00 ml	03-APR-2015 15:41	1.000	dlb	1	all
1400	1 53-76-10	a2009.d	1000.00 ml	03-APR-2015 16:20	1.000	dlb	1	all
21503301103	5	a2010.d	10.00 g	03-APR-2015 16:59	5.000	dlb	1	all
21503301103	0080	a2011.d	10.00 g	03-APR-2015 17:38	1.000	dlb	1	all
21411030128	0080	a2012.d	10.00 g	03-APR-2015 18:17	1.000	dlb	1	all
21503301201	0080	a2013.d	1000.00 ml	03-APR-2015 18:56	1.000	dlb	1	all
1429294	mb s	a2014.d	10.00 g	03-APR-2015 19:34	1.000	dlb	1	all
1429295	lcs	a2015.d	10.00 g	03-APR-2015 20:13	1.000	dlb	1	all
1429296	lcsd	a2016.d	10.00 g	03-APR-2015 20:52	1.000	dlb	1	all
1429297	mb w	a2017.d	1000.00 ml	03-APR-2015 21:31	1.000	dlb	1	all
1429298	lcs	a2018.d	1000.00 ml	03-APR-2015 22:10	1.000	dlb	1	all
1429299	lcsd	a2019.d	1000.00 ml	03-APR-2015 22:49	1.000	dlb	1	all
1400	1 53-76-10	a2020.d	1000.00 ml	03-APR-2015 23:27	1.000	dlb	1	all
1430484	mb w	a2021.d	1000.00 ml	04-APR-2015 00:06	1.000	dlb	1	all
1430485	lcs	a2022.d	1000.00 ml	04-APR-2015 00:45	1.000	dlb	1	all
1430486	lcsd	a2023.d	1000.00 ml	04-APR-2015 01:24	1.000	dlb	1	all
21504021701	4747	a2024.d	1000.00 ml	04-APR-2015 02:03	1.000	dlb	1	all
21504021703	4747	a2025.d	1000.00 ml	04-APR-2015 02:42	1.000	dlb	1	all
21504021704	4747	a2026.d	1000.00 ml	04-APR-2015 03:21	1.000	dlb	1	all
21504021706	4747	a2027.d	1000.00 ml	04-APR-2015 04:00	1.000	dlb	1	all
21504021708	ms	a2028.d	1000.00 ml	04-APR-2015 04:38	1.000	dlb	1	all
21504021709	msd	a2029.d	1000.00 ml	04-APR-2015 05:17	1.000	dlb	1	all
1400	1 53-76-10	a2030.d	1000.00 ml	04-APR-2015 05:56	1.000	dlb	1	all

U.S. EPA - CLP
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: 1 SDG No.: 215040217

SOW No.:

EPA Sample No	*Lab Sample ID*
M114MW002	21504021701
M114MW004	21504021703
M114MW003	21504021704
M114MW001	21504021706
M114MW001-MS	21504021708
M114MW001-SD	21504021709
M114MW002	21504021701
M114MW004	21504021703
M114MW003	21504021704
M114MW001	21504021706
M114MW001-MS	21504021708
M114MW001-SD	21504021709

Were ICP interelement corrections applied ?	Yes / No	YES
Were ICP background corrections applied ?	Yes / No	YES
If yes-were raw data generated before application of background corrections ?	Yes / No	NO

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW002

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021701

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1145

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0241
Antimony	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0241
Arsenic	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Barium	16.4	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Beryllium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Cadmium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Calcium	381000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0241
Chromium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Cobalt	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Copper	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Iron	500	ug/L	U	500	2000	SW-846 6020A	MS	04/09/15 0241
Lead	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Magnesium	310000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0244
Manganese	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/09/15 0241
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2124
Molybdenum	15.0	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Nickel	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0241
Potassium	15600	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0241
Selenium	16.3	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Silver	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Sodium	2570000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0244
Thallium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Titanium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Vanadium	9.06	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0241
Zinc	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0241

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW002

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021701

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1145

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0419
Antimony (Disso	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Arsenic (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Barium (Dissolv	13.4	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Beryllium (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Cadmium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Calcium (Dissol	353000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0419
Chromium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Cobalt (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Copper (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Iron (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/09/15 0419
Lead (Dissolved	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Magnesium (Dis	295000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0423
Manganese (Dis	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0419
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2153
Molybdenum (Di	14.2	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Nickel (Dissolve	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Potassium (Diss	14800	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0419
Selenium (Disso	15.7	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Silver (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Sodium (Dissolv	2440000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0423
Thallium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Titanium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Vanadium (Diss	7.76	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0419
Zinc (Dissolved)	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0419

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW004

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021703

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1325

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0251
Antimony	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0251
Arsenic	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Barium	17.3	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Beryllium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Cadmium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Calcium	436000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0251
Chromium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Cobalt	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Copper	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Iron	500	ug/L	U	500	2000	SW-846 6020A	MS	04/09/15 0251
Lead	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Magnesium	344000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0254
Manganese	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/09/15 0251
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2126
Molybdenum	12.0	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Nickel	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0251
Potassium	16400	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0251
Selenium	25.2	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Silver	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Sodium	2600000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0254
Thallium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Titanium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Vanadium	5.42	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0251
Zinc	121	ug/L	J	100	400	SW-846 6020A	MS	04/09/15 0251

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW004

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021703

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1325

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0430
Antimony (Disso	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Arsenic (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Barium (Dissolv	15.4	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Beryllium (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Cadmium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Calcium (Dissol	412000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0430
Chromium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Cobalt (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Copper (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Iron (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/09/15 0430
Lead (Dissolved	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Magnesium (Dis	330000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0433
Manganese (Dis	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0430
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2156
Molybdenum (Di	10.8	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Nickel (Dissolve	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Potassium (Diss	15500	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0430
Selenium (Disso	18.9	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Silver (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Sodium (Dissolv	2490000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0433
Thallium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Titanium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Vanadium (Diss	5.02	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0430
Zinc (Dissolved)	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0430

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW003

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021704

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1126

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0301
Antimony	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0301
Arsenic	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Barium	14.0	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Beryllium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Cadmium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Calcium	445000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0301
Chromium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Cobalt	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Copper	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Iron	500	ug/L	U	500	2000	SW-846 6020A	MS	04/09/15 0301
Lead	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Magnesium	322000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0305
Manganese	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/09/15 0301
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2128
Molybdenum	8.60	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Nickel	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0301
Potassium	15700	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0301
Selenium	33.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Silver	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Sodium	2900000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0305
Thallium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Titanium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Vanadium	9.51	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0301
Zinc	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0301

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW003

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021704

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1126

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0440
Antimony (Disso	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Arsenic (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Barium (Dissolv	13.3	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Beryllium (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Cadmium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Calcium (Dissol	420000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0440
Chromium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Cobalt (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Copper (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Iron (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/09/15 0440
Lead (Dissolved	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Magnesium (Dis	295000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0443
Manganese (Dis	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0440
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2158
Molybdenum (Di	8.02	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Nickel (Dissolve	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Potassium (Diss	14900	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0440
Selenium (Disso	29.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Silver (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Sodium (Dissolv	2680000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0443
Thallium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Titanium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Vanadium (Diss	8.82	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0440
Zinc (Dissolved)	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0440

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021706

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0311
Antimony	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0311
Arsenic	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Barium	15.8	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Beryllium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Cadmium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Calcium	337000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0311
Chromium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Cobalt	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Copper	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Iron	500	ug/L	U	500	2000	SW-846 6020A	MS	04/09/15 0311
Lead	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Magnesium	262000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0315
Manganese	25.0	ug/L	U	25.0	100	SW-846 6020A	MS	04/09/15 0311
Mercury	0.043	ug/L	U	0.043	0.20	SW-846 7470A	AV	04/04/15 2130
Molybdenum	16.8	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Nickel	10.0	ug/L	U	10.0	40.0	SW-846 6020A	MS	04/09/15 0311
Potassium	14400	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0311
Selenium	28.6	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Silver	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Sodium	2210000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0315
Thallium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Titanium	5.00	ug/L	U	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Vanadium	5.94	ug/L	J	5.00	20.0	SW-846 6020A	MS	04/09/15 0311
Zinc	100	ug/L	U	100	400	SW-846 6020A	MS	04/09/15 0311

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021706

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0450
Antimony (Disso	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Arsenic (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Barium (Dissolv	15.5	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Beryllium (Disso	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Cadmium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Calcium (Dissol	332000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0450
Chromium (Diss	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Cobalt (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Copper (Dissolv	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Iron (Dissolved)	500	ug/L	U	500	2000	SW-846 6020A Dissolved	MS	04/09/15 0450
Lead (Dissolved	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Magnesium (Dis	252000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0453
Manganese (Dis	25.0	ug/L	U	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0450
Mercury (Dissol	0.043	ug/L	U	0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2200
Molybdenum (Di	16.3	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Nickel (Dissolve	10.0	ug/L	U	10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Potassium (Diss	14400	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0450
Selenium (Disso	28.7	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Silver (Dissolve	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Sodium (Dissolv	2140000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0453
Thallium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Titanium (Dissol	5.00	ug/L	U	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Vanadium (Diss	5.57	ug/L	J	5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0450
Zinc (Dissolved)	100	ug/L	U	100	400	SW-846 6020A Dissolved	MS	04/09/15 0450

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INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021708

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	1010	ug/L		100	400	SW-846 6020A	MS	04/09/15 0332
Antimony	110	ug/L		10.0	40.0	SW-846 6020A	MS	04/09/15 0332
Arsenic	53.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Barium	70.5	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Beryllium	50.8	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Cadmium	54.2	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Calcium	376000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0332
Chromium	57.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Cobalt	55.5	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Copper	56.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Iron	5540	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0332
Lead	55.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Magnesium	277000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0335
Manganese	56.8	ug/L	J	25.0	100	SW-846 6020A	MS	04/09/15 0332
Mercury	4.97	ug/L		0.043	0.20	SW-846 7470A	AV	04/04/15 2132
Molybdenum	72.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Nickel	116	ug/L		10.0	40.0	SW-846 6020A	MS	04/09/15 0332
Potassium	20400	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0332
Selenium	46.0	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Silver	52.0	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Sodium	2300000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0335
Thallium	54.2	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Titanium	51.9	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Vanadium	62.3	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0332
Zinc	1190	ug/L		100	400	SW-846 6020A	MS	04/09/15 0332

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-MS

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021708

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	939	ug/L		100	400	SW-846 6020A Dissolved	MS	04/09/15 0500
Antimony (Disso	104	ug/L		10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Arsenic (Dissolv	50.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Barium (Dissolv	65.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Beryllium (Disso	47.6	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Cadmium (Diss	52.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Calcium (Dissol	342000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0500
Chromium (Diss	52.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Cobalt (Dissolve	52.3	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Copper (Dissolv	52.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Iron (Dissolved)	5090	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0500
Lead (Dissolved	52.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Magnesium (Dis	251000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0504
Manganese (Dis	52.8	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0500
Mercury (Dissol	4.33	ug/L		0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2201
Molybdenum (Di	69.0	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Nickel (Dissolve	107	ug/L		10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Potassium (Diss	18500	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0500
Selenium (Disso	37.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Silver (Dissolve	49.0	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Sodium (Dissolv	2100000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0504
Thallium (Dissol	48.6	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Titanium (Dissol	53.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Vanadium (Diss	57.6	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0500
Zinc (Dissolved)	1100	ug/L		100	400	SW-846 6020A Dissolved	MS	04/09/15 0500

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-SD

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021709

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum	961	ug/L		100	400	SW-846 6020A	MS	04/09/15 0342
Antimony	107	ug/L		10.0	40.0	SW-846 6020A	MS	04/09/15 0342
Arsenic	49.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Barium	69.0	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Beryllium	49.0	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Cadmium	51.6	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Calcium	370000	ug/L		2500	10000	SW-846 6020A	MS	04/09/15 0342
Chromium	53.9	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Cobalt	52.5	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Copper	54.3	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Iron	5250	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0342
Lead	53.5	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Magnesium	270000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0345
Manganese	54.0	ug/L	J	25.0	100	SW-846 6020A	MS	04/09/15 0342
Mercury	5.13	ug/L		0.043	0.20	SW-846 7470A	AV	04/04/15 2134
Molybdenum	70.5	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Nickel	107	ug/L		10.0	40.0	SW-846 6020A	MS	04/09/15 0342
Potassium	20000	ug/L		500	2000	SW-846 6020A	MS	04/09/15 0342
Selenium	42.0	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Silver	50.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Sodium	2280000	ug/L		12500	50000	SW-846 6020A	MS	04/09/15 0345
Thallium	52.7	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Titanium	54.4	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Vanadium	56.9	ug/L		5.00	20.0	SW-846 6020A	MS	04/09/15 0342
Zinc	1140	ug/L		100	400	SW-846 6020A	MS	04/09/15 0342

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL | Sample ID: M114MW001-SD

Lab Code: LA024 | Case No.: | Contract:

Matrix: (soil / water) Water | SAS No.: | SDG No.: 215040217

Level: (low / med) | % Solids: | Lab Sample ID: 21504021709

Date Received: 04/02/15 | Time: 1000 | Date Collected: 04/01/15 | Time: 1253

Analyte	Conc.	Units	C	MDL	LOQ	Method	Type	Analyzed
Aluminum (Diss	957	ug/L		100	400	SW-846 6020A Dissolved	MS	04/09/15 0520
Antimony (Disso	103	ug/L		10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Arsenic (Dissolv	48.0	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Barium (Dissolv	64.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Beryllium (Disso	47.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Cadmium (Diss	49.8	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Calcium (Dissol	346000	ug/L		2500	10000	SW-846 6020A Dissolved	MS	04/09/15 0520
Chromium (Diss	51.5	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Cobalt (Dissolve	49.3	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Copper (Dissolv	52.3	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Iron (Dissolved)	5090	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0520
Lead (Dissolved	50.6	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Magnesium (Dis	258000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0524
Manganese (Dis	52.2	ug/L	J	25.0	100	SW-846 6020A Dissolved	MS	04/09/15 0520
Mercury (Dissol	4.25	ug/L		0.043	0.20	SW-846 7470A Dissolved	AV	04/04/15 2203
Molybdenum (Di	66.9	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Nickel (Dissolve	103	ug/L		10.0	40.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Potassium (Diss	18800	ug/L		500	2000	SW-846 6020A Dissolved	MS	04/09/15 0520
Selenium (Disso	38.3	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Silver (Dissolve	48.1	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Sodium (Dissolv	2130000	ug/L		12500	50000	SW-846 6020A Dissolved	MS	04/09/15 0524
Thallium (Dissol	47.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Titanium (Dissol	53.2	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Vanadium (Diss	55.0	ug/L		5.00	20.0	SW-846 6020A Dissolved	MS	04/09/15 0520
Zinc (Dissolved)	1080	ug/L		100	400	SW-846 6020A Dissolved	MS	04/09/15 0520

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-75-1 CPI Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/04/15 Time: 2017

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1040	104	ug/L	SW-846 6020A	MS
Antimony	50.0	46.1	92	ug/L	SW-846 6020A	MS
Arsenic	50.0	54.5	109	ug/L	SW-846 6020A	MS
Barium	50.0	51.5	103	ug/L	SW-846 6020A	MS
Beryllium	50.0	51.0	102	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.7	103	ug/L	SW-846 6020A	MS
Calcium	25000	25600	103	ug/L	SW-846 6020A	MS
Chromium	50.0	51.8	104	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.2	102	ug/L	SW-846 6020A	MS
Copper	50.0	52.7	105	ug/L	SW-846 6020A	MS
Iron	5000	5130	103	ug/L	SW-846 6020A	MS
Lead	50.0	51.1	102	ug/L	SW-846 6020A	MS
Magnesium	5000	5200	104	ug/L	SW-846 6020A	MS
Manganese	50.0	50.5	101	ug/L	SW-846 6020A	MS
Molybdenum	50.0	50.1	100	ug/L	SW-846 6020A	MS
Nickel	100	102	102	ug/L	SW-846 6020A	MS
Potassium	5000	5100	102	ug/L	SW-846 6020A	MS
Selenium	25.0	24.8	99	ug/L	SW-846 6020A	MS
Silver	50.0	50.1	100	ug/L	SW-846 6020A	MS
Sodium	5000	5160	103	ug/L	SW-846 6020A	MS
Thallium	50.0	51.5	103	ug/L	SW-846 6020A	MS
Titanium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Vanadium	50.0	51.4	103	ug/L	SW-846 6020A	MS
Zinc	1000	1010	101	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/04/15 Time: 2024

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.0	100	ug/L	SW-846 6020A	MS
Antimony	2.00	2.10	105	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.00	100	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	521	104	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.06	106	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	99.6	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.07	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	1.71	85	ug/L	SW-846 6020A	MS
Potassium	100	99.9	100	ug/L	SW-846 6020A	MS
Selenium	1.00	0.800	80	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	101	101	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	20.7	103	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0251

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	20.8	104	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.02	102	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Calcium	500	543	109	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	97.8	98	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	99.2	99	ug/L	SW-846 6020A	MS
Manganese	5.00	5.06	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.950	95	ug/L	SW-846 6020A	MS
Nickel	2.00	1.45	72	ug/L	SW-846 6020A	MS
Potassium	100	93.2	93	ug/L	SW-846 6020A	MS
Selenium	1.00	0.910	91	ug/L	SW-846 6020A	MS
Silver	1.00	1.00	100	ug/L	SW-846 6020A	MS
Sodium	100	95.9	96	ug/L	SW-846 6020A	MS
Thallium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Titanium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Zinc	20.0	20.4	102	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0254

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	201	100	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.96	100	ug/L	SW-846 6020A	MS
Barium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Calcium	5000	5080	102	ug/L	SW-846 6020A	MS
Chromium	10.0	9.95	100	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.2	102	ug/L	SW-846 6020A	MS
Copper	10.0	10.3	103	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.88	99	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	49.8	100	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.72	97	ug/L	SW-846 6020A	MS
Nickel	20.0	19.8	99	ug/L	SW-846 6020A	MS
Potassium	1000	970	97	ug/L	SW-846 6020A	MS
Selenium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Silver	10.0	9.97	100	ug/L	SW-846 6020A	MS
Sodium	1000	1010	101	ug/L	SW-846 6020A	MS
Thallium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Titanium	10.0	9.86	99	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.99	100	ug/L	SW-846 6020A	MS
Zinc	200	199	100	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0342

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	22.1	111	ug/L	SW-846 6020A	MS
Antimony	2.00	2.02	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.980	98	ug/L	SW-846 6020A	MS
Barium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Calcium	500	539	108	ug/L	SW-846 6020A	MS
Chromium	1.00	1.06	106	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.07	107	ug/L	SW-846 6020A	MS
Copper	1.00	1.03	103	ug/L	SW-846 6020A	MS
Iron	100	99.6	100	ug/L	SW-846 6020A	MS
Lead	1.00	1.02	102	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.13	103	ug/L	SW-846 6020A	MS
Molybdenum	1.00	1.00	100	ug/L	SW-846 6020A	MS
Nickel	2.00	1.53	77	ug/L	SW-846 6020A	MS
Potassium	100	94.4	94	ug/L	SW-846 6020A	MS
Selenium	1.00	0.900	90	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	92.4	92	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	0.850	85	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	20.2	101	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0345

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	202	101	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	100	ug/L	SW-846 6020A	MS
Arsenic	10.0	10.1	101	ug/L	SW-846 6020A	MS
Barium	10.0	9.88	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Calcium	5000	5050	101	ug/L	SW-846 6020A	MS
Chromium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.2	102	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.84	98	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	49.7	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.70	97	ug/L	SW-846 6020A	MS
Nickel	20.0	20.2	101	ug/L	SW-846 6020A	MS
Potassium	1000	971	97	ug/L	SW-846 6020A	MS
Selenium	10.0	9.89	99	ug/L	SW-846 6020A	MS
Silver	10.0	9.88	99	ug/L	SW-846 6020A	MS
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS
Thallium	10.0	9.95	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.90	99	ug/L	SW-846 6020A	MS
Zinc	200	200	100	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0546

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	24.1	120	ug/L	SW-846 6020A	MS
Antimony	2.00	2.01	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.01	101	ug/L	SW-846 6020A	MS
Barium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Beryllium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Calcium	500	524	105	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.04	104	ug/L	SW-846 6020A	MS
Iron	100	104	104	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	104	104	ug/L	SW-846 6020A	MS
Manganese	5.00	5.07	101	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.960	96	ug/L	SW-846 6020A	MS
Nickel	2.00	1.57	79	ug/L	SW-846 6020A	MS
Potassium	100	94.2	94	ug/L	SW-846 6020A	MS
Selenium	1.00	0.920	92	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	82.8	83	ug/L	SW-846 6020A	MS
Thallium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Titanium	1.00	0.930	93	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	20.7	104	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0549

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	196	98	ug/L	SW-846 6020A	MS
Antimony	20.0	19.9	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.90	99	ug/L	SW-846 6020A	MS
Barium	10.0	9.93	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.91	99	ug/L	SW-846 6020A	MS
Calcium	5000	4990	100	ug/L	SW-846 6020A	MS
Chromium	10.0	9.97	100	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.2	102	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.87	99	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	49.4	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.70	97	ug/L	SW-846 6020A	MS
Nickel	20.0	19.7	98	ug/L	SW-846 6020A	MS
Potassium	1000	963	96	ug/L	SW-846 6020A	MS
Selenium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.91	99	ug/L	SW-846 6020A	MS
Sodium	1000	999	100	ug/L	SW-846 6020A	MS
Thallium	10.0	9.94	99	ug/L	SW-846 6020A	MS
Titanium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.78	98	ug/L	SW-846 6020A	MS
Zinc	200	198	99	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0620

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	23.7	119	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	1.00	100	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cadmium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Calcium	500	528	106	ug/L	SW-846 6020A	MS
Chromium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.03	103	ug/L	SW-846 6020A	MS
Copper	1.00	1.05	105	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	0.980	98	ug/L	SW-846 6020A	MS
Magnesium	100	103	103	ug/L	SW-846 6020A	MS
Manganese	5.00	4.94	99	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.950	95	ug/L	SW-846 6020A	MS
Nickel	2.00	1.52	76	ug/L	SW-846 6020A	MS
Potassium	100	93.7	94	ug/L	SW-846 6020A	MS
Selenium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Silver	1.00	0.990	99	ug/L	SW-846 6020A	MS
Sodium	100	84.6	85	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	0.800	80	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Zinc	20.0	20.6	103	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-71-8 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 2

Date Analyzed: 04/05/15 Time: 0623

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	196	98	ug/L	SW-846 6020A	MS
Antimony	20.0	19.8	99	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.84	98	ug/L	SW-846 6020A	MS
Barium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.95	100	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.88	99	ug/L	SW-846 6020A	MS
Calcium	5000	4850	97	ug/L	SW-846 6020A	MS
Chromium	10.0	9.92	99	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.0	100	ug/L	SW-846 6020A	MS
Copper	10.0	10.1	101	ug/L	SW-846 6020A	MS
Iron	1000	1000	100	ug/L	SW-846 6020A	MS
Lead	10.0	9.66	97	ug/L	SW-846 6020A	MS
Magnesium	1000	983	98	ug/L	SW-846 6020A	MS
Manganese	50.0	49.7	99	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.58	96	ug/L	SW-846 6020A	MS
Nickel	20.0	19.7	98	ug/L	SW-846 6020A	MS
Potassium	1000	943	94	ug/L	SW-846 6020A	MS
Selenium	10.0	9.78	98	ug/L	SW-846 6020A	MS
Silver	10.0	9.85	98	ug/L	SW-846 6020A	MS
Sodium	1000	979	98	ug/L	SW-846 6020A	MS
Thallium	10.0	9.70	97	ug/L	SW-846 6020A	MS
Titanium	10.0	9.82	98	ug/L	SW-846 6020A	MS
Vanadium	10.0	9.71	97	ug/L	SW-846 6020A	MS
Zinc	200	197	98	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-75-1 CPI Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 1933

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	1000	1040	104	ug/L	SW-846 6020A	MS
Antimony	50.0	49.0	98	ug/L	SW-846 6020A	MS
Arsenic	50.0	53.6	107	ug/L	SW-846 6020A	MS
Barium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Beryllium	50.0	49.8	100	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.9	104	ug/L	SW-846 6020A	MS
Calcium	25000	25500	102	ug/L	SW-846 6020A	MS
Chromium	50.0	49.9	100	ug/L	SW-846 6020A	MS
Cobalt	50.0	51.2	102	ug/L	SW-846 6020A	MS
Copper	50.0	52.6	105	ug/L	SW-846 6020A	MS
Iron	5000	5200	104	ug/L	SW-846 6020A	MS
Lead	50.0	53.0	106	ug/L	SW-846 6020A	MS
Magnesium	5000	5190	104	ug/L	SW-846 6020A	MS
Manganese	50.0	52.1	104	ug/L	SW-846 6020A	MS
Molybdenum	50.0	49.9	100	ug/L	SW-846 6020A	MS
Nickel	100	104	104	ug/L	SW-846 6020A	MS
Potassium	5000	5030	101	ug/L	SW-846 6020A	MS
Selenium	25.0	25.3	101	ug/L	SW-846 6020A	MS
Silver	50.0	51.1	102	ug/L	SW-846 6020A	MS
Sodium	5000	5200	104	ug/L	SW-846 6020A	MS
Thallium	50.0	52.0	104	ug/L	SW-846 6020A	MS
Titanium	50.0	50.9	102	ug/L	SW-846 6020A	MS
Vanadium	50.0	52.0	104	ug/L	SW-846 6020A	MS
Zinc	1000	1050	105	ug/L	SW-846 6020A	MS

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/08/15 Time: 1939

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	21.1	106	ug/L	SW-846 6020A	MS
Antimony	2.00	2.01	100	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.960	96	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.950	95	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	564	113	ug/L	SW-846 6020A	MS
Chromium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	103	103	ug/L	SW-846 6020A	MS
Lead	1.00	1.09	109	ug/L	SW-846 6020A	MS
Magnesium	100	101	101	ug/L	SW-846 6020A	MS
Manganese	5.00	4.97	99	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.980	98	ug/L	SW-846 6020A	MS
Nickel	2.00	2.15	107	ug/L	SW-846 6020A	MS
Potassium	100	100	100	ug/L	SW-846 6020A	MS
Selenium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	104	104	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	21.0	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0224

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	17.0	85	ug/L	SW-846 6020A	MS
Antimony	2.00	2.02	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.940	94	ug/L	SW-846 6020A	MS
Barium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	573	115	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.10	110	ug/L	SW-846 6020A	MS
Iron	100	102	102	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	105	105	ug/L	SW-846 6020A	MS
Manganese	5.00	5.50	110	ug/L	SW-846 6020A	MS
Molybdenum	1.00	1.00	100	ug/L	SW-846 6020A	MS
Nickel	2.00	2.06	103	ug/L	SW-846 6020A	MS
Potassium	100	105	105	ug/L	SW-846 6020A	MS
Selenium	1.00	0.840	84	ug/L	SW-846 6020A	MS
Silver	1.00	1.03	103	ug/L	SW-846 6020A	MS
Sodium	100	135	135	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Zinc	20.0	21.3	107	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0227

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	197	99	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.65	97	ug/L	SW-846 6020A	MS
Barium	10.0	9.92	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.67	97	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5130	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.94	99	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.4	104	ug/L	SW-846 6020A	MS
Iron	1000	1040	104	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	51.1	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.97	100	ug/L	SW-846 6020A	MS
Nickel	20.0	21.2	106	ug/L	SW-846 6020A	MS
Potassium	1000	991	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.5	105	ug/L	SW-846 6020A	MS
Silver	10.0	10.2	102	ug/L	SW-846 6020A	MS
Sodium	1000	1040	104	ug/L	SW-846 6020A	MS
Thallium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Titanium	10.0	9.91	99	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Zinc	200	207	103	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0325

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	16.6	83	ug/L	SW-846 6020A	MS
Antimony	2.00	2.02	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.910	91	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	562	112	ug/L	SW-846 6020A	MS
Chromium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.03	103	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	106	106	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	99.8	100	ug/L	SW-846 6020A	MS
Manganese	5.00	5.09	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.07	104	ug/L	SW-846 6020A	MS
Potassium	100	99.8	100	ug/L	SW-846 6020A	MS
Selenium	1.00	0.820	82	ug/L	SW-846 6020A	MS
Silver	1.00	1.01	101	ug/L	SW-846 6020A	MS
Sodium	100	119	119	ug/L	SW-846 6020A	MS
Thallium	1.00	1.02	102	ug/L	SW-846 6020A	MS
Titanium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Zinc	20.0	21.2	106	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0328

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	200	100	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.52	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.85	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.48	95	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Calcium	5000	5140	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.77	98	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.6	106	ug/L	SW-846 6020A	MS
Iron	1000	1040	104	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	51.4	103	ug/L	SW-846 6020A	MS
Molybdenum	10.0	10.0	100	ug/L	SW-846 6020A	MS
Nickel	20.0	20.9	105	ug/L	SW-846 6020A	MS
Potassium	1000	991	99	ug/L	SW-846 6020A	MS
Selenium	10.0	9.96	100	ug/L	SW-846 6020A	MS
Silver	10.0	10.2	102	ug/L	SW-846 6020A	MS
Sodium	1000	1030	103	ug/L	SW-846 6020A	MS
Thallium	10.0	9.99	100	ug/L	SW-846 6020A	MS
Titanium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	208	104	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0413

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	17.3	87	ug/L	SW-846 6020A	MS
Antimony	2.00	2.08	104	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.930	93	ug/L	SW-846 6020A	MS
Barium	1.00	0.990	99	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	569	114	ug/L	SW-846 6020A	MS
Chromium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	107	107	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.08	102	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.03	102	ug/L	SW-846 6020A	MS
Potassium	100	102	102	ug/L	SW-846 6020A	MS
Selenium	1.00	0.910	91	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	114	114	ug/L	SW-846 6020A	MS
Thallium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Titanium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Zinc	20.0	21.5	108	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0416

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	205	103	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.55	95	ug/L	SW-846 6020A	MS
Barium	10.0	9.83	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.81	98	ug/L	SW-846 6020A	MS
Cadmium	10.0	9.99	100	ug/L	SW-846 6020A	MS
Calcium	5000	5130	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.93	99	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.4	104	ug/L	SW-846 6020A	MS
Copper	10.0	10.6	106	ug/L	SW-846 6020A	MS
Iron	1000	1050	105	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1020	102	ug/L	SW-846 6020A	MS
Manganese	50.0	51.6	103	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.91	99	ug/L	SW-846 6020A	MS
Nickel	20.0	21.2	106	ug/L	SW-846 6020A	MS
Potassium	1000	986	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.4	104	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1050	105	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.7	107	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Zinc	200	210	105	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0514

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	16.3	82	ug/L	SW-846 6020A	MS
Antimony	2.00	2.03	101	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.950	95	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.980	98	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Calcium	500	547	109	ug/L	SW-846 6020A	MS
Chromium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.05	105	ug/L	SW-846 6020A	MS
Copper	1.00	1.07	107	ug/L	SW-846 6020A	MS
Iron	100	106	106	ug/L	SW-846 6020A	MS
Lead	1.00	1.00	100	ug/L	SW-846 6020A	MS
Magnesium	100	102	102	ug/L	SW-846 6020A	MS
Manganese	5.00	5.14	103	ug/L	SW-846 6020A	MS
Molybdenum	1.00	1.01	101	ug/L	SW-846 6020A	MS
Nickel	2.00	2.11	106	ug/L	SW-846 6020A	MS
Potassium	100	101	101	ug/L	SW-846 6020A	MS
Selenium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Silver	1.00	1.02	102	ug/L	SW-846 6020A	MS
Sodium	100	108	108	ug/L	SW-846 6020A	MS
Thallium	1.00	1.03	103	ug/L	SW-846 6020A	MS
Titanium	1.00	0.900	90	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.960	96	ug/L	SW-846 6020A	MS
Zinc	20.0	21.1	105	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0517

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	201	100	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.67	97	ug/L	SW-846 6020A	MS
Barium	10.0	9.88	99	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.71	97	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5170	103	ug/L	SW-846 6020A	MS
Chromium	10.0	9.73	97	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.4	104	ug/L	SW-846 6020A	MS
Copper	10.0	10.5	105	ug/L	SW-846 6020A	MS
Iron	1000	1050	105	ug/L	SW-846 6020A	MS
Lead	10.0	10.4	104	ug/L	SW-846 6020A	MS
Magnesium	1000	1010	101	ug/L	SW-846 6020A	MS
Manganese	50.0	51.5	103	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.90	99	ug/L	SW-846 6020A	MS
Nickel	20.0	21.2	106	ug/L	SW-846 6020A	MS
Potassium	1000	990	99	ug/L	SW-846 6020A	MS
Selenium	10.0	9.95	100	ug/L	SW-846 6020A	MS
Silver	10.0	10.2	102	ug/L	SW-846 6020A	MS
Sodium	1000	1040	104	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.5	105	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.2	102	ug/L	SW-846 6020A	MS
Zinc	200	209	105	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0558

LOW LEVEL CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	20.0	16.0	80	ug/L	SW-846 6020A	MS
Antimony	2.00	2.04	102	ug/L	SW-846 6020A	MS
Arsenic	1.00	0.970	97	ug/L	SW-846 6020A	MS
Barium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Beryllium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Cadmium	1.00	1.00	100	ug/L	SW-846 6020A	MS
Calcium	500	556	111	ug/L	SW-846 6020A	MS
Chromium	1.00	0.970	97	ug/L	SW-846 6020A	MS
Cobalt	1.00	1.04	104	ug/L	SW-846 6020A	MS
Copper	1.00	1.10	110	ug/L	SW-846 6020A	MS
Iron	100	101	101	ug/L	SW-846 6020A	MS
Lead	1.00	1.01	101	ug/L	SW-846 6020A	MS
Magnesium	100	103	103	ug/L	SW-846 6020A	MS
Manganese	5.00	5.13	103	ug/L	SW-846 6020A	MS
Molybdenum	1.00	0.990	99	ug/L	SW-846 6020A	MS
Nickel	2.00	2.13	106	ug/L	SW-846 6020A	MS
Potassium	100	104	104	ug/L	SW-846 6020A	MS
Selenium	1.00	1.05	105	ug/L	SW-846 6020A	MS
Silver	1.00	1.03	103	ug/L	SW-846 6020A	MS
Sodium	100	99.0	99	ug/L	SW-846 6020A	MS
Thallium	1.00	1.01	101	ug/L	SW-846 6020A	MS
Titanium	1.00	1.04	104	ug/L	SW-846 6020A	MS
Vanadium	1.00	0.940	94	ug/L	SW-846 6020A	MS
Zinc	20.0	21.6	108	ug/L	SW-846 6020A	MS

LLCCV CONTROL LIMITS EPA 6020A/EPA 200.8 = 70-130

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-74-2 Absolute Standards Instrument ID: ICPMS2 ICAL ID: 3

Date Analyzed: 04/09/15 Time: 0601

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Aluminum	200	199	99	ug/L	SW-846 6020A	MS
Antimony	20.0	20.2	101	ug/L	SW-846 6020A	MS
Arsenic	10.0	9.56	96	ug/L	SW-846 6020A	MS
Barium	10.0	9.85	98	ug/L	SW-846 6020A	MS
Beryllium	10.0	9.59	96	ug/L	SW-846 6020A	MS
Cadmium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Calcium	5000	5040	101	ug/L	SW-846 6020A	MS
Chromium	10.0	9.74	97	ug/L	SW-846 6020A	MS
Cobalt	10.0	10.3	103	ug/L	SW-846 6020A	MS
Copper	10.0	10.6	106	ug/L	SW-846 6020A	MS
Iron	1000	1020	102	ug/L	SW-846 6020A	MS
Lead	10.0	10.3	103	ug/L	SW-846 6020A	MS
Magnesium	1000	1000	100	ug/L	SW-846 6020A	MS
Manganese	50.0	50.9	102	ug/L	SW-846 6020A	MS
Molybdenum	10.0	9.88	99	ug/L	SW-846 6020A	MS
Nickel	20.0	21.0	105	ug/L	SW-846 6020A	MS
Potassium	1000	987	99	ug/L	SW-846 6020A	MS
Selenium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Silver	10.0	10.1	101	ug/L	SW-846 6020A	MS
Sodium	1000	1020	102	ug/L	SW-846 6020A	MS
Thallium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Titanium	10.0	10.1	101	ug/L	SW-846 6020A	MS
Vanadium	10.0	10.0	100	ug/L	SW-846 6020A	MS
Zinc	200	208	104	ug/L	SW-846 6020A	MS

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-60-2 CPI Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2050

INITIAL CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00520	104	mg/L	SW-846 7470A	AV

ICV CONTROL LIMITS EPA 6010/6020/200.8 = 90-110 EPA 200.7 = 95-105

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2116

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00500	101	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2141

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00490	99	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Calibration Source: 245-60-1 EXAXOL Instrument ID: Tekmar Hyd ICAL ID: 1

Date Analyzed: 04/04/15 Time: 2206

CONTINUING CALIBRATION VERIFICATION

Analyte	*True*	*Found*	*CAL %R*	*Units*	*Method*	*Type*
Mercury	0.00500	0.00480	97	mg/L	SW-846 7470A	AV

CCV CONTROL LIMITS EPA 6010/6020A/200.7/200.8 = 90-110, EPA 7470/7471/7XXX = 80-120

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: ICB | ICAL ID: 2

Lab Sample DESC: ICB FOR HBN 555607 [ICP/9906] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/04/15 | Time: 2021

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0247

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: 1430370 | ICAL ID: 2

Lab Sample DESC: MB1430370 | Preparation Blank Matrix: (soil / water) Water

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0258

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	7.08	J	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	0.63	J	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	0.48	J	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	1.25	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	25.0	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Lab Sample ID: CCB ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/05/15 Time: 0339

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0542

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: 1430368 | ICAL ID: 5

Lab Sample DESC: MB1430368 | Preparation Blank Matrix: (soil / water) Water

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0552

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS
Antimony	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Arsenic	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Barium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Beryllium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cadmium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Calcium	125	U	ug/L	125	500	SW-846 6020A Dissolved	MS
Chromium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Cobalt	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Copper	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Iron	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Lead	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Magnesium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Manganese	1.25	U	ug/L	1.25	5.00	SW-846 6020A Dissolved	MS
Molybdenum	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Nickel	0.50	U	ug/L	0.50	2.00	SW-846 6020A Dissolved	MS
Potassium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Selenium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Silver	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Sodium	25.0	U	ug/L	25.0	100	SW-846 6020A Dissolved	MS
Thallium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Titanium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Vanadium	0.25	U	ug/L	0.25	1.00	SW-846 6020A Dissolved	MS
Zinc	5.00	U	ug/L	5.00	20.0	SW-846 6020A Dissolved	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 2

Lab Sample DESC: CCB FOR HBN 555607 [ICP/9906] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/05/15 | Time: 0616

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: ICB | ICAL ID: 3

Lab Sample DESC: ICB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/08/15 | Time: 1936

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Lab Sample ID: CCB ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/09/15 Time: 0221

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	28.2	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL Contract:

Lab Code LA024 Case No.: SAS No.: SDG No.: 215040217

Lab Sample ID: CCB ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 Date Analyzed: 04/09/15 Time: 0322

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	31.0	J	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 0409

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040217

Lab Sample ID: CCB
ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913]
Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2
Date Analyzed: 04/09/15 Time: 0510

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 3

Lab Sample DESC: CCB FOR HBN 555928 [ICP/9913] | Preparation Blank Matrix: (soil / water)

Instrument ID: ICPMS2 | Date Analyzed: 04/09/15 | Time: 0554

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Aluminum	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS
Antimony	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Arsenic	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Barium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Beryllium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cadmium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Calcium	500	U	ug/L	125	500	SW-846 6020A	MS
Chromium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Cobalt	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Copper	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Iron	100	U	ug/L	25.0	100	SW-846 6020A	MS
Lead	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Magnesium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Manganese	5.00	U	ug/L	1.25	5.00	SW-846 6020A	MS
Molybdenum	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Nickel	2.00	U	ug/L	0.50	2.00	SW-846 6020A	MS
Potassium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Selenium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Silver	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Sodium	100	U	ug/L	25.0	100	SW-846 6020A	MS
Thallium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Titanium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Vanadium	1.00	U	ug/L	0.25	1.00	SW-846 6020A	MS
Zinc	20.0	U	ug/L	5.00	20.0	SW-846 6020A	MS

BLANKS

Lab Name: GCAL | Contract:

Lab Code LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: ICB | ICAL ID: 1

Lab Sample DESC: ICB FOR HBN 555576 [HG/6388] | Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd | Date Analyzed: 04/04/15 | Time: 2052

INITIAL CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040217

Lab Sample ID: 1430363
ICAL ID: 1

Lab Sample DESC: MB1430363
Preparation Blank Matrix: (soil / water) Water

Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2106

PREPARATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.043	U	ug/L	0.043	0.20	SW-846 7470A	AV

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388] | Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd | Date Analyzed: 04/04/15 | Time: 2118

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL
Contract:

Lab Code LA024 Case No.:
SAS No.: SDG No.: 215040217

Lab Sample ID: CCB
ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388]
Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd
Date Analyzed: 04/04/15 Time: 2143

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

BLANKS

Lab Name: GCAL | Contract:

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217

Lab Sample ID: CCB | ICAL ID: 1

Lab Sample DESC: CCB FOR HBN 555576 [HG/6388] | Preparation Blank Matrix: (soil / water)

Instrument ID: Tekmar Hyd | Date Analyzed: 04/04/15 | Time: 2209

CONTINUING CALIBRATION BLANK

Analyte	*Conc.*	*C*	*Units*	*MDL*	*LOQ*	*Method*	*Type*
Mercury	0.00020	U	mg/L	0.00004	0.00020	SW-846 7470A	AV

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040217

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 555607

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-75-2 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1100	1120	112			
Antimony	0	0	0.050	0.044				
Arsenic	0	10.0	0.010	11.4	114			
Barium	0	0	0.21	0.20				
Beryllium	0	0	0.0060	0.0040				
Boron	0	20.0	2.54	23.1	116			
Cadmium	0	10.0	0.029	11.0	110			
Calcium	3000	3000	3480	3460	115			
Chromium	0	20.0	0.021	22.9	114			
Cobalt	0	20.0	0.053	23.3	116			
Copper	0	20.0	0.055	22.3	112			
Iron	2500	2500	2740	2770	111			
Lead	0	0	0.0070	0.0090				
Lithium	0	20.0	0.019	21.6	108			
Magnesium	1000	1000	1110	1120	112			
Manganese	0	20.0	0.64	21.4	107			
Molybdenum	20.0	20.0	21.5	21.7	108			
Nickel	0	20.0	-0.30	22.3	112			
Potassium	1000	1000	1080	1080	108			
Selenium	0	10.0	-0.060	10.5	105			
Silicon	0	1000	-13	1210	121			
Silver	0	5.00	0.0080	5.46	109			
Sodium	2500	2500	2780	2820	113			
Strontium	0	10.0	0.063	11.3	113			
Thallium	0	0	0.0030	0.0020				
Tin	0	10.0	0.12	10.9	109			
Titanium	20.0	20.0	21.7	22.1	110			
Vanadium	0	20.0	0.0090	22.1	110			
Zinc	0	20.0	4.72	22.8	114			
Zirconium	0	20.0	0.31	17.6	88			
Hardness	0	0						

ICP INTERFERENCE CHECK SAMPLE

Lab Name: GCAL Contract: SDG No.: 215040217

Lab Code LA024 Case No.: SAS No.: Analysis Batch: 555928

ICP ID Number: ICPMS2 ICS Source: 245-73-7 Agilent~245-75-2 HIGH PURITY

Concentration Units: mg/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	1000	1000	1110	1050	105	1110	1050	105
Antimony	0	0	0.019	0.013		0.017	0.010	
Arsenic	0	10.0	0.014	10.3	103	-0.0010	10.2	102
Barium	0	0	0.26	0.19		0.25	0.19	
Beryllium	0	0	0.0050	0.0030		0.0060	0.0020	
Boron	0	20.0	1.68	20.1	100	0.21	17.9	90
Cadmium	0	10.0	0.039	10.6	106	0.017	10.6	106
Calcium	3000	3000	3520	3240	108	3580	3240	108
Chromium	0	20.0	0.042	20.8	104	0.031	21.0	105
Cobalt	0	20.0	0.045	22.4	112	0.055	22.4	112
Copper	0	20.0	0.35	21.4	107	0.34	21.5	108
Iron	2500	2500	2810	2670	107	2860	2690	108
Lead	0	0	0.024	0.14		-0.032	0.087	
Lithium	0	20.0	-0.41	19.6	98	-0.90	18.7	94
Magnesium	1000	1000	1100	1050	105	1120	1060	106
Manganese	0	20.0	0.91	21.0	105	1.43	21.1	106
Molybdenum	20.0	20.0	21.7	20.7	104	21.8	20.9	104
Nickel	0	20.0	0.14	21.8	109	0.11	21.7	108
Potassium	1000	1000	1090	1030	103	1100	1020	102
Selenium	0	10.0	0.0060	10.1	101	-0.017	10.0	100
Silicon	0	1000	9.18	1150	115	5.74	1160	116
Silver	0	5.00	0.0060	5.28	106	0.0040	5.29	106
Sodium	2500	2500	2790	2660	106	2820	2660	106
Strontium	0	10.0	0.089	10.9	109	0.083	10.8	108
Thallium	0	0	0.0040	0.0020		0.012	0.0020	
Tin	0	10.0	0.20	10.4	104	0.19	10.6	106
Titanium	20.0	20.0	21.8	21.5	108	21.6	21.3	106
Vanadium	0	20.0	-0.025	21.1	106	-0.036	21.1	106
Zinc	0	20.0	6.31	21.8	109	6.69	21.4	107
Zirconium	0	20.0	0.12	17.9	90	0.13	17.9	90
Hardness	0	0	13.3	12.4		13.5	12.5	

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001 Method SW-846 6020A

SAMPLE NO. : 21504021708

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Aluminum	ug/L	1000	0	1010	101		80 - 120
Antimony	ug/L	100	0	110	110		80 - 120
Arsenic	ug/L	50	0	53.7	107		80 - 120
Barium	ug/L	50	15.8	70.5	109		80 - 120
Beryllium	ug/L	50	0	50.8	102		80 - 120
Cadmium	ug/L	50	0	54.2	108		80 - 120
Calcium	ug/L	25000	337000	376000	155	N	80 - 120
Chromium	ug/L	50	0	57.7	115		80 - 120
Cobalt	ug/L	50	0	55.5	111		80 - 120
Copper	ug/L	50	0	56.7	113		80 - 120
Iron	ug/L	5000	0	5540	111		80 - 120
Lead	ug/L	50	0	55.7	111		80 - 120
Magnesium	ug/L	5000	262000	277000	302	N	80 - 120
Manganese	ug/L	50	0	56.8	114		80 - 120
Mercury	ug/L	5	0	4.97	99		80 - 120
Molybdenum	ug/L	50	16.8	72.7	112		80 - 120
Nickel	ug/L	100	0	116	116		80 - 120
Potassium	ug/L	5000	14400	20400	119		80 - 120
Selenium	ug/L	10	28.6	46	174	N	80 - 120
Silver	ug/L	50	0	52	104		80 - 120
Sodium	ug/L	5000	2210000	2300000	1660	N	80 - 120
Thallium	ug/L	50	0	54.2	108		80 - 120
Titanium	ug/L	50	0	51.9	104		80 - 120
Vanadium	ug/L	50	5.94	62.3	113		80 - 120
Zinc	ug/L	1000	0	1190	119		80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 25 outside limits

Spike Recovery: 8 out of 50 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001 Method SW-846 6020A

SAMPLE NO. : 21504021709

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Aluminum	ug/L	1000	961	96		5		80 - 120	0 - 20
Antimony	ug/L	100	107	107		3		80 - 120	0 - 20
Arsenic	ug/L	50	49.7	99		8		80 - 120	0 - 20
Barium	ug/L	50	69	106		2		80 - 120	0 - 20
Beryllium	ug/L	50	49	98		4		80 - 120	0 - 20
Cadmium	ug/L	50	51.6	103		5		80 - 120	0 - 20
Calcium	ug/L	25000	370000	132	N	2		80 - 120	0 - 20
Chromium	ug/L	50	53.9	108		7		80 - 120	0 - 20
Cobalt	ug/L	50	52.5	105		6		80 - 120	0 - 20
Copper	ug/L	50	54.3	109		4		80 - 120	0 - 20
Iron	ug/L	5000	5250	105		5		80 - 120	0 - 20
Lead	ug/L	50	53.5	107		4		80 - 120	0 - 20
Magnesium	ug/L	5000	270000	163	N	3		80 - 120	0 - 20
Manganese	ug/L	50	54	108		5		80 - 120	0 - 20
Mercury	ug/L	5	5.13	103		3		80 - 120	0 - 20
Molybdenum	ug/L	50	70.5	108		3		80 - 120	0 - 20
Nickel	ug/L	100	107	107		8		80 - 120	0 - 20
Potassium	ug/L	5000	20000	111		2		80 - 120	0 - 20
Selenium	ug/L	10	42	134	N	9		80 - 120	0 - 20
Silver	ug/L	50	50.7	101		2		80 - 120	0 - 20
Sodium	ug/L	5000	2280000	1300	N	1		80 - 120	0 - 20
Thallium	ug/L	50	52.7	105		3		80 - 120	0 - 20
Titanium	ug/L	50	54.4	109		5		80 - 120	0 - 20
Vanadium	ug/L	50	56.9	102		9		80 - 120	0 - 20
Zinc	ug/L	1000	1140	114		4		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 25 outside limits

Spike Recovery: 8 out of 50 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001 Method SW-846 6020A Dissolved

SAMPLE NO. : 21504021708

COMPOUND	*UNITS*	*SPIKE ADDED*	*SAMPLE CONCENTRATION*	*MS CONCENTRATION*	*MS % REC*	*#*	*QC. LIMITS*
Aluminum	ug/L	1000	0	939	94		80 - 120
Antimony	ug/L	100	0	104	104		80 - 120
Arsenic	ug/L	50	0	50.5	101		80 - 120
Barium	ug/L	50	15.5	65.8	101		80 - 120
Beryllium	ug/L	50	0	47.6	95		80 - 120
Cadmium	ug/L	50	0	52.2	104		80 - 120
Calcium	ug/L	25000	332000	342000	38	N	80 - 120
Chromium	ug/L	50	0	52.8	106		80 - 120
Cobalt	ug/L	50	0	52.3	105		80 - 120
Copper	ug/L	50	0	52.8	106		80 - 120
Iron	ug/L	5000	0	5090	102		80 - 120
Lead	ug/L	50	0	52.2	104		80 - 120
Magnesium	ug/L	5000	252000	251000	0	N	80 - 120
Manganese	ug/L	50	0	52.8	106		80 - 120
Mercury	ug/L	5	0	4.33	87		80 - 120
Molybdenum	ug/L	50	16.3	69	105		80 - 120
Nickel	ug/L	100	0	107	107		80 - 120
Potassium	ug/L	5000	14400	18500	82		80 - 120
Selenium	ug/L	10	28.7	37.5	88		80 - 120
Silver	ug/L	50	0	49	98		80 - 120
Sodium	ug/L	5000	2140000	2100000	0	N	80 - 120
Thallium	ug/L	50	0	48.6	97		80 - 120
Titanium	ug/L	50	0	53.5	107		80 - 120
Vanadium	ug/L	50	5.57	57.6	104		80 - 120
Zinc	ug/L	1000	0	1100	110		80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 25 outside limits

Spike Recovery: 6 out of 50 outside limits

FORM V (PART 1) - IN

MS/MSD RECOVERY

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Matrix Spike - EPA Sample No: M114MW001 Method SW-846 6020A Dissolved

SAMPLE NO. : 21504021709

COMPOUND	*UNITS*	*SPIKE ADDED*	*MSD CONC.*	*MSD % REC*	#	*% RPD*	#	*QC. LIMITS REC*	*RPD*
Aluminum	ug/L	1000	957	96		2		80 - 120	0 - 20
Antimony	ug/L	100	103	103		1		80 - 120	0 - 20
Arsenic	ug/L	50	48	96		5		80 - 120	0 - 20
Barium	ug/L	50	64.8	99		2		80 - 120	0 - 20
Beryllium	ug/L	50	47.2	94		1		80 - 120	0 - 20
Cadmium	ug/L	50	49.8	100		5		80 - 120	0 - 20
Calcium	ug/L	25000	346000	55	N	1		80 - 120	0 - 20
Chromium	ug/L	50	51.5	103		3		80 - 120	0 - 20
Cobalt	ug/L	50	49.3	99		6		80 - 120	0 - 20
Copper	ug/L	50	52.3	105		1		80 - 120	0 - 20
Iron	ug/L	5000	5090	102		0		80 - 120	0 - 20
Lead	ug/L	50	50.6	101		3		80 - 120	0 - 20
Magnesium	ug/L	5000	258000	137	N	3		80 - 120	0 - 20
Manganese	ug/L	50	52.2	104		1		80 - 120	0 - 20
Mercury	ug/L	5	4.25	85		2		80 - 120	0 - 20
Molybdenum	ug/L	50	66.9	101		3		80 - 120	0 - 20
Nickel	ug/L	100	103	103		4		80 - 120	0 - 20
Potassium	ug/L	5000	18800	88		1		80 - 120	0 - 20
Selenium	ug/L	10	38.3	96		2		80 - 120	0 - 20
Silver	ug/L	50	48.1	96		2		80 - 120	0 - 20
Sodium	ug/L	5000	2130000	0	N	2		80 - 120	0 - 20
Thallium	ug/L	50	47.2	94		3		80 - 120	0 - 20
Titanium	ug/L	50	53.2	106		1		80 - 120	0 - 20
Vanadium	ug/L	50	55	99		5		80 - 120	0 - 20
Zinc	ug/L	1000	1080	108		1		80 - 120	0 - 20

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 out of 25 outside limits

Spike Recovery: 6 out of 50 outside limits

FORM V (PART 1) - IN

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: GCAL
Sample ID: M114MW001PDS
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Level: (low / med)
Lab Sample ID: 1433040
Orig Lab Sample ID 21504021706

Analyte	LL	UL	Spiked Sample Result	C	Sample Result	C	Spike Added	% R	Q	Units	Method	Type
Aluminum	75	125	20300		0	U	20000	102		ug/L	SW-846 6020A	MS
Antimony	75	125	2070		0	U	2000	104		ug/L	SW-846 6020A	MS
Arsenic	75	125	1010		0	U	1000	101		ug/L	SW-846 6020A	MS
Barium	75	125	1040		15.8	J	1000	102		ug/L	SW-846 6020A	MS
Beryllium	75	125	944		0	U	1000	94		ug/L	SW-846 6020A	MS
Cadmium	75	125	1030		0	U	1000	103		ug/L	SW-846 6020A	MS
Calcium	75	125	852000		337000		500000	103		ug/L	SW-846 6020A	MS
Chromium	75	125	995		0	U	1000	100		ug/L	SW-846 6020A	MS
Cobalt	75	125	1040		0	U	1000	104		ug/L	SW-846 6020A	MS
Copper	75	125	1030		0	U	1000	103		ug/L	SW-846 6020A	MS
Iron	75	125	104000		0	U	100000	104		ug/L	SW-846 6020A	MS
Lead	75	125	1070		0	U	1000	107		ug/L	SW-846 6020A	MS
Manganese	75	125	1040		0	U	1000	104		ug/L	SW-846 6020A	MS
Molybdenum	75	125	1070		16.8	J	1000	105		ug/L	SW-846 6020A	MS
Nickel	75	125	2100		0	U	2000	105		ug/L	SW-846 6020A	MS
Potassium	75	125	113000		14400		100000	99		ug/L	SW-846 6020A	MS
Selenium	75	125	235		28.6		200	103		ug/L	SW-846 6020A	MS
Silver	75	125	1000		0	U	1000	100		ug/L	SW-846 6020A	MS
Thallium	75	125	1060		0	U	1000	106		ug/L	SW-846 6020A	MS
Titanium			1060		0	U	1000	106		ug/L	SW-846 6020A	MS
Vanadium	75	125	1060		5.94	J	1000	105		ug/L	SW-846 6020A	MS
Zinc	75	125	20800		0	U	20000	104		ug/L	SW-846 6020A	MS

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1430371
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Lab Sample ID: 1430371
LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum	1000	1050	105	80	120	ug/L	SW-846 6020A	MS
Antimony	100	104	104	80	120	ug/L	SW-846 6020A	MS
Arsenic	50.0	51.5	103	80	120	ug/L	SW-846 6020A	MS
Barium	50.0	52.9	106	80	120	ug/L	SW-846 6020A	MS
Beryllium	50.0	52.2	104	80	120	ug/L	SW-846 6020A	MS
Cadmium	50.0	51.4	103	80	120	ug/L	SW-846 6020A	MS
Calcium	25000	26600	106	80	120	ug/L	SW-846 6020A	MS
Chromium	50.0	52.5	105	80	120	ug/L	SW-846 6020A	MS
Cobalt	50.0	52.7	105	80	120	ug/L	SW-846 6020A	MS
Copper	50.0	54.5	109	80	120	ug/L	SW-846 6020A	MS
Iron	5000	5280	106	80	120	ug/L	SW-846 6020A	MS
Lead	50.0	52.4	105	80	120	ug/L	SW-846 6020A	MS
Magnesium	5000	5420	108	80	120	ug/L	SW-846 6020A	MS
Manganese	50.0	51.8	104	80	120	ug/L	SW-846 6020A	MS
Molybdenum	50.0	52.2	104	80	120	ug/L	SW-846 6020A	MS
Nickel	100	105	105	80	120	ug/L	SW-846 6020A	MS
Potassium	5000	5110	102	80	120	ug/L	SW-846 6020A	MS
Selenium	10.0	9.92	99	80	120	ug/L	SW-846 6020A	MS
Silver	50.0	50.1	100	80	120	ug/L	SW-846 6020A	MS
Sodium	5000	5330	107	80	120	ug/L	SW-846 6020A	MS
Thallium	50.0	53.2	106	80	120	ug/L	SW-846 6020A	MS
Titanium	50.0	51.7	103	80	120	ug/L	SW-846 6020A	MS
Vanadium	50.0	52.6	105	80	120	ug/L	SW-846 6020A	MS
Zinc	1000	1000	100	80	120	ug/L	SW-846 6020A	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1430369
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Lab Sample ID: 1430369
LCS Source: 2122782 Inroganic Ventures

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Aluminum (Dissolved)	1000	961	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Antimony (Dissolved)	100	93.2	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Arsenic (Dissolved)	50.0	47.1	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Barium (Dissolved)	50.0	47.8	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Beryllium (Dissolved)	50.0	49.0	98	80	120	ug/L	SW-846 6020A Dissolved	MS
Cadmium (Dissolved)	50.0	47.0	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Calcium (Dissolved)	25000	23900	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Chromium (Dissolved)	50.0	47.7	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Cobalt (Dissolved)	50.0	47.7	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Copper (Dissolved)	50.0	47.6	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Iron (Dissolved)	5000	4780	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Lead (Dissolved)	50.0	46.3	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Magnesium (Dissolved)	5000	4870	97	80	120	ug/L	SW-846 6020A Dissolved	MS
Manganese (Dissolved)	50.0	47.1	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Molybdenum (Dissolved)	50.0	46.7	93	80	120	ug/L	SW-846 6020A Dissolved	MS
Nickel (Dissolved)	100	94.6	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Potassium (Dissolved)	5000	4600	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Selenium (Dissolved)	10.0	9.24	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Silver (Dissolved)	50.0	45.5	91	80	120	ug/L	SW-846 6020A Dissolved	MS
Sodium (Dissolved)	5000	4790	96	80	120	ug/L	SW-846 6020A Dissolved	MS
Thallium (Dissolved)	50.0	47.5	95	80	120	ug/L	SW-846 6020A Dissolved	MS
Titanium (Dissolved)	50.0	45.8	92	80	120	ug/L	SW-846 6020A Dissolved	MS
Vanadium (Dissolved)	50.0	47.2	94	80	120	ug/L	SW-846 6020A Dissolved	MS
Zinc (Dissolved)	1000	942	94	80	120	ug/L	SW-846 6020A Dissolved	MS

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL Sample ID: LCS1430364

Lab Code: LA024 Case No.: Contract:

Matrix: (soil / water) Water SAS No.: SDG No.: 215040217

Lab Sample ID: 1430364 LCS Source: 245-60-1 EXAXOL

Analyte	*True*	*Found*	*% R*	*LL*	*UL*	*Units*	*Method*	*Type*
Mercury	5.00	4.77	95	80	120	ug/L	SW-846 7470A	AV

FORM VII - IN

LABORATORY CONTROL SAMPLE

Lab Name: GCAL
Sample ID: LCS1430366
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Lab Sample ID: 1430366
LCS Source: 245-60-1 EXAXOL

Analyte	True	Found	% R	LL	UL	Units	Method	Type
Mercury (Dissolved)	5.00	4.38	88	80	120	ug/L	SW-846 7470A Dissolved	AV

FORM VII - IN

SERIAL DILUTIONS

Lab Name: GCAL
Sample ID M114MW001SD
Lab Code: LA024
Case No.
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Level: (low / med)
Org Lab Sample ID: 21504021706
Lab Sample ID: 1433041

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Aluminum			0	U	0	U			ug/L	SW-846 6020A	MS
Antimony			0	U	0	U			ug/L	SW-846 6020A	MS
Arsenic			0	U	0	U			ug/L	SW-846 6020A	MS
Barium			15.8	J	0	U	100		ug/L	SW-846 6020A	MS
Beryllium			0	U	0	U			ug/L	SW-846 6020A	MS
Cadmium			0	U	0	U			ug/L	SW-846 6020A	MS
Calcium	0	10	337000		342000		1.5		ug/L	SW-846 6020A	MS
Chromium			0	U	0	U			ug/L	SW-846 6020A	MS
Cobalt			0	U	0	U			ug/L	SW-846 6020A	MS
Copper			0	U	0	U			ug/L	SW-846 6020A	MS
Iron			0	U	0	U			ug/L	SW-846 6020A	MS
Lead			0	U	0	U			ug/L	SW-846 6020A	MS
Manganese			0	U	0	U			ug/L	SW-846 6020A	MS
Molybdenum			16.8	J	0	U	100		ug/L	SW-846 6020A	MS
Nickel			0	U	0	U			ug/L	SW-846 6020A	MS
Potassium			14400		15200		5.6		ug/L	SW-846 6020A	MS
Selenium			28.6		0	U	100		ug/L	SW-846 6020A	MS
Silver			0	U	0	U			ug/L	SW-846 6020A	MS
Thallium			0	U	0	U			ug/L	SW-846 6020A	MS
Titanium			0	U	0	U			ug/L	SW-846 6020A	MS
Vanadium			5.94	J	0	U	100		ug/L	SW-846 6020A	MS
Zinc			0	U	0	U			ug/L	SW-846 6020A	MS

SERIAL DILUTIONS

Lab Name: GCAL
Sample ID M114MW001SD
Lab Code: LA024 Case No.
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040217
Level: (low / med)
Org Lab Sample ID: 21504021706
Lab Sample ID: 1433173

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Magnesium			262000		280000		6.9		ug/L	SW-846 6020A	MS
Sodium	0	10	2210000		2300000		4.1		ug/L	SW-846 6020A	MS

FORM IX - IN

SERIAL DILUTIONS

Lab Name: GCAL
Sample ID M114MW001SD
Lab Code: LA024 Case No.
Contract:
Matrix: (soil / water) Water
SAS No.: SDG No.: 215040217
Level: (low / med)
Org Lab Sample ID: 21504021706
Lab Sample ID: 1433051

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Aluminum			0	U	0	U			ug/L	SW-846 6020A	MS
Antimony			0	U	0	U			ug/L	SW-846 6020A	MS
Arsenic			0	U	0	U			ug/L	SW-846 6020A	MS
Barium			15.5	J	0	U	100		ug/L	SW-846 6020A	MS
Beryllium			0	U	0	U			ug/L	SW-846 6020A	MS
Cadmium			0	U	0	U			ug/L	SW-846 6020A	MS
Calcium	0	10	332000		333000		.3		ug/L	SW-846 6020A	MS
Chromium			0	U	0	U			ug/L	SW-846 6020A	MS
Cobalt			0	U	0	U			ug/L	SW-846 6020A	MS
Copper			0	U	0	U			ug/L	SW-846 6020A	MS
Iron			0	U	0	U			ug/L	SW-846 6020A	MS
Lead			0	U	0	U			ug/L	SW-846 6020A	MS
Manganese			0	U	0	U			ug/L	SW-846 6020A	MS
Molybdenum			16.3	J	0	U	100		ug/L	SW-846 6020A	MS
Nickel			0	U	0	U			ug/L	SW-846 6020A	MS
Potassium			14400		15000		4.2		ug/L	SW-846 6020A	MS
Selenium			28.7		33.5	J	16.7		ug/L	SW-846 6020A	MS
Silver			0	U	0	U			ug/L	SW-846 6020A	MS
Thallium			0	U	0	U			ug/L	SW-846 6020A	MS
Titanium			0	U	0	U			ug/L	SW-846 6020A	MS
Vanadium			5.57	J	0	U	100		ug/L	SW-846 6020A	MS
Zinc			0	U	0	U			ug/L	SW-846 6020A	MS

SERIAL DILUTIONS

Lab Name: GCAL
Sample ID M114MW001SD
Lab Code: LA024
Case No.
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 215040217
Level: (low / med)
Org Lab Sample ID: 21504021706
Lab Sample ID: 1433177

Analyte	LL	UL	Initial Sample Result	C	Serial Dilution Result	C	% Diff.	Q	Units	Method	Type
Magnesium			252000		266000		5.6		ug/L	SW-846 6020A	MS
Sodium	0	10	2140000		2190000		2.3		ug/L	SW-846 6020A	MS

METHOD DETECTION LIMITS

Lab Name: GCAL

Lab Code: LA024

SDG No.: 215040217

Instrument ID: (MS) ICPMS1/ICPMS2 (AV) FIMS1

Analyte	*MDL*	*Units*	*Type*
Aluminum	5	ug/L	MS
Antimony	.5	ug/L	MS
Arsenic	.25	ug/L	MS
Barium	.25	ug/L	MS
Beryllium	.25	ug/L	MS
Cadmium	.25	ug/L	MS
Calcium	125	ug/L	MS
Chromium	.25	ug/L	MS
Cobalt	.25	ug/L	MS
Copper	.25	ug/L	MS
Iron	25	ug/L	MS
Lead	.25	ug/L	MS
Magnesium	25	ug/L	MS
Manganese	1.25	ug/L	MS
Molybdenum	.25	ug/L	MS
Nickel	.5	ug/L	MS
Potassium	25	ug/L	MS
Selenium	.25	ug/L	MS
Silver	.25	ug/L	MS
Sodium	25	ug/L	MS
Thallium	.25	ug/L	MS
Titanium	.25	ug/L	MS
Vanadium	.25	ug/L	MS
Zinc	5	ug/L	MS
Mercury	0.00007	mg/L	AV

FORM X - IN

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Method: SW-846 6020A Method Type MS Prep Batch: 555449

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1430371	04/02/15			50	mL
M114MW001	04/02/15			50	mL
M114MW001-MS	04/02/15			50	mL
M114MW001-SD	04/02/15			50	mL
M114MW002	04/02/15			50	mL
M114MW003	04/02/15			50	mL
M114MW004	04/02/15			50	mL
MB1430370	04/02/15			50	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Method: SW-846 6020A Dissolved Method Type MS Prep Batch: 555448

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1430369	04/02/15			50	mL
M114MW001	04/02/15			50	mL
M114MW001-MS	04/02/15			50	mL
M114MW001-SD	04/02/15			50	mL
M114MW002	04/02/15			50	mL
M114MW003	04/02/15			50	mL
M114MW004	04/02/15			50	mL
MB1430368	04/02/15			50	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Method: SW-846 7470A Method Type AV Prep Batch: 555445

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1430364	04/02/15			20	mL
M114MW001	04/02/15			20	mL
M114MW001-MS	04/02/15			20	mL
M114MW001-SD	04/02/15			20	mL
M114MW002	04/02/15			20	mL
M114MW003	04/02/15			20	mL
M114MW004	04/02/15			20	mL
MB1430363	04/02/15			20	mL

PREPARATION LOG

Lab Name: GCAL Sample ID:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217

Method: SW-846 7470A Dissolved Method Type AV Prep Batch: 555446

EPA Sample No.	Preparation Date	Weight	Units	Volume	Units
LCS1430366	04/02/15			20	mL
M114MW001	04/02/15			20	mL
M114MW001-MS	04/02/15			20	mL
M114MW001-SD	04/02/15			20	mL
M114MW002	04/02/15			20	mL
M114MW003	04/02/15			20	mL
M114MW004	04/02/15			20	mL
MB1430365	04/02/15			20	mL

FORM XIII - IN

ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/04/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217 End Date: 04/05/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 555607

				Analyte Symbols																														
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	1115																															
IICALB	*	1	2000	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	2004	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	2007	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	2011	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	2014	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	2017	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	2021	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	2024	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	2027	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	2031	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0247	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0251	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0254	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1430370	*	1	0258	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1430371	*	1	0301	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0311																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0315																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0318																															
CCB	*	1	0339	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0342	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0345	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0542	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0546	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0549	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
MB1430368	*	1	0552	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LCS1430369	*	1	0556	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/04/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217 End Date: 04/05/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 555607

Sample No.	PF	D/F	Time	Analyte Symbols																														
				Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0559																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0603																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0606																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0610																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0613																															
CCB	*	1	0616	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0620	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0623	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

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ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/08/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217 End Date: 04/09/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 555928

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
ITUNE	*	1	0928																															
IICALB	*	1	1913	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL2	*	1	1916	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL4	*	1	1920	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL5	*	1	1923	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL6	*	1	1926	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
IICAL1	*	1	1929	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICV	*	1	1933	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICB	*	1	1936	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	1939	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSA	*	1	1943	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ICSAB	*	1	1946	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0221	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0224	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0227	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		5	0231																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		500	0234																															
M114MW002	*	20	0241	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW002DL	*	500	0244															X									X							
M114MW004	*	20	0251	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW004DL	*	500	0254															X									X							
M114MW003	*	20	0301	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW003DL	*	500	0305															X									X							
M114MW001	*	20	0311	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001DL	*	500	0315															X									X							
CCB	*	1	0322	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0325	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

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ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/08/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217 End Date: 04/09/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 555928

				Analyte Symbols																														
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
CCV	*	1	0328	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW001-MS	*	20	0332	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001-MSDL	*	500	0335															X									X							
M114MW001-SD	*	20	0342	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001-SDDL	*	500	0345															X									X							
M114MW001PDS	*	20	0352	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001PDS	*	500	0356	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW001SD	*	100	0402	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001SD	*	2500	0406	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCB	*	1	0409	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0413	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0416	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW002	*	20	0419	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW002DL	*	500	0423															X									X							
M114MW004	*	20	0430	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW004DL	*	500	0433															X									X							
M114MW003	*	20	0440	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW003DL	*	500	0443															X									X							
M114MW001	*	20	0450	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001DL	*	500	0453															X									X							
M114MW001-MS	*	20	0500	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001-MSDL	*	500	0504															X									X							
CCB	*	1	0510	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0514	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0517	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
M114MW001-SD	*	20	0520	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001-SDDL	*	500	0524															X									X							

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ANALYSIS RUN LOG

Lab Name: GCAL Contract: Start Date: 04/08/15

Lab Code: LA024 Case No.: SAS No.: SDG No.: 215040217 End Date: 04/09/15

Instrument ID Number: ICPMS2 Method: SW-846 6020A Method Type: MS Analysis Batch: 555928

Sample No.	PF	D/F	Time	Analyte Symbols																																
				Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
M114MW001SD	*	100	0531	X	X	X	X	X		X	X	X	X	X	X	X			X		X	X	X	X		X			X		X	X	X	
M114MW001SD	*	2500	0534	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		10	0548																																
CCB	*	1	0554	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
LLCCV	*	1	0558	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	
CCV	*	1	0601	X	X	X	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		X		X	X	X	

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ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217 | End Date: 04/04/15

Instrument ID Number: Tekmar Hydra AA Hg Analyzer | Method: SW-846 7470A | Method Type: AV | Analysis Batch: 555576

				Analyte Symbols																																		
Sample No.	**PF**	**D/F**	**Time**	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
IICALB	*	1	2037																	X														
IICAL1	*	1	2039																	X														
IICAL2	*	1	2041																	X														
IICAL3	*	1	2043																	X														
IICAL4	*	1	2045																	X														
IICAL5	*	1	2047																	X														
ICV	*	1	2050																	X														
ICB	*	1	2052																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2055																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2057																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2059																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2101																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2103																															
MB1430363	*	1	2106																	X														
LCS1430364	*	1	2108																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2110																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2112																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2114																															
CCV	*	1	2116																	X														
CCB	*	1	2118																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2121																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2123																															
M114MW002	*	1	2124																	X														
M114MW004	*	1	2126																	X														
M114MW003	*	1	2128																	X														
M114MW001	*	1	2130																	X														
M114MW001-MS	*	1	2132																	X														

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ANALYSIS RUN LOG

Lab Name: GCAL | Contract: | Start Date: 04/04/15

Lab Code: LA024 | Case No.: | SAS No.: | SDG No.: 215040217 | End Date: 04/04/15

Instrument ID Number: Tekmar Hydra AA Hg Analyzer | Method: SW-846 7470A | Method Type: AV | Analysis Batch: 555576

Sample No.	PF	D/F	Time	Analyte Symbols: Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr
M114MW001-SD	*	1	2134																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2137																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2139																															
CCV	*	1	2141																	X														
CCB	*	1	2143																	X														
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2146																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2147																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2149																															
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		1	2151																															
M114MW002	*	1	2153																	X														
M114MW004	*	1	2156																	X														
M114MW003	*	1	2158																	X														
M114MW001	*	1	2200																	X														
M114MW001-MS	*	1	2201																	X														
M114MW001-SD	*	1	2203																	X														
CCV	*	1	2206																	X														
CCB	*	1	2209																	X														

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US EPA Tune Check Sample Report

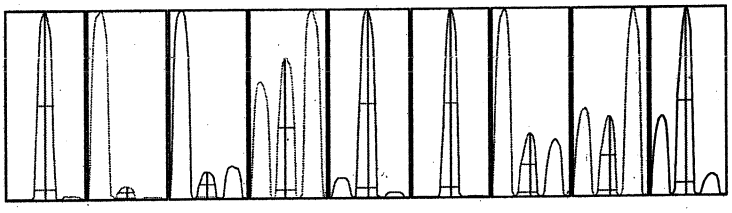
Batch Folder C:\Agilent\ICPMH\1\DATA\2150404a_ms2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10317	1.92	5.00	
24	48774	1.24	5.00	
25	6725	1.39	5.00	
26	8206	1.07	5.00	
59	150618	1.32	5.00	
115	116091	1.51	5.00	
206	25846	1.54	5.00	
207	23618	1.68	5.00	
208	56420	1.31	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10439	10574	10250	10055	10267
24	49348	49385	48597	47933	48609
25	6822	6817	6707	6674	6607
26	8273	8302	8227	8107	8123
59	151894	153039	149387	148019	150754
115	118305	117535	114949	114181	115484
206	26420	26012	25533	25426	25839
207	24304	23537	23321	23364	23565
208	57416	56665	55437	56034	56548

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1738	9.00	8.9 - 9.1		0.781	0.800	
24	8060	24.00	23.9 - 24.1		0.763	0.800	
25	1117	24.95	24.9 - 25.1		0.773	0.800	
26	1345	25.90	25.9 - 26.1		0.783	0.800	
59	25652	59.00	58.9 - 59.1		0.778	0.800	
115	21446	115.00	114.9 - 115.1		0.735	0.800	
206	4652	206.00	205.9 - 206.1		0.764	0.800	
207	4207	207.00	206.9 - 207.1		0.775	0.800	
208	9879	207.95	207.9 - 208.1		0.779	0.800	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.90	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.5	V			
Extract 2	-150.0	V	Cell Entrance	-30	V			
Omega Bias	-85	V	Cell Exit	-50	V			
Deflect	15.2	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	160	V			
Energy Discrimination	3.0	V						

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Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999994652	0.002366472	0.020418199	0.72398556	8.628116589	ppb
1	9	Be	0.999999989	0.000836523	2.33E-06	0.002079996	0.002781387	ppb
1	11	B	0.99999923	0.000481508	0.000411888	0.266376208	0.855412567	ppb
2	23	Na	0.999999253	0.003816506	0.22408371	1.654867646	58.71435729	ppb
2	24	Mg	0.999999867	0.002069243	0.000683851	0.13219329	0.330483375	ppb
2	27	Al	0.999998701	0.000772852	0.000504724	0.121989938	0.653067228	ppb
2	29	Si	0.999928337	2.07E-05	0.005041685	30.54170167	243.8798911	ppb
2	39	K	0.999995959	0.001554059	0.163085044	4.740172403	104.9413782	ppb
2	44	Ca	0.999999842	8.15E-05	0.000537325	5.813890024	6.591114883	ppb
2	47	Ti	0.999999516	0.000626144	1.49E-05	0.047089504	0.023859171	ppb
2	51	V	0.999999866	0.028679794	0.000646319	0.004456709	0.022535677	ppb
2	52	Cr	0.99999901	0.035169862	0.001226379	0.032034988	0.034870157	ppb
2	55	Mn	0.999999385	0.017463273	0.001730554	0.043828211	0.099096749	ppb
2	57	Fe	0.999999459	0.00071338	0.000698152	0.311204242	0.978653503	ppb
2	59	Co	0.999995282	0.064341747	0.000196984	0.003410412	0.003061521	ppb
2	60	Ni	0.999998222	0.017888404	0.011533676	0.176805498	0.644757125	ppb
2	63	Cu	0.999996771	0.041709244	0.001657067	0.01383818	0.039728999	ppb
2	66	Zn	0.999999882	0.007424819	0.00109973	0.100786149	0.148115346	ppb
2	75	As	0.999999688	0.005144431	9.32E-05	0.008190231	0.018114792	ppb
2	78	Se	0.999996	0.000246495	0.000175146	0.052157366	0.710546238	ppb
1	88	Sr	0.999998766	0.038603616	0.000564682	0.005590759	0.014627698	ppb
1	90	Zr	0.999999556	0.027757237	0.000143977	0.002263999	0.005187004	ppb
1	95	Mo	0.999998235	0.001116809	6.00E-06	0.00316427	0.005374946	ppb
1	107	Ag	0.99999976	0.003040354	1.54E-05	0.001356559	0.005050263	ppb
1	111	Cd	0.999999911	0.000638043	1.20E-06	0.003951763	0.001885912	ppb
1	118	(Sn)	0.999997647	0.001923632	2.59E-05	0.006355539	0.01347872	ppb
2	118	(Sn)	0.999996994	0.002552804	4.81E-05	0.007244035	0.018840013	ppb
2	120	Sn	0.999999107	0.003718836	7.59E-05	0.013505627	0.020401133	ppb
1	121	Sb	0.99999997	0.002867559	8.22E-05	0.006051283	0.028671607	ppb
1	137	Ba	0.999999704	0.001001766	1.99E-05	0.014073243	0.019892477	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999994	0.006305863	1.04E-05	0.002246647	0.001643266	ppb
1	206	(Pb)	0.999999551	0.002159966	1.90E-05	0.00882444	0.0088176	ppb
1	207	(Pb)	0.999999918	0.001905105	1.78E-05	0.005724379	0.00935198	ppb
1	208	Pb	0.999999813	0.00868555	9.40E-05	0.001861768	0.010823486	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

US EPA Tune Check Sample Report

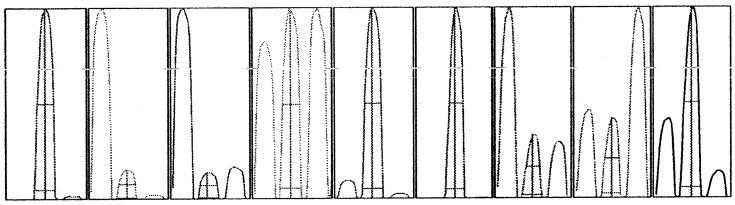
Batch Folder C:\Agilent\ICPMH\1\DATA\2150408A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8267	1.56	5.00	
24	43312	2.42	5.00	
25	6162	2.64	5.00	
26	7223	2.06	5.00	
59	173883	2.34	5.00	
115	160426	2.39	5.00	
206	45253	2.44	5.00	
207	41023	2.29	5.00	
208	98393	2.20	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8457	8321	8246	8121	8191
24	45072	43318	43133	42594	42445
25	6441	6143	6135	6037	6056
26	7483	7192	7107	7151	7182
59	180762	172966	173766	171559	170363
115	166719	160226	160523	157449	157210
206	47188	45123	44770	44534	44649
207	42492	41302	40824	40418	40080
208	101944	98010	98500	97317	96196

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1369	8.95	8.9 - 9.1		0.782	0.800	
24	6967	23.95	23.9 - 24.1		0.779	0.800	
25	968	24.90	24.9 - 25.1		0.790	0.800	
26	1161	25.95	25.9 - 26.1		0.818	0.800	[F]
59	28970	58.95	58.9 - 59.1		0.783	0.800	
115	29580	115.00	114.9 - 115.1		0.736	0.800	
206	8201	206.00	205.9 - 206.1		0.799	0.800	
207	7390	207.00	206.9 - 207.1		0.740	0.800	
208	17663	208.00	207.9 - 208.1		0.806	0.800	[F]

passed 6020 criteria

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.90	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.8	V			
Extract 2	-145.0	V	Cell Entrance	-30	V			
Omega Bias	-65	V	Cell Exit	-50	V			
Deflect	14.8	V						

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	170	V			
Energy Discrimination	3.0	V						

2150402l7 217

Tune Step	Mass	Name	R	a	b (blank)	DL	BEC	Units
1	7	Li	0.999999691	0.00132616	0.01402272	0.566142266	10.57392548	ppb
1	9	Be	0.999998887	0.000486695	9.01E-07	0.004900153	0.00185107	ppb
1	11	B	0.999995629	0.000284555	0.000431322	0.038328889	1.515778856	ppb
2	23	Na	0.999996288	0.002958235	0.146690473	2.411607185	49.5871622	ppb
2	24	Mg	0.999999599	0.001601319	0.001823895	0.40072806	1.138995236	ppb
2	27	Al	0.999997399	0.000583483	0.003277792	0.788373156	5.617628326	ppb
2	29	Si	0.999881821	1.55E-05	0.00239272	38.02916476	154.2973683	ppb
2	39	K	0.999999472	0.001216382	0.112746549	5.642712493	92.6900947	ppb
2	44	Ca	0.999996175	6.59E-05	0.000874571	7.534227952	13.2710789	ppb
2	47	Ti	0.999998813	0.000513892	1.55E-05	0.080438771	0.030105077	ppb
2	51	V	0.999998996	0.022309059	0.001854502	0.047466679	0.083127771	ppb
2	52	Cr	0.999667583	0.029372977	0.003561251	0.034778261	0.12124241	ppb
2	55	Mn	0.999998524	0.01355222	0.001542228	0.036163324	0.113798914	ppb
2	57	Fe	0.999996639	0.000568052	0.0006894	0.168362173	1.213621185	ppb
2	59	Co	0.999995833	0.052388882	0.00040584	0.004134402	0.007746679	ppb
2	60	Ni	0.99998527	0.014586529	0.00174353	0.01634447	0.119530128	ppb
2	63	Cu	0.999982925	0.036856343	0.004866376	0.029502466	0.132036315	ppb
2	66	Zn	0.999989031	0.005633193	0.002941968	0.145990116	0.522255862	ppb
2	75	As	0.99993043	0.004209471	0.000211461	0.017514974	0.050234553	ppb
2	78	Se	0.999999667	0.000193019	0.000129649	0.200655738	0.671690427	ppb
1	88	Sr	0.999999965	0.033578433	0.001381898	0.010012399	0.041154339	ppb
1	90	Zr	0.999992811	0.024199825	0.000242026	0.003899533	0.010001162	ppb
1	95	Mo	0.999999336	0.0008983	1.04E-05	0.002849642	0.011582534	ppb
1	107	Ag	0.9999983	0.002416026	2.38E-05	0.002347416	0.009847402	ppb
1	111	Cd	0.999999968	0.000508223	6.33E-06	0.00073974	0.012461798	ppb
1	118	(Sn)	0.999997118	0.001598025	0.000237253	0.575559008	0.148466599	ppb
2	118	(Sn)	0.999999963	0.002088083	9.36E-05	0.019853449	0.044806808	ppb
2	120	Sn	0.99999976	0.003064135	0.000137634	0.021127521	0.044917644	ppb
1	121	Sb	0.999999237	0.002339356	0.000109383	0.002023948	0.046757845	ppb
1	137	Ba	0.999999965	0.000872668	2.08E-05	0.006380685	0.023845017	ppb
2	156	[Se]						ppb
1	205	Tl	0.999999438	0.005263258	1.87E-05	0.00401655	0.003561488	ppb
1	206	(Pb)	0.999999592	0.001814254	0.000111613	0.000120509	0.061519957	ppb
1	207	(Pb)	0.999999778	0.001608678	9.12E-05	0.019464807	0.056719304	ppb
1	208	Pb	0.999995508	0.007095291	0.000437584	0.007091562	0.0616725	ppb
1	6	(Li)						ppb
1	45	Sc						ppb
2	45	Sc						ppb
1	72	Ge						ppb
2	72	Ge						ppb
1	103	Rh						ppb
2	103	Rh						ppb
1	115	In						ppb
2	115	In						ppb
1	159	Tb						ppb
2	159	Tb						ppb
1	175	Lu						ppb
2	175	Lu						ppb
1	209	Bi						ppb
2	209	Bi						ppb

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 13:19 End: 13:45	BATCH NO:	555449
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555449 [DIGM/38612]	1430370	50	50	MB		HNO3 ultra 7122792
2	QC ACCOUNT	LCS for HBN 555449 [DIGM/38612	1430371			LCS		
3	4444	M1515	21504020301			SAMPLE		HCL ultra 7122818
4	4444	1517	21504020302	↓		SAMPLE		H2O2
5	0523	PAR CAT SAMPLE 1/2	21504010101	5mL		SAMPLE		
6	0523	PAR CAT SAMPLE 3/4	21504010102	5mL		SAMPLE		SOLID MATERIAL:
7	0523	PAR CAT SAMPLE 5/6	21504010103	5mL		SAMPLE		
8	4289	WASHRACK	21504015802	5mL		SAMPLE		
9	4747	M114MW002	21504021701			SAMPLE		DIGMS SPIC 25ml 7077792
10	4747	M114MW004	21504021703			SAMPLE		DIGMS SPIC 25ml 7081040
11	4747	M114MW003	21504021704			SAMPLE		DIGMS SPIC 25ml 7081040
12	4747	M114MW001	21504021706			SAMPLE		
13	4747	M114MW001-MS	21504021708			MS		DIGMS SPIC 25ml 7085160
14	4747	M114MW001-SD	21504021709	↓		MSD		
15	4577	AOI28-WC05-W-0007	21504015601	5mL		SAMPLE		DIGMS SPIC 25ml 7077609
16	4577	AOI28-WC04-S-0007	21504015602	5mL		SAMPLE		
17	4577	AOI28-WC03-S-0506	21504015603	5mL		SAMPLE		SPIKING SOLUTIONS (LCS/MS)
18	4577	AOI28-WC02-S-0304	21504015604	5mL		SAMPLE		
19	4577	AOI28-WC02-S-0102	21504015605	5mL	↓	SAMPLE		GCALI-1 - 250uL
20								
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

COMMENTS:

BALANCE ID: _____ TEMP: 94°

BLOCK ID	TECHNICIAN	DATE
1 150703	JC	4-2-15
REPIPET BOTTLES VERIFIED	REVIEW	DATE
N/A	JEL2	4/6/15

Revision 1, 08/10/2010

ICP SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 15:30 End: 18:40	BATCH NO:	555448
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	200.0 ☐ 200.7 ☐ 3010A ☑ 3050B ☐ 3051 ☐ DRS 6020

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555448 [DIGM/38611]	1430368	80	80	MB		HNO3
2	QC ACCOUNT	LCS for HBN 555448 [DIGM/38611	1430369			LCS		122192
3	4747	M114MW002	21504021701			SAMPLE	Cell Filtered	HCL
4	4747	M114MW004	21504021703			SAMPLE		
5	4747	M114MW003	21504021704			SAMPLE		H2O2
6	4747	M114MW001	21504021706			SAMPLE		
7	4747	M114MW001-MS	21504021708			MS		SOLID MATERIAL:
8	4747	M114MW001-SD	21504021709			MSD		
9	4700	LF01-SW03-DIS	21504023002			SAMPLE		
10	4700	LF01-SW02-DIS	21504023005			SAMPLE		
11	4700	LF01-SW01-DIS	21504023007			SAMPLE		
12	4271	MW-1	21504024001			SAMPLE		
13	4271	MW-2	21504024002			SAMPLE		
14	4271	MW-4	21504024003			SAMPLE		
15	4271	MW-3	21504024004			SAMPLE		
16	4271	MW-5	21504024005	↓	↓	SAMPLE	↓	
17								SPIKING SOLUTIONS (LCS/MS)
18								
19								GCALI-1 - 250uL
20								
21								GCALI-2 - 250uL
22								
23								ORGANOMETALLIC ICP SPIKE 0.025g
24								
25								
26								
27								
28								

samples are undigested

COMMENTS:

BALANCE ID: _____ TEMP: _____

BLOCK ID	TECHNICIAN	DATE
N/A 130703	JEL	4-2-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	JEL2	4/6/15

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 13:15 End: 15:15	BATCH NO:	555445
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555445 [DIGM/38609]	1430363	20	20	MB		HNO3 272982
2	QC ACCOUNT	LCS for HBN 555445 [DIGM/38609	1430364			LCS		
3	4577	AOI28-WC05-W-0007	21504015601			SAMPLE		H2SO4 272194
4	0523	PAR CAT SAMPLE 1/2	21504010101			SAMPLE		
5	0523	PAR CAT SAMPLE 3/4	21504010102			SAMPLE		Aqua Regia
6	0523	PAR CAT SAMPLE 5/6	21504010103			SAMPLE		
7	4289	WASHRACK	21504015802			SAMPLE		KMN04 776181
8	4747	M114MW002	21504021701			SAMPLE		
9	4747	M114MW004	21504021703			SAMPLE		K2S2O6
10	4747	M114MW003	21504021704			SAMPLE		276142
11	4747	M114MW001	21504021706			SAMPLE		Hg Calib ID
12	4747	M114MW001-MS	21504021708			MS		
13	4747	M114MW001-SD	21504021709			MSD		0.1 ppm CCV Working Solution
14	4577	AOI28-WC04-S-0007	21504015602			SAMPLE		
15	4577	AOI28-WC03-S-0506	21504015603			SAMPLE		0.1 ppm ICV Working Solution
16	4577	AOI28-WC02-S-0304	21504015604			SAMPLE		
17	4577	AOI28-WC02-S-0102	21504015605	↓	↓	SAMPLE		Hg ICV
18								
19								SPIKE SOLUTIONS (LCS/MS)
20								
21								Hg Spike 400ul/ 150ul 10000
22								
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
A1 ISD703	JCL	4-24-15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	JEL2	4/6/15

BALANCE ID: _____ TEMP: 9.4°

Revision 1, 08/10/2010

HG SAMPLE PREPARATION FORM

EXTRACTION DATE/TIME:	Start: 15:20 End: 17:20	BATCH NO:	555446
MATRIX:	WATER ☑ SOIL ☐ TCLP EXT ☐ ORGANIC ☐	METHOD:	245.2 ☐ 7470A ☑ 7471B ☐

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	SAMPLE TYPE	COMMENTS	REAGENTS/ STANDARDS
1	QC ACCOUNT	MB for HBN 555446 [DIGM/38610]	1430365	20	20	MB		HNO3
2	QC ACCOUNT	LCS for HBN 555446 [DIGM/38610	1430366			LCS		2227132
3	4747	M114MW002	21504021701			SAMPLE	Craig Gilmore	H2SO4
4	4747	M114MW004	21504021703			SAMPLE		217194
5	4747	M114MW003	21504021704			SAMPLE		Aqua Regia
6	4747	M114MW001	21504021706			SAMPLE		
7	4747	M114MW001-MS	21504021708			MS		KMN04
8	4747	M114MW001-SD	21504021709			MSD		226 18-1
9								K2S2O6
10								226 1742
11								Hg Calib ID
12								
13								0.1 ppm CCV Working Solution
14								
15								0.1 ppm ICV Working Solution
16								
17								Hg ICV
18								
19								SPIKE SOLUTIONS (LCS/MS)
20								
21								Hg Spike 100uL / 150uL 10604
22								2283134
23								ORGANOMETALLIC HG SPIKE 0.025g
24								
25								SOLID MATERIAL:
26								

Hg Solid Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	60 uL	30mL
Standard 2	0.50	150 uL	30 mL
Standard 3	2.00	600 uL	30 mL
Standard 4	5.00	1500 ul	30 mL
Standard 5	10.0	3000 uL	30 mL
ICV	5.00	1500 uL	30 mL

Hg Water Calibration

Calib Blk	Conc (ug/L)	0.1ppm Spk Added	Final Volume
Standard 1	0.20	40 uL	20 mL
Standard 2	0.50	100 uL	20 mL
Standard 3	2.00	400 uL	20 mL
Standard 4	5.00	1000 ul	20 mL
Standard 5	10.0	2000 uL	20 mL
ICV	5.00	1000 uL	20 mL

BLOCK ID	TECHNICIAN	DATE
AH 190703	JCL	4/2/15
REPIPET BOTTLES VERIFIED	**REVIEW**	**DATE**
N/A	JEL2	4/6/15

BALANCE ID: _____ TEMP: 9.4

Revision 1, 08/10/2010

Sample Results

M114MW002	**Collect Date**	04/01/2015 11:45	**GCAL ID**	21504021701
	Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 16:21	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	2.06J	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 12:49	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3740	250	1000	mg/L
14808-79-8	Sulfate	2130	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:31	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2015 13:11	RYC	555877

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	76.8	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2015 13:10	WRW	555453

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	6690	10.0	10.0	mg/L

Sample Results

M114MW004	**Collect Date**	04/01/2015 13:25	**GCAL ID**	21504021703
	Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 17:13	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	2.46J	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 13:07	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3360	250	1000	mg/L
14808-79-8	Sulfate	1940	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:32	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 14:42	SLE	555686

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	65.3	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2015 13:10	WRW	555453

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	6970	10.0	10.0	mg/L

Sample Results

M114MW003	**Collect Date**	04/01/2015 11:26	**GCAL ID**	21504021704
	Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 17:30	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	2.57J	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 13:24	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3940	250	1000	mg/L
14808-79-8	Sulfate	2370	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:33	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 14:42	SLE	555686

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	97.8	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2015 13:10	WRW	555453

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	7360	10.0	10.0	mg/L

Sample Results

M114MW001	**Collect Date**	04/01/2015 12:53	**GCAL ID**	21504021706
	Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 17:48	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	2.78J	1.00	4.00	mg/L
14797-65-0	Nitrite	1.00U	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 13:42	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	3250	250	1000	mg/L
14808-79-8	Sulfate	2190	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:34	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.00050U	0.00050	0.0050	mg/L

SM 2320 B-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2015 14:42	SLE	555686

CAS#	Parameter	Result	MDL	LOQ	Units
000000-00-5	Total Alkalinity	55.5	0.26	1.0	mg/L CaCO3

SM 2540 C-2011

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2015 13:10	WRW	555453

CAS#	Parameter	Result	MDL	LOQ	Units
WET-035	Total Dissolved Solids(TDS)	5950	10.0	10.0	mg/L

Sample Results

M114MW001-MS

Collect Date	04/01/2015 12:53	**GCAL ID**	21504021708
Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 18:40	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	50.4	1.00	4.00	mg/L
14797-65-0	Nitrite	41.9	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 13:59	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	15100	250	1000	mg/L
14808-79-8	Sulfate	14000	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:35	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.030	0.00050	0.0050	mg/L

M114MW001-SD

Collect Date	04/01/2015 12:53	**GCAL ID**	21504021709
Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	20	04/02/2015 18:57	DMT	555451

CAS#	Parameter	Result	MDL	LOQ	Units
14797-55-8	Nitrate	50.0	1.00	4.00	mg/L
14797-65-0	Nitrite	42.0	1.00	4.00	mg/L

EPA 300.0, Rev 2.1

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 14:17	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
16887-00-6	Chloride	15100	250	1000	mg/L

Sample Results

M114MW001-SD	**Collect Date**	04/01/2015 12:53	**GCAL ID**	21504021709
	Receive Date	04/02/2015 10:00	**Matrix**	Water

EPA 300.0, Rev 2.1 (Continued)

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	5000	04/11/2015 14:17	DMT	556078

CAS#	Parameter	Result	MDL	LOQ	Units
14808-79-8	Sulfate	14000	250	1000	mg/L

EPA 9012B

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
04/05/2015 10:30	555604	Cyanide Prep	1	04/10/2015 10:36	JEM	556029

CAS#	Parameter	Result	MDL	LOQ	Units
57-12-5	Cyanide	0.031	0.00050	0.0050	mg/L

General Chemistry Quality Control Summary

Analytical Batch		Client ID	LCS555686			
555686		GCAL ID	1431575			
		Sample Type	LCS			
		Prep Date	NA			
		Analysis Date	04/06/2015 14:42			
		Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R	
Total Alkalinity	000000-00-5	200	197	99	80 - 120	

Analytical Batch		Client ID	TK-471 (TUESDAY)		1429557DUP		
555686		GCAL ID	21503312202		1431576		
		Sample Type	SAMPLE		DUP		
		Prep Date	NA		NA		
		Analysis Date	04/06/2015 14:42		04/06/2015 14:42		
		Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 MDL		Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	365	0.26		370	1	11

Analytical Batch		Client ID	LCS555877			
555877		GCAL ID	1432557			
		Sample Type	LCS			
		Prep Date	NA			
		Analysis Date	04/08/2015 13:11			
		Matrix	Water			
SM 2320 B-2011		Spike Added	Result	%R	Control Limits%R	
Total Alkalinity	000000-00-5	200	194	97	80 - 120	

Analytical Batch		Client ID	M114MW002		1430339DUP		
555877		GCAL ID	21504021701		1432558		
		Sample Type	SAMPLE		DUP		
		Prep Date	NA		NA		
		Analysis Date	04/08/2015 13:11		04/08/2015 13:11		
		Matrix	Water		Water		
SM 2320 B-2011		Units Result	mg/L CaCO3 MDL		Result	RPD	RPD Limit
Total Alkalinity	000000-00-5	76.8	0.26		80.5	5	11

Analytical Batch		Client ID	M114MW001		M114MW001-MS				M114MW001-SD				
555451		GCAL ID	21504021706		21504021708				21504021709				
		Sample Type	SAMPLE		MS				MSD				
		Prep Date	NA		NA				NA				
		Analysis Date	04/02/2015 17:48		04/02/2015 18:40				04/02/2015 18:57				
		Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL		Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	2.78	1.00		50.0	50.4	95	80 - 120	50.0	50.0	95	1	15
Nitrite	14797-65-0	0.000	1.00		50.0	41.9	84	80 - 120	50.0	42.0	84	0	15

Analytical Batch		Client ID	M114MW001		M114MW001-MS				M114MW001-SD				
556078		GCAL ID	21504021706		21504021708				21504021709				
		Sample Type	SAMPLE		MS				MSD				
		Prep Date	NA		NA				NA				
		Analysis Date	04/11/2015 13:42		04/11/2015 13:59				04/11/2015 14:17				
		Matrix	Water		Water				Water				
EPA 300.0, Rev 2.1		Units Result	mg/L MDL		Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Chloride	16887-00-6	3250	250		12500	15100	95	79 - 109	12500	15100	95	0	15
Sulfate	14808-79-8	2190	250		12500	14000	95	82 - 110	12500	14000	94	0	15

General Chemistry Quality Control Summary

Analytical Batch	Client ID	MB555451	LCS555451
555451	GCAL ID	1430389	1430390
	Sample Type	MB	LCS
	Prep Date	NA	NA
	Analysis Date	04/02/2015 12:55	04/02/2015 12:37
	Matrix	Water	Water

EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Nitrate	14797-55-8	0.050U	0.050	2.50	2.30	92	80 - 120
Nitrite	14797-65-0	0.050U	0.050	2.50	2.38	95	80 - 120

Analytical Batch	Client ID	M114MW002	1430339MS	1430339MSD
555451	GCAL ID	21504021701	1430391	1430523
	Sample Type	SAMPLE	MS	MSD
	Prep Date	NA	NA	NA
	Analysis Date	04/02/2015 16:21	04/02/2015 16:56	04/02/2015 16:38
	Matrix	Water	Water	Water

EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Nitrate	14797-55-8	2.06	1.00	50.0	47.9	92	80 - 120	50.0	47.8	92	0	15
Nitrite	14797-65-0	0.000	1.00	50.0	40.0	80	80 - 120	50.0	39.7	80	1	15

Analytical Batch	Client ID	MB556078	LCS556078
556078	GCAL ID	1433542	1433543
	Sample Type	MB	LCS
	Prep Date	NA	NA
	Analysis Date	04/10/2015 19:44	04/10/2015 19:26
	Matrix	Water	Water

EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Chloride	16887-00-6	0.050U	0.050	2.50	2.40	96	79 - 109
Sulfate	14808-79-8	0.050U	0.050	2.50	2.42	97	82 - 110

Analytical Batch	Client ID	JM04-MW53R-040915	1433273MS	1433273MSD
556078	GCAL ID	21504100808	1433544	1433545
	Sample Type	SAMPLE	MS	MSD
	Prep Date	NA	NA	NA
	Analysis Date	04/10/2015 20:01	04/10/2015 20:19	04/10/2015 20:36
	Matrix	Water	Water	Water

EPA 300.0, Rev 2.1		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Sulfate	14808-79-8	7.00	0.050	2.50	9.58	103	82 - 110	2.50	9.62	105	0	15

Analytical Batch	Client ID	MB555604	LCS555604	LCSHI555604
556029	GCAL ID	1431265	1431266	1431267
Prep Batch	Sample Type	MB	LCS	LCSHI
555604	Prep Date	04/05/2015 10:30	04/05/2015 10:30	04/05/2015 10:30
Prep Method	Analysis Date	04/10/2015 10:28	04/10/2015 10:29	04/10/2015 10:30
Cyanide Prep	Matrix	Water	Water	Water

EPA 9012B		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	Control Limits%R
Cyanide	57-12-5	0.00050U	0.00050	0.020	0.020	98	80 - 120	0.10	0.10	101	80 - 120

General Chemistry Quality Control Summary

Analytical Batch	Client ID	M114MW001		M114MW001-MS				M114MW001-SD				
556029	GCAL ID	21504021706		21504021708				21504021709				
Prep Batch	Sample Type	SAMPLE		MS				MSD				
555604	Prep Date	04/05/2015 10:30		04/05/2015 10:30				04/05/2015 10:30				
Prep Method	Analysis Date	04/10/2015 10:34		04/10/2015 10:35				04/10/2015 10:36				
Cyanide Prep	Matrix	Water		Water				Water				
EPA 9012B		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Cyanide	57-12-5	0.0	0.00050	0.10	0.030	30*	80 - 120	0.10	0.031	31*	5	20

Analytical Batch	Client ID	MB555453		LCS555453			
555453	GCAL ID	1430420		1430421			
	Sample Type	MB		LCS			
	Prep Date	NA		NA			
	Analysis Date	04/02/2015 13:10		04/02/2015 13:10			
	Matrix	Water		Water			
SM 2540 C-2011		Units Result	mg/L MDL	Spike Added	Result	%R	Control Limits%R
Total Dissolved Solids(TDS)	WET-035	10.0U	10.0	1000	958	96	80 - 120

Analytical Batch	Client ID	M114MW003		1430342DUP		
555453	GCAL ID	21504021704		1430422		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	04/02/2015 13:10		04/02/2015 13:10		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L MDL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	7360	10.0	7360	0	5.4

Analytical Batch	Client ID	LF01-SW01		1430431DUP		
555453	GCAL ID	21504023006		1430438		
	Sample Type	SAMPLE		DUP		
	Prep Date	NA		NA		
	Analysis Date	04/02/2015 13:10		04/02/2015 13:10		
	Matrix	Water		Water		
SM 2540 C-2011		Units Result	mg/L MDL	Result	RPD	RPD Limit
Total Dissolved Solids(TDS)	WET-035	281	10.0	282	0	5.4

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/1/15
Analyst: DMT
HBN: 555382 / 555451
Batch: 4820 / 4821

Instrument ID: IC3

Secondary Reviewer/Date: JEM 4-6-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-24-5
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-18-7 Expiration Date: 9/30/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

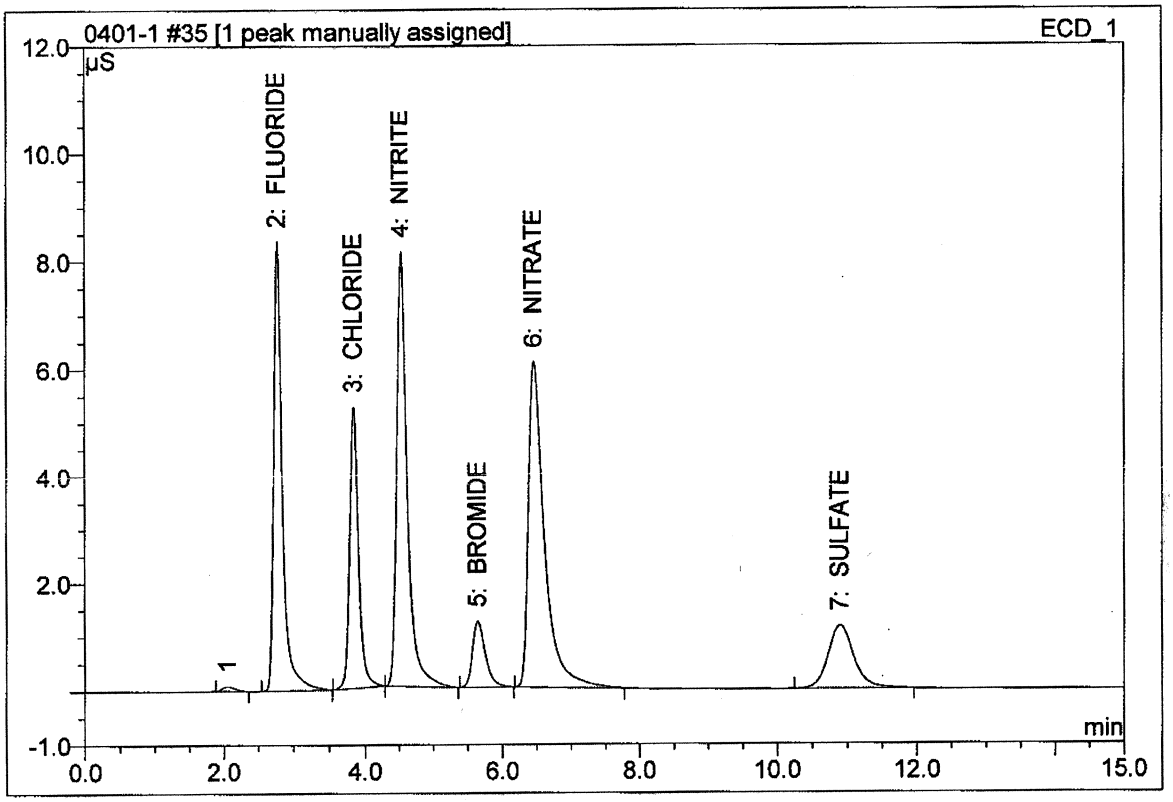
Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

Sample Analysis Report

Sample Name:	CCV/1430390	**Sample No.:**	35
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 12:37 PM	**System Operator:**	DMT

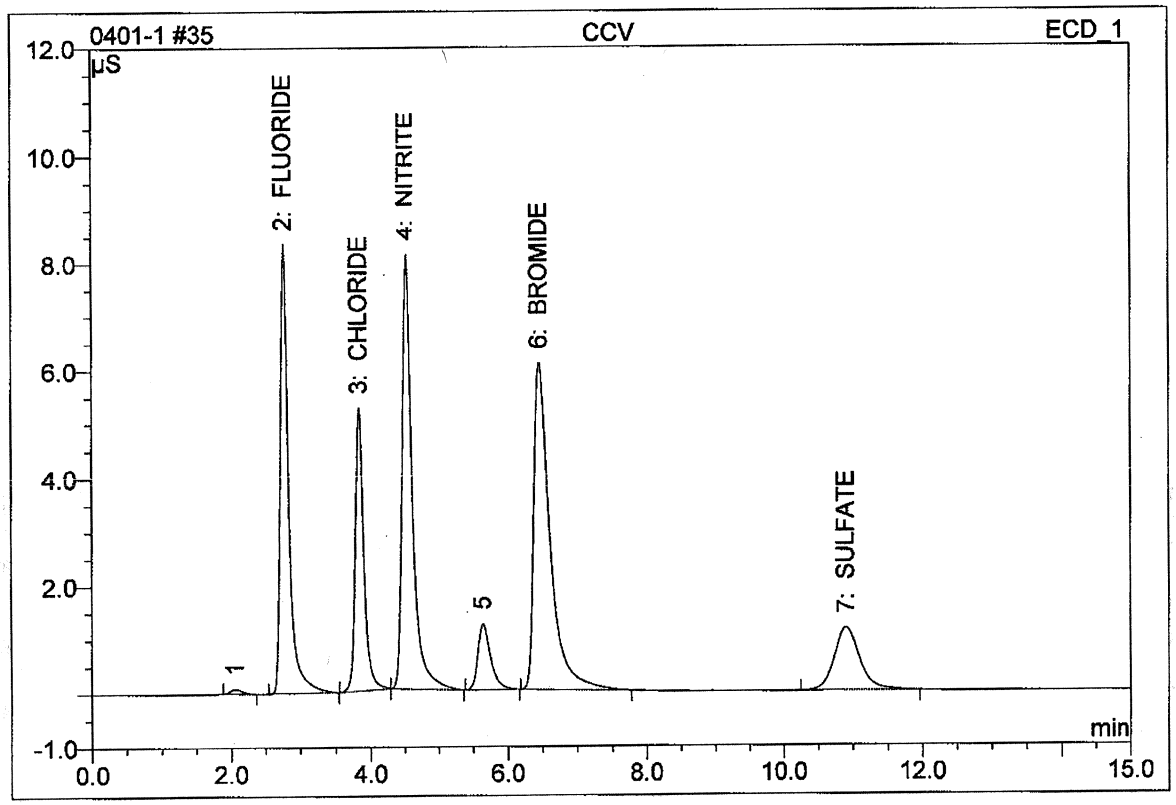


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.77	1.198	8.361	2.469	n.a.
3	CHLORIDE	3.84	0.753	5.259	2.502	100% n.a.
4	NITRITE	4.53	1.532	8.096	2.381	95% n.a.
5	BROMIDE	5.64	0.264	1.226	2.298	n.a.
6	NITRATE	6.46	1.653	6.078	2.302	92% n.a.
7	SULFATE	10.90	0.500	1.174	2.514	101% n.a.

manual integration.
NO_3, Br
DMT 4/2/15

Sample Analysis Report

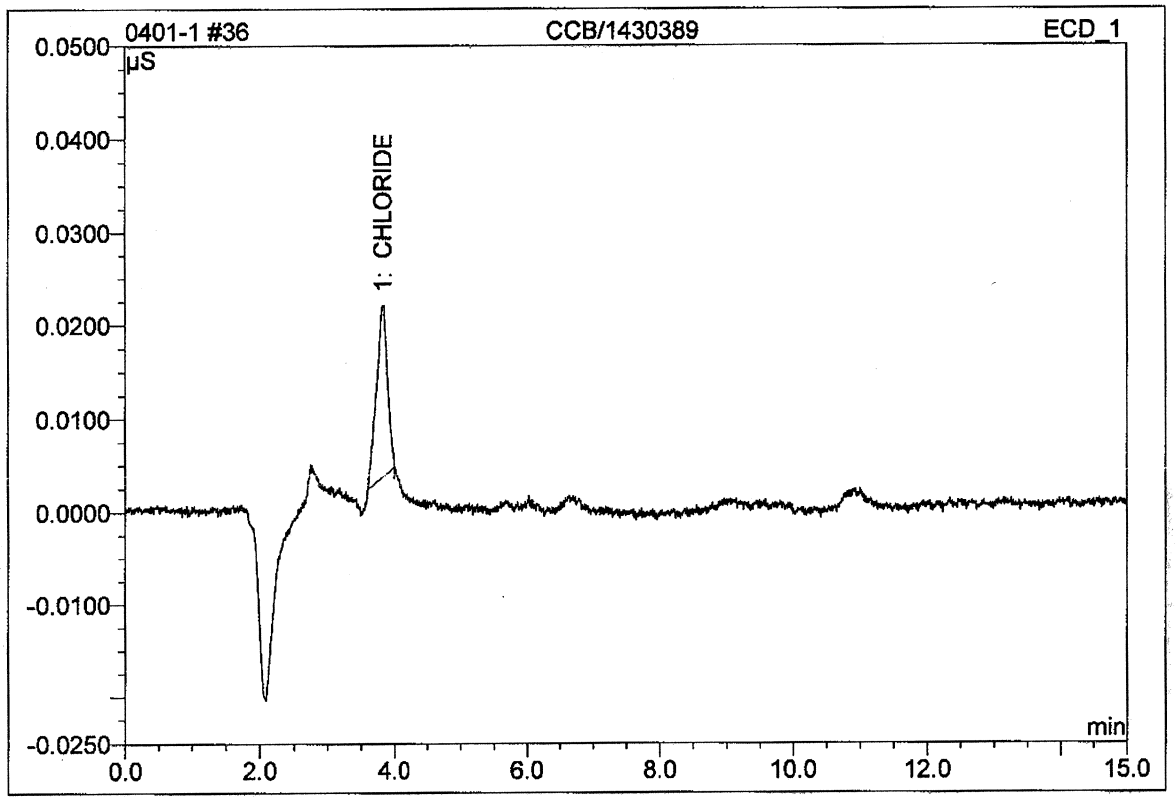
Sample Name:	CCV	**Sample No.:**	35
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 12:37 PM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.77	1.198	8.361	2.469	99
3	CHLORIDE	3.84	0.753	5.259	2.502	100
4	NITRITE	4.53	1.532	8.096	2.381	95
6	BROMIDE	6.46	1.653	6.078	13.869	555
7	SULFATE	10.90	0.500	1.174	2.514	101

Sample Analysis Report

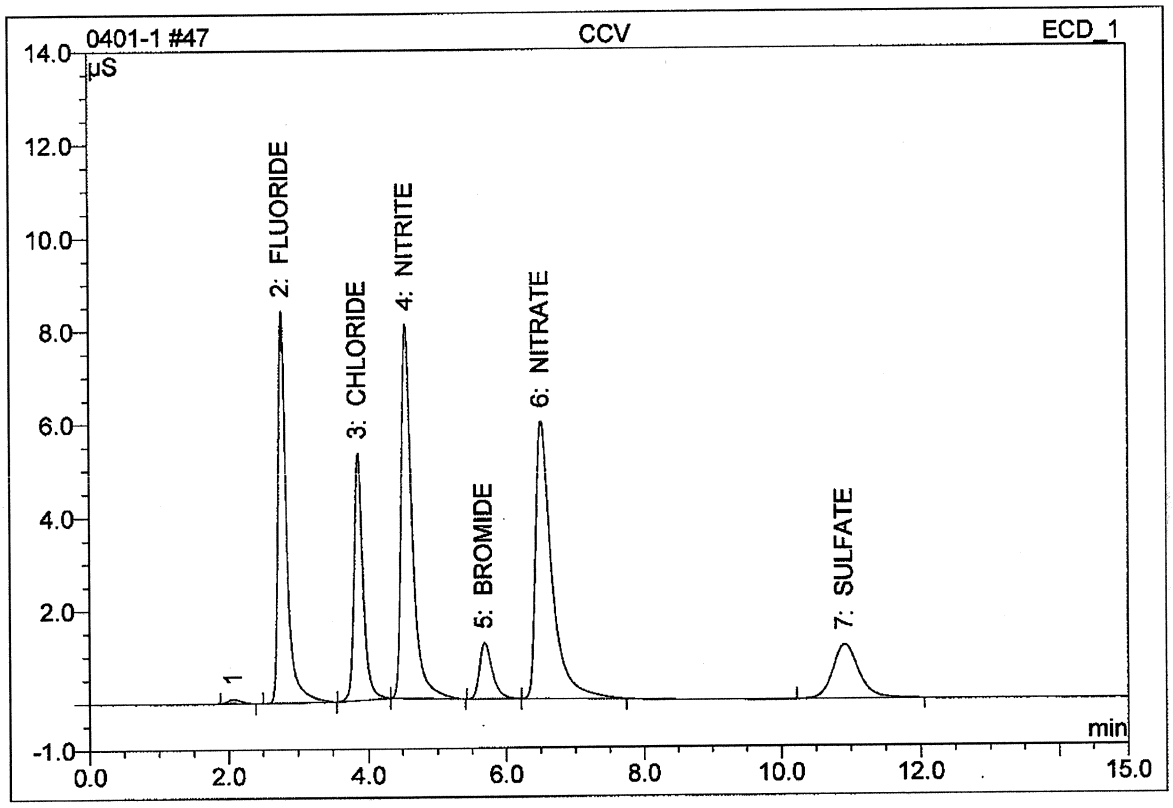
Sample Name:	CCB/1430389	**Sample No.:**	36
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 12:55 PM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE	3.83	0.004	0.018	0.026	n.a.

Sample Analysis Report

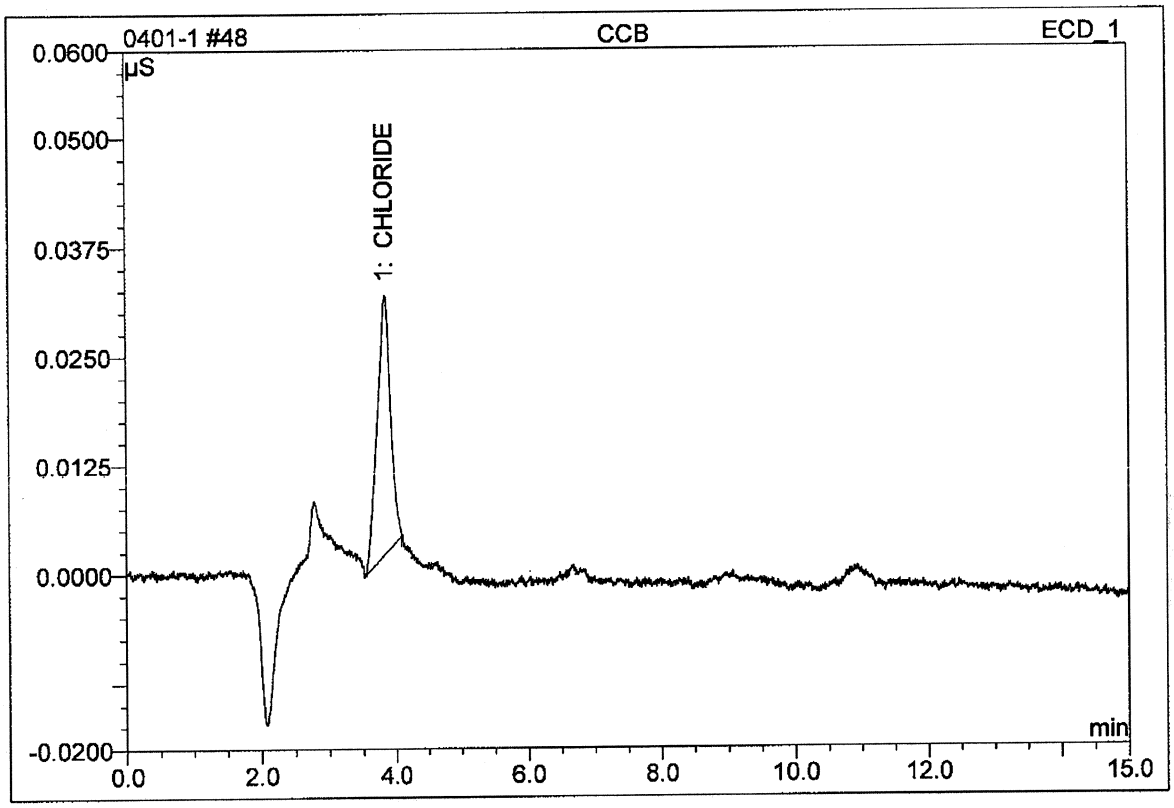
Sample Name:	CCV	**Sample No.:**	47
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 6:05 PM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS/min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.78	1.208	8.420	2.489		100
3	CHLORIDE	3.86	0.765	5.306	2.538	✓	102
4	NITRITE	4.56	1.536	8.031	2.386	✓	95
5	BROMIDE	5.68	0.263	1.203	2.290		92
6	NITRATE	6.51	1.647	5.957	2.295	✓	92
7	SULFATE	10.92	0.505	1.161	2.539	✓	102

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	48
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 6:23 PM	**System Operator:**	DMT

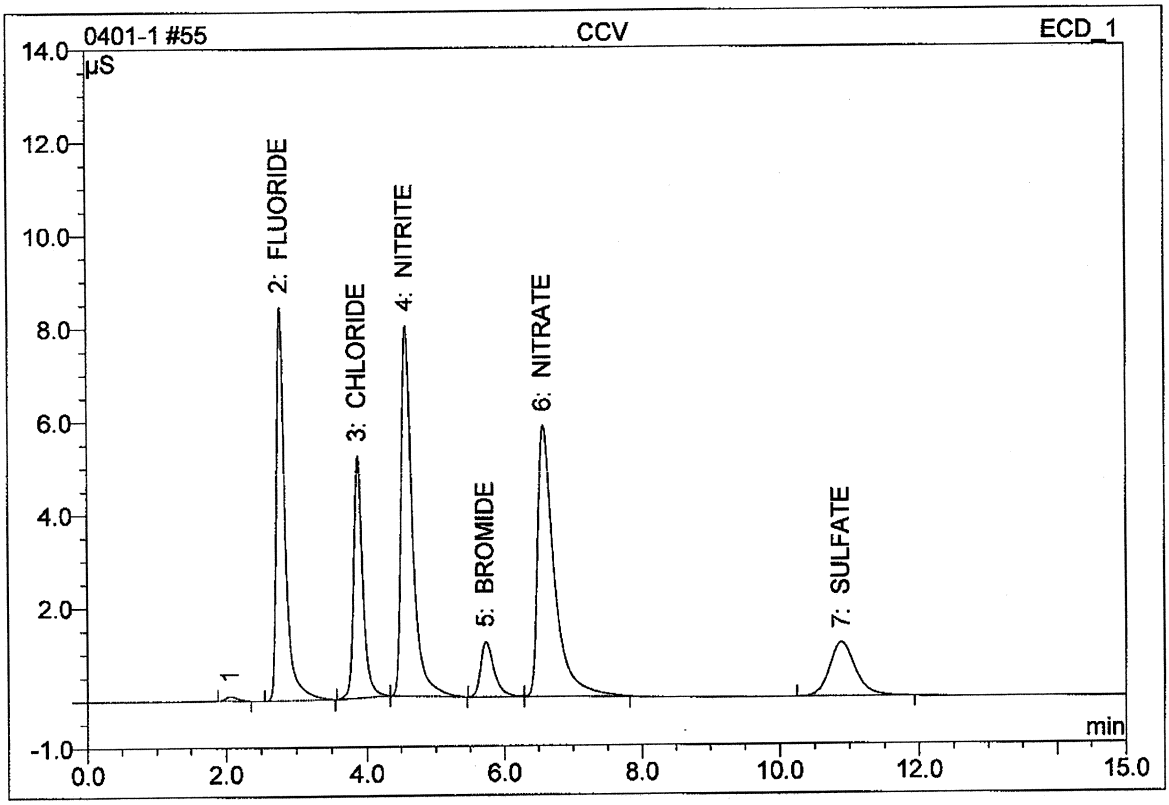


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE ✓	3.84	0.007	0.030	0.038	n.a.

2150402l7 237

Sample Analysis Report

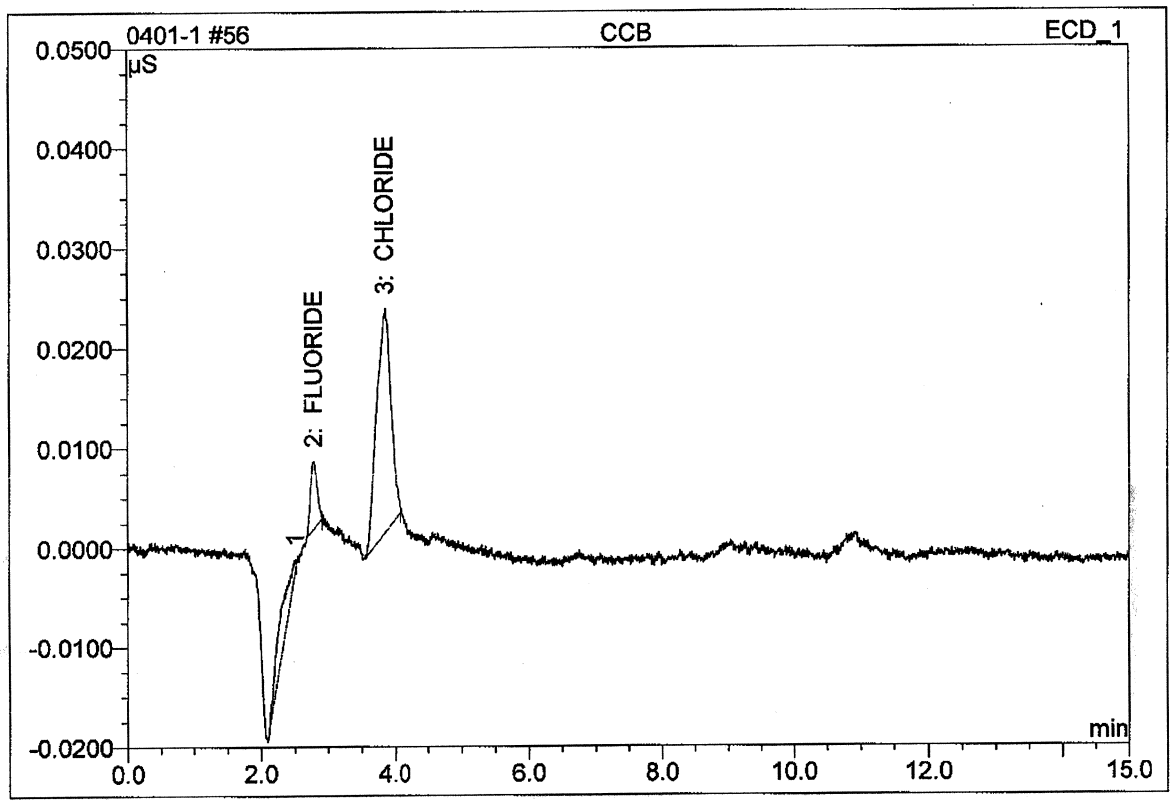
Sample Name:	CCV	**Sample No.:**	55
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 8:24 PM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.78	1.212	8.442	2.497	100
3	CHLORIDE	3.88	0.760	5.202	2.522 ✓	101
4	NITRITE	4.58	1.545	7.957	2.401 ✓	96
5	BROMIDE	5.73	0.263	1.182	2.295	92
6	NITRATE	6.57	1.643	5.821	2.289 ✓	92
7	SULFATE	10.89	0.498	1.152	2.507 ✓	100

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	56
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/2/2015 8:42 PM	**System Operator:**	DMT

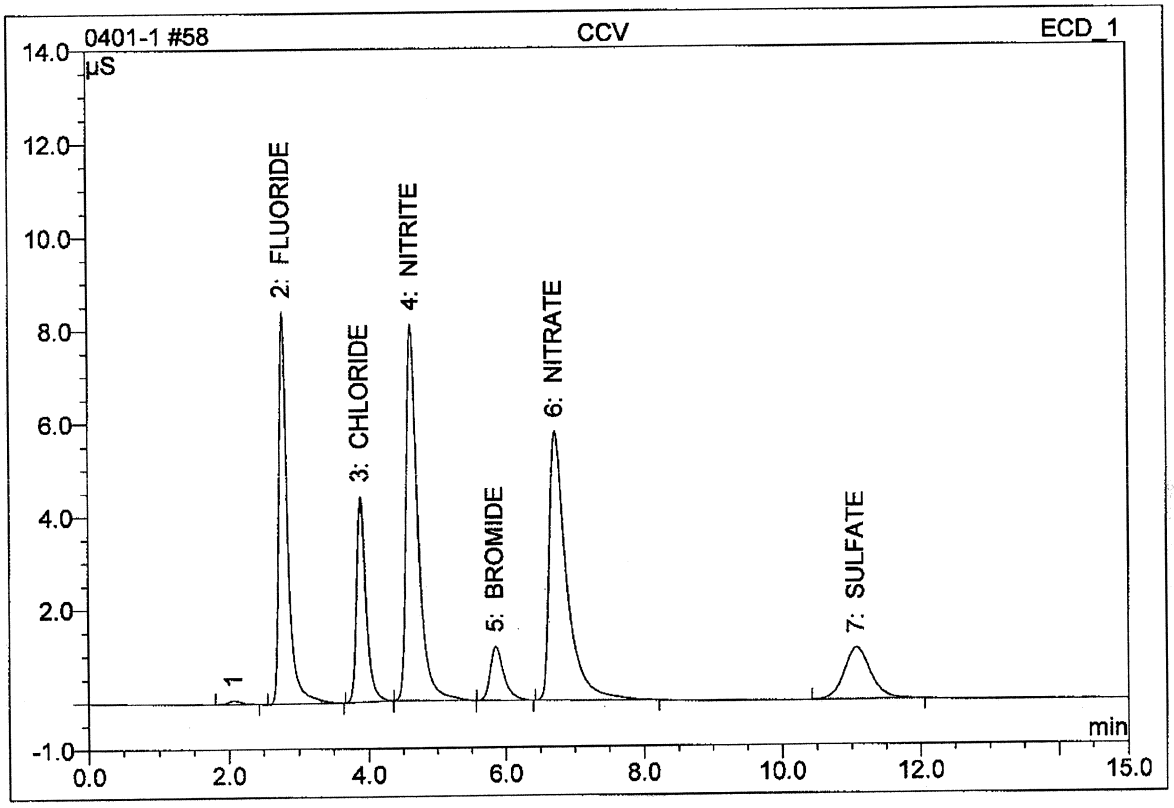


Peak No.	Component Name	Retention Time	Area pS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE ✓	2.79	0.001	0.007	0.074	n.a.
3	CHLORIDE ✓	3.85	0.006	0.022	0.033	n.a.

2150402l7 239

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	58
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 8:06 AM	**System Operator:**	RXJ

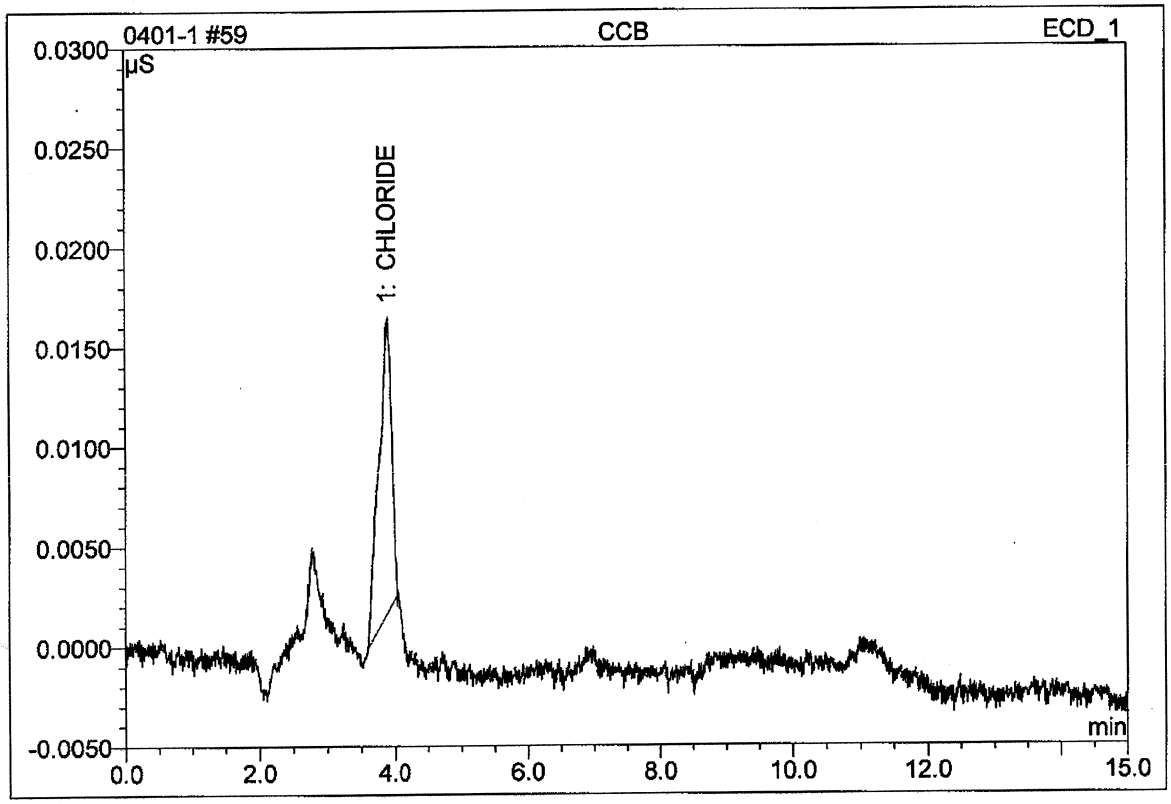


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.78	1.209	8.420	2.490	100
3	CHLORIDE	3.89	0.684	4.414	2.272 ✓	91
4	NITRITE	4.64	1.646	8.076	2.553 ✓	102
5	BROMIDE	5.85	0.268	1.151	2.334	93
6	NITRATE	6.73	1.709	5.778	2.377 ✓	95
7	SULFATE	11.07	0.494	1.105	2.486 ✓	99

2150402l7 240

Sample Analysis Report

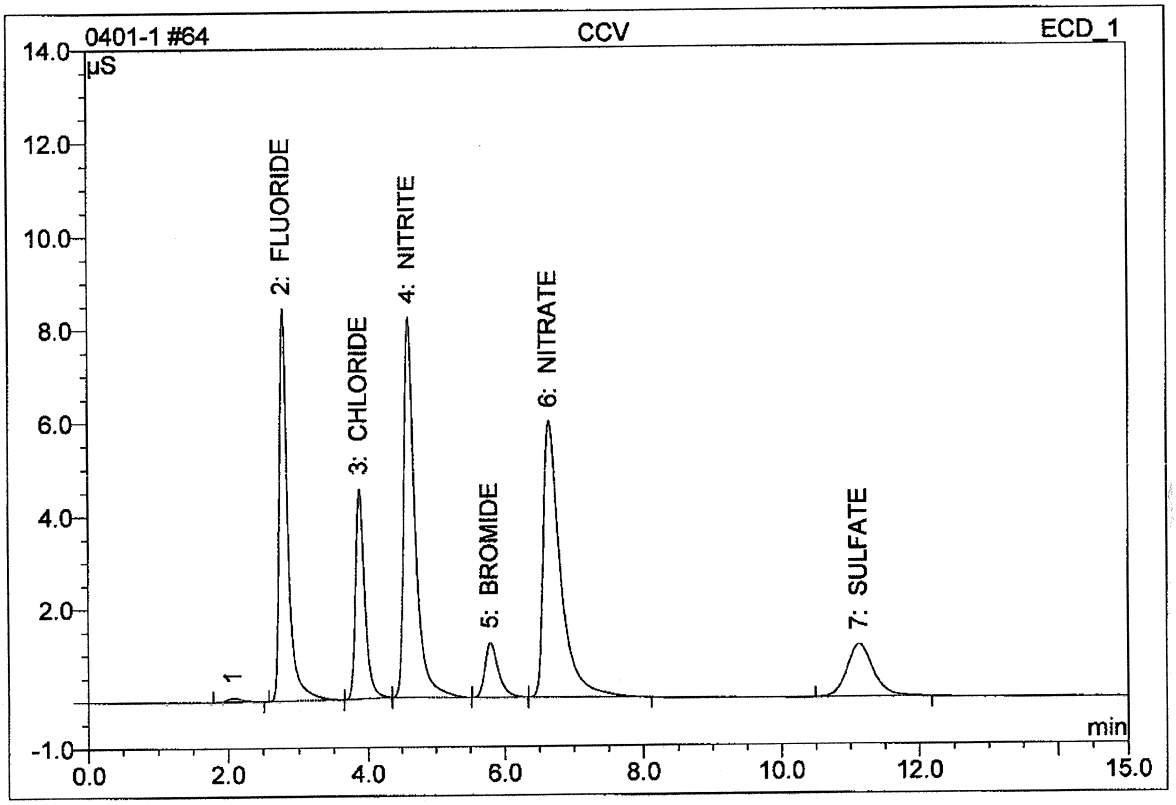
Sample Name:	CCB	**Sample No.:**	59
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 8:24 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE ✓	3.89	0.003	0.015	0.025	n.a.

Sample Analysis Report

Sample Name:	CCV	**Sample No.:**	64
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 9:51 AM	**System Operator:**	RX1

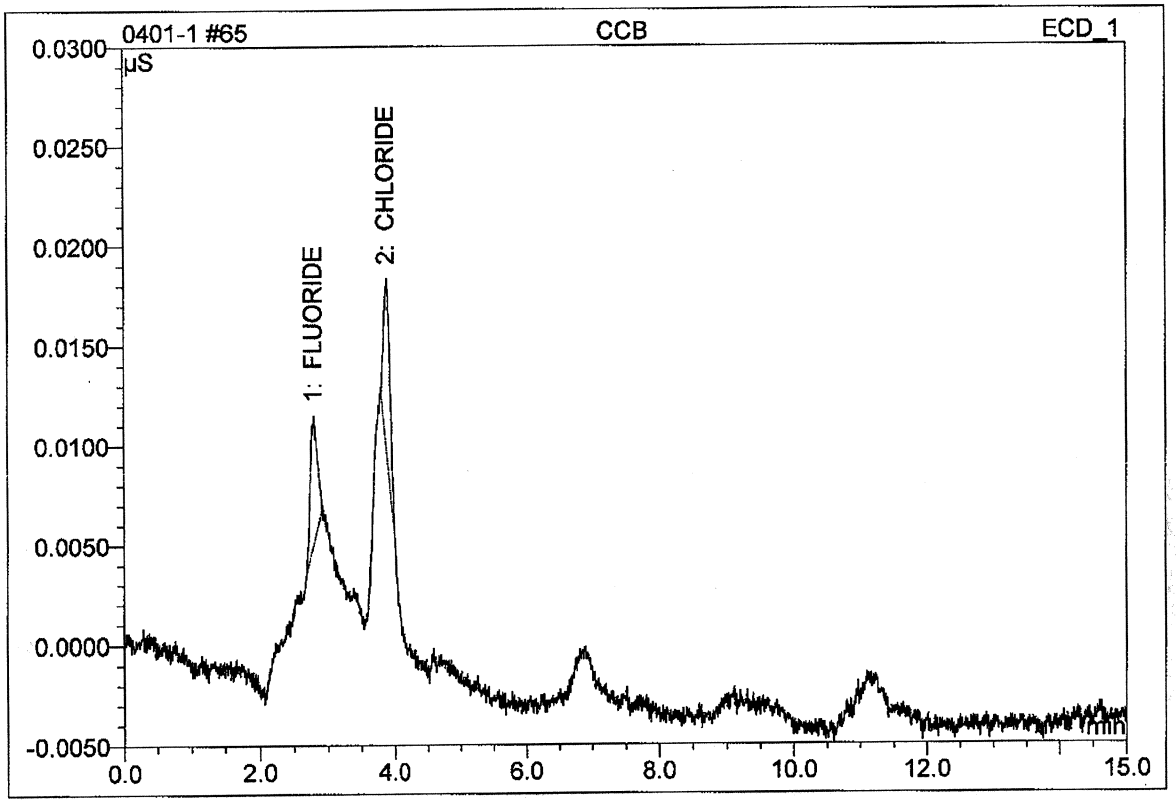


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L		Amnt Dev (abs) mg/L
2	FLUORIDE	2.79	1.217	8.435	2.507		100
3	CHLORIDE	3.88	0.692	4.514	2.299	✓	92
4	NITRITE	4.62	1.641	8.171	2.545	✓	102
5	BROMIDE	5.79	0.266	1.168	2.315		93
6	NITRATE	6.65	1.713	5.933	2.383	✓	95
7	SULFATE	11.13	0.503	1.126	2.532	✓	101

2150640217 242

Sample Analysis Report

Sample Name:	CCB	**Sample No.:**	65
Sequence Name:	0401-1	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	4/3/2015 10:08 AM	**System Operator:**	RXJ



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev [abs] mg/L
1	FLUORIDE	2.80	0.001	0.006	0.074	n.a.
2	CHLORIDE	3.87	0.001	0.009	0.018	n.a.

2150402217 243

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 3/19/15
Analyst: DMT
HBN: ICAL
Batch:

Instrument ID: IC3

Secondary Reviewer/Date: JEM 3-19-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122823 Expiration Date: 8/23/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-2-6
Calibration Date 3/19/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-3-4
Eluent Lot #: 1019-99-2 Expiration Date: 9/16/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

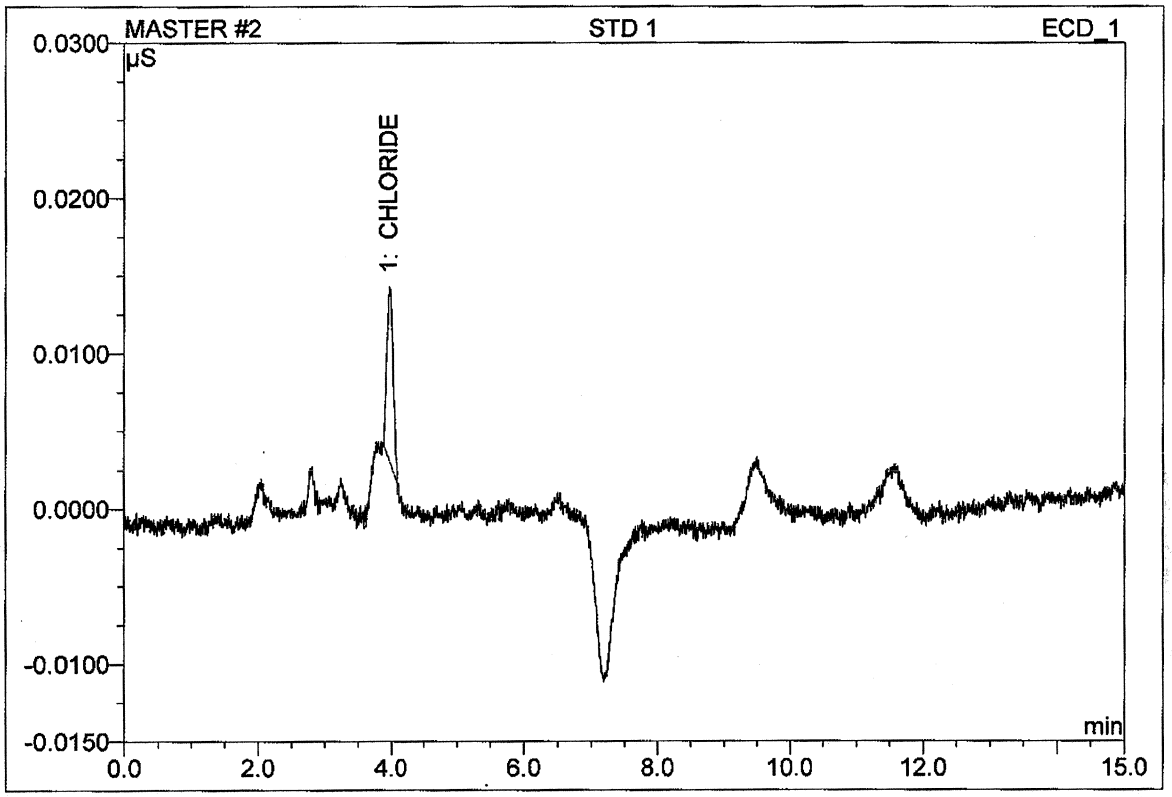
Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

Sample Analysis Report

Sample Name:	STD 1	**Sample No.:**	2
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 8:22 AM	**System Operator:**	DMT

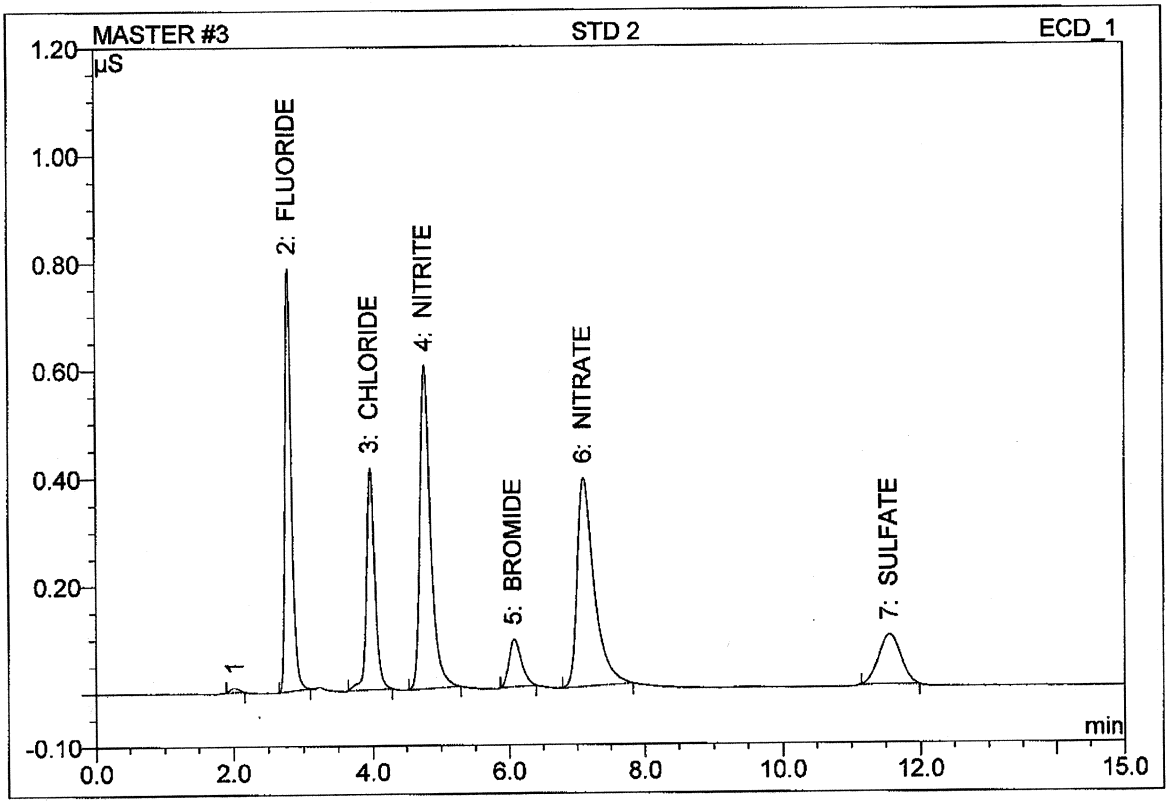


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	CHLORIDE	3.96	0.001	0.011	0.019	1

2150402217 245

Sample Analysis Report

Sample Name:	STD 2	**Sample No.:**	3
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 8:40 AM	**System Operator:**	DMT

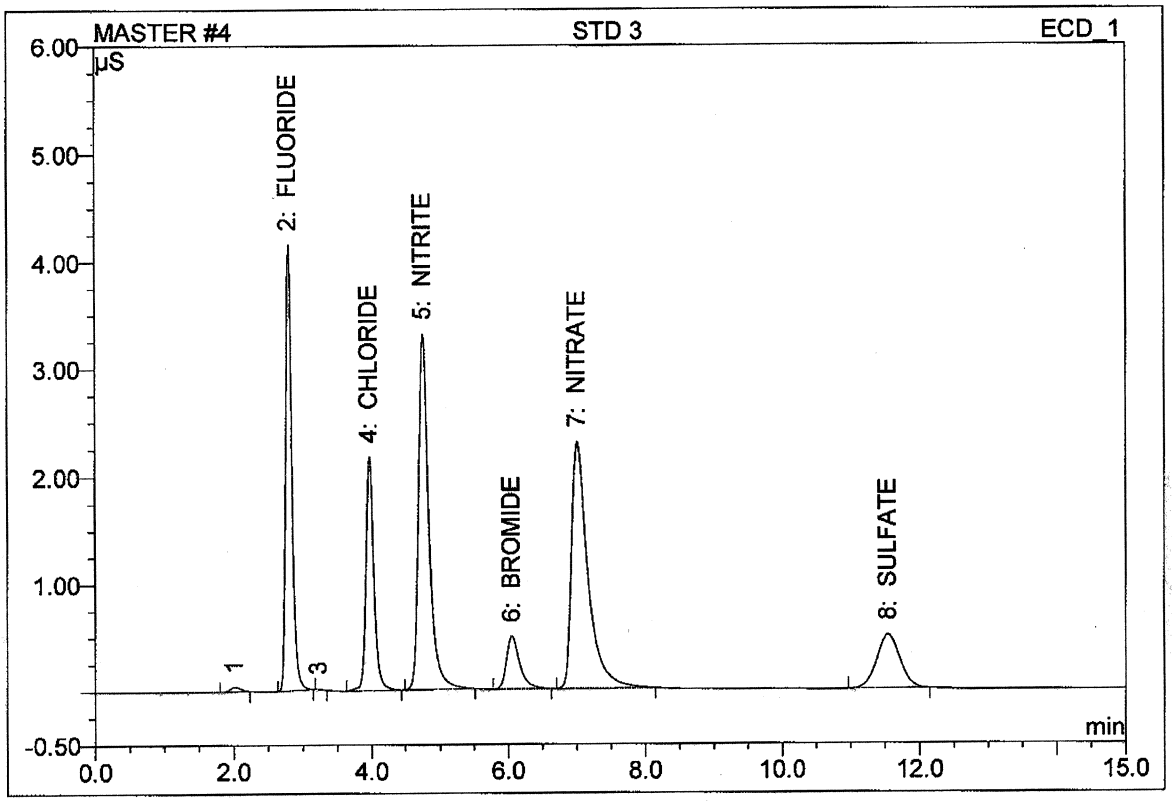


Peak No.	Component Name	Retention Time	Area µS·min	Height µS	Amount mg/L	Amnt Dev (ABS) mg/L
2	FLUORIDE	2.79	0.084	0.787	0.240	120
3	CHLORIDE	3.97	0.057	0.412	0.203	102
4	NITRITE	4.77	0.110	0.601	0.235	117
5	BROMIDE	6.07	0.019	0.089	0.259	130
6	NITRATE	7.10	0.114	0.389	0.245	122
7	SULFATE	11.56	0.034	0.093	0.242	121

2150402217 246

Sample Analysis Report

Sample Name:	STD 3	**Sample No.:**	4
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 8:57 AM	**System Operator:**	DMT

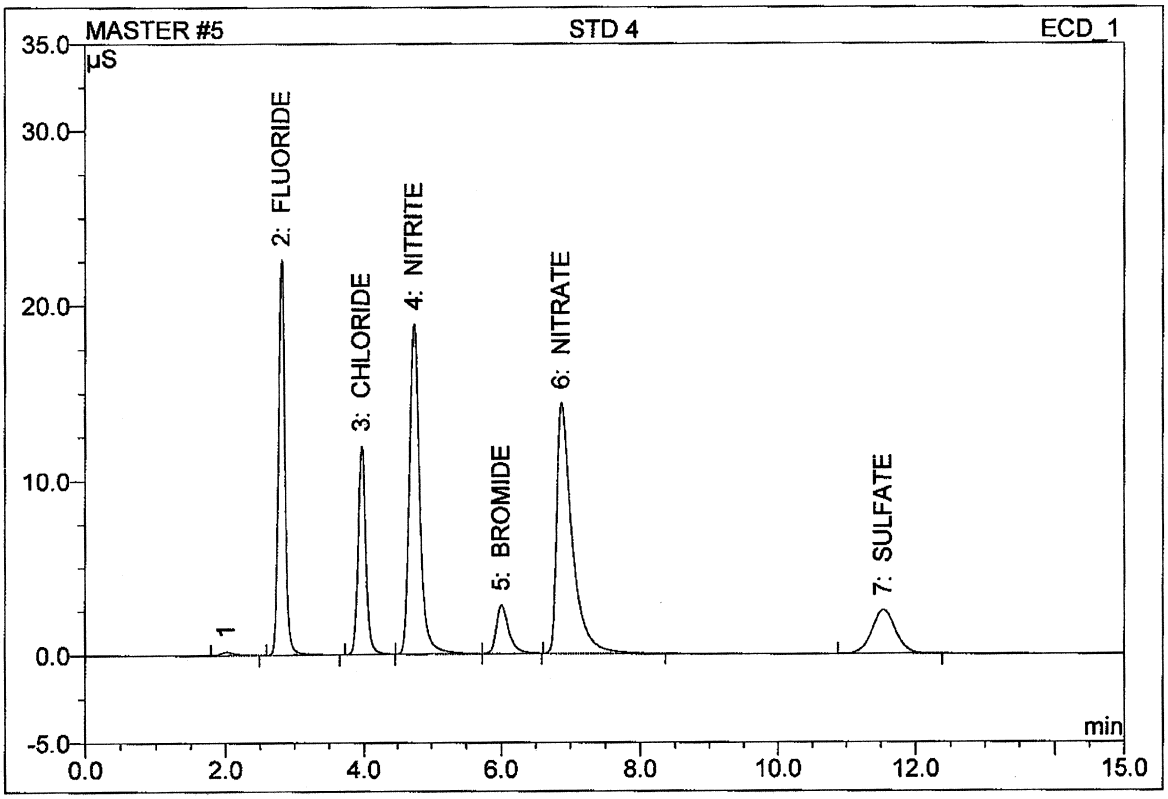


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev(abs) mg/L
2	FLUORIDE	2.80	0.440	4.156	0.952	95
4	CHLORIDE	3.97	0.290	2.174	0.973	97
5	NITRITE	4.75	0.589	3.307	0.959	96
6	BROMIDE	6.05	0.110	0.494	1.014	101
7	NITRATE	7.01	0.639	2.298	0.946	95
8	SULFATE	11.55	0.196	0.502	1.030	103

215040217 247

Sample Analysis Report

Sample Name:	STD 4	**Sample No.:**	5
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 9:15 AM	**System Operator:**	DMT

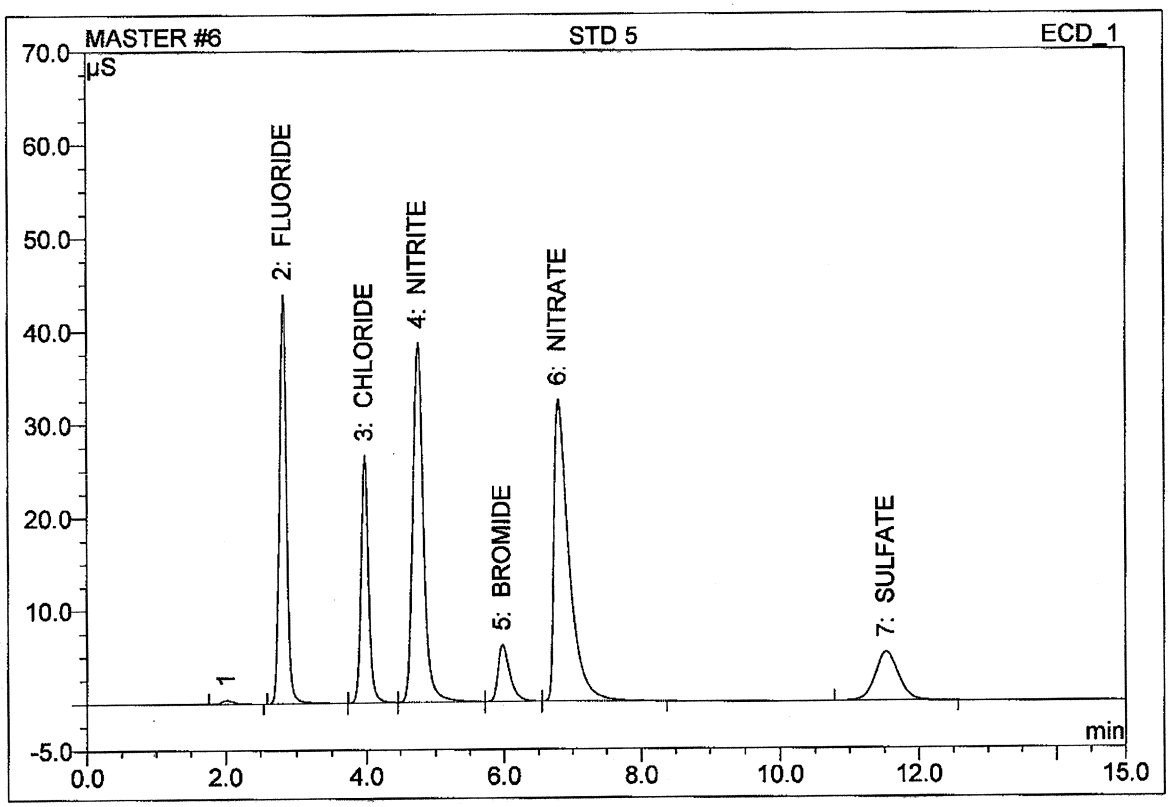


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.81	2.468	22.592	5.008	100
3	CHLORIDE	3.97	1.512	11.958	5.005	100
4	NITRITE	4.74	3.272	18.886	5.007	100
5	BROMIDE	6.00	0.571	2.766	4.858	97
6	NITRATE	6.87	3.677	14.368	5.009	100
7	SULFATE	11.53	0.981	2.499	4.864	97

215040217 248

Sample Analysis Report

Sample Name:	STD 5	**Sample No.:**	6
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 9:32 AM	**System Operator:**	DMT

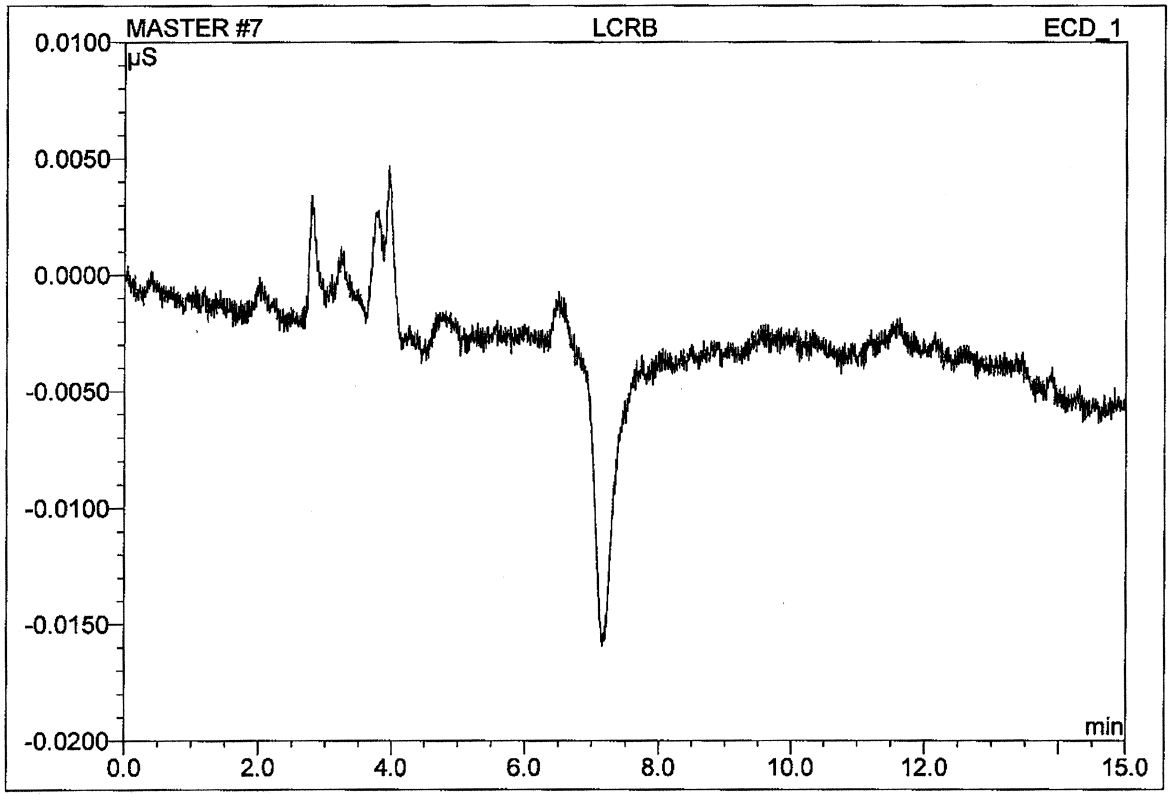


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.83	5.126	43.971	10.326	103
3	CHLORIDE	3.98	3.319	26.561	10.971	110
4	NITRITE	4.76	6.871	38.641	10.438	104
5	BROMIDE	5.98	1.197	6.064	10.068	101
6	NITRATE	6.80	8.193	32.445	11.047	110
7	SULFATE	11.53	2.046	5.248	10.064	101

2150040217 249

Sample Analysis Report

Sample Name:	LCRB	**Sample No.:**	7
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 9:49 AM	**System Operator:**	DMT

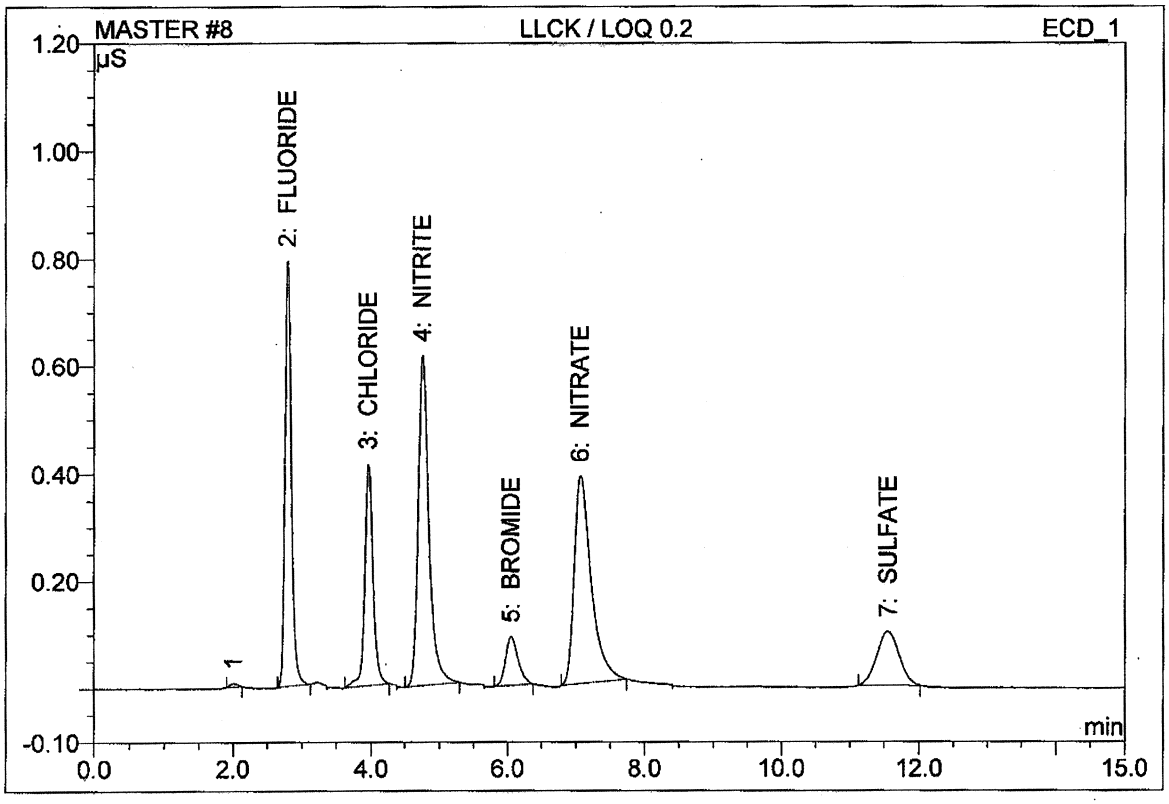


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev [abs] mg/L

2150402217 250

Sample Analysis Report

Sample Name:	LLCK / LOQ 0.2	**Sample No.:**	8
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 10:07 AM	**System Operator:**	DMT

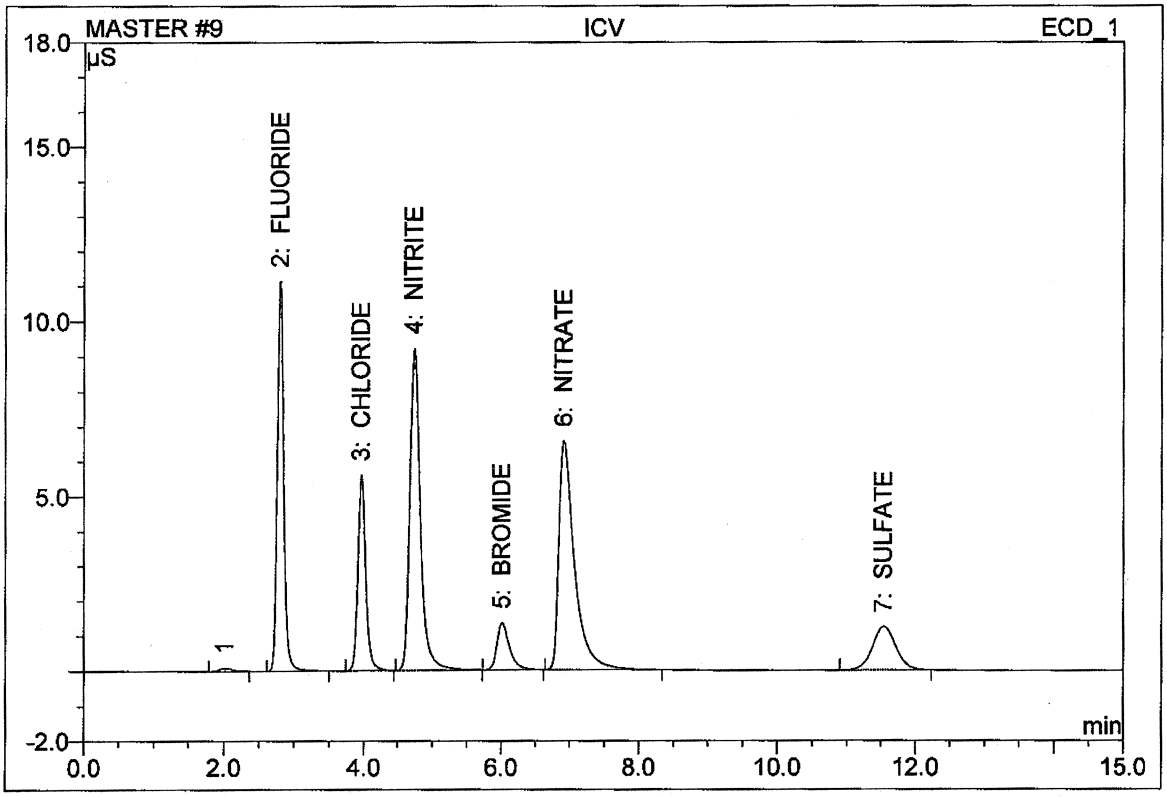


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.79	0.085	0.793	0.241	121
3	CHLORIDE	3.96	0.057	0.412	0.203	101
4	NITRITE	4.75	0.112	0.614	0.238	119
5	BROMIDE	6.06	0.020	0.091	0.263	132
6	NITRATE	7.07	0.111	0.387	0.241	121
7	SULFATE	11.56	0.038	0.101	0.259	130

215040217 251

Sample Analysis Report

Sample Name:	ICV	**Sample No.:**	9
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 10:24 AM	**System Operator:**	DMT

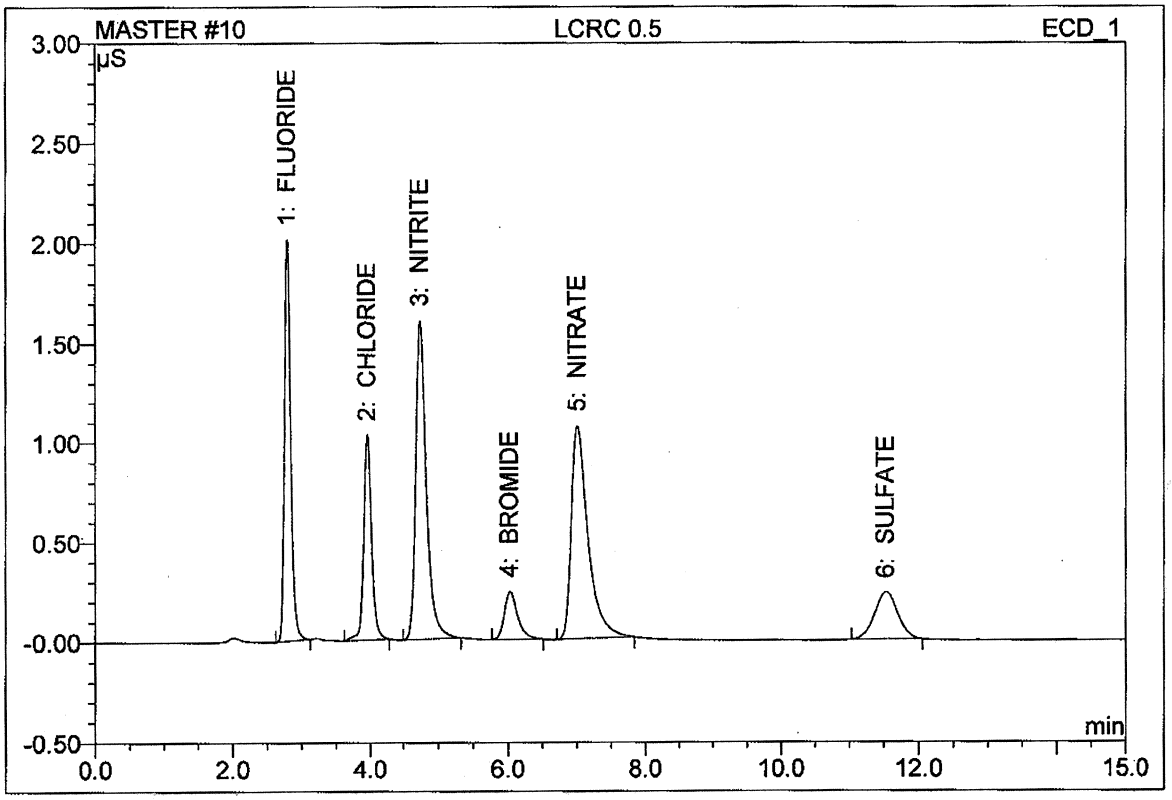


Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.81	1.190	11.147	2.453	98
3	CHLORIDE	3.97	0.723	5.597	2.401	96
4	NITRITE	4.74	1.605	9.222	2.491	100
5	BROMIDE	6.01	0.284	1.331	2.466	99
6	NITRATE	6.92	1.732	6.566	2.408	96
7	SULFATE	11.54	0.487	1.240	2.450	98

215040217 252

Sample Analysis Report

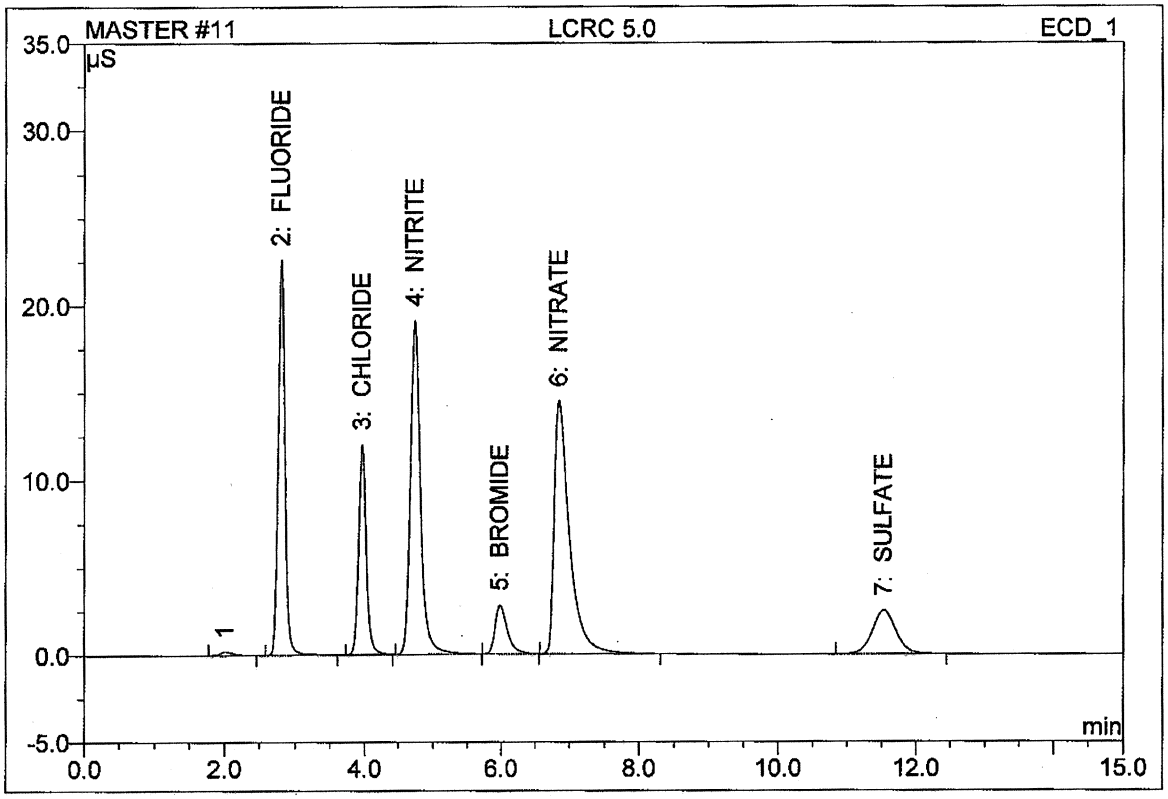
Sample Name:	LCRC 0.5	**Sample No.:**	10
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 10:42 AM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
1	FLUORIDE	2.79	0.214	2.014	0.500	100
2	CHLORIDE	3.96	0.139	1.029	0.472	94
3	NITRITE	4.74	0.286	1.600	0.501	100
4	BROMIDE	6.03	0.053	0.240	0.545	109
5	NITRATE	7.01	0.300	1.068	0.493	99
6	SULFATE	11.53	0.091	0.236	0.517	103

Sample Analysis Report

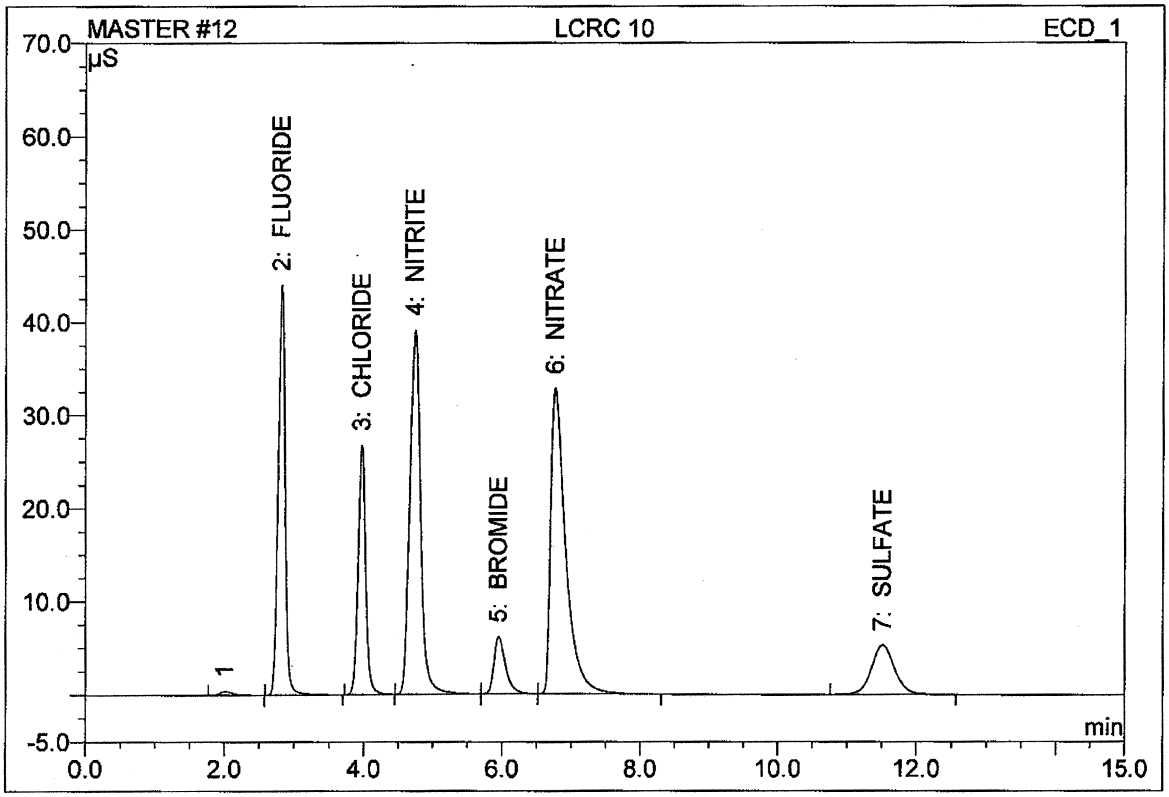
Sample Name:	LCRC 5.0	**Sample No.:**	11
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 10:59 AM	**System Operator:**	DMT



Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.81	2.471	22.653	5.016	100
3	CHLORIDE	3.97	1.514	12.010	5.013	100
4	NITRITE	4.74	3.300	19.130	5.049	101
5	BROMIDE	5.98	0.572	2.787	4.863	97
6	NITRATE	6.85	3.683	14.493	5.017	100
7	SULFATE	11.53	0.990	2.516	4.908	98

Sample Analysis Report

Sample Name:	LCRC 10	**Sample No.:**	12
Sequence Name:	MASTER	**ICAL Date**	n.a.
Program Method:	9056	**Injection vol.:**	10.0
Quantitation Method:	9056	**Dilution Factor:**	1.0000
	3/19/2015 11:16 AM	**System Operator:**	DMT

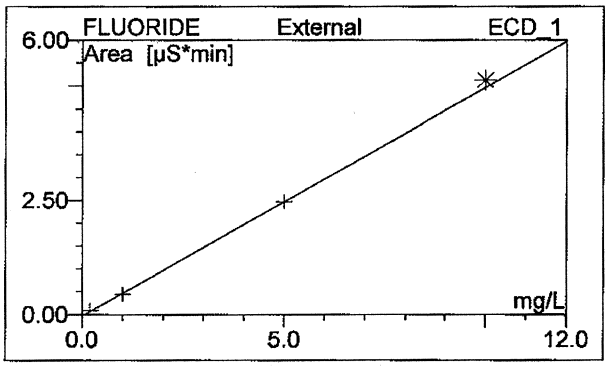


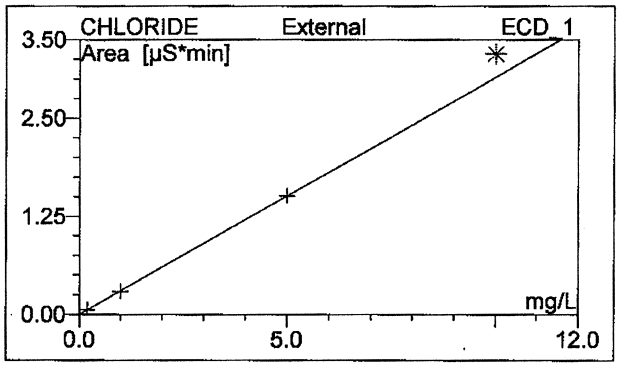
Peak No.	Component Name	Retention Time	Area µS*min	Height µS	Amount mg/L	Amnt Dev (abs) mg/L
2	FLUORIDE	2.82	5.124	44.006	10.323	103
3	CHLORIDE	3.97	3.331	26.757	11.011	110
4	NITRITE	4.75	6.906	39.112	10.491	105
5	BROMIDE	5.95	1.195	6.115	10.057	101
6	NITRATE	6.76	8.200	32.851	11.056	111
7	SULFATE	11.52	2.057	5.288	10.116	101

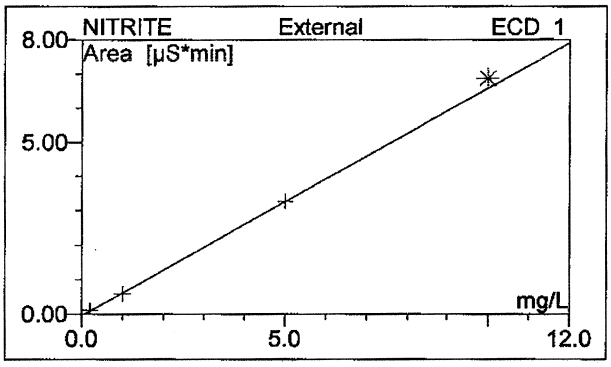
2150402217 255

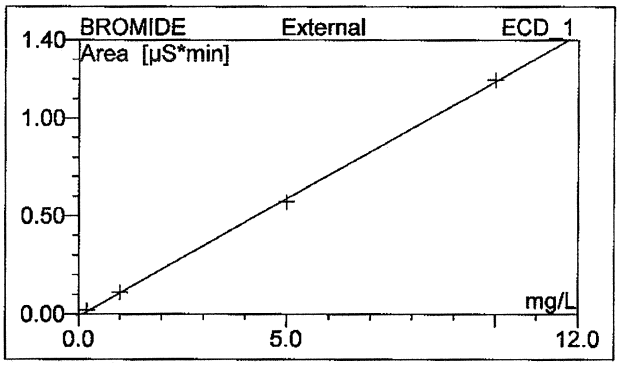
INITIAL CALIBRATION REPORT

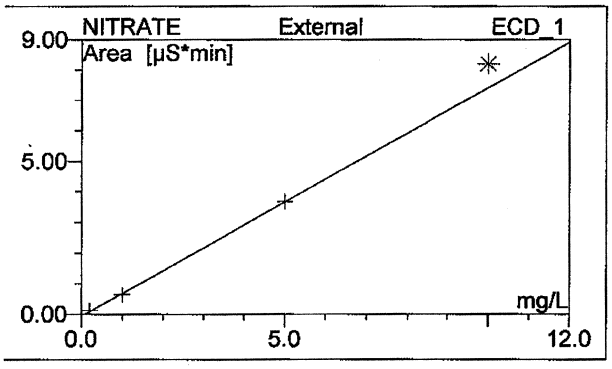
Recording Time:	**3/19/2015 8:40**	*Injection Volume:*	**50.0**
Control Program:	**9056**	*Channel:*	**ECD_1**
Quantif. Method:	**9056**		
Run Time (min):	**15.00**		

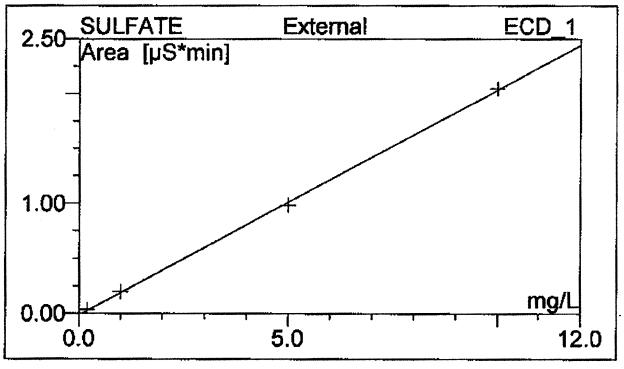












INITIAL CALIBRATION REPORT (Continued)

Recording Time:	**3/19/2015 8:40**	*Injection Volume:*	**50.0**
Control Program:	**9056**	*Channel:*	**ECD_'**
Quantif. Method:	**9056**		
Run Time (min):	**15.00**		

No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff.	Rel.Std.Dev. %
2	2.79	FLUORIDE	LOff	3	0.99985	3.164
3	3.97	CHLORIDE	LOff	4	0.99997	1.553
4	4.77	NITRITE	LOff	3	0.99989	2.721
5	6.07	BROMIDE	LOff	4	0.99976	3.022
6	7.10	NITRATE	LOff	3	0.99981	3.562
7	11.56	SULFATE	LOff	4	0.99979	2.828

IC ICAL INST 3

No.	Peak Name	Cal.Type	#Points	Rel.Std.Dev %	Corr.Coeff. %	Offset	Slope	Curve
2	FLUORIDE	LOff	3	3.1643	99.9849	-0.036	0.4999	0
3	CHLORIDE	LOff	4	1.5529	99.9965	-0.0044	0.3029	0
4	NITRITE	LOff	3	2.7212	99.9888	-0.0458	0.6626	0
5	BROMIDE	LOff	4	3.0223	99.9764	-0.0121	0.1201	0
6	NITRATE	LOff	3	3.5625	99.9813	-0.0691	0.7479	0
7	SULFATE	LOff	4	2.8276	99.9791	-0.0152	0.2048	0
Average:			3.5	2.8085	99.9845	-0.0304	0.423	0

GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 4/7/15
Analyst: JMT
HBN: 556078
Batch: 4839

Instrument ID: IC 1

Secondary Reviewer/Date: JEm 4-13-15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-11-8
Calibration Date 3/25/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-34-14
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
Eluent Lot #: 1027-29-3 Expiration Date: 10/8/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

~~Calibration Standard (Acetic Acid) Lot #:~~ _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____(6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

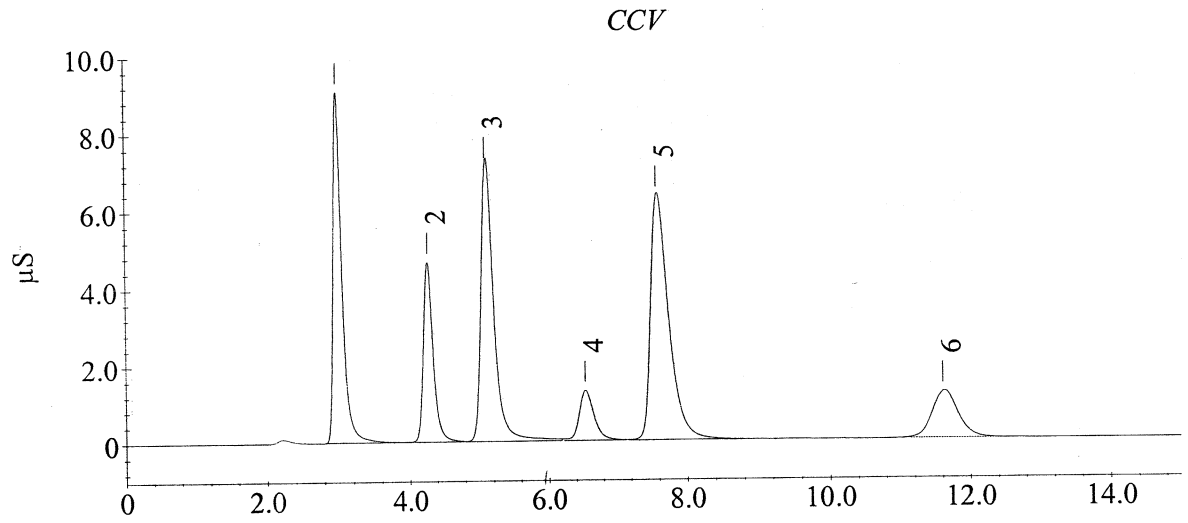
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_A007.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 20:54:32
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 7

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.365	768860	90594
2	CHLORIDE,16887-00-6	4.27	2.41497	458798	46576
3	NITRITE,14797-65-0	5.09	2.57503	932333	71059
4	BROMIDE,24959-67-9	6.53	2.43797	194943	12979
5	NITRATE,14797-55-8	7.57	2.30892	1130035	63150
6	SULFATE,14808-79-8	11.60	2.42797	321083	12177



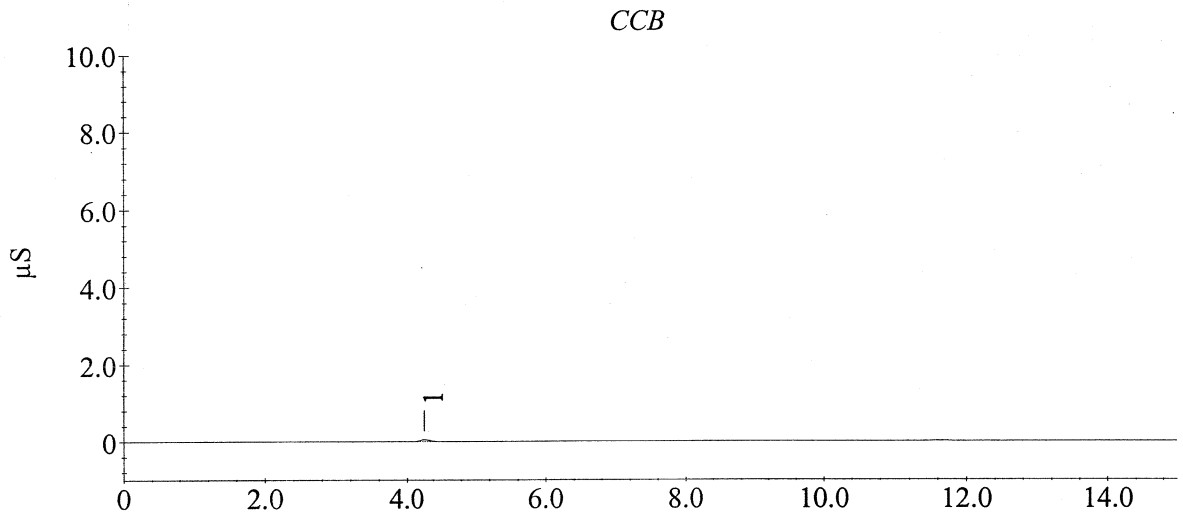
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0410_A008.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/10/2015 21:12:09
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 8

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.27	0.061	4525	496



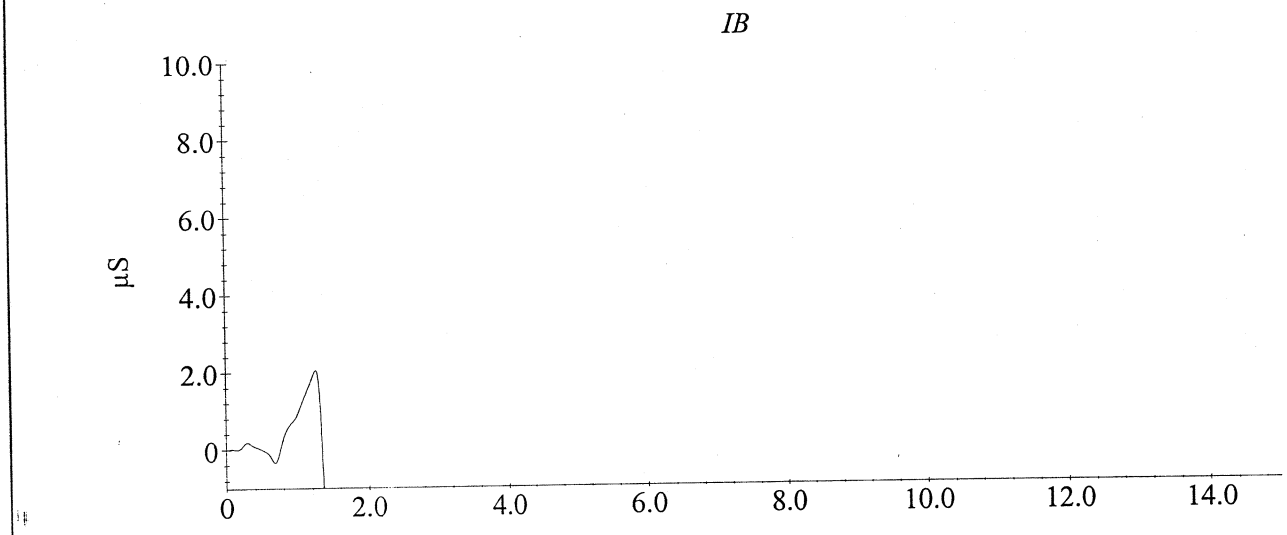
Sample Analysis Report

Sample Name : IB
Data File Name : d:\peaknet\data\2015\042015\0410_A009.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 12:31:45
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 9

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	NITRITE,14797-65-0	5.55	0.085	9334	351
2	Unknown 1	8.64	0.000	168939	4622



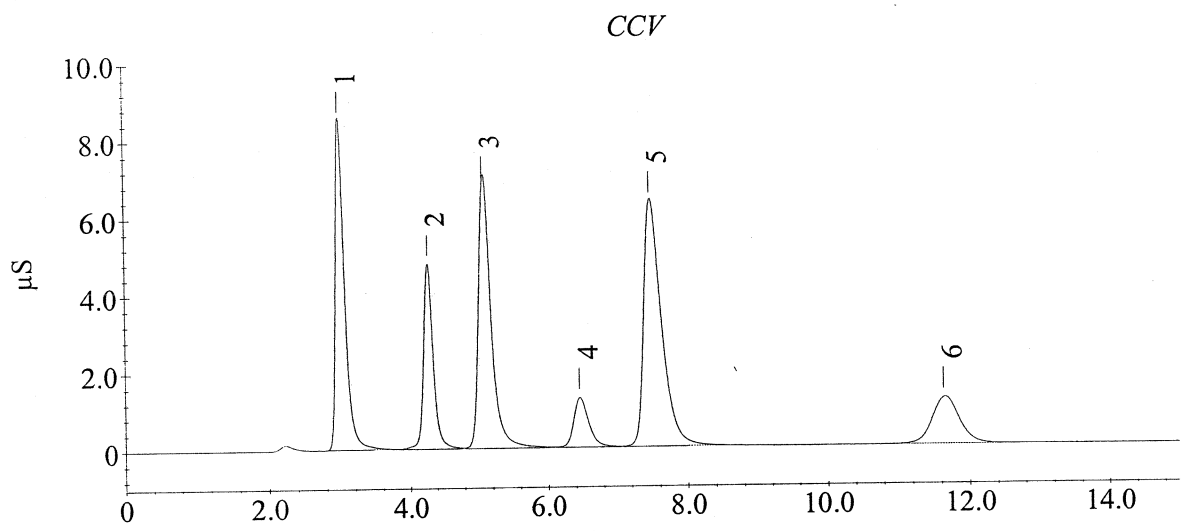
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_019.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 15:27:57
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 19

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.351	764117	84939
2	CHLORIDE,16887-00-6	4.27	2.489	473323	47675
3	NITRITE,14797-65-0	5.07	2.464	891194	67812
4	BROMIDE,24959-67-9	6.45	2.364	188911	12743
5	Unknown 1	7.47	0.000	1127851	63276
6	SULFATE,14808-79-8	11.63	2.443	323214	12036



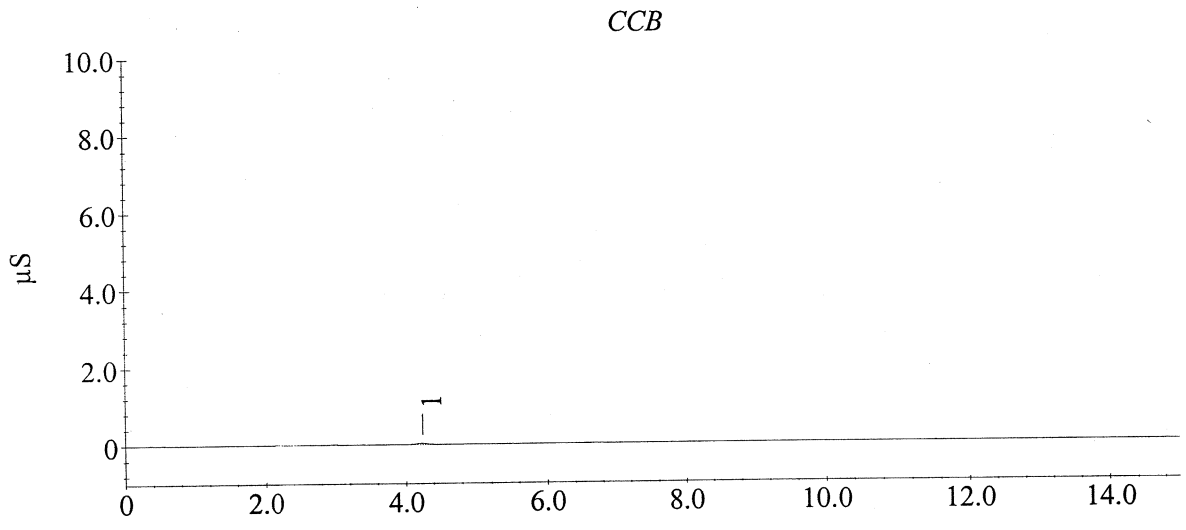
Sample Analysis Report

Sample Name : CCB
Data File Name : d:\peaknet\data\2015\042015\0410_020.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 15:45:34
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 20

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	CHLORIDE,16887-00-6	4.24	0.051	2533	268



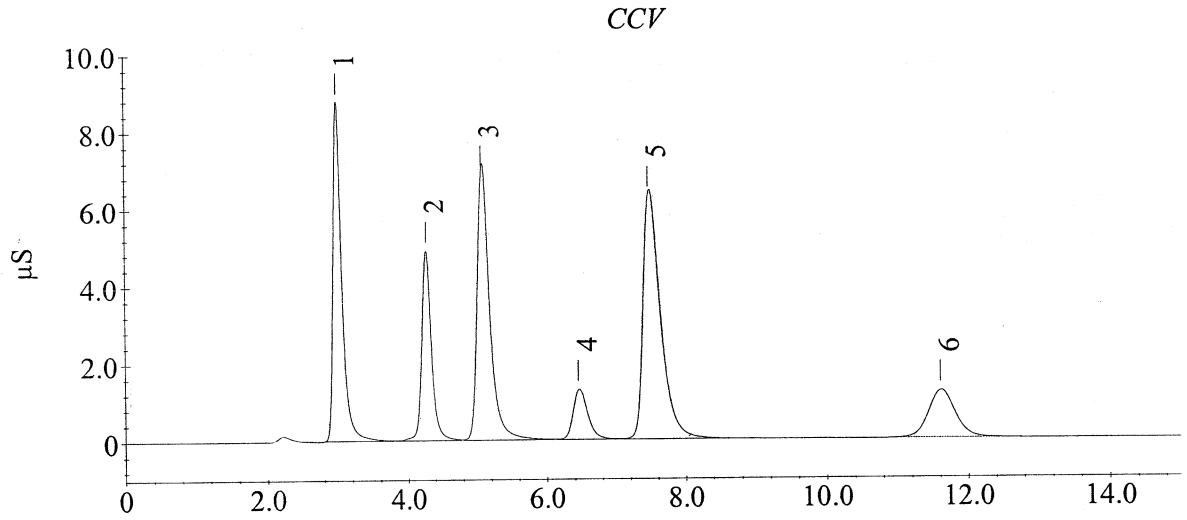
Sample Analysis Report

Sample Name : CCV
Data File Name : d:\peaknet\data\2015\042015\0410_031.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 04/11/2015 18:59:25
System Operator : DMT
Dilution Factor : 1.00
Injection Number : 31

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	2.99	2.350	763773	87357
2	CHLORIDE,16887-00-6	4.27	2.505 100	476462	48832
3	NITRITE,14797-65-0	5.07	2.447	884942	68398
4	BROMIDE,24959-67-9	6.45	2.365 95	188986	12814
5	Unknown 1	7.47	0.000	1127461	62881
6	SULFATE,14808-79-8	11.60	2.453 98	324589	12258



GCAL ANALYTICAL LABORATORIES, LLC

IC STANDARD IDs

Date: 3/26/15
Analyst: RXJ
HBN: ICAL
Batch:

Instrument ID: IC1

Secondary Reviewer/Date: DMT 3/28/15

ANIONS – EPA 300.0 / EPA 9056A

Calibration Standard (F, Cl, Br, SO_4) Lot #: 2122881 Expiration Date: 3/30/16
Calibration Standard (NO_2) Lot #: 2122797 Expiration Date: 5/30/15
Calibration Standard (NO_3) Lot #: 2122529 Expiration Date: 3/31/16
Calibration ID 1027-11-8
Calibration Date 3/25/15
Calibration Expiration 5/30/15 (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID NA
ICV (F, Cl, Br, SO_4, NO_2, NO3) Working Standard ID 1027-12-1
Eluent Lot #: 1027-4-11 Expiration Date: 9/21/15

VOLATILE FATTY ACIDS – GCAL SOP WL-070

Calibration Standard (Acetic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Butyric Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Formic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Lactic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Propionic Acid) Lot #: _____ Expiration Date: _____
Calibration Standard (Pyruvic Acid) Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (1 year from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

PERCHLORATE – EPA 314.0

Calibration Standard Lot #: _____ Expiration Date: _____
Calibration ID _____
Calibration Date _____
Calibration Expiration _____ (6 months from calibration date or on the earliest expiration date of each calibration standard, whichever is sooner)
CCV/LCS Working Standard ID _____
ICV Working Standard ID _____
Eluent Lot #: _____ Expiration Date: _____

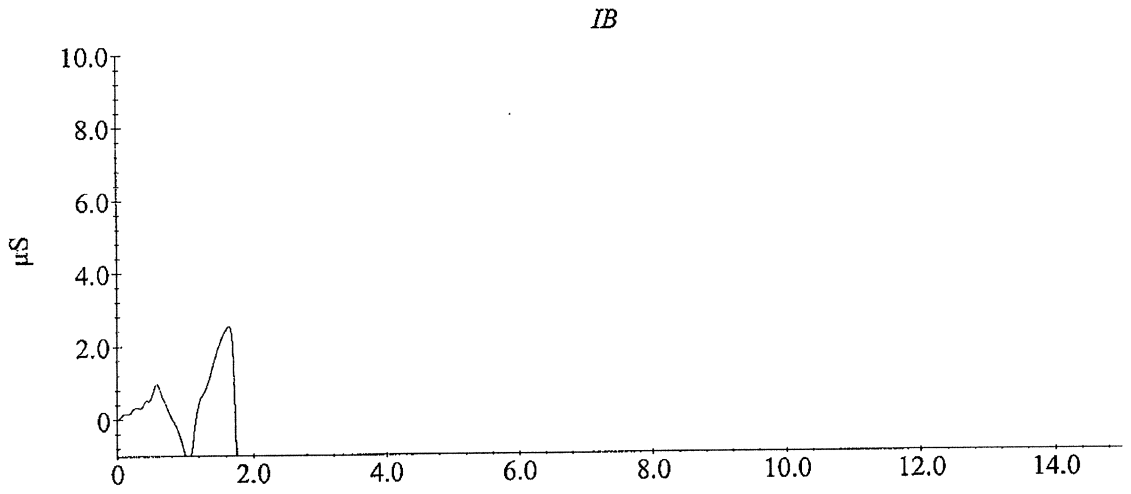
Sample Analysis Report

Sample Name : IB
Data File Name : d:\peaknet\data\2015\032015\0325_001.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 15:44:04
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 1

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	BROMIDE,24959-67-	7.39	0.101	3730	181
2	Unknown 1	9.73	0.000	6834	334



215040217 267

Calibration Update Report

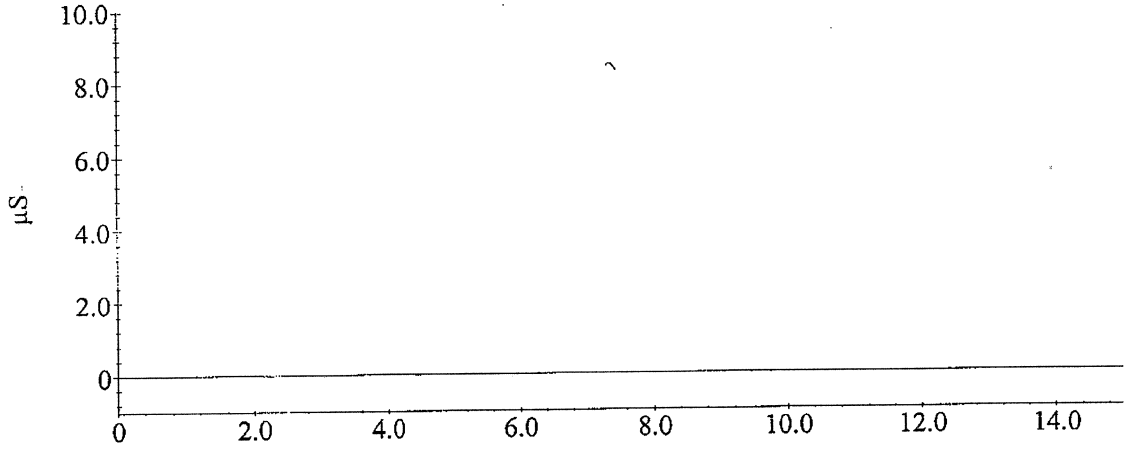
Sample Name : STD1 0
Data File Name : d:\peaknet\data\2015\032015\0325_002.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 16:01:40
Calibration Date : 03/25/2015 16:19:11
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
	FLUORIDE,16984-48-8					
	CHLORIDE,16887-00-6					
	NITRITE,14797-65-0					
	BROMIDE,24959-67-					
	NITRATE,14797-55-					
	SULFATE,14808-79-					

STD1 0



215040217 268

Calibration Update Report

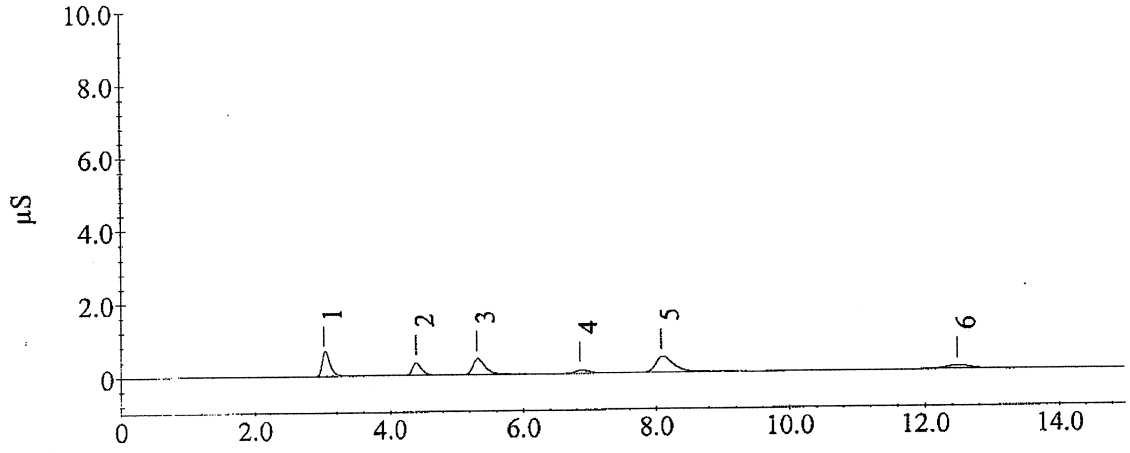
Sample Name : STD2 0.2
Data File Name : d:\peaknet\data\2015\032015\0325_003.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 16:19:17
Calibration Date : 03/25/2015 16:36:48
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.01	0.200	56203	56359	56359
2	CHLORIDE,16887-00-6	4.40	0.200	39606	33197	33197
3	NITRITE,14797-65-0	5.31	0.200	51407	55537	55537
4	BROMIDE,24959-67-	6.85	0.200	15257	13471	13471
5	NITRATE,14797-55-	8.08	0.200	109128	79743	79743
6	SULFATE,14808-79-	12.48	0.200	25269	22810	22810

STD2 0.2



215040217 269

Calibration Update Report

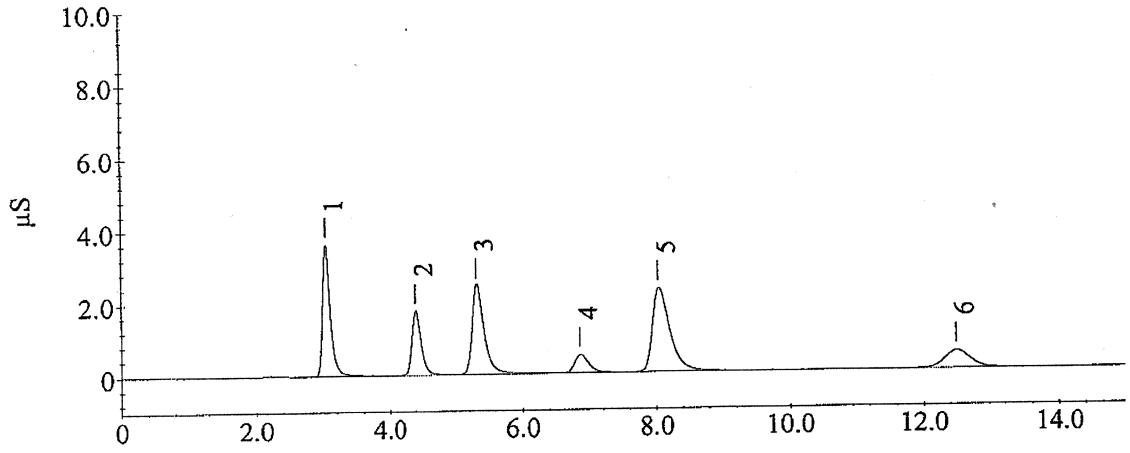
Sample Name : STD3 1.0
Data File Name : d:\peaknet\data\2015\032015\0325_004.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 16:36:54
Calibration Date : 03/25/2015 16:54:26
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.04	1.000	293805	293244	293244
2	CHLORIDE,16887-00-6	4.40	1.000	189833	174644	174644
3	NITRITE,14797-65-0	5.31	1.000	304949	318027	318027
4	BROMIDE,24959-67-	6.85	1.000	78943	73703	73703
5	NITRATE,14797-55-	8.03	1.000	456809	422765	422765
6	SULFATE,14808-79-	12.48	1.000	131005	124302	124302

STD3 1.0



2150402l7 270

Calibration Update Report

Sample Name : STD4 5
Data File Name : d:\peaknet\data\2015\032015\0325_005.DXD

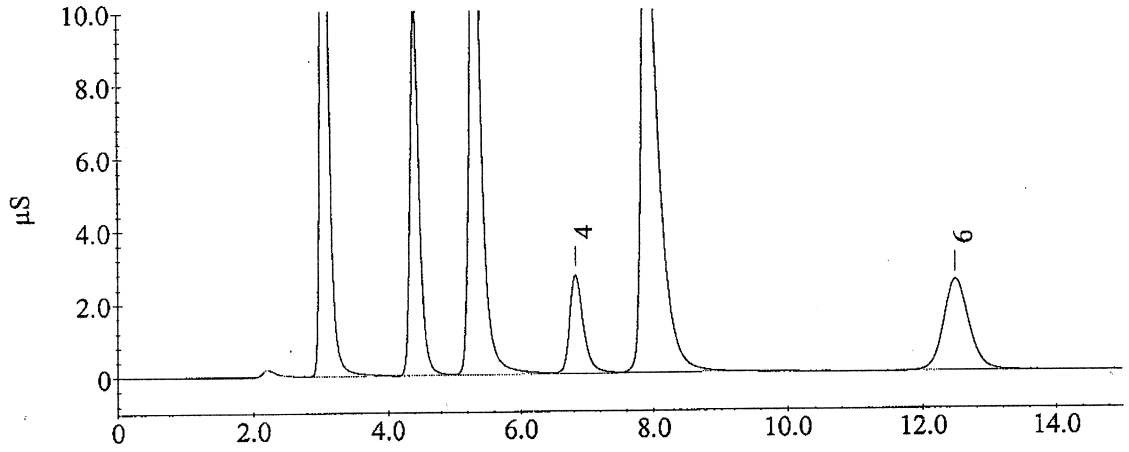
NO_3 peak manually assigned RXJ 3/26/15

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 16:54:31
Calibration Date : 03/25/2015 19:22:13
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.04	5.000	1645472	1645472	1645472
2	CHLORIDE,16887-00-6	4.40	5.000	960242	960242	960242
3	NITRITE,14797-65-0	5.31	5.000	1836372	1836372	1836372
4	BROMIDE,24959-67-	6.83	5.000	394301	394301	394301
5	NITRATE,14797-55-	7.89	5.000	2492795	2407556	2407556
6	SULFATE,14808-79-	12.48	5.000	654625	654625	654625

STD4 5



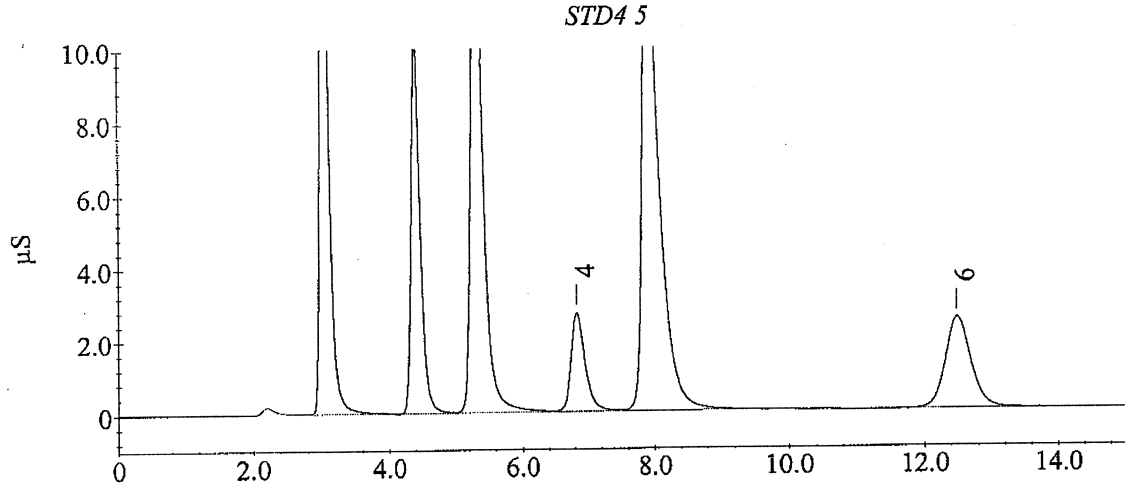
Calibration Update Report

Sample Name : STD4 5
Data File Name : d:\peaknet\data\2015\032015\0325_005.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 16:54:31
Calibration Date : 03/25/2015 17:12:02
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.04	5.000	1598012	1645472	1645472
2	CHLORIDE,16887-00-6	4.40	5.000	1030596	960242	960242
3	NITRITE,14797-65-0	5.31	5.000	1806373	1836372	1836372
4	BROMIDE,24959-67-	6.83	5.000	416479	394301	394301
6	NITRATE,14797-55- SULFATE,14808-79-	12.48	5.000	671125	654625	654625



Calibration Update Report

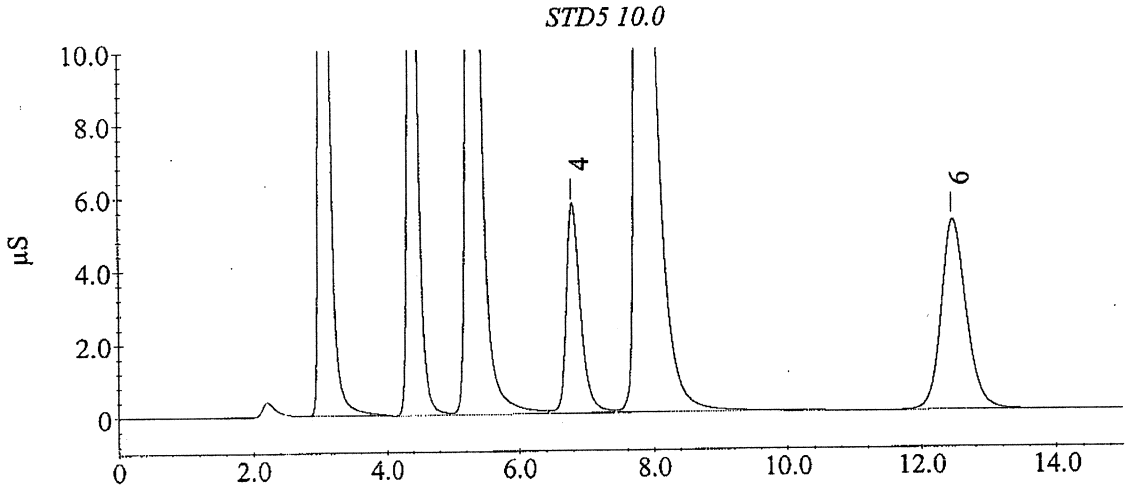
Sample Name : STD5 10.0
Data File Name : d:\peaknet\data\2015\032015\0325_006.DXD

Nitrate peak manually assigned RXJ 3/26/15

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 17:12:08
Calibration Date : 03/25/2015 19:22:16
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.07	10.000	3398114	3398114	3398114
2	CHLORIDE,16887-00-6	4.40	10.000	2080363	2080363	2080363
3	NITRITE,14797-65-0	5.31	10.000	3900970	3900970	3900970
4	BROMIDE,24959-67-	6.77	10.000	824051	824051	824051
5	NITRATE,14797-55-	7.81	10.000	5425240	5298267	5298267
6	SULFATE,14808-79-	12.45	10.000	1353944	1353944	1353944



215040217 273

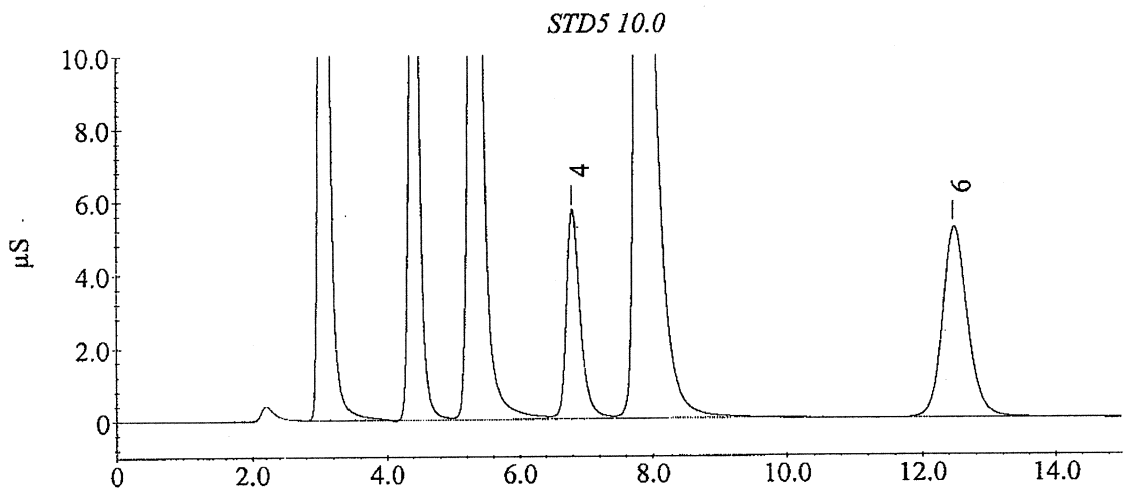
Calibration Update Report

Sample Name : STD5 10.0
Data File Name : d:\peaknet\data\2015\032015\0325_006.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Schedule File Name : d:\peaknet\schedule\2015\032015\0325-1 ical.sch
Date Time Collected : 03/25/2015 17:12:08
Calibration Date : 03/25/2015 17:29:39
System Operator : RXJ

Peak Information : All Components

Peak #	Component Name	Retention Time	Component Amount	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	FLUORIDE,16984-48-8	3.07	10.000	3268256	3398114	3398114
2	CHLORIDE,16887-00-6	4.40	10.000	2182773	2080363	2080363
3	NITRITE,14797-65-0	5.31	10.000	3866888	3900970	3900970
4	BROMIDE,24959-67-	6.77	10.000	865239	824051	824051
6	NITRATE,14797-55- SULFATE,14808-79-	12.45	10.000	1389908	1353944	1353944



2150402l7 274

Sample Analysis Report

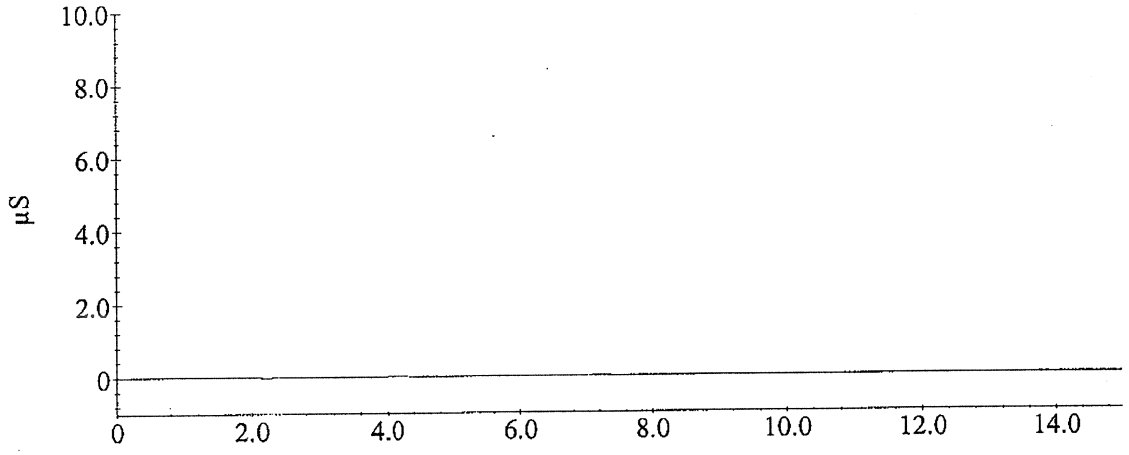
Sample Name : LCRB
Data File Name : d:\peaknet\data\2015\032015\0325_007.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 17:29:45
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 7

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height

LCRB



215040217 275

Sample Analysis Report

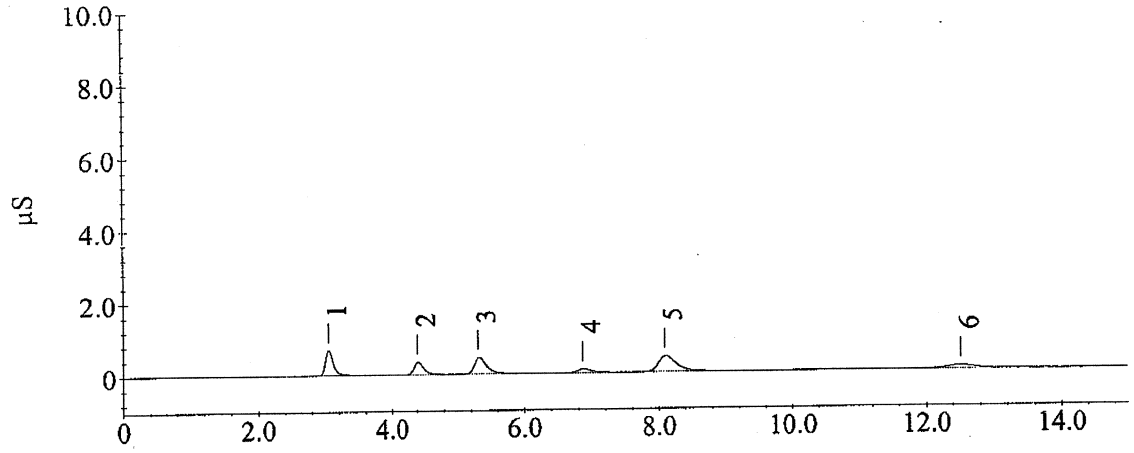
Sample Name : LLCK 0.2
Data File Name : d:\peaknet\data\2015\032015\0325_008.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 17:47:23
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 8

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.04	0.235 118%	55186	6851
2	CHLORIDE,16887-00-6	4.40	0.273 137%	33166	3370
3	NITRITE,14797-65-0	5.31	0.261 131%	57832	4336
4	BROMIDE,24959-67-	6.85	0.236 118%	13552	925
5	NITRATE,14797-55-	8.08	0.219 110%	78899	4233
6	SULFATE,14808-79-	12.51	0.228 114%	23226	918

LLCK 0.2



215040217 276

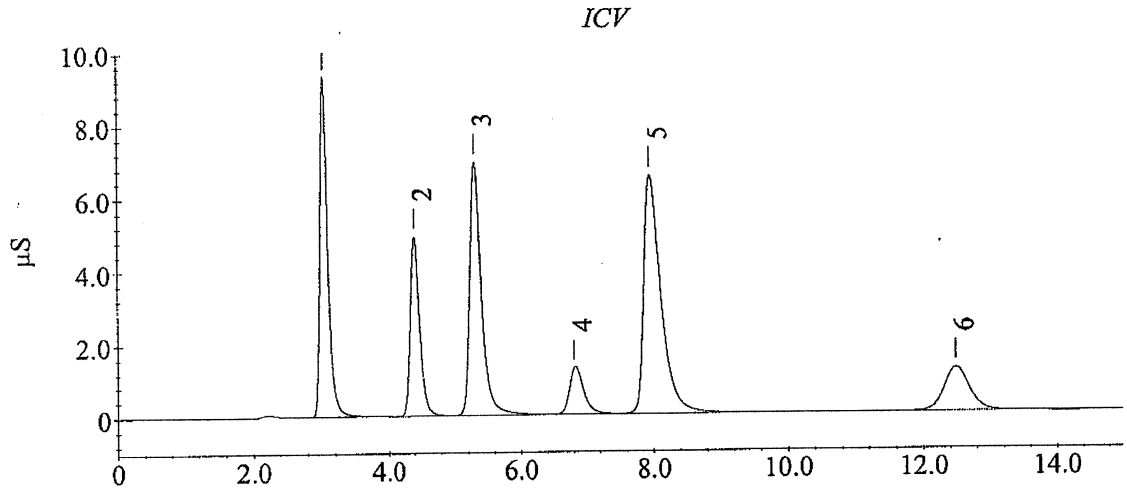
Sample Analysis Report

Sample Name : ICV
Data File Name : d:\peaknet\data\2015\032015\0325_009.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 18:05:00
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 9

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.04	2.260 90%	744790	93149
2	CHLORIDE,16887-00-6	4.40	2.363 95%	467424	49181
3	NITRITE,14797-65-0	5.31	2.303 92%	856124	69536
4	BROMIDE,24959-67-	6.80	2.424 97%	193843	12754
5	NITRATE,14797-55-	7.95	2.397 96%	1174961	65305
6	SULFATE,14808-79-	12.48	2.389 96%	315843	12016



Sample Analysis Report

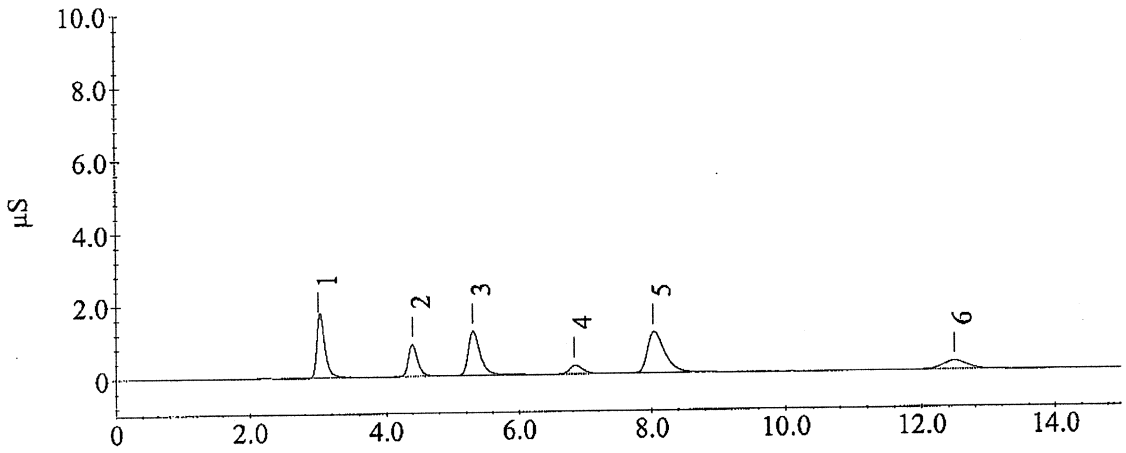
Sample Name : LCR 0.5
Data File Name : d:\peaknet\data\2015\032015\0325_010.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 18:22:38
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 10

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.01	0.489 98%	141927	15733
2	CHLORIDE,16887-00-6	4.40	0.519 104%	84272	8712
3	NITRITE,14797-65-0	5.31	0.501 100%	151672	12103
4	BROMIDE,24959-67-	6.83	0.502 100%	35471	2368
5	NITRATE,14797-55-	8.03	0.467 93%	204085	11116
6	SULFATE,14808-79-	12.48	0.502 100%	60389	2332

LCR 0.5



215040217 278

Sample Analysis Report

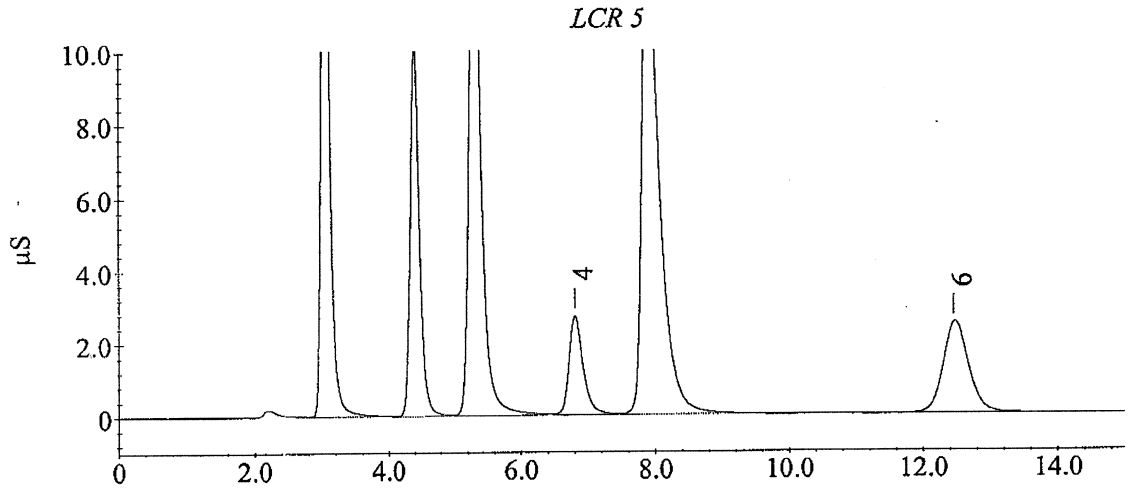
Sample Name : LCR 5
Data File Name : d:\peaknet\data\2015\032015\0325_011.DXD

Nitrate manually assigned RXJ 3/26/15

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 03/25/2015 18:40:15
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 11

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.04	4.903 98%	1644856	199803
2	CHLORIDE,16887-00-6	4.40	4.738 95%	960856	101597
3	NITRITE,14797-65-0	5.31	4.886 98%	1865330	151949
4	BROMIDE,24959-67-	6.80	4.894 98%	397438	27026
5	NITRATE,14797-55-	7.89	4.872 97%	2420123	135084
6	SULFATE,14808-79-	12.45	4.900 98%	655856	24771



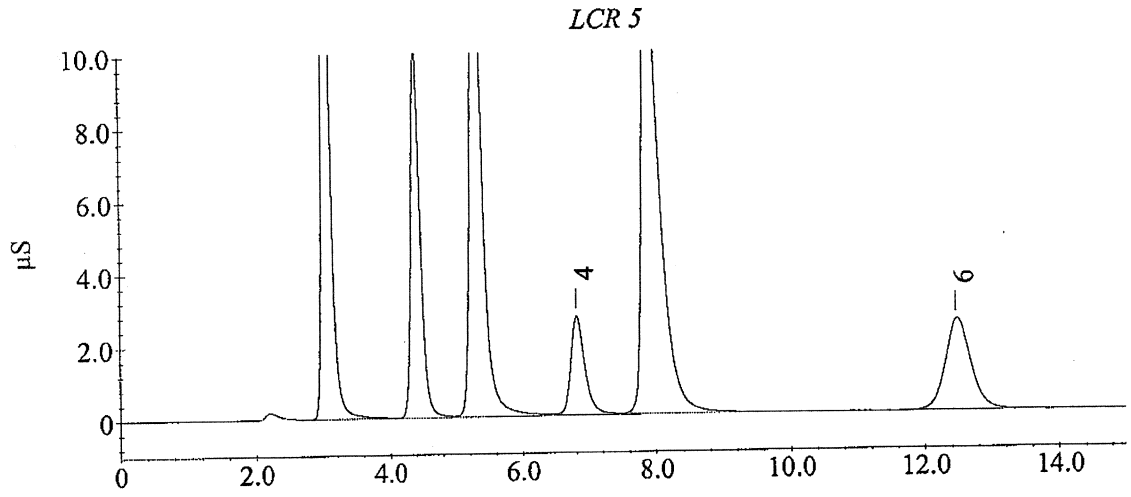
Sample Analysis Report

Sample Name : LCR 5
Data File Name : d:\peaknet\data\2015\032015\0325_011.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 18:40:15
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 11

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.04	4.903	1644856	199803
2	CHLORIDE,16887-00-6	4.40	4.738	960856	101597
3	NITRITE,14797-65-0	5.31	4.886	1865330	151949
4	BROMIDE,24959-67-	6.80	4.894	397438	27026
5	Unknown 1	7.89	0.000	2420123	135084
6	SULFATE,14808-79-	12.45	4.900	655856	24771



215040217 280

Sample Analysis Report

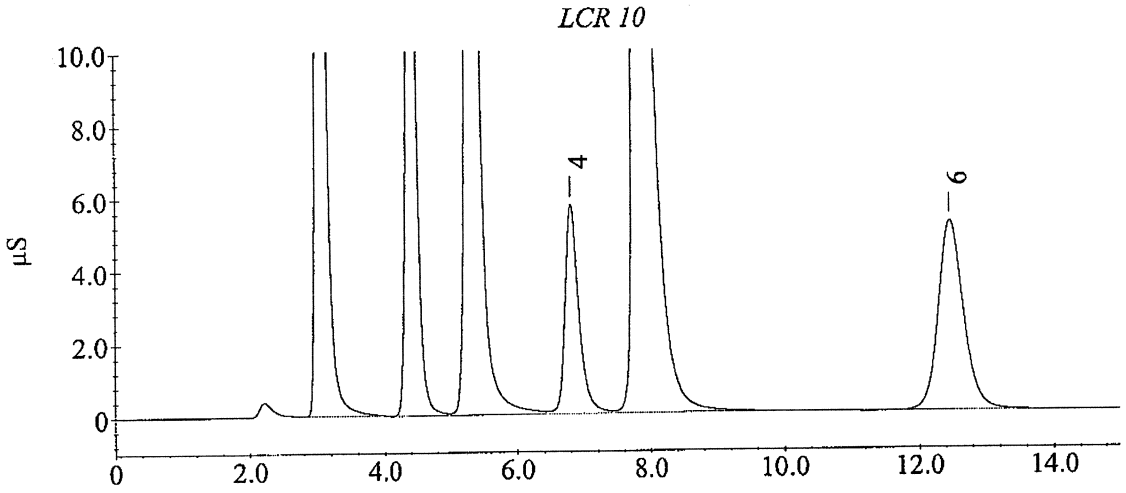
Sample Name : LCR 10
Data File Name : d:\peaknet\data\2015\032015\0325_012.DXD

NO3 manually assigned
RXJ 3/26/15

Method File Name : D:\PEAKNET\METHOD\DX500lowNO3.met
Date Time Collected : 03/25/2015 18:57:52
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 12

Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.07	10.070 101%	3404345	406061
2	CHLORIDE,16887-00-6	4.40	10.145 101%	2084534	209817
3	NITRITE,14797-65-0	5.33	10.215 102%	3948376	319045
4	BROMIDE,24959-67-	6.80	10.064 101%	823485	57425
5	NITRATE,14797-55-	7.81	10.579 106%	5291715	286923
6	SULFATE,14808-79-	12.45	10.078 101%	1357101	52059



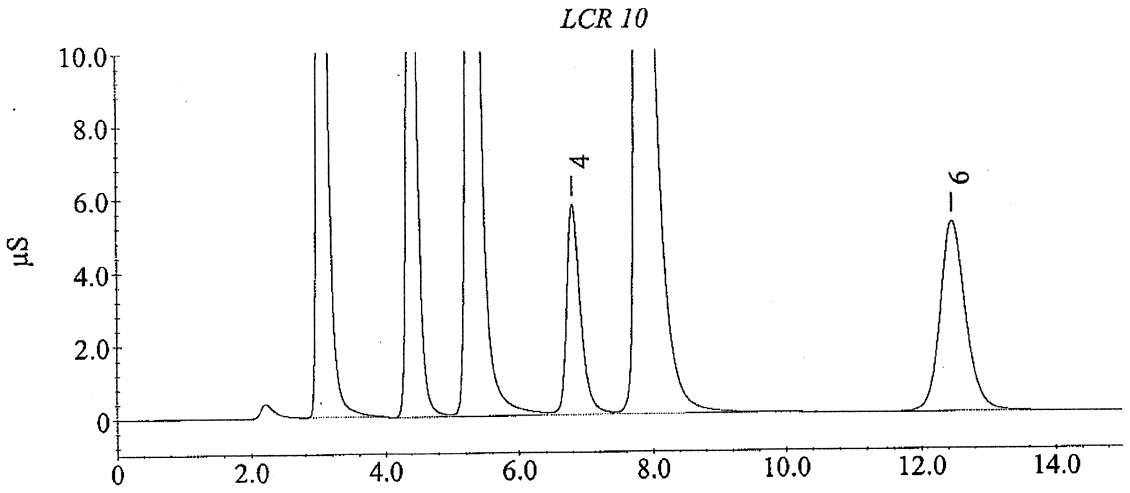
Sample Analysis Report

Sample Name : LCR 10
Data File Name : d:\peaknet\data\2015\032015\0325_012.DXD

Method File Name : d:\peaknet\method\dx500lowno3.met
Date Time Collected : 03/25/2015 18:57:52
System Operator : RXJ
Dilution Factor : 1.00
Injection Number : 12

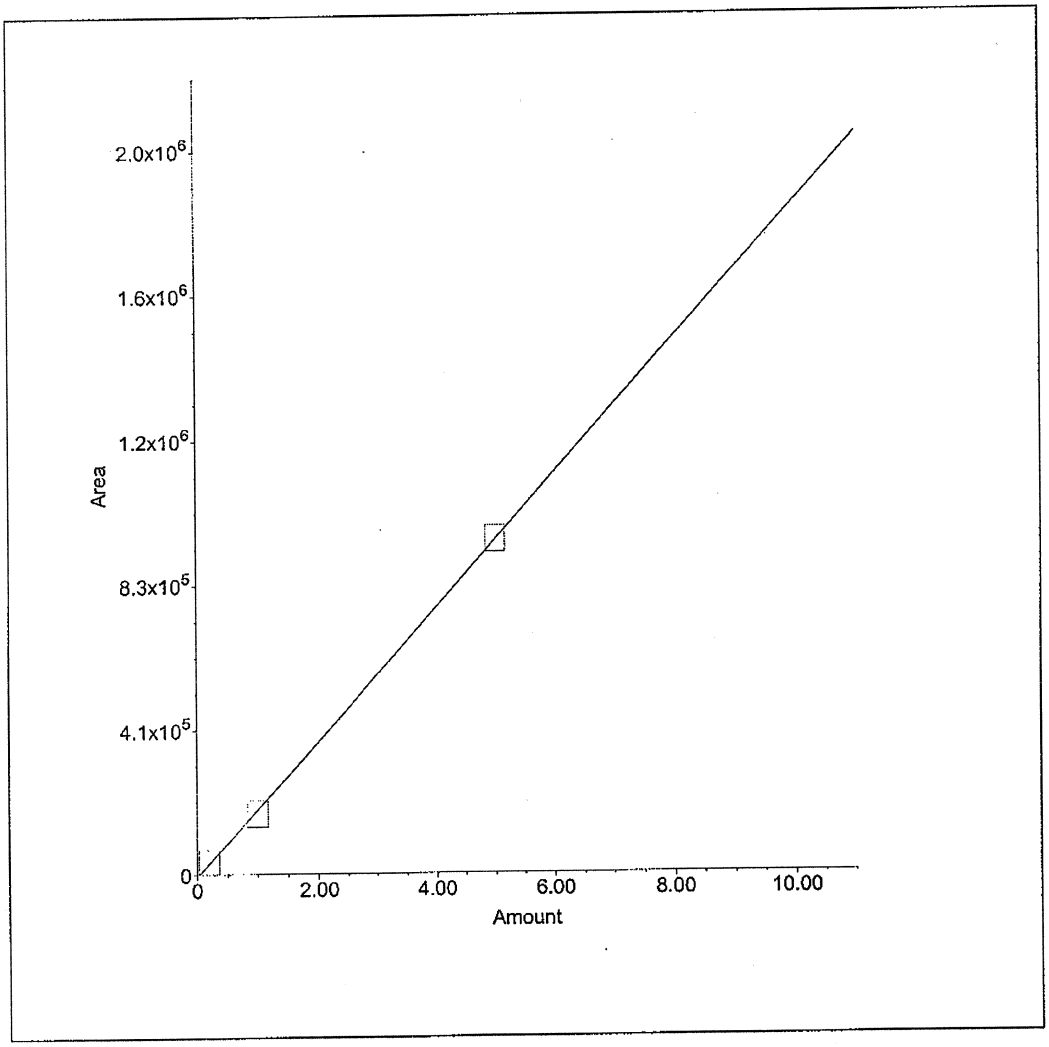
Peak Information : All Peaks

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height
1	FLUORIDE,16984-48-8	3.07	10.070	3404345	406061
2	CHLORIDE,16887-00-6	4.40	10.145	2084534	209817
3	NITRITE,14797-65-0	5.33	10.215	3948376	319045
4	BROMIDE,24959-67-	6.80	10.064	823485	57425
5	Unknown 1	7.81	0.000	5291715	286923
6	SULFATE,14808-79-	12.45	10.078	1357101	52059



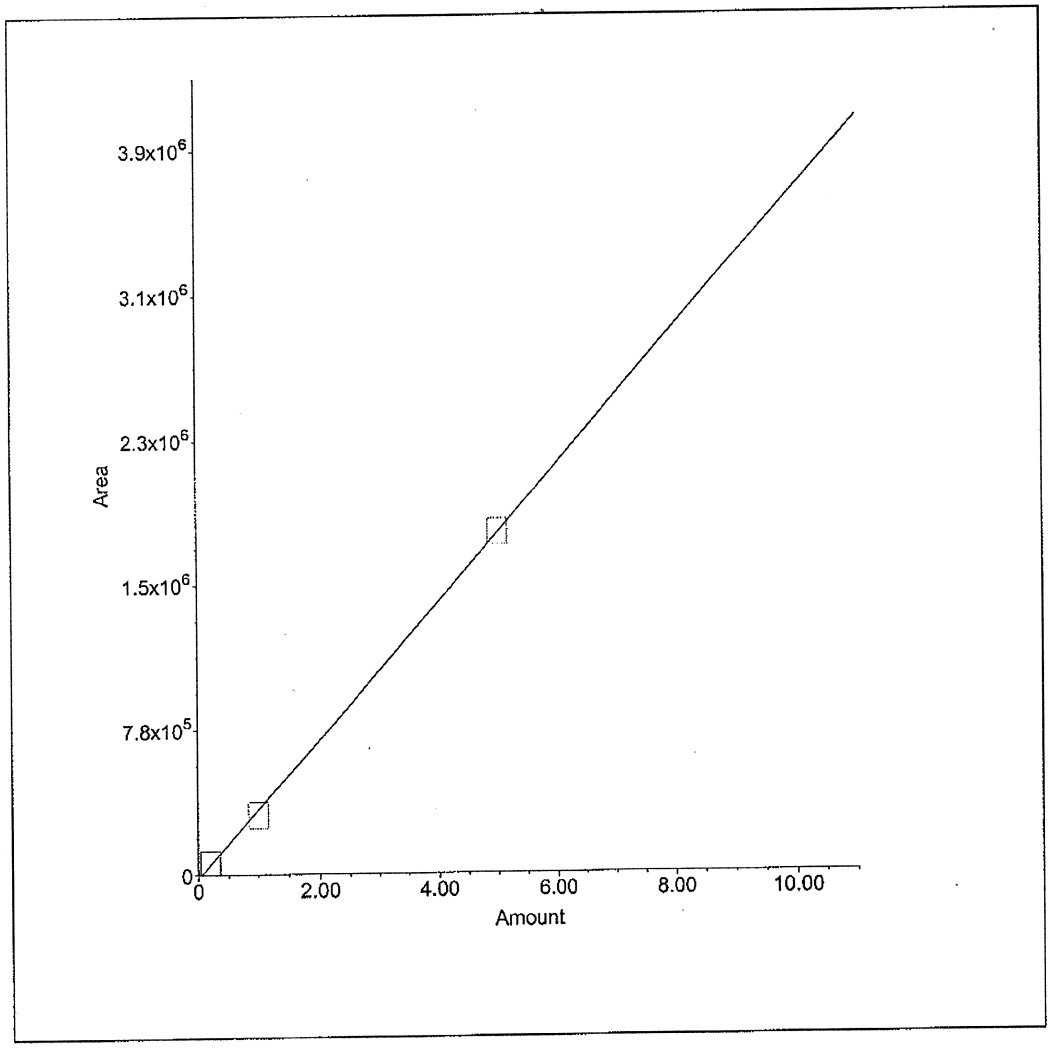
2150040217 282

2. Component:CHLORIDE,16887-00-6
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999697
Amt=5.178e-006*Resp+0.03786



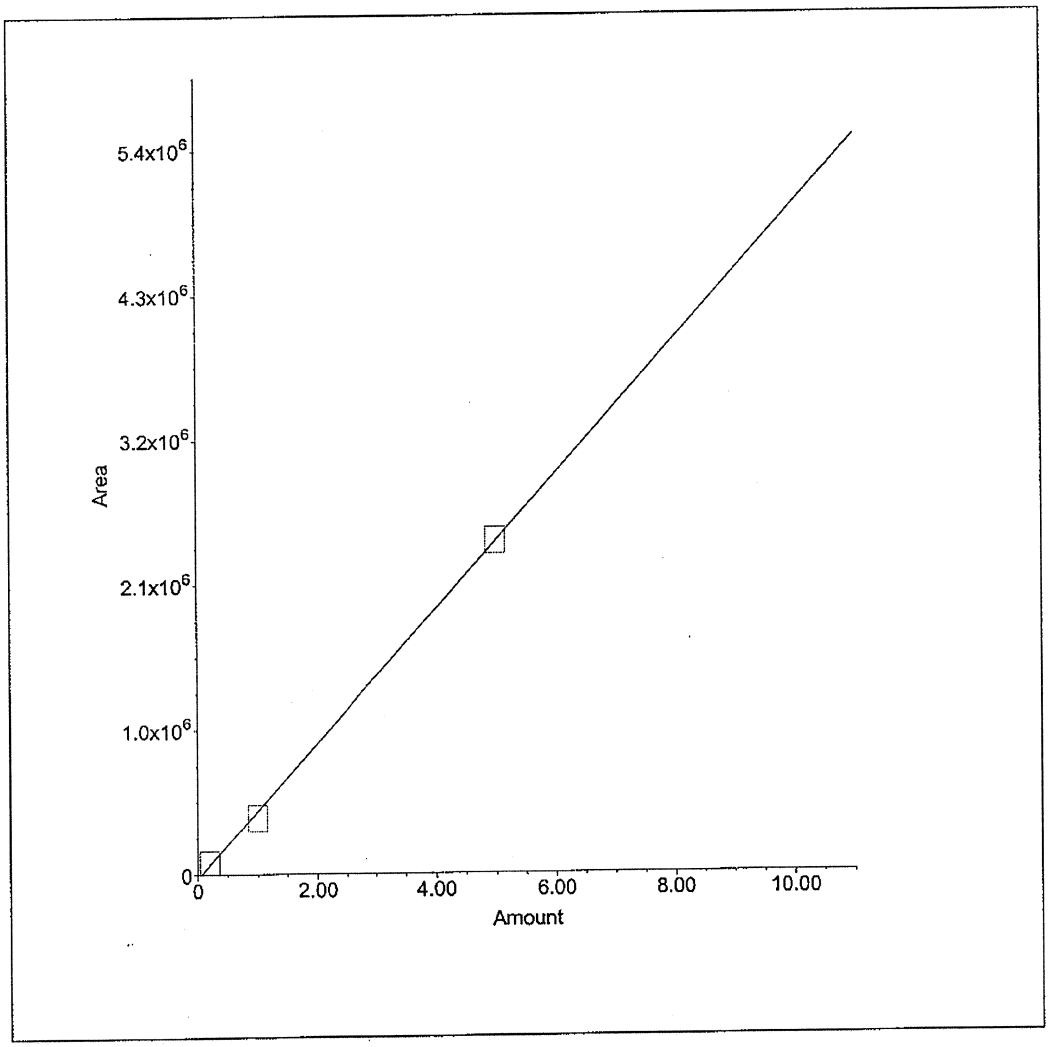
215040217 283

3. Component:NITRITE,14797-65-0
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999353
Amt=2.698e-006*Resp+0.05936



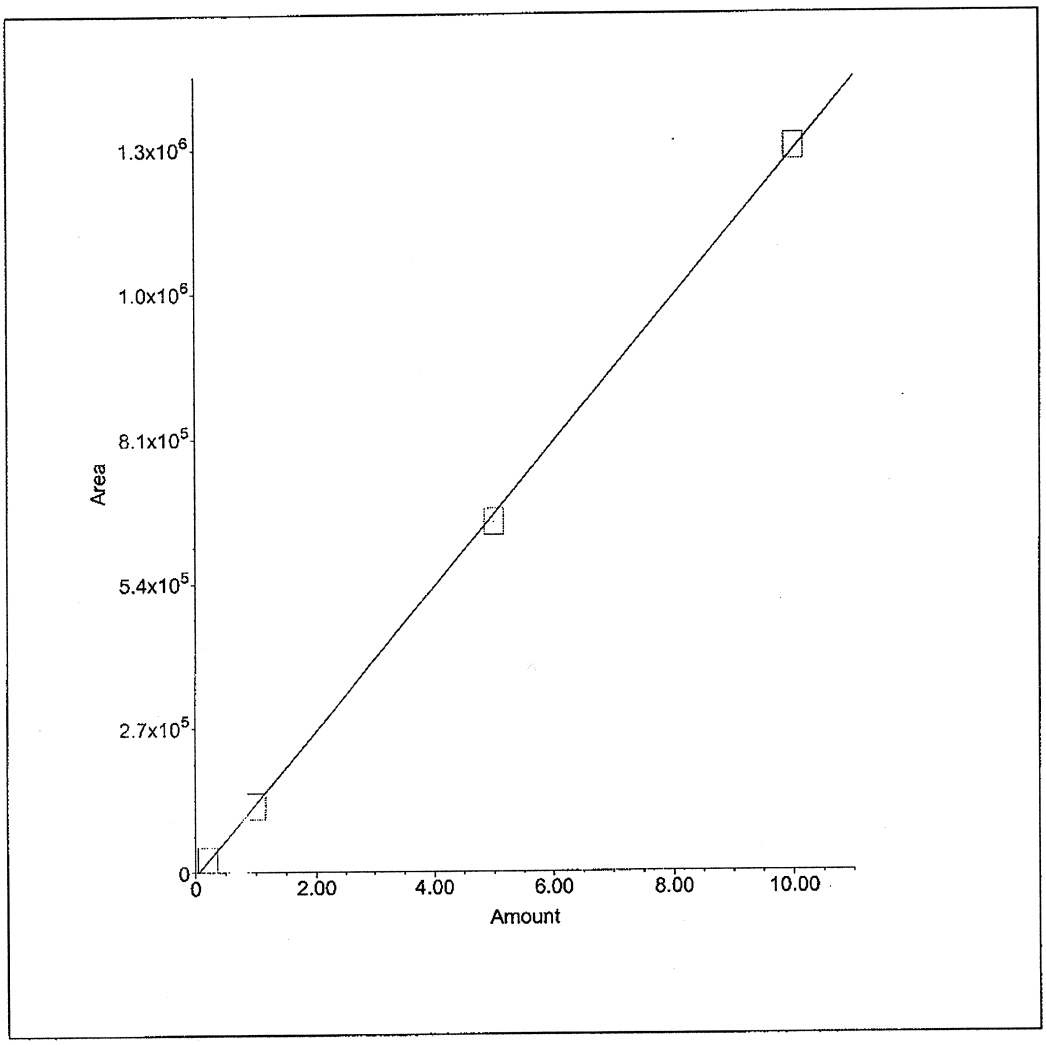
215040217 284

5. Component:NITRATE,14797-55-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999142
Amt=1.987e-006*Resp+0.06178



215040217 285

6. Component:SULFATE,14808-79-
Standard:External Fit Type:Linear
Origin:Include Calibration:Area
r^2=0.999736
Amt=7.385e-006*Resp+0.05606



2150402217 286

GCAL ANALYTICAL LABORATORIES, LLC

LACHAT STANDARD IDs

Date: 4-10-15
Analyst: JCM
HBN: 556029
Batch: 136982

Secondary Reviewer/Date: KMD 4-10-15

Test: Cyanide
Calibration Standard Lot: 2122618
Calibration Std. Exp: 5-31-15
Calibration ID: 1027-12-3
Calibration Date: 3-26-15
Calibration Exp: 5-31-15

Note: Calibration expires 6 months from calibration date or on the calibration standard expiration date, whichever is sooner, with the exception of chloride. The calibration for chloride expires 1 year from calibration date or on the calibration standard expiration date, whichever is sooner.

CHLORIDE - SM 4500-Cl E-2011 / EPA 9251

CCV (LCS) Standard ID _____
ICV Standard ID _____
0.5M Ferric Nitrate Lot/Exp. _____
Mercuric Thiocyanate Lot/Exp. _____
Color Reagent Lot/Exp. _____

N+N/NITRATE/NITRITE - EPA 353.2

N+N:
CCV (LCS) Standard ID _____
ICV Standard ID _____
Nitrite (NO_2):
CCV (LCS) Standard ID _____
ICV Standard ID _____
Reagents:
Ammonium Chloride Buffer Lot/Exp. _____
Sulfanilamide Color Reagent Lot/Exp. _____
Sodium Thiosulfate 0.025N Lot/Exp. _____
Calculations:
$NO_3 = N+N - NO_2$
Column Efficiency = (LCS N+N*100) / LCS NO_2 (must be 90-110%)
Column Efficiency _____

pH check and adjustment (if necessary):
Reagent used for pH adjustment: HCl or NH_4OH
HCl Concentrated Lot/Exp. _____
NH_4OH Concentrated Lot/Exp. _____
Initial and final pH for each sample recorded on Batch Sheet

CYANIDE - EPA 335.4 / SM 4500-Cn G-2011 / EPA 9012B

CCV Standard ID 1027-34-5
ICV Standard ID NA
Phosphate Buffer Lot/Exp. 1027-23-7/5-1-15
Chloramine T Lot/Exp. 1027-34-4/12-31-15
Pyridine Lot/Exp. 2122738/7-30-15
0.25N NaOH Lot/Exp. 1027-23-9/10-2-15
Prep Batch HBN 555604

PHENOLICS - EPA 420.4 / EPA 9066

CCV Standard ID _____
ICV Standard ID _____
Phenol Buffer Lot/Exp. _____
4-Aminoantipyrine Lot/Exp. _____
Prep Batch HBN _____

PHOSPHORUS - EPA 365.1

CCV Standard ID _____
ICV Standard ID _____
Ascorbic Acid Lot/Exp. _____
0.11N H2SO4 Lot/Exp. _____
Molybdate Color Lot/Exp. _____
Prep Batch HBN _____

Author: WET

Date : 04/10/2015

Original Run Filename: OM_04-10-2015_10-25-52.OMN created 04/10/2015 10:25:52
Original Run Author's Signature: [WET]
Current Run Filename: OM_04-10-2015_10-25-52.OMN last modified 04/10/2015 10:58:26
Current Run Author's Signature: [WET]
Description: Default New Run

Sample	Rep.	Channel 1 Cyanide~57-12-5 (mg/L)	Detection Time	MDF	
1800	1	0.0460	04/10/2015@10:26:44		92%
Known Conc:		0.0500			
1900	1	0.0025	04/10/2015@10:27:44		
Known Conc:		0.0000			
Calibration:		Table/Fig. 1			
1431265 mB	1	-0.0011	04/10/2015@10:28:43		
1431266 LCSLOP	1	0.0195	04/10/2015@10:29:41		98%
1431267 LCS WF	1	0.1008	04/10/2015@10:30:40		101%
21504021701	1	-3.5909e-5	04/10/2015@10:31:38		
21504021703	1	-0.0007	04/10/2015@10:32:37		
21504021704	1	-0.0011	04/10/2015@10:33:35		
21504021706	1	-0.0125	04/10/2015@10:34:33		
21504021708 MS	1	0.0295	04/10/2015@10:35:30		30%
21504021709 MSD	1	0.0309	04/10/2015@10:36:28		31%
21504030401	1	0.0024	04/10/2015@10:37:25		
1800	1	0.0505	04/10/2015@10:38:22		101%
Known Conc:		0.0500			
1900	1	-0.0012	04/10/2015@10:39:18		
Known Conc:		0.0000			
21504030403	1	-0.0004	04/10/2015@10:40:14		
21504030501	1	-0.0003	04/10/2015@10:41:12		
21504030503	1	-0.0002	04/10/2015@10:42:12		
21504030701	1	-0.0002	04/10/2015@10:43:12		
21504030703	1	-0.0002	04/10/2015@10:44:10		
21504030601	1	7.5638e-5	04/10/2015@10:45:09		
21504040601	1	0.0007	04/10/2015@10:46:07		
21504040602	1	-0.0012	04/10/2015@10:47:06		
21504040603	1	-1.9435e-5	04/10/2015@10:48:05		
21504040701	1	0.0015	04/10/2015@10:49:02		
1800	1	0.0483	04/10/2015@10:50:00		97%
Known Conc:		0.0500			
1900	1	8.1177e-5	04/10/2015@10:50:57		
Known Conc:		0.0000			
21504040702	1	-0.0006	04/10/2015@10:51:55		
21504040703	1	-0.0005	04/10/2015@10:52:52		
21504040801	1	-0.0007	04/10/2015@10:53:48		
21504040802 MS	1	0.0732	04/10/2015@10:54:45		73%
21504040803 MSD	1	0.0724	04/10/2015@10:55:43		72%
1800	1	0.2966	04/10/2015@10:56:43		Rerun air spike
Known Conc:		0.0500			

Table 1: Cyanide~57-12-5

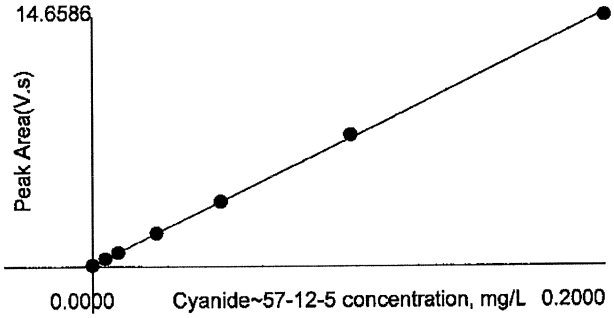
	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2000	1	14.6586	1.0083	1.4	03/26/2015	10:46:41
2	0.1000	1	7.6946	0.5297	-2.8	03/26/2015	10:47:40
3	0.0500	1	3.8061	0.2588	-0.4	03/26/2015	10:48:40
4	0.0250	1	1.9361	0.1329	0.3	03/26/2015	10:49:38
5	0.0100	1	0.8219	0.0545	1.5	03/26/2015	10:50:37
6	0.0050	1	0.4677	0.0297	-0.7	03/26/2015	10:51:35
7	0.0000	1	0.0925	0.0008		03/26/2015	10:52:34

215040217 288

Author: WET

Date : 04/10/2015

Figure 1: Cyanide~57-12-5



Area = 73.8815 * Conc + 0.0952
Conc = 0.0135 * Area - 0.0013
Correlation Coefficient (r) = 0.99996

1/x weighting

2150402l7 289

Author: WET

Date : 04/10/2015

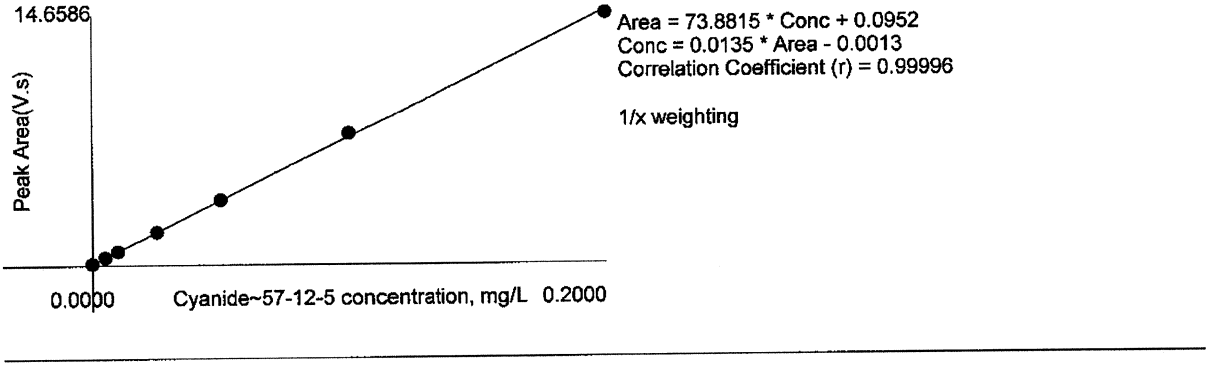
Original Run Filename: OM_04-10-2015_10-59-20.OMN created 04/10/2015 10:59:20
Original Run Author's Signature: [WET]
Current Run Filename: OM_04-10-2015_10-59-20.OMN last modified 04/10/2015 11:02:25
Current Run Author's Signature: [WET]
Description: Default New Run

Sample	Rep.	Channel 1 Cyanide~57-12-5 (mg/L)	Detection Time	MDF
1800	1	0.0513	04/10/2015@11:00:11	
Known Conc:		0.0500		
1900	1	-0.0002	04/10/2015@11:01:10	
Known Conc:		0.0000		
Calibration:		Table/Fig. 1		

Table 1: Cyanide~57-12-5

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	0.2000	1	14.6586	1.0083	1.4	03/26/2015	10:46:41
2	0.1000	1	7.6946	0.5297	-2.8	03/26/2015	10:47:40
3	0.0500	1	3.8061	0.2588	-0.4	03/26/2015	10:48:40
4	0.0250	1	1.9361	0.1329	0.3	03/26/2015	10:49:38
5	0.0100	1	0.8219	0.0545	1.5	03/26/2015	10:50:37
6	0.0050	1	0.4677	0.0297	-0.7	03/26/2015	10:51:35
7	0.0000	1	0.0925	0.0008		03/26/2015	10:52:34

Figure 1: Cyanide~57-12-5



215040217 290

CYANIDE DISTILLATION
EPA 335.2 CLP-M/EPA 335.3/SW-846 9012A/SM 4500-CN

START	1030 4/5/15	END	1430	ANALYST	SMR
MATRIX	WATER SOLID			HBN:	555604

	CLIENT	CLIENT ID	GCAL ID	INITIAL VOL/WT mL g	FINAL VOLUME (mL)	CHLORINE Yes No	SULFIDE Yes No	SAMPLE TYPE	COMMENTS	REAGENT LOT NO:
1	QC ACCOUNT	MB for HBN 555604 [INPR/14252]	1431265	50	50			MB		1.25M NaOH:1 9-10-2
2	QC ACCOUNT	LCS for HBN 555604 [INPR/14252	1431266	50	50			LCS		
3	QC ACCOUNT	LCSHI for HBN 555604 [INPR/142	1431267	50	50			LCSHI		Ca(OCl2):1 N/A
4	4747	M114MW002	21504021701	50	50			SAMPLE		
5	4747	M114MW004	21504021703	50	50			SAMPLE		0.1 Na2S2O3:1
6	4747	M114MW003	21504021704	50	50			SAMPLE		
7	4747	M114MW001	21504021706	50	50			SAMPLE		Bi(NO3):2,3
8	4747	M114MW001-MS	21504021708	50	50			MS		
9	4747	M114MW001-SD	21504021709	50	50			MSD		Ascorbic Acid:2,3
10	4747	MWQ-24	21504030401	50	50			SAMPLE		
11	4747	MAO2MW001D	21504030403	50	50			SAMPLE		Sulfamic Acid:2,3 9-10-4
12	4747	MAO1MW002	21504030501	50	50			SAMPLE		
13	4747	MAO1MW001	21504030503	50	50			SAMPLE		1:1 H2SO4:2 9-9-6
14	4747	MA01MW004	21504030701	50	50			SAMPLE		
15	4747	MA01MW003	21504030703	50	50			SAMPLE		2.5M MgCl:2 9-10-10
16	4747	MA02MW001D-a	21504030601	50	50			SAMPLE		
17	4747	MWQ-21	21504040601	50	50			SAMPLE		Zn(C2H3O2):3 N/A
18	4747	MWQ-20	21504040602	50	50			SAMPLE		
19	4747	MWQ-19	21504040603	50	50			SAMPLE		0.1% Methyl Red:3
20	4747	MWQ-18	21504040701	50	50			SAMPLE		
21	4747	MWQ-2	21504040702	50	50			SAMPLE		Acetate Buffer:3
22	4747	MWQ-2-a	21504040703	50	50			FLDDUP		
23	4747	MWQ-22	21504040801	50	50			SAMPLE		5% NaOH (CLP):4
24	4747	MWQ-22-MS	21504040802	50	50			MS		
25	4747	MWQ-22-MSD	21504040803	50	50			MSD		1.0N NaOH:1,2,3
26										

Type of cyanide prep: CNC-Total=2, CNAC-Amenable=1, CNFR-Free=3, CNC-CLP=4
COMMENTS:

BALANCE ID: N/A TEMP: 150°C

LCS/MS SPIKE ID	9-9-11	CONC:	10ppm			Analyst Review	DATE
LCS LOW VOL	100µL	LCS HIGH VOL	500µL	LCS CLP VOL	N/A	SMR	4/5/15
MS WATER VOL	500µL	MS SOLID VOL	N/A				
						Secondary Review	DATE
SPIKE WITNESS	N/A					[illegible]	4-6-15

Revision 1, 08/10/2010

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Page _____

Project Number: A012-113

Chain of Custody Number (1): 15040103

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B *	Explosives 8330 *	Metals (Total & Diss) 6020A *	Cyanide (9012A) *	Mercury 7470A *	Nitrite, Nitrate 300.0 *	Chloride, Sulfate 300.0 *	Perchlorate 6860	Alkalinity 2320B *	TDS 2540C *		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MW4MW002		04012015	1145		N	1	WG	13	X	X	X	X	X	X	X	X	X	X					C-1
MW4MW002-c		04012015	1145		TB	1	WQ	3	X														C-2
MW4MW004		04012015	1325	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X					C-1
				-																			
				-																			
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				-																			
				-																			
				-																			
				-																			

Quality Assurance Samples (6)

Sample Analysis Requested (5)

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments: Dissolved metals were field filtered

5980 9381 4730

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/1/15	1630			
2.	FedEx	4/2/15	1000	Allison Nagy	4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient: _____

Shipped: No.: 3

Airbill Number: _____

Delivery Location: Baton Rouge, LA

Delivery Date/Time: _____

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

1.4 E26

195817, 1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-113

Chain of Custody Number (1): 1540101

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
Sample Analysis Requested (5)																				Quality Assurance Samples (6)			
M114MW003		04-01-2015	1126		N	1	WG	13	X	X	X	X	X	X	X	X	X	X					A
M114MW003-c		04-01-2015	1126		TB	1	WQ	3	X														A
M114MW001		04-01-2015	1253	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X					A
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/1/15	1630			
2.	FedEx	4/2/15	1000		4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number: 5980 9381 4741

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

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7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

5.0E26
195817, 1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-113

Chain of Custody Number (1): 150401 03

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
Sample Analysis Requested (5)																				Quality Assurance Samples (6)			
M114MW001-c		04-01-2015	1253		TB	1	WQ	3	X														B
M114MW001-MS		04-01-2015	1253		MS	1	WG	13	X	X	X	X	X	X	X	X	X	X					B
M114MW001-SD		04-01-2015	1253	-	SD	1	WG	13	X	X	X	X	X	X	X	X	X	X					B
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	FedEx	4/1/15	1638	FedEx		
2.	FedEx	4/2/15	1000	Allison Nagy	4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number: 5480938147 20

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

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5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

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7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

3.9E26

195817, 1

GCAL ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIVING CHECKLIST

215040217

SAMPLE DELIVERY GROUP 215040217	
Client 4747 - TRINITY Analysis & Development Corp.	**Transport Method** FEDEX
Profile Number 195817	**Received By** Naquin, Allison
Line Item(s) 1 - Waters	**Receive Date(s)** 04/02/15

CHECKLIST	YES	NO	NA
Were all samples received using proper thermal preservation?	☑	☐	☐
When used, were all custody seals intact?	☑	☐	☐
Were all samples received in proper containers?	☑	☐	☐
Were all samples received using proper chemical preservation?	☑	☐	☐
Was preservative added to any container at the lab?	☐	☑	☐
Were all containers received in good condition?	☑	☐	☐
Were all VOA vials received with no head space?	☑	☐	☐
Do all sample labels match the Chain of Custody?	☑	☐	☐
Did the Chain of Custody list the sampling technician?	☑	☐	☐
Was the COC maintained i.e. all signatures, dates and time of receipt included?	☐	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp(°C)
5980 9381 4730		1.4
5980 9381 4741		5.0
5980 9381 4720		3.9

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.4

Page 1 of 1

215040217 295

April 15, 2015

Brenda Martinez
GCAL LAB
7979 GSRI AVENUE
BATON ROUGE, LA 70820
TEL: (225) 769-4900
FAX (225) 767-5717

Order No.: 1504041

RE: DoD Perchlorate

Dear Brenda Martinez:

DHL Analytical, Inc. received 4 sample(s) on 4/3/2015 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory Certification Number: T104704211-14-13 & DoD-ELAP #L14-26

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Analytical Report 1504041 ..... **13**

AnalyticalQCSummaryReport 1504041 ..... **17**

Sequence Report 1504041 ..... **20**

GCAL ANALYTICAL LABORATORIES, LLC

7979 INNOVATION PARK DR, BATON ROUGE LA 70820-7402
(225) 769-4900 FAX (225) 767-5717

Chain of Custody Record

H 15054041

Submitted by		Bill to	
Client:	Gulf Coast Analytical Labs	Client:	Gulf Coast Analytical Labs
Address:	7979 Innovation Park Dr.	Address:	7979 Innovation Park Dr.
	Baton Rouge LA 70820		Baton Rouge LA 70820
Contact:	Brenda Martinez	Contact:	Brenda Martinez
Phone:	225-769-4900	Phone:	225-769-4900
Fax:	225-767-5717	Fax:	225-767-5717

* Our P. O. Number must appear on the Invoice.

* Our Project Number must appear on the final report.

P.O. Number: **15-0346**

Project Name/Number: **215040217**

Sampled By:

	Matrix	Date	Time (2400)	Comp	Grab	Sample Description	Preservatives	No. Containers	Analysis Requested: Perchlorate 6860	Remarks:	Lab ID
01	W	4/1/2015	1145			M114MW002	None	1	X		
02	W	4/1/2015	1325			M114MW004	None	1	X		
03	W	4/1/2015	1126			M114MW003	None	1	X		
04	W	4/1/2015	1253			M114MW001	None	1	X		
	W	4/1/2015	1253			M114MW001-MS	None	1	X		
	W	4/1/2015	1253			M114MW001-SD	None	1	X		

Turn Around Time: ___ 24 - 48 hrs ___ 3 days ___ 1 week X standard other _____

Relinquished by: (Signature)	Received by: (Signature) FedEx	Date: 4/2/15	Time: 1700
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/3/15	Time: 915
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Note: Rec temp 1.6 Item #57 on stock 5-cal Intact

Please email results to brenda.martinez@gcal.com

PLEASE RETURN ICE CHESTS TO 7979 Innovation Park Dr.

Matrix: W = water, S=Soil, SD=Solid, L=Liquid, SL=Sludge, O=Oil, CT=Charcoal Tube, OVM=Organic Vapor Monitor, XT=XAD Tube, A=Air Bag, SUM=Summa Canister

ORIGIN ID:OPLA (225) 769-4900
CHARLOTTE SAUCIER
GULF COAST ANALYTICAL LABS INC
7979 INNOVATION DR

BATON ROUGE, LA 70820
UNITED STATES US

ACTWGT:
CAD: 0291381/CAFE

BILL SENDER

TO JOHN DUPONT
DHL
2300 DOUBLE CREEK DRIVE

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: DEPT:

518C2/8FC5/6F03

FedEx Express

J131113052301 26

FRI - 03 APR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 5980 9381 6310

A8 BSMA

78664
TX-US AUS

GECAL
ANALYTICAL LABORATORIES, LLC

CUSTODY SEAL

Date Sealed: 4-2-15

Sealed By: JDJ

ckage conforms to the conditions
tations specified in 49 CFR 173.4

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GCAL LAB | Date Received: 4/3/2015

Work Order Number 1504041 | Received by JB

Checklist completed by: [signature] Signature | 4/3/2015 Date | Reviewed by SS Initials | 4/3/2015 Date

Carrier name FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.6 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Page 1 of 1

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: DoD Perchlorate	**Date:** 4/15/15
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 1504041
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	**X**				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			**X**		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	**X**				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	**X**				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	**X**				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	**X**				
		3) Were calculations checked by a peer or supervisor?	**X**				
		4) Were all analyte identifications checked by a peer or supervisor?	**X**				
		5) Were sample quantitation limits reported for all analytes not detected?	**X**				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			**X**		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			**X**		
		8) If required for the project, TICs reported?			**X**		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			**X**		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			**X**		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	**X**				
		2) Were blanks analyzed at the appropriate frequency?	**X**				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	**X**				
		4) Were blank concentrations < MQL?	**X**				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	**X**				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	**X**				
		3) Were LCSs analyzed at the required frequency?	**X**				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	**X**				
		6) Was the LCSD RPD within QC limits (if applicable)?	**X**				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	**X**				
		2) Were MS/MSD analyzed at the appropriate frequency?	**X**				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	**X**				
		4) Were MS/MSD RPDs within laboratory QC limits?	**X**				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?			**X**		
		2) Were analytical duplicates analyzed at the appropriate frequency?			**X**		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			**X**		
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	**X**				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	**X**				
		3) Are unadjusted MQLs included in the laboratory data package?	**X**				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?			**X**		
		2) Were all necessary corrective actions performed for the reported data?	**X**				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.
Laboratory Review Checklist (continued): Supporting Data

Project Name: DoD Perchlorate | **Date:** 4/15/15

Reviewer Name: Carlos Castro | **Laboratory Work Order:** 1504041

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	**X**				
		2) Were percent RSDs or correlation coefficient criteria met?	**X**				
		3) Was the number of standards recommended in the method used for all analytes?	**X**				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	**X**				
		5) Are ICAL data available for all instruments used?	**X**				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	**X**				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)**					
		1) Was the CCV analyzed at the method-required frequency?	**X**				
		2) Were percent differences for each analyte within the method-required QC limits?	**X**				
		3) Was the ICAL curve verified for each analyte?	**X**				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	**X**				
S3	O	**Mass Spectral Tuning**					
		1) Was the appropriate compound for the method used for tuning?	**X**				
		2) Were ion abundance data within the method-required QC limits?	**X**				
S4	O	**Internal Standards (IS)**					
		1) Were IS area counts and retention times within the method-required QC limits?	**X**				
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	**X**				
		2) Were data associated with manual integrations flagged on the raw data?	**X**				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			**X**		
S7	O	**Tentatively Identified Compounds (TICs)**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			**X**		
S8	I	**Interference Check Sample (ICS) Results**					
		1) Were percent recoveries within method QC limits?	**X**				
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			**X**		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	**X**				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	**X**				
S11	OI	**Proficiency Test Reports**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	**X**				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	**X**				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	**X**				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	**X**				
		2) Is documentation of the analyst's competency up-to-date and on file?	**X**				
S15	OI	**Verification/Validation Documentation for Methods (NELAC Chap 5)**					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	**X**				
S16	OI	**Laboratory Standard Operating Procedures (SOPs)**					
		1) Are laboratory SOPs current and on file for each method performed?	**X**				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC 5.13
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) the amount of analyte measured in the duplicate,
  b) the calculated RPD, and
  c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director

Signature

04/15/15

Date

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT: GCAL LAB
Project: DoD Perchlorate
Lab Order: 1504041

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC. The "U" flag , in the Analytical Report, indicates the results for that sample are nondetect.

Samples were analyzed using the methods outlined in the following references:

Method SW6860 - Perchlorate Analysis (Parameter is ELAP Accredited but not NELAC Certified)

Exception Report R1-01

The samples were received on and log-in performed on 4/3/15. A total of 4 samples were received and all were analyzed. The samples arrived in good condition and were properly packaged.

A summary of project communication follows:

Request for quote was sent to DHL Analytical from the client, via email on 5/5/11 and the quote was sent to client via email on 5/5/11. Email for work approved by both parties on 5/18/11 with P.O number 12-0969.

Client sent samples in own containers.

This sample delivery group arrived at DHL Analytical on 4/3/15.

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT: GCAL LAB
Project: DoD Perchlorate
Lab Order: 1504041

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1504041-01	M114MW002		04/01/15 11:45 AM	4/3/2015
1504041-02	M114MW004		04/01/15 01:25 PM	4/3/2015
1504041-03	M114MW003		04/01/15 11:26 AM	4/3/2015
1504041-04	M114MW001		04/01/15 12:53 PM	4/3/2015

Lab Order: 1504041
Client: GCAL LAB
Project: DoD Perchlorate

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1504041-01A	M114MW002	04/01/15 11:45 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504041-02A	M114MW004	04/01/15 01:25 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504041-03A	M114MW003	04/01/15 11:26 AM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037
1504041-04A	M114MW001	04/01/15 12:53 PM	Aqueous	SW6860	Perchlorate Prep	04/09/15 08:45 AM	69037

Lab Order: 1504041
Client: GCAL LAB
Project: DoD Perchlorate

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1504041-01A	M114MW002	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 01:54 PM	ICMS2_150409A
1504041-02A	M114MW004	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 02:10 PM	ICMS2_150409A
1504041-03A	M114MW003	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 02:26 PM	ICMS2_150409A
1504041-04A	M114MW001	Aqueous	SW6860	Perchlorate - Water	69037	1	04/09/15 02:42 PM	ICMS2_150409A

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW002
Project:	DoD Perchlorate	**Lab ID:**	1504041-01
Project No:	215040217	**Collection Date:**	04/01/15 11:45 AM
Lab Order:	1504041	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00218	0.000100	0.000300	N	mg/L	1	04/09/15 01:54 PM
IS: Perchlorate_107	78.4	0	50-150	N	%REC	1	04/09/15 01:54 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW004
Project:	DoD Perchlorate	**Lab ID:**	1504041-02
Project No:	215040217	**Collection Date:**	04/01/15 01:25 PM
Lab Order:	1504041	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00245	0.000100	0.000300	N	mg/L	1	04/09/15 02:10 PM
IS: Perchlorate_107	65.1	0	50-150	N	%REC	1	04/09/15 02:10 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW003
Project:	DoD Perchlorate	**Lab ID:**	1504041-03
Project No:	215040217	**Collection Date:**	04/01/15 11:26 AM
Lab Order:	1504041	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00361	0.000100	0.000300	N	mg/L	1	04/09/15 02:26 PM
IS: Perchlorate_107	57.8	0	50-150	N	%REC	1	04/09/15 02:26 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *15-Apr-15*

CLIENT:	GCAL LAB	**Client Sample ID:**	M114MW001
Project:	DoD Perchlorate	**Lab ID:**	1504041-04
Project No:	215040217	**Collection Date:**	04/01/15 12:53 PM
Lab Order:	1504041	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
PERCHLORATE - WATER		**SW6860**					Analyst: **SCS**
Perchlorate	0.00310	0.000100	0.000300	N	mg/L	1	04/09/15 02:42 PM
IS: Perchlorate_107	67.2	0	50-150	N	%REC	1	04/09/15 02:42 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: GCAL LAB
Work Order: 1504041
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

The QC data in batch 69037 applies to the following samples: 1504041-01A, 1504041-02A, 1504041-03A, 1504041-04A

Sample ID **MB-69037** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MBLK** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 1:21:59 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000100	0.000300								NU
IS: Perchlorate_107	0.00101		0.00100		135	50	150			N

Sample ID **LCS-69037** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **LCS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 1:38:03 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000311	0.000300	0.000300	0	104	85	115			N
IS: Perchlorate_107	0.00101		0.00100		98.7	50	150			N

Sample ID **1504041-04A MS** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 2:58:24 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00344	0.000300	0.000300	0.00310	111	85	115			N
IS: Perchlorate_107	0.00101		0.00100		68.7	50	150			N

Sample ID **1504041-04A MSD** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 3:14:28 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00336	0.000300	0.000300	0.00310	85.2	85	115	2.32	20	N
IS: Perchlorate_107	0.00101		0.00100		65.0	50	150	0	0	N

Sample ID **1504057-14A MS** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MS** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 8:06:47 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000305	0.000300	0.000300	0	102	85	115			N
IS: Perchlorate_107	0.00101		0.00100		102	50	150			N

Sample ID **1504057-14A MSD** Batch ID: **69037** TestNo: **SW6860** Units: **mg/L**
SampType: **MSD** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 8:22:51 PM** Prep Date: **4/9/2015**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000313	0.000300	0.000300	0	104	85	115	2.61	20	N
IS: Perchlorate_107	0.00101		0.00100		105	50	150	0	0	N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1504041
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

Sample ID **ICV-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 11:59:56 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00196	0.000300	0.00200	0	98.1	85	115			N
IS: Perchlorate_107	0.00100		0.00100		118	50	150			N

Sample ID **LCVL1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 12:16:01 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000217	0.000300	0.000200	0	108	70	130			N
IS: Perchlorate_107	0.00100		0.00100		131	50	150			N

Sample ID **ICS1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **ICS**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 12:32:05 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000327	0.000300	0.000300	0	109	70	130			N
IS: Perchlorate_107	0.00100		0.00100		102	50	150			N

Sample ID **CCV1-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 5:10:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00514	0.000300	0.00500	0	103	85	115			N
IS: Perchlorate_107	0.00100		0.00100		121	50	150			N

Sample ID **LCVL2-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 5:26:04 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000225	0.000300	0.000200	0	112	70	130			N
IS: Perchlorate_107	0.00100		0.00100		131	50	150			N

Sample ID **CCV2-150409**	Batch ID: **R79000**	TestNo: **SW6860**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICMS2_150409A**	Analysis Date: **4/9/2015 9:11:04 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.00513	0.000300	0.00500	0	103	85	115			N
IS: Perchlorate_107	0.00100		0.00100		113	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: GCAL LAB
Work Order: 1504041
Project: DoD Perchlorate

ANALYTICAL QC SUMMARY REPORT

RunID: ICMS2_150409A

Sample ID **LCVL3-150409** Batch ID: **R79000** TestNo: **SW6860** Units: **mg/L**
SampType: **LCVL** Run ID: **ICMS2_150409A** Analysis Date: **4/9/2015 9:27:09 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Perchlorate	0.000220	0.000300	0.000200	0	110	70	130			N
IS: Perchlorate_107	0.00100		0.00100		124	50	150			N

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Lab Order: 1504041
Client: GCAL LAB
Project: DoD Perchlorate

Sequence Report

Run ID: ICMS2_150409A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-150409	-----	SW6860	R79000	1	4/9/2015 11:59:56 AM		A
LCVL1-150409	-----	SW6860	R79000	1	4/9/2015 12:16:01 PM		A
ICS1-150409	-----	SW6860	R79000	1	4/9/2015 12:32:05 PM		A
MB-69037	-----	SW6860	69037	1	4/9/2015 1:21:59 PM	4/9/2015 8:45:52 AM	A
LCS-69037	-----	SW6860	69037	1	4/9/2015 1:38:03 PM	4/9/2015 8:45:52 AM	A
1504041-01A	M114MW002	SW6860	69037	1	4/9/2015 1:54:07 PM	4/9/2015 8:45:52 AM	A
1504041-02A	M114MW004	SW6860	69037	1	4/9/2015 2:10:11 PM	4/9/2015 8:45:52 AM	A
1504041-03A	M114MW003	SW6860	69037	1	4/9/2015 2:26:16 PM	4/9/2015 8:45:52 AM	A
1504041-04A	M114MW001	SW6860	69037	1	4/9/2015 2:42:20 PM	4/9/2015 8:45:52 AM	A
1504041-04A MS	M114MW001MS	SW6860	69037	1	4/9/2015 2:58:24 PM	4/9/2015 8:45:52 AM	A
1504041-04A MSD	M114MW001MSD	SW6860	69037	1	4/9/2015 3:14:28 PM	4/9/2015 8:45:52 AM	A
CCV1-150409	-----	SW6860	R79000	1	4/9/2015 5:10:00 PM		A
LCVL2-150409	-----	SW6860	R79000	1	4/9/2015 5:26:04 PM		A
1504057-14A MS	-----	SW6860	69037	1	4/9/2015 8:06:47 PM	4/9/2015 8:45:52 AM	A
1504057-14A MSD	-----	SW6860	69037	1	4/9/2015 8:22:51 PM	4/9/2015 8:45:52 AM	A
CCV2-150409	-----	SW6860	R79000	1	4/9/2015 9:11:04 PM		A
LCVL3-150409	-----	SW6860	R79000	1	4/9/2015 9:27:09 PM		A

APPENDIX C

Data Validation Report

Melrose AFR Quarterly

Trinity Analysis & Development Corp

SDG: 215111414 Date: December 21, 2015

Environmental Data Professional, LLC
1432 Watkins Street • Lake Charles, LA 70601 • phone: 337-540-0036 • fax: 337-478-6061

Disclaimer:

The validation performed and reported herein is based on specifications and procedures presented to eDATApro with the associated data package. Any qualifications or review not specified with package requirements was based on USEPA National Functional Guidelines for Inorganic and Organic Data Review.

Information contained in this report is based solely on the hardcopy and/or electronic deliverables that were submitted to eDATApro. eDATApro reserves the rights to modify or change the validation report if new information is presented or if this report is determined to be inaccurate or incomplete.

Cover Letter

Validation Report Date: December 21, 2015

Sample Delivery Group: 215111414

Project Name: Melrose AFR Quarterly

Data validation personnel: Dana Hebert and Tony Duhon

Validation Report:

__✓__ Introduction

__✓__ Sample Identification Cross- Reference Table

__✓__ Data Validation Components

__✓__ Data Validation Findings Summary

__✓__ Table 1-1, Summary of Qualified Data

__✓__ Table 1-2, Data Qualifier Reference Table

__✓__ Appendix I, Form I Data (qualified)

__✓__ Appendix II, Chain of Custody

Approval Signature: Anthony Duhon Date: December 21, 2015

INTRODUCTION:

SDG: 215111414
Project Name: Melrose AFR Quarterly
Laboratory: Gulf Coast Analytical Laboratories/ALS Environmental/DHL Analytical
Matrix: Water

Environmental Data Professional, LLC (eDATApro) received one electronic data package containing the results for one field sample. Level III Data Validation was performed according to guidance from *USEPA National Functional Guidelines for Organic Data Review, USEPA National Functional Guidelines for Inorganic Data Review* and the project specific Quality Assurance Project Plan.

The following samples were reviewed:

Sample ID	Lab ID	Collection Date/Time	Analyses
MWQ 14	21511141401	11/13/2015 09:25 AM	[1-11]

Analyses Performed Codes:

[1] TAL Metals (total) – SW-846 6020A
[2] Mercury (total) – SW-846 7470A
[3] TAL Metals (Dissolved) – SW-846 6020A
[4] Mercury (Dissolved) – SW-846 7470A
[5] Sulfate and Chloride – EPA 300.0
[6] Nitrate and Nitrite – EPA 300.0
[7] Total Cyanide – SW-846 9012B
[8] Total Alkalinity – SM 2320B
[9] Total Dissolved Solids – SM 2540C
[10] Hexavalent Chromium – EPA 218.6 (ALS Environmental)
[11] Perchlorate – SW-846 6860 (DHL Analytical)

DATA VALIDATION COMPONENTS

The data presented in this validation report was reviewed using a systematic process for evaluating performance and compliance of a set of data when compared to a set of standards to ascertain its completeness, correctness, and consistency using the methods and/or project defined criteria. The following components, as applicable to each analytical method, were reviewed in conducting the data validation:

- Data Completeness and Deliverables
- Sample Receipt (Chain of Custody Record)
    - Sample ID
    - Collection Date/Time
    - Matrix
    - Analysis Requests
- Chemical/Temperature Preservation
- Holding Times
- Analytical/Method Performance
    - Instrument Performance Checks
    - Instrument Calibrations
        - Stability of Analyte Response (Average Response Factor)
        - Linearity of Analytical Response (Correlation Coefficient)
        - Initial Calibration (multi-point)
        - Calibration Verification
    - Method Quality Controls
        - Instrument/Method Blank
        - Laboratory Control Sample
        - Laboratory Duplicate/Replicate
        - Surrogates
        - Internal Standards
        - Interference Check Sample
        - ICP Serial Dilution
    - Preparation Batch Quality Control
        - Preparation Blank
        - Laboratory Control Sample
        - Matrix Spikes
- Field Quality Controls
    - Field Duplicate
    - Field/Equipment Rinsate/Trip Blanks

Unless specifically stated otherwise in the method summary sections of this report, all components evaluated and data presented by the laboratory met the applicable acceptance criteria and are considered fully usable.

DATA VALIDATION FINDINGS SUMMARY

I. General Package:

A laboratory data package compliant for Level III data validation was received on December 17, 2015.

When necessary, dilution analyses were performed to minimize sample matrix interference and/or obtain analyte measurements within the linear range of calibration. Reporting limits were adjusted accordingly.

II. Method SW-846 6020A – TAL metals (total)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

III. Method SW-846 6020A – TAL metals (dissolved)

Several analyte concentrations of total metals were less than the concentration of the corresponding dissolved analyte concentrations. The laboratory attributed this anomaly to lack of homogeneity between field sample aliquots. No gross differences were observed.

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

IV. Method SW-846 7470A – Mercury (total)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

V. Method SW-846 7470A – Mercury (dissolved)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VI. Method EPA 300.0 – Sulfate and Chloride

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VII. Method EPA 300.0 – Nitrate and Nitrite

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VIII. Method SW-846 9012B – Total Cyanide

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

IX. Method SM 2320B – Total Alkalinity

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

X. Method SM 2540C - Total Dissolved Solids

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XI. Method EPA 218.6 – Hexavalent Chromium, Dissolved

The Dissolved Hexavalent Chromium analyses were performed by ALS Environmental in Rochester, New York.

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XII. Method SW-846 6860 – Perchlorate

The Perchlorate analyses were performed by DHL Analytical in Round Rock, Texas.

Recovery of Perchlorate in the matrix spike duplicate (MSD) analysis of sample MWQ 14 exceeded lower acceptance criteria. Acceptable recoveries of this analyte were achieved in the associated matrix spike (MS) and laboratory control sample (LCS) analyses. No data qualifications were necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

Table 1-1

SUMMARY OF QUALIFIED DATA

No data qualifications were applied.

Table 1-2

DATA QUALIFIER REFERENCE

Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limits of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification.”
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

Appendix I
Form 1 Data (Qualified)

Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Quarterly

SDG: 215111414

COC Sample ID: **MWQ 14** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21511141401** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	11/13/2015 9:25	11/24/2015 1:21	5	100	67.1	J	67.1	J	ug/L
Antimony	11/13/2015 9:25	11/24/2015 1:21	5	10	2.5	U	2.5	U	ug/L
Arsenic	11/13/2015 9:25	11/24/2015 1:21	5	5	1.37	J	1.37	J	ug/L
Barium	11/13/2015 9:25	11/24/2015 1:21	5	5	11.7		11.7		ug/L
Beryllium	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Cadmium	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Calcium	11/13/2015 9:25	11/24/2015 1:21	5	2500	94000		94000		ug/L
Chromium	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Cobalt	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Copper	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Iron	11/13/2015 9:25	11/24/2015 1:21	5	500	125	U	125	U	ug/L
Lead	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Magnesium	11/13/2015 9:25	11/24/2015 1:17	100	10000	71600		71600		ug/L
Manganese	11/13/2015 9:25	11/24/2015 1:21	5	25	6.25	U	6.25	U	ug/L
Molybdenum	11/13/2015 9:25	11/24/2015 1:21	5	5	25.6		25.6		ug/L
Nickel	11/13/2015 9:25	11/24/2015 1:21	5	10	25.5		25.5		ug/L
Potassium	11/13/2015 9:25	11/24/2015 1:21	5	500	11200		11200		ug/L
Selenium	11/13/2015 9:25	11/24/2015 1:21	5	5	24.3		24.3		ug/L
Silver	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Sodium	11/13/2015 9:25	11/24/2015 1:17	100	10000	797000		797000		ug/L
Thallium	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Titanium	11/13/2015 9:25	11/24/2015 1:21	5	5	1.25	U	1.25	U	ug/L
Vanadium	11/13/2015 9:25	11/24/2015 1:21	5	5	5.6		5.6		ug/L
Zinc	11/13/2015 9:25	11/24/2015 1:21	5	100	25	U	25	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum	11/13/2015 9:25	11/24/2015 1:48	5	100	167		167		ug/L
Antimony	11/13/2015 9:25	11/24/2015 1:48	5	10	2.5	U	2.5	U	ug/L
Arsenic	11/13/2015 9:25	11/24/2015 1:48	5	5	1.37	J	1.37	J	ug/L
Barium	11/13/2015 9:25	11/24/2015 1:48	5	5	11.3		11.3		ug/L
Beryllium	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Quarterly

SDG: 215111414

COC Sample ID: **MWQ 14**
Location ID: **NA**
Lab Sample ID: **21511141401**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Lab Code: **GCAL**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Calcium	11/13/2015 9:25	11/24/2015 1:48	5	2500	94100		94100		ug/L
Chromium	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Cobalt	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Copper	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Iron	11/13/2015 9:25	11/24/2015 1:48	5	500	125	U	125	U	ug/L
Lead	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Magnesium	11/13/2015 9:25	11/24/2015 1:44	100	10000	69100		69100		ug/L
Manganese	11/13/2015 9:25	11/24/2015 1:48	5	25	6.25	U	6.25	U	ug/L
Molybdenum	11/13/2015 9:25	11/24/2015 1:48	5	5	25		25		ug/L
Nickel	11/13/2015 9:25	11/24/2015 1:48	5	10	25.3		25.3		ug/L
Potassium	11/13/2015 9:25	11/24/2015 1:48	5	500	11000		11000		ug/L
Selenium	11/13/2015 9:25	11/24/2015 1:48	5	5	25.6		25.6		ug/L
Silver	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Sodium	11/13/2015 9:25	11/24/2015 1:44	100	10000	775000		775000		ug/L
Thallium	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Titanium	11/13/2015 9:25	11/24/2015 1:48	5	5	1.25	U	1.25	U	ug/L
Vanadium	11/13/2015 9:25	11/24/2015 1:48	5	5	5.56		5.56		ug/L
Zinc	11/13/2015 9:25	11/24/2015 1:48	5	100	25	U	25	U	ug/L
Method: EPA 7470A									
Mercury	11/13/2015 9:25	11/19/2015 14:43	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury	11/13/2015 9:25	11/19/2015 16:23	1	0.2	0.1	U	0.1	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Quarterly

SDG: 215111414

COC Sample ID: **MWQ 14**
Location ID: **NA**
Lab Sample ID: **1511146-01**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Lab Code: **GCAL**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	11/13/2015 9:25	12/01/2015 12:18	1	0.0003	0.00405		0.00405		mg/L

DF = Dilution Factor RL = Reporting Limit

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eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Quarterly

SDG: 215111414

COC Sample ID: **MWQ 14** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21511141401** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 300.0, Rev 2.1									
Chloride	11/13/2015 9:25	11/14/2015 19:32	500	100	600		600		mg/L
Nitrate	11/13/2015 9:25	11/14/2015 17:13	5	1	2.5		2.5		mg/L
Nitrite	11/13/2015 9:25	11/14/2015 17:13	5	1	0.5	U	0.5	U	mg/L
Sulfate	11/13/2015 9:25	11/14/2015 19:32	500	100	912		912		mg/L
Method: EPA 9012B									
Cyanide	11/13/2015 9:25	11/24/2015 1:13	1	0.005	0.0012	U	0.0012	U	mg/L
Method: SM 2320 B-2011									
Total Alkalinity	11/13/2015 9:25	11/22/2015 17:00	1	1	151		151		mg/L
Method: SM 2540 C-2011									
Total Dissolved Solids(TDS)	11/13/2015 9:25	11/16/2015 15:30	1	10	2140		2140		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Quarterly

SDG: 215111414

COC Sample ID: **MWQ 14** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509914-001** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	11/13/2015 9:25	12/04/2015 15:35	1	0.02	0.462		0.462		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Appendix II
Chain of Custody

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1of 1
Project Number: A012-113
Chain of Custody Number (1): 13-11-15-01

Facility: ~~Holloman Air Force Base~~ Mel Rose Range
Project Name / Site Name: Melrose AFR ~~Annual~~ Quarterly
Client Name: Trinity
Project Manager: ~~Tony Lucero~~ Jonathan Kramer
Collected by: T Lucero

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	metals (total) 6020/7470	Cyanide (9012A)	Nitrate, Nitrite (300)	chloride, sulfate (300)	Alkalinity 2320	TDS 2540C				Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MWQ 14		13-11-2015	0925		N	1	WG	5	X	X	X	X	X	X							1-1

Sample Analysis Requested (5) / Quality Assurance Samples (6)

Comments: 7749 3420 3400 2DE24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	[signature]	11-13-15	1600			
2.	FedEx	11-14-15	10:10	Doodie McClure	11-14-15	10:10
3.						

Sample Delivery Details / Laboratory Receipt
Delivered Directly to Lab: ____ Shipped: No.: ____
Method of Shipment: ____ Airbill Number: ____
Analytical Lab: ____ Delivery Location: ____
Lab Recipient: ____ Delivery Date/Time: ____

1.) Chain of Custody Number = site name (e.g., SS125) and then date (yyyymmdd) collected + custody number (e.g. SS125-20110902-01)... September 2, 2011.
2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)
3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/11 = 01, if sampled again on 10/10/11 = 02, etc.)
4.) Matrix Codes: GS = Soil Gas, WG = Ground Water, WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks
5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.
6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on May 10, 2011 in association with samples on the COC will be designated 10051101 in the Blank Lot Control Number field).
7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: ST069-MW-08S-c

1.4 11.17.85

Client ID: 4747 - TRINITY Analysis & Development Corp.
SDG: 215111414
PM: RCH2

Data Validation Report

Melrose AFR Semi-Annual

Trinity Analysis & Development Corp

SDG: 215102304 Date: December 11, 2015

Environmental Data Professional, LLC
1432 Watkins Street • Lake Charles, LA 70601 • phone: 337-540-0036 • fax: 337-478-6061

Disclaimer:

The validation performed and reported herein is based on specifications and procedures presented to eDATApro with the associated data package. Any qualifications or review not specified with package requirements was based on USEPA National Functional Guidelines for Inorganic and Organic Data Review.

Information contained in this report is based solely on the hardcopy and/or electronic deliverables that were submitted to eDATApro. eDATApro reserves the rights to modify or change the validation report if new information is presented or if this report is determined to be inaccurate or incomplete.

Cover Letter

Validation Report Date: December 11, 2015

Sample Delivery Group: 215102304

Project Name: Melrose AFR Semi-Annual

Data validation personnel: Dana Hebert and Tony Duhon

Validation Report:

__✓__ Introduction

__✓__ Sample Identification Cross- Reference Table

__✓__ Data Validation Components

__✓__ Data Validation Findings Summary

__✓__ Table 1-1, Summary of Qualified Data

__✓__ Table 1-2, Data Qualifier Reference Table

__✓__ Appendix I, Form I Data (qualified)

__✓__ Appendix II, Chain of Custody

Approval Signature: Anthony J Duhon Date: December 11, 2015

INTRODUCTION:

SDG: 215102304
Project Name: Melrose AFR Semi-Annual
Laboratory: GCAL Analytical Laboratories/ALS Environmental/DHL Analytical
Matrix: Water

Environmental Data Professional, LLC (eDATApro) received one electronic data package containing the results for ten field samples, one field duplicate, one matrix spike pair and seven trip blanks. Level III Data Validation was performed according to guidance from *USEPA National Functional Guidelines for Organic Data Review, USEPA National Functional Guidelines for Inorganic Data Review* and the project specific Quality Assurance Project Plan.

The following samples were reviewed:

Sample ID	Lab ID	Collection Date/Time	Analyses
M114MW001	21510230401	10/22/2015 11:10 AM	[1-13]
M114MW004	21510230402	10/22/2015 09:10 AM	[1-13]
TB-01	21510230403	10/22/2015 09:10 AM	[1]
MA01MW002	21510230404	10/22/2015 12:38 PM	[1-13]
MA01MW004	21510230405	10/22/2015 01:48 PM	[1-13]
TB-03	21510230406	10/22/2015 12:38 PM	[1]
MA01MW001	21510230407	10/22/2015 12:55 PM	[1-13]
MA01MW001-MS	21510230408	10/22/2015 12:55 PM	[1-13]
TB-04	21510230409	10/22/2015 12:55 PM	[1]
MA01MW001-MSD	21510230410	10/22/2015 12:55 PM	[1-13]
MA01MW003	21510230411	10/22/2015 02:45 PM	[1-13]
TB-05	21510230412	10/22/2015 02:45 PM	[1]
M114MW002	21510230413	10/22/2015 09:17 AM	[1-13]
M114MW003	21510230414	10/22/2015 10:23 AM	[1-13]
TB-02	21510230415	10/22/2015 09:17 AM	[1]
MA02MW001D	21510230416	10/23/2015 08:55 AM	[1-13]
MA02MW001D-a	21510230417	10/23/2015 08:55 AM	[1-13]
TB-06	21510230418	10/23/2015 08:55 AM	[1]
MWQ-24	21510230419	10/23/2015 10:55 AM	[1-13]
TB-08	21510230420	10/23/2015 10:55 AM	[1]

Analyses Performed Codes:

[1] Volatile Organics – SW-846 8260B
[2] Explosives – SW-846 8330
[3] TAL Metals (total) – SW-846 6020A
[4] Mercury (total) – SW-846 7470A
[5] TAL Metals (Dissolved) – SW-846 6020A
[6] Mercury (Dissolved) – SW-846 7470A
[7] Sulfate and Chloride – EPA 300.0
[8] Nitrate and Nitrite – EPA 300.0

[9] Total Cyanide – SW-846 9012B
[10] Total Alkalinity – SM 2320B
[11] Total Dissolved Solids – SM 2540C
[12] Hexavalent Chromium – EPA 218.6 (ALS Environmental)
[13] Perchlorate – SW-846 6860 (DHL Analytical)

DATA VALIDATION COMPONENTS

The data presented in this validation report was reviewed using a systematic process for evaluating performance and compliance of a set of data when compared to a set of standards to ascertain its completeness, correctness, and consistency using the methods and/or project defined criteria. The following components, as applicable to each analytical method, were reviewed in conducting the data validation:

- Data Completeness and Deliverables
- Sample Receipt (Chain of Custody Record)
    - Sample ID
    - Collection Date/Time
    - Matrix
    - Analysis Requests
- Chemical/Temperature Preservation
- Holding Times
- Analytical/Method Performance
    - Instrument Performance Checks
    - Instrument Calibrations
        - Stability of Analyte Response (Average Response Factor)
        - Linearity of Analytical Response (Correlation Coefficient)
        - Initial Calibration (multi-point)
        - Calibration Verification
    - Method Quality Controls
        - Instrument/Method Blank
        - Laboratory Control Sample
        - Laboratory Duplicate/Replicate
        - Surrogates
        - Internal Standards
        - Interference Check Sample
        - ICP Serial Dilution
    - Preparation Batch Quality Control
        - Preparation Blank
        - Laboratory Control Sample
        - Matrix Spikes
- Field Quality Controls
    - Field Duplicate
    - Field/Equipment Rinsate/Trip Blanks

Unless specifically stated otherwise in the method summary sections of this report, all components evaluated and data presented by the laboratory met the applicable acceptance criteria and are considered fully usable.

DATA VALIDATION FINDINGS SUMMARY

I. General Package:

A Level III laboratory data package was received on November 14, 2015. A resubmission, received on November 18, 2015, was necessary to correct the IDs for samples M114MW002 and M114MW003 and to provide legible quality control summaries for the analyses subcontracted to ALS Environmental.

When necessary, dilution analyses were performed to minimize sample matrix interference and/or obtain analyte measurements within the linear range of calibration. Reporting limits were adjusted accordingly.

Comparisons between concentrations of target analytes in sample MA02MW001D and field duplicate MA02MW001D-a were within field precision acceptance criteria unless noted otherwise in the analytical method sections below.

II. Method SW-846 8260B - Volatile Organic Analyses:

Comparison between the relative response factors (RRF) of 2-Hexanone and Chloroethane in the continuing calibration verification (CCV) standards preceding the analyses of samples from this SDG to the average RRFs from the initial calibration analyses exceeded upper percent difference (%D) acceptance criteria. These analytes were not present in the associated field samples. No data qualifications were necessary. In instances where the laboratory applied a “Q” qualifier to results, these laboratory notations were removed.

Recovery of Acetone in the laboratory control sample analyses (LCS/LCSD) associated with the analyses of numerous samples from this SDG exceeded upper acceptance criteria. This analyte was not detected in these samples. No data qualifications were necessary. In instances where the laboratory applied a “Q” qualifier to results, these laboratory notations were removed.

An estimate concentration of Methylene Chloride was present in trip blank sample TB-01. This analyte was not detected in the associated field samples. No data qualifications were necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

III. Method SW-846 8330 - Explosives

Recovery of HMX in the LCSD analysis associated with the analyses of samples from this SDG and in the matrix spike analyses (MS/MSD) of sample MA01MW001 exceeded lower acceptance criteria. Recoveries of 1,3,5-Trinitrobenzene in the MS and MSD analyses also exceeded lower acceptance criteria. The results of these analytes for field samples from this SDG were modified to non-detect estimate (UJ).

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

IV. Method SW-846 6020A – TAL metals (total)

Recovery of Aluminum in a detection limit standard (LLCCV) bracketing the analyses of samples MA02MW001D, MA02MW001D-a and MWQ-24 exceeded upper acceptance criteria. Of the associated samples, this analyte was not detected in samples MA02MW001D and MA02MW001D-a, so no data qualification was necessary. The estimate concentration of Aluminum in sample MWQ-24 was modified to estimate with positive bias (J+).

Recoveries of Sodium in the LLCCVs bracketing the analyses of samples M114MW002 and M114MW003 exceeded upper acceptance criteria. Measurements of Sodium in these samples were significantly greater than the reporting limit. No data qualifications were necessary.

Aluminum was present in the preparation blank from batch 555584. The estimate concentration of sample MA01MW003 was less than five times (<5x) the blank contamination; adjusted for sample dilution, and therefore, was modified to non-detect (U) at the sample reporting limit.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

V. Method SW-846 6020A – TAL metals (dissolved)

Recoveries of Sodium in the LLCCVs bracketing several analyses of dissolved Sodium in field samples from this SDG exceeded upper acceptance criteria. Measurements of dissolved Sodium in the associated samples were significantly greater than the reporting limit. No data qualifications were necessary.

Recoveries of dissolved Sodium in the MS and MSD analyses of sample MA01MW001 exceeded acceptance criteria; however, the un-spiked sample concentration of this analyte was greater than four times (4x) the concentration of the analyte fortification. No data qualifications were applied based upon these recoveries.

Recoveries of dissolved Barium, Magnesium, Manganese and Sodium in the MS and MSD analyses of a sample from a separate SDG exceeded acceptance criteria; however, the un-spiked sample concentrations of these analytes were greater than four times (4x) the concentrations of the analyte fortifications. No data qualifications were applied based upon these recoveries.

Recoveries of dissolved Selenium in the MS analysis associated with samples MA02MW001D, MA02MW001D–a and MWQ-24 exceeded lower acceptance criteria. Comparison between the measurements of dissolved Selenium in the MS and MSD exceeded precision acceptance criteria. The estimate concentration reported for sample MWQ-24 did not require any further qualification. The concentrations of dissolved Selenium for samples MA02MW001D, MA02MW001D–a were modified to estimate (J).

Recoveries of dissolved Silver in the MS and MSD analyses associated with samples MA02MW001D, MA02MW001D–a and MWQ-24 exceeded lower acceptance

criteria, respectively. The dissolved Silver results for these samples were modified to non-detect estimate (UJ).

Several analyte concentrations of total metals were less than the concentration of the corresponding dissolved analyte concentrations. The laboratory attributed this anomaly to lack of homogeneity between field sample aliquots. No gross differences were observed.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

VI. Method SW-846 7470A – Mercury (total)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VII. Method SW-846 7470A – Mercury (dissolved)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VIII. Method EPA 300.0 – Sulfate, Chloride, Nitrate and Nitrite

Chloride was present at an estimate concentration in the preparation blank associated with sample MWQ-24. The Chloride concentration of this sample was significantly greater than the blank contamination. No data qualification was necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

IX. Method SW-846 9012B – Total Cyanide

Cyanide was present at an estimate concentration in the preparation blank associated with samples from this SDG. Samples reported as non-detect were not affected. The estimate concentrations reported for other samples were modified to non-detect (U) at the reporting limit.

Recoveries of Cyanide in the MS analysis of sample M114MW001 exceeded lower acceptance criteria. Acceptable recoveries of this analyte were achieved in the LCS and LCSD analyses and the MS and MSD analyses of sample MA01MW001. Overall matrix interference was not indicated. The previously modified result of non-detect for sample M114MW001 was modified to non-detect estimate (UJ).

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

X. Method SM 2320B – Total Alkalinity

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XI. Method SM 2540C - Total Dissolved Solids

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XII. Method EPA 218.6 – Hexavalent Chromium, Dissolved

The Dissolved Hexavalent Chromium analyses were performed by ALS Environmental in Rochester, New York.

Dissolved Hexavalent Chromium was present at an estimate concentration in the method blank and continuing calibration blank (CCB) analyses associated with samples M114MW002, M114MW003 and M114MW004. The concentrations of this analyte in these samples were significantly greater than the blank contamination. No data qualifications were necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

XIII. Method SW-846 6860 – Perchlorate

The Perchlorate analyses were performed by DHL Analytical in Round Rock, Texas.

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

Table 1-1

SUMMARY OF QUALIFIED DATA

Target Compound	Sample(s) Affected	Lab Result	Lab Qual	Val Result	Val Qual	Units	Reason for Qualification
2-Hexanone	M114MW001	0.5	UQ	0.5	U	ug/L	Removal of lab qualifier.
	M114MW002	0.5	UQ	0.5	U	ug/L	
	M114MW003	0.5	UQ	0.5	U	ug/L	
	M114MW004	0.5	UQ	0.5	U	ug/L	
	MA01MW001	0.5	UQ	0.5	U	ug/L	
	MA01MW002	0.5	UQ	0.5	U	ug/L	
	MA01MW003	0.5	UQ	0.5	U	ug/L	
	MA01MW004	0.5	UQ	0.5	U	ug/L	
	MA02MW001D	0.5	UQ	0.5	U	ug/L	
	TB-01	0.5	UQ	0.5	U	ug/L	
	TB-02	0.5	UQ	0.5	U	ug/L	
	TB-03	0.5	UQ	0.5	U	ug/L	
	TB-04	0.5	UQ	0.5	U	ug/L	
	TB-05	0.5	UQ	0.5	U	ug/L	
Acetone	M114MW001	0.5	UQ	0.5	U	ug/L	
	M114MW002	0.5	UQ	0.5	U	ug/L	
	M114MW003	0.5	UQ	0.5	U	ug/L	
	M114MW004	0.5	UQ	0.5	U	ug/L	
	MA01MW001	0.5	UQ	0.5	U	ug/L	
	MA01MW002	0.5	UQ	0.5	U	ug/L	
	MA01MW003	0.5	UQ	0.5	U	ug/L	
	MA01MW004	0.5	UQ	0.5	U	ug/L	
	MA02MW001D	0.5	UQ	0.5	U	ug/L	
	TB-01	0.5	UQ	0.5	U	ug/L	
	TB-02	0.5	UQ	0.5	U	ug/L	
	TB-03	0.5	UQ	0.5	U	ug/L	
	TB-04	0.5	UQ	0.5	U	ug/L	
	TB-05	0.5	UQ	0.5	U	ug/L	
Chloroethane	MA02MW001D-a	0.25	UQ	0.25	U	ug/L	
	MWQ-24	0.25	UQ	0.25	U	ug/L	
	TB-06	0.25	UQ	0.25	U	ug/L	
	TB-08	0.25	UQ	0.25	U	ug/L	
1,3,5-Trinitrobenzene	M114MW001	0.5	U	0.5	UJ	ug/L	Low recoveries in MS & MSD.
	M114MW002	0.5	U	0.5	UJ	ug/L	
	M114MW003	0.5	U	0.5	UJ	ug/L	
	M114MW004	0.5	U	0.5	UJ	ug/L	
	MA01MW002	0.5	U	0.5	UJ	ug/L	
	MA01MW003	0.5	U	0.5	UJ	ug/L	
	MA01MW004	0.5	U	0.5	UJ	ug/L	
	MA02MW001D	0.5	U	0.5	UJ	ug/L	
	MA02MW001D-a	0.5	U	0.5	UJ	ug/L	
	MWQ-24	0.5	U	0.5	UJ	ug/L	
HMX	M114MW001	0.5	UQ	0.5	UJ	ug/L	Low recoveries in LCSD, MS & MSD.
	M114MW002	0.5	UQ	0.5	UJ	ug/L	
	M114MW003	0.5	UQ	0.5	UJ	ug/L	
	M114MW004	0.5	UQ	0.5	UJ	ug/L	
	MA01MW001	0.5	UQJ	0.5	UJ	ug/L	
	MA01MW002	0.5	UQ	0.5	UJ	ug/L	
	MA01MW003	0.5	UQ	0.5	UJ	ug/L	
	MA01MW004	0.5	UQ	0.5	UJ	ug/L	

HMX	MA02MW001D	0.5	UQ	0.5	UJ	ug/L	Low recoveries in LCSD, MS & MSD.
	MA02MW001D-a	0.5	UQ	0.5	UJ	ug/L	
	MWQ-24	0.5	UQ	0.5	UJ	ug/L	
Aluminum	MA01MW003	11.9	J	40	U	ug/L	Analyte present in preparation blank.
	MWQ-24	12	J	12	J+	ug/L	High recovery in LLCCV.
Selenium, Dissolved	MA02MW001D	65.3		65.3	J	ug/L	High RPD between MS & MSD.
	MA02MW001D-a	69.3		69.3	J	ug/L	
Silver, Dissolved	MA02MW001D	2.5	U	2.5	UJ	ug/L	Low recoveries in MS & MSD.
	MA02MW001D-a	2.5	U	2.5	UJ	ug/L	
	MWQ-24	0.25	U	0.25	UJ	ug/L	
Cyanide	M114MW001	0.002	J	0.005	UJ	mg/L	Analyte present in method blank. Low recovery in MS.
	M114MW002	0.003	J	0.005	U	mg/L	Analyte present in method blank.
	M114MW003	0.002	J	0.005	U	mg/L	
	M114MW004	0.002	J	0.005	U	mg/L	
	MA01MW001	0.002	J	0.005	U	mg/L	
	MA01MW002	0.002	J	0.005	U	mg/L	
	MA02MW001D	0.002	J	0.005	U	mg/L	
	MA02MW001D-a	0.002	J	0.005	U	mg/L	
	MWQ-24	0.002	J	0.005	U	mg/L	

Table 1-2

DATA QUALIFIER REFERENCE

Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limits of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification.”
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

LABORATORY QUALIFIER

Qualifier	Definition
Q	LCS/LCSD recovery and/or RPD was outside control limits/CCV did not meet acceptance criteria.

Appendix I
Form 1 Data (Qualified)

Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001**
Location ID: **NA**
Lab Sample ID: **21510230401**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 11:10**
Analysis Date: **10/26/2015 2:34**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001**
Location ID: **NA**
Lab Sample ID: **21510230401**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 11:10**
Analysis Date: **10/26/2015 2:34**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004**
Location ID: **NA**
Lab Sample ID: **21510230402**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:10**
Analysis Date: **10/26/2015 2:54**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004**
Location ID: **NA**
Lab Sample ID: **21510230402**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:10**
Analysis Date: **10/26/2015 2:54**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-01**
Location ID: **NA**
Lab Sample ID: **21510230403**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:10**
Analysis Date: **10/26/2015 3:13**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-01**
Location ID: **NA**
Lab Sample ID: **21510230403**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:10**
Analysis Date: **10/26/2015 3:13**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.611	J	0.611	J	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002**
Location ID: **NA**
Lab Sample ID: **21510230404**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:38**
Analysis Date: **10/26/2015 3:33**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002**
Location ID: **NA**
Lab Sample ID: **21510230404**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:38**
Analysis Date: **10/26/2015 3:33**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004**
Location ID: **NA**
Lab Sample ID: **21510230405**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 13:48**
Analysis Date: **10/26/2015 3:52**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004**
Location ID: **NA**
Lab Sample ID: **21510230405**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 13:48**
Analysis Date: **10/26/2015 3:52**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-03**
Location ID: **NA**
Lab Sample ID: **21510230406**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:38**
Analysis Date: **10/26/2015 4:12**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-03**
Location ID: **NA**
Lab Sample ID: **21510230406**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:38**
Analysis Date: **10/26/2015 4:12**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001**
Location ID: **NA**
Lab Sample ID: **21510230407**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:55**
Analysis Date: **10/26/2015 0:56**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001**
Location ID: **NA**
Lab Sample ID: **21510230407**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:55**
Analysis Date: **10/26/2015 0:56**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-04**
Location ID: **NA**
Lab Sample ID: **21510230409**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:55**
Analysis Date: **10/26/2015 4:31**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-04**
Location ID: **NA**
Lab Sample ID: **21510230409**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:55**
Analysis Date: **10/26/2015 4:31**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003**
Location ID: **NA**
Lab Sample ID: **21510230411**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 14:45**
Analysis Date: **10/26/2015 4:51**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003**
Location ID: **NA**
Lab Sample ID: **21510230411**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 14:45**
Analysis Date: **10/26/2015 4:51**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-05**
Location ID: **NA**
Lab Sample ID: **21510230412**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 14:45**
Analysis Date: **10/26/2015 5:10**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-05**
Location ID: **NA**
Lab Sample ID: **21510230412**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 14:45**
Analysis Date: **10/26/2015 5:10**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002**
Location ID: **NA**
Lab Sample ID: **21510230413**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:17**
Analysis Date: **10/26/2015 5:29**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002**
Location ID: **NA**
Lab Sample ID: **21510230413**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:17**
Analysis Date: **10/26/2015 5:29**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003**
Location ID: **NA**
Lab Sample ID: **21510230414**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 10:23**
Analysis Date: **10/26/2015 5:49**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003**
Location ID: **NA**
Lab Sample ID: **21510230414**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 10:23**
Analysis Date: **10/26/2015 5:49**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-02**
Location ID: **NA**
Lab Sample ID: **21510230415**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:17**
Analysis Date: **10/26/2015 6:08**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-02**
Location ID: **NA**
Lab Sample ID: **21510230415**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:17**
Analysis Date: **10/26/2015 6:08**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D**
Location ID: **NA**
Lab Sample ID: **21510230416**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/26/2015 6:27**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L	
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L	
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L	
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L	
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L	
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L	
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L	
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L	
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
591-78-6	2-Hexanone	1	5	0.5	UQ	0.5	U	ug/L	*
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L	
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L	
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L	
67-64-1	Acetone	1	5	0.5	UQ	0.5	U	ug/L	*
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L	
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L	
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L	
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L	
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L	
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L	
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L	
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L	
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D**
Location ID: **NA**
Lab Sample ID: **21510230416**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/26/2015 6:27**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
75-00-3	Chloroethane	1	1	0.25	U	0.25	U	ug/L
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a**
Location ID: **NA**
Lab Sample ID: **21510230417**
Sample Type: **Field Duplicate**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/27/2015 19:38**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
591-78-6	2-Hexanone	1	5	0.5	U	0.5	U	ug/L
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L
67-64-1	Acetone	1	5	0.5	U	0.5	U	ug/L
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a**
Location ID: **NA**
Lab Sample ID: **21510230417**
Sample Type: **Field Duplicate**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/27/2015 19:38**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
75-00-3	Chloroethane	1	1	0.25	UQ	0.25	U	ug/L	*
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L	
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L	
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L	
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L	
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L	
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L	
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L	
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L	
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L	
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L	
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L	
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L	
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L	
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L	
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L	
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L	
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L	
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L	
75-01-4	Vinyl chloride	1	1	0.33	J	0.33	J	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-06**
Location ID: **NA**
Lab Sample ID: **21510230418**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/27/2015 19:57**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
591-78-6	2-Hexanone	1	5	0.5	U	0.5	U	ug/L
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L
67-64-1	Acetone	1	5	0.5	U	0.5	U	ug/L
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-06**
Location ID: **NA**
Lab Sample ID: **21510230418**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**
Analysis Date: **10/27/2015 19:57**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
75-00-3	Chloroethane	1	1	0.25	UQ	0.25	U	ug/L	*
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L	
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L	
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L	
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L	
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L	
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L	
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L	
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L	
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L	
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L	
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L	
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L	
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L	
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L	
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L	
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L	
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L	
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L	
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24**
Location ID: **NA**
Lab Sample ID: **21510230419**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 10:55**
Analysis Date: **10/27/2015 21:14**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
591-78-6	2-Hexanone	1	5	0.5	U	0.5	U	ug/L
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L
67-64-1	Acetone	1	5	0.5	U	0.5	U	ug/L
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24**
Location ID: **NA**
Lab Sample ID: **21510230419**
Sample Type: **Site Sample**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 10:55**
Analysis Date: **10/27/2015 21:14**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
75-00-3	Chloroethane	1	1	0.25	UQ	0.25	U	ug/L	*
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L	
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L	
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L	
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L	
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L	
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L	
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L	
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L	
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L	
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L	
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L	
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L	
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L	
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L	
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L	
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L	
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L	
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L	
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-08**
Location ID: **NA**
Lab Sample ID: **21510230420**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 10:55**
Analysis Date: **10/27/2015 21:33**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	1	0.2	U	0.2	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	1	0.2	U	0.2	U	ug/L
75-34-3	1,1-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
75-35-4	1,1-Dichloroethene	1	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	1	0.2	U	0.2	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	1	0.2	U	0.2	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	1	0.2	U	0.2	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	1	0.2	U	0.2	U	ug/L
106-93-4	1,2-Dibromoethane	1	1	0.2	U	0.2	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
107-06-2	1,2-Dichloroethane	1	1	0.2	U	0.2	U	ug/L
78-87-5	1,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	1	0.2	U	0.2	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
142-28-9	1,3-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	1	0.2	U	0.2	U	ug/L
594-20-7	2,2-Dichloropropane	1	1	0.2	U	0.2	U	ug/L
78-93-3	2-Butanone	1	5	0.2	U	0.2	U	ug/L
95-49-8	2-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
591-78-6	2-Hexanone	1	5	0.5	U	0.5	U	ug/L
106-43-4	4-Chlorotoluene	1	1	0.2	U	0.2	U	ug/L
99-87-6	4-Isopropyltoluene	1	1	0.2	U	0.2	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	5	0.2	U	0.2	U	ug/L
67-64-1	Acetone	1	5	0.5	U	0.5	U	ug/L
71-43-2	Benzene	1	1	0.2	U	0.2	U	ug/L
108-86-1	Bromobenzene	1	1	0.2	U	0.2	U	ug/L
74-97-5	Bromochloromethane	1	1	0.2	U	0.2	U	ug/L
75-27-4	Bromodichloromethane	1	1	0.2	U	0.2	U	ug/L
75-25-2	Bromoform	1	1	0.25	U	0.25	U	ug/L
74-83-9	Bromomethane	1	1	0.5	U	0.5	U	ug/L
75-15-0	Carbon disulfide	1	1	0.2	U	0.2	U	ug/L
56-23-5	Carbon tetrachloride	1	1	0.25	U	0.25	U	ug/L
108-90-7	Chlorobenzene	1	1	0.2	U	0.2	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **TB-08**
Location ID: **NA**
Lab Sample ID: **21510230420**
Sample Type: **Trip Blank**
Method: **EPA 8260B**

Sample Matrix : **Water**
Sample Date: **10/23/2015 10:55**
Analysis Date: **10/27/2015 21:33**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
75-00-3	Chloroethane	1	1	0.25	UQ	0.25	U	ug/L	*
67-66-3	Chloroform	1	1	0.2	U	0.2	U	ug/L	
74-87-3	Chloromethane	1	1	0.2	U	0.2	U	ug/L	
156-59-2	cis-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-01-5	cis-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
74-95-3	Dibromomethane	1	1	0.25	U	0.25	U	ug/L	
75-71-8	Dichlorodifluoromethane	1	1	0.2	U	0.2	U	ug/L	
100-41-4	Ethylbenzene	1	1	0.2	U	0.2	U	ug/L	
87-68-3	Hexachlorobutadiene	1	1	0.5	U	0.5	U	ug/L	
98-82-8	Isopropylbenzene (Cumene)	1	1	0.2	U	0.2	U	ug/L	
136777-61-2	m,p-Xylene	1	2	0.2	U	0.2	U	ug/L	
75-09-2	Methylene chloride	1	5	0.2	U	0.2	U	ug/L	
91-20-3	Naphthalene	1	1	0.2	U	0.2	U	ug/L	
104-51-8	n-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
103-65-1	n-Propylbenzene	1	1	1	U	1	U	ug/L	
95-47-6	o-Xylene	1	1	0.2	U	0.2	U	ug/L	
135-98-8	sec-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
100-42-5	Styrene	1	1	0.2	U	0.2	U	ug/L	
1634-04-4	tert-Butyl methyl ether (MTBE)	1	5	0.2	U	0.2	U	ug/L	
98-06-6	tert-Butylbenzene	1	1	0.2	U	0.2	U	ug/L	
127-18-4	Tetrachloroethene	1	1	0.2	U	0.2	U	ug/L	
108-88-3	Toluene	1	1	0.2	U	0.2	U	ug/L	
156-60-5	trans-1,2-Dichloroethene	1	1	0.2	U	0.2	U	ug/L	
10061-02-6	trans-1,3-Dichloropropene	1	1	0.2	U	0.2	U	ug/L	
79-01-6	Trichloroethene	1	1	0.2	U	0.2	U	ug/L	
75-69-4	Trichlorofluoromethane	1	1	0.2	U	0.2	U	ug/L	
75-01-4	Vinyl chloride	1	1	0.2	U	0.2	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **M114MW001**
Location ID: **NA**
Lab Sample ID: **21510230401**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 11:10**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 20:47	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 20:47	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 20:47	1	2	0.5	U	0.5	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **M114MW004**
Location ID: **NA**
Lab Sample ID: **21510230402**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:10**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 21:01	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 21:01	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 21:01	1	2	0.5	U	0.5	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA01MW002**
Location ID: **NA**
Lab Sample ID: **21510230404**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:38**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 21:15	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 21:15	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 21:15	1	2	0.5	U	0.5	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA01MW004**
Location ID: **NA**
Lab Sample ID: **21510230405**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 13:48**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 21:29	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 21:29	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 21:29	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA01MW001**
Location ID: **NA**
Lab Sample ID: **21510230407**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 12:55**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 21:43	1	2	0.5	UJ	0.5	UJ	ug/L	
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 21:43	1	2	0.5	UQJ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 21:43	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 21:43	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA01MW003**
Location ID: **NA**
Lab Sample ID: **21510230411**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 14:45**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 22:39	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 22:39	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 22:39	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **M114MW002**
Location ID: **NA**
Lab Sample ID: **21510230413**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 9:17**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 22:53	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 22:53	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 22:53	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **M114MW003**
Location ID: **NA**
Lab Sample ID: **21510230414**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/22/2015 10:23**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 23:07	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 23:07	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 23:07	1	2	0.5	U	0.5	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA02MW001D**
Location ID: **NA**
Lab Sample ID: **21510230416**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 23:21	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 23:21	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 23:21	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MA02MW001D-a**
Location ID: **NA**
Lab Sample ID: **21510230417**
Sample Type: **Field Duplicate**

Sample Matrix : **Water**
Sample Date: **10/23/2015 8:55**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 23:35	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 23:35	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 23:35	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215102304

COC Sample ID: **MWQ-24**
Location ID: **NA**
Lab Sample ID: **21510230419**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Sample Date: **10/23/2015 10:55**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	UJ	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
2691-41-0	HMX	EPA 8330A	10/29/2015 23:49	1	2	0.5	UQ	0.5	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	10/29/2015 23:49	1	2	0.75	U	0.75	U	ug/L	
121-82-4	RDX	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	
479-45-8	Tetryl	EPA 8330A	10/29/2015 23:49	1	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit
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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230401** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 11:10	10/28/2015 11:13	10	200	50	U	50	U	ug/L
Antimony	10/22/2015 11:10	10/28/2015 11:13	10	20	5	U	5	U	ug/L
Arsenic	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Barium	10/22/2015 11:10	10/28/2015 11:13	10	10	16.1		16.1		ug/L
Beryllium	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Calcium	10/22/2015 11:10	10/28/2015 11:13	10	5000	353000		353000		ug/L
Chromium	10/22/2015 11:10	10/28/2015 11:13	10	10	4.88	J	4.88	J	ug/L
Cobalt	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Copper	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Iron	10/22/2015 11:10	10/28/2015 11:13	10	1000	250	U	250	U	ug/L
Lead	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/22/2015 11:10	10/28/2015 11:09	1000	100000	283000		283000		ug/L
Manganese	10/22/2015 11:10	10/28/2015 11:13	10	50	12.5	U	12.5	U	ug/L
Molybdenum	10/22/2015 11:10	10/28/2015 11:13	10	10	17.7		17.7		ug/L
Nickel	10/22/2015 11:10	10/28/2015 11:13	10	20	5	U	5	U	ug/L
Potassium	10/22/2015 11:10	10/28/2015 11:13	10	1000	14800		14800		ug/L
Selenium	10/22/2015 11:10	10/28/2015 11:13	10	10	29.8		29.8		ug/L
Silver	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Sodium	10/22/2015 11:10	10/28/2015 11:09	1000	100000	2400000		2400000		ug/L
Thallium	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Titanium	10/22/2015 11:10	10/28/2015 11:13	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/22/2015 11:10	10/28/2015 11:13	10	10	6.7	J	6.7	J	ug/L
Zinc	10/22/2015 11:10	10/28/2015 11:13	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	16.1		16.1		ug/L
Beryllium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230401** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Calcium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	5000	345000		345000		ug/L
Chromium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	4.71	J	4.71	J	ug/L
Cobalt, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Copper, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Iron, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	1000	250	U	250	U	ug/L
Lead, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Magnesium, Dissolved	10/22/2015 11:10	10/28/2015 12:50	1000	100000	276000		276000		ug/L
Manganese, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	50	12.5	U	12.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	17.5		17.5		ug/L
Nickel, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	20	5	U	5	U	ug/L
Potassium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	1000	14500		14500		ug/L
Selenium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	29.5		29.5		ug/L
Silver, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Sodium, Dissolved	10/22/2015 11:10	10/28/2015 12:50	1000	100000	2380000		2380000		ug/L
Thallium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Titanium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	2.5	U	2.5	U	ug/L
Vanadium, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	10	6.22	J	6.22	J	ug/L
Zinc, Dissolved	10/22/2015 11:10	10/28/2015 12:53	10	200	50	U	50	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 11:10	10/27/2015 11:42	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 11:10	10/27/2015 12:16	1	0.2	0.1	U	0.1	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230402** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 9:10	10/28/2015 11:20	10	200	50	U	50	U	ug/L
Antimony	10/22/2015 9:10	10/28/2015 11:20	10	20	5	U	5	U	ug/L
Arsenic	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Barium	10/22/2015 9:10	10/28/2015 11:20	10	10	15.1		15.1		ug/L
Beryllium	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Calcium	10/22/2015 9:10	10/28/2015 11:20	10	5000	443000		443000		ug/L
Chromium	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Cobalt	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Copper	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Iron	10/22/2015 9:10	10/28/2015 11:20	10	1000	250	U	250	U	ug/L
Lead	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/22/2015 9:10	10/28/2015 11:16	1000	100000	359000		359000		ug/L
Manganese	10/22/2015 9:10	10/28/2015 11:20	10	50	12.5	U	12.5	U	ug/L
Molybdenum	10/22/2015 9:10	10/28/2015 11:20	10	10	12.1		12.1		ug/L
Nickel	10/22/2015 9:10	10/28/2015 11:20	10	20	5	U	5	U	ug/L
Potassium	10/22/2015 9:10	10/28/2015 11:20	10	1000	16100		16100		ug/L
Selenium	10/22/2015 9:10	10/28/2015 11:20	10	10	24.1		24.1		ug/L
Silver	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Sodium	10/22/2015 9:10	10/28/2015 11:16	1000	100000	2810000		2810000		ug/L
Thallium	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Titanium	10/22/2015 9:10	10/28/2015 11:20	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/22/2015 9:10	10/28/2015 11:20	10	10	6.86	J	6.86	J	ug/L
Zinc	10/22/2015 9:10	10/28/2015 11:20	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	15		15		ug/L
Beryllium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230402** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Calcium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	5000	438000		438000		ug/L
Chromium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Cobalt, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Copper, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Iron, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	1000	250	U	250	U	ug/L
Lead, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Magnesium, Dissolved	10/22/2015 9:10	10/28/2015 12:56	1000	100000	358000		358000		ug/L
Manganese, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	50	12.5	U	12.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	11.9		11.9		ug/L
Nickel, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	20	5	U	5	U	ug/L
Potassium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	1000	15900		15900		ug/L
Selenium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	23		23		ug/L
Silver, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Sodium, Dissolved	10/22/2015 9:10	10/28/2015 12:56	1000	100000	2800000		2800000		ug/L
Thallium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Titanium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	2.5	U	2.5	U	ug/L
Vanadium, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	10	6.7	J	6.7	J	ug/L
Zinc, Dissolved	10/22/2015 9:10	10/28/2015 13:00	10	200	50	U	50	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 9:10	10/27/2015 11:44	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 9:10	10/27/2015 12:19	1	0.2	0.1	U	0.1	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230404** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 12:38	10/28/2015 11:23	2	40	10	U	10	U	ug/L
Antimony	10/22/2015 12:38	10/28/2015 11:23	2	4	1	U	1	U	ug/L
Arsenic	10/22/2015 12:38	10/28/2015 11:23	2	2	0.78	J	0.78	J	ug/L
Barium	10/22/2015 12:38	10/28/2015 11:23	2	2	14.1		14.1		ug/L
Beryllium	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Cadmium	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Calcium	10/22/2015 12:38	10/28/2015 11:23	2	1000	47900		47900		ug/L
Chromium	10/22/2015 12:38	10/28/2015 11:23	2	2	1.46	J	1.46	J	ug/L
Cobalt	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Copper	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Iron	10/22/2015 12:38	10/28/2015 11:23	2	200	50	U	50	U	ug/L
Lead	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Magnesium	10/22/2015 12:38	10/27/2015 2:27	100	10000	41500		41500		ug/L
Manganese	10/22/2015 12:38	10/28/2015 11:23	2	10	2.5	U	2.5	U	ug/L
Molybdenum	10/22/2015 12:38	10/28/2015 11:23	2	2	7.17		7.17		ug/L
Nickel	10/22/2015 12:38	10/28/2015 11:23	2	4	1	U	1	U	ug/L
Potassium	10/22/2015 12:38	10/28/2015 11:23	2	200	6290		6290		ug/L
Selenium	10/22/2015 12:38	10/28/2015 11:23	2	2	4.72		4.72		ug/L
Silver	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Sodium	10/22/2015 12:38	10/27/2015 2:27	100	10000	545000		545000		ug/L
Thallium	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Titanium	10/22/2015 12:38	10/28/2015 11:23	2	2	0.5	U	0.5	U	ug/L
Vanadium	10/22/2015 12:38	10/28/2015 11:23	2	2	12		12		ug/L
Zinc	10/22/2015 12:38	10/28/2015 11:23	2	40	10	U	10	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	40	10	U	10	U	ug/L
Antimony, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	4	1	U	1	U	ug/L
Arsenic, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.78	J	0.78	J	ug/L
Barium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	14.5		14.5		ug/L
Beryllium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230404** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Calcium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	1000	48600		48600		ug/L
Chromium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	1.39	J	1.39	J	ug/L
Cobalt, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Copper, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	3.74		3.74		ug/L
Iron, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	200	50	U	50	U	ug/L
Lead, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Magnesium, Dissolved	10/22/2015 12:38	10/28/2015 13:03	100	10000	44200		44200		ug/L
Manganese, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	10	2.5	U	2.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	7.42		7.42		ug/L
Nickel, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	4	1	U	1	U	ug/L
Potassium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	200	6490		6490		ug/L
Selenium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	4.73		4.73		ug/L
Silver, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Sodium, Dissolved	10/22/2015 12:38	10/28/2015 13:03	100	10000	577000		577000		ug/L
Thallium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Titanium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	0.5	U	0.5	U	ug/L
Vanadium, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	2	12.2		12.2		ug/L
Zinc, Dissolved	10/22/2015 12:38	10/28/2015 13:06	2	40	10	U	10	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 12:38	10/27/2015 11:46	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 12:38	10/27/2015 12:21	1	0.2	0.1	U	0.1	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230405** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 13:48	10/28/2015 11:26	2	40	10	U	10	U	ug/L
Antimony	10/22/2015 13:48	10/28/2015 11:26	2	4	1	U	1	U	ug/L
Arsenic	10/22/2015 13:48	10/28/2015 11:26	2	2	1.21	J	1.21	J	ug/L
Barium	10/22/2015 13:48	10/28/2015 11:26	2	2	20		20		ug/L
Beryllium	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Cadmium	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Calcium	10/22/2015 13:48	10/28/2015 11:26	2	1000	44100		44100		ug/L
Chromium	10/22/2015 13:48	10/28/2015 11:26	2	2	0.65	J	0.65	J	ug/L
Cobalt	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Copper	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Iron	10/22/2015 13:48	10/28/2015 11:26	2	200	50	U	50	U	ug/L
Lead	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Magnesium	10/22/2015 13:48	10/27/2015 2:33	100	10000	37100		37100		ug/L
Manganese	10/22/2015 13:48	10/28/2015 11:26	2	10	2.5	U	2.5	U	ug/L
Molybdenum	10/22/2015 13:48	10/28/2015 11:26	2	2	5.86		5.86		ug/L
Nickel	10/22/2015 13:48	10/28/2015 11:26	2	4	1	U	1	U	ug/L
Potassium	10/22/2015 13:48	10/28/2015 11:26	2	200	5320		5320		ug/L
Selenium	10/22/2015 13:48	10/28/2015 11:26	2	2	6.27		6.27		ug/L
Silver	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Sodium	10/22/2015 13:48	10/27/2015 2:33	100	10000	333000		333000		ug/L
Thallium	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Titanium	10/22/2015 13:48	10/28/2015 11:26	2	2	0.5	U	0.5	U	ug/L
Vanadium	10/22/2015 13:48	10/28/2015 11:26	2	2	18.4		18.4		ug/L
Zinc	10/22/2015 13:48	10/28/2015 11:26	2	40	10	U	10	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	40	10	U	10	U	ug/L
Antimony, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	4	1	U	1	U	ug/L
Arsenic, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	1.4	J	1.4	J	ug/L
Barium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	21.1		21.1		ug/L
Beryllium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230405** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Calcium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	1000	46300		46300		ug/L
Chromium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.66	J	0.66	J	ug/L
Cobalt, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Copper, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	3.47		3.47		ug/L
Iron, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	200	50	U	50	U	ug/L
Lead, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Magnesium, Dissolved	10/22/2015 13:48	10/28/2015 13:10	100	10000	40000		40000		ug/L
Manganese, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	10	2.5	U	2.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	6.12		6.12		ug/L
Nickel, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	4	1	U	1	U	ug/L
Potassium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	200	5600		5600		ug/L
Selenium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	6.67		6.67		ug/L
Silver, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Sodium, Dissolved	10/22/2015 13:48	10/28/2015 13:10	100	10000	359000		359000		ug/L
Thallium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Titanium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	0.5	U	0.5	U	ug/L
Vanadium, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	2	19.1		19.1		ug/L
Zinc, Dissolved	10/22/2015 13:48	10/28/2015 13:13	2	40	10	U	10	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 13:48	10/27/2015 11:48	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 13:48	10/27/2015 12:23	1	0.2	0.1	U	0.1	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230407** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 12:55	10/28/2015 11:57	5	100	112		112		ug/L
Antimony	10/22/2015 12:55	10/28/2015 11:57	5	10	2.5	U	2.5	U	ug/L
Arsenic	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Barium	10/22/2015 12:55	10/28/2015 11:57	5	5	13.6		13.6		ug/L
Beryllium	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Cadmium	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Calcium	10/22/2015 12:55	10/28/2015 11:57	5	2500	56900		56900		ug/L
Chromium	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Cobalt	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Copper	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Iron	10/22/2015 12:55	10/28/2015 11:57	5	500	125	U	125	U	ug/L
Lead	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Magnesium	10/22/2015 12:55	10/28/2015 11:57	5	500	48300		48300		ug/L
Manganese	10/22/2015 12:55	10/28/2015 11:57	5	25	8.78	J	8.78	J	ug/L
Molybdenum	10/22/2015 12:55	10/28/2015 11:57	5	5	5.95		5.95		ug/L
Nickel	10/22/2015 12:55	10/28/2015 11:57	5	10	2.5	U	2.5	U	ug/L
Potassium	10/22/2015 12:55	10/28/2015 11:57	5	500	6440		6440		ug/L
Selenium	10/22/2015 12:55	10/28/2015 11:57	5	5	3.52	J	3.52	J	ug/L
Silver	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Sodium	10/22/2015 12:55	10/28/2015 11:30	100	10000	636000		636000		ug/L
Thallium	10/22/2015 12:55	10/28/2015 11:57	5	5	1.25	U	1.25	U	ug/L
Titanium	10/22/2015 12:55	10/28/2015 11:57	5	5	2.75	J	2.75	J	ug/L
Vanadium	10/22/2015 12:55	10/28/2015 11:57	5	5	11.8		11.8		ug/L
Zinc	10/22/2015 12:55	10/28/2015 11:57	5	100	25	U	25	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	100	25	U	25	U	ug/L
Antimony, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	10	2.5	U	2.5	U	ug/L
Arsenic, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Barium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	13.1		13.1		ug/L
Beryllium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001**
Location ID: **NA**
Lab Sample ID: **21510230407**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Lab Code: **GCAL**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Calcium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	2500	52200		52200		ug/L
Chromium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Cobalt, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Copper, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Iron, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	500	125	U	125	U	ug/L
Lead, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Magnesium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	500	45700		45700		ug/L
Manganese, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	25	6.25	U	6.25	U	ug/L
Molybdenum, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	6.27		6.27		ug/L
Nickel, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	10	2.5	U	2.5	U	ug/L
Potassium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	500	6450		6450		ug/L
Selenium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	4.96	J	4.96	J	ug/L
Silver, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Sodium, Dissolved	10/22/2015 12:55	10/28/2015 13:27	100	10000	570000		570000		ug/L
Thallium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Titanium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	1.25	U	1.25	U	ug/L
Vanadium, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	5	13.4		13.4		ug/L
Zinc, Dissolved	10/22/2015 12:55	10/28/2015 18:32	5	100	25	U	25	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 12:55	10/27/2015 11:50	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 12:55	10/27/2015 12:29	1	0.2	0.1	U	0.1	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230411** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 6020A										
Aluminum	10/22/2015 14:45	10/28/2015 12:14	2	40	11.9	J	40	U	ug/L	*
Antimony	10/22/2015 14:45	10/28/2015 12:14	2	4	1	U	1	U	ug/L	
Arsenic	10/22/2015 14:45	10/28/2015 12:14	2	2	0.97	J	0.97	J	ug/L	
Barium	10/22/2015 14:45	10/28/2015 12:14	2	2	13.7		13.7		ug/L	
Beryllium	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Cadmium	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Calcium	10/22/2015 14:45	10/27/2015 2:40	100	50000	84700		84700		ug/L	
Chromium	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Cobalt	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Copper	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Iron	10/22/2015 14:45	10/28/2015 12:14	2	200	50	U	50	U	ug/L	
Lead	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Magnesium	10/22/2015 14:45	10/27/2015 2:40	100	10000	66300		66300		ug/L	
Manganese	10/22/2015 14:45	10/28/2015 12:14	2	10	2.5	U	2.5	U	ug/L	
Molybdenum	10/22/2015 14:45	10/28/2015 12:14	2	2	4.31		4.31		ug/L	
Nickel	10/22/2015 14:45	10/28/2015 12:14	2	4	1	U	1	U	ug/L	
Potassium	10/22/2015 14:45	10/28/2015 12:14	2	200	7240		7240		ug/L	
Selenium	10/22/2015 14:45	10/28/2015 12:14	2	2	3.96		3.96		ug/L	
Silver	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Sodium	10/22/2015 14:45	10/27/2015 2:40	100	10000	514000		514000		ug/L	
Thallium	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Titanium	10/22/2015 14:45	10/28/2015 12:14	2	2	0.5	U	0.5	U	ug/L	
Vanadium	10/22/2015 14:45	10/28/2015 12:14	2	2	12.9		12.9		ug/L	
Zinc	10/22/2015 14:45	10/28/2015 12:14	2	40	10	U	10	U	ug/L	
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	40	10	U	10	U	ug/L	
Antimony, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	4	1	U	1	U	ug/L	
Arsenic, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	1.05	J	1.05	J	ug/L	
Barium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	14.3		14.3		ug/L	
Beryllium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230411** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Calcium, Dissolved	10/22/2015 14:45	10/28/2015 18:46	100	50000	79600		79600		ug/L
Chromium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Cobalt, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Copper, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.52	J	0.52	J	ug/L
Iron, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	200	50	U	50	U	ug/L
Lead, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Magnesium, Dissolved	10/22/2015 14:45	10/28/2015 18:46	100	10000	70000		70000		ug/L
Manganese, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	10	2.5	U	2.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	4.48		4.48		ug/L
Nickel, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	4	1	U	1	U	ug/L
Potassium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	200	7490		7490		ug/L
Selenium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	3.97		3.97		ug/L
Silver, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Sodium, Dissolved	10/22/2015 14:45	10/28/2015 18:46	100	10000	512000		512000		ug/L
Thallium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Titanium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	0.5	U	0.5	U	ug/L
Vanadium, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	2	13		13		ug/L
Zinc, Dissolved	10/22/2015 14:45	10/28/2015 18:49	2	40	10	U	10	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 14:45	10/27/2015 11:56	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 14:45	10/27/2015 12:36	1	0.2	0.1	U	0.1	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230413** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 9:17	10/28/2015 12:21	10	200	50	U	50	U	ug/L
Antimony	10/22/2015 9:17	10/28/2015 12:21	10	20	5	U	5	U	ug/L
Arsenic	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Barium	10/22/2015 9:17	10/28/2015 12:21	10	10	14.9		14.9		ug/L
Beryllium	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Calcium	10/22/2015 9:17	10/28/2015 12:21	10	5000	374000		374000		ug/L
Chromium	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Cobalt	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Copper	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Iron	10/22/2015 9:17	10/28/2015 12:21	10	1000	250	U	250	U	ug/L
Lead	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/22/2015 9:17	10/28/2015 12:17	1000	100000	325000		325000		ug/L
Manganese	10/22/2015 9:17	10/28/2015 12:21	10	50	12.5	U	12.5	U	ug/L
Molybdenum	10/22/2015 9:17	10/28/2015 12:21	10	10	17.1		17.1		ug/L
Nickel	10/22/2015 9:17	10/28/2015 12:21	10	20	5	U	5	U	ug/L
Potassium	10/22/2015 9:17	10/28/2015 12:21	10	1000	15400		15400		ug/L
Selenium	10/22/2015 9:17	10/28/2015 12:21	10	10	17		17		ug/L
Silver	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Sodium	10/22/2015 9:17	10/28/2015 12:17	1000	100000	2720000		2720000		ug/L
Thallium	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Titanium	10/22/2015 9:17	10/28/2015 12:21	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/22/2015 9:17	10/28/2015 12:21	10	10	8.33	J	8.33	J	ug/L
Zinc	10/22/2015 9:17	10/28/2015 12:21	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	15.7		15.7		ug/L
Beryllium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230413** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Calcium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	5000	354000		354000		ug/L
Chromium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.91	J	2.91	J	ug/L
Cobalt, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Copper, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	4.32	J	4.32	J	ug/L
Iron, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	1000	250	U	250	U	ug/L
Lead, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Magnesium, Dissolved	10/22/2015 9:17	10/28/2015 19:03	1000	100000	310000		310000		ug/L
Manganese, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	50	12.5	U	12.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	18.8		18.8		ug/L
Nickel, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	20	5	U	5	U	ug/L
Potassium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	1000	14900		14900		ug/L
Selenium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	18.9		18.9		ug/L
Silver, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Sodium, Dissolved	10/22/2015 9:17	10/28/2015 19:03	1000	100000	2520000		2520000		ug/L
Thallium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Titanium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	2.5	U	2.5	U	ug/L
Vanadium, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	10	7.67	J	7.67	J	ug/L
Zinc, Dissolved	10/22/2015 9:17	10/28/2015 19:06	10	200	50	U	50	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 9:17	10/27/2015 12:04	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 9:17	10/27/2015 12:39	1	0.2	0.1	U	0.1	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230414** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/22/2015 10:23	10/28/2015 12:27	10	200	50	U	50	U	ug/L
Antimony	10/22/2015 10:23	10/28/2015 12:27	10	20	5	U	5	U	ug/L
Arsenic	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Barium	10/22/2015 10:23	10/28/2015 12:27	10	10	14.7		14.7		ug/L
Beryllium	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Calcium	10/22/2015 10:23	10/28/2015 12:27	10	5000	450000		450000		ug/L
Chromium	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Cobalt	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Copper	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Iron	10/22/2015 10:23	10/28/2015 12:27	10	1000	250	U	250	U	ug/L
Lead	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/22/2015 10:23	10/28/2015 12:24	1000	100000	338000		338000		ug/L
Manganese	10/22/2015 10:23	10/28/2015 12:27	10	50	12.5	U	12.5	U	ug/L
Molybdenum	10/22/2015 10:23	10/28/2015 12:27	10	10	8.55	J	8.55	J	ug/L
Nickel	10/22/2015 10:23	10/28/2015 12:27	10	20	5	U	5	U	ug/L
Potassium	10/22/2015 10:23	10/28/2015 12:27	10	1000	15300		15300		ug/L
Selenium	10/22/2015 10:23	10/28/2015 12:27	10	10	30.1		30.1		ug/L
Silver	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Sodium	10/22/2015 10:23	10/28/2015 12:24	1000	100000	3130000		3130000		ug/L
Thallium	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Titanium	10/22/2015 10:23	10/28/2015 12:27	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/22/2015 10:23	10/28/2015 12:27	10	10	10.4		10.4		ug/L
Zinc	10/22/2015 10:23	10/28/2015 12:27	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	14.1		14.1		ug/L
Beryllium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230414** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Cadmium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Calcium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	5000	444000		444000		ug/L
Chromium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Cobalt, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Copper, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	3.35	J	3.35	J	ug/L
Iron, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	1000	250	U	250	U	ug/L
Lead, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Magnesium, Dissolved	10/22/2015 10:23	10/28/2015 19:09	1000	100000	336000		336000		ug/L
Manganese, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	50	12.5	U	12.5	U	ug/L
Molybdenum, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	8.69	J	8.69	J	ug/L
Nickel, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	20	5	U	5	U	ug/L
Potassium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	1000	15300		15300		ug/L
Selenium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	31.3		31.3		ug/L
Silver, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Sodium, Dissolved	10/22/2015 10:23	10/28/2015 19:09	1000	100000	2970000		2970000		ug/L
Thallium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Titanium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	2.5	U	2.5	U	ug/L
Vanadium, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	10	9.79	J	9.79	J	ug/L
Zinc, Dissolved	10/22/2015 10:23	10/28/2015 19:13	10	200	50	U	50	U	ug/L
Method: EPA 7470A									
Mercury	10/22/2015 10:23	10/27/2015 12:06	1	0.2	0.1	U	0.1	U	ug/L
Method: EPA 7470A Dissolved									
Mercury, Dissolved	10/22/2015 10:23	10/27/2015 12:41	1	0.2	0.1	U	0.1	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230416** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/23/2015 8:55	10/27/2015 16:26	10	200	50	U	50	U	ug/L
Antimony	10/23/2015 8:55	10/27/2015 16:26	10	20	5	U	5	U	ug/L
Arsenic	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Barium	10/23/2015 8:55	10/27/2015 16:26	10	10	8.1	J	8.1	J	ug/L
Beryllium	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Calcium	10/23/2015 8:55	10/27/2015 16:26	10	5000	149000		149000		ug/L
Chromium	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Cobalt	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Copper	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Iron	10/23/2015 8:55	10/27/2015 16:26	10	1000	250	U	250	U	ug/L
Lead	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/23/2015 8:55	10/27/2015 16:26	10	1000	55100		55100		ug/L
Manganese	10/23/2015 8:55	10/27/2015 16:26	10	50	182		182		ug/L
Molybdenum	10/23/2015 8:55	10/27/2015 16:26	10	10	19.9		19.9		ug/L
Nickel	10/23/2015 8:55	10/27/2015 16:26	10	20	5	U	5	U	ug/L
Potassium	10/23/2015 8:55	10/27/2015 16:26	10	1000	7030		7030		ug/L
Selenium	10/23/2015 8:55	10/27/2015 16:26	10	10	50.3		50.3		ug/L
Silver	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Sodium	10/23/2015 8:55	10/27/2015 16:23	1000	100000	2300000		2300000		ug/L
Thallium	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Titanium	10/23/2015 8:55	10/27/2015 16:26	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/23/2015 8:55	10/27/2015 16:26	10	10	5.84	J	5.84	J	ug/L
Zinc	10/23/2015 8:55	10/27/2015 16:26	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	7.97	J	7.97	J	ug/L
Beryllium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230416** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Cadmium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Calcium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	5000	136000		136000		ug/L	
Chromium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Cobalt, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Copper, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Iron, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	1000	250	U	250	U	ug/L	
Lead, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Magnesium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	1000	51400		51400		ug/L	
Manganese, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	50	169		169		ug/L	
Molybdenum, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	18.2		18.2		ug/L	
Nickel, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	20	5	U	5	U	ug/L	
Potassium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	1000	6780		6780		ug/L	
Selenium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	65.3		65.3	J	ug/L	*
Silver, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	UJ	ug/L	*
Sodium, Dissolved	10/23/2015 8:55	10/28/2015 11:28	1000	100000	2080000		2080000		ug/L	
Thallium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Titanium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	2.5	U	2.5	U	ug/L	
Vanadium, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	10	4.09	J	4.09	J	ug/L	
Zinc, Dissolved	10/23/2015 8:55	10/28/2015 11:33	10	200	50	U	50	U	ug/L	
Method: EPA 7470A										
Mercury	10/23/2015 8:55	10/27/2015 13:17	1	0.2	0.1	U	0.1	U	ug/L	
Method: EPA 7470A Dissolved										
Mercury, Dissolved	10/23/2015 8:55	10/27/2015 14:15	1	0.2	0.1	U	0.1	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230417** Lab Code: **GCAL**

Sample Type: **Field Duplicate**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 6020A									
Aluminum	10/23/2015 8:55	10/27/2015 16:37	10	200	50	U	50	U	ug/L
Antimony	10/23/2015 8:55	10/27/2015 16:37	10	20	5	U	5	U	ug/L
Arsenic	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Barium	10/23/2015 8:55	10/27/2015 16:37	10	10	7.41	J	7.41	J	ug/L
Beryllium	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Cadmium	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Calcium	10/23/2015 8:55	10/27/2015 16:37	10	5000	133000		133000		ug/L
Chromium	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Cobalt	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Copper	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Iron	10/23/2015 8:55	10/27/2015 16:37	10	1000	250	U	250	U	ug/L
Lead	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Magnesium	10/23/2015 8:55	10/27/2015 16:37	10	1000	51200		51200		ug/L
Manganese	10/23/2015 8:55	10/27/2015 16:37	10	50	170		170		ug/L
Molybdenum	10/23/2015 8:55	10/27/2015 16:37	10	10	18.3		18.3		ug/L
Nickel	10/23/2015 8:55	10/27/2015 16:37	10	20	5	U	5	U	ug/L
Potassium	10/23/2015 8:55	10/27/2015 16:37	10	1000	6500		6500		ug/L
Selenium	10/23/2015 8:55	10/27/2015 16:37	10	10	55.6		55.6		ug/L
Silver	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Sodium	10/23/2015 8:55	10/27/2015 16:33	1000	100000	2110000		2110000		ug/L
Thallium	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Titanium	10/23/2015 8:55	10/27/2015 16:37	10	10	2.5	U	2.5	U	ug/L
Vanadium	10/23/2015 8:55	10/27/2015 16:37	10	10	4.38	J	4.38	J	ug/L
Zinc	10/23/2015 8:55	10/27/2015 16:37	10	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved									
Aluminum, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	200	50	U	50	U	ug/L
Antimony, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	20	5	U	5	U	ug/L
Arsenic, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L
Barium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	8.25	J	8.25	J	ug/L
Beryllium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230417** Lab Code: **GCAL**

Sample Type: **Field Duplicate**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Cadmium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Calcium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	5000	143000		143000		ug/L	
Chromium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Cobalt, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Copper, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Iron, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	1000	250	U	250	U	ug/L	
Lead, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Magnesium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	1000	54700		54700		ug/L	
Manganese, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	50	182		182		ug/L	
Molybdenum, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	19.2		19.2		ug/L	
Nickel, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	20	5	U	5	U	ug/L	
Potassium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	1000	7310		7310		ug/L	
Selenium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	69.3		69.3	J	ug/L	*
Silver, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	UJ	ug/L	*
Sodium, Dissolved	10/23/2015 8:55	10/28/2015 11:44	1000	100000	2250000		2250000		ug/L	
Thallium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Titanium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	2.5	U	2.5	U	ug/L	
Vanadium, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	10	4.74	J	4.74	J	ug/L	
Zinc, Dissolved	10/23/2015 8:55	10/28/2015 11:49	10	200	50	U	50	U	ug/L	
Method: EPA 7470A										
Mercury	10/23/2015 8:55	10/27/2015 13:24	1	0.2	0.1	U	0.1	U	ug/L	
Method: EPA 7470A Dissolved										
Mercury, Dissolved	10/23/2015 8:55	10/27/2015 14:22	1	0.2	0.1	U	0.1	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230419** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 6020A										
Aluminum	10/23/2015 10:55	10/27/2015 16:47	1	20	12	J	12	J+	ug/L	*
Antimony	10/23/2015 10:55	10/27/2015 16:47	1	2	0.5	U	0.5	U	ug/L	
Arsenic	10/23/2015 10:55	10/27/2015 16:47	1	1	4.75		4.75		ug/L	
Barium	10/23/2015 10:55	10/27/2015 16:47	1	1	48.9		48.9		ug/L	
Beryllium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Cadmium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Calcium	10/23/2015 10:55	10/27/2015 16:47	1	500	43100		43100		ug/L	
Chromium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.84	J	0.84	J	ug/L	
Cobalt	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Copper	10/23/2015 10:55	10/27/2015 16:47	1	1	0.29	J	0.29	J	ug/L	
Iron	10/23/2015 10:55	10/27/2015 16:47	1	100	25	U	25	U	ug/L	
Lead	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Magnesium	10/23/2015 10:55	10/27/2015 16:43	10	1000	19800		19800		ug/L	
Manganese	10/23/2015 10:55	10/27/2015 16:47	1	5	1.25	U	1.25	U	ug/L	
Molybdenum	10/23/2015 10:55	10/27/2015 16:47	1	1	17.2		17.2		ug/L	
Nickel	10/23/2015 10:55	10/27/2015 16:47	1	2	0.5	U	0.5	U	ug/L	
Potassium	10/23/2015 10:55	10/27/2015 16:47	1	100	4280		4280		ug/L	
Selenium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.54	J	0.54	J	ug/L	
Silver	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Sodium	10/23/2015 10:55	10/27/2015 16:43	10	1000	61100		61100		ug/L	
Thallium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Titanium	10/23/2015 10:55	10/27/2015 16:47	1	1	0.25	U	0.25	U	ug/L	
Vanadium	10/23/2015 10:55	10/27/2015 16:47	1	1	30		30		ug/L	
Zinc	10/23/2015 10:55	10/27/2015 16:47	1	20	5	U	5	U	ug/L	
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	20	8.02	J	8.02	J	ug/L	
Antimony, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	2	0.5	U	0.5	U	ug/L	
Arsenic, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	4.71		4.71		ug/L	
Barium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	49.4		49.4		ug/L	
Beryllium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Metals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230419** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Cadmium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	
Calcium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	500	43900		43900		ug/L	
Chromium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.79	J	0.79	J	ug/L	
Cobalt, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	
Copper, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.34	J	0.34	J	ug/L	
Iron, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	100	25	U	25	U	ug/L	
Lead, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	
Magnesium, Dissolved	10/23/2015 10:55	10/28/2015 12:00	10	1000	19500		19500		ug/L	
Manganese, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	5	1.25	U	1.25	U	ug/L	
Molybdenum, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	16.3		16.3		ug/L	
Nickel, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	2	0.5	U	0.5	U	ug/L	
Potassium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	100	4430		4430		ug/L	
Selenium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.49	J	0.49	J	ug/L	
Silver, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	UJ	ug/L	*
Sodium, Dissolved	10/23/2015 10:55	10/28/2015 12:00	10	1000	58700		58700		ug/L	
Thallium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	
Titanium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	0.25	U	0.25	U	ug/L	
Vanadium, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	1	30		30		ug/L	
Zinc, Dissolved	10/23/2015 10:55	10/28/2015 12:05	1	20	5	U	5	U	ug/L	
Method: EPA 7470A										
Mercury	10/23/2015 10:55	10/27/2015 13:26	1	0.2	0.1	U	0.1	U	ug/L	
Method: EPA 7470A Dissolved										
Mercury, Dissolved	10/23/2015 10:55	10/27/2015 14:25	1	0.2	0.1	U	0.1	U	ug/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-01** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 9:10	11/05/2015 14:25	1	0.0003	0.00252		0.00252		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-02** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 9:17	11/05/2015 19:10	1	0.0003	0.00255		0.00255		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-03** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 10:23	11/05/2015 14:57	1	0.0003	0.0037		0.0037		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-04** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 11:10	11/05/2015 15:13	1	0.0003	0.00316		0.00316		mg/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002**
Location ID: **NA**
Lab Sample ID: **1510215-05**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Lab Code: **GCAL**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 12:38	11/05/2015 15:29	1	0.0003	0.00244		0.00244		mg/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-06** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 12:55	11/05/2015 15:46	1	0.0003	0.000336		0.000336		mg/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-07** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 13:48	11/05/2015 16:34	1	0.0003	0.00375		0.00375		mg/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-08** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/22/2015 14:45	11/05/2015 16:50	1	0.0003	0.000351		0.000351		mg/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-09** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/23/2015 8:55	11/05/2015 19:26	10	0.003	0.009		0.009		mg/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **1510215-10** Lab Code: **GCAL**

Sample Type: **Field Duplicate**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/23/2015 8:55	11/05/2015 19:42	10	0.003	0.012		0.012		mg/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24**
Location ID: **NA**
Lab Sample ID: **1510215-11**
Sample Type: **Site Sample**

Sample Matrix : **Water**
Lab Code: **GCAL**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: SW6860									
Perchlorate	10/23/2015 10:55	11/05/2015 18:54	1	0.0003	0.000133	J	0.000133	J	mg/L

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230401** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 11:10	11/01/2015 17:56	1000	200	2980		2980		mg/L	
Nitrate	10/22/2015 11:10	10/23/2015 18:47	20	4	4.22		4.22		mg/L	
Nitrite	10/22/2015 11:10	10/23/2015 18:47	20	4	2	U	2	U	mg/L	
Sulfate	10/22/2015 11:10	11/01/2015 17:56	1000	200	2050		2050		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 11:10	10/27/2015 17:44	1	0.005	0.002	J	0.005	UJ	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 11:10	10/28/2015 7:45	1	1	107		107		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 11:10	10/23/2015 13:35	1	10	7150		7150		mg/L	

DF = Dilution Factor RL = Reporting Limit

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230402** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 9:10	11/01/2015 18:31	3000	600	3720		3720		mg/L	
Nitrate	10/22/2015 9:10	10/23/2015 17:54	20	4	3.75	J	3.75	J	mg/L	
Nitrite	10/22/2015 9:10	10/23/2015 17:54	20	4	2	U	2	U	mg/L	
Sulfate	10/22/2015 9:10	11/01/2015 18:31	3000	600	2090		2090		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 9:10	10/27/2015 17:51	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 9:10	10/28/2015 7:45	1	1	83.7		83.7		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 9:10	10/23/2015 13:35	1	10	8580		8580		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230404** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 12:38	11/01/2015 18:48	500	100	451		451		mg/L	
Nitrate	10/22/2015 12:38	10/23/2015 19:05	5	1	1.08		1.08		mg/L	
Nitrite	10/22/2015 12:38	10/23/2015 19:05	5	1	0.5	U	0.5	U	mg/L	
Sulfate	10/22/2015 12:38	11/01/2015 18:48	500	100	546		546		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 12:38	10/27/2015 17:53	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 12:38	10/28/2015 7:45	1	1	190		190		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 12:38	10/23/2015 13:35	1	10	1670		1670		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230405** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 300.0, Rev 2.1									
Chloride	10/22/2015 13:48	11/01/2015 19:06	500	100	280		280		mg/L
Nitrate	10/22/2015 13:48	10/23/2015 20:15	2	0.4	0.995		0.995		mg/L
Nitrite	10/22/2015 13:48	10/23/2015 20:15	2	0.4	0.2	U	0.2	U	mg/L
Sulfate	10/22/2015 13:48	11/01/2015 19:06	500	100	376		376		mg/L
Method: EPA 9012B									
Cyanide	10/22/2015 13:48	10/27/2015 17:55	1	0.005	0.0012	U	0.0012	U	mg/L
Method: SM 2320 B-2011									
Total Alkalinity	10/22/2015 13:48	10/28/2015 7:45	1	1	197		197		mg/L
Method: SM 2540 C-2011									
Total Dissolved Solids(TDS)	10/22/2015 13:48	10/23/2015 13:35	1	10	1150		1150		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230407** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 12:55	11/01/2015 19:58	500	100	444		444		mg/L	
Nitrate	10/22/2015 12:55	10/23/2015 19:22	5	1	0.993	J	0.993	J	mg/L	
Nitrite	10/22/2015 12:55	10/23/2015 19:22	5	1	0.5	U	0.5	U	mg/L	
Sulfate	10/22/2015 12:55	11/01/2015 19:58	500	100	572		572		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 12:55	10/27/2015 17:57	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 12:55	10/28/2015 7:45	1	1	175		175		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 12:55	10/23/2015 13:35	1	10	1950		1950		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230411** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 300.0, Rev 2.1									
Chloride	10/22/2015 14:45	11/01/2015 20:50	500	100	502		502		mg/L
Nitrate	10/22/2015 14:45	10/23/2015 20:33	5	1	0.922	J	0.922	J	mg/L
Nitrite	10/22/2015 14:45	10/23/2015 20:33	5	1	0.5	U	0.5	U	mg/L
Sulfate	10/22/2015 14:45	11/01/2015 20:50	500	100	601		601		mg/L
Method: EPA 9012B									
Cyanide	10/22/2015 14:45	10/27/2015 18:09	1	0.005	0.0012	U	0.0012	U	mg/L
Method: SM 2320 B-2011									
Total Alkalinity	10/22/2015 14:45	10/28/2015 7:45	1	1	162		162		mg/L
Method: SM 2540 C-2011									
Total Dissolved Solids(TDS)	10/22/2015 14:45	10/23/2015 13:35	1	10	1790		1790		mg/L

DF = Dilution Factor RL = Reporting Limit

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230413** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 9:17	11/01/2015 21:08	2000	400	3570		3570		mg/L	
Nitrate	10/22/2015 9:17	10/23/2015 18:12	20	4	2	U	2	U	mg/L	
Nitrite	10/22/2015 9:17	10/23/2015 18:12	20	4	2	U	2	U	mg/L	
Sulfate	10/22/2015 9:17	11/01/2015 21:08	2000	400	2080		2080		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 9:17	10/27/2015 18:11	1	0.005	0.003	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 9:17	10/28/2015 7:45	1	1	86.5		86.5		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 9:17	10/23/2015 13:35	1	10	8010		8010		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230414** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/22/2015 10:23	11/01/2015 21:25	3000	600	3900		3900		mg/L	
Nitrate	10/22/2015 10:23	10/23/2015 18:30	20	4	4.11		4.11		mg/L	
Nitrite	10/22/2015 10:23	10/23/2015 18:30	20	4	2	U	2	U	mg/L	
Sulfate	10/22/2015 10:23	11/01/2015 21:25	3000	600	2330		2330		mg/L	
Method: EPA 9012B										
Cyanide	10/22/2015 10:23	10/27/2015 18:13	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/22/2015 10:23	10/28/2015 7:45	1	1	68.2		68.2		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/22/2015 10:23	10/26/2015 17:27	1	10	8160		8160		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230416** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/23/2015 8:55	11/02/2015 21:59	500	100	1890		1890		mg/L	
Nitrate	10/23/2015 8:55	10/24/2015 13:20	20	4	6.71		6.71		mg/L	
Nitrite	10/23/2015 8:55	10/24/2015 13:20	20	4	2	U	2	U	mg/L	
Sulfate	10/23/2015 8:55	11/02/2015 21:59	500	100	2010		2010		mg/L	
Method: EPA 9012B										
Cyanide	10/23/2015 8:55	10/27/2015 18:15	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/23/2015 8:55	10/28/2015 14:38	1	1	151		151		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/23/2015 8:55	10/28/2015 9:51	1	10	5170		5170		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230417** Lab Code: **GCAL**

Sample Type: **Field Duplicate**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/23/2015 8:55	11/02/2015 21:24	500	100	1820		1820		mg/L	
Nitrate	10/23/2015 8:55	10/24/2015 13:37	20	4	6.79		6.79		mg/L	
Nitrite	10/23/2015 8:55	10/24/2015 13:37	20	4	2	U	2	U	mg/L	
Sulfate	10/23/2015 8:55	11/02/2015 21:24	500	100	1910		1910		mg/L	
Method: EPA 9012B										
Cyanide	10/23/2015 8:55	10/27/2015 18:17	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/23/2015 8:55	10/28/2015 14:38	1	1	146		146		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/23/2015 8:55	10/28/2015 9:51	1	10	4740		4740		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **21510230419** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units	
Method: EPA 300.0, Rev 2.1										
Chloride	10/23/2015 10:55	10/24/2015 13:55	1	0.2	4.91		4.91		mg/L	
Nitrate	10/23/2015 10:55	10/24/2015 13:55	1	0.2	2.96		2.96		mg/L	
Nitrite	10/23/2015 10:55	10/24/2015 13:55	1	0.2	0.1	U	0.1	U	mg/L	
Sulfate	10/23/2015 10:55	11/03/2015 11:36	10	2	56.2		56.2		mg/L	
Method: EPA 9012B										
Cyanide	10/23/2015 10:55	10/27/2015 18:18	1	0.005	0.002	J	0.005	U	mg/L	*
Method: SM 2320 B-2011										
Total Alkalinity	10/23/2015 10:55	10/28/2015 14:38	1	1	210		210		mg/L	
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	10/23/2015 10:55	10/28/2015 9:51	1	10	353		353		mg/L	

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-001** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 9:10	11/08/2015 12:45	10	0.2	1.32		1.32		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-002** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 9:17	11/08/2015 13:28	5	0.1	2.1		2.1		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-003** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 10:23	11/08/2015 13:42	10	0.2	0.9		0.9		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **M114MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-004** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 11:10	11/06/2015 19:22	10	0.2	4.26		4.26		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW002** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-005** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 12:38	11/06/2015 20:49	4	0.04	1.25		1.25		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW001** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-006** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 12:55	11/06/2015 21:18	1	0.02	0.554		0.554		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW004** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-007** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 13:48	11/06/2015 22:01	1	0.02	0.609		0.609		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA01MW003** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-008** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/22/2015 14:45	11/06/2015 22:16	1	0.02	0.353		0.353		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-009** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/23/2015 8:55	11/06/2015 22:59	1	0.02	0.02	U	0.02	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MA02MW001D-a** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-010** Lab Code: **GCAL**

Sample Type: **Field Duplicate**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/23/2015 8:55	11/06/2015 23:13	1	0.02	0.02	U	0.02	U	ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215102304

COC Sample ID: **MWQ-24** Sample Matrix : **Water**

Location ID: **NA**

Lab Sample ID: **R1509086-011** Lab Code: **GCAL**

Sample Type: **Site Sample**

Parameter Name	Collection Date	Analysis Date	DF	RL	Lab Result	Lab Qualifier	Validated Result	Validated Qualifier	Units
Method: EPA 218.6 LL									
Hexavalent Chromium - Dissolved	10/23/2015 10:55	11/06/2015 23:28	1	0.02	0.724		0.724		ug/L

DF = Dilution Factor RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

eDATApro

Appendix II
Chain of Custody

195817/L1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Page 1 of 1

Project Number: A012-114

Chain of Custody Number (1): MAFR151022002

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW001		10222015	1110		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			1	A
M114MW004		10222015	0910		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			2	A
TB-01		10222015	0910	-	TB	1	WG	3	X													3	A
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			

Sample Analysis Requested (5) | Quality Assurance Samples (6)

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to ALS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		102215	1700	Fedex		
2.	Fedex	10-23-15	948	[illegible]	10-23-15	948
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 7815 6966 3510

Delivery Location:

Delivery Date/Time: 2.7 ECM

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR15102263

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA01MW007		10 22 2015	1238		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-4	C
MA01MW004		10 22 2015	1348		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-5	C
TB-03		10 22 2015	1238	-	TB	1	WQ	3	X													-6	C
				-																			
				-																			
				-																			
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to TALS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		102215	1700			
2.	FedEx	10-23-15	9:48	Dawn McCune	10-23-15	9:48
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781569590362 3.4 EA

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151022O4

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5) / **Quality Assurance Samples (6)**

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MAOIMW001		10222015	1255		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-7	D
MAOIMW001-MS		10222015	1255		MS	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-8	D
TB-04		10222015	1255	-	TB	1	WQ	3	X													-9	D
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			
				-																			

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GALS.

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1.						
2.	FedEx	10-23-15	9:48	Dodie McClure	10-23-15	9:48
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781510961545 0.35#

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR151022O5

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA01MW001-MSD		10 22 2015	1255		SD	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-10	E
MA01MW003		10 22 2015	1445		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-11	E
TB-05		10 22 2015	1445	-	TB	1	WQ	3	X	X	X	X	~~X~~									-12	E
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GALS. * VOCs for MA01MW001-MSD are in cooler "D"

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10-22-15	1700			
2.	FedEx	10-23-15	9:48am	Doug McClure	10-23-15	9:48
3.		10-23-15	9:48			

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.:

Airbill Number: 781569160761813504

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-114

Chain of Custody Number (1): MAFR1510220 1

Project Name / Site Name: Melorse AFR Semiannual	Turn Around Time
Facility: Melrose AFR	24 Hour
Client Name: Trinity (850) 613-6800	5 Day
Project Manager: Jonathan Kramer	Standard X
Collected by: Benjamin Stewart, Tony Lucero	Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
M114MW002		10/22/2015	0917		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-13	B
M114MW003		10/22/2015	1023		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-14	B
TB-02		10/22/2015	0917	-	TB	1	WQ	3	X													-15	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to CALS.

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	10/23/15	1700	1. FedEx		
2. FedEx	10-23-15	948	2. [illegible]	10-23-15	948
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No
Method of Shipment: FedEx
Analytical Lab: GCAL
Lab Recipient:

Shipped: No.:
Airbill Number: 7815 6961 1058
Delivery Location:
Delivery Date/Time: 3.7 BZN

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-114

Chain of Custody Number (1): MAFR20151073O1

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

- 24 Hour
- 5 Day
- Standard X
- Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MA02MW0010		10/23/2015	0855		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-16	A
MA02MW0010-a		10/23/2015	0855		FD	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-17	A
TB-06		10/23/2015	0855	-	TB	1	WQ	3	X													-18	A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to GALS. 4.4 E29

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
	10-23-15	1400	1.		
Fedex	10/24/15	1000	2. Natalie Sapp	10/24/15	1000
			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No.

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 2

Airbill Number: 7815 7558 6416

Delivery Location:

Delivery Date/Time:

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1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-114

Chain of Custody Number (1): MAFR20151023O7

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Tony Lucero

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C	Chromium (VI) 218.6	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MWQ-24		10-23-2015	1055		N	1	WG	10	X	X	X	X	X	X	X	X	X	X	X			-19	B
TB-08		10-23-2015	1055		TB	1	WQ	3	X													-20	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215102304

PM: RCH2

Comments: Dissolved metals were field filtered. Perchlorate samples were sent to DHL. Chromium (VI) 218.6 samples were sent to CALS. 1.0 E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		10-23-15	1400			
2.	Fedex	10/24/15	1000	Nate Sutton	10/24/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 2

Airbill Number: 8071 4854 8918

Delivery Location:

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

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Data Validation Report

Melrose AFR

Trinity Analysis & Development Corp

SDG: 215040304 Date: May 21, 2015

Environmental Data Professional, LLC
1432 Watkins Street • Lake Charles, LA 70601 • phone: 337-540-0036 • fax: 337-478-6061

Disclaimer:

The validation performed and reported herein is based on specifications and procedures presented to eDATApro with the associated data package. Any qualifications or review not specified with package requirements was based on USEPA National Functional Guidelines for Inorganic and Organic Data Review.

Information contained in this report is based solely on the hardcopy and/or electronic deliverables that were submitted to eDATApro. eDATApro reserves the rights to modify or change the validation report if new information is presented or if this report is determined to be inaccurate or incomplete.

Cover Letter

Validation Report Date: May 21, 2015

Sample Delivery Group: 215040304

Project Name: Melrose AFR

Data validation personnel: Dana Hebert and Tony Duhon

Validation Report:

- ✓ Introduction
- ✓ Sample Identification Cross- Reference Table
- ✓ Data Validation Components
- ✓ Data Validation Findings Summary
- ✓ Table 1-1, Summary of Qualified Data
- ✓ Table 1-2, Data Qualifier Reference Table
- ✓ Appendix I, Form I Data (qualified)
- ✓ Appendix II, Chain of Custody

Approval Signature: Anthony Duhon Date: May 21, 2015

INTRODUCTION:

SDG: 215040304
Project Name: Melrose AFR
Laboratory: GCAL Analytical Laboratories/DHL Analytical
Matrix: Water

Environmental Data Professional, LLC (eDATApro) received one electronic data package containing the results for twelve field samples, two field duplicates, one matrix spike pair and three trip blanks. Level III Data Validation was performed according to guidance from *USEPA National Functional Guidelines for Organic Data Review, USEPA National Functional Guidelines for Inorganic Data Review* and the project specific Quality Assurance Project Plan.

The following samples were reviewed:

Sample ID	Lab ID	Collection Date/Time	Analyses
MWQ-24	21504030401	04/02/2015 12:10 PM	[1-12]
MWQ-24-c	21504030402	04/02/2015 12:10 PM	[1]
MA02MW001D	21504030403	04/02/2015 02:06 PM	[1-12]
MA01MW002	21504030501	04/02/2015 09:25 AM	[1-12]
MA01MW002-c	21504030502	04/02/2015 09:25 AM	[1]
MA01MW001	21504030503	04/02/2015 10:20 AM	[1-12]
MA02MW001D-a	21504030601	04/02/2015 02:06 PM	[1-12]
MA01MW004	21504030701	04/02/2015 09:40 AM	[1-12]
MA01MW004-c	21504030702	04/02/2015 09:40 AM	[1]
MA01MW003	21504030703	04/02/2015 10:59 AM	[1-12]
MWQ-21	21504040601	04/03/2015 10:45 AM	[3,5,7-12]
MWQ-20	21504040602	04/03/2015 12:07 PM	[3,5,7-12]
MWQ-19	21504040603	04/03/2015 12:10 PM	[3,5,7-12]
MWQ-18	21504040701	04/03/2015 12:50 PM	[3,5,7-12]
MWQ-2	21504040702	04/03/2015 02:20 PM	[3,5,7-12]
MWQ-2-a	21504040703	04/03/2015 02:20 PM	[3,5,7-12]
MWQ-22	21504040801	04/03/2015 09:35 AM	[3,5,7-12]
MWQ-22-MS	21504040802	04/03/2015 09:35 AM	[3,5,7-12]
MWQ-22-MSD	21504040803	04/03/2015 09:35 AM	[3,5,7-12]

Analyses Performed Codes:

[1] Volatile Organics – SW-846 8260B
[2] Explosives – SW-846 8330
[3] TAL Metals (total) – SW-846 6020A
[4] Mercury (total) – SW-846 7470A
[5] TAL Metals (Dissolved) – SW-846 6020A
[6] Mercury (Dissolved) – SW-846 7470A
[7] Sulfate and Chloride – EPA 300.0
[8] Nitrate and Nitrite – EPA 353.2
[9] Total Cyanide – SW-846 9012B

[10] Total Alkalinity – SM 2320B
[11] Total Dissolved Solids – SM 2540C
[12] Perchlorate – SW-846 6860 (DHL Analytical)

DATA VALIDATION COMPONENTS

The data presented in this validation report was reviewed using a systematic process for evaluating performance and compliance of a set of data when compared to a set of standards to ascertain its completeness, correctness, and consistency using the methods and/or project defined criteria. The following components, as applicable to each analytical method, were reviewed in conducting the data validation:

- Data Completeness and Deliverables
- Sample Receipt (Chain of Custody Record)
    - Sample ID
    - Collection Date/Time
    - Matrix
    - Analysis Requests
- Chemical/Temperature Preservation
- Holding Times
- Analytical/Method Performance
    - Instrument Performance Checks
    - Instrument Calibrations
        - Stability of Analyte Response (Average Response Factor)
        - Linearity of Analytical Response (Correlation Coefficient)
        - Initial Calibration (multi-point)
        - Calibration Verification
    - Method Quality Controls
        - Instrument/Method Blank
        - Laboratory Control Sample
        - Laboratory Duplicate/Replicate
        - Surrogates
        - Internal Standards
        - Interference Check Sample
        - ICP Serial Dilution
    - Preparation Batch Quality Control
        - Preparation Blank
        - Laboratory Control Sample
        - Matrix Spikes
- Field Quality Controls
    - Field Duplicate
    - Field/Equipment Rinsate/Trip Blanks

Unless specifically stated otherwise in the method summary sections of this report, all components evaluated and data presented by the laboratory met the applicable acceptance criteria and are considered fully usable.

DATA VALIDATION FINDINGS SUMMARY

I. General Package:

A laboratory data package for Level III data validation was received on April 28, 2015. A resubmission, received on May 18, 2015, was necessary for inclusion of target analytes Nitroglycerin and PETN for sample MA01MW003.

When necessary, dilution analyses were performed to minimize sample matrix interference and/or obtain analyte measurements within the linear range of calibration. Reporting limits were adjusted accordingly.

Comparisons between concentrations of target analytes in samples MA02MW001D and MWQ-2 and field duplicates MA02MW001D-a and MWQ-2-a were within field precision acceptance criteria unless noted otherwise in the analytical method sections below.

II. Method SW-846 8260B - Volatile Organic Analyses:

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

III. Method SW-846 8330 - Explosives

Comparisons between the relative response factor (RRF) of Nitroglycerin and Pentaerythritol Tetranitrate (PETN) in a continuing calibration verification (CCV) standard bracketing the analyses of samples from this SDG and the average RRF from the initial calibration exceeded upper percent difference (%D) criteria. These analytes were not detected in the associated field samples. No data qualifications were necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

IV. Method SW-846 6020A – TAL metals (total)

Manganese was present in the method blank from preparation batch 555584. The estimate concentration of sample MWQ-19 was less than five times (<5x) the blank contamination; adjusted for sample dilution, and, therefore, was modified to non-detect (U) at the sample reporting limit.

The recovery of Sodium in the low-level calibration verification standard (LLCV) preceding the dilution analysis of sample MA01MW002 exceeded upper acceptance criteria. The concentration of Sodium in this sample was not near the lower level of calibration. No data qualification was necessary.

Recoveries of Magnesium and Sodium in the matrix spike analyses (MS/MSD) of samples MA01MW002 and MWQ-22 exceeded acceptance criteria; however, the un-spiked sample concentrations of these analytes were greater than four times (4x) the

concentrations of the analyte fortifications. No data qualifications were applied based upon these recoveries.

The recoveries of Manganese in the MS analysis of sample MWQ-22 and the associated post-digestion spike analysis exceeded upper acceptance criteria. The Manganese concentration for this sample was modified to estimate (J).

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

V. Method SW-846 6020A – TAL metals (dissolved)

Dissolved Manganese and dissolved Sodium were present in the method blank from preparation batch 555556. The samples with measurable concentrations of these analytes were greater than five times (5x) the blank concentrations; adjusted for sample dilution, and, therefore, no data qualifications were necessary.

Dissolved Copper was present in the method blank from preparation batch 555582. The estimate concentration of Dissolved Copper for sample MWQ-21 was modified to non-detect (U) at the reporting limit.

Recovery of dissolved Sodium in the LLCV preceding the dilution analysis of sample MWQ-2-a exceeded upper acceptance criteria. The concentration of dissolved Sodium in this sample was not near the lower level of calibration. No data qualification was necessary.

Recoveries of dissolved Sodium in the MS and MSD analyses of sample MWQ-22 exceeded acceptance criteria; however, the un-spiked sample concentration of this analyte was greater than four times (4x) the concentration of the analyte fortification. No data qualifications were applied based upon these recoveries.

The recovery of dissolved Nickel in the MS of sample MWQ-22 exceeded upper acceptance criteria and comparison of the measurements of dissolved Nickel in the MS and MSD samples exceeded precision acceptance criteria; however, this analyte was not detected in the parent sample. No data qualification was necessary.

Recoveries of dissolved Silver in the MS and MSD analyses of sample MWQ-22 exceeded lower acceptance criteria. The dissolved Silver result for this sample was modified to non-detect estimate (UJ).

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

VI. Method SW-846 7470A – Mercury (total)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VII. Method SW-846 7470A – Mercury (dissolved)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VIII. Method EPA 300.0 – Sulfate and Chloride

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

IX. Method EPA 300.0 – Nitrate and Nitrite

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

X. Method SW-846 9012B – Total Cyanide

Recoveries of Cyanide in the MS and MSD analyses of sample MWQ-22 exceeded lower acceptance criteria. The Cyanide result for this sample was modified to non-detect estimate (UJ).

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

XI. Method SM 2320B – Total Alkalinity

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XII. Method SM 2540C - Total Dissolved Solids

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XIII. Method SW-846 6860 – Perchlorate

The Perchlorate analyses were performed by DHL Analytical in Round Rock, Texas.

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

Table 1-1

SUMMARY OF QUALIFIED DATA

Target Compound	Sample(s) Affected	Lab Result	Lab Qual	Val Result	Val Qual	Reason for Qualification
Manganese	MWQ-19	432	J	500	U	Analyte present in method blank.
Copper, Dissolved	MWQ-21	0.63	J	1	U	Analyte present in method blank.
Manganese	MWQ-22	168		168	J	High recoveries in MS and PDS.
Silver, Dissolved	MWQ-22	2.5	U	2.5	UJ	Low recoveries in MS and MSD.
Cyanide	MWQ-22	0.0005	U	0.0005	UJ	Low recoveries in MS and MSD.

Table 1-2

DATA QUALIFIER REFERENCE

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limits of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification.”	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.	Not applicable.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

LABORATORY QUALIFIER

Qualifier	Organics	Inorganics
Q	LCS/LCSD recovery and/or RPD was outside control limits/CCV did not meet acceptance criteria	LCS/LCSD recovery and/or RPD was outside control limits/CCV did not meet acceptance criteria

Appendix I
Form 1 Data (Qualified)

Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MWQ-24**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030401**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 12:10 PM**
Analysis Date: **04/06/2015 8:06 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MWQ-24**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030401**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 12:10 PM**
Analysis Date: **04/06/2015 8:06 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MWQ-24-C**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030402**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 12:10 PM**
Analysis Date: **04/06/2015 8:29 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MWQ-24-C**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030402**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 12:10 PM**
Analysis Date: **04/06/2015 8:29 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA02MW001D** | Sample Matrix: **Water** | Total/Dissolved: **T**

Site ID: **NA** | Sample Date: **04/02/2015 2:06 PM** | Lab: **GCAL**

Sample Type: **Site Sample** | Analysis Date: **04/06/2015 8:51 PM**

Lab Sample ID: **21504030403**

Method: **EPA 8260B**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA02MW001D**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030403**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 2:06 PM**
Analysis Date: **04/06/2015 8:51 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW002** | Sample Matrix: **Water** | Total/Dissolved: **T**

Site ID: **NA** | Sample Date: **04/02/2015 9:25 AM** | Lab: **GCAL**

Sample Type: **Site Sample** | Analysis Date: **04/06/2015 9:14 PM**

Lab Sample ID: **21504030501**

Method: **EPA 8260B**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW002**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030501**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:25 AM**
Analysis Date: **04/06/2015 9:14 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW002-C**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030502**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:25 AM**
Analysis Date: **04/06/2015 9:36 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW002-C**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030502**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:25 AM**
Analysis Date: **04/06/2015 9:36 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW001** | Sample Matrix: **Water** | Total/Dissolved: **T**

Site ID: **NA** | Sample Date: **04/02/2015 10:20 AM** | Lab: **GCAL**

Sample Type: **Site Sample** | Analysis Date: **04/08/2015 2:26 PM**

Lab Sample ID: **21504030503**

Method: **EPA 8260B**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW001**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030503**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 10:20 AM**
Analysis Date: **04/08/2015 2:26 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA02MW001D-a** | Sample Matrix: **Water** | Total/Dissolved: **T**

Site ID: **NA** | Sample Date: **04/02/2015 2:06 PM** | Lab: **GCAL**

Sample Type: **Field Duplicate** | Analysis Date: **04/08/2015 2:47 PM**

Lab Sample ID: **21504030601**

Method: **EPA 8260B**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA02MW001D-a**
Site ID: **NA**
Sample Type: **Field Duplicate**
Lab Sample ID: **21504030601**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 2:06 PM**
Analysis Date: **04/08/2015 2:47 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.345	J	0.345	J	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW004**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030701**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:40 AM**
Analysis Date: **04/08/2015 3:08 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW004**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030701**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:40 AM**
Analysis Date: **04/08/2015 3:08 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW004-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030702**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:40 AM**
Analysis Date: **04/08/2015 3:30 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW004-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504030702**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:40 AM**
Analysis Date: **04/08/2015 3:30 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW003**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030703**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 10:59 AM**
Analysis Date: **04/08/2015 3:51 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040304

COC Sample ID: **MA01MW003**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030703**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/02/2015 10:59 AM**
Analysis Date: **04/08/2015 3:51 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MWQ-24**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030401**

Sample Matrix: **Water**
Sample Date: **04/02/2015 12:10 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 11:09 AM**	1	0.75	0.75	U		0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 11:09 AM**	1	0.5	0.5	U		0.5	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA02MW001D**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030403**

Sample Matrix: **Water**
Sample Date: **04/02/2015 2:06 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 11:48 AM**	1	0.75	0.75	0.75	U	0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 11:48 AM**	1	0.5	0.5	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA01MW002**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030501**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:25 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 12:27 PM**	1	0.75	0.75	U		0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 12:27 PM**	1	0.5	0.5	U		0.5	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA01MW001**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030503**

Sample Matrix: **Water**
Sample Date: **04/02/2015 10:20 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 1:06 PM**	1	0.75	0.75	0.75	U	0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 1:06 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA02MW001D-a**
Property ID: **NA**
Sample Type: **Field Duplicate**
Lab Sample ID: **21504030601**

Sample Matrix: **Water**
Sample Date: **04/02/2015 2:06 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 1:45 PM**	1	0.75	0.75	0.75	U	0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 1:45 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA01MW004**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030701**

Sample Matrix: **Water**
Sample Date: **04/02/2015 9:40 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/08/2015 2:24 PM**	1	0.75	0.75	0.75	U	0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/08/2015 2:24 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

COC Sample ID: **MA01MW003**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030703**

Sample Matrix: **Water**
Sample Date: **04/02/2015 10:59 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
88-72-2	2-Nitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-08-1	3-Nitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
99-99-0	4-Nitrotoluene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
2691-41-0	HMX	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
98-95-3	Nitrobenzene	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
55-63-0	Nitroglycerin	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/09/2015 6:40 PM**	1	0.75	0.75	0.75	U	0.75	U	ug/L
121-82-4	RDX	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L
479-45-8	Tetryl	EPA 8330A	**04/09/2015 6:40 PM**	1	0.5	0.5	0.5	U	0.5	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-24** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030401**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	25	100	25	U	25	U	ug/L
Antimony	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	4.32	J	4.32	J	ug/L
Barium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	53.4		53.4		ug/L
Beryllium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	625	2500	40200		40200		ug/L
Chromium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cobalt	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Iron	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	125	500	125	U	125	U	ug/L
Lead	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	125	500	20000		20000		ug/L
Manganese	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	6.25	25	6.25	U	6.25	U	ug/L
Molybdenum	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	15.1		15.1		ug/L
Nickel	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	125	500	4160		4160		ug/L
Selenium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Silver	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium	**04/02/2015 12:10 PM**	**04/10/2015 1:55 PM**	500	12500	50000	58100		58100		ug/L
Thallium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	1.25	5	28.3		28.3		ug/L
Zinc	**04/02/2015 12:10 PM**	**04/10/2015 1:58 PM**	5	25	100	25	U	25	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	5	20	5	U	5	U	ug/L
Antimony, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	4.23		4.23		ug/L
Barium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	55.5		55.5		ug/L
Beryllium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	125	500	41300		41300		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-24**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030401**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.38	J	0.38	J	ug/L
Cobalt, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.46	J	0.46	J	ug/L
Iron, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	25	100	25	U	25	U	ug/L
Lead, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:47 PM**	10	250	1000	20900		20900		ug/L
Manganese, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	15.6		15.6		ug/L
Nickel, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	25	100	4360		4360		ug/L
Selenium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.56	J	0.56	J	ug/L
Silver, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:47 PM**	10	250	1000	57800		57800		ug/L
Thallium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	0.25	1	29.1		29.1		ug/L
Zinc, Dissolved	**04/02/2015 12:10 PM**	**04/08/2015 8:44 PM**	1	5	20	22.8		22.8		ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 12:10 PM**	**04/04/2015 10:26 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 12:10 PM**	**04/04/2015 11:09 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030403**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	25	100	25	U	25	U	ug/L
Antimony	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Barium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	9.28		9.28		ug/L
Beryllium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	625	2500	135000		135000		ug/L
Chromium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cobalt	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.97	J	1.97	J	ug/L
Iron	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	125	500	125	U	125	U	ug/L
Lead	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium	**04/02/2015 2:06 PM**	**04/10/2015 2:05 PM**	500	12500	50000	57000		57000		ug/L
Manganese	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	6.25	25	183		183		ug/L
Molybdenum	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	18.5		18.5		ug/L
Nickel	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	125	500	6660		6660		ug/L
Selenium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	46.3		46.3		ug/L
Silver	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium	**04/02/2015 2:06 PM**	**04/10/2015 2:05 PM**	500	12500	50000	2170000		2170000		ug/L
Thallium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	1.25	5	5.05		5.05		ug/L
Zinc	**04/02/2015 2:06 PM**	**04/10/2015 2:08 PM**	5	25	100	25	U	25	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	25	100	25	U	25	U	ug/L
Antimony, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Barium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	9.18		9.18		ug/L
Beryllium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	625	2500	137000		137000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030403**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cobalt, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	2.35	J	2.35	J	ug/L
Iron, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	125	500	125	U	125	U	ug/L
Lead, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 2:06 PM**	**04/09/2015 2:00 PM**	500	12500	50000	58100		58100		ug/L
Manganese, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	6.25	25	186		186		ug/L
Molybdenum, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	18.7		18.7		ug/L
Nickel, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	125	500	6780		6780		ug/L
Selenium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	49.3		49.3		ug/L
Silver, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium, Dissolved	**04/02/2015 2:06 PM**	**04/09/2015 2:00 PM**	500	12500	50000	2240000		2240000		ug/L
Thallium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	1.25	5	4.77	J	4.77	J	ug/L
Zinc, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 8:57 PM**	5	25	100	26.2	J	26.2	J	ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 2:06 PM**	**04/04/2015 10:37 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 2:06 PM**	**04/04/2015 11:11 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW002** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030501**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	25	100	25	U	25	U	ug/L
Antimony	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Barium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	14.8		14.8		ug/L
Beryllium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	625	2500	46400		46400		ug/L
Chromium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.87	J	1.87	J	ug/L
Cobalt	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.27	J	1.27	J	ug/L
Iron	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	125	500	125	U	125	U	ug/L
Lead	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	125	500	39900		39900		ug/L
Manganese	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	6.25	25	6.25	U	6.25	U	ug/L
Molybdenum	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	6.74		6.74		ug/L
Nickel	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	125	500	6030		6030		ug/L
Selenium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	3.91	J	3.91	J	ug/L
Silver	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium	**04/02/2015 9:25 AM**	**04/13/2015 5:29 PM**	500	12500	50000	575000		575000		ug/L
Thallium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	1.25	5	11.2		11.2		ug/L
Zinc	**04/02/2015 9:25 AM**	**04/13/2015 5:22 PM**	5	25	100	36	J	36	J	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	5	20	5.61	J	5.61	J	ug/L
Antimony, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.5	2	0.96	J	0.96	J	ug/L
Arsenic, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.7	J	0.7	J	ug/L
Barium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	15.4		15.4		ug/L
Beryllium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	125	500	49100		49100		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW002**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030501**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	1.59		1.59		ug/L
Cobalt, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	1.27		1.27		ug/L
Iron, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	25	100	25	U	25	U	ug/L
Lead, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:04 PM**	100	2500	10000	41800		41800		ug/L
Manganese, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	7.39		7.39		ug/L
Nickel, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	25	100	6510		6510		ug/L
Selenium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	4.55		4.55		ug/L
Silver, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:04 PM**	100	2500	10000	551000		551000		ug/L
Thallium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	0.25	1	12.8		12.8		ug/L
Zinc, Dissolved	**04/02/2015 9:25 AM**	**04/08/2015 9:08 PM**	1	5	20	31.4		31.4		ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 9:25 AM**	**04/04/2015 10:39 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 9:25 AM**	**04/04/2015 11:13 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW001** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030503**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	5	20	8.05	J	8.05	J	ug/L
Antimony	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.64	J	0.64	J	ug/L
Barium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	13.7		13.7		ug/L
Beryllium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium	04/02/2015 10:20 AM	04/08/2015 7:50 PM	500	62500	250000	80100	J	80100	J	ug/L
Chromium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.51	J	0.51	J	ug/L
Cobalt	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Copper	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.63	J	0.63	J	ug/L
Iron	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	25	100	25	U	25	U	ug/L
Lead	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium	04/02/2015 10:20 AM	04/08/2015 7:50 PM	500	12500	50000	50000	J	50000	J	ug/L
Manganese	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	6.12		6.12		ug/L
Nickel	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	25	100	6360		6360		ug/L
Selenium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	4.09		4.09		ug/L
Silver	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium	04/02/2015 10:20 AM	04/08/2015 7:50 PM	500	12500	50000	645000		645000		ug/L
Thallium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	0.25	1	10.9		10.9		ug/L
Zinc	04/02/2015 10:20 AM	04/08/2015 7:53 PM	1	5	20	21.6		21.6		ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	5	20	5	U	5	U	ug/L
Antimony, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	0.25	1	0.64	J	0.64	J	ug/L
Barium, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	0.25	1	13.3		13.3		ug/L
Beryllium, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:28 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	04/02/2015 10:20 AM	04/08/2015 9:25 PM	500	62500	250000	82700	J	82700	J	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW001**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030503**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.41	J	0.41	J	ug/L
Cobalt, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.65	J	0.65	J	ug/L
Iron, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	25	100	25	U	25	U	ug/L
Lead, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:25 PM**	500	12500	50000	50900		50900		ug/L
Manganese, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	5.85		5.85		ug/L
Nickel, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	25	100	6530		6530		ug/L
Selenium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	4		4		ug/L
Silver, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:25 PM**	500	12500	50000	666000		666000		ug/L
Thallium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	0.25	1	10.9		10.9		ug/L
Zinc, Dissolved	**04/02/2015 10:20 AM**	**04/08/2015 9:28 PM**	1	5	20	21.5		21.5		ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 10:20 AM**	**04/04/2015 10:41 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 10:20 AM**	**04/04/2015 11:15 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D-a** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Field Duplicate** Lab Code: **GCAL**
Lab Sample ID: **21504030601**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	25	100	25	U	25	U	ug/L
Antimony	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Barium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	8.3		8.3		ug/L
Beryllium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	625	2500	145000		145000		ug/L
Chromium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cobalt	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.94	J	1.94	J	ug/L
Iron	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	125	500	125	U	125	U	ug/L
Lead	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium	**04/02/2015 2:06 PM**	**04/08/2015 8:00 PM**	500	12500	50000	63100		63100		ug/L
Manganese	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	6.25	25	190		190		ug/L
Molybdenum	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	19.7		19.7		ug/L
Nickel	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	125	500	7060		7060		ug/L
Selenium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	48.1		48.1		ug/L
Silver	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium	**04/02/2015 2:06 PM**	**04/08/2015 8:00 PM**	500	12500	50000	2260000		2260000		ug/L
Thallium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	1.25	5	5.38		5.38		ug/L
Zinc	**04/02/2015 2:06 PM**	**04/08/2015 8:03 PM**	5	25	100	25.9	J	25.9	J	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	25	100	25	U	25	U	ug/L
Antimony, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Arsenic, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.34	J	1.34	J	ug/L
Barium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	8.22		8.22		ug/L
Beryllium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cadmium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Calcium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	625	2500	138000		138000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D-a** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Field Duplicate** Lab Code: **GCAL**
Lab Sample ID: **21504030601**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Cobalt, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Copper, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.94	J	1.94	J	ug/L
Iron, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	125	500	125	U	125	U	ug/L
Lead, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:35 PM**	500	12500	50000	62600		62600		ug/L
Manganese, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	6.25	25	187		187		ug/L
Molybdenum, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	19.5		19.5		ug/L
Nickel, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	2.5	10	2.5	U	2.5	U	ug/L
Potassium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	125	500	7120		7120		ug/L
Selenium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	58.3		58.3		ug/L
Silver, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Sodium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:35 PM**	500	12500	50000	2300000		2300000		ug/L
Thallium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Titanium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	1.25	U	1.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	1.25	5	4.6	J	4.6	J	ug/L
Zinc, Dissolved	**04/02/2015 2:06 PM**	**04/08/2015 9:38 PM**	5	25	100	25	U	25	U	ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 2:06 PM**	**04/04/2015 10:43 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 2:06 PM**	**04/04/2015 11:17 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW004** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	5	20	5	U	5	U	ug/L
Antimony	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	1.34		1.34		ug/L
Barium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	21.4		21.4		ug/L
Beryllium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	125	500	47100		47100		ug/L
Chromium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.77	J	0.77	J	ug/L
Cobalt	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.46	J	0.46	J	ug/L
Iron	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	25	100	25	U	25	U	ug/L
Lead	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium	**04/02/2015 9:40 AM**	**04/08/2015 8:23 PM**	100	2500	10000	40600		40600		ug/L
Manganese	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	6.37		6.37		ug/L
Nickel	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	25	100	5740		5740		ug/L
Selenium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	7.03		7.03		ug/L
Silver	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium	**04/02/2015 9:40 AM**	**04/08/2015 8:23 PM**	100	2500	10000	361000		361000		ug/L
Thallium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	0.25	1	20.3		20.3		ug/L
Zinc	**04/02/2015 9:40 AM**	**04/08/2015 8:27 PM**	1	5	20	24.4		24.4		ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	5	20	5	U	5	U	ug/L
Antimony, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	1.29		1.29		ug/L
Barium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	20.7		20.7		ug/L
Beryllium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	125	500	45500		45500		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW004**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504030701**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.66	J	0.66	J	ug/L
Cobalt, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.53	J	0.53	J	ug/L
Iron, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	25	100	25	U	25	U	ug/L
Lead, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:45 PM**	100	2500	10000	41500		41500		ug/L
Manganese, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	5.92		5.92		ug/L
Nickel, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	25	100	5680		5680		ug/L
Selenium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	7.09		7.09		ug/L
Silver, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:45 PM**	100	2500	10000	376000		376000		ug/L
Thallium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	0.25	1	19.6		19.6		ug/L
Zinc, Dissolved	**04/02/2015 9:40 AM**	**04/08/2015 9:49 PM**	1	5	20	22.5		22.5		ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 9:40 AM**	**04/04/2015 10:45 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 9:40 AM**	**04/04/2015 11:28 PM**	1	0.043	0.2	0.257		0.257		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	5	20	5.54	J	5.54	J	ug/L
Antimony	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	1.08		1.08		ug/L
Barium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	14.8		14.8		ug/L
Beryllium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium	04/02/2015 10:59 AM	04/09/2015 2:13 PM	100	12500	50000	86100		86100		ug/L
Chromium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.49	J	0.49	J	ug/L
Cobalt	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Copper	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Iron	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	25	100	25	U	25	U	ug/L
Lead	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium	04/02/2015 10:59 AM	04/09/2015 2:13 PM	100	2500	10000	71700		71700		ug/L
Manganese	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	1.25	5	1.67	J	1.67	J	ug/L
Molybdenum	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	4.46		4.46		ug/L
Nickel	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	25	100	7900		7900		ug/L
Selenium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	4.03		4.03		ug/L
Silver	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium	04/02/2015 10:59 AM	04/09/2015 2:13 PM	100	2500	10000	545000		545000		ug/L
Thallium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	0.25	1	14.2		14.2		ug/L
Zinc	04/02/2015 10:59 AM	04/09/2015 2:03 PM	1	5	20	30.4		30.4		ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	5	20	5	U	5	U	ug/L
Antimony, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	0.25	1	0.99	J	0.99	J	ug/L
Barium, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	0.25	1	14.4		14.4		ug/L
Beryllium, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:59 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	04/02/2015 10:59 AM	04/08/2015 9:55 PM	100	12500	50000	91400		91400		ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.41	J	0.41	J	ug/L
Cobalt, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Copper, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.27	J	0.27	J	ug/L
Iron, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	25	100	25	U	25	U	ug/L
Lead, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Magnesium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:55 PM**	100	2500	10000	73800		73800		ug/L
Manganese, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	1.25	5	1.25	U	1.25	U	ug/L
Molybdenum, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	4.25		4.25		ug/L
Nickel, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.5	2	0.5	U	0.5	U	ug/L
Potassium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	25	100	7830		7830		ug/L
Selenium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	3.96		3.96		ug/L
Silver, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium, Dissolved	**04/02/2015 10:59 AM**	**04/10/2015 10:43 AM**	100	2500	10000	493000		493000		ug/L
Thallium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	0.25	U	0.25	U	ug/L
Vanadium, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	0.25	1	14.2		14.2		ug/L
Zinc, Dissolved	**04/02/2015 10:59 AM**	**04/08/2015 9:59 PM**	1	5	20	28.8		28.8		ug/L
Method: EPA 7470A										
Mercury	**04/02/2015 10:59 AM**	**04/04/2015 10:47 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/02/2015 10:59 AM**	**04/04/2015 11:31 PM**	1	0.043	0.2	0.079	J	0.079	J	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-21** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040601**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	5	20	880		880		ug/L
Antimony	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	6.07		6.07		ug/L
Barium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	33.8		33.8		ug/L
Beryllium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium	04/03/2015 10:45 AM	04/10/2015 11:49 AM	50	6250	25000	122000		122000		ug/L
Chromium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	1.23		1.23		ug/L
Cobalt	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.25	J	0.25	J	ug/L
Copper	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	1.99		1.99		ug/L
Iron	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	25	100	500		500		ug/L
Lead	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.64	J	0.64	J	ug/L
Magnesium	04/03/2015 10:45 AM	04/10/2015 11:49 AM	50	1250	5000	53500		53500		ug/L
Manganese	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	1.25	5	13.9		13.9		ug/L
Molybdenum	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	12.2		12.2		ug/L
Nickel	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.5	2	0.67	J	0.67	J	ug/L
Potassium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	25	100	8770		8770		ug/L
Selenium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	9.72		9.72		ug/L
Silver	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.25	U	0.25	U	ug/L
Sodium	04/03/2015 10:45 AM	04/10/2015 11:49 AM	50	1250	5000	191000		191000		ug/L
Thallium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	0.25	U	0.25	U	ug/L
Titanium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	8.69		8.69		ug/L
Vanadium	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	0.25	1	51.9		51.9		ug/L
Zinc	04/03/2015 10:45 AM	04/10/2015 11:52 AM	1	5	20	84.4		84.4		ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	5	20	44.1		44.1		ug/L
Antimony, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.5	2	0.5	U	0.5	U	ug/L
Arsenic, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	5.71		5.71		ug/L
Barium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	24.4		24.4		ug/L
Beryllium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Cadmium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L
Calcium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:47 PM	50	6250	25000	109000		109000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-21**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040601**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Chromium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.54	J	0.54	J	ug/L	
Cobalt, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L	
Copper, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.63	J	1	U	ug/L	*
Iron, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	25	100	28.6	J	28.6	J	ug/L	
Lead, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L	
Magnesium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:47 PM	50	1250	5000	48200		48200		ug/L	
Manganese, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	1.25	5	1.26	J	1.26	J	ug/L	
Molybdenum, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	11.2		11.2		ug/L	
Nickel, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.5	2	0.5	U	0.5	U	ug/L	
Potassium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	25	100	8300		8300		ug/L	
Selenium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	9.68		9.68		ug/L	
Silver, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L	
Sodium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:47 PM	50	1250	5000	173000		173000		ug/L	
Thallium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.25	U	0.25	U	ug/L	
Titanium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	0.62	J	0.62	J	ug/L	
Vanadium, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	0.25	1	48		48		ug/L	
Zinc, Dissolved	04/03/2015 10:45 AM	04/10/2015 3:50 PM	1	5	20	23.2		23.2		ug/L	

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-20** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040602**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	500	2000	500	U	500	U	ug/L
Antimony	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	50	200	50	U	50	U	ug/L
Arsenic	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Barium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	93.6	J	93.6	J	ug/L
Beryllium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Cadmium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Calcium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	12500	50000	844000		844000		ug/L
Chromium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Cobalt	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Copper	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Iron	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Magnesium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	2500	10000	426000		426000		ug/L
Manganese	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	125	500	1130		1130		ug/L
Molybdenum	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Nickel	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	50	200	50	U	50	U	ug/L
Potassium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	2500	10000	14200		14200		ug/L
Selenium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Silver	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Sodium	**04/03/2015 12:07 PM**	**04/10/2015 11:59 AM**	1000	25000	100000	3800000		3800000		ug/L
Thallium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Titanium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Vanadium	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	25	100	25	U	25	U	ug/L
Zinc	**04/03/2015 12:07 PM**	**04/10/2015 12:03 PM**	100	500	2000	500	U	500	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	500	2000	500	U	500	U	ug/L
Antimony, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	50	200	50	U	50	U	ug/L
Arsenic, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Barium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Beryllium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Cadmium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Calcium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	12500	50000	774000		774000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-20**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040602**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Cobalt, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Copper, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Iron, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Magnesium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	2500	10000	386000		386000		ug/L
Manganese, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	125	500	1000		1000		ug/L
Molybdenum, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Nickel, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	50	200	50	U	50	U	ug/L
Potassium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	2500	10000	12000		12000		ug/L
Selenium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Silver, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Sodium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 3:57 PM**	1000	25000	100000	3510000		3510000		ug/L
Thallium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Titanium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Vanadium, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	25	100	25	U	25	U	ug/L
Zinc, Dissolved	**04/03/2015 12:07 PM**	**04/10/2015 4:00 PM**	100	500	2000	500	U	500	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-19** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040603**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Method: EPA 6020A											
Aluminum	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	500	2000	500	U	500	U	ug/L	
Antimony	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	50	200	50	U	50	U	ug/L	
Arsenic	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Barium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	99.3	J	99.3	J	ug/L	
Beryllium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Cadmium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Calcium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	12500	50000	381000		381000		ug/L	
Chromium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Cobalt	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Copper	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Iron	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	2500	10000	2500	U	2500	U	ug/L	
Lead	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Magnesium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	2500	10000	214000		214000		ug/L	
Manganese	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	125	500	432	J	500	U	ug/L	*
Molybdenum	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Nickel	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	50	200	50	U	50	U	ug/L	
Potassium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	2500	10000	9810	J	9810	J	ug/L	
Selenium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Silver	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Sodium	04/03/2015 12:10 PM	04/10/2015 12:09 PM	1000	25000	100000	1280000		1280000		ug/L	
Thallium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Titanium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Vanadium	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	25	100	25	U	25	U	ug/L	
Zinc	04/03/2015 12:10 PM	04/10/2015 12:26 PM	100	500	2000	500	U	500	U	ug/L	
Method: EPA 6020A Dissolved											
Aluminum, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	500	2000	500	U	500	U	ug/L	
Antimony, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	50	200	50	U	50	U	ug/L	
Arsenic, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	25	100	25	U	25	U	ug/L	
Barium, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	25	100	28.9	J	28.9	J	ug/L	
Beryllium, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	25	100	25	U	25	U	ug/L	
Cadmium, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	25	100	25	U	25	U	ug/L	
Calcium, Dissolved	04/03/2015 12:10 PM	04/10/2015 4:21 PM	100	12500	50000	333000		333000		ug/L	

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-19**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040603**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Cobalt, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Copper, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Iron, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Magnesium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	2500	10000	190000		190000		ug/L
Manganese, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	125	500	358	J	358	J	ug/L
Molybdenum, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Nickel, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	50	200	50	U	50	U	ug/L
Potassium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	2500	10000	8840	J	8840	J	ug/L
Selenium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Silver, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Sodium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:17 PM**	1000	25000	100000	1130000		1130000		ug/L
Thallium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Titanium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Vanadium, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	25	100	25	U	25	U	ug/L
Zinc, Dissolved	**04/03/2015 12:10 PM**	**04/10/2015 4:21 PM**	100	500	2000	500	U	500	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-18** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	50	200	50	U	50	U	ug/L
Antimony	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	5	20	5	U	5	U	ug/L
Arsenic	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	7.42	J	7.42	J	ug/L
Barium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	31.7		31.7		ug/L
Beryllium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Cadmium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Calcium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	1250	5000	47600		47600		ug/L
Chromium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Cobalt	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Copper	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Iron	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	250	1000	250	U	250	U	ug/L
Lead	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Magnesium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	250	1000	20100		20100		ug/L
Manganese	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	12.5	50	12.5	U	12.5	U	ug/L
Molybdenum	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	4.68	J	4.68	J	ug/L
Nickel	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	5	20	5	U	5	U	ug/L
Potassium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	250	1000	2580		2580		ug/L
Selenium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Silver	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Sodium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	250	1000	67500		67500		ug/L
Thallium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Titanium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Vanadium	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	2.5	10	57.4		57.4		ug/L
Zinc	**04/03/2015 12:50 PM**	**04/10/2015 12:30 PM**	10	50	200	50	U	50	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	50	200	50	U	50	U	ug/L
Antimony, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	5	20	5	U	5	U	ug/L
Arsenic, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	2.5	10	7.43	J	7.43	J	ug/L
Barium, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	2.5	10	29.5		29.5		ug/L
Beryllium, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Cadmium, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	2.5	10	2.5	U	2.5	U	ug/L
Calcium, Dissolved	**04/03/2015 12:50 PM**	**04/10/2015 4:34 PM**	10	1250	5000	48000		48000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-18**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040701**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Cobalt, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Copper, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Iron, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	250	1000	250	U	250	U	ug/L
Lead, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Magnesium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	250	1000	20000		20000		ug/L
Manganese, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	12.5	50	12.5	U	12.5	U	ug/L
Molybdenum, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	4.55	J	4.55	J	ug/L
Nickel, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	5	20	5	U	5	U	ug/L
Potassium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	250	1000	2500		2500		ug/L
Selenium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	3.6	J	3.6	J	ug/L
Silver, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Sodium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	250	1000	67000		67000		ug/L
Thallium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Titanium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	2.5	U	2.5	U	ug/L
Vanadium, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	2.5	10	57.6		57.6		ug/L
Zinc, Dissolved	04/03/2015 12:50 PM	04/10/2015 4:34 PM	10	50	200	50	U	50	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040702**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	500	2000	500	U	500	U	ug/L
Antimony	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	50	200	50	U	50	U	ug/L
Arsenic	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Barium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	95.9	J	95.9	J	ug/L
Beryllium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Cadmium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Calcium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	12500	50000	281000		281000		ug/L
Chromium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Cobalt	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Copper	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Iron	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Magnesium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	2500	10000	149000		149000		ug/L
Manganese	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	125	500	615		615		ug/L
Molybdenum	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Nickel	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	50	200	50	U	50	U	ug/L
Potassium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	2500	10000	9030	J	9030	J	ug/L
Selenium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Silver	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Sodium	**04/03/2015 2:20 PM**	**04/21/2015 6:08 PM**	1000	25000	100000	2440000		2440000		ug/L
Thallium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Titanium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Vanadium	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	25	100	25	U	25	U	ug/L
Zinc	**04/03/2015 2:20 PM**	**04/10/2015 12:40 PM**	100	500	2000	500	U	500	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	500	2000	500	U	500	U	ug/L
Antimony, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	50	200	50	U	50	U	ug/L
Arsenic, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Barium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	26.5	J	26.5	J	ug/L
Beryllium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Cadmium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Calcium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	12500	50000	249000		249000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040702**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Cobalt, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Copper, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Iron, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Magnesium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	2500	10000	139000		139000		ug/L
Manganese, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	125	500	550		550		ug/L
Molybdenum, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Nickel, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	50	200	50	U	50	U	ug/L
Potassium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	2500	10000	8140	J	8140	J	ug/L
Selenium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Silver, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Sodium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:38 PM**	1000	25000	100000	2450000		2450000		ug/L
Thallium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Titanium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Vanadium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	25	100	25	U	25	U	ug/L
Zinc, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:41 PM**	100	500	2000	500	U	500	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2-a** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Field Duplicate** Lab Code: **GCAL**
Lab Sample ID: **21504040703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	500	2000	500	U	500	U	ug/L
Antimony	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	50	200	50	U	50	U	ug/L
Arsenic	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Barium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	95.5	J	95.5	J	ug/L
Beryllium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Cadmium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Calcium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	12500	50000	265000		265000		ug/L
Chromium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Cobalt	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Copper	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Iron	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Magnesium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	2500	10000	148000		148000		ug/L
Manganese	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	125	500	624		624		ug/L
Molybdenum	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Nickel	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	50	200	50	U	50	U	ug/L
Potassium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	2500	10000	9230	J	9230	J	ug/L
Selenium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Silver	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Sodium	**04/03/2015 2:20 PM**	**04/10/2015 12:47 PM**	1000	25000	100000	2520000		2520000		ug/L
Thallium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Titanium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Vanadium	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	25	100	25	U	25	U	ug/L
Zinc	**04/03/2015 2:20 PM**	**04/10/2015 12:50 PM**	100	500	2000	500	U	500	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	500	2000	500	U	500	U	ug/L
Antimony, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	50	200	50	U	50	U	ug/L
Arsenic, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Barium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	27	J	27	J	ug/L
Beryllium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Cadmium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Calcium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	12500	50000	244000		244000		ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2-a**
Location ID: **NA**
Sample Type: **Field Duplicate**
Lab Sample ID: **21504040703**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Cobalt, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Copper, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Iron, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	2500	10000	2500	U	2500	U	ug/L
Lead, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Magnesium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	2500	10000	136000		136000		ug/L
Manganese, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	125	500	522		522		ug/L
Molybdenum, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Nickel, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	50	200	50	U	50	U	ug/L
Potassium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	2500	10000	8550	J	8550	J	ug/L
Selenium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Silver, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Sodium, Dissolved	**04/03/2015 2:20 PM**	**04/13/2015 6:40 PM**	1000	25000	100000	2390000		2390000		ug/L
Thallium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Titanium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Vanadium, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	25	100	25	U	25	U	ug/L
Zinc, Dissolved	**04/03/2015 2:20 PM**	**04/10/2015 4:51 PM**	100	500	2000	500	U	500	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-22** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040801**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Method: EPA 6020A											
Aluminum	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	50	200	50	U	50	U	ug/L	
Antimony	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	5	20	5	U	5	U	ug/L	
Arsenic	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Barium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	36.5		36.5		ug/L	
Beryllium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Cadmium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Calcium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	1250	5000	54300		54300		ug/L	
Chromium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Cobalt	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Copper	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Iron	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	250	1000	392	J	392	J	ug/L	
Lead	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Magnesium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	250	1000	21700		21700		ug/L	
Manganese	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	12.5	50	168		168	J	ug/L	*
Molybdenum	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	13		13		ug/L	
Nickel	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	5	20	5	U	5	U	ug/L	
Potassium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	250	1000	3100		3100		ug/L	
Selenium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Silver	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Sodium	**04/03/2015 9:35 AM**	**04/10/2015 12:57 PM**	100	2500	10000	354000		354000		ug/L	
Thallium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Titanium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Vanadium	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Zinc	**04/03/2015 9:35 AM**	**04/10/2015 1:00 PM**	10	50	200	50	U	50	U	ug/L	
Method: EPA 6020A Dissolved											
Aluminum, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	50	200	50	U	50	U	ug/L	
Antimony, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	5	20	5	U	5	U	ug/L	
Arsenic, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Barium, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	2.5	10	32.4		32.4		ug/L	
Beryllium, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Cadmium, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	2.5	10	2.5	U	2.5	U	ug/L	
Calcium, Dissolved	**04/03/2015 9:35 AM**	**04/10/2015 5:02 PM**	10	1250	5000	52300		52300		ug/L	

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-22**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504040801**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Chromium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Cobalt, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Copper, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Iron, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	250	1000	333	J	333	J	ug/L	
Lead, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Magnesium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	250	1000	21200		21200		ug/L	
Manganese, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	12.5	50	191		191		ug/L	
Molybdenum, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	13.1		13.1		ug/L	
Nickel, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	5	20	5	U	5	U	ug/L	
Potassium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	250	1000	3020		3020		ug/L	
Selenium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Silver, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	UJ	ug/L	*
Sodium, Dissolved	04/03/2015 9:35 AM	04/10/2015 4:58 PM	100	2500	10000	365000		365000		ug/L	
Thallium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Titanium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Vanadium, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	2.5	10	2.5	U	2.5	U	ug/L	
Zinc, Dissolved	04/03/2015 9:35 AM	04/10/2015 5:02 PM	10	50	200	50	U	50	U	ug/L	

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-24** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030401**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 12:10 PM**	**04/10/2015 2:13 AM**	2	0.1	0.4	4.55		4.55		mg/L
Nitrate	**04/02/2015 12:10 PM**	**04/03/2015 11:51 AM**	1	0.05	0.2	2.96		2.96		mg/L
Nitrite	**04/02/2015 12:10 PM**	**04/03/2015 11:51 AM**	1	0.05	0.2	0.05	U	0.05	U	mg/L
Sulfate	**04/02/2015 12:10 PM**	**04/10/2015 2:31 AM**	20	1	4	64.6		64.6		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 12:10 PM**	**04/10/2015 10:37 AM**	1	0.0005	0.005	0.0024	J	0.0024	J	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 12:10 PM**	**04/10/2015 2:28 PM**	1	0.26	1	233		233		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 12:10 PM**	**04/06/2015 4:08 PM**	1	10	10	230		230		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 12:10 PM**	**04/09/2015 3:30 PM**	1	0.0001	0.0003	0.00012	J	0.00012	J	mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030403**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 2:06 PM**	**04/10/2015 2:49 AM**	2000	100	400	1920		1920		mg/L
Nitrate	**04/02/2015 2:06 PM**	**04/03/2015 12:08 PM**	1	0.05	0.2	4.59		4.59		mg/L
Nitrite	**04/02/2015 2:06 PM**	**04/03/2015 5:22 PM**	100	5	20	5	U	5	U	mg/L
Sulfate	**04/02/2015 2:06 PM**	**04/10/2015 2:49 AM**	2000	100	400	2070		2070		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 2:06 PM**	**04/10/2015 10:40 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 2:06 PM**	**04/10/2015 2:28 PM**	1	0.26	1	152		152		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 2:06 PM**	**04/06/2015 4:08 PM**	1	10	10	4960		4960		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 2:06 PM**	**04/09/2015 8:38 PM**	1	0.001	0.003	0.0143		0.0143		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW002** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030501**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 9:25 AM**	**04/11/2015 2:35 PM**	200	10	40	438		438		mg/L
Nitrate	**04/02/2015 9:25 AM**	**04/03/2015 12:26 PM**	1	0.05	0.2	0.528		0.528		mg/L
Nitrite	**04/02/2015 9:25 AM**	**04/03/2015 12:26 PM**	1	0.05	0.2	0.05	U	0.05	U	mg/L
Sulfate	**04/02/2015 9:25 AM**	**04/11/2015 2:35 PM**	200	10	40	528		528		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 9:25 AM**	**04/10/2015 10:41 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 9:25 AM**	**04/10/2015 2:28 PM**	1	0.26	1	200		200		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 9:25 AM**	**04/06/2015 4:08 PM**	1	10	10	1490		1490		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 9:25 AM**	**04/09/2015 4:18 PM**	1	0.0001	0.0003	0.00186		0.00186		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW001** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030503**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 10:20 AM**	**04/11/2015 2:52 PM**	500	25	100	560		560		mg/L
Nitrate	**04/02/2015 10:20 AM**	**04/03/2015 12:43 PM**	5	0.25	1	0.676	J	0.676	J	mg/L
Nitrite	**04/02/2015 10:20 AM**	**04/03/2015 12:43 PM**	5	0.25	1	0.25	U	0.25	U	mg/L
Sulfate	**04/02/2015 10:20 AM**	**04/11/2015 2:52 PM**	500	25	100	682		682		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 10:20 AM**	**04/10/2015 10:42 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 10:20 AM**	**04/08/2015 1:11 PM**	1	0.26	1	188		188		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 10:20 AM**	**04/06/2015 4:08 PM**	1	10	10	1710		1710		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 10:20 AM**	**04/09/2015 4:37 PM**	1	0.0001	0.0003	0.00031		0.00031		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA02MW001D-a** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Field Duplicate** Lab Code: **GCAL**
Lab Sample ID: **21504030601**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 2:06 PM**	**04/11/2015 3:10 PM**	1000	50	200	2070		2070		mg/L
Nitrate	**04/02/2015 2:06 PM**	**04/03/2015 1:35 PM**	20	1	4	4.97		4.97		mg/L
Nitrite	**04/02/2015 2:06 PM**	**04/03/2015 1:35 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/02/2015 2:06 PM**	**04/11/2015 3:10 PM**	1000	50	200	2130		2130		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 2:06 PM**	**04/10/2015 10:45 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 2:06 PM**	**04/08/2015 1:11 PM**	1	0.26	1	149		149		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 2:06 PM**	**04/06/2015 4:08 PM**	1	10	10	4940		4940		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 2:06 PM**	**04/09/2015 8:55 PM**	1	0.001	0.003	0.0125		0.0125		mg/L

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U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW004** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 9:40 AM**	**04/11/2015 4:03 PM**	200	10	40	257		257		mg/L
Nitrate	**04/02/2015 9:40 AM**	**04/03/2015 1:01 PM**	4	0.2	0.8	1.05		1.05		mg/L
Nitrite	**04/02/2015 9:40 AM**	**04/03/2015 1:01 PM**	4	0.2	0.8	0.2	U	0.2	U	mg/L
Sulfate	**04/02/2015 9:40 AM**	**04/11/2015 4:03 PM**	200	10	40	346		346		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 9:40 AM**	**04/10/2015 10:43 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 9:40 AM**	**04/08/2015 1:11 PM**	1	0.26	1	199		199		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 9:40 AM**	**04/06/2015 4:08 PM**	1	10	10	922		922		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 9:40 AM**	**04/09/2015 4:53 PM**	1	0.0001	0.0003	0.00373		0.00373		mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MA01MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504030703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/02/2015 10:59 AM**	**04/11/2015 4:20 PM**	500	25	100	484		484		mg/L
Nitrate	**04/02/2015 10:59 AM**	**04/03/2015 1:18 PM**	5	0.25	1	0.612	J	0.612	J	mg/L
Nitrite	**04/02/2015 10:59 AM**	**04/03/2015 1:18 PM**	5	0.25	1	0.25	U	0.25	U	mg/L
Sulfate	**04/02/2015 10:59 AM**	**04/11/2015 4:20 PM**	500	25	100	576		576		mg/L
Method: EPA 9012B										
Cyanide	**04/02/2015 10:59 AM**	**04/10/2015 10:44 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/02/2015 10:59 AM**	**04/08/2015 1:11 PM**	1	0.26	1	171		171		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/02/2015 10:59 AM**	**04/06/2015 4:08 PM**	1	10	10	1500		1500		mg/L
Method: SW6860										
Perchlorate	**04/02/2015 10:59 AM**	**04/09/2015 5:58 PM**	1	0.0001	0.0003	0.000339		0.000339		mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-21** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040601**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 10:45 AM**	**04/11/2015 4:38 PM**	100	5	20	96.2		96.2		mg/L
Nitrate	**04/03/2015 10:45 AM**	**04/04/2015 8:05 PM**	2	0.1	0.4	3.3		3.3		mg/L
Nitrite	**04/03/2015 10:45 AM**	**04/05/2015 6:58 AM**	1	0.05	0.2	0.05	U	0.05	U	mg/L
Sulfate	**04/03/2015 10:45 AM**	**04/11/2015 4:38 PM**	100	5	20	385		385		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 10:45 AM**	**04/10/2015 10:46 AM**	1	0.0005	0.005	0.0007	J	0.0007	J	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 10:45 AM**	**04/08/2015 3:09 PM**	1	0.26	1	253		253		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 10:45 AM**	**04/06/2015 4:08 PM**	1	10	10	688		688		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 10:45 AM**	**04/09/2015 6:14 PM**	1	0.0001	0.0003	0.00918		0.00918		mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-20** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040602**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 12:07 PM**	**04/10/2015 1:03 AM**	5000	250	1000	5490		5490		mg/L
Nitrate	**04/03/2015 12:07 PM**	**04/04/2015 5:11 PM**	40	2	8	2	U	2	U	mg/L
Nitrite	**04/03/2015 12:07 PM**	**04/04/2015 5:11 PM**	40	2	8	2	U	2	U	mg/L
Sulfate	**04/03/2015 12:07 PM**	**04/10/2015 1:03 AM**	5000	250	1000	1770		1770		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 12:07 PM**	**04/10/2015 10:47 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 12:07 PM**	**04/08/2015 3:09 PM**	1	0.26	1	77.8		77.8		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 12:07 PM**	**04/06/2015 4:08 PM**	1	10	10	9250		9250		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 12:07 PM**	**04/09/2015 6:30 PM**	1	0.0001	0.0003	0.0001	U	0.0001	U	mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-19** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040603**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 12:10 PM**	**04/10/2015 1:56 AM**	1000	50	200	1520		1520		mg/L
Nitrate	**04/03/2015 12:10 PM**	**04/04/2015 5:28 PM**	10	0.5	2	0.5	U	0.5	U	mg/L
Nitrite	**04/03/2015 12:10 PM**	**04/04/2015 5:28 PM**	10	0.5	2	0.5	U	0.5	U	mg/L
Sulfate	**04/03/2015 12:10 PM**	**04/10/2015 1:56 AM**	1000	50	200	1100		1100		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 12:10 PM**	**04/10/2015 10:48 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 12:10 PM**	**04/08/2015 3:09 PM**	1	0.26	1	542		542		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 12:10 PM**	**04/06/2015 4:08 PM**	1	10	10	3650		3650		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 12:10 PM**	**04/09/2015 6:46 PM**	1	0.0001	0.0003	0.0001	U	0.0001	U	mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-18** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 12:50 PM**	**04/08/2015 9:22 PM**	20	1	4	32.1		32.1		mg/L
Nitrate	**04/03/2015 12:50 PM**	**04/04/2015 6:03 PM**	1	0.05	0.2	0.494		0.494		mg/L
Nitrite	**04/03/2015 12:50 PM**	**04/04/2015 6:03 PM**	1	0.05	0.2	0.05	U	0.05	U	mg/L
Sulfate	**04/03/2015 12:50 PM**	**04/08/2015 9:22 PM**	20	1	4	119		119		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 12:50 PM**	**04/10/2015 10:49 AM**	1	0.0005	0.005	0.0015	J	0.0015	J	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 12:50 PM**	**04/08/2015 3:09 PM**	1	0.26	1	184		184		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 12:50 PM**	**04/06/2015 4:08 PM**	1	10	10	308		308		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 12:50 PM**	**04/09/2015 7:02 PM**	1	0.0001	0.0003	0.00455		0.00455		mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040702**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 2:20 PM**	**04/08/2015 9:40 PM**	2000	100	400	3260		3260		mg/L
Nitrate	**04/03/2015 2:20 PM**	**04/04/2015 6:21 PM**	20	1	4	1	U	1	U	mg/L
Nitrite	**04/03/2015 2:20 PM**	**04/04/2015 6:21 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/03/2015 2:20 PM**	**04/08/2015 9:40 PM**	2000	100	400	1520		1520		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 2:20 PM**	**04/10/2015 10:51 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 2:20 PM**	**04/08/2015 3:09 PM**	1	0.26	1	101		101		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 2:20 PM**	**04/06/2015 4:08 PM**	1	10	10	5920		5920		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 2:20 PM**	**04/09/2015 7:18 PM**	1	0.0001	0.0003	0.0001	U	0.0001	U	mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-2-a** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Field Duplicate** Lab Code: **GCAL**
Lab Sample ID: **21504040703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/03/2015 2:20 PM**	**04/10/2015 12:10 AM**	2000	100	400	3250		3250		mg/L
Nitrate	**04/03/2015 2:20 PM**	**04/04/2015 6:38 PM**	20	1	4	1	U	1	U	mg/L
Nitrite	**04/03/2015 2:20 PM**	**04/04/2015 6:38 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/03/2015 2:20 PM**	**04/10/2015 12:10 AM**	2000	100	400	1410		1410		mg/L
Method: EPA 9012B										
Cyanide	**04/03/2015 2:20 PM**	**04/10/2015 10:52 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/03/2015 2:20 PM**	**04/08/2015 3:09 PM**	1	0.26	1	99.6		99.6		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/03/2015 2:20 PM**	**04/07/2015 4:35 PM**	1	10	10	5910		5910		mg/L
Method: SW6860										
Perchlorate	**04/03/2015 2:20 PM**	**04/09/2015 7:34 PM**	1	0.0001	0.0003	0.0001	U	0.0001	U	mg/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

eDATApro

Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040304

Sample Name: **MWQ-22** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504040801**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Method: EPA 300.0, Rev 2.1											
Chloride	**04/03/2015 9:35 AM**	**04/08/2015 8:30 PM**	300	15	60	320		320		mg/L	
Nitrate	**04/03/2015 9:35 AM**	**04/04/2015 4:19 PM**	3	0.15	0.6	0.15	U	0.15	U	mg/L	
Nitrite	**04/03/2015 9:35 AM**	**04/04/2015 4:19 PM**	3	0.15	0.6	0.15	U	0.15	U	mg/L	
Sulfate	**04/03/2015 9:35 AM**	**04/08/2015 8:30 PM**	300	15	60	225		225		mg/L	
Method: EPA 9012B											
Cyanide	**04/03/2015 9:35 AM**	**04/10/2015 10:53 AM**	1	0.0005	0.005	0.0005	U	0.0005	UJ	mg/L	*
Method: SM 2320 B-2011											
Total Alkalinity	**04/03/2015 9:35 AM**	**04/10/2015 2:28 PM**	1	0.26	1	198		198		mg/L	
Method: SM 2540 C-2011											
Total Dissolved Solids(TDS)	**04/03/2015 9:35 AM**	**04/10/2015 3:29 PM**	1	10	10	1010		1010		mg/L	
Method: SW6860											
Perchlorate	**04/03/2015 9:35 AM**	**04/09/2015 7:50 PM**	1	0.0001	0.0003	0.0001	U	0.0001	U	mg/L	

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected

eDATApro

Appendix II
Chain of Custody

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040203

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

- 24 Hour
- 5 Day
- Standard X
- Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Control Num	Equipment Blank	Trip Blank Lot ontrol Number	Cooler ID
MWQ-24		04022015	1210		N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-1	C
MWQ-24-C		04022015	1210		TB	1	WQ	3	X													-2	C
MA02MW001D		04022015	1406	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	C
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Client ID: 4747 - TRINITY Analysis & Development Corp.
SDG: 215040304
Due Date: 04/10/15

Comments: Dissolved metals were field filtered

Note: MA02MW001D-a VOC vials (3) are also in this cooler (C)

5958093814708 3

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1200			
2.	FedEx 4315		9:50	DocuMeine 4315		9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab:	No	Shipped: No.:	4
Method of Shipment:	FedEx	Airbill Number:	
Analytical Lab:	GCAL	Delivery Location:	Baton Rouge, LA
Lab Recipient:		Delivery Date/Time:	

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040202

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												Quality Assurance Samples (6)			
MA01MW002		04072015	0925		N	1	WG	13	X	X	X	X	X	X	X	X	X	X			215040305	-1	B
MA01MW002-C		04072015	0925		TB	1	WQ	3	X													-2	B
MA01MW001		04072015	1020	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	B
				-																			
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

E9180 9381 4093 3 4E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1700			
2.	FedEx	4-3-15	9:50	Dodie McCune	4-3-15	950
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Page 1 of 1

Project Number: A012-113

Chain of Custody Number (1): ~~15040306~~ 15040204

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												Quality Assurance Samples (6)			
MA02MW0010-9		04022015	1406		FD	1	WG	13	X	X	X	X	X	X	X	X	X	X			2150403306	-1	D
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments: Dissolved metals were field filtered

Note: VOC vials are in Cooler "C" 5980 9381 4719 1424

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/2/15	1700			
2.	FedEx	4-3-15	9:50	Doug McClure	4-3-15	9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040201

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy) *	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
																					215040307		
MA01MW004		04022015 *	0940		N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-1	A
MA01MW004-c		↓	0940		TB	1	WQ	3	X													-2	A
MA01MW003		↓	1059	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X				-3	A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments: Dissolved metals were field filtered 5080 9381 4682 2.6 E24 * taken from containers 4-6-15 BGM

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-2-15	1700			
2.	FedEx	4-3-15	9:50	DocuMcaine	4-3-15	9:50
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 4

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040302

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												**Quality Assurance Samples (6)**			
																				215040406			
MWQ-21		04032015	1045		N	1	WG	8	X	X	X	X	X	X	X							-1	B
MWQ-20		04032015	1207		N	1	WG	8	X	X	X	X	X	X	X							-2	B
MWQ-19		04032015	1210	-	N	1	WG	8	X	X	X	X	X	X	X							-3	B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 4999 1317 0.6E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/3/15	1630			
2.	FedEx	4-4-15	9:45	Dodie McCune	4-4-15	945
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY
ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 15040303

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
								Sample Analysis Requested (5)												**Quality Assurance Samples (6)**			
MWQ-18		04032015	1250		N	1	WG	8	X	X	X	X	X	X	X						215040407	-1	C
MWQ-2		04032015	1420		N	1	WG	8	X	X	X	X	X	X	X							-2	C
MWQ-2-a		04032015	1420	-	FD	1	WG	8	X	X	X	X	X	X	X							-3	C
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 5000 3582 1.4E24

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-3-15	1630			
2.	FedEx 4415		9:45	Dawn Mcaure 4415		9:45
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Chain of Custody and Analytical Request

Project Number: A012-113

Chain of Custody Number (1): 1504030l

Project Name / Site Name: Melorse AFR Annual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Sample Analysis Requested (5)

Quality Assurance Samples (6)

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	Metals (Total & Diss) 6020A	Cyanide (9012A)	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C					Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
																					215040408		
MWQ-22		04032015	0935		N	1	WG	8	X	X	X	X	X	X	X							-1	A
MWQ-22-MS		04032015	0935		MS	1	WG	8	X	X	X	X	X	X	X							-2	A
MWQ-22-MSD		04032015	0935	-	SD	1	WG	8	X	X	X	X	X	X	X							-3	A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040304

Due Date: 04/10/15

Comments Dissolved metals were field filtered

7804 4999 7017 3724

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4-3-15	1630			
2.	FedEx	4-4-15	9:45	Dodi McCune	4-4-15	9:45
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number:

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

Data Validation Report

Melrose AFR Semi-Annual

Trinity Analysis & Development Corp

SDG: 215040217 Date: May 8, 2015

Environmental Data Professional, LLC
1432 Watkins Street • Lake Charles, LA 70601 • phone: 337-540-0036 • fax: 337-478-6061

Disclaimer:

The validation performed and reported herein is based on specifications and procedures presented to eDATApro with the associated data package. Any qualifications or review not specified with package requirements was based on USEPA National Functional Guidelines for Inorganic and Organic Data Review.

Information contained in this report is based solely on the hardcopy and/or electronic deliverables that were submitted to eDATApro. eDATApro reserves the rights to modify or change the validation report if new information is presented or if this report is determined to be inaccurate or incomplete.

Cover Letter

Validation Report Date: May 8, 2015

Sample Delivery Group: 215040217

Project Name: Melrose AFR Semi-Annual

Data validation personnel: Dana Hebert and Tony Duhon

Validation Report:

__✓__ Introduction

__✓__ Sample Identification Cross- Reference Table

__✓__ Data Validation Components

__✓__ Data Validation Findings Summary

__✓__ Table 1-1, Summary of Qualified Data

__✓__ Table 1-2, Data Qualifier Reference Table

__✓__ Appendix I, Form I Data (qualified)

__✓__ Appendix II, Chain of Custody

Approval Signature: Anthony Duhon Date: May 8, 2015

INTRODUCTION:

SDG: 215040217
Project Name: Melrose AFR Semi-Annual
Laboratory: GCAL Analytical Laboratories/DHL Analytical
Matrix: Water

Environmental Data Professional, LLC (eDATApro) received one electronic data package containing the results for four field samples, one matrix spike pair and three trip blanks. Level III Data Validation was performed according to guidance from *USEPA National Functional Guidelines for Organic Data Review, USEPA National Functional Guidelines for Inorganic Data Review* and the project specific Quality Assurance Project Plan.

The following samples were reviewed:

Sample ID	Lab ID	Collection Date/Time	Analyses
M114MW002	21504021701	04/01/2015 11:45 AM	[1-12]
M114MW002-c	21504021702	04/01/2015 11:45 AM	[1]
M114MW004	21504021703	04/01/2015 01:25 PM	[1-12]
M114MW003	21504021704	04/01/2015 11:26 AM	[1-12]
M114MW003-c	21504021705	04/01/2015 11:26 AM	[1]
M114MW001	21504021706	04/01/2015 12:53 PM	[1-12]
M114MW001-c	21504021707	04/01/2015 12:53 PM	[1]
M114MW001-MS	21504021708	04/01/2015 12:53 PM	[1-9,12]
M114MW001-SD	21504021709	04/01/2015 12:53 PM	[1-9,12]

Analyses Performed Codes:

[1] Volatile Organics – SW-846 8260B
[2] Explosives – SW-846 8330
[3] TAL Metals (total) – SW-846 6020A
[4] Mercury (total) – SW-846 7470A
[5] TAL Metals (Dissolved) – SW-846 6020A
[6] Mercury (Dissolved) – SW-846 7470A
[7] Sulfate and Chloride – EPA 300.0
[8] Nitrate and Nitrite – EPA 300.0
[9] Total Cyanide – SW-846 9012B
[10] Total Alkalinity – SM 2320B
[11] Total Dissolved Solids – SM 2540C
[12] Perchlorate – SW-846 6860 (DHL Analytical)

DATA VALIDATION COMPONENTS

The data presented in this validation report was reviewed using a systematic process for evaluating performance and compliance of a set of data when compared to a set of standards to ascertain its completeness, correctness, and consistency using the methods and/or project defined criteria. The following components, as applicable to each analytical method, were reviewed in conducting the data validation:

- Data Completeness and Deliverables
- Sample Receipt (Chain of Custody Record)
    - Sample ID
    - Collection Date/Time
    - Matrix
    - Analysis Requests
- Chemical/Temperature Preservation
- Holding Times
- Analytical/Method Performance
    - Instrument Performance Checks
    - Instrument Calibrations
        - Stability of Analyte Response (Average Response Factor)
        - Linearity of Analytical Response (Correlation Coefficient)
        - Initial Calibration (multi-point)
        - Calibration Verification
    - Method Quality Controls
        - Instrument/Method Blank
        - Laboratory Control Sample
        - Laboratory Duplicate/Replicate
        - Surrogates
        - Internal Standards
        - Interference Check Sample
        - ICP Serial Dilution
    - Preparation Batch Quality Control
        - Preparation Blank
        - Laboratory Control Sample
        - Matrix Spikes
- Field Quality Controls
    - Field Duplicate
    - Field/Equipment Rinsate/Trip Blanks

Unless specifically stated otherwise in the method summary sections of this report, all components evaluated and data presented by the laboratory met the applicable acceptance criteria and are considered fully usable.

DATA VALIDATION FINDINGS SUMMARY

I. General Package:

A laboratory data package compliant for Level III data validation was received on April 21, 2015. No resubmissions were necessary.

When necessary, dilution analyses were performed to minimize sample matrix interference and/or obtain analyte measurements within the linear range of calibration. Reporting limits were adjusted accordingly.

II. Method SW-846 8260B - Volatile Organic Analyses:

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

III. Method SW-846 8330 - Explosives

Recoveries of 1,3,5-Trinitrobenzene, 2,4-Dinitrotoluene and 4-Amino-2,6-dinitrotoluene in the matrix spike (MS) analysis of sample M114MW001 exceeded lower acceptance criteria, and comparison between measurements of several analytes in this MS and matrix spike duplicate (MSD) exceeded precision acceptance criteria. Acceptable recoveries were achieved in the laboratory control sample (LCS/LCSD) analyses and the MSD. None of these analytes were detected in the associated field samples. The laboratory applied “J” qualifiers to sample M114MW001 based on the exceedences. These laboratory qualifiers were removed in validation.

Recoveries of HMX in the MS and MSD analyses of sample M114MW001 exceeded lower acceptance criteria, and comparisons between measurements of this analyte in the MS and MSD exceeded precision acceptance criteria. The laboratory applied “Q” and “J” qualifiers to this sample based on the exceedences. The “Q” qualifier was removed in validation leaving the result modified to non-detect estimate (UJ).

The recovery of HMX in the LCSD associated with the field samples exceeded lower acceptance criteria. Acceptable recovery was achieved in the LCS. Comparison between measurements of 4-Nitrotoluene in the LCS and LCSD exceeded precision acceptance criteria. These analytes were not detected in any field samples. The laboratory applied a “Q” qualifier to the field sample results for these analytes. As no data qualifications were necessary, the laboratory qualifiers were removed.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

IV. Method SW-846 6020A – TAL metals (total)

Recoveries of Sodium in low-level calibration verification standards exceeded upper acceptance criteria. None of the reported Sodium concentrations were near the lower level of calibration. No data qualifications were necessary.

Recoveries of Calcium, Magnesium and/or Sodium in the matrix spike analyses exceeded acceptance criteria; however, the un-spiked sample concentrations of these analytes were greater than four times (4x) the concentration of the analyte fortification. No result qualifications were applied based upon these recoveries.

Aluminum, Barium and Copper were present in the preparation blank associated with the total metals analyses of field samples in this SDG. Aluminum and Copper were not detected in the field samples. The concentrations of Barium in the field samples were greater than five times (>5x) the blank concentration. No data qualifications were necessary.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

V. Method SW-846 6020A – TAL metals (dissolved)

Recoveries of Sodium in low-level calibration verification standards exceeded upper acceptance criteria. None of the reported Sodium concentrations were near the lower level of calibration. No data qualifications were necessary.

Recoveries of dissolved Calcium, dissolved Magnesium and/or dissolved Sodium in the matrix spike analyses exceeded acceptance criteria; however, the un-spiked sample concentrations of these analytes were greater than four times (4x) the concentration of the analyte fortification. No result qualifications were applied based upon these recoveries.

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

VI. Method SW-846 7470A – Mercury (total)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VII. Method SW-846 7470A – Mercury (dissolved)

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

VIII. Method EPA 300.0 – Sulfate and Chloride

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

IX. Method EPA 300.0 – Nitrate and Nitrite

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

X. Method SW-846 9012B – Total Cyanide

Recovery of Cyanide in the MS and MSD analyses of sample M114MW001 exceeded lower acceptance criteria. The Cyanide result for this sample was modified to non-detect estimate (UJ)

All other quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria.

XI. Method SM 2320B – Total Alkalinity

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XII. Method SM 2540C - Total Dissolved Solids

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

XIII. Method SW-846 6860 – Perchlorate

The Perchlorate analyses were performed by DHL Analytical in Round Rock, Texas.

All quality assurance and quality control (QA/QC) components presented by the laboratory satisfied method and data review acceptance criteria; therefore, no data qualifications were necessary.

Table 1-1

SUMMARY OF QUALIFIED DATA

Target Compound	Sample(s) Affected	Lab Result	Lab Qual	Val Result	Val Qual	Reason for Qualification
1,3,5-Trinitrobenzene	M114MW001	0.15	UJ	0.15	U	Removal of laboratory qualifier.
2,4-Dinitrotoluene	M114MW001	0.29	UJ	0.29	U	
2,6-Dinitrotoluene	M114MW001	0.26	UJ	0.26	U	
2-Nitrotoluene	M114MW001	0.17	UJ	0.17	U	
3-Nitrotoluene	M114MW001	0.33	UJ	0.33	U	
4-Amino-2,6-dinitrotoluene	M114MW001	0.36	UJ	0.36	U	
4-Nitrotoluene	M114MW001	0.42	UQ	0.42	U	
	M114MW002	0.42	UQ	0.42	U	
	M114MW003	0.42	UQ	0.42	U	
	M114MW004	0.42	UQ	0.42	U	
HMX	M114MW001	0.13	UQJ	0.13	UJ	Removal of laboratory qualifier. Low recovery in MS/MSD.
	M114MW002	0.13	UQ	0.13	U	Removal of laboratory qualifier.
	M114MW003	0.13	UQ	0.13	U	
	M114MW004	0.13	UQ	0.13	U	
Nitrobenzene	M114MW001	0.23	UJ	0.23	U	
Pentaerythritol Tetranitrate	M114MW001	0.59	UJ	0.59	U	
Cyanide	M114MW001	0.0005	U	0.0005	UJ	Low recovery in MS & MSD.

Table 1-2

DATA QUALIFIER REFERENCE

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limits of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification.”	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.	Not applicable.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.

LABORATORY QUALIFIER

Qualifier	Organics	Inorganics
Q	LCS/LCSD recovery and/or RPD was outside control limits/CCV did not meet acceptance criteria	LCS/LCSD recovery and/or RPD was outside control limits/CCV did not meet acceptance criteria

Appendix I
Form 1 Data (Qualified)

Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW002**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021701**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:45 AM**
Analysis Date: **04/06/2015 5:51 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW002**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021701**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:45 AM**
Analysis Date: **04/06/2015 5:51 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW002-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021702**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:45 AM**
Analysis Date: **04/06/2015 6:13 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW002-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021702**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:45 AM**
Analysis Date: **04/06/2015 6:13 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW004**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021703**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 1:25 PM**
Analysis Date: **04/06/2015 6:36 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW004**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021703**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 1:25 PM**
Analysis Date: **04/06/2015 6:36 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW003**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021704**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:26 AM**
Analysis Date: **04/06/2015 6:59 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW003**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021704**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:26 AM**
Analysis Date: **04/06/2015 6:59 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW003-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021705**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:26 AM**
Analysis Date: **04/06/2015 7:21 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW003-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021705**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:26 AM**
Analysis Date: **04/06/2015 7:21 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW001**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021706**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 12:53 PM**
Analysis Date: **04/02/2015 9:37 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW001**
Site ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021706**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 12:53 PM**
Analysis Date: **04/02/2015 9:37 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW001-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021707**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 12:53 PM**
Analysis Date: **04/06/2015 7:44 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
630-20-6	1,1,1,2-Tetrachloroethane	1	0.12	1	0.12	U	0.12	U	ug/L
71-55-6	1,1,1-Trichloroethane	1	0.123	1	0.123	U	0.123	U	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	0.109	1	0.109	U	0.109	U	ug/L
79-00-5	1,1,2-Trichloroethane	1	0.159	1	0.159	U	0.159	U	ug/L
75-34-3	1,1-Dichloroethane	1	0.171	1	0.171	U	0.171	U	ug/L
75-35-4	1,1-Dichloroethene	1	0.2	1	0.2	U	0.2	U	ug/L
563-58-6	1,1-Dichloropropene	1	0.052	1	0.052	U	0.052	U	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	0.079	1	0.079	U	0.079	U	ug/L
96-18-4	1,2,3-Trichloropropane	1	0.065	1	0.065	U	0.065	U	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	0.105	1	0.105	U	0.105	U	ug/L
95-63-6	1,2,4-Trimethylbenzene	1	0.084	1	0.084	U	0.084	U	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	1	0.194	1	0.194	U	0.194	U	ug/L
106-93-4	1,2-Dibromoethane	1	0.102	1	0.102	U	0.102	U	ug/L
95-50-1	1,2-Dichlorobenzene	1	0.135	1	0.135	U	0.135	U	ug/L
107-06-2	1,2-Dichloroethane	1	0.116	1	0.116	U	0.116	U	ug/L
78-87-5	1,2-Dichloropropane	1	0.15	1	0.15	U	0.15	U	ug/L
108-67-8	1,3,5-Trimethylbenzene	1	0.066	1	0.066	U	0.066	U	ug/L
541-73-1	1,3-Dichlorobenzene	1	0.138	1	0.138	U	0.138	U	ug/L
142-28-9	1,3-Dichloropropane	1	0.059	1	0.059	U	0.059	U	ug/L
106-46-7	1,4-Dichlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
594-20-7	2,2-Dichloropropane	1	0.17	1	0.17	U	0.17	U	ug/L
78-93-3	2-Butanone	1	0.142	5	0.142	U	0.142	U	ug/L
95-49-8	2-Chlorotoluene	1	0.08	1	0.08	U	0.08	U	ug/L
591-78-6	2-Hexanone	1	0.122	5	0.122	U	0.122	U	ug/L
106-43-4	4-Chlorotoluene	1	0.124	1	0.124	U	0.124	U	ug/L
99-87-6	4-Isopropyltoluene	1	0.07	1	0.07	U	0.07	U	ug/L
108-10-1	4-Methyl-2-pentanone	1	0.12	5	0.12	U	0.12	U	ug/L
67-64-1	Acetone	1	0.193	5	0.193	U	0.193	U	ug/L
71-43-2	Benzene	1	0.111	1	0.111	U	0.111	U	ug/L
108-86-1	Bromobenzene	1	0.145	1	0.145	U	0.145	U	ug/L
74-97-5	Bromochloromethane	1	0.127	1	0.127	U	0.127	U	ug/L
75-27-4	Bromodichloromethane	1	0.083	1	0.083	U	0.083	U	ug/L
75-25-2	Bromoform	1	0.215	1	0.215	U	0.215	U	ug/L
74-83-9	Bromomethane	1	0.427	1	0.427	U	0.427	U	ug/L
75-15-0	Carbon disulfide	1	0.19	1	0.19	U	0.19	U	ug/L
56-23-5	Carbon tetrachloride	1	0.248	1	0.248	U	0.248	U	ug/L

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Form 1 Data Sheet - Volatiles

Melrose AFB

Melrose AFR Semi-Annual

SDG: 215040217

COC Sample ID: **M114MW001-c**
Site ID: **NA**
Sample Type: **Trip Blank**
Lab Sample ID: **21504021707**
Method: **EPA 8260B**

Sample Matrix: **Water**
Sample Date: **04/01/2015 12:53 PM**
Analysis Date: **04/06/2015 7:44 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
108-90-7	Chlorobenzene	1	0.083	1	0.083	U	0.083	U	ug/L
75-00-3	Chloroethane	1	0.235	1	0.235	U	0.235	U	ug/L
67-66-3	Chloroform	1	0.155	1	0.155	U	0.155	U	ug/L
74-87-3	Chloromethane	1	0.144	1	0.144	U	0.144	U	ug/L
156-59-2	cis-1,2-Dichloroethene	1	0.103	1	0.103	U	0.103	U	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	0.124	1	0.124	U	0.124	U	ug/L
74-95-3	Dibromomethane	1	0.211	1	0.211	U	0.211	U	ug/L
75-71-8	Dichlorodifluoromethane	1	0.145	1	0.145	U	0.145	U	ug/L
100-41-4	Ethylbenzene	1	0.109	1	0.109	U	0.109	U	ug/L
87-68-3	Hexachlorobutadiene	1	0.265	1	0.265	U	0.265	U	ug/L
98-82-8	Isopropylbenzene (Cumene)	1	0.13	1	0.13	U	0.13	U	ug/L
136777-61-2	m,p-Xylene	1	0.123	2	0.123	U	0.123	U	ug/L
75-09-2	Methylene chloride	1	0.149	5	0.149	U	0.149	U	ug/L
91-20-3	Naphthalene	1	0.176	1	0.176	U	0.176	U	ug/L
104-51-8	n-Butylbenzene	1	0.123	1	0.123	U	0.123	U	ug/L
103-65-1	n-Propylbenzene	1	0.727	1	0.727	U	0.727	U	ug/L
95-47-6	o-Xylene	1	0.055	1	0.055	U	0.055	U	ug/L
135-98-8	sec-Butylbenzene	1	0.107	1	0.107	U	0.107	U	ug/L
100-42-5	Styrene	1	0.089	1	0.089	U	0.089	U	ug/L
1634-04-4	tert-Butyl methyl ether (MTBE)	1	0.078	5	0.078	U	0.078	U	ug/L
98-06-6	tert-Butylbenzene	1	0.087	1	0.087	U	0.087	U	ug/L
127-18-4	Tetrachloroethene	1	0.193	1	0.193	U	0.193	U	ug/L
108-88-3	Toluene	1	0.122	1	0.122	U	0.122	U	ug/L
156-60-5	trans-1,2-Dichloroethene	1	0.077	1	0.077	U	0.077	U	ug/L
10061-02-6	trans-1,3-Dichloropropene	1	0.128	1	0.128	U	0.128	U	ug/L
79-01-6	Trichloroethene	1	0.161	1	0.161	U	0.161	U	ug/L
75-69-4	Trichlorofluoromethane	1	0.157	1	0.157	U	0.157	U	ug/L
75-01-4	Vinyl chloride	1	0.127	1	0.127	U	0.127	U	ug/L

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit

* = Modified by Validation

U = Non-Detect J = Estimated R = Rejected

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

COC Sample ID: **M114MW002**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021701**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:45 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.27	0.27	0.27	U	0.27	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.29	0.29	0.29	U	0.29	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.26	0.26	0.26	U	0.26	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.3	0.3	0.3	U	0.3	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.33	0.33	0.33	U	0.33	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.36	0.36	0.36	U	0.36	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.42	0.42	0.42	UQ	0.42	U	ug/L	*
2691-41-0	HMX	EPA 8330A	**04/04/2015 2:03 AM**	1	0.13	0.13	0.13	UQ	0.13	U	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	**04/04/2015 2:03 AM**	1	0.23	0.23	0.23	U	0.23	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	**04/04/2015 2:03 AM**	1	0.38	0.38	0.38	U	0.38	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/04/2015 2:03 AM**	1	0.59	0.59	0.59	U	0.59	U	ug/L	
121-82-4	RDX	EPA 8330A	**04/04/2015 2:03 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
479-45-8	Tetryl	EPA 8330A	**04/04/2015 2:03 AM**	1	0.24	0.24	0.24	U	0.24	U	ug/L	

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
U = Non-Detect J = Estimated R = Rejected
Q = NO DESCRIPTION

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

COC Sample ID: **M114MW004**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021703**

Sample Matrix: **Water**
Sample Date: **04/01/2015 1:25 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.27	0.27	0.27	U	0.27	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.29	0.29	0.29	U	0.29	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.26	0.26	0.26	U	0.26	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.3	0.3	0.3	U	0.3	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.33	0.33	0.33	U	0.33	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.36	0.36	0.36	U	0.36	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.42	0.42	0.42	UQ	0.42	U	ug/L	*
2691-41-0	HMX	EPA 8330A	**04/04/2015 2:42 AM**	1	0.13	0.13	0.13	UQ	0.13	U	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	**04/04/2015 2:42 AM**	1	0.23	0.23	0.23	U	0.23	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	**04/04/2015 2:42 AM**	1	0.38	0.38	0.38	U	0.38	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/04/2015 2:42 AM**	1	0.59	0.59	0.59	U	0.59	U	ug/L	
121-82-4	RDX	EPA 8330A	**04/04/2015 2:42 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
479-45-8	Tetryl	EPA 8330A	**04/04/2015 2:42 AM**	1	0.24	0.24	0.24	U	0.24	U	ug/L	

DF = Dilution Factor MDL = Method Detection Limit RL = Reporting Limit
* = Modified by Validation
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Q = NO DESCRIPTION

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

COC Sample ID: **M114MW003**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021704**

Sample Matrix: **Water**
Sample Date: **04/01/2015 11:26 AM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.15	0.15	0.15	U	0.15	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.27	0.27	0.27	U	0.27	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.29	0.29	0.29	U	0.29	U	ug/L	
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.26	0.26	0.26	U	0.26	U	ug/L	
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.3	0.3	0.3	U	0.3	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
99-08-1	3-Nitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.33	0.33	0.33	U	0.33	U	ug/L	
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.36	0.36	0.36	U	0.36	U	ug/L	
99-99-0	4-Nitrotoluene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.42	0.42	0.42	UQ	0.42	U	ug/L	*
2691-41-0	HMX	EPA 8330A	**04/04/2015 3:21 AM**	1	0.13	0.13	0.13	UQ	0.13	U	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	**04/04/2015 3:21 AM**	1	0.23	0.23	0.23	U	0.23	U	ug/L	
55-63-0	Nitroglycerin	EPA 8330A	**04/04/2015 3:21 AM**	1	0.38	0.38	0.38	U	0.38	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/04/2015 3:21 AM**	1	0.59	0.59	0.59	U	0.59	U	ug/L	
121-82-4	RDX	EPA 8330A	**04/04/2015 3:21 AM**	1	0.17	0.17	0.17	U	0.17	U	ug/L	
479-45-8	Tetryl	EPA 8330A	**04/04/2015 3:21 AM**	1	0.24	0.24	0.24	U	0.24	U	ug/L	

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Form 1 Data Sheet - Explosives

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

COC Sample ID: **M114MW001**
Property ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021706**

Sample Matrix: **Water**
Sample Date: **04/01/2015 12:53 PM**

Total/Dissolved: **T**
Lab: **GCAL**

CAS	Parameter Name	Method	Analysis Date	DF	MDL	RL	Lab Result	LabQual	Validated Result	Val.Qual	Units	
99-35-4	1,3,5-Trinitrobenzene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.15	0.15	UJ	0.15	U	ug/L	*
99-65-0	1,3-Dinitrobenzene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.15	0.15	U	0.15	U	ug/L	
118-96-7	2,4,6-Trinitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.27	0.27	U	0.27	U	ug/L	
121-14-2	2,4-Dinitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.29	0.29	UJ	0.29	U	ug/L	*
606-20-2	2,6-Dinitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.26	0.26	UJ	0.26	U	ug/L	*
35572-78-2	2-Amino-4,6-dinitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.3	0.3	U	0.3	U	ug/L	
88-72-2	2-Nitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.17	0.17	UJ	0.17	U	ug/L	*
99-08-1	3-Nitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.33	0.33	UJ	0.33	U	ug/L	*
19406-51-0	4-Amino-2,6-dinitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.36	0.36	UJ	0.36	U	ug/L	*
99-99-0	4-Nitrotoluene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.42	0.42	UQ	0.42	U	ug/L	*
2691-41-0	HMX	EPA 8330A	**04/04/2015 4:00 AM**	1	0.13	0.13	UQJ	0.13	UJ	ug/L	*
98-95-3	Nitrobenzene	EPA 8330A	**04/04/2015 4:00 AM**	1	0.23	0.23	UJ	0.23	U	ug/L	*
55-63-0	Nitroglycerin	EPA 8330A	**04/04/2015 4:00 AM**	1	0.38	0.38	U	0.38	U	ug/L	
78-11-5	Pentaerythritol Tetranitrate	EPA 8330A	**04/04/2015 4:00 AM**	1	0.59	0.59	UJ	0.59	U	ug/L	*
121-82-4	RDX	EPA 8330A	**04/04/2015 4:00 AM**	1	0.17	0.17	U	0.17	U	ug/L	
479-45-8	Tetryl	EPA 8330A	**04/04/2015 4:00 AM**	1	0.24	0.24	U	0.24	U	ug/L	

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW002** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	100	400	100	U	100	U	ug/L
Antimony	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	10	40	10	U	10	U	ug/L
Arsenic	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Barium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	16.4	J	16.4	J	ug/L
Beryllium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Cadmium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Calcium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	2500	10000	381000		381000		ug/L
Chromium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Cobalt	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Copper	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Iron	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	500	2000	500	U	500	U	ug/L
Lead	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Magnesium	**04/01/2015 11:45 AM**	**04/09/2015 2:44 AM**	500	12500	50000	310000		310000		ug/L
Manganese	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	15	J	15	J	ug/L
Nickel	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	10	40	10	U	10	U	ug/L
Potassium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	500	2000	15600		15600		ug/L
Selenium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	16.3	J	16.3	J	ug/L
Silver	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Sodium	**04/01/2015 11:45 AM**	**04/09/2015 2:44 AM**	500	12500	50000	2570000		2570000		ug/L
Thallium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Titanium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	5	U	5	U	ug/L
Vanadium	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	5	20	9.06	J	9.06	J	ug/L
Zinc	**04/01/2015 11:45 AM**	**04/09/2015 2:41 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	100	400	100	U	100	U	ug/L
Antimony, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	10	40	10	U	10	U	ug/L
Arsenic, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Barium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	13.4	J	13.4	J	ug/L
Beryllium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Cadmium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Calcium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	2500	10000	353000		353000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW002** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Cobalt, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Copper, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Iron, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	500	2000	500	U	500	U	ug/L
Lead, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Magnesium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:23 AM**	500	12500	50000	295000		295000		ug/L
Manganese, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	14.2	J	14.2	J	ug/L
Nickel, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	10	40	10	U	10	U	ug/L
Potassium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	500	2000	14800		14800		ug/L
Selenium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	15.7	J	15.7	J	ug/L
Silver, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Sodium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:23 AM**	500	12500	50000	2440000		2440000		ug/L
Thallium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Titanium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	5	U	5	U	ug/L
Vanadium, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	5	20	7.76	J	7.76	J	ug/L
Zinc, Dissolved	**04/01/2015 11:45 AM**	**04/09/2015 4:19 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 7470A										
Mercury	**04/01/2015 11:45 AM**	**04/04/2015 9:24 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/01/2015 11:45 AM**	**04/04/2015 9:53 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW004** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	100	400	100	U	100	U	ug/L
Antimony	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	10	40	10	U	10	U	ug/L
Arsenic	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Barium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	17.3	J	17.3	J	ug/L
Beryllium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Cadmium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Calcium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	2500	10000	436000		436000		ug/L
Chromium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Cobalt	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Copper	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Iron	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	500	2000	500	U	500	U	ug/L
Lead	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Magnesium	**04/01/2015 1:25 PM**	**04/09/2015 2:54 AM**	500	12500	50000	344000		344000		ug/L
Manganese	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	12	J	12	J	ug/L
Nickel	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	10	40	10	U	10	U	ug/L
Potassium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	500	2000	16400		16400		ug/L
Selenium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	25.2		25.2		ug/L
Silver	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Sodium	**04/01/2015 1:25 PM**	**04/09/2015 2:54 AM**	500	12500	50000	2600000		2600000		ug/L
Thallium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Titanium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5	U	5	U	ug/L
Vanadium	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	5	20	5.42	J	5.42	J	ug/L
Zinc	**04/01/2015 1:25 PM**	**04/09/2015 2:51 AM**	20	100	400	121	J	121	J	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	100	400	100	U	100	U	ug/L
Antimony, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	10	40	10	U	10	U	ug/L
Arsenic, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Barium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	15.4	J	15.4	J	ug/L
Beryllium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Cadmium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Calcium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	2500	10000	412000		412000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW004**
Location ID: **NA**
Sample Type: **Site Sample**
Lab Sample ID: **21504021703**
Sample Matrix: **Water**
Lab Code: **GCAL**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Cobalt, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Copper, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Iron, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	500	2000	500	U	500	U	ug/L
Lead, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Magnesium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:33 AM**	500	12500	50000	330000		330000		ug/L
Manganese, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	10.8	J	10.8	J	ug/L
Nickel, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	10	40	10	U	10	U	ug/L
Potassium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	500	2000	15500		15500		ug/L
Selenium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	18.9	J	18.9	J	ug/L
Silver, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Sodium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:33 AM**	500	12500	50000	2490000		2490000		ug/L
Thallium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Titanium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5	U	5	U	ug/L
Vanadium, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	5	20	5.02	J	5.02	J	ug/L
Zinc, Dissolved	**04/01/2015 1:25 PM**	**04/09/2015 4:30 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 7470A										
Mercury	**04/01/2015 1:25 PM**	**04/04/2015 9:26 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/01/2015 1:25 PM**	**04/04/2015 9:56 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021704**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	100	400	100	U	100	U	ug/L
Antimony	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	10	40	10	U	10	U	ug/L
Arsenic	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Barium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	14	J	14	J	ug/L
Beryllium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Cadmium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Calcium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	2500	10000	445000		445000		ug/L
Chromium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Cobalt	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Copper	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Iron	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	500	2000	500	U	500	U	ug/L
Lead	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Magnesium	**04/01/2015 11:26 AM**	**04/09/2015 3:05 AM**	500	12500	50000	322000		322000		ug/L
Manganese	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	8.6	J	8.6	J	ug/L
Nickel	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	10	40	10	U	10	U	ug/L
Potassium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	500	2000	15700		15700		ug/L
Selenium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	33.7		33.7		ug/L
Silver	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Sodium	**04/01/2015 11:26 AM**	**04/09/2015 3:05 AM**	500	12500	50000	2900000		2900000		ug/L
Thallium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Titanium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	5	U	5	U	ug/L
Vanadium	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	5	20	9.51	J	9.51	J	ug/L
Zinc	**04/01/2015 11:26 AM**	**04/09/2015 3:01 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	100	400	100	U	100	U	ug/L
Antimony, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	10	40	10	U	10	U	ug/L
Arsenic, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Barium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	13.3	J	13.3	J	ug/L
Beryllium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Cadmium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Calcium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	2500	10000	420000		420000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021704**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Cobalt, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Copper, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Iron, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	500	2000	500	U	500	U	ug/L
Lead, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Magnesium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:43 AM**	500	12500	50000	295000		295000		ug/L
Manganese, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	8.02	J	8.02	J	ug/L
Nickel, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	10	40	10	U	10	U	ug/L
Potassium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	500	2000	14900		14900		ug/L
Selenium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	29.8		29.8		ug/L
Silver, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Sodium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:43 AM**	500	12500	50000	2680000		2680000		ug/L
Thallium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Titanium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	5	U	5	U	ug/L
Vanadium, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	5	20	8.82	J	8.82	J	ug/L
Zinc, Dissolved	**04/01/2015 11:26 AM**	**04/09/2015 4:40 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 7470A										
Mercury	**04/01/2015 11:26 AM**	**04/04/2015 9:28 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/01/2015 11:26 AM**	**04/04/2015 9:58 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW001** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021706**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 6020A										
Aluminum	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	100	400	100	U	100	U	ug/L
Antimony	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	10	40	10	U	10	U	ug/L
Arsenic	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Barium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	15.8	J	15.8	J	ug/L
Beryllium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Cadmium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Calcium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	2500	10000	337000		337000		ug/L
Chromium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Cobalt	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Copper	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Iron	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	500	2000	500	U	500	U	ug/L
Lead	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Magnesium	**04/01/2015 12:53 PM**	**04/09/2015 3:15 AM**	500	12500	50000	262000		262000		ug/L
Manganese	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	16.8	J	16.8	J	ug/L
Nickel	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	10	40	10	U	10	U	ug/L
Potassium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	500	2000	14400		14400		ug/L
Selenium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	28.6		28.6		ug/L
Silver	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Sodium	**04/01/2015 12:53 PM**	**04/09/2015 3:15 AM**	500	12500	50000	2210000		2210000		ug/L
Thallium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Titanium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5	U	5	U	ug/L
Vanadium	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	5	20	5.94	J	5.94	J	ug/L
Zinc	**04/01/2015 12:53 PM**	**04/09/2015 3:11 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 6020A Dissolved										
Aluminum, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	100	400	100	U	100	U	ug/L
Antimony, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	10	40	10	U	10	U	ug/L
Arsenic, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Barium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	15.5	J	15.5	J	ug/L
Beryllium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Cadmium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Calcium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	2500	10000	332000		332000		ug/L

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Form 1 Data Sheet - Metals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW001** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021706**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Chromium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Cobalt, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Copper, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Iron, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	500	2000	500	U	500	U	ug/L
Lead, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Magnesium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:53 AM**	500	12500	50000	252000		252000		ug/L
Manganese, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	25	100	25	U	25	U	ug/L
Molybdenum, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	16.3	J	16.3	J	ug/L
Nickel, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	10	40	10	U	10	U	ug/L
Potassium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	500	2000	14400		14400		ug/L
Selenium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	28.7		28.7		ug/L
Silver, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Sodium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:53 AM**	500	12500	50000	2140000		2140000		ug/L
Thallium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Titanium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5	U	5	U	ug/L
Vanadium, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	5	20	5.57	J	5.57	J	ug/L
Zinc, Dissolved	**04/01/2015 12:53 PM**	**04/09/2015 4:50 AM**	20	100	400	100	U	100	U	ug/L
Method: EPA 7470A										
Mercury	**04/01/2015 12:53 PM**	**04/04/2015 9:30 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L
Method: EPA 7470A Dissolved										
Mercury, Dissolved	**04/01/2015 12:53 PM**	**04/04/2015 10:00 PM**	1	0.043	0.2	0.043	U	0.043	U	ug/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW002** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021701**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/01/2015 11:45 AM**	**04/11/2015 12:49 PM**	5000	250	1000	3740		3740		mg/L
Nitrate	**04/01/2015 11:45 AM**	**04/02/2015 4:21 PM**	20	1	4	2.06	J	2.06	J	mg/L
Nitrite	**04/01/2015 11:45 AM**	**04/02/2015 4:21 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/01/2015 11:45 AM**	**04/11/2015 12:49 PM**	5000	250	1000	2130		2130		mg/L
Method: EPA 9012B										
Cyanide	**04/01/2015 11:45 AM**	**04/10/2015 10:31 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/01/2015 11:45 AM**	**04/08/2015 1:11 PM**	1	0.26	1	76.8		76.8		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/01/2015 11:45 AM**	**04/02/2015 1:10 PM**	1	10	10	6690		6690		mg/L
Method: SW6860										
Perchlorate	**04/01/2015 11:45 AM**	**04/09/2015 1:54 PM**	1	0.0001	0.0003	0.00218		0.00218		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW004** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021703**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/01/2015 1:25 PM**	**04/11/2015 1:07 PM**	5000	250	1000	3360		3360		mg/L
Nitrate	**04/01/2015 1:25 PM**	**04/02/2015 5:13 PM**	20	1	4	2.46	J	2.46	J	mg/L
Nitrite	**04/01/2015 1:25 PM**	**04/02/2015 5:13 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/01/2015 1:25 PM**	**04/11/2015 1:07 PM**	5000	250	1000	1940		1940		mg/L
Method: EPA 9012B										
Cyanide	**04/01/2015 1:25 PM**	**04/10/2015 10:32 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/01/2015 1:25 PM**	**04/06/2015 2:42 PM**	1	0.26	1	65.3		65.3		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/01/2015 1:25 PM**	**04/02/2015 1:10 PM**	1	10	10	6970		6970		mg/L
Method: SW6860										
Perchlorate	**04/01/2015 1:25 PM**	**04/09/2015 2:10 PM**	1	0.0001	0.0003	0.00245		0.00245		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW003** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021704**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units
Method: EPA 300.0, Rev 2.1										
Chloride	**04/01/2015 11:26 AM**	**04/11/2015 1:24 PM**	5000	250	1000	3940		3940		mg/L
Nitrate	**04/01/2015 11:26 AM**	**04/02/2015 5:30 PM**	20	1	4	2.57	J	2.57	J	mg/L
Nitrite	**04/01/2015 11:26 AM**	**04/02/2015 5:30 PM**	20	1	4	1	U	1	U	mg/L
Sulfate	**04/01/2015 11:26 AM**	**04/11/2015 1:24 PM**	5000	250	1000	2370		2370		mg/L
Method: EPA 9012B										
Cyanide	**04/01/2015 11:26 AM**	**04/10/2015 10:33 AM**	1	0.0005	0.005	0.0005	U	0.0005	U	mg/L
Method: SM 2320 B-2011										
Total Alkalinity	**04/01/2015 11:26 AM**	**04/06/2015 2:42 PM**	1	0.26	1	97.8		97.8		mg/L
Method: SM 2540 C-2011										
Total Dissolved Solids(TDS)	**04/01/2015 11:26 AM**	**04/02/2015 1:10 PM**	1	10	10	7360		7360		mg/L
Method: SW6860										
Perchlorate	**04/01/2015 11:26 AM**	**04/09/2015 2:26 PM**	1	0.0001	0.0003	0.00361		0.00361		mg/L

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Form 1 Data Sheet - Conventionals

Melrose AFB
Melrose AFR Semi-Annual
SDG: 215040217

Sample Name: **M114MW001** Sample Matrix: **Water**
Location ID: **NA**
Sample Type: **Site Sample** Lab Code: **GCAL**
Lab Sample ID: **21504021706**

Parameter Name	Collection	Analysis	DF	MDL	RL	Lab Result	LabQual	Val. Result	Val.Qual	Units	
Method: EPA 300.0, Rev 2.1											
Chloride	**04/01/2015 12:53 PM**	**04/11/2015 1:42 PM**	5000	250	1000	3250		3250		mg/L	
Nitrate	**04/01/2015 12:53 PM**	**04/02/2015 5:48 PM**	20	1	4	2.78	J	2.78	J	mg/L	
Nitrite	**04/01/2015 12:53 PM**	**04/02/2015 5:48 PM**	20	1	4	1	U	1	U	mg/L	
Sulfate	**04/01/2015 12:53 PM**	**04/11/2015 1:42 PM**	5000	250	1000	2190		2190		mg/L	
Method: EPA 9012B											
Cyanide	**04/01/2015 12:53 PM**	**04/10/2015 10:34 AM**	1	0.0005	0.005	0.0005	U	0.0005	UJ	mg/L	*
Method: SM 2320 B-2011											
Total Alkalinity	**04/01/2015 12:53 PM**	**04/06/2015 2:42 PM**	1	0.26	1	55.5		55.5		mg/L	
Method: SM 2540 C-2011											
Total Dissolved Solids(TDS)	**04/01/2015 12:53 PM**	**04/02/2015 1:10 PM**	1	10	10	5950		5950		mg/L	
Method: SW6860											
Perchlorate	**04/01/2015 12:53 PM**	**04/09/2015 2:42 PM**	1	0.0001	0.0003	0.0031		0.0031		mg/L	

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Appendix II
Chain of Custody

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Page _____

Project Number: A012-113

Chain of Custody Number (1): 15040103

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B *	Explosives 8330 *	Metals (Total & Diss) 6020A *	Cyanide (9012A) *	Mercury 7470A *	Nitrite, Nitrate 300.0 *	Chloride, Sulfate 300.0 *	Perchlorate 6860	Alkalinity 2320B *	TDS 2540C *		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
MW4MW002		04012015	1145		N	1	WG	13	X	X	X	X	X	X	X	X	X	X					C-1
MW4MW002-c		04012015	1145		TB	1	WQ	3	X														C-2
MW4MW004		04012015	1325	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X					C-1
				-																			
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Quality Assurance Samples (6)

Sample Analysis Requested (5)

Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments: Dissolved metals were field filtered

5980 9381 4730

Custody Transfers Prior to Receipt by Laboratory

	Relinquished by (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/1/15	1630			
2.	FedEx	4/2/15	1000	Allison Nagy	4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient: _____

Shipped: No.: 3

Airbill Number: _____

Delivery Location: Baton Rouge, LA

Delivery Date/Time: _____

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

1.4 E26

195817, 1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-113

Chain of Custody Number (1): 1540101

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
Sample Analysis Requested (5)																				Quality Assurance Samples (6)			
M114MW003		04-01-2015	1126		N	1	WG	13	X	X	X	X	X	X	X	X	X	X					A
M114MW003-c		04-01-2015	1126		TB	1	WQ	3	X														A
M114MW001		04-01-2015	1253	-	N	1	WG	13	X	X	X	X	X	X	X	X	X	X					A
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments: Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.		4/1/15	1630			
2.	FedEx	4/2/15	1000		4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number: 5980 9381 4741

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)...July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Ground Water , WS = Surface Water SO = Soil, SE = Sediment, SL = Sludge, SS= Suface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc.), SQ= Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the number of the associated QC sample (01, 02, etc). (E.g., The first equipment blank, trip blank, or ambient blank collected on July 20, 2014 in association with samples on the COC will be designated 20071401 in the Blank Lot Control Number field).

7.) Trip Blanks shall correspond to the first well sampled with VOCs, for example: SS125-MW-03-c

5.0E26
195817, 1

TRINITY ANALYSIS & DEVELOPMENT CORP.
Environmental & Engineering Services

Project Number: A012-113

Chain of Custody Number (1): 150401 03

Chain of Custody and Analytical Request

Project Name / Site Name: Melorse AFR Semiannual

Facility: Melrose AFR

Client Name: Trinity (850) 613-6800

Project Manager: Jonathan Kramer

Collected by: Benjamin Stewart, Robert Harrell

Turn Around Time

24 Hour

5 Day

Standard X

Other

Field Sample ID (30 Characters Max)	ERPIMS LOCID (15 Characters Max)	Date Collected (mm-dd-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOCs 8260B	Explosives 8330	Metals (Total & Diss) 6020A	Cyanide (9012A)	Mercury 7470A	Nitrite, Nitrate 300.0	Chloride, Sulfate 300.0	Perchlorate 6860	Alkalinity 2320B	TDS 2540C		Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
Sample Analysis Requested (5)																				Quality Assurance Samples (6)			
M114MW001-c		04-01-2015	1253		TB	1	WQ	3	X														B
M114MW001-MS		04-01-2015	1253		MS	1	WG	13	X	X	X	X	X	X	X	X	X	X					B
M114MW001-SD		04-01-2015	1253	-	SD	1	WG	13	X	X	X	X	X	X	X	X	X	X					B
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Client ID: 4747 - TRINITY Analysis & Development Corp.

SDG: 215040217

Due Date: 04/09/15

Comments Dissolved metals were field filtered

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	FedEx	4/1/15	1638	FedEx		
2.	FedEx	4/2/15	1000	Allison Nagy	4/2/15	1000
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: No

Method of Shipment: FedEx

Analytical Lab: GCAL

Lab Recipient:

Shipped: No.: 3

Airbill Number: 5480938147 20

Delivery Location: Baton Rouge, LA

Delivery Date/Time:

1.) Chain of Custody Number = site name (e.g., 125) and then date (yymmdd) collected + custody number (e.g. 125-140720-01)…July 20, 2014. (13 Characters Max)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-01 on 07/20/14 = 01, if sampled again on 07/20/14 = 02, etc.)

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5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

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195817, 1