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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX
 LELAP-02003 LELAP-02002
 Kansas E-10317

Analytical and Quality Control Report

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Report Date: May 6, 2009

Work Order: 9040931



Project Name: HELSTF Chromate Spill Groundwater

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
192673	HLSF-0143-HMW-040-0409	water	2009-04-07	13:35	2009-04-07

Comment(s)

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 77 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

For inorganic analyses, the term MQL should actually read PQL.

Standard Flags

- U** - Not detected. The analyte is not detected above the SDL.
- J** - Estimated. The analyte is positively identified and the value is approximated between the SDL and MQL.
- B** - The sample contains less than ten times the concentration found in the method blank.
- JB** - The analyte is positively identified and the value is approximated between the SDL and MQL.
The sample contains less than ten times the concentration found in the method blank.
The result should be considered non-detect to the SDL.



Dr. Blair Leftwich, Director

Case Narrative

Samples for project HELSTF Chromate Spill Groundwater were received by TraceAnalysis, Inc. on 2009-04-07 and assigned to work order 9040931. Samples for work order 9040931 were received intact without headspace and at a temperature of 16 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Ag, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Alkalinity	SM 2320B	50158	2009-04-09 at 11:00	58761	2009-04-20 at 19:18
Al, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Ammonia	SM 4500-NH3 B,C	49934	2009-04-10 at 14:00	58472	2009-04-10 at 15:00
As, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Ba, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Be, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Bromide (IC)	E 300.0	50113	2009-04-10 at 22:28	58702	2009-04-10 at 22:28
Ca, Total	S 6010B	49900	2009-04-10 at 09:35	58583	2009-04-15 at 12:11
Cd, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Chloride (IC)	E 300.0	50113	2009-04-10 at 22:28	58702	2009-04-10 at 22:28
Chromium, Hexavalent	SM 3500-Cr B	49915	2009-04-07 at 19:07	58450	2009-04-07 at 19:07
Co, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Cr, Dissolved	S 6010B	49936	2009-04-13 at 10:09	58536	2009-04-14 at 13:44
Cr, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Cu, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Explosives (8330)	S 8330-C18	50476	2009-04-14 at 15:00	59150	2009-04-27 at 19:54
Fe, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Fluoride (IC)	E 300.0	50113	2009-04-10 at 22:28	58702	2009-04-10 at 22:28
Hg, Total	S 7470A	49940	2009-04-13 at 13:18	58500	2009-04-13 at 16:08
K, Total	S 6010B	49900	2009-04-10 at 09:35	58583	2009-04-15 at 12:11
Mg, Total	S 6010B	49900	2009-04-10 at 09:35	58583	2009-04-15 at 12:11
Mn, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Mo, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Na, Total	S 6010B	49900	2009-04-10 at 09:35	58583	2009-04-15 at 12:11
Ni, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Nitrate and Nitrite as N O/G	SM 4500-NO3 E E 1664	50167 49948	2009-04-17 at 14:00 2009-04-12 at 21:00	58776 58499	2009-04-17 at 17:00 2009-04-13 at 15:00
Pb, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
pH	SM 4500-H+	49955	2009-04-08 at 11:00	58509	2009-04-08 at 11:00
P, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Sb, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Semivolatiles	S 8270C	50042	2009-04-13 at 15:00	58615	2009-04-16 at 09:44
Se, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
SO4 (IC)	E 300.0	50113	2009-04-10 at 22:28	58702	2009-04-10 at 22:28
TDS	SM 2540C	50065	2009-04-11 at 23:20	58647	2009-04-16 at 18:10
TKN	E 351.3	49935	2009-04-10 at 14:00	58473	2009-04-10 at 17:30
Tl, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
TOC	SM 5310C	50124	2009-04-20 at 09:50	58713	2009-04-20 at 09:50
Total Cyanide	SM 4500-CN C,E	50013	2009-04-13 at 14:00	58581	2009-04-14 at 10:15
TPH DRO	Mod. 8015B	49898	2009-04-09 at 15:00	58426	2009-04-09 at 21:00

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH GRO	S 8015B	49911	2009-04-10 at 15:39	58445	2009-04-10 at 15:39
V, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46
Zn, Total	S 6010B	49900	2009-04-10 at 09:35	58431	2009-04-10 at 12:46

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9040931 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Ag, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Silver	U	<0.00111	<0.00500	<0.00111	mg/L	1	0.00111	0.005	0.00111

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum	U	<0.00301	<0.0500	<0.00301	mg/L	1	0.00301	0.05	0.00301

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A
 QC Batch: 58761 Date Analyzed: 2009-04-20 Analyzed By: JG
 Prep Batch: 50158 Sample Preparation: 2009-04-09 Prepared By: JR

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Hydroxide Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Carbonate Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Bicarbonate Alkalinity		138	138	<4.00	mg/L as CaCo3	1	4.00	4	4
Total Alkalinity		138	138	<4.00	mg/L as CaCo3	1	4.00	4	4

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Ammonia Analytical Method: SM 4500-NH3 B,C Prep Method: N/A
 QC Batch: 58472 Date Analyzed: 2009-04-10 Analyzed By: AH
 Prep Batch: 49934 Sample Preparation: Prepared By: AH

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Ammonia-N	J	0.924	<1.00	<0.353	mg/L	1	0.353	1	0.353

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: As, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Arsenic	U	<0.00448	<0.0100	<0.00448	mg/L	1	0.00448	0.01	0.00448

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Barium		0.0150	0.0150	<0.00105	mg/L	1	0.00105	0.005	0.00105

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Be, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Beryllium	U	<0.000450	<0.00200	<0.000450	mg/L	1	0.000450	0.002	0.00045

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: Bromide (IC) Analytical Method: E 300.0 Prep Method: N/A

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
Prep Batch: 50113 Sample Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Bromide		3.06	3.06	<0.197	mg/L	5	0.197	0.27	0.0394

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
Analysis: Ca, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Calcium		508	508	<1.17	mg/L	10	1.17	1	0.117

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
Analysis: Cd, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cadmium	U	<0.000303	<0.00200	<0.000303	mg/L	1	0.000303	0.002	0.000303

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
Prep Batch: 50113 Sample Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		4010	4010	<320	mg/L	500	320	1.22	0.6404

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: Chromium, Hexavalent Analytical Method: SM 3500-Cr B Prep Method: N/A
 QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD
 Prep Batch: 49915 Sample Preparation: 2009-04-07 Prepared By: MD

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Hexavalent Chromium	U	<0.00594	<0.0125	<0.00594	mg/L	1	0.00594	0.0125	0.00594

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Co, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	J	0.00100	<0.00200	<0.000822	mg/L	1	0.000822	0.002	0.000822

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Cr, Dissolved Analytical Method: S 6010B Prep Method: S 3005A
 QC Batch: 58536 Date Analyzed: 2009-04-14 Analyzed By: RR
 Prep Batch: 49936 Sample Preparation: 2009-04-13 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Dissolved Chromium		0.00400	0.00400	<0.000583	mg/L	1	0.000583	0.001	0.000583

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Chromium	J	0.00400	<0.00500	<0.000583	mg/L	1	0.000583	0.005	0.000583

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Copper		0.0160	0.0160	<0.000843	mg/L	1	0.000843	0.005	0.000843

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Explosives (8330) Analytical Method: S 8330-C18 Prep Method: S 3535A
 QC Batch: 59150 Date Analyzed: 2009-04-27 Analyzed By: DS
 Prep Batch: 50476 Sample Preparation: 2009-04-14 Prepared By: DS

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
HMX	U	<0.123	<0.500	<0.123	µg/L	1	0.123	0.5	0.123
RDX	U	<0.298	<0.500	<0.298	µg/L	1	0.298	0.5	0.298
1,3,5-Trinitrobenzene	U	<0.339	<0.500	<0.339	µg/L	1	0.339	0.5	0.339
1,3-Dinitrobenzene	U	<0.389	<0.500	<0.389	µg/L	1	0.389	0.5	0.389
Nitrobenzene	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
Tetryl	U	<0.413	<0.500	<0.413	µg/L	1	0.413	0.5	0.413
TNT	U	<0.464	<0.500	<0.464	µg/L	1	0.464	0.5	0.464
4-Amino-DNT	U	<0.319	<0.500	<0.319	µg/L	1	0.319	0.5	0.319
2-Amino-DNT	U	<0.391	<0.500	<0.391	µg/L	1	0.391	0.5	0.391
2,6-DNT	U	<0.323	<0.500	<0.323	µg/L	1	0.323	0.5	0.323
2,4-DNT	U	<0.366	<0.500	<0.366	µg/L	1	0.366	0.5	0.366
2-NT	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
4-NT	U	<0.398	<0.500	<0.398	µg/L	1	0.398	0.5	0.398
3-NT	U	<0.346	<0.500	<0.346	µg/L	1	0.346	0.5	0.346

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.02	µg/L	1	2.50	41	19.8 - 160

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Iron	J	0.00700	<0.0100	<0.000872	mg/L	1	0.000872	0.01	0.000872

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: Fluoride (IC) Analytical Method: E 300.0 Prep Method: N/A
 QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 Sample Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Fluoride		5.31	5.31	<0.434	mg/L	10	0.434	0.17	0.0434

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Hg, Total Analytical Method: S 7470A Prep Method: N/A
 QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP
 Prep Batch: 49940 Sample Preparation: 2009-04-13 Prepared By: TP

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Mercury	U	<0.0000329	<0.000200	<0.0000329	mg/L	1	0.0000329	0.0002	3.29e-05

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: K, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Potassium		127	127	<0.172	mg/L	1	0.172	1	0.172

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Mg, Total Analytical Method: S 6010B Prep Method: S 3010A

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Magnesium		1000	1000	<1.60	mg/L	10	1.60	1	0.16

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
Analysis: Mn, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Manganese	J	0.00100	<0.00250	<0.000305	mg/L	1	0.000305	0.0025	0.000305

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
Analysis: Mo, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum		0.858	0.858	<0.00119	mg/L	1	0.00119	0.01	0.00119

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
Analysis: Na, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Sodium		4900	4900	<5.00	mg/L	100	5.00	1	0.05

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Ni, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	U	<0.00121	<0.00500	<0.00121	mg/L	1	0.00121	0.005	0.00121

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Nitrate and Nitrite as N Analytical Method: SM 4500-NO3 E Prep Method: N/A
 QC Batch: 58776 Date Analyzed: 2009-04-17 Analyzed By: KV
 Prep Batch: 50167 Sample Preparation: 2009-04-17 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate and Nitrite as N		291	291	<17.5	mg/L	500	17.5	0.1	0.035

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: O/G Analytical Method: E 1664 Prep Method: N/A
 QC Batch: 58499 Date Analyzed: 2009-04-13 Analyzed By: AH
 Prep Batch: 49948 Sample Preparation: Prepared By: AH

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Oil and Grease	U	<3.46	<5.00	<3.46	mg/L	1	3.46	5	3.459

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: P, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Phosphorous	J	0.0120	<0.0250	<0.00289	mg/L	1	0.00289	0.025	0.00289

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Lead	U	<0.00326	<0.00500	<0.00326	mg/L	1	0.00326	0.005	0.00326

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 58509 Date Analyzed: 2009-04-08 Analyzed By: JG
 Prep Batch: 49955 Sample Preparation: 2009-04-08 Prepared By: MD

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.58	s.u.	1	

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Sb, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Antimony	U	<0.00440	<0.0200	<0.00440	mg/L	1	0.00440	0.02	0.0044

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Se, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Selenium		0.177	0.177	<0.00508	mg/L	1	0.00508	0.02	0.00508

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock

Analysis: Semivolatiles

QC Batch: 58615

Prep Batch: 50042

Analytical Method: S 8270C

Date Analyzed: 2009-04-16

Sample Preparation: 2009-04-13

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Pyridine	U	<0.00129	<0.00505	<0.00129 mg/L	1.01	0.00129	0.005	0.001281	
N-Nitrosodimethylamine	U	<0.00194	<0.00505	<0.00194 mg/L	1.01	0.00194	0.005	0.001918	
2-Picoline	U	<0.00133	<0.00505	<0.00133 mg/L	1.01	0.00133	0.005	0.001321	
Methyl methanesulfonate	U	<0.00176	<0.00505	<0.00176 mg/L	1.01	0.00176	0.005	0.001747	
Ethyl methanesulfonate	U	<0.00123	<0.00505	<0.00123 mg/L	1.01	0.00123	0.005	0.001218	
Phenol	U	<0.00166	<0.00505	<0.00166 mg/L	1.01	0.00166	0.005	0.001649	
Aniline	U	<0.00139	<0.00505	<0.00139 mg/L	1.01	0.00139	0.005	0.001378	
bis(2-chloroethyl)ether	U	<0.00219	<0.00505	<0.00219 mg/L	1.01	0.00219	0.005	0.002172	
2-Chlorophenol	U	<0.00151	<0.00505	<0.00151 mg/L	1.01	0.00151	0.005	0.001498	
1,3-Dichlorobenzene (meta)	U	<0.00168	<0.00505	<0.00168 mg/L	1.01	0.00168	0.005	0.001663	
1,4-Dichlorobenzene (para)	U	<0.00158	<0.00505	<0.00158 mg/L	1.01	0.00158	0.005	0.001562	
Benzyl alcohol	U	<0.00102	<0.00505	<0.00102 mg/L	1.01	0.00102	0.005	0.001005	
1,2-Dichlorobenzene (ortho)	U	<0.00166	<0.00505	<0.00166 mg/L	1.01	0.00166	0.005	0.00164	
2-Methylphenol	U	<0.00160	<0.00505	<0.00160 mg/L	1.01	0.00160	0.005	0.001581	
bis(2-chloroisopropyl)ether	U	<0.000836	<0.00505	<0.000836 mg/L	1.01	0.000836	0.005	0.000828	
4-Methylphenol / 3-Methylphenol	U	<0.00126	<0.00505	<0.00126 mg/L	1.01	0.00126	0.005	0.001245	
N-Nitrosodi-n-propylamine	U	<0.00128	<0.00505	<0.00128 mg/L	1.01	0.00128	0.005	0.00127	
Hexachloroethane	U	<0.00200	<0.00505	<0.00200 mg/L	1.01	0.00200	0.005	0.001981	
Acetophenone	U	<0.00128	<0.00505	<0.00128 mg/L	1.01	0.00128	0.005	0.001273	
Nitrobenzene	U	<0.00195	<0.00505	<0.00195 mg/L	1.01	0.00195	0.005	0.001928	
N-Nitrosopiperidine	U	<0.00122	<0.00505	<0.00122 mg/L	1.01	0.00122	0.005	0.001205	
Isophorone	U	<0.00196	<0.00505	<0.00196 mg/L	1.01	0.00196	0.005	0.001943	
2-Nitrophenol	U	<0.00141	<0.00505	<0.00141 mg/L	1.01	0.00141	0.005	0.0014	
2,4-Dimethylphenol	U	<0.00110	<0.00505	<0.00110 mg/L	1.01	0.00110	0.005	0.001092	
bis(2-chloroethoxy)methane	U	<0.00125	<0.00505	<0.00125 mg/L	1.01	0.00125	0.005	0.001242	
2,4-Dichlorophenol	U	<0.00135	<0.00505	<0.00135 mg/L	1.01	0.00135	0.005	0.001338	
1,2,4-Trichlorobenzene	U	<0.00195	<0.00505	<0.00195 mg/L	1.01	0.00195	0.005	0.001934	
Benzoic acid	U	<0.00307	<0.00505	<0.00307 mg/L	1.01	0.00307	0.005	0.003042	
Naphthalene	U	<0.00167	<0.00505	<0.00167 mg/L	1.01	0.00167	0.005	0.00165	
a,a-Dimethylphenethylamine	U	<0.000766	<0.00505	<0.000766 mg/L	1.01	0.000766	0.005	0.000758	
4-Chloroaniline	U	<0.00116	<0.00505	<0.00116 mg/L	1.01	0.00116	0.005	0.001152	
2,6-Dichlorophenol	U	<0.00121	<0.0101	<0.00121 mg/L	1.01	0.00121	0.01	0.001198	
Hexachlorobutadiene	U	<0.00186	<0.00505	<0.00186 mg/L	1.01	0.00186	0.005	0.001838	
N-Nitroso-di-n-butylamine	U	<0.00170	<0.00505	<0.00170 mg/L	1.01	0.00170	0.005	0.001687	
4-Chloro-3-methylphenol	U	<0.00121	<0.00505	<0.00121 mg/L	1.01	0.00121	0.005	0.001199	
2-Methylnaphthalene	U	<0.00146	<0.00505	<0.00146 mg/L	1.01	0.00146	0.005	0.001451	
1-Methylnaphthalene	U	<0.00156	<0.00505	<0.00156 mg/L	1.01	0.00156	0.005	0.00155	
1,2,4,5-Tetrachlorobenzene	U	<0.00207	<0.00505	<0.00207 mg/L	1.01	0.00207	0.005	0.00205	
Hexachlorocyclopentadiene	U	<0.00389	<0.00505	<0.00389 mg/L	1.01	0.00389	0.005	0.00385	
2,4,6-Trichlorophenol	U	<0.00154	<0.0101	<0.00154 mg/L	1.01	0.00154	0.01	0.001523	

continued . . .

sample 192673 continued . . .

Parameter	Flag	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
		Based Result	Based Result	Blank Result			(Unadjusted)	(Unadjusted)	
2,4,5-Trichlorophenol	U	<0.00323	<0.00505	<0.00323	mg/L	1.01	0.00323	0.005	0.003202
2-Chloronaphthalene	U	<0.00170	<0.00505	<0.00170	mg/L	1.01	0.00170	0.005	0.001683
1-Chloronaphthalene	U	<0.00183	<0.00505	<0.00183	mg/L	1.01	0.00183	0.005	0.001808
2-Nitroaniline	U	<0.00171	<0.00505	<0.00171	mg/L	1.01	0.00171	0.005	0.00169
Dimethylphthalate	U	<0.00180	<0.00505	<0.00180	mg/L	1.01	0.00180	0.005	0.001784
Acenaphthylene	U	<0.00137	<0.00505	<0.00137	mg/L	1.01	0.00137	0.005	0.001356
2,6-Dinitrotoluene	U	<0.00140	<0.00505	<0.00140	mg/L	1.01	0.00140	0.005	0.001392
3-Nitroaniline	U	<0.00125	<0.00505	<0.00125	mg/L	1.01	0.00125	0.005	0.001236
Acenaphthene	U	<0.00133	<0.00505	<0.00133	mg/L	1.01	0.00133	0.005	0.00132
2,4-Dinitrophenol	U	<0.00396	<0.00505	<0.00396	mg/L	1.01	0.00396	0.005	0.003916
Dibenzofuran	U	<0.00163	<0.00505	<0.00163	mg/L	1.01	0.00163	0.005	0.001613
Pentachlorobenzene	U	<0.00245	<0.00505	<0.00245	mg/L	1.01	0.00245	0.005	0.002422
4-Nitrophenol	U	<0.00128	<0.0252	<0.00128	mg/L	1.01	0.00128	0.025	0.001272
2,4-Dinitrotoluene	U	<0.00140	<0.00505	<0.00140	mg/L	1.01	0.00140	0.005	0.001388
1-Naphthylamine	U	<0.00129	<0.00505	<0.00129	mg/L	1.01	0.00129	0.005	0.001281
2,3,4,6-Tetrachlorophenol	U	<0.00131	<0.0101	<0.00131	mg/L	1.01	0.00131	0.01	0.001297
2-Naphthylamine	U	<0.00156	<0.00505	<0.00156	mg/L	1.01	0.00156	0.005	0.00154
Fluorene	U	<0.00131	<0.00505	<0.00131	mg/L	1.01	0.00131	0.005	0.001295
4-Chlorophenyl-phenylether	U	<0.00175	<0.00505	<0.00175	mg/L	1.01	0.00175	0.005	0.001729
Diethylphthalate	U	<0.00163	<0.00505	<0.00163	mg/L	1.01	0.00163	0.005	0.00161
4-Nitroaniline	U	<0.00102	<0.00505	<0.00102	mg/L	1.01	0.00102	0.005	0.001009
Diphenylhydrazine	U	<0.00126	<0.00505	<0.00126	mg/L	1.01	0.00126	0.005	0.00125
4,6-Dinitro-2-methylphenol	U	<0.00136	<0.00505	<0.00136	mg/L	1.01	0.00136	0.005	0.001346
Diphenylamine	U	<0.00160	<0.00505	<0.00160	mg/L	1.01	0.00160	0.005	0.001589
4-Bromophenyl-phenylether	U	<0.00189	<0.00505	<0.00189	mg/L	1.01	0.00189	0.005	0.001869
Phenacetin	U	<0.00140	<0.00505	<0.00140	mg/L	1.01	0.00140	0.005	0.001391
Hexachlorobenzene	U	<0.00240	<0.00505	<0.00240	mg/L	1.01	0.00240	0.005	0.002375
4-Aminobiphenyl	U	<0.00136	<0.00505	<0.00136	mg/L	1.01	0.00136	0.005	0.001345
Pentachlorophenol	U	<0.000638	<0.0101	<0.000638	mg/L	1.01	0.000638	0.01	0.000632
Anthracene	U	<0.00154	<0.00505	<0.00154	mg/L	1.01	0.00154	0.005	0.001522
Pentachloronitrobenzene	U	<0.00310	<0.00505	<0.00310	mg/L	1.01	0.00310	0.005	0.003074
Pronamide	U	<0.00160	<0.00505	<0.00160	mg/L	1.01	0.00160	0.005	0.001589
Phenanthrene	U	<0.00146	<0.00505	<0.00146	mg/L	1.01	0.00146	0.005	0.001443
Di-n-butylphthalate	U	<0.00126	<0.00505	<0.00126	mg/L	1.01	0.00126	0.005	0.001251
Fluoranthene	U	<0.00160	<0.00505	<0.00160	mg/L	1.01	0.00160	0.005	0.001588
Benzidine	U	<0.000853	<0.0252	<0.000853	mg/L	1.01	0.000853	0.025	0.000845
Pyrene	U	<0.00136	<0.00505	<0.00136	mg/L	1.01	0.00136	0.005	0.00135
p-Dimethylaminoazobenzene	U	<0.000979	<0.00505	<0.000979	mg/L	1.01	0.000979	0.005	0.000969
Butylbenzylphthalate	U	<0.00111	<0.00505	<0.00111	mg/L	1.01	0.00111	0.005	0.001096
Benzo(a)anthracene	U	<0.00139	<0.00505	<0.00139	mg/L	1.01	0.00139	0.005	0.001375
3,3-Dichlorobenzidine	U	<0.00131	<0.00505	<0.00131	mg/L	1.01	0.00131	0.005	0.0013
Chrysene	U	<0.00148	<0.00505	<0.00148	mg/L	1.01	0.00148	0.005	0.001463
bis(2-ethylhexyl)phthalate	U	<0.00109	<0.00505	<0.00109	mg/L	1.01	0.00109	0.005	0.001078
Di-n-octylphthalate	U	<0.000901	<0.00505	<0.000901	mg/L	1.01	0.000901	0.005	0.000892
Benzo(b)fluoranthene	U	<0.00127	<0.00505	<0.00127	mg/L	1.01	0.00127	0.005	0.001261

continued . . .

sample 192673 continued . . .

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Benzo(k)fluoranthene	U	<0.00151	<0.00505	<0.00151 mg/L	1.01	0.00151	0.005	0.001492	
7,12-Dimethylbenz(a)anthracene	U	<0.00136	<0.00505	<0.00136 mg/L	1.01	0.00136	0.005	0.001344	
Benzo(a)pyrene	U	<0.00157	<0.00505	<0.00157 mg/L	1.01	0.00157	0.005	0.001552	
3-Methylcholanthrene	U	<0.00167	<0.00505	<0.00167 mg/L	1.01	0.00167	0.005	0.001656	
Dibenzo(a,j)acridine	U	<0.00203	<0.00505	<0.00203 mg/L	1.01	0.00203	0.005	0.002007	
Indeno(1,2,3-cd)pyrene	U	<0.00197	<0.00505	<0.00197 mg/L	1.01	0.00197	0.005	0.001948	
Dibenzo(a,h)anthracene	U	<0.00212	<0.00505	<0.00212 mg/L	1.01	0.00212	0.005	0.002096	
Benzo(g,h,i)perylene	U	<0.00209	<0.00505	<0.00209 mg/L	1.01	0.00209	0.005	0.002066	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0276	mg/L	1.01	0.0800	34	10 - 64.2
Phenol-d5		0.0193	mg/L	1.01	0.0800	24	10 - 45.3
Nitrobenzene-d5		0.0493	mg/L	1.01	0.0800	62	23.4 - 95.9
2-Fluorobiphenyl		0.0485	mg/L	1.01	0.0800	61	20 - 96.4
2,4,6-Tribromophenol		0.0464	mg/L	1.01	0.0800	58	23.8 - 85.7
Terphenyl-d14		0.0635	mg/L	1.01	0.0800	79	45.8 - 115

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: El Paso
 Analysis: SO4 (IC) Analytical Method: E 300.0 Prep Method: N/A
 QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 Sample Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Sulfate		9360	9360	<252 mg/L	500	252	1.33	0.5038	

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: TDS Analytical Method: SM 2540C Prep Method: N/A
 QC Batch: 58647 Date Analyzed: 2009-04-16 Analyzed By: RD
 Prep Batch: 50065 Sample Preparation: 2009-04-11 Prepared By: RD

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Total Dissolved Solids		19580	19580	<100.0 mg/L	20	100.0	10	5	

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: TKN Analytical Method: E 351.3 Prep Method: N/A
 QC Batch: 58473 Date Analyzed: 2009-04-10 Analyzed By: AH
 Prep Batch: 49935 Sample Preparation: Prepared By: AH

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Kjeldahl Nitrogen - N	U	<2.45	<10.0	<2.45	mg/L	1	2.45	10	2.45

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Tl, Total Analytical Method: S 6010B Prep Method: S 3010A
 QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 Sample Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Thallium	U	<0.00488	<0.0500	<0.00488	mg/L	1	0.00488	0.05	0.00488

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: TOC Analytical Method: SM 5310C Prep Method: N/A
 QC Batch: 58713 Date Analyzed: 2009-04-20 Analyzed By: KV
 Prep Batch: 50124 Sample Preparation: 2009-04-20 Prepared By: KV

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
		Result	Result	Result					
Total Organic Carbon		1.41	1.41	<0.401	mg/L	1	0.401	1	0.401

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock
 Analysis: Total Cyanide Analytical Method: SM 4500-CN C,E Prep Method: N/A
 QC Batch: 58581 Date Analyzed: 2009-04-14 Analyzed By: AH
 Prep Batch: 50013 Sample Preparation: Prepared By: AH

continued . . .

sample 192673 continued . . .

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cyanide		0.0240	0.0240	<0.0110	mg/L	1	0.0110	0.015	0.011

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock

Analysis: TPH DRO

Analytical Method: Mod. 8015B

Prep Method: N/A

QC Batch: 58426

Date Analyzed: 2009-04-09

Analyzed By: RG

Prep Batch: 49898

Sample Preparation: 2009-04-09

Prepared By: RG

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	^U	<0.876	<5.00	<0.876	mg/L	1	0.876	5	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		12.7	mg/L	1	10.0	127	34.4 - 185

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock

Analysis: TPH GRO

Analytical Method: S 8015B

Prep Method: S 5030B

QC Batch: 58445

Date Analyzed: 2009-04-10

Analyzed By: ER

Prep Batch: 49911

Sample Preparation: 2009-04-10

Prepared By: ER

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	^U	<0.152	<0.200	<0.152	mg/L	1	0.152	0.2	0.152

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0965	mg/L	1	0.100	96	75.6 - 110
4-Bromofluorobenzene (4-BFB)		0.100	mg/L	1	0.100	100	63.6 - 117

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory: Lubbock

Analysis:	V, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	58431	Date Analyzed:	2009-04-10	Analyzed By:	RR
Prep Batch:	49900	Sample Preparation:	2009-04-10	Prepared By:	KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Vanadium		0.00700	0.00700	<0.000426	mg/L	1	0.000426	0.005	0.000426

Sample: 192673 - HLSF-0143-HMW-040-0409

Laboratory:	Lubbock				
Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	58431	Date Analyzed:	2009-04-10	Analyzed By:	RR
Prep Batch:	49900	Sample Preparation:	2009-04-10	Prepared By:	KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc		0.00600	0.00600	<0.000465	mg/L	1	0.000465	0.005	0.000465

Method Blank (1)

QC Batch:	58426	Date Analyzed:	2009-04-09	Analyzed By:	RG
Prep Batch:	49898	QC Preparation:	2009-04-09	Prepared By:	RG

Parameter	Flag	Result	Units	Reporting Limits
DRO		<0.876	mg/L	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		11.2	mg/L	1	10.0	112	34.4 - 185

Method Blank (1)

QC Batch:	58431	Date Analyzed:	2009-04-10	Analyzed By:	RR
Prep Batch:	49900	QC Preparation:	2009-04-10	Prepared By:	KV

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		<0.00111	mg/L	0.00111

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.00301	mg/L	0.00301

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Arsenic		<0.00448	mg/L	0.00448

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Barium		<0.00105	mg/L	0.00105

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Beryllium		<0.000450	mg/L	0.00045

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cadmium		<0.000303	mg/L	0.000303

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000822	mg/L	0.000822

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Chromium		<0.000583	mg/L	0.000583

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.000843	mg/L	0.000843

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.000872	mg/L	0.000872

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000305	mg/L	0.000305

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00119	mg/L	0.00119

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00121	mg/L	0.00121

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Phosphorous		<0.00289	mg/L	0.00289

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Lead		<0.00326	mg/L	0.00326

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Antimony		<0.00440	mg/L	0.0044

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Selenium		<0.00508	mg/L	0.00508

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Thallium		<0.00488	mg/L	0.00488

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Vanadium		<0.000426	mg/L	0.000426

Method Blank (1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		<0.000465	mg/L	0.000465

Method Blank (1)

QC Batch: 58445 Date Analyzed: 2009-04-10 Analyzed By: ER
 Prep Batch: 49911 QC Preparation: 2009-04-10 Prepared By: ER

Parameter	Flag	Result	Units	Reporting Limits
GRO		<0.152	mg/L	0.152

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0912	mg/L	1	0.100	91	75.6 - 110
4-Bromofluorobenzene (4-BFB)		0.0935	mg/L	1	0.100	94	63.6 - 117

Method Blank (1)

QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD
 Prep Batch: 49915 QC Preparation: 2009-04-07 Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Hexavalent Chromium		<0.0119	mg/L	0.00594

Method Blank (1)

QC Batch: 58472 Date Analyzed: 2009-04-10 Analyzed By: AH
 Prep Batch: 49934 QC Preparation: 2009-04-10 Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Ammonia-N		<0.353	mg/L	0.353

Method Blank (1)

QC Batch: 58473 Date Analyzed: 2009-04-10 Analyzed By: AH
 Prep Batch: 49935 QC Preparation: 2009-04-10 Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		<2.45	mg/L	2.45

Method Blank (1)

QC Batch: 58499 Date Analyzed: 2009-04-13 Analyzed By: AH
 Prep Batch: 49948 QC Preparation: 2009-04-12 Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Oil and Grease		<3.46	mg/L	3.459

Method Blank (1)

QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP
 Prep Batch: 49940 QC Preparation: 2009-04-13 Prepared By: TP

Parameter	Flag	Result	Units	Reporting Limits
Total Mercury		<0.0000329	mg/L	3.29e-05

Method Blank (1)

QC Batch: 58536 Date Analyzed: 2009-04-14 Analyzed By: RR
 Prep Batch: 49936 QC Preparation: 2009-04-13 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Dissolved Chromium		<0.000583	mg/L	0.000583

Method Blank (1)

QC Batch: 58581 Date Analyzed: 2009-04-14 Analyzed By: AH
 Prep Batch: 50013 QC Preparation: 2009-04-13 Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Total Cyanide		<0.0110	mg/L	0.011

Method Blank (1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Calcium		<0.117	mg/L	0.117

Method Blank (1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Potassium		<0.172	mg/L	0.172

Method Blank (1)QC Batch: 58583
Prep Batch: 49900Date Analyzed: 2009-04-15
QC Preparation: 2009-04-10Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Magnesium		<0.160	mg/L	0.16

Method Blank (1)QC Batch: 58583
Prep Batch: 49900Date Analyzed: 2009-04-15
QC Preparation: 2009-04-10Analyzed By: RR
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Sodium		<0.0500	mg/L	0.05

Method Blank (1)QC Batch: 58615
Prep Batch: 50042Date Analyzed: 2009-04-16
QC Preparation: 2009-04-13Analyzed By: MN
Prepared By: MN

Parameter	Flag	Result	Units	Reporting Limits
Pyridine		<0.00128	mg/L	0.001281
N-Nitrosodimethylamine		<0.00192	mg/L	0.001918
2-Picoline		<0.00132	mg/L	0.001321
Methyl methanesulfonate		<0.00175	mg/L	0.001747
Ethyl methanesulfonate		<0.00122	mg/L	0.001218
Phenol		<0.00165	mg/L	0.001649
Aniline		<0.00138	mg/L	0.001378
bis(2-chloroethyl)ether		<0.00217	mg/L	0.002172
2-Chlorophenol		<0.00150	mg/L	0.001498
1,3-Dichlorobenzene (meta)		<0.00166	mg/L	0.001663
1,4-Dichlorobenzene (para)		<0.00156	mg/L	0.001562
Benzyl alcohol		<0.00100	mg/L	0.001005
1,2-Dichlorobenzene (ortho)		<0.00164	mg/L	0.00164
2-Methylphenol		<0.00158	mg/L	0.001581
bis(2-chloroisopropyl)ether		<0.000828	mg/L	0.000828
4-Methylphenol / 3-Methylphenol		<0.00124	mg/L	0.001245
N-Nitrosodi-n-propylamine		<0.00127	mg/L	0.00127
Hexachloroethane		<0.00198	mg/L	0.001981
Acetophenone		<0.00127	mg/L	0.001273
Nitrobenzene		<0.00193	mg/L	0.001928
N-Nitrosopiperidine		<0.00120	mg/L	0.001205
Isophorone		<0.00194	mg/L	0.001943
2-Nitrophenol		<0.00140	mg/L	0.0014

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Parameter	Flag	Result	Units	Reporting Limits
2,4-Dimethylphenol		<0.00109	mg/L	0.001092
bis(2-chloroethoxy)methane		<0.00124	mg/L	0.001242
2,4-Dichlorophenol		<0.00134	mg/L	0.001338
1,2,4-Trichlorobenzene		<0.00193	mg/L	0.001934
Benzoic acid		<0.00304	mg/L	0.003042
Naphthalene		<0.00165	mg/L	0.00165
a,a-Dimethylphenethylamine		<0.000758	mg/L	0.000758
4-Chloroaniline		<0.00115	mg/L	0.001152
2,6-Dichlorophenol		<0.00120	mg/L	0.001198
Hexachlorobutadiene		<0.00184	mg/L	0.001838
N-Nitroso-di-n-butylamine		<0.00169	mg/L	0.001687
4-Chloro-3-methylphenol		<0.00120	mg/L	0.001199
2-Methylnaphthalene		<0.00145	mg/L	0.001451
1-Methylnaphthalene		<0.00155	mg/L	0.00155
1,2,4,5-Tetrachlorobenzene		<0.00205	mg/L	0.00205
Hexachlorocyclopentadiene		<0.00385	mg/L	0.00385
2,4,6-Trichlorophenol		<0.00152	mg/L	0.001523
2,4,5-Trichlorophenol		<0.00320	mg/L	0.003202
2-Chloronaphthalene		<0.00168	mg/L	0.001683
1-Chloronaphthalene		<0.00181	mg/L	0.001808
2-Nitroaniline		<0.00169	mg/L	0.00169
Dimethylphthalate		<0.00178	mg/L	0.001784
Acenaphthylene		<0.00136	mg/L	0.001356
2,6-Dinitrotoluene		<0.00139	mg/L	0.001392
3-Nitroaniline		<0.00124	mg/L	0.001236
Acenaphthene		<0.00132	mg/L	0.00132
2,4-Dinitrophenol		<0.00392	mg/L	0.003916
Dibenzofuran		<0.00161	mg/L	0.001613
Pentachlorobenzene		<0.00242	mg/L	0.002422
4-Nitrophenol		<0.00127	mg/L	0.001272
2,4-Dinitrotoluene		<0.00139	mg/L	0.001388
1-Naphthylamine		<0.00128	mg/L	0.001281
2,3,4,6-Tetrachlorophenol		<0.00130	mg/L	0.001297
2-Naphthylamine		<0.00154	mg/L	0.00154
Fluorene		<0.00130	mg/L	0.001295
4-Chlorophenyl-phenylether		<0.00173	mg/L	0.001729
Diethylphthalate		<0.00161	mg/L	0.00161
4-Nitroaniline		<0.00101	mg/L	0.001009
Diphenylhydrazine		<0.00125	mg/L	0.00125
4,6-Dinitro-2-methylphenol		<0.00135	mg/L	0.001346
Diphenylamine		<0.00159	mg/L	0.001589
4-Bromophenyl-phenylether		<0.00187	mg/L	0.001869
Phenacetin		<0.00139	mg/L	0.001391
Hexachlorobenzene		<0.00238	mg/L	0.002375
4-Aminobiphenyl		<0.00134	mg/L	0.001345
Pentachlorophenol		<0.000632	mg/L	0.000632
Anthracene		<0.00152	mg/L	0.001522

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Parameter	Flag	Result	Units	Reporting Limits
Pentachloronitrobenzene		<0.00307	mg/L	0.003074
Pronamide		<0.00159	mg/L	0.001589
Phenanthrene		<0.00144	mg/L	0.001443
Di-n-butylphthalate		<0.00125	mg/L	0.001251
Fluoranthene		<0.00159	mg/L	0.001588
Benzidine		<0.000845	mg/L	0.000845
Pyrene		<0.00135	mg/L	0.00135
p-Dimethylaminoazobenzene		<0.000969	mg/L	0.000969
Butylbenzylphthalate		<0.00110	mg/L	0.001096
Benzo(a)anthracene		<0.00138	mg/L	0.001375
3,3-Dichlorobenzidine		<0.00130	mg/L	0.0013
Chrysene		<0.00146	mg/L	0.001463
bis(2-ethylhexyl)phthalate		<0.00108	mg/L	0.001078
Di-n-octylphthalate		<0.000892	mg/L	0.000892
Benzo(b)fluoranthene		<0.00126	mg/L	0.001261
Benzo(k)fluoranthene		<0.00149	mg/L	0.001492
7,12-Dimethylbenz(a)anthracene		<0.00134	mg/L	0.001344
Benzo(a)pyrene		<0.00155	mg/L	0.001552
3-Methylcholanthrene		<0.00166	mg/L	0.001656
Dibenzo(a,j)acridine		<0.00201	mg/L	0.002007
Indeno(1,2,3-cd)pyrene		<0.00195	mg/L	0.001948
Dibenzo(a,h)anthracene		<0.00210	mg/L	0.002096
Benzo(g,h,i)perylene		<0.00207	mg/L	0.002066

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0209	mg/L	1	0.0800	26	10 - 64.2
Phenol-d5		0.0176	mg/L	1	0.0800	22	10 - 45.3
Nitrobenzene-d5		0.0473	mg/L	1	0.0800	59	23.4 - 95.9
2-Fluorobiphenyl		0.0597	mg/L	1	0.0800	75	20 - 96.4
2,4,6-Tribromophenol		0.0572	mg/L	1	0.0800	72	23.8 - 85.7
Terphenyl-d14		0.0776	mg/L	1	0.0800	97	45.8 - 115

Method Blank (1)

QC Batch: 58647

Date Analyzed: 2009-04-16

Analyzed By: RD

Prep Batch: 50065

QC Preparation: 2009-04-11

Prepared By: RD

Parameter	Flag	Result	Units	Reporting Limits
Total Dissolved Solids		<5.000	mg/L	5

Method Blank (1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	Result	Units	Reporting Limits
Bromide		<0.500	mg/L	0.0394

Method Blank (1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	Result	Units	Reporting Limits
Chloride		<2.50	mg/L	0.6404

Method Blank (1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	Result	Units	Reporting Limits
Fluoride		<0.500	mg/L	0.0434

Method Blank (1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Parameter	Flag	Result	Units	Reporting Limits
Sulfate		<2.50	mg/L	0.5038

Method Blank (1)

QC Batch: 58713 Date Analyzed: 2009-04-20 Analyzed By: KV
 Prep Batch: 50124 QC Preparation: 2009-04-20 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Organic Carbon		0.819	mg/L	0.401

Duplicate (1) Duplicated Sample: 192674

QC Batch: 58509 Date Analyzed: 2009-04-08 Analyzed By: JG
 Prep Batch: 49955 QC Preparation: 2009-04-08 Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.57	7.57	s.u.	1	0	1.1

Duplicate (1) Duplicated Sample: 192673

QC Batch: 58647 Date Analyzed: 2009-04-16 Analyzed By: RD
 Prep Batch: 50065 QC Preparation: 2009-04-11 Prepared By: RD

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	19700	19580	mg/L	20	1	10

Duplicate (1) Duplicated Sample: 192674

QC Batch: 58761 Date Analyzed: 2009-04-20 Analyzed By: JG
 Prep Batch: 50158 QC Preparation: 2009-04-09 Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	140	138	mg/L as CaCo3	1	1	20
Total Alkalinity	140	138	mg/L as CaCo3	1	1	20

Laboratory Control Spike (LCS-1)

QC Batch: 58426 Date Analyzed: 2009-04-09 Analyzed By: RG
 Prep Batch: 49898 QC Preparation: 2009-04-09 Prepared By: RG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	31.8	mg/L	1	25.0	<0.876	127	74.3 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	30.8	mg/L	1	25.0	<0.876	123	74.3 - 158	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.475	mg/L	1	0.500	<0.00448	95	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Barium	1.01	mg/L	1	1.00	<0.00105	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	0.991	mg/L	1	1.00	<0.00105	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Beryllium	0.0244	mg/L	1	0.0250	<0.000450	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0237	mg/L	1	0.0250	<0.000450	95	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Cadmium	0.255	mg/L	1	0.250	<0.000303	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Cadmium	0.252	mg/L	1	0.250	<0.000303	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Cobalt	0.243	mg/L	1	0.250	<0.000822	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Cobalt	0.240	mg/L	1	0.250	<0.000822	96	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Chromium	0.0910	mg/L	1	0.100	<0.000583	91	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Chromium	0.0900	mg/L	1	0.100	<0.000583	90	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Copper	0.134	mg/L	1	0.125	<0.000843	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Copper	0.129	mg/L	1	0.125	<0.000843	103	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Iron	0.501	mg/L	1	0.500	<0.000872	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Iron	0.491	mg/L	1	0.500	<0.000872	98	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Manganese	0.241	mg/L	1	0.250	<0.000305	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Manganese	0.237	mg/L	1	0.250	<0.000305	95	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Molybdenum	0.505	mg/L	1	0.500	<0.00119	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Total Molybdenum	0.499	mg/L	1	0.500	<0.00119	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
	Result	Units	Dil.				
Total Nickel	0.239	mg/L	1	0.250	<0.00121	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Total Nickel	0.235	mg/L	1	0.250	<0.00121	94	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
	Result	Units	Dil.				
Total Phosphorous	0.468	mg/L	1	0.500	<0.00289	94	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Total Phosphorous	0.463	mg/L	1	0.500	<0.00289	93	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
	Result	Units	Dil.				
Total Lead	0.521	mg/L	1	0.500	<0.00326	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.516	mg/L	1	0.500	<0.00326	103	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Antimony	0.236	mg/L	1	0.250	<0.00440	94	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.233	mg/L	1	0.250	<0.00440	93	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Selenium	0.446	mg/L	1	0.500	<0.00508	89	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.435	mg/L	1	0.500	<0.00508	87	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Total Thallium	0.497	mg/L	1	0.500	<0.00488	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike	Matrix	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units		Amount	Result				
Total Thallium	0.494	mg/L	1	0.500	<0.00488	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike	Matrix	Rec.	Rec. Limit
	Result	Units		Amount	Result		
Total Vanadium	0.246	mg/L	1	0.250	<0.000426	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike	Matrix	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units		Amount	Result				
Total Vanadium	0.241	mg/L	1	0.250	<0.000426	96	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS		Dil.	Spike	Matrix	Rec.	Rec. Limit
	Result	Units		Amount	Result		
Total Zinc	0.242	mg/L	1	0.250	<0.000465	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike	Matrix	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units		Amount	Result				
Total Zinc	0.233	mg/L	1	0.250	<0.000465	93	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58445 Date Analyzed: 2009-04-10 Analyzed By: ER
Prep Batch: 49911 QC Preparation: 2009-04-10 Prepared By: ER

Param	LCS		Dil.	Spike	Matrix	Rec.	Rec. Limit
	Result	Units		Amount	Result		
GRO	0.950	mg/L	1	1.00	<0.152	95	78.6 - 123

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
GRO	0.902	mg/L	1	1.00	<0.152	90	78.6 - 123	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS		LCSD		Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
	Result	Units	Result	Dil.				
Trifluorotoluene (TFT)	0.0960	mg/L	0.0887	1	0.100	96	89	79.3 - 124
4-Bromofluorobenzene (4-BFB)	0.0974	mg/L	0.0929	1	0.100	97	93	80.9 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD
Prep Batch: 49915 QC Preparation: 2009-04-07 Prepared By: MD

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Hexavalent Chromium	0.509	mg/L	1	0.500	<0.00594	102	95.4 - 105

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Hexavalent Chromium	0.515	mg/L	1	0.500	<0.00594	103	95.4 - 105	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58499 Date Analyzed: 2009-04-13 Analyzed By: AH
Prep Batch: 49948 QC Preparation: 2009-04-12 Prepared By: AH

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Oil and Grease	35.1	mg/L	1	40.0	<3.46	88	78 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Oil and Grease	36.6	mg/L	1	40.0	<3.46	92	78 - 114	4	18

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP
Prep Batch: 49940 QC Preparation: 2009-04-13 Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	52.4	mg/L	1	50.0	<0.172	105	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	51.3	mg/L	1	50.0	<0.172	103	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	53.2	mg/L	1	50.0	<0.160	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	54.9	mg/L	1	50.0	<0.160	110	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	53.1	mg/L	1	50.0	<0.0500	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	51.9	mg/L	1	50.0	<0.0500	104	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58615 Date Analyzed: 2009-04-16 Analyzed By: MN
Prep Batch: 50042 QC Preparation: 2009-04-13 Prepared By: MN

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Phenol	0.0221	mg/L	1	0.0800	<0.00165	28	10 - 37.6
2-Chlorophenol	0.0488	mg/L	1	0.0800	<0.00150	61	27.4 - 88.1
1,4-Dichlorobenzene (para)	0.0424	mg/L	1	0.0800	<0.00156	53	22.2 - 85.4
N-Nitrosodi-n-propylamine	0.0580	mg/L	1	0.0800	<0.00127	72	15.8 - 119
1,2,4-Trichlorobenzene	0.0527	mg/L	1	0.0800	<0.00193	66	25 - 99.5
Naphthalene	0.0588	mg/L	1	0.0800	<0.00165	74	24.8 - 93.1
4-Chloro-3-methylphenol	0.0604	mg/L	1	0.0800	<0.00120	76	28.4 - 110
Acenaphthylene	0.0562	mg/L	1	0.0800	<0.00136	70	33.3 - 110
Acenaphthene	0.0551	mg/L	1	0.0800	<0.00132	69	31.5 - 107
4-Nitrophenol	0.0160	mg/L	1	0.0800	<0.00127	20	10 - 48.8
2,4-Dinitrotoluene	0.0561	mg/L	1	0.0800	<0.00139	70	27.8 - 126
Fluorene	0.0548	mg/L	1	0.0800	<0.00130	68	25.5 - 124
Pentachlorophenol	0.0479	mg/L	1	0.0800	<0.000632	60	10 - 119
Anthracene	0.0687	mg/L	1	0.0800	<0.00152	86	39.5 - 119
Phenanthrene	0.0704	mg/L	1	0.0800	<0.00144	88	41 - 119
Fluoranthene	0.0701	mg/L	1	0.0800	<0.00159	88	35.8 - 143
Pyrene	0.0734	mg/L	1	0.0800	<0.00135	92	35.8 - 132
Benzo(a)anthracene	0.0712	mg/L	1	0.0800	<0.00138	89	40.1 - 128
Chrysene	0.0666	mg/L	1	0.0800	<0.00146	83	40.5 - 128
Benzo(b)fluoranthene	0.0689	mg/L	1	0.0800	<0.00126	86	32 - 134
Benzo(k)fluoranthene	0.0801	mg/L	1	0.0800	<0.00149	100	43.5 - 131
Benzo(a)pyrene	0.0772	mg/L	1	0.0800	<0.00155	96	43.5 - 140
Indeno(1,2,3-cd)pyrene	0.0735	mg/L	1	0.0800	<0.00195	92	39.7 - 159
Dibenzo(a,h)anthracene	0.0691	mg/L	1	0.0800	<0.0210	86	39.2 - 154
Benzo(g,h,i)perylene	0.0731	mg/L	1	0.0800	<0.00207	91	38 - 157

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Phenol	0.0206	mg/L	1	0.0800	<0.00165	26	10 - 37.6	7	20
2-Chlorophenol	0.0454	mg/L	1	0.0800	<0.00150	57	27.4 - 88.1	7	20
1,4-Dichlorobenzene (para)	0.0394	mg/L	1	0.0800	<0.00156	49	22.2 - 85.4	7	20
N-Nitrosodi-n-propylamine	0.0510	mg/L	1	0.0800	<0.00127	64	15.8 - 119	13	20
1,2,4-Trichlorobenzene	0.0493	mg/L	1	0.0800	<0.00193	62	25 - 99.5	7	20
Naphthalene	0.0545	mg/L	1	0.0800	<0.00165	68	24.8 - 93.1	8	20
4-Chloro-3-methylphenol	0.0556	mg/L	1	0.0800	<0.00120	70	28.4 - 110	8	20
Acenaphthylene	0.0529	mg/L	1	0.0800	<0.00136	66	33.3 - 110	6	20
Acenaphthene	0.0513	mg/L	1	0.0800	<0.00132	64	31.5 - 107	7	20
4-Nitrophenol	0.0157	mg/L	1	0.0800	<0.00127	20	10 - 48.8	2	20
2,4-Dinitrotoluene	0.0539	mg/L	1	0.0800	<0.00139	67	27.8 - 126	4	20
Fluorene	0.0524	mg/L	1	0.0800	<0.00130	66	25.5 - 124	4	20
Pentachlorophenol	0.0460	mg/L	1	0.0800	<0.000632	58	10 - 119	4	20
Anthracene	0.0646	mg/L	1	0.0800	<0.00152	81	39.5 - 119	6	20
Phenanthrene	0.0659	mg/L	1	0.0800	<0.00144	82	41 - 119	7	20
Fluoranthene	0.0644	mg/L	1	0.0800	<0.00159	80	35.8 - 143	8	20
Pyrene	0.0685	mg/L	1	0.0800	<0.00135	86	35.8 - 132	7	20
Benzo(a)anthracene	0.0659	mg/L	1	0.0800	<0.00138	82	40.1 - 128	8	20
Chrysene	0.0631	mg/L	1	0.0800	<0.00146	79	40.5 - 128	5	20

continued ...

control spikes continued . . .

Param	LCSD			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Benzo(b)fluoranthene	0.0659	mg/L	1	0.0800	<0.00126	82	32 - 134	4	20
Benzo(k)fluoranthene	0.0725	mg/L	1	0.0800	<0.00149	91	43.5 - 131	10	20
Benzo(a)pyrene	0.0725	mg/L	1	0.0800	<0.00155	91	43.5 - 140	6	20
Indeno(1,2,3-cd)pyrene	0.0683	mg/L	1	0.0800	<0.00195	85	39.7 - 159	7	20
Dibenzo(a,h)anthracene	0.0669	mg/L	1	0.0800	<0.0210	84	39.2 - 154	3	20
Benzo(g,h,i)perylene	0.0687	mg/L	1	0.0800	<0.00207	86	38 - 157	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS	LCSD			Spike Amount	LCS	LCSD		Rec. Limit
	Result	Result	Units	Dil.		Rec.	Rec.		
2-Fluorophenol	0.0452	0.0439	mg/L	1	0.0800	56	55	10 - 60.8	
Phenol-d5	0.0298	0.0294	mg/L	1	0.0800	37	37	10 - 42.2	
Nitrobenzene-d5	0.0922	0.0920	mg/L	1	0.0800	115	115	29.8 - 107	
2-Fluorobiphenyl	0.0741	0.0711	mg/L	1	0.0800	93	89	26.2 - 121	
2,4,6-Tribromophenol	0.0730	0.0722	mg/L	1	0.0800	91	90	31.5 - 130	
Terphenyl-d14	0.106	0.0974	mg/L	1	0.0800	132	122	41.7 - 140	

Laboratory Control Spike (LCS-1)QC Batch: 58702
Prep Batch: 50113Date Analyzed: 2009-04-10
QC Preparation: 2009-04-10Analyzed By: JR
Prepared By: JR

Param	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units	Dil.				
Bromide	9.71	mg/L	1	10.0	<0.0394	97	94.2 - 105

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD			Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units	Dil.						
Bromide	9.74	mg/L	1	10.0	<0.0394	97	94.2 - 105	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)QC Batch: 58702
Prep Batch: 50113Date Analyzed: 2009-04-10
QC Preparation: 2009-04-10Analyzed By: JR
Prepared By: JR

Param	LCS			Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units	Dil.				
Chloride	48.3	mg/L	1	50.0	<0.640	97	93.1 - 99.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

¹ 8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.² 8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Chloride	48.3	mg/L	1	50.0	<0.640	97	93.1 - 99.9	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Fluoride	9.86	mg/L	1	10.0	<0.0434	99	93.1 - 103

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Fluoride	9.88	mg/L	1	10.0	<0.0434	99	93.1 - 103	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Sulfate	47.6	mg/L	1	50.0	<0.504	95	92.6 - 104

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Sulfate	47.6	mg/L	1	50.0	<0.504	95	92.6 - 104	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 58713 Date Analyzed: 2009-04-20 Analyzed By: KV
Prep Batch: 50124 QC Preparation: 2009-04-20 Prepared By: KV

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Total Organic Carbon	49.1	mg/L	1	50.0	<0.401	98	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
Total Organic Carbon	50.0	mg/L	1	50.0	<0.401	100	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 59150
Prep Batch: 50476

Date Analyzed: 2009-04-27
QC Preparation: 2009-04-14

Analyzed By: DS
Prepared By: DS

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
HMX	2.29	µg/L	1	2.50	<0.123	92	63.5 - 125
RDX	2.44	µg/L	1	2.50	<0.298	98	74.5 - 124
1,3,5-Trinitrobenzene	2.43	µg/L	1	2.50	<0.339	97	54.1 - 131
1,3-Dinitrobenzene	2.44	µg/L	1	2.50	<0.389	98	72 - 112
Nitrobenzene	2.40	µg/L	1	2.50	<0.379	96	72.5 - 126
Tetryl	2.26	µg/L	1	2.50	<0.413	90	35.9 - 149
TNT	2.50	µg/L	1	2.50	<0.464	100	40.7 - 129
4-Amino-DNT	2.54	µg/L	1	2.50	<0.319	102	80 - 120
2-Amino-DNT	2.58	µg/L	1	2.50	<0.391	103	80 - 120
2,6-DNT	2.30	µg/L	1	2.50	<0.323	92	80 - 120
2,4-DNT	2.46	µg/L	1	2.50	<0.366	98	80 - 120
2-NT	2.45	µg/L	1	2.50	<0.379	98	49.8 - 139
4-NT	2.31	µg/L	1	2.50	<0.398	92	56.3 - 141
3-NT	2.43	µg/L	1	2.50	<0.346	97	66.2 - 129

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
HMX	2.04	µg/L	1	2.50	<0.123	82	63.5 - 125	12	20
RDX	2.40	µg/L	1	2.50	<0.298	96	74.5 - 124	2	20
1,3,5-Trinitrobenzene	2.32	µg/L	1	2.50	<0.339	93	54.1 - 131	5	20
1,3-Dinitrobenzene	2.40	µg/L	1	2.50	<0.389	96	72 - 112	2	20
Nitrobenzene	2.46	µg/L	1	2.50	<0.379	98	72.5 - 126	2	20
Tetryl	2.14	µg/L	1	2.50	<0.413	86	35.9 - 149	5	20
TNT	2.52	µg/L	1	2.50	<0.464	101	40.7 - 129	1	20
4-Amino-DNT	2.71	µg/L	1	2.50	<0.319	108	80 - 120	6	20
2-Amino-DNT	2.59	µg/L	1	2.50	<0.391	104	80 - 120	0	20
2,6-DNT	2.55	µg/L	1	2.50	<0.323	102	80 - 120	10	20
2,4-DNT	2.62	µg/L	1	2.50	<0.366	105	80 - 120	6	20
2-NT	2.42	µg/L	1	2.50	<0.379	97	49.8 - 139	1	20
4-NT	2.31	µg/L	1	2.50	<0.398	92	56.3 - 141	0	20
3-NT	2.33	µg/L	1	2.50	<0.346	93	66.2 - 129	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued . . .

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
1,2-Dinitrobenzene	2.29	2.33	µg/L	1	2.50	92	93	53 - 134

Matrix Spike (MS-1) Spiked Sample: 192593

QC Batch: 58426 Date Analyzed: 2009-04-09 Analyzed By: RG
Prep Batch: 49898 QC Preparation: 2009-04-09 Prepared By: RG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	29.5	mg/L	1	25.0	<0.876	118	29.8 - 181

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	30.2	mg/L	1	25.0	<0.876	121	29.8 - 181	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	13.4	13.8	mg/L	1	10	134	138	34.4 - 185

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.110	mg/L	1	0.125	<0.00111	88	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.111	mg/L	1	0.125	<0.00111	89	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.927	mg/L	1	1.00	0.102	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.922	mg/L	1	1.00	0.102	82	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Arsenic	0.543	mg/L	1	0.500	<0.00448	109	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.535	mg/L	1	0.500	<0.00448	107	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Barium	0.967	mg/L	1	1.00	0.015	95	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	0.968	mg/L	1	1.00	0.015	95	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Beryllium	0.0244	mg/L	1	0.0250	<0.000450	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0235	mg/L	1	0.0250	<0.000450	94	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cadmium	0.204	mg/L	1	0.250	<0.000303	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cadmium	0.203	mg/L	1	0.250	<0.000303	81	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.220	mg/L	1	0.250	0.009	84	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.208	mg/L	1	0.250	0.009	80	75 - 125	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Chromium	0.514	mg/L	1	0.100	0.402	112	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Chromium	0.502	mg/L	1	0.100	0.402	100	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.170	mg/L	1	0.125	0.04	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.167	mg/L	1	0.125	0.04	102	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	3.52	mg/L	1	0.500	3.03	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	3.48	mg/L	1	0.500	3.03	90	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.301	mg/L	1	0.250	0.09	84	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.299	mg/L	1	0.250	0.09	84	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.861	mg/L	1	0.500	0.465	79	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.850	mg/L	1	0.500	0.465	77	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	1.37	mg/L	1	0.250	1.17	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	1.40	mg/L	1	0.250	1.17	92	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	0.550	mg/L	1	0.500	0.037	103	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	0.544	mg/L	1	0.500	0.037	101	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.401	mg/L	1	0.500	<0.00326	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.403	mg/L	1	0.500	<0.00326	81	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Antimony	0.246	mg/L	1	0.250	<0.00440	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.242	mg/L	1	0.250	<0.00440	97	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.857	mg/L	1	0.500	0.279	116	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.849	mg/L	1	0.500	0.279	114	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Thallium	0.374	mg/L	1	0.500	<0.00488	75	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Thallium	0.378	mg/L	1	0.500	<0.00488	76	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Vanadium	0.239	mg/L	1	0.250	0.003	94	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Vanadium	0.236	mg/L	1	0.250	0.003	93	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.258	mg/L	1	0.250	0.012	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.252	mg/L	1	0.250	0.012	96	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192596

QC Batch: 58445 Date Analyzed: 2009-04-10 Analyzed By: ER
Prep Batch: 49911 QC Preparation: 2009-04-10 Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.644	mg/L	1	1.00	<0.152	64	44.6 - 142

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.643	mg/L	1	1.00	<0.152	64	44.6 - 142	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	^{3,4} 0.0472	0.0502	mg/L	1	0.1	47	50	57.8 - 132
4-Bromofluorobenzene (4-BFB)	^{5,6} 0.0473	0.0504	mg/L	1	0.1	47	50	69.4 - 128

Matrix Spike (MS-1) Spiked Sample: 192673

QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD
Prep Batch: 49915 QC Preparation: 2009-04-07 Prepared By: MD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Hexavalent Chromium	0.575	mg/L	1.11	0.556	<0.00659	103	80.1 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Hexavalent Chromium	0.586	mg/L	1.11	0.556	<0.00659	105	80.1 - 118	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

³Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁵Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁶Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Matrix Spike (MS-1) Spiked Sample: 192673

QC Batch: 58472 Date Analyzed: 2009-04-10 Analyzed By: AH
Prep Batch: 49934 QC Preparation: 2009-04-10 Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Ammonia-N	4.62	mg/L	1	5.00	<0.353	92	30.7 - 141

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ammonia-N	4.31	mg/L	1	5.00	<0.353	86	30.7 - 141	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58473 Date Analyzed: 2009-04-10 Analyzed By: AH
Prep Batch: 49935 QC Preparation: 2009-04-10 Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N	50.7	mg/L	1	50.0	<2.45	101	53.5 - 129

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N	52.9	mg/L	1	50.0	<2.45	106	53.5 - 129	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP
Prep Batch: 49940 QC Preparation: 2009-04-13 Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000874	mg/L	1	0.00100	<0.0000329	87	75 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000859	mg/L	1	0.00100	<0.0000329	86	75 - 121	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58536 Date Analyzed: 2009-04-14 Analyzed By: RR
Prep Batch: 49936 QC Preparation: 2009-04-13 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Chromium	0.112	mg/L	1	0.100	0.016	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Chromium	0.102	mg/L	1	0.100	0.016	86	75 - 125	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192674

QC Batch: 58581 Date Analyzed: 2009-04-14 Analyzed By: AH
Prep Batch: 50013 QC Preparation: 2009-04-13 Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cyanide	0.117	mg/L	1	0.120	<0.0110	98	51.9 - 142

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cyanide	0.105	mg/L	1	0.120	<0.0110	88	51.9 - 142	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	630	mg/L	1	50.0	578	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	625	mg/L	1	50.0	578	94	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	188	mg/L	1	50.0	133	110	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	187	mg/L	1	50.0	133	108	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	2100	mg/L	1	50.0	2060	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	2100	mg/L	1	50.0	2060	80	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192631

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR
 Prep Batch: 49900 QC Preparation: 2009-04-10 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	7160	mg/L	1	50.0	7120	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	7160	mg/L	1	50.0	7120	80	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192674

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromide	⁷ 5710	mg/L	500	5000	<19.7	114	92.8 - 106

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromide	4880	mg/L	500	5000	<19.7	98	92.8 - 106	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192674

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	⁸ 31600	mg/L	500	25000	3950	111	87.3 - 103

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	⁹ 31500	mg/L	500	25000	3950	110	87.3 - 103	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 192674

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride	4950	mg/L	500	5000	<21.7	99	92.3 - 102

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoride	4950	mg/L	500	5000	<21.7	99	92.3 - 102	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁸Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

⁹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Matrix Spike (MS-1) Spiked Sample: 192674

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR
 Prep Batch: 50113 QC Preparation: 2009-04-10 Prepared By: JR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	¹⁰	41000	mg/L	500	25000	9230	127	86.4 - 101

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD	RPD Limit
Sulfate	¹¹	40900	mg/L	500	25000	9230	127	86.4 - 101	0 20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 58713 Date Analyzed: 2009-04-20 Analyzed By: KV
 Prep Batch: 50124 QC Preparation: 2009-04-20 Prepared By: KV

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Organic Carbon	¹²	175	mg/L	1	50.0	130	90	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD	RPD Limit
Total Organic Carbon	¹³	176	mg/L	1	50.0	130	92	80 - 120	1 20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 193136

QC Batch: 58776 Date Analyzed: 2009-04-17 Analyzed By: KV
 Prep Batch: 50167 QC Preparation: 2009-04-17 Prepared By: KV

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate and Nitrite as N	¹⁴	0.380	mg/L	1	0.200	0.345	18	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

¹⁰Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
¹¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
¹²RE-RUNNING MS/MSD BECAUSE SAMPLE WAS OVER CURVE ●
¹³RE-RUNNING MS/MSD BECAUSE SAMPLE WAS OVER CURVE ●
¹⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	2.00	1.90	95	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	0.995	100	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	0.968	97	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.964	96	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	0.996	100	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.977	98	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.992	99	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.963	96	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.970	97	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	0.957	96	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	4.76	95	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	2.00	1.93	96	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	2.00	1.97	98	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	0.972	97	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	5.00	4.92	98	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	0.990	99	90 - 110	2009-04-10

Standard (ICV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.02	102	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.124	99	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.970	97	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	0.992	99	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.03	103	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.991	99	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.04	104	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.979	98	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.960	96	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	0.986	99	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431

Date Analyzed: 2009-04-10

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	4.97	99	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431

Date Analyzed: 2009-04-10

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	1.03	103	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431

Date Analyzed: 2009-04-10

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	1.00	0.979	98	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431

Date Analyzed: 2009-04-10

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431

Date Analyzed: 2009-04-10

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	1.01	101	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58431 Date Analyzed: 2009-04-10 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.05	105	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58445 Date Analyzed: 2009-04-10 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.936	94	80 - 120	2009-04-10

Standard (CCV-2)

QC Batch: 58445 Date Analyzed: 2009-04-10 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.928	93	80 - 120	2009-04-10

Standard (CCV-1)

QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.507	101	90 - 110	2009-04-07

Standard (CCV-2)

QC Batch: 58450 Date Analyzed: 2009-04-07 Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.511	102	90 - 110	2009-04-07

Standard (ICV-1)

QC Batch: 58472 Date Analyzed: 2009-04-10 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.87	97	85 - 115	2009-04-10

Standard (CCV-1)

QC Batch: 58472 Date Analyzed: 2009-04-10 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.65	93	85 - 115	2009-04-10

Standard (ICV-1)

QC Batch: 58473 Date Analyzed: 2009-04-10 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	4.93	99	85 - 115	2009-04-10

Standard (CCV-1)

QC Batch: 58473 Date Analyzed: 2009-04-10 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	4.76	95	85 - 115	2009-04-10

Standard (ICV-1)

QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000952	95	90 - 110	2009-04-13

Standard (CCV-1)

QC Batch: 58500 Date Analyzed: 2009-04-13 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000967	97	90 - 110	2009-04-13

Standard (ICV-1)

QC Batch: 58509 Date Analyzed: 2009-04-08 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.00	100	98 - 102	2009-04-08

Standard (CCV-1)

QC Batch: 58509 Date Analyzed: 2009-04-08 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.03	100	98 - 102	2009-04-08

Standard (ICV-1)

QC Batch: 58536 Date Analyzed: 2009-04-14 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.01	101	90 - 110	2009-04-14

Standard (CCV-1)

QC Batch: 58536 Date Analyzed: 2009-04-14 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.03	103	90 - 110	2009-04-14

Standard (ICV-1)

QC Batch: 58581 Date Analyzed: 2009-04-14 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.113	94	85 - 115	2009-04-14

Standard (CCV-1)

QC Batch: 58581 Date Analyzed: 2009-04-14 Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.117	98	85 - 115	2009-04-14

Standard (ICV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	52.9	106	90 - 110	2009-04-15

Standard (ICV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.1	102	90 - 110	2009-04-15

Standard (ICV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	52.9	106	90 - 110	2009-04-15

Standard (ICV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	51.6	103	90 - 110	2009-04-15

Standard (CCV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	51.8	104	90 - 110	2009-04-15

Standard (CCV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.3	103	90 - 110	2009-04-15

Standard (CCV-1)

QC Batch: 58583 Date Analyzed: 2009-04-15 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	51.7	103	90 - 110	2009-04-15

Standard (CCV-1)

QC Batch: 58583

Date Analyzed: 2009-04-15

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	52.0	104	90 - 110	2009-04-15

Standard (CCV-1)

QC Batch: 58615

Date Analyzed: 2009-04-16

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	63.8	106	80 - 120	2009-04-16
1,4-Dichlorobenzene (para)		mg/L	60.0	60.2	100	80 - 120	2009-04-16
2-Nitrophenol		mg/L	60.0	70.7	118	80 - 120	2009-04-16
2,4-Dichlorophenol		mg/L	60.0	57.6	96	80 - 120	2009-04-16
Hexachlorobutadiene		mg/L	60.0	56.6	94	80 - 120	2009-04-16
4-Chloro-3-methylphenol		mg/L	60.0	59.6	99	80 - 120	2009-04-16
2,4,6-Trichlorophenol		mg/L	60.0	63.0	105	80 - 120	2009-04-16
Acenaphthene		mg/L	60.0	60.3	100	80 - 120	2009-04-16
Diphenylamine		mg/L	60.0	60.8	101	80 - 120	2009-04-16
Pentachlorophenol		mg/L	60.0	55.8	93	80 - 120	2009-04-16
Fluoranthene		mg/L	60.0	57.4	96	80 - 120	2009-04-16
Di-n-octylphthalate		mg/L	60.0	57.2	95	80 - 120	2009-04-16
Benzo(a)pyrene		mg/L	60.0	60.2	100	80 - 120	2009-04-16

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		62.5	mg/L	1	60.0	104	80 - 120
Phenol-d5		61.2	mg/L	1	60.0	102	80 - 120
Nitrobenzene-d5		63.1	mg/L	1	60.0	105	80 - 120
2-Fluorobiphenyl		56.9	mg/L	1	60.0	95	80 - 120
2,4,6-Tribromophenol		56.2	mg/L	1	60.0	94	80 - 120
Terphenyl-d14		57.6	mg/L	1	60.0	96	80 - 120

Standard (ICV-1)

QC Batch: 58647

Date Analyzed: 2009-04-16

Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	983.0	98	90 - 110	2009-04-16

Standard (CCV-1)

QC Batch: 58647 Date Analyzed: 2009-04-16 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	974.0	97	90 - 110	2009-04-16

Standard (CCV-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	5.00	4.85	97	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	24.0	96	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	5.00	4.90	98	90 - 110	2009-04-10

Standard (CCV-1)

QC Batch: 58702 Date Analyzed: 2009-04-10 Analyzed By: JR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	48.8	98	80 - 120	2009-04-20

Standard (CCV-2)

QC Batch: 58713 Date Analyzed: 2009-04-20 Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	48.3	97	80 - 120	2009-04-20

Standard (ICV-1)

QC Batch: 58761 Date Analyzed: 2009-04-20 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-04-20
Carbonate Alkalinity		mg/L as CaCo3	0.00	240		90 - 110	2009-04-20
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	6.00		90 - 110	2009-04-20
Total Alkalinity		mg/L as CaCo3	250	246	98	90 - 110	2009-04-20

Standard (CCV-1)

QC Batch: 58761 Date Analyzed: 2009-04-20 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-04-20
Carbonate Alkalinity		mg/L as CaCo3	0.00	244		90 - 110	2009-04-20
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	4.00		90 - 110	2009-04-20
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2009-04-20

Standard (ICV-1)

QC Batch: 58776 Date Analyzed: 2009-04-17 Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.194	97	85 - 115	2009-04-17

Standard (CCV-1)

QC Batch: 58776

Date Analyzed: 2009-04-17

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.211	106	85 - 115	2009-04-17

Standard (ICV-1)

QC Batch: 59150

Date Analyzed: 2009-04-27

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	494	99	85 - 115	2009-04-27
RDX		µg/L	500	493	99	85 - 115	2009-04-27
1,3,5-Trinitrobenzene		µg/L	500	510	102	85 - 115	2009-04-27
1,3-Dinitrobenzene		µg/L	500	508	102	85 - 115	2009-04-27
Nitrobenzene		µg/L	500	499	100	85 - 115	2009-04-27
Tetryl		µg/L	500	475	95	85 - 115	2009-04-27
TNT		µg/L	500	502	100	85 - 115	2009-04-27
4-Amino-DNT		µg/L	500	477	95	85 - 115	2009-04-27
2-Amino-DNT		µg/L	500	491	98	85 - 115	2009-04-27
2,6-DNT		µg/L	500	456	91	85 - 115	2009-04-27
2,4-DNT		µg/L	500	479	96	85 - 115	2009-04-27
2-NT		µg/L	500	551	110	85 - 115	2009-04-27
4-NT		µg/L	500	495	99	85 - 115	2009-04-27
3-NT		µg/L	500	440	88	85 - 115	2009-04-27

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		478	µg/L	1	500	96	85 - 115

Standard (CCV-1)

QC Batch: 59150

Date Analyzed: 2009-04-27

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	451	90	85 - 115	2009-04-27
RDX		µg/L	500	529	106	85 - 115	2009-04-27
1,3,5-Trinitrobenzene		µg/L	500	448	90	85 - 115	2009-04-27
1,3-Dinitrobenzene		µg/L	500	483	97	85 - 115	2009-04-27
Nitrobenzene		µg/L	500	511	102	85 - 115	2009-04-27
Tetryl		µg/L	500	429	86	85 - 115	2009-04-27
TNT		µg/L	500	527	105	85 - 115	2009-04-27

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
4-Amino-DNT		$\mu\text{g/L}$	500	512	102	85 - 115	2009-04-27
2-Amino-DNT		$\mu\text{g/L}$	500	523	105	85 - 115	2009-04-27
2,6-DNT		$\mu\text{g/L}$	500	441	88	85 - 115	2009-04-27
2,4-DNT		$\mu\text{g/L}$	500	512	102	85 - 115	2009-04-27
2-NT		$\mu\text{g/L}$	500	486	97	85 - 115	2009-04-27
4-NT		$\mu\text{g/L}$	500	444	89	85 - 115	2009-04-27
3-NT		$\mu\text{g/L}$	500	538	108	85 - 115	2009-04-27

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		491	$\mu\text{g/L}$	1	500	98	85 - 115

CHAIN OF CUSTODY RECORD

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS		ANALYSIS REQUESTED										REMARKS
DATE	TIME	SAMPLED	MATERIAL	LAB NO.	NO.	YPS	DRO	GRO	TOC	BVOC	Explosives	TRPH	Water Quality	Total Cyanide	Nutrients	
4-7-09	1335	HILSE-014319-04-00	WATER	19267318	1	1	X	X	X	X	X	X	X	X	X	
		HILSE-014319-00-000	WATER		1	1	X	X	X	X	X	X	X	X	X	
<p>PROJECT INFORMATION: SAMPLES RECEIVED: [Signature]</p> <p>PROJECT NUMBER: TOTAL NO. OF CONTAINERS: [Signature]</p> <p>Brad Davis: CHAIN OF CUSTODY-SEALS: [Signature]</p> <p>DATE: 10/18/02</p> <p>LAB: 1600</p> <p>DATE: 4/17/09</p> <p>LAB: 1600</p> <p>DATE: 4/12/09</p> <p>LAB: 1600</p> <p>DATE: 4-9-09</p> <p>LAB: 1600</p> <p>DATE: 9:30</p> <p>LAB: 1600</p> <p>DATE: 5:2 probe</p>																

(LS 43123709, 43123710)

CHAIN OF CUSTODY RECORD

033

PROJECT NO		PROJECT NAME		ANALYSIS REQUESTED			REMARKS	
DATE	TIME	SAMPLE ID	ANALYSIS	NO. OF CONTAINERS	Total Metals	Diss Metals		Diss Ions
4-7-09	1335	HLSF 0143-HMMU 040 04 09	WATER	19047318	X	X	X	
<p>SAMPLER'S SIGNATURE: </p>								
<p>PROJECT INFORMATION</p>								
<p>PROJECT MANAGER: Brad Daniels</p>								
<p>SHIPPING ID NO: 1977A1</p>								
<p>WAC: MW</p>								
<p>Lab Courier: MW</p>								
SAMPLES RECEIVED		1. RECEIVED BY LAB (SIGNATURE)		2. RECEIVED BY C (SIGNATURE)		3. RECEIVED BY LAB (SIGNATURE)		
TOTAL NO. OF CONTAINERS		(PRINTED NAME)		(PRINTED NAME)		(PRINTED NAME)		
CHAIN OF CUSTODY NO.		CMBNTELECOM ITR		JAMES GUTINER		CAROL FOX		
GOOD CONDITION (WHICH FILLED)		4/7/09		4-7-09		4-9-09		
CONFORMS TO RECORD		1620		1705		Trace-L6K		
		TIME (DATE)		TIME (DATE)		TIME (DATE)		
		1620		1705		4-9-09		
		9:30		9:30		9:30		
<p>SPECIAL INSTRUCTIONS/COMMENTS: 5.5 5.2 Probe</p>								

(LS 43123709, 43123710)