

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY
Loc 324342
Received 3/17/2015
Document 2314276

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): Remediation #8407

OGCC Operator Number: 10447	Contact Name and Telephone:
Name of Operator: Ursa Operating Company, LLC	Dwayne Knudson
Address: 792 Buckhorn Dr.	No: 970-625-9922
City: Rifle	Fax: 970-625-9929
API Number: N/A	County: Garfield County
Facility Name: Lundgren Frac/Flowback Pit	Facility Number: Pit Facility ID 282224 Centralized E&P Facility ID: 149019
Well Name: N/A	Well Number: N/A
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWSE, Sec 32, T5S, R92W , 6th PM Latitude: 39.569882 Longitude: -107.740557	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Frac/Flowback Water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Non-Crop Land

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Ildefonso-Lazear Complex, 6 to 65 percent slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Ground water monitoring well located approximately 120 ft to the southwest, as well as an agriculture irrigation ditch present approximately 1,229 ft to the east.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input type="checkbox"/> Soils	See attached Notice of Completion Report for	Analytical confirmation data
<input type="checkbox"/> Vegetation	Remediation #8407	
<input type="checkbox"/> Groundwater		
<input type="checkbox"/> Surface Water		

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

See attached Notice of Completion Report for Remediation #8407

Describe how source is to be removed:

See attached Notice of Completion Report for Remediation #8407

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

See attached Notice of Completion Report for Remediation #8407

FORM
27
Rev 6/99

Page 2

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax:(303)894-2109



REMEDIATION WORKPLAN (Cont.)

OGCC Employee:

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Form See attached Notice of Completion Report for Remediation #8407

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

See attached Notice of Completion Report for Remediation #8407

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? Y N If yes, describe:

See attached Notice of Completion Report for Remediation #8407

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

See attached Notice of Completion Report for Remediation #8407

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Sept. 8, 2014	Date Site Investigation Completed: Sept. 30, 2014	Date Remediation Plan Submitted: March 10, 2014
Remediation Start Date: October 20, 2014	Anticipated Completion Date: December 10, 2014	Actual Completion Date: December 9, 2014

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Dwayne Knudson

Signed:

Title: Senior Environmental Specialist

Date: 2-27-15

OGCC Approved: _____ Title: _____ Date: _____

Conditions of Approval (COAs):

- 1) URSA shall provide confirmation sampling of the formerly existing landfarming operation and stockpile areas. (see inspection report, doc #668500248, showing the location of the landfarm operation and stockpiles). Or provide documentation that "All wastes on-site had been managed by the previous owner as an agreement prior to sale" as stated in the last sentence of the "Notice of Completion Report."



Colorado Operations
792 Buckhorn Dr.
Rifle, CO 81650

Lundgren Centralized E&P Facility Closure

Notice of Completion Report

Colorado Operations

Piceance Basin
Garfield County, CO

February 2015

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Introduction

The purpose of this Notice of Completion report for the closure of the Ursula Operating Company (Ursa) Lundgren Centralized E&P Facility & Pit (COGCC Facility ID# 149019, Pit Facility ID# 282224; hereafter referred to as Lundgren Facility) is to provide detailed information and result analysis for the previously submitted and COGCC approved (Rem# 8407, Form 27 Doc# 2017128). This report will provide the documentation necessary to demonstrate a comprehensive and diligent investigation of the pit and adjacent environment which was obtained as described and in accordance with all appropriate county, state and federal rules and regulations.

Closure activities began on September 8, 2014 and were concluded on December 9, 2014. Information included in this report includes, but is not limited to: laboratory analytical, sub liner soil investigation, soil disposal, and final reclamation.

Evacuation of Pit Contents

All liquids that have accumulated from precipitation events since the Lundgren Facility pit was re-lined in 2009 by the previous owner and operator (Antero Resources) were removed and hauled to the Ursula Wasatch Bench E&P Facility and placed within the Wasatch Bench pit. It should be noted that Ursula never utilized the Lundgren Facility for water storage since acquiring the asset in April 2013. Water hauling tickets are available upon request.

Pit Liner Investigation and Integrity Assessment

The liner investigation conducted in March 2014 indicated that a tear had developed in the southwest corner, approximately 12 inches in length and 2 inches wide. The suspected tear in the liner was noted during a baseline site inspection in April 2013 when Ursula acquired the asset as well as noted in the 2013 Annual Report (Section 6.1) submitted to the COGCC. The tear itself is positioned at a location center of the wall and did not indicate any evidence of fluids leaking or being exposed to the underlying soils based on the high water marks.

Pit Liner Removal

Once the pit liner was cleaned of liquids and any residual adhered solids (residual dust and weed debris), the entire liner system was removed from the pit. As per a condition of approval (COA) for disposal and observed during the site visit with Mr. Carlos Lujan with the COGCC, the liner was cut into 10-foot square sections as required by Garfield County Landfill in Rifle, CO on September 11, 2014.

Evaluation of Pit Sub-Soils

After the liner was removed, the pit sub-soils were evaluated for evidence of contamination. In doing so, the pit was divided into six (6) quadrants in order to create a representative characterization of the pit as a whole. The six (6) zones were named by their directional relationship to the pit bottom and are defined in Figure 1.

Samples were collected from the surface to six (6) inches below ground surface (bgs) and submitted to ALS Laboratories in Holland, Michigan. Figure 2 outlines initial sample locations in relation to the pit. Confirmation data indicated that hydrocarbon concentrations in the center of the pit, as well as in the southwest corner, exceeded COGCC Table 910-1 thresholds and additional site investigation activities were necessary. Table 1 illustrates the initial sampling analytical results. Raw analytical data can be viewed in Appendix 1.

Table 1: Initial Sampling Analytical Results

Ursa - Lundgren Pit Facility Initial Pit Bottom Sampling	<u>COGCC</u> <u>Table 910-1</u> <u>Standards</u>	Sample Location					
		SP1 - NW Corner (0-6in)	SP2 - N Center (0- 6in)	SP3 - NE Corner (0-6in)	SP4 - S Center (0-6in)	SP5 - SE Corner (0-6in)	SP6 - SW Corner (0-6in)
Analyte							
DRO (C10-C28)	500	N/D	2,900	280	700	80	760
GRO (C6-C10)		N/D	82	9.4	9.1	N/D	18
Anthracene	1000	N/D	0.29	0.056	N/D	N/D	0.096
Acenaphthene	1000	N/D	0.10	0.020	N/D	N/D	N/D
Benzo(a)anthracene	0.22	N/D	N/D	0.0096	N/D	N/D	N/D
Benzo(a)pyrene	0.022	N/D	N/D	N/D	N/D	N/D	N/D
Benzo(b)fluoranthene	0.22	N/D	N/D	N/D	N/D	N/D	N/D
Benzo(k)fluoranthene	2.2	N/D	N/D	N/D	N/D	N/D	N/D
Chrysene	22	N/D	N/D	0.0073	N/D	N/D	N/D
Dibenz(a,h)anthracene	0.022	N/D	N/D	N/D	N/D	N/D	N/D
Fluoranthene	1000	N/D	N/D	N/D	N/D	N/D	N/D
Fluorene	1000	N/D	0.52	0.090	0.18	N/D	0.18
Indeno(1,2,3,c,d)pyrene	0.022	N/D	N/D	N/D	N/D	N/D	N/D
Naphthalene	23	N/D	N/D	0.037	N/D	N/D	N/D
Pyrene	1000	N/D	N/D	0.012	N/D	N/D	N/D
Benzene	0.17	N/D	N/D	N/D	N/D	N/D	N/D
Ethylbenzene	100	N/D	0.094	0.017	N/D	N/D	0.0065
Toluene	85	N/D	N/D	N/D	N/D	N/D	N/D
Xylenes, Total	175	N/D	0.18	N/D	N/D	N/D	0.031
Arsenic	0.39	12	6.0	6.6	6.2	3.2	7.0
Barium	15,000	240	1500	650	550	140	870
Cadmium	70	0.97	1.1	1.2	1.1	1.4	1.1
Chromium (III)	120,000	8.3	10	12	12	17	11
Chromium (VI)	23	0.39	N/D	N/D	N/D	N/D	N/D
Copper	3100	8.5	14	12	14	19	13
Lead	400	10	11	8.9	10	14	10
Mercury	23	N/D	0.022	0.023	0.035	0.080	N/D
Nickel	1,600	6.6	8.3	9.2	9.1	15	8.5
Selenium	390	N/D	N/D	N/D	N/D	N/D	N/D
Silver	390	N/D	N/D	N/D	N/D	N/D	N/D
Zinc	23,000	34	48	44	47	66	48
pH	6-9	8.8	8.6	8.6	8.5	8.3	8.9
Sodium Adsorption Ratio (SAR)	<12 ⁵	56	29	17	25	31	33
Specific Conductance	4	2.2	2.1	1.3	2.0	6.8	2.1

Note: All results are presented in mg/kg, unless otherwise noted.

Concentrations exceeding COGCC Table 910-1 are highlighted in yellow.



Notes / Comments:

Figure 1: Initial Sample Location



Initial Surface Sampling Locations

Lundgren Pit Closure

39.569777 -107.739895

Section 32, Township 5 South, Range 92 West

Transportation	Hydrography
TPH > 500 ppm	CO Highways
TPH < 500 ppm	County Roads
Pit Footprint	Perennial Stream
Pit Perimeter	Waterbody
	Access Road
	Watershed



Author: M. Spinelli

Revision: 2

Date: 2/12/2015

Borehole Site Investigation

Initial sampling of the pit subliner indicated soils exceeded COGCC Table 910-1 concentrations for TPH. Site characterization was performed utilizing a CME tracker-mounted auger rig with samples collected every two (2) feet for field screening.

A total of 17 boreholes (BH's) were completed to an approximate depth of eleven (11) feet, where a solid bedrock layer was encountered. Samples were submitted to ALS Laboratories for TPH/BTEX analysis from the borehole intervals that contained the highest field screening reading.

Analytical results from the borehole sampling outlined in Table 2 below indicated that TPH impacts were present in BH 3 to a depth of ~3 feet and BH 4 to a depth of ~10-11 feet.

Table 2: Borehole Site Investigation Analytical Data

Ursa - Lundgren Pit Facility Borehole Site Characterization			DRO (C10-C28)	GRO (C6-C10)	Benzene	Ethy/benzene	Toluene	Xylenes, Total
<u>Sample ID</u>	<u>Matrix</u>	<u>Sample Date</u>						
BH01 1-3'	Soil	9/30/2014	N/D	N/D	N/D	N/D	N/D	N/D
BH02 5-7'	Soil	9/30/2014	N/D	N/D	N/D	N/D	N/D	N/D
BH03 1-3'	Soil	9/30/2014	570	6.80	N/D	0.0067	N/D	0.048
BH04 9-11'	Soil	9/30/2014	1200	N/D	N/D	N/D	N/D	0.042
BH05 1-3'	Soil	9/30/2014	N/D	N/D	N/D	N/D	N/D	N/D
BH06 5-7'	Soil	9/30/2014	6.1	N/D	N/D	N/D	N/D	N/D
BH07 1-3'	Soil	9/30/2014	37	N/D	N/D	N/D	N/D	N/D
BH08 1-3'	Soil	9/30/2014	6.9	N/D	N/D	N/D	N/D	N/D
BH09 1-3'	Soil	9/30/2014	19	N/D	N/D	N/D	N/D	N/D
BH10 1-3'	Soil	9/30/2014	7.4	N/D	N/D	N/D	N/D	N/D

Note: All results are presented in mg/kg.

Concentrations exceeding COGCC Table 910-1 are highlighted in yellow.

Figure 2 below provides borehole sample locations. Sample points on the map denoted in red are locations where analytical results indicate TPH concentrations exceeding COGCC Table 910-1 thresholds. The map shows the estimated surface area impacts from 1-3ft bgs outlined in yellow, and an area of concern outlined in red, denoting impacts to a depth of 10-11ft. Raw analytical can be viewed in Appendix 2.



0 20 40 Feet

Notes / Comments:

Figure 2: Site Investigation



Borehole Delineation Map

Lundgren Pit Closure
39.569777 -107.739895
Section 32, Township 5 South, Range 92 West

Transportation	Hydrography
CO Highways	Ditch
County Roads	Intermittent Stream
Local Streets	Perennial Stream
Access Road	Waterbody
Pit Perimeter	Watershed



Author: M. Spinelli

Revision: 2

Date: 2/12/2015

Borehole site investigation activities were completed on September 30, 2014 and the estimated area of impacts site investigation map and a summary of findings report was provided to the COGCC on October 15, 2014 via email. At the time, Ursa indicated that to complete remediation activities, a section of the western wall needed to be removed to allow equipment to access the pit.

Remediation Activities

Excavation of the impacted areas outlined in Figure 3 commenced on October 20, 2014.

Excavation of the impacted soils started near BH4, where impacted soils were encountered to a depth of 10 feet. It was determined that the impacted soils were from pit contents during operation under the previous owner, prior to 2009, as sections of the old liner were encountered during excavation. It was assumed to be pre-2009 as the previous operator had relined the pit at some time during 2009 and the pit had not been used for production post-relining.

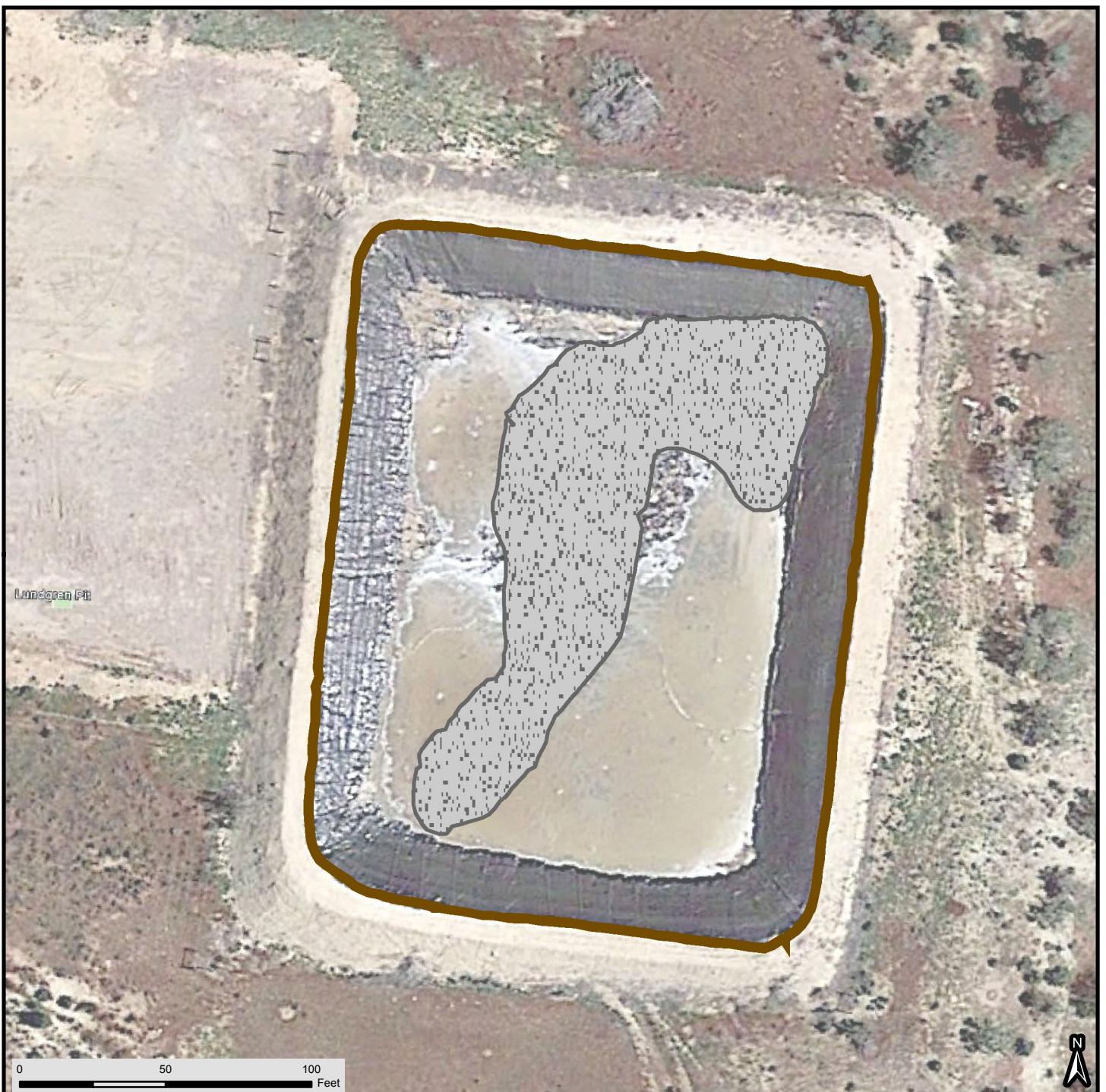
Visual observations and field screening instruments were used to guide the excavation to determine the point of terminus. Confirmation samples collected in the southwest corner after two (2) feet of impacted soils were removed satisfied COGCC Table 910-1 thresholds. Raw analytical data can be viewed in Appendix 3.

Table 3: Confirmation Analytical Results

Ursa - Lundgren Pit Facility Excavation Confirmation	Sample Location						
	Samples Date: 11/6/2014					Sample Date: 11/18/2014	
	Bottom Center - Eastern Side of Exc. (BH 4) @ 10'	Bottom Center-Western Side of Exc. (SP 2) @ 10'	Northeast Corner (BH 3) @ 2'	Southwest Corner (SP 6) @ 1'	Eastern Side (BH 13) @ 2'	Southwest Corner Excavation (SP 6) @ 2'	South Center Excavation (SP 4) @ 2'
Analyte							
DRO (C10-C28)	240	18	27	1,200	120	11	14
GRO (C6-C10)	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Benzene	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Ethylbenzene	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Toluene	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Xylenes, Total	N/D	N/D	N/D	N/D	N/D	N/D	N/D

Using the COGCC Table 910-1 data collected during the initial sampling, and the confirmation data collected during remediation to satisfy the full COGCC Table 910-1 suite. Analytical results indicate that the remaining soils satisfy constituents outlined in the COGCC Table 910-1, with the exception of inorganic data (sodium absorption ratio, electric conductivity, pH, and arsenic).

Three (3) background samples were collected from the upgradient and adjacent side of the location to be used as comparison for inorganic and arsenic values currently present and unaltered. As shown in Table 4 below, background arsenic values are relative to concentrations within the pit.



Notes / Comments:

Figure 3: Pit Excavation



Site Investigation - Excavation Map

Lundgren Pit

39.56987 -107.73990

Section 32, Township 5 South, Range 92 West



Pit Excavation



Pit Boundary



HRI COMPLIANCE SOLUTIONS, INC.
Environmental Consultants

Author: M. Spinelli

Revision: 3

Date: 2/12/2015

Table 4: Background Analytical Results

Ursa - Lundgren Pit Facility Background Data	Sample Location		
	Sample Date: 9/17/2014		
	BKGD 1	BKGD 2	BKGD 3
<u>Analyte</u>			
Arsenic	5.8	8.4	4.4
Sodium Absorption Ratio (SAR)	0.62		
Electric Conductivity (EC)	160		
pH	7.7		

Backfill Material

Material utilized to backfill the pit was of the original excavated soil from construction of the pit. During construction, the soils removed were piled along the south and western side, making up the southern and western pit walls.

- The soil was placed in five (5)-foot lifts and will not be compacted to the point of making an impenetrable layer but sufficiently to support subsequent operations and prevent subsidence.
- The pit was reclaimed in accordance with the COGCC 900 and 1000 Series rules in addition to all SUA/COA's per the land owner.

Exceptions to COGCC Table 910-1

All remaining soils tested below COGCC Table 910-1 and footnote 1 thresholds with the exception arsenic. Ursa is requesting an allowance for the arsenic as the results are similar to background levels around the site.

Stockpiled Soils Management

Impacted soils excavated from the affected areas within the pit were disposed of at ECDC Environmental in East Carbon, Utah. Hauling was completed on November 18, 2014 (See Appendix 5 for ECDC approval). Manifests are available upon request.

Monitoring Well Sampling

A groundwater monitoring well (permit # 272645) located downgradient from the pit, ~25ft to the southwest, was sampled on December 5, 2013. Samples collected were analyzed for constituents outlined in COGCC Table 910-1. Results indicate no exceedances to COGCC Table 910-1 are present, (See Appendix 6 for raw analytical results).

Conditions of Approval (COA's)

COA's listed on the Site Investigation & Remediation (Form 27) approved by the COGCC on May 13, 2014 are answered below.

Pit:

- Pit Contents - No solids were encountered prior to liner removal as observed during a site visit with Ursa consultant representative and COGCC official Carlos Lujan on September 11, 2014.

No solids were encountered within the pit during evacuation of liquids accumulated during precipitation events.

- Discrete Sampling - Samples were collected from within the pit at various locations and depths as mentioned throughout the report. Sidewall samples were collected at the base (corner), providing horizontal and vertical characterization of the pit. It was mentioned during the site visit with COGCC and Ursa consultant representative that unless there is reason to believe and no visual indicators are present for sidewall impacts, there is no need to sample higher up the wall, in addition to the base.
- Ground Water Preservation - Impacted soils were disposed of the ECDC Environmental. No on-site or in-situ treatment was conducted, preventing any migration of impacts to potential water sources.
To ensure ground water integrity, a monitoring well (permit # 272645) located downgradient from the pit, ~25ft to the southwest, was sampled on December 5, 2013. Samples collected were analyzed for constituents outlined in COGCC Table 910-1. Results indicate no exceedances to COGCC Table 910-1 are present, (See Appendix 6 for raw analytical results).

Site Inspection (Document # 668500248)

On December 18, 2012, the COGCC conducted a site inspection in which the following were noted by the inspector;

- Landfarm consisting of cuttings, liners, wood fiber, and wood debris.
- Debris piles of frac sand, drill cuttings, earthen material.
- Open topped metal tanks containing vegetation, debris, etc.

Upon Ursa acquiring the asset in March 2013, no solid wastes were present on location and no evidence of a landfarm existed. All wastes on-site had been managed by the previous owner as an agreement prior to sale.

APPENDICES

APPENDIX 1: Initial Pit Bottom Sampling Raw Analytical Results



YOUR LAB OF CHOICE

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Report Summary

Thursday September 25, 2014

Report Number: L722057

Samples Received: 09/17/14

Client Project:

Description: Ursa - Lundgren Pit Closure Sampling

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:


Jared Willis , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-IN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

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Est. 1970

REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP1-NW CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:00

ESC Sample # : L722057-01

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/18/14	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	94.1		% Rec.	8015D/GRO	09/18/14	5
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	96.9		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	88.9		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	106.		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	98.1		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	09/18/14	1
Surrogate recovery(%)						
o-Terphenyl	77.5		% Rec.	3546/DRO	09/18/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 09/25/14 09:26 Printed: 09/25/14 09:27



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP2-N CENTER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:10

ESC Sample # : L722057-02

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	82.	10.	mg/kg	8015D/GRO	09/18/14	100
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	94.4		% Rec.	8015D/GRO	09/18/14	100
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	0.094	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	0.18	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	109.		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	91.2		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	164.		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	2900	80.	mg/kg	3546/DRO	09/18/14	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	09/18/14	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP3-NE CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:20

ESC Sample # : L722057-03
Site ID : LUNDGREN PIT
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	9.4	0.50	mg/kg	8015D/GRO	09/18/14	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	91.9		% Rec.	8015D/GRO	09/18/14	5
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	0.017	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	98.4		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	87.7		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	106.		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	104.		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	280	4.0	mg/kg	3546/DRO	09/18/14	1
Surrogate recovery(%)						
o-Terphenyl	131.		% Rec.	3546/DRO	09/18/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP4-S CENTER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:40

ESC Sample # : L722057-04

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	9.1	2.5	mg/kg	8015D/GRO	09/18/14	25
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.1		% Rec.	8015D/GRO	09/18/14	25
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	107.		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	96.8		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	107.		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	700	80.	mg/kg	3546/DRO	09/18/14	20
Surrogate recovery(%)						
o-Terphenyl	82.2		% Rec.	3546/DRO	09/18/14	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP5-SE CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:50

ESC Sample # : L722057-05

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	09/18/14	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	94.8		% Rec.	8015D/GRO	09/18/14	5
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	BDL	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	97.7		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	88.0		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	107.		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	101.		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	80.	4.0	mg/kg	3546/DRO	09/18/14	1
Surrogate recovery(%)						
o-Terphenyl	92.9		% Rec.	3546/DRO	09/18/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP6-SW CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 14:00

ESC Sample # : L722057-06
Site ID : LUNDGREN PIT
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
TPH (GC/FID) Low Fraction	18.	10.	mg/kg	8015D/GRO	09/18/14	100
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	95.9		% Rec.	8015D/GRO	09/18/14	100
Benzene	BDL	0.0050	mg/kg	8260B	09/18/14	5
Toluene	BDL	0.025	mg/kg	8260B	09/18/14	5
Ethylbenzene	0.0065	0.0050	mg/kg	8260B	09/18/14	5
Total Xylenes	0.031	0.015	mg/kg	8260B	09/18/14	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	09/18/14	5
Dibromofluoromethane	106.		% Rec.	8260B	09/18/14	5
a,a,a-Trifluorotoluene	97.2		% Rec.	8260B	09/18/14	5
4-Bromofluorobenzene	107.		% Rec.	8260B	09/18/14	5
TPH (GC/FID) High Fraction	760	80.	mg/kg	3546/DRO	09/18/14	20
Surrogate recovery(%)						
o-Terphenyl	67.5		% Rec.	3546/DRO	09/18/14	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP1-NW CORNER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 13:00

ESC Sample # : L722057-10
 Site ID : LUNDGREN PIT
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	8.3	2.0	mg/kg	Calc.	09/22/14	1
ORP	-40.		mV	2580 B-2011	09/18/14	1
pH	8.8		su	9045D	09/23/14	1
Sodium Adsorption Ratio	56.			Calc.	09/19/14	1
Specific Conductance	2200		umhos/cm	9050AMod	09/24/14	1
Mercury	BDL	0.020	mg/kg	7471	09/18/14	1
Arsenic	12.	2.0	mg/kg	6010B	09/22/14	1
Barium	240	0.50	mg/kg	6010B	09/22/14	1
Cadmium	0.97	0.50	mg/kg	6010B	09/22/14	1
Chromium	8.3	1.0	mg/kg	6010B	09/22/14	1
Copper	8.5	2.0	mg/kg	6010B	09/22/14	1
Lead	10.	0.50	mg/kg	6010B	09/22/14	1
Nickel	6.6	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	34.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(b)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(g,h,i)perylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(k)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Chrysene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Dibenz(a,h)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluorene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Indeno(1,2,3-cd)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Naphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Phenanthrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
1-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
2-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-10 (SV8270PAHSIM) - Dilution due to sample volume

L722057-10 (PH) - 8.8@22.1c



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP1-NW CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:00

ESC Sample # : L722057-10

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Surrogate Recovery						
p-Terphenyl-d14	84.7		% Rec.	8270C-SIM	09/22/14	15
Nitrobenzene-d5	82.7		% Rec.	8270C-SIM	09/22/14	15
2-Fluorobiphenyl	94.0		% Rec.	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L722057-10 (SV8270PAHSIM) - Dilution due to sample volume
L722057-10 (PH) - 8.8@22.1c



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REPORT OF ANALYSIS

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP2-N CENTER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 13:10

ESC Sample # : L722057-11
 Site ID : LUNDGREN PIT
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	10.	2.0	mg/kg	Calc.	09/22/14	1
ORP	-31.		mV	2580 B-2011	09/18/14	1
pH	8.6		su	9045D	09/23/14	1
Sodium Adsorption Ratio	29.			Calc.	09/19/14	1
Specific Conductance	2100		umhos/cm	9050AMod	09/24/14	1
Mercury	0.022	0.020	mg/kg	7471	09/18/14	1
Arsenic	6.0	2.0	mg/kg	6010B	09/22/14	1
Barium	1500	0.50	mg/kg	6010B	09/22/14	1
Cadmium	1.1	0.50	mg/kg	6010B	09/22/14	1
Chromium	12.	1.0	mg/kg	6010B	09/22/14	1
Copper	14.	2.0	mg/kg	6010B	09/22/14	1
Lead	11.	0.50	mg/kg	6010B	09/22/14	1
Nickel	8.3	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	48.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.29	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthene	0.10	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(b)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(g,h,i)perylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(k)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Chrysene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Dibenz(a,h)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluorene	0.52	0.090	mg/kg	8270C-SIM	09/22/14	15
Indeno(1,2,3-cd)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Naphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Phenanthrene	0.57	0.090	mg/kg	8270C-SIM	09/22/14	15
Pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
1-Methylnaphthalene	0.67	0.30	mg/kg	8270C-SIM	09/22/14	15
2-Methylnaphthalene	1.5	0.30	mg/kg	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-11 (SV8270PAHSIM) - Dilution due to sample volume

L722057-11 (PH) - 8.6@21.7c



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP2-N CENTER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:10

ESC Sample # : L722057-11

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Surrogate Recovery						
p-Terphenyl-d14	97.3		% Rec.	8270C-SIM	09/22/14	15
Nitrobenzene-d5	121.		% Rec.	8270C-SIM	09/22/14	15
2-Fluorobiphenyl	95.3		% Rec.	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Reported: 09/25/14 09:26 Printed: 09/25/14 09:27
L722057-11 (SV8270PAHSIM) - Dilution due to sample volume
L722057-11 (PH) - 8.6@21.7c



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REPORT OF ANALYSIS

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HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP3-NE CORNER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 13:20

ESC Sample # : L722057-12
 Site ID : LUNDGREN PIT
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	12.	2.0	mg/kg	Calc.	09/22/14	1
ORP	-39.		mV	2580 B-2011	09/18/14	1
pH	8.6		su	9045D	09/23/14	1
Sodium Adsorption Ratio	17.			Calc.	09/19/14	1
Specific Conductance	1300		umhos/cm	9050AMod	09/24/14	1
Mercury	0.023	0.020	mg/kg	7471	09/18/14	1
Arsenic	6.6	2.0	mg/kg	6010B	09/22/14	1
Barium	650	0.50	mg/kg	6010B	09/22/14	1
Cadmium	1.2	0.50	mg/kg	6010B	09/22/14	1
Chromium	12.	1.0	mg/kg	6010B	09/22/14	1
Copper	12.	2.0	mg/kg	6010B	09/22/14	1
Lead	8.9	0.50	mg/kg	6010B	09/22/14	1
Nickel	9.2	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	44.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.056	0.0060	mg/kg	8270C-SIM	09/22/14	1
Acenaphthene	0.020	0.0060	mg/kg	8270C-SIM	09/22/14	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Benzo(a)anthracene	0.0096	0.0060	mg/kg	8270C-SIM	09/22/14	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Chrysene	0.0073	0.0060	mg/kg	8270C-SIM	09/22/14	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Fluorene	0.090	0.0060	mg/kg	8270C-SIM	09/22/14	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	09/22/14	1
Naphthalene	0.037	0.020	mg/kg	8270C-SIM	09/22/14	1
Phenanthrene	0.11	0.0060	mg/kg	8270C-SIM	09/22/14	1
Pyrene	0.012	0.0060	mg/kg	8270C-SIM	09/22/14	1
1-Methylnaphthalene	0.14	0.020	mg/kg	8270C-SIM	09/22/14	1
2-Methylnaphthalene	0.28	0.020	mg/kg	8270C-SIM	09/22/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-12 (PH) - 8.6@21.7c



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP3-NE CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:20

ESC Sample # : L722057-12

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	09/22/14	1
Surrogate Recovery						
p-Terphenyl-d14	88.7		% Rec.	8270C-SIM	09/22/14	1
Nitrobenzene-d5	179.		% Rec.	8270C-SIM	09/22/14	1
2-Fluorobiphenyl	87.5		% Rec.	8270C-SIM	09/22/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L722057-12 (PH) - 8.6@21.7c



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REPORT OF ANALYSIS

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP4-S CENTER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 13:40

ESC Sample # : L722057-13
 Site ID : LUNDGREN PIT
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	12.	2.0	mg/kg	Calc.	09/22/14	1
ORP	-30.		mV	2580 B-2011	09/18/14	1
pH	8.5		su	9045D	09/23/14	1
Sodium Adsorption Ratio	25.			Calc.	09/19/14	1
Specific Conductance	2000		umhos/cm	9050AMod	09/24/14	1
Mercury	0.035	0.020	mg/kg	7471	09/18/14	1
Arsenic	6.2	2.0	mg/kg	6010B	09/22/14	1
Barium	550	0.50	mg/kg	6010B	09/22/14	1
Cadmium	1.1	0.50	mg/kg	6010B	09/22/14	1
Chromium	12.	1.0	mg/kg	6010B	09/22/14	1
Copper	14.	2.0	mg/kg	6010B	09/22/14	1
Lead	10.	0.50	mg/kg	6010B	09/22/14	1
Nickel	9.1	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	47.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(b)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(g,h,i)perylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(k)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Chrysene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Dibenz(a,h)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluorene	0.18	0.090	mg/kg	8270C-SIM	09/22/14	15
Indeno(1,2,3-cd)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Naphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Phenanthrene	0.19	0.090	mg/kg	8270C-SIM	09/22/14	15
Pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
1-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
2-Methylnaphthalene	0.34	0.30	mg/kg	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-13 (PH) - 8.5@20.8c

L722057-13 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP4-S CENTER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:40

ESC Sample # : L722057-13

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Surrogate Recovery						
p-Terphenyl-d14	88.0		% Rec.	8270C-SIM	09/22/14	15
Nitrobenzene-d5	90.7		% Rec.	8270C-SIM	09/22/14	15
2-Fluorobiphenyl	93.3		% Rec.	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L722057-13 (PH) - 8.5@20.8c

L722057-13 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP5-SE CORNER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 13:50

ESC Sample # : L722057-14
 Site ID : LUNDGREN PIT
 Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	17.	2.0	mg/kg	Calc.	09/22/14	1
ORP	-4.0		mV	2580 B-2011	09/18/14	1
pH	8.3		su	9045D	09/23/14	1
Sodium Adsorption Ratio	31.			Calc.	09/19/14	1
Specific Conductance	6800		umhos/cm	9050AMod	09/24/14	1
Mercury	0.080	0.020	mg/kg	7471	09/18/14	1
Arsenic	3.2	2.0	mg/kg	6010B	09/22/14	1
Barium	140	0.50	mg/kg	6010B	09/22/14	1
Cadmium	1.4	0.50	mg/kg	6010B	09/22/14	1
Chromium	17.	1.0	mg/kg	6010B	09/22/14	1
Copper	19.	2.0	mg/kg	6010B	09/22/14	1
Lead	14.	0.50	mg/kg	6010B	09/22/14	1
Nickel	15.	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	66.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(b)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(g,h,i)perylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(k)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Chrysene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Dibenz(a,h)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluorene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Indeno(1,2,3-cd)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Naphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Phenanthrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
1-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
2-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-14 (PH) - 8.3@20.7c

L722057-14 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP5-SE CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 13:50

ESC Sample # : L722057-14

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Surrogate Recovery						
p-Terphenyl-d14	85.3		% Rec.	8270C-SIM	09/22/14	15
Nitrobenzene-d5	84.0		% Rec.	8270C-SIM	09/22/14	15
2-Fluorobiphenyl	93.3		% Rec.	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L722057-14 (PH) - 8.3@20.7c

L722057-14 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

September 25, 2014

Date Received : September 17, 2014
 Description : Ursa - Lundgren Pit Closure Sampling
 Sample ID : SP6-SW CORNER 0-6IN
 Collected By : Kris Rowe
 Collection Date : 09/16/14 14:00

ESC Sample # : L722057-15
 Site ID : LUNDGREN PIT
 Project # :

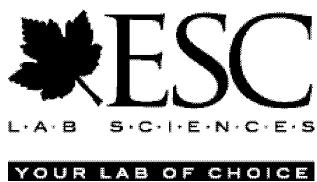
Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	09/18/14	1
Chromium, Trivalent	11.	2.0	mg/kg	Calc.	09/22/14	1
ORP	-40.		mV	2580 B-2011	09/18/14	1
pH	8.9		su	9045D	09/23/14	1
Sodium Adsorption Ratio	33.			Calc.	09/19/14	1
Specific Conductance	2100		umhos/cm	9050AMod	09/24/14	1
Mercury	BDL	0.020	mg/kg	7471	09/18/14	1
Arsenic	7.0	2.0	mg/kg	6010B	09/22/14	1
Barium	870	0.50	mg/kg	6010B	09/22/14	1
Cadmium	1.1	0.50	mg/kg	6010B	09/22/14	1
Chromium	11.	1.0	mg/kg	6010B	09/22/14	1
Copper	13.	2.0	mg/kg	6010B	09/22/14	1
Lead	10.	0.50	mg/kg	6010B	09/22/14	1
Nickel	8.5	2.0	mg/kg	6010B	09/22/14	1
Selenium	BDL	2.0	mg/kg	6010B	09/22/14	1
Silver	BDL	1.0	mg/kg	6010B	09/22/14	1
Zinc	48.	5.0	mg/kg	6010B	09/22/14	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	0.096	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Acenaphthylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(a)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(b)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(g,h,i)perylene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Benzo(k)fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Chrysene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Dibenz(a,h)anthracene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluoranthene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Fluorene	0.18	0.090	mg/kg	8270C-SIM	09/22/14	15
Indeno(1,2,3-cd)pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
Naphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Phenanthren	0.20	0.090	mg/kg	8270C-SIM	09/22/14	15
Pyrene	BDL	0.090	mg/kg	8270C-SIM	09/22/14	15
1-Methylnaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
2-Methylnaphthalene	0.63	0.30	mg/kg	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L722057-15 (PH) - 8.9@21.3c

L722057-15 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : SP6-SW CORNER 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 14:00

ESC Sample # : L722057-15

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
2-Chloronaphthalene	BDL	0.30	mg/kg	8270C-SIM	09/22/14	15
Surrogate Recovery						
p-Terphenyl-d14	93.3		% Rec.	8270C-SIM	09/22/14	15
Nitrobenzene-d5	95.3		% Rec.	8270C-SIM	09/22/14	15
2-Fluorobiphenyl	96.0		% Rec.	8270C-SIM	09/22/14	15

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L722057-15 (PH) - 8.9@21.3c

L722057-15 (SV8270PAHSIM) - Dilution due to sample volume



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REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-1 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:30

ESC Sample # : L722057-16

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	7.7		su	9045D	09/23/14	1
Sodium Adsorption Ratio	0.62			Calc.	09/19/14	1
Specific Conductance	160		umhos/cm	9050AMod	09/24/14	1
Arsenic	5.8	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L722057-16 (PH) - 7.7@21.3c



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2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-2 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:35

ESC Sample # : L722057-17

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	8.4	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-3 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:40

ESC Sample # : L722057-18

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.4	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L722057-02	WG743632	SAMP	4-Bromofluorobenzene	R2990650	J1
	WG743401	SAMP	o-Terphenyl	R2990570	J7
L722057-04	WG743401	SAMP	o-Terphenyl	R2990570	J7
L722057-06	WG743401	SAMP	o-Terphenyl	R2990570	J7
L722057-10	WG743408	SAMP	Barium	R2991702	J5J3
L722057-11	WG743452	SAMP	Mercury	R2990830	B
L722057-12	WG743812	SAMP	Nitrobenzene-d5	R2992010	J1
	WG743452	SAMP	Mercury	R2990830	B
L722057-13	WG743452	SAMP	Mercury	R2990830	B
L722057-14	WG743452	SAMP	Mercury	R2990830	B

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
09/25/14 at 09:27:24

TSR Signing Reports: 358
R2 - Rush: Next Day

Sample: L722057-01 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-02 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Field reading showed TPH at 10,000 ppm
Sample: L722057-03 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-04 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Field reading showed TPH at 10,000 ppm
Sample: L722057-05 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-06 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/18/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-10 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-11 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-12 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-13 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-14 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-15 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-16 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-17 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26
Sample: L722057-18 Account: HRLCSCO Received: 09/17/14 09:00 Due Date: 09/24/14 00:00 RPT Date: 09/25/14 09:26



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Est. 1970

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzene	< .001	mg/kg			WG743524	09/17/14 19:42
Ethylbenzene	< .001	mg/kg			WG743524	09/17/14 19:42
Toluene	< .005	mg/kg			WG743524	09/17/14 19:42
Total Xylenes	< .003	mg/kg			WG743524	09/17/14 19:42
4-Bromofluorobenzene		% Rec.	110.0	71-126	WG743524	09/17/14 19:42
Dibromofluoromethane		% Rec.	90.40	78.3-121	WG743524	09/17/14 19:42
Toluene-d8		% Rec.	90.20	88.5-111	WG743524	09/17/14 19:42
a,a,a-Trifluorotoluene		% Rec.	106.0	85-114	WG743524	09/17/14 19:42
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG743499	09/18/14 06:54
a,a,a-Trifluorotoluene(FID)		% Rec.	95.20	59-128	WG743499	09/18/14 06:54
Chromium, Hexavalent	< 2	mg/kg			WG743393	09/18/14 11:08
TPH (GC/FID) High Fraction	< 4	mg/kg			WG743401	09/18/14 02:09
o-Terphenyl		% Rec.	77.20	50-150	WG743401	09/18/14 02:09
Benzene	< .001	mg/kg			WG743632	09/18/14 09:28
Ethylbenzene	< .001	mg/kg			WG743632	09/18/14 09:28
Toluene	< .005	mg/kg			WG743632	09/18/14 09:28
Total Xylenes	< .003	mg/kg			WG743632	09/18/14 09:28
4-Bromofluorobenzene		% Rec.	104.0	71-126	WG743632	09/18/14 09:28
Dibromofluoromethane		% Rec.	103.0	78.3-121	WG743632	09/18/14 09:28
Toluene-d8		% Rec.	99.80	88.5-111	WG743632	09/18/14 09:28
a,a,a-Trifluorotoluene		% Rec.	98.60	85-114	WG743632	09/18/14 09:28
Mercury	< .02	mg/kg			WG743452	09/18/14 14:28
Mercury	< .02	mg/kg			WG743291	09/18/14 17:08
Arsenic	< 2	mg/kg			WG743520	09/19/14 02:51
Arsenic	< 2	mg/kg			WG743408	09/22/14 09:41
Barium	< .5	mg/kg			WG743408	09/22/14 09:41
Cadmium	< .5	mg/kg			WG743408	09/22/14 09:41
Chromium	< 1	mg/kg			WG743408	09/22/14 09:41
Copper	< 2	mg/kg			WG743408	09/22/14 09:41
Lead	< .5	mg/kg			WG743408	09/22/14 09:41
Nickel	< 2	mg/kg			WG743408	09/22/14 09:41
Selenium	< 2	mg/kg			WG743408	09/22/14 09:41
Silver	< 1	mg/kg			WG743408	09/22/14 09:41
Zinc	< 5	mg/kg			WG743408	09/22/14 09:41
1-Methylnaphthalene	< .02	mg/kg			WG743812	09/22/14 14:52
2-Chloronaphthalene	< .02	mg/kg			WG743812	09/22/14 14:52
2-Methylnaphthalene	< .02	mg/kg			WG743812	09/22/14 14:52
Acenaphthene	< .006	mg/kg			WG743812	09/22/14 14:52
Acenaphthylene	< .006	mg/kg			WG743812	09/22/14 14:52
Anthracene	< .006	mg/kg			WG743812	09/22/14 14:52
Benzo(a)anthracene	< .006	mg/kg			WG743812	09/22/14 14:52

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Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzo(a)pyrene	< .006	mg/kg			WG743812	09/22/14 14:52
Benzo(b)fluoranthene	< .006	mg/kg			WG743812	09/22/14 14:52
Benzo(g,h,i)perylene	< .006	mg/kg			WG743812	09/22/14 14:52
Benzo(k)fluoranthene	< .006	mg/kg			WG743812	09/22/14 14:52
Chrysene	< .006	mg/kg			WG743812	09/22/14 14:52
Dibenz(a,h)anthracene	< .006	mg/kg			WG743812	09/22/14 14:52
Fluoranthene	< .006	mg/kg			WG743812	09/22/14 14:52
Fluorene	< .006	mg/kg			WG743812	09/22/14 14:52
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG743812	09/22/14 14:52
Naphthalene	< .02	mg/kg			WG743812	09/22/14 14:52
Phenanthrene	< .006	mg/kg			WG743812	09/22/14 14:52
Pyrene	< .006	mg/kg			WG743812	09/22/14 14:52
2-Fluorobiphenyl	% Rec.	94.80	38.2-135		WG743812	09/22/14 14:52
Nitrobenzene-d5	% Rec.	86.30	28.4-151		WG743812	09/22/14 14:52
p-Terphenyl-d14	% Rec.	78.80	34.2-141		WG743812	09/22/14 14:52
Specific Conductance	0.950	umhos/cm			WG744604	09/24/14 13:30

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
			Duplicate				
ORP	mV	45.0	42.0	6.90	20	L721911-01	WG743420
Chromium, Hexavalent	mg/kg	0.0	2.60	NA	20	L721911-01	WG743393
Mercury	mg/kg	0.0	0.0175	0.0	20	L722194-04	WG743452
Mercury	mg/kg	0.0260	0.0236	10.0	20	L722078-13	WG743291
pH	su	8.80	8.80	0.456	1	L722057-10	WG744038
pH	su	7.80	7.30	6.75*	1	L722794-01	WG744038
Specific Conductance	umhos/cm	2100	2200	3.23	20	L722057-10	WG744604
Specific Conductance	umhos/cm	140.	160.	14.0	20	L722961-04	WG744604

Analyte	Units	Laboratory Control Sample			Limit	Batch
		Known Val	Result	% Rec		
Benzene	mg/kg	.025	0.0231	92.5	77.1-121	WG743524
Ethylbenzene	mg/kg	.025	0.0288	115.	79.7-122	WG743524
Toluene	mg/kg	.025	0.0234	93.4	79.7-118	WG743524
Total Xylenes	mg/kg	.075	0.0805	107.	78.8-121	WG743524
4-Bromofluorobenzene				100.0	71-126	WG743524
Dibromofluoromethane				95.30	78.3-121	WG743524
Toluene-d8				98.10	88.5-111	WG743524
a,a,a-Trifluorotoluene				104.0	85-114	WG743524
TPH (GC/FID) Low Fraction	mg/kg	5.5	3.67	66.7	63.5-137	WG743499
a,a,a-Trifluorotoluene(FID)				101.0	59-128	WG743499

Chromium, Hexavalent mg/kg 187 162. 86.6 80-120 WG743393

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Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
TPH (GC/FID) High Fraction	mg/kg	60	44.2	73.7	50-150	WG743401
o-Terphenyl				83.50	50-150	WG743401
Benzene	mg/kg	.025	0.0217	86.8	77.1-121	WG743632
Ethylbenzene	mg/kg	.025	0.0229	91.4	79.7-122	WG743632
Toluene	mg/kg	.025	0.0217	86.9	79.7-118	WG743632
Total Xylenes	mg/kg	.075	0.0653	87.1	78.8-121	WG743632
4-Bromofluorobenzene				99.20	71-126	WG743632
Dibromofluoromethane				108.0	78.3-121	WG743632
Toluene-d8				100.0	88.5-111	WG743632
a,a,a-Trifluorotoluene				98.40	85-114	WG743632
ORP	mV	100	100.	100.	90-110	WG743420
Mercury	mg/kg	12.4	10.4	84.0	71.6-128	WG743452
Mercury	mg/kg	12.4	9.18	74.0	71.6-128	WG743291
Arsenic	mg/kg	237	259.	109.	83.1-117	WG743520
Arsenic	mg/kg	237	249.	105.	83.1-117	WG743408
Barium	mg/kg	252	261.	104.	84.1-116	WG743408
Cadmium	mg/kg	191	197.	103.	83.2-117	WG743408
Chromium	mg/kg	128	135.	106.	81.3-118	WG743408
Copper	mg/kg	123	132.	107.	83.7-116	WG743408
Lead	mg/kg	103	105.	102.	83.1-117	WG743408
Nickel	mg/kg	118	132.	112.	82-118	WG743408
Selenium	mg/kg	110	119.	108.	78.7-122	WG743408
Silver	mg/kg	47.3	46.6	98.0	66.2-134	WG743408
Zinc	mg/kg	183	187.	102.	82-118	WG743408
1-Methylnaphthalene	mg/kg	.08	0.0652	81.5	48.9-127	WG743812
2-Chloronaphthalene	mg/kg	.08	0.0780	97.5	48.8-125	WG743812
2-Methylnaphthalene	mg/kg	.08	0.0653	81.6	45.7-131	WG743812
Acenaphthene	mg/kg	.08	0.0719	89.9	48.7-127	WG743812
Acenaphthylene	mg/kg	.08	0.0689	86.1	47.9-128	WG743812
Anthracene	mg/kg	.08	0.0762	95.3	51.3-136	WG743812
Benzo(a)anthracene	mg/kg	.08	0.0619	77.4	55-126	WG743812
Benzo(a)pyrene	mg/kg	.08	0.0556	69.5	51.9-127	WG743812
Benzo(b)fluoranthene	mg/kg	.08	0.0605	75.7	54-125	WG743812
Benzo(g,h,i)perylene	mg/kg	.08	0.0661	82.7	53.8-136	WG743812
Benzo(k)fluoranthene	mg/kg	.08	0.0804	100.	53.9-132	WG743812
Chrysene	mg/kg	.08	0.0788	98.5	55.7-133	WG743812
Dibenz(a,h)anthracene	mg/kg	.08	0.0679	84.9	52.6-137	WG743812
Fluoranthene	mg/kg	.08	0.0783	97.8	54-132	WG743812
Fluorene	mg/kg	.08	0.0718	89.8	48.7-127	WG743812
Indeno(1,2,3-cd)pyrene	mg/kg	.08	0.0671	83.9	53.8-138	WG743812
Naphthalene	mg/kg	.08	0.0649	81.1	42-127	WG743812
Phenanthrene	mg/kg	.08	0.0642	80.2	49.6-126	WG743812
Pyrene	mg/kg	.08	0.0576	72.0	54-129	WG743812
2-Fluorobiphenyl				93.90	38.2-135	WG743812
Nitrobenzene-d5				86.10	28.4-151	WG743812

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Analyte	Units	Laboratory Control Sample			% Rec	Limit	Batch
		Known Val	Result	Duplicate			
p-Terphenyl-d14					79.50	34.2-141	
pH	su	6.33	6.30		99.5	98.3-101.7	WG744038
Specific Conductance	umhos/cm	1040	1000		96.2	85-115	WG744604
Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Batch
		Result	Ref	%Rec			
Benzene	mg/kg	0.0226	0.0231	90.0	77.1-121	2.47	20
Ethylbenzene	mg/kg	0.0255	0.0288	102.	79.7-122	12.3	20
Toluene	mg/kg	0.0228	0.0234	91.0	79.7-118	2.29	20
Total Xylenes	mg/kg	0.0762	0.0805	102.	78.8-121	5.58	20
4-Bromofluorobenzene				94.40	71-126		WG743524
Dibromofluoromethane				91.10	78.3-121		WG743524
Toluene-d8				96.40	88.5-111		WG743524
a,a,a-Trifluorotoluene				106.0	85-114		WG743524
TPH (GC/FID) Low Fraction	mg/kg	3.87	3.67	70.0	63.5-137	5.39	20
a,a,a-Trifluorotoluene(FID)				101.0	59-128		WG743499
Chromium, Hexavalent	mg/kg	162.	162.	87.0	80-120	0.0	20
TPH (GC/FID) High Fraction	mg/kg	47.0	44.2	78.0	50-150	6.03	20
o-Terphenyl				88.70	50-150		WG743401
Benzene	mg/kg	0.0217	0.0217	87.0	77.1-121	0.190	20
Ethylbenzene	mg/kg	0.0230	0.0229	92.0	79.7-122	0.600	20
Toluene	mg/kg	0.0214	0.0217	85.0	79.7-118	1.68	20
Total Xylenes	mg/kg	0.0655	0.0653	87.0	78.8-121	0.350	20
4-Bromofluorobenzene				100.0	71-126		WG743632
Dibromofluoromethane				107.0	78.3-121		WG743632
Toluene-d8				98.90	88.5-111		WG743632
a,a,a-Trifluorotoluene				97.20	85-114		WG743632
ORP	mV	100.	100.	100.	90-110	0.0	20
Arsenic	mg/kg	260.	259.	110.	83.1-117	1.00	20
Arsenic	mg/kg	250.	249.	105.	83.1-117	0.0	20
Barium	mg/kg	262.	261.	104.	84.1-116	0.0	20
Cadmium	mg/kg	195.	197.	102.	83.2-117	1.00	20
Chromium	mg/kg	135.	135.	106.	81.3-118	0.0	20
Copper	mg/kg	130.	132.	106.	83.7-116	1.00	20
Lead	mg/kg	106.	105.	103.	83.1-117	1.00	20
Nickel	mg/kg	129.	132.	109.	82-118	2.00	20
Selenium	mg/kg	118.	119.	107.	78.7-122	1.00	20
Silver	mg/kg	47.0	46.6	99.0	66.2-134	1.00	20
Zinc	mg/kg	188.	187.	102.	82-118	0.0	20
1-Methylnaphthalene	mg/kg	0.0682	0.0652	85.0	48.9-127	4.48	20

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Analyte	Units	Laboratory		Control	Sample	Duplicate	RPD	Limit	Batch
		Result	Ref	%Rec	Limit				
2-Chloronaphthalene	mg/kg	0.0805	0.0780	100.	48.8-125	3.14	20	WG743812	
2-Methylnaphthalene	mg/kg	0.0688	0.0653	86.0	45.7-131	5.26	20	WG743812	
Acenaphthene	mg/kg	0.0752	0.0719	94.0	48.7-127	4.43	20	WG743812	
Acenaphthylene	mg/kg	0.0716	0.0689	89.0	47.9-128	3.77	20	WG743812	
Anthracene	mg/kg	0.0806	0.0762	101.	51.3-136	5.50	20	WG743812	
Benzo(a)anthracene	mg/kg	0.0660	0.0619	82.0	55-126	6.43	20	WG743812	
Benzo(a)pyrene	mg/kg	0.0618	0.0556	77.0	51.9-127	10.6	20	WG743812	
Benzo(b)fluoranthene	mg/kg	0.0680	0.0605	85.0	54-125	11.6	20	WG743812	
Benzo(g,h,i)perylene	mg/kg	0.0674	0.0661	84.0	53.8-136	1.85	20	WG743812	
Benzo(k)fluoranthene	mg/kg	0.0780	0.0804	98.0	53.9-132	2.97	20	WG743812	
Chrysene	mg/kg	0.0826	0.0788	103.	55.7-133	4.65	20	WG743812	
Dibenz(a,h)anthracene	mg/kg	0.0690	0.0679	86.0	52.6-137	1.55	20	WG743812	
Fluoranthene	mg/kg	0.0813	0.0783	102.	54-132	3.86	20	WG743812	
Fluorene	mg/kg	0.0736	0.0718	92.0	48.7-127	2.49	20	WG743812	
Indeno(1,2,3-cd)pyrene	mg/kg	0.0675	0.0671	84.0	53.8-138	0.640	20	WG743812	
Naphthalene	mg/kg	0.0683	0.0649	85.0	42-127	5.04	20	WG743812	
Phenanthrene	mg/kg	0.0659	0.0642	82.0	49.6-126	2.65	20	WG743812	
Pyrene	mg/kg	0.0592	0.0576	74.0	54-129	2.70	20	WG743812	
2-Fluorobiphenyl				97.40	38.2-135			WG743812	
Nitrobenzene-d5				93.80	28.4-151			WG743812	
p-Terphenyl-d14				81.10	34.2-141			WG743812	
pH	su	6.30	6.30	100.	98.3-101.7	0.0	20	WG744038	
Specific Conductance	umhos/	1000	1000	96.0	85-115	0.0	20	WG744604	

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
Benzene	mg/kg	0.0186	0.000359	.025	73.0	54.3-133	L721160-15	WG743524
Ethylbenzene	mg/kg	0.0179	0.0	.025	72.0	61.4-133	L721160-15	WG743524
Toluene	mg/kg	0.0200	0.000383	.025	78.0	61.4-130	L721160-15	WG743524
Total Xylenes	mg/kg	0.0541	0.0	.075	72.0	63.3-131	L721160-15	WG743524
4-Bromofluorobenzene					103.0	71-126		WG743524
Dibromofluoromethane					94.70	78.3-121		WG743524
Toluene-d8					107.0	88.5-111		WG743524
a,a,a-Trifluorotoluene					108.0	85-114		WG743524
TPH (GC/FID) Low Fraction	mg/kg	16.9	0.0512	5.5	61.0	28.5-138	L722134-01	WG743499
a,a,a-Trifluorotoluene(FID)					98.90	59-128		WG743499
Chromium, Hexavalent	mg/kg	19.0	0.0	20	95.0	75-125	L722057-14	WG743393
TPH (GC/FID) High Fraction	mg/kg	165.	129.	6	60.0	50-150	L721441-02	WG743401
o-Terphenyl					82.20	50-150		WG743401
Benzene	mg/kg	0.0959	0.0	.025	77.0	54.3-133	L721501-01	WG743632
Ethylbenzene	mg/kg	0.103	0.0	.025	82.0	61.4-133	L721501-01	WG743632
Toluene	mg/kg	0.0974	0.000474	.025	78.0	61.4-130	L721501-01	WG743632
Total Xylenes	mg/kg	0.293	0.000533	.075	78.0	63.3-131	L721501-01	WG743632
4-Bromofluorobenzene					99.20	71-126		WG743632
Dibromofluoromethane					105.0	78.3-121		WG743632
Toluene-d8					100.0	88.5-111		WG743632

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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**Quality Assurance Report
Level II**

L722057

September 25, 2014

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
a,a,a-Trifluorotoluene					96.20	85-114		
Mercury	mg/kg	0.440	0.0175	.5	85.0	80-120	L722194-04	WG743452
Mercury	mg/kg	0.468	0.0236	.5	89.0	80-120	L722078-13	WG743291
Arsenic	mg/kg	115.	11.6	100	100.	75-125	L722057-10	WG743408
Barium	mg/kg	479.	238.	100	240.*	75-125	L722057-10	WG743408
Cadmium	mg/kg	99.2	0.970	100	98.0	75-125	L722057-10	WG743408
Chromium	mg/kg	111.	8.29	100	100.	75-125	L722057-10	WG743408
Copper	mg/kg	116.	8.51	100	110.	75-125	L722057-10	WG743408
Lead	mg/kg	111.	10.3	100	100.	75-125	L722057-10	WG743408
Nickel	mg/kg	114.	6.65	100	110.	75-125	L722057-10	WG743408
Selenium	mg/kg	105.	-0.200	100	100.	75-125	L722057-10	WG743408
Silver	mg/kg	107.	-0.187	100	110.	75-125	L722057-10	WG743408
Zinc	mg/kg	133.	33.7	100	100.	75-125	L722057-10	WG743408
1-Methylnaphthalene	mg/kg	0.0685	0.0	.08	86.0	41.8-133	L722158-01	WG743812
2-Chloronaphthalene	mg/kg	0.0773	0.0	.08	97.0	42.4-129	L722158-01	WG743812
2-Methylnaphthalene	mg/kg	0.0690	0.0	.08	86.0	37.5-137	L722158-01	WG743812
Acenaphthene	mg/kg	0.0729	0.0	.08	91.0	39.4-132	L722158-01	WG743812
Acenaphthylene	mg/kg	0.0689	0.0	.08	86.0	41.3-132	L722158-01	WG743812
Anthracene	mg/kg	0.0741	0.0	.08	93.0	36.7-144	L722158-01	WG743812
Benzo(a)anthracene	mg/kg	0.0648	0.0	.08	81.0	28-144	L722158-01	WG743812
Benzo(a)pyrene	mg/kg	0.0648	0.0	.08	81.0	23.8-147	L722158-01	WG743812
Benzo(b)fluoranthene	mg/kg	0.0580	0.0	.08	73.0	18.2-147	L722158-01	WG743812
Benzo(g,h,i)perylene	mg/kg	0.0626	0.0	.08	78.0	9.2-155	L722158-01	WG743812
Benzo(k)fluoranthene	mg/kg	0.0654	0.0	.08	82.0	26.5-143	L722158-01	WG743812
Chrysene	mg/kg	0.0699	0.0	.08	87.0	27.4-150	L722158-01	WG743812
Dibenz(a,h)anthracene	mg/kg	0.0599	0.0	.08	75.0	13.8-150	L722158-01	WG743812
Fluoranthene	mg/kg	0.0859	0.0	.08	110.	23.2-158	L722158-01	WG743812
Fluorene	mg/kg	0.0705	0.0	.08	88.0	30.8-139	L722158-01	WG743812
Indeno(1,2,3-cd)pyrene	mg/kg	0.0606	0.0	.08	76.0	10.7-155	L722158-01	WG743812
Naphthalene	mg/kg	0.0692	0.000618	.08	86.0	34.9-133	L722158-01	WG743812
Phenanthrene	mg/kg	0.0698	0.0	.08	87.0	20.2-150	L722158-01	WG743812
Pyrene	mg/kg	0.0647	0.0	.08	81.0	22.6-151	L722158-01	WG743812
2-Fluorobiphenyl					96.30	38.2-135		WG743812
Nitrobenzene-d5					92.90	28.4-151		WG743812
p-Terphenyl-d14					80.80	34.2-141		WG743812

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Benzene	mg/kg	0.0184	0.0186	72.2	54.3-133	0.880	20	L721160-15	WG743524
Ethylbenzene	mg/kg	0.0184	0.0179	73.4	61.4-133	2.28	20	L721160-15	WG743524
Toluene	mg/kg	0.0182	0.0200	71.4	61.4-130	8.98	20	L721160-15	WG743524
Total Xylenes	mg/kg	0.0530	0.0541	70.7	63.3-131	2.07	20	L721160-15	WG743524
4-Bromofluorobenzene				99.20	71-126				WG743524
Dibromofluoromethane				94.10	78.3-121				WG743524
Toluene-d8				100.0	88.5-111				WG743524
a,a,a-Trifluorotoluene				108.0	85-114				WG743524
TPH (GC/FID) Low Fraction	mg/kg	16.6	16.9	60.1	28.5-138	1.89	23.6	L722134-01	WG743499
a,a,a-Trifluorotoluene(FID)				98.50	59-128				WG743499

* Performance of this Analyte is outside of established criteria.

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L A B S C I E N C E S

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Quality Assurance Report

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Tax I.D. 62-0814289

Est. 1970

September 25, 2014

Analyte	Units	Matrix	Spike	Duplicate								Batch
		MSD	Ref	%Rec	Limit	RPD	Limit	Ref	Samp			
Chromium, Hexavalent	mg/kg	19.0	19.0	95.0	75-125	0.0	20	L722057-14				WG743393
TPH (GC/FID) High Fraction	mg/kg	127.	165.	0*	50-150	26.1*	20	L721441-02				WG743401
o-Terphenyl				82.70	50-150							WG743401
Benzene	mg/kg	0.0881	0.0959	70.5	54.3-133	8.49	20	L721501-01				WG743632
Ethylbenzene	mg/kg	0.0936	0.103	74.8	61.4-133	9.22	20	L721501-01				WG743632
Toluene	mg/kg	0.0880	0.0974	70.0	61.4-130	10.1	20	L721501-01				WG743632
Total Xylenes	mg/kg	0.266	0.293	70.7	63.3-131	9.77	20	L721501-01				WG743632
4-Bromofluorobenzene				102.0	71-126							WG743632
Dibromofluoromethane				107.0	78.3-121							WG743632
Toluene-d8				101.0	88.5-111							WG743632
a,a,a-Trifluorotoluene				97.80	85-114							WG743632
Mercury	mg/kg	0.440	0.440	84.4	80-120	0.0	20	L722194-04				WG743452
Mercury	mg/kg	0.458	0.468	87.0	80-120	2.00	20	L722078-13				WG743291
Arsenic	mg/kg	114.	115.	102.	75-125	1.00	20	L722057-10				WG743408
Barium	mg/kg	679.	479.	442.*	75-125	35.0*	20	L722057-10				WG743408
Cadmium	mg/kg	99.5	99.2	98.5	75-125	0.0	20	L722057-10				WG743408
Chromium	mg/kg	111.	111.	103.	75-125	0.0	20	L722057-10				WG743408
Copper	mg/kg	116.	116.	108.	75-125	0.0	20	L722057-10				WG743408
Lead	mg/kg	112.	111.	101.	75-125	0.0	20	L722057-10				WG743408
Nickel	mg/kg	115.	114.	108.	75-125	0.0	20	L722057-10				WG743408
Selenium	mg/kg	107.	105.	107.	75-125	2.00	20	L722057-10				WG743408
Silver	mg/kg	107.	107.	108.	75-125	0.0	20	L722057-10				WG743408
Zinc	mg/kg	134.	133.	99.8	75-125	0.0	20	L722057-10				WG743408
1-Methylnaphthalene	mg/kg	0.0616	0.0685	77.0	41.8-133	10.6	20.9	L722158-01				WG743812
2-Chloronaphthalene	mg/kg	0.0733	0.0773	91.7	42.4-129	5.31	20	L722158-01				WG743812
2-Methylnaphthalene	mg/kg	0.0623	0.0690	77.9	37.5-137	10.2	20.4	L722158-01				WG743812
Acenaphthene	mg/kg	0.0676	0.0729	84.5	39.4-132	7.51	20	L722158-01				WG743812
Acenaphthylene	mg/kg	0.0652	0.0689	81.4	41.3-132	5.51	20	L722158-01				WG743812
Anthracene	mg/kg	0.0694	0.0741	86.8	36.7-144	6.60	20.7	L722158-01				WG743812
Benzo(a)anthracene	mg/kg	0.0536	0.0648	67.0	28-144	19.0	24.7	L722158-01				WG743812
Benzo(a)pyrene	mg/kg	0.0562	0.0648	70.2	23.8-147	14.3	25.3	L722158-01				WG743812
Benzo(b)fluoranthene	mg/kg	0.0507	0.0580	63.3	18.2-147	13.6	29.5	L722158-01				WG743812
Benzo(g,h,i)perylene	mg/kg	0.0519	0.0626	64.9	9.2-155	18.6	29.2	L722158-01				WG743812
Benzo(k)fluoranthene	mg/kg	0.0606	0.0654	75.7	26.5-143	7.69	26.1	L722158-01				WG743812
Chrysene	mg/kg	0.0657	0.0699	82.1	27.4-150	6.24	25.7	L722158-01				WG743812
Dibenz(a,h)anthracene	mg/kg	0.0522	0.0599	65.3	13.8-150	13.6	25.8	L722158-01				WG743812
Fluoranthene	mg/kg	0.0686	0.0859	85.8	23.2-158	22.4	26	L722158-01				WG743812
Fluorene	mg/kg	0.0652	0.0705	81.4	30.8-139	7.82	20	L722158-01				WG743812
Indeno(1,2,3-cd)pyrene	mg/kg	0.0503	0.0606	62.9	10.7-155	18.5	26.9	L722158-01				WG743812
Naphthalene	mg/kg	0.0628	0.0692	77.7	34.9-133	9.68	20.4	L722158-01				WG743812
Phenanthrene	mg/kg	0.0578	0.0698	72.3	20.2-150	18.8	24.6	L722158-01				WG743812
Pyrene	mg/kg	0.0524	0.0647	65.5	22.6-151	21.0	25.1	L722158-01				WG743812
2-Fluorobiphenyl				90.90	38.2-135							WG743812
Nitrobenzene-d5				85.00	28.4-151							WG743812
p-Terphenyl-d14				73.40	34.2-141							WG743812

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
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September 25, 2014

Post Spike

Serial Dilution

Batch number /Run number / Sample number cross reference

WG743524: R2990472: L722057-01 03
WG743499: R2990537: L722057-01 02 03 04 05 06
WG743401: R2990570 R2990594: L722057-01 02 03 04 05 06
WG743393: R2990571: L722057-10 11 12 13 14 15
WG743632: R2990650: L722057-02 04 06
WG743420: R2990655: L722057-10 11 12 13 14 15
WG743452: R2990830: L722057-11 12 13 14 15
WG743291: R2990832: L722057-10
WG743520: R2990887 R2990967: L722057-16 17 18
WG743406: R2991268: L722057-10 11 12 13 14 15 16
WG743408: R2991702: L722057-10 11 12 13 14 15
WG743812: R2992010 R2992337: L722057-10 11 12 13 14 15
WG744038: R2992127: L722057-10 11 12 13 14 15 16
WG744604: R2992532: L722057-10 11 12 13 14 15 16

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

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L A B S C I E N C E S

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September 25, 2014

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

APPENDIX 2: Site Investigation Borehole Sampling Raw Analytical Results



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Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Report Summary

Thursday October 09, 2014

Report Number: L725210

Samples Received: 10/02/14

Client Project: URSA

Description:

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

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REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description :

ESC Sample # : L725210-01

Sample ID : BH01 1-3FT

Site ID : LUDGREN PIT

Collected By : Mike Lobato
Collection Date : 09/30/14 08:30

Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/06/14	5
Toluene	BDL	0.025	mg/kg	8021	10/06/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/06/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/06/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/06/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	8015	10/06/14	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021	10/06/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	74.4		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/09/14 17:20 Printed: 10/09/14 17:20



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REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH02 5-7FT
Collected By : Mike Lobato
Collection Date : 09/30/14 09:10

ESC Sample # : L725210-02
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Toluene	BDL	0.025	mg/kg	8021	10/09/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/09/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/09/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.2		% Rec.	8015	10/09/14	5
a,a,a-Trifluorotoluene(PID)	99.5		% Rec.	8021	10/09/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	72.1		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH03 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 09:26

ESC Sample # : L725210-03
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Toluene	BDL	0.025	mg/kg	8021	10/09/14	5
Ethylbenzene	0.0067	0.0025	mg/kg	8021	10/09/14	5
Total Xylene	0.048	0.0075	mg/kg	8021	10/09/14	5
TPH (GC/FID) Low Fraction	6.8	0.50	mg/kg	8015	10/09/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	93.8		% Rec.	8015	10/09/14	5
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021	10/09/14	5
TPH (GC/FID) High Fraction	570	80.	mg/kg	3546/DRO	10/07/14	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	10/07/14	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Est. 1970

REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH04 9-11FT
Collected By : Mike Lobato
Collection Date : 09/30/14 09:54

ESC Sample # : L725210-04
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Toluene	BDL	0.025	mg/kg	8021	10/09/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Total Xylene	0.042	0.0075	mg/kg	8021	10/09/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/09/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.8		% Rec.	8015	10/09/14	5
a,a,a-Trifluorotoluene(PID)	99.8		% Rec.	8021	10/09/14	5
TPH (GC/FID) High Fraction	1200	80.	mg/kg	3546/DRO	10/07/14	20
Surrogate recovery(%)						
o-Terphenyl	0.00		% Rec.	3546/DRO	10/07/14	20

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH05 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 10:15

ESC Sample # : L725210-05
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Toluene	BDL	0.025	mg/kg	8021	10/07/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/07/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/07/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.5		% Rec.	8015	10/07/14	5
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021	10/07/14	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	66.7		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH06 5-7FT
Collected By : Mike Lobato
Collection Date : 09/30/14 10:49

ESC Sample # : L725210-06
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Toluene	BDL	0.025	mg/kg	8021	10/09/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/09/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/09/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.5		% Rec.	8015	10/09/14	5
a,a,a-Trifluorotoluene(PID)	99.5		% Rec.	8021	10/09/14	5
TPH (GC/FID) High Fraction	6.1	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	77.0		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH07 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 11:00

ESC Sample # : L725210-07
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Toluene	BDL	0.025	mg/kg	8021	10/09/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/09/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/09/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/09/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	97.3		% Rec.	8015	10/09/14	5
a,a,a-Trifluorotoluene(PID)	99.5		% Rec.	8021	10/09/14	5
TPH (GC/FID) High Fraction	37.	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	80.5		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH08 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 11:30

ESC Sample # : L725210-08
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Toluene	BDL	0.025	mg/kg	8021	10/07/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/07/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/07/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.6		% Rec.	8015	10/07/14	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021	10/07/14	5
TPH (GC/FID) High Fraction	6.9	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	69.4		% Rec.	3546/DRO	10/07/14	1

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REPORT OF ANALYSIS

October 09, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH09 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 11:40

ESC Sample # : L725210-09
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Toluene	BDL	0.025	mg/kg	8021	10/07/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/07/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/07/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	99.7		% Rec.	8015	10/07/14	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021	10/07/14	5
TPH (GC/FID) High Fraction	19.	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	64.4		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

October 09, 2014

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HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : October 02, 2014
Description : Ursa Lundgren Pit Closure
Sample ID : BH10 1-3FT
Collected By : Mike Lobato
Collection Date : 09/30/14 11:57

ESC Sample # : L725210-10
Site ID : LUDGREN PIT
Project # : URSA

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Toluene	BDL	0.025	mg/kg	8021	10/07/14	5
Ethylbenzene	BDL	0.0025	mg/kg	8021	10/07/14	5
Total Xylene	BDL	0.0075	mg/kg	8021	10/07/14	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015	10/07/14	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	100.		% Rec.	8015	10/07/14	5
a,a,a-Trifluorotoluene(PID)	104.		% Rec.	8021	10/07/14	5
TPH (GC/FID) High Fraction	7.4	4.0	mg/kg	3546/DRO	10/07/14	1
Surrogate recovery(%)						
o-Terphenyl	76.1		% Rec.	3546/DRO	10/07/14	1

BDL - Below Detection Limit

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L725210-03	WG746828	SAMP	o-Terphenyl	R2995755	J7
L725210-04	WG746828	SAMP	o-Terphenyl	R2995755	J7

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
10/09/14 at 17:20:42

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L725210-01 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-02 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-03 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-04 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-05 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-06 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-07 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-08 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-09 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20
Sample: L725210-10 Account: HRLCSCO Received: 10/02/14 09:00 Due Date: 10/09/14 00:00 RPT Date: 10/09/14 17:20



L A B S C I E N C E S

YOUR LAB OF CHOICE

HRL Compliance Solutions- CO
Kris Rowe
2385 F ? Road

Grand Junction, CO 81505

Quality Assurance Report
Level II

L725210

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October 09, 2014

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Benzene	< .0005	mg/kg			WG746954	10/06/14 14:25
Ethylbenzene	< .0005	mg/kg			WG746954	10/06/14 14:25
Toluene	< .005	mg/kg			WG746954	10/06/14 14:25
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG746954	10/06/14 14:25
Total Xylene	< .0015	mg/kg			WG746954	10/06/14 14:25
a,a,a-Trifluorotoluene(FID)		% Rec.	102.0	59-128	WG746954	10/06/14 14:25
a,a,a-Trifluorotoluene(PID)		% Rec.	102.0	54-144	WG746954	10/06/14 14:25
TPH (GC/FID) High Fraction	< 4	mg/kg			WG746828	10/07/14 10:18
o-Terphenyl		% Rec.	78.00	50-150	WG746828	10/07/14 10:18
Benzene	< .0005	mg/kg			WG746963	10/07/14 14:39
Ethylbenzene	< .0005	mg/kg			WG746963	10/07/14 14:39
Toluene	< .005	mg/kg			WG746963	10/07/14 14:39
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG746963	10/07/14 14:39
Total Xylene	< .0015	mg/kg			WG746963	10/07/14 14:39
a,a,a-Trifluorotoluene(FID)		% Rec.	100.0	59-128	WG746963	10/07/14 14:39
a,a,a-Trifluorotoluene(PID)		% Rec.	102.0	54-144	WG746963	10/07/14 14:39
Benzene	< .0005	mg/kg			WG747035	10/09/14 02:23
Ethylbenzene	< .0005	mg/kg			WG747035	10/09/14 02:23
Toluene	< .005	mg/kg			WG747035	10/09/14 02:23
TPH (GC/FID) Low Fraction	< .1	mg/kg			WG747035	10/09/14 02:23
Total Xylene	< .0015	mg/kg			WG747035	10/09/14 02:23
a,a,a-Trifluorotoluene(FID)		% Rec.	98.10	59-128	WG747035	10/09/14 02:23
a,a,a-Trifluorotoluene(PID)		% Rec.	99.50	54-144	WG747035	10/09/14 02:23

Analyte	Units	Laboratory Control Sample	% Rec	Limit	Batch
		Known Val			
Benzene	mg/kg	.05	0.0499	99.8	70-130
Ethylbenzene	mg/kg	.05	0.0533	107.	70-130
Toluene	mg/kg	.05	0.0533	107.	70-130
Total Xylene	mg/kg	.15	0.163	109.	70-130
a,a,a-Trifluorotoluene(FID)				101.0	59-128
a,a,a-Trifluorotoluene(PID)				103.0	54-144
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.23	95.0	63.5-137
a,a,a-Trifluorotoluene(FID)				98.50	59-128
a,a,a-Trifluorotoluene(PID)				105.0	54-144
TPH (GC/FID) High Fraction	mg/kg	60	45.4	75.6	50-150
o-Terphenyl				93.70	50-150
Benzene	mg/kg	.05	0.0470	93.9	70-130
Ethylbenzene	mg/kg	.05	0.0480	95.9	70-130
Toluene	mg/kg	.05	0.0475	95.0	70-130
Total Xylene	mg/kg	.15	0.141	93.8	70-130
a,a,a-Trifluorotoluene(PID)				102.0	54-144
TPH (GC/FID) Low Fraction	mg/kg	5.5	5.72	104.	63.5-137
a,a,a-Trifluorotoluene(FID)				100.0	59-128
Benzene	mg/kg	.05	0.0469	93.8	70-130
Ethylbenzene	mg/kg	.05	0.0484	96.7	70-130

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Quality Assurance Report
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Est. 1970

October 09, 2014

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Toluene	mg/kg	.05	0.0479	95.8	70-130	WG747035
Total Xylene	mg/kg	.15	0.143	95.1	70-130	WG747035
a,a,a-Trifluorotoluene(FID)				98.00	59-128	WG747035
a,a,a-Trifluorotoluene(PID)				100.0	54-144	WG747035
TPH (GC/FID) Low Fraction	mg/kg	5.5	4.87	88.5	63.5-137	WG747035
a,a,a-Trifluorotoluene(FID)				97.70	59-128	WG747035
a,a,a-Trifluorotoluene(PID)				100.0	54-144	WG747035

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/kg	0.0460	0.0499	92.0	70-130	8.05	20	WG746954
Ethylbenzene	mg/kg	0.0490	0.0533	98.0	70-130	8.45	20	WG746954
Toluene	mg/kg	0.0490	0.0533	98.0	70-130	8.41	20	WG746954
Total Xylene	mg/kg	0.150	0.163	100.	70-130	8.53	20	WG746954
a,a,a-Trifluorotoluene(FID)				101.0	59-128			WG746954
a,a,a-Trifluorotoluene(PID)				103.0	54-144			WG746954
TPH (GC/FID) Low Fraction	mg/kg	5.15	5.23	94.0	63.5-137	1.36	20	WG746954
a,a,a-Trifluorotoluene(FID)				98.50	59-128			WG746954
a,a,a-Trifluorotoluene(PID)				105.0	54-144			WG746954
TPH (GC/FID) High Fraction	mg/kg	44.7	45.4	74.0	50-150	1.41	20	WG746828
o-Terphenyl				92.70	50-150			WG746828
TPH (GC/FID) Low Fraction	mg/kg	5.42	5.72	98.0	63.5-137	5.38	20	WG746963
a,a,a-Trifluorotoluene(FID)				99.80	59-128			WG746963
Benzene	mg/kg	0.0485	0.0470	97.0	70-130	3.33	20	WG746963
Ethylbenzene	mg/kg	0.0499	0.0480	100.	70-130	3.92	20	WG746963
Toluene	mg/kg	0.0497	0.0475	99.0	70-130	4.46	20	WG746963
Total Xylene	mg/kg	0.147	0.141	98.0	70-130	4.40	20	WG746963
a,a,a-Trifluorotoluene(PID)				102.0	54-144			WG746963
TPH (GC/FID) Low Fraction	mg/kg	4.93	4.87	90.0	63.5-137	1.34	20	WG747035
a,a,a-Trifluorotoluene(FID)				97.40	59-128			WG747035
a,a,a-Trifluorotoluene(PID)				101.0	54-144			WG747035
Benzene	mg/kg	0.0460	0.0469	92.0	70-130	1.89	20	WG747035
Ethylbenzene	mg/kg	0.0490	0.0484	98.0	70-130	1.21	20	WG747035
Toluene	mg/kg	0.0487	0.0479	97.0	70-130	1.67	20	WG747035
Total Xylene	mg/kg	0.143	0.143	95.0	70-130	0.200	20	WG747035
a,a,a-Trifluorotoluene(FID)				98.30	59-128			WG747035
a,a,a-Trifluorotoluene(PID)				100.0	54-144			WG747035

Analyte	Units	Matrix Spike				Batch
		MS Res	Ref Res	TV	% Rec	
Benzene	mg/kg	0.194	0.000205	.05	78.0	49.7-127
Ethylbenzene	mg/kg	0.211	0.000455	.05	84.0	L725210-01
Toluene	mg/kg	0.211	0.000945	.05	84.0	WG746954
Total Xylene	mg/kg	0.644	0.00179	.15	86.0	L725210-01
a,a,a-Trifluorotoluene(FID)					99.80	WG746954
a,a,a-Trifluorotoluene(PID)					101.0	WG746954
TPH (GC/FID) Low Fraction	mg/kg	26.2	0.0	5.5	95.0	28.5-138
a,a,a-Trifluorotoluene(FID)					99.30	WG746954
a,a,a-Trifluorotoluene(PID)					104.0	WG746954

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



YOUR LAB OF CHOICE

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Tax I.D. 62-0814289

Est. 1970

October 09, 2014

Analyte	Units	Matrix Spike			% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV				
TPH (GC/FID) High Fraction	mg/kg	43.6	7.43	60	60.0	50-150	L725210-10	WG746828
o-Terphenyl					73.60	50-150		WG746828
Benzene	mg/kg	0.257	0.000216	.05	100.	49.7-127	L725210-05	WG746963
Ethylbenzene	mg/kg	0.259	0.000251	.05	100.	40.8-141	L725210-05	WG746963
Toluene	mg/kg	0.258	0.000917	.05	100.	49.8-132	L725210-05	WG746963
Total Xylene	mg/kg	0.760	0.00165	.15	100.	41.2-140	L725210-05	WG746963
a,a,a-Trifluorotoluene(PID)					102.0	54-144		WG746963
TPH (GC/FID) Low Fraction	mg/kg	31.6	0.0	5.5	120.	28.5-138	L725210-05	WG746963
a,a,a-Trifluorotoluene(FID)					99.60	59-128		WG746963
Benzene	mg/kg	0.0331	0.00360	.05	59.0	49.7-127	L725120-04	WG747035
Ethylbenzene	mg/kg	0.0270	0.000942	.05	52.0	40.8-141	L725120-04	WG747035
Toluene	mg/kg	0.0321	0.00538	.05	54.0	49.8-132	L725120-04	WG747035
Total Xylene	mg/kg	0.0727	0.00393	.15	46.0	41.2-140	L725120-04	WG747035
a,a,a-Trifluorotoluene(FID)					97.40	59-128		WG747035
a,a,a-Trifluorotoluene(PID)					101.0	54-144		WG747035
TPH (GC/FID) Low Fraction	mg/kg	3.31	0.968	5.5	42.0	28.5-138	L725120-04	WG747035
a,a,a-Trifluorotoluene(FID)					96.60	59-128		WG747035
a,a,a-Trifluorotoluene(PID)					100.0	54-144		WG747035

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
Benzene	mg/kg	0.213	0.194	85.0	49.7-127	9.24	23.5	L725210-01	WG746954
Ethylbenzene	mg/kg	0.231	0.211	92.3	40.8-141	9.31	23.8	L725210-01	WG746954
Toluene	mg/kg	0.230	0.211	91.6	49.8-132	8.53	23.5	L725210-01	WG746954
Total Xylene	mg/kg	0.707	0.644	94.0	41.2-140	9.25	23.7	L725210-01	WG746954
a,a,a-Trifluorotoluene(FID)				100.0	59-128				WG746954
a,a,a-Trifluorotoluene(PID)				101.0	54-144				WG746954
TPH (GC/FID) Low Fraction	mg/kg	26.5	26.2	96.2	28.5-138	1.18	23.6	L725210-01	WG746954
a,a,a-Trifluorotoluene(FID)				98.80	59-128				WG746954
a,a,a-Trifluorotoluene(PID)				103.0	54-144				WG746954
TPH (GC/FID) High Fraction	mg/kg	50.7	43.6	72.2	50-150	15.2	20	L725210-10	WG746828
o-Terphenyl				78.30	50-150				WG746828
Benzene	mg/kg	0.216	0.257	86.4	49.7-127	17.1	23.5	L725210-05	WG746963
Ethylbenzene	mg/kg	0.217	0.259	86.8	40.8-141	17.5	23.8	L725210-05	WG746963
Toluene	mg/kg	0.217	0.258	86.3	49.8-132	17.4	23.5	L725210-05	WG746963
Total Xylene	mg/kg	0.634	0.760	84.3	41.2-140	18.0	23.7	L725210-05	WG746963
a,a,a-Trifluorotoluene(PID)				102.0	54-144				WG746963
TPH (GC/FID) Low Fraction	mg/kg	26.1	31.6	94.9	28.5-138	18.9	23.6	L725210-05	WG746963
a,a,a-Trifluorotoluene(FID)				99.10	59-128				WG746963
Benzene	mg/kg	0.0368	0.0331	66.4	49.7-127	10.7	23.5	L725120-04	WG747035
Ethylbenzene	mg/kg	0.0357	0.0270	69.5	40.8-141	27.7*	23.8	L725120-04	WG747035
Toluene	mg/kg	0.0354	0.0321	60.0	49.8-132	9.60	23.5	L725120-04	WG747035
Total Xylene	mg/kg	0.0956	0.0727	61.1	41.2-140	27.3*	23.7	L725120-04	WG747035
a,a,a-Trifluorotoluene(FID)				97.80	59-128				WG747035
a,a,a-Trifluorotoluene(PID)				102.0	54-144				WG747035
TPH (GC/FID) Low Fraction	mg/kg	4.17	3.31	58.2	28.5-138	23.1	23.6	L725120-04	WG747035
a,a,a-Trifluorotoluene(FID)				97.10	59-128				WG747035
a,a,a-Trifluorotoluene(PID)				100.0	54-144				WG747035

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Quality Assurance Report
Level II
L725210

October 09, 2014

Batch number /Run number / Sample number cross reference

WG746954: R2995518: L725210-01
WG746828: R2995755: L725210-01 02 03 04 05 06 07 08 09
WG746963: R2995808: L725210-05 08 09
WG747035: R2996345: L725210-02 03 04 06 07

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

APPENDIX 3: Confirmation Sampling Raw Analytical Results



19-Nov-2014

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Ursa Lundgren Pit Closure - Exc Conf. 11.6.14**

Work Order: **1411399**

Dear Kris,

ALS Environmental received 5 samples on 07-Nov-2014 10:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 36.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14
Work Order: **1411399**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1411399-01	Center Bottom - Eastern Side @ 10ft	Soil		11/6/2014 12:10	11/7/2014 10:30	<input type="checkbox"/>
1411399-02	Center Bottom - Western Side @ 10ft	Soil		11/6/2014 12:00	11/7/2014 10:30	<input type="checkbox"/>
1411399-03	Northeast Corner @ 2ft	Soil		11/6/2014 12:30	11/7/2014 10:30	<input type="checkbox"/>
1411399-04	Southwest Corner @ 1ft	Soil		11/6/2014 13:00	11/7/2014 10:30	<input type="checkbox"/>
1411399-05	Eastern Side @ 2ft	Soil		11/6/2014 13:15	11/7/2014 10:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14
Work Order: 1411399

Case Narrative

Batch 64877 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 64878 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Batch 64878 sample 1411399-04 DRO surrogate recovery was high due to matrix interference. No data requires qualification.

Batch 65118 sample 1411399-02 reporting limits for Selenium were elevated due to dilution for high concentrations of non-target analytes. Sample 1411399-05 MS/MSD recoveries for Arsenic were below control limits. The corresponding result in the parent sample may be biased low for Arsenic. The MS/MSD recoveries for Barium and MSD recovery for Zinc were outside control limits, however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Barium and Zinc.

Batch 65124 samples 1411399-01 through 1411399-05 were activated for pH after the 7 day hold time had expired. Results should be considered estimated.

Batch 65195 sample 1411399-01 MS?MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low for Hexavalent Chromium..

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp
Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14 **Work Order:** 1411399
Sample ID: Center Bottom - Eastern Side @ 10ft **Lab ID:** 1411399-01
Collection Date: 11/6/2014 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M			
DRO (C10-C28)	240		4.4	mg/Kg-dry	1	11/11/2014 08:52 PM
Surr: 4-Terphenyl-d14	93.2		39-133	%REC	1	11/11/2014 08:52 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015			
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	11/12/2014 01:17 PM
Surr: Toluene-d8	116		50-150	%REC	1	11/12/2014 01:17 PM
MERCURY BY CVAA			SW7471			
Mercury	0.029		0.016	mg/Kg-dry	1	11/17/2014 10:52 PM
METALS ANALYSIS BY ICP			SW846 6010C			
Arsenic	13		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Barium	260		0.38	mg/Kg-dry	1	11/17/2014 07:25 PM
Cadmium	ND		0.30	mg/Kg-dry	1	11/17/2014 07:25 PM
Chromium	8.5		0.38	mg/Kg-dry	1	11/17/2014 07:25 PM
Copper	11		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Lead	17		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Nickel	8.6		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Selenium	ND		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Silver	ND		0.75	mg/Kg-dry	2	11/18/2014 01:52 PM
Zinc	56		0.75	mg/Kg-dry	1	11/17/2014 07:25 PM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Calcium	480		5.0	mg/L	10	11/17/2014 09:07 PM
Magnesium	290		2.0	mg/L	10	11/17/2014 09:07 PM
Sodium	2,400		2.0	mg/L	10	11/17/2014 09:07 PM
SODIUM ADSORPTION RATIO			USDA H60 METHOD		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Sodium Adsorption Ratio	21		0.010	none	1	11/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3541 / 11/11/14	Analyst: RS
Acenaphthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Acenaphthylene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Benzo(a)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Benzo(a)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Benzo(b)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Benzo(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Benzo(k)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Chrysene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Center Bottom - Eastern Side @ 10ft
Collection Date: 11/6/2014 12:10 PM

Work Order: 1411399
Lab ID: 1411399-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Fluorene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Naphthalene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:02 PM
Surr: 2-Fluorobiphenyl	77.5		12-100	%REC	1	11/12/2014 12:02 PM
Surr: 4-Terphenyl-d14	85.6		25-137	%REC	1	11/12/2014 12:02 PM
Surr: Nitrobenzene-d5	79.2		37-107	%REC	1	11/12/2014 12:02 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 11/10/14	Analyst: JDW	
Benzene	ND		32	µg/Kg-dry	1	11/11/2014 04:17 AM
Ethylbenzene	ND		32	µg/Kg-dry	1	11/11/2014 04:17 AM
m,p-Xylene	ND		65	µg/Kg-dry	1	11/11/2014 04:17 AM
o-Xylene	ND		32	µg/Kg-dry	1	11/11/2014 04:17 AM
Toluene	ND		32	µg/Kg-dry	1	11/11/2014 04:17 AM
Xylenes, Total	ND		97	µg/Kg-dry	1	11/11/2014 04:17 AM
Surr: 1,2-Dichloroethane-d4	97.8		70-130	%REC	1	11/11/2014 04:17 AM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	11/11/2014 04:17 AM
Surr: Dibromofluoromethane	95.2		70-130	%REC	1	11/11/2014 04:17 AM
Surr: Toluene-d8	96.2		70-130	%REC	1	11/11/2014 04:17 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 11/17/14	Analyst: JB	
Electrical Conductivity @ Saturation	17		0.050	mmhos/cm @25	10	11/18/2014 02:40 PM
CHROMIUM, TRIVALENT			CALCULATION		Analyst: MB	
Chromium, Trivalent	8.3		0.54	mg/Kg-dry	1	11/18/2014 06:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 11/17/14	Analyst: MB	
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	11/18/2014 03:30 PM
MOISTURE			A2540 G		Analyst: EVB	
Moisture	7.2		0.050	% of sample	1	11/12/2014 09:05 AM
PH			SW9045D	Prep: EXTRACT / 11/17/14	Analyst: STP	
pH	9.0	H		s.u.	1	11/17/2014 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Center Bottom - Western Side @ 10ft
Collection Date: 11/6/2014 12:00 PM

Work Order: 1411399
Lab ID: 1411399-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M			
DRO (C10-C28)	18		4.4	mg/Kg-dry	1	11/11/2014 09:20 PM
Surr: 4-Terphenyl-d14	62.5		39-133	%REC	1	11/11/2014 09:20 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015			
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	11/12/2014 01:42 PM
Surr: Toluene-d8	117		50-150	%REC	1	11/12/2014 01:42 PM
MERCURY BY CVAA			SW7471			
Mercury	ND		0.015	mg/Kg-dry	1	11/17/2014 10:54 PM
METALS ANALYSIS BY ICP			SW846 6010C			
Arsenic	1.2		0.82	mg/L-dry	2	11/19/2014 12:58 PM
Barium	110		0.41	mg/Kg-dry	1	11/17/2014 07:31 PM
Cadmium	ND		0.33	mg/Kg-dry	1	11/17/2014 07:31 PM
Chromium	7.1		0.41	mg/Kg-dry	1	11/17/2014 07:31 PM
Copper	8.4		0.82	mg/Kg-dry	2	11/18/2014 01:58 PM
Lead	13		0.82	mg/Kg-dry	2	11/18/2014 01:58 PM
Nickel	7.6		0.82	mg/Kg-dry	2	11/18/2014 01:58 PM
Selenium	ND		0.82	mg/Kg-dry	2	11/18/2014 01:58 PM
Silver	ND		0.82	mg/Kg-dry	2	11/18/2014 01:58 PM
Zinc	42		0.82	mg/Kg-dry	1	11/17/2014 07:31 PM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Calcium	110		5.0	mg/L	10	11/17/2014 09:13 PM
Magnesium	150		2.0	mg/L	10	11/17/2014 09:13 PM
Sodium	3,100		2.0	mg/L	10	11/17/2014 09:13 PM
SODIUM ADSORPTION RATIO			USDA H60 METHOD		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Sodium Adsorption Ratio	45		0.010	none	1	11/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3541 / 11/11/14	Analyst: RS
Acenaphthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Acenaphthylene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Benz(a)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Benz(a)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Benz(b)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Benz(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Benz(k)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Chrysene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Center Bottom - Western Side @ 10ft
Collection Date: 11/6/2014 12:00 PM

Work Order: 1411399
Lab ID: 1411399-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Fluorene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Naphthalene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 12:25 PM
Surr: 2-Fluorobiphenyl	62.2		12-100	%REC	1	11/12/2014 12:25 PM
Surr: 4-Terphenyl-d14	92.2		25-137	%REC	1	11/12/2014 12:25 PM
Surr: Nitrobenzene-d5	63.1		37-107	%REC	1	11/12/2014 12:25 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 11/10/14	Analyst: JDW	
Benzene	ND		32	µg/Kg-dry	1	11/11/2014 04:42 AM
Ethylbenzene	ND		32	µg/Kg-dry	1	11/11/2014 04:42 AM
m,p-Xylene	ND		65	µg/Kg-dry	1	11/11/2014 04:42 AM
o-Xylene	ND		32	µg/Kg-dry	1	11/11/2014 04:42 AM
Toluene	ND		32	µg/Kg-dry	1	11/11/2014 04:42 AM
Xylenes, Total	ND		97	µg/Kg-dry	1	11/11/2014 04:42 AM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	11/11/2014 04:42 AM
Surr: 4-Bromofluorobenzene	94.2		70-130	%REC	1	11/11/2014 04:42 AM
Surr: Dibromofluoromethane	94.7		70-130	%REC	1	11/11/2014 04:42 AM
Surr: Toluene-d8	99.4		70-130	%REC	1	11/11/2014 04:42 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 11/17/14	Analyst: JB	
Electrical Conductivity @ Saturation	19		0.050	mmhos/cm @25	10	11/18/2014 02:40 PM
CHROMIUM, TRIVALENT			CALCULATION		Analyst: MB	
Chromium, Trivalent	7.1		0.54	mg/Kg-dry	1	11/18/2014 06:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 11/17/14	Analyst: MB	
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	11/18/2014 03:30 PM
MOISTURE			A2540 G		Analyst: EVB	
Moisture	7.0		0.050	% of sample	1	11/12/2014 09:05 AM
pH		9.0	H	s.u.	1	11/17/2014 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14 **Work Order:** 1411399
Sample ID: Northeast Corner @ 2ft **Lab ID:** 1411399-03
Collection Date: 11/6/2014 12:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	27		4.5	mg/Kg-dry	1	11/11/2014 10:15 PM
Surr: 4-Terphenyl-d14	69.5		39-133	%REC	1	11/11/2014 10:15 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	11/12/2014 08:26 PM
Surr: Toluene-d8	124		50-150	%REC	1	11/12/2014 08:26 PM
MERCURY BY CVAA						
Mercury	ND		0.017	mg/Kg-dry	1	11/17/2014 10:57 PM
METALS ANALYSIS BY ICP						
Arsenic	4.9		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Barium	150		0.38	mg/Kg-dry	1	11/17/2014 07:36 PM
Cadmium	ND		0.31	mg/Kg-dry	1	11/17/2014 07:36 PM
Chromium	8.0		0.38	mg/Kg-dry	1	11/17/2014 07:36 PM
Copper	10		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Lead	14		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Nickel	6.6		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Selenium	ND		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Silver	ND		0.77	mg/Kg-dry	2	11/18/2014 02:03 PM
Zinc	49		0.77	mg/Kg-dry	1	11/17/2014 07:36 PM
SOLUBLE CATIONS FOR SAR						
Calcium	29		5.0	mg/L	10	11/17/2014 09:19 PM
Magnesium	27		2.0	mg/L	10	11/18/2014 11:46 AM
Sodium	2,100		2.0	mg/L	10	11/17/2014 09:19 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	67		0.010	none	1	11/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Anthracene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Chrysene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14 **Work Order:** 1411399
Sample ID: Northeast Corner @ 2ft **Lab ID:** 1411399-03
Collection Date: 11/6/2014 12:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Fluorene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Pyrene	ND		7.3	µg/Kg-dry	1	11/12/2014 12:49 PM
Surr: 2-Fluorobiphenyl	68.0		12-100	%REC	1	11/12/2014 12:49 PM
Surr: 4-Terphenyl-d14	89.8		25-137	%REC	1	11/12/2014 12:49 PM
Surr: Nitrobenzene-d5	68.0		37-107	%REC	1	11/12/2014 12:49 PM
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND		33	µg/Kg-dry	1	11/11/2014 05:08 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	11/11/2014 05:08 AM
m,p-Xylene	ND		66	µg/Kg-dry	1	11/11/2014 05:08 AM
o-Xylene	ND		33	µg/Kg-dry	1	11/11/2014 05:08 AM
Toluene	ND		33	µg/Kg-dry	1	11/11/2014 05:08 AM
Xylenes, Total	ND		99	µg/Kg-dry	1	11/11/2014 05:08 AM
Surr: 1,2-Dichloroethane-d4	98.8		70-130	%REC	1	11/11/2014 05:08 AM
Surr: 4-Bromofluorobenzene	96.2		70-130	%REC	1	11/11/2014 05:08 AM
Surr: Dibromofluoromethane	94.6		70-130	%REC	1	11/11/2014 05:08 AM
Surr: Toluene-d8	97.8		70-130	%REC	1	11/11/2014 05:08 AM
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	11		0.050	mmhos/cm @25	10	11/18/2014 02:40 PM
CHROMIUM, TRIVALENT						
Chromium, Trivalent	8.0		0.55	mg/Kg-dry	1	11/18/2014 06:30 PM
CHROMIUM, HEXAVALENT						
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	11/18/2014 03:30 PM
MOISTURE						
Moisture	8.7		0.050	% of sample	1	11/12/2014 09:05 AM
PH						
pH	9.2	H		s.u.	1	11/17/2014 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp
Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Southwest Corner @ 1ft
Collection Date: 11/6/2014 01:00 PM

Work Order: 1411399
Lab ID: 1411399-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	1,200		73	mg/Kg-dry	4	11/12/2014 04:40 AM
Surr: 4-Terphenyl-d14	266	S	39-133	%REC	4	11/12/2014 04:40 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	11/12/2014 08:52 PM
Surr: Toluene-d8	119		50-150	%REC	1	11/12/2014 08:52 PM
MERCURY BY CVAA						
Mercury	0.015		0.015	mg/Kg-dry	1	11/17/2014 10:59 PM
METALS ANALYSIS BY ICP						
Arsenic	ND		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Barium	860		0.36	mg/Kg-dry	1	11/17/2014 07:42 PM
Cadmium	ND		0.29	mg/Kg-dry	1	11/17/2014 07:42 PM
Chromium	10		0.36	mg/Kg-dry	1	11/17/2014 07:42 PM
Copper	14		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Lead	25		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Nickel	8.4		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Selenium	ND		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Silver	ND		3.6	mg/Kg-dry	10	11/18/2014 02:09 PM
Zinc	56		0.73	mg/Kg-dry	1	11/17/2014 07:42 PM
SOLUBLE CATIONS FOR SAR						
Calcium	310		5.0	mg/L	10	11/17/2014 09:24 PM
Magnesium	320		2.0	mg/L	10	11/17/2014 09:24 PM
Sodium	5,800		20	mg/L	100	11/18/2014 11:52 AM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	56		0.010	none	1	11/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Acenaphthylene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Anthracene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Benzo(a)anthracene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Benzo(a)pyrene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Benzo(b)fluoranthene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Benzo(g,h,i)perylene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Benzo(k)fluoranthene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Chrysene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Southwest Corner @ 1ft
Collection Date: 11/6/2014 01:00 PM

Work Order: 1411399
Lab ID: 1411399-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Fluoranthene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Fluorene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Indeno(1,2,3-cd)pyrene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Naphthalene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Pyrene	ND		29	µg/Kg-dry	1	11/12/2014 01:12 AM
Surr: 2-Fluorobiphenyl	85.5		12-100	%REC	1	11/12/2014 01:12 AM
Surr: 4-Terphenyl-d14	92.6		25-137	%REC	1	11/12/2014 01:12 AM
Surr: Nitrobenzene-d5	86.9		37-107	%REC	1	11/12/2014 01:12 AM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 11/10/14	Analyst: BG
Benzene	ND		33	µg/Kg-dry	1	11/12/2014 07:51 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	11/12/2014 07:51 AM
m,p-Xylene	ND		67	µg/Kg-dry	1	11/12/2014 07:51 AM
o-Xylene	ND		33	µg/Kg-dry	1	11/12/2014 07:51 AM
Toluene	ND		33	µg/Kg-dry	1	11/12/2014 07:51 AM
Xylenes, Total	ND		100	µg/Kg-dry	1	11/12/2014 07:51 AM
Surr: 1,2-Dichloroethane-d4	107		70-130	%REC	1	11/12/2014 07:51 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	11/12/2014 07:51 AM
Surr: Dibromofluoromethane	96.1		70-130	%REC	1	11/12/2014 07:51 AM
Surr: Toluene-d8	96.7		70-130	%REC	1	11/12/2014 07:51 AM
ELECTRICAL CONDUCTIVITY (SAR)						
			USDA H60 METHOD	Prep: USDA Method 20B / 11/17/14	Analyst: JB	
Electrical Conductivity @ Saturation	36		0.050	mmhos/cm @25	10	11/18/2014 02:40 PM
CHROMIUM, TRIVALENT						
Chromium, Trivalent	31,000		0.56	mg/Kg-dry	1	11/18/2014 06:30 PM
CHROMIUM, HEXAVALENT						
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	11/18/2014 03:30 PM
MOISTURE						
Moisture	10		A2540 G		Analyst: EVB	
			0.050	% of sample	1	11/12/2014 09:05 AM
PH						
pH	8.0	H	SW9045D	Prep: EXTRACT / 11/17/14	Analyst: STP	
			s.u.	1	11/17/2014 02:00 PM	

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Eastern Side @ 2ft
Collection Date: 11/6/2014 01:15 PM

Work Order: 1411399
Lab ID: 1411399-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M			
DRO (C10-C28)	120		4.4	mg/Kg-dry	1	11/11/2014 10:42 PM
Surr: 4-Terphenyl-d14	73.0		39-133	%REC	1	11/11/2014 10:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015			
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	11/13/2014 05:20 PM
Surr: Toluene-d8	111		50-150	%REC	1	11/13/2014 05:20 PM
MERCURY BY CVAA			SW7471			
Mercury	ND		0.015	mg/Kg-dry	1	11/17/2014 11:01 PM
METALS ANALYSIS BY ICP			SW846 6010C			
Arsenic	3.1		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Barium	230		0.35	mg/Kg-dry	1	11/17/2014 07:48 PM
Cadmium	ND		0.28	mg/Kg-dry	1	11/17/2014 07:48 PM
Chromium	5.8		0.35	mg/Kg-dry	1	11/17/2014 07:48 PM
Copper	7.8		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Lead	11		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Nickel	6.6		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Selenium	ND		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Silver	ND		0.71	mg/Kg-dry	2	11/18/2014 02:14 PM
Zinc	37		0.71	mg/Kg-dry	1	11/17/2014 07:48 PM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Calcium	55		5.0	mg/L	10	11/17/2014 09:30 PM
Magnesium	67		2.0	mg/L	10	11/17/2014 09:30 PM
Sodium	2,200		2.0	mg/L	10	11/17/2014 09:30 PM
SODIUM ADSORPTION RATIO			USDA H60 METHOD		Prep: USDA Method 20B / 11/17/14	Analyst: JEC
Sodium Adsorption Ratio	47		0.010	none	1	11/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3541 / 11/11/14	Analyst: RS
Acenaphthene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Acenaphthylene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Benzo(a)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Benzo(a)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Benzo(b)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Benzo(g,h,i)perylene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Benzo(k)fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Chrysene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 19-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursula Lundgren Pit Closure - Exc Conf. 11.6.14
Sample ID: Eastern Side @ 2ft
Collection Date: 11/6/2014 01:15 PM

Work Order: 1411399
Lab ID: 1411399-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Fluoranthene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Fluorene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Naphthalene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Pyrene	ND		7.1	µg/Kg-dry	1	11/12/2014 01:35 AM
Surr: 2-Fluorobiphenyl	76.7		12-100	%REC	1	11/12/2014 01:35 AM
Surr: 4-Terphenyl-d14	88.7		25-137	%REC	1	11/12/2014 01:35 AM
Surr: Nitrobenzene-d5	79.6		37-107	%REC	1	11/12/2014 01:35 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 11/10/14	Analyst: BG	
Benzene	ND		33	µg/Kg-dry	1	11/12/2014 07:25 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	11/12/2014 07:25 AM
m,p-Xylene	ND		65	µg/Kg-dry	1	11/12/2014 07:25 AM
o-Xylene	ND		33	µg/Kg-dry	1	11/12/2014 07:25 AM
Toluene	ND		33	µg/Kg-dry	1	11/12/2014 07:25 AM
Xylenes, Total	ND		98	µg/Kg-dry	1	11/12/2014 07:25 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	11/12/2014 07:25 AM
Surr: 4-Bromofluorobenzene	98.0		70-130	%REC	1	11/12/2014 07:25 AM
Surr: Dibromofluoromethane	96.8		70-130	%REC	1	11/12/2014 07:25 AM
Surr: Toluene-d8	94.2		70-130	%REC	1	11/12/2014 07:25 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 11/17/14	Analyst: JB	
Electrical Conductivity @ Saturation	13		0.050	mmhos/cm @25	10	11/18/2014 02:40 PM
CHROMIUM, TRIVALENT			CALCULATION		Analyst: MB	
Chromium, Trivalent	5.8		0.54	mg/Kg-dry	1	11/18/2014 06:30 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 11/17/14	Analyst: MB	
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	11/18/2014 03:30 PM
MOISTURE			A2540 G		Analyst: EVB	
Moisture	7.9		0.050	% of sample	1	11/12/2014 09:05 AM
PH			SW9045D	Prep: EXTRACT / 11/17/14	Analyst: STP	
pH	9.1	H		s.u.	1	11/17/2014 02:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1411399

Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

Batch ID: **64878**Instrument ID **GC8**Method: **SW8015M**

MBLK		Sample ID: DBLKS1-64878-64878				Units: mg/Kg		Analysis Date: 11/11/2014 05:12 PM		
Client ID:		Run ID: GC8_141111A		SeqNo: 3031296		Prep Date: 11/11/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.371	0	2		0	68.5	39-133	0		

LCS		Sample ID: DLCSS1-64878-64878				Units: mg/Kg		Analysis Date: 11/11/2014 05:39 PM		
Client ID:		Run ID: GC8_141111A		SeqNo: 3031297		Prep Date: 11/11/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	177.7	5.0	200		0	88.8	61-109	0		
Surr: 4-Terphenyl-d14	1.19	0	2		0	59.5	39-133	0		

MS		Sample ID: 1411105-01A MS				Units: mg/Kg		Analysis Date: 11/12/2014 12:05 PM		
Client ID:		Run ID: GC8_141111A		SeqNo: 3031317		Prep Date: 11/11/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1091	40	319.9	702.7	121	48-110		0		S
Surr: 4-Terphenyl-d14	1.622	0	3.199		0	50.7	39-133	0		

MSD		Sample ID: 1411105-01A MSD				Units: mg/Kg		Analysis Date: 11/12/2014 12:32 PM		
Client ID:		Run ID: GC8_141111A		SeqNo: 3031318		Prep Date: 11/11/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	974	40	320.5	702.7	84.7	48-110		1091	11.4	30
Surr: 4-Terphenyl-d14	4.224	0	3.205		0	132	39-133	1.622	89	30
The following samples were analyzed in this batch:		1411399-01A		1411399-02A		1411399-03A				R
		1411399-04A		1411399-05A						

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64865** Instrument ID **GC9** Method: **SW8015**

MBLK	Sample ID: MBLK-64865-64865				Units: µg/Kg		Analysis Date: 11/11/2014 06:29 PM			
Client ID:	Run ID: GC9_141111A				SeqNo: 3030162		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
Surr: Toluene-d8	6024	0	5000	0	120	50-150	0	0		
LCS	Sample ID: LCS-64865-64865				Units: µg/Kg		Analysis Date: 11/11/2014 05:13 PM			
Client ID:	Run ID: GC9_141111A				SeqNo: 3030159		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	510900	2,500	500000	0	102	70-130	0	0		
Surr: Toluene-d8	5472	0	5000	0	109	50-150	0	0		
MS	Sample ID: 1411311-12A MS				Units: µg/Kg		Analysis Date: 11/12/2014 04:59 AM			
Client ID:	Run ID: GC9_141111A				SeqNo: 3030183		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515700	2,500	500000	0	103	70-130	0	0		
Surr: Toluene-d8	5608	0	5000	0	112	50-150	0	0		
MSD	Sample ID: 1411311-12A MSD				Units: µg/Kg		Analysis Date: 11/12/2014 05:24 AM			
Client ID:	Run ID: GC9_141111A				SeqNo: 3030184		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	498400	2,500	500000	0	99.7	70-130	515700	3.41	30	
Surr: Toluene-d8	5650	0	5000	0	113	50-150	5608	0.728	30	

The following samples were analyzed in this batch:

1411399-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64897** Instrument ID **GC9** Method: **SW8015**

MLBK	Sample ID: MLBK-64897-64897				Units: µg/Kg		Analysis Date: 11/11/2014 06:04 PM		
Client ID:	Run ID: GC9_141111A				SeqNo: 3030161		Prep Date: 11/11/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
GRO (C6-C10)		ND	2,500						
<i>Surr: Toluene-d8</i>		6191	0	5000	0	124	50-150	0	
LCS	Sample ID: LCS-64897-64897				Units: µg/Kg		Analysis Date: 11/11/2014 05:39 PM		
Client ID:	Run ID: GC9_141111A				SeqNo: 3030160		Prep Date: 11/11/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
GRO (C6-C10)		489400	2,500	500000	0	97.9	70-130	0	
<i>Surr: Toluene-d8</i>		5722	0	5000	0	114	50-150	0	
MS	Sample ID: 1411499-07A MS				Units: µg/Kg		Analysis Date: 11/12/2014 05:49 AM		
Client ID:	Run ID: GC9_141111A				SeqNo: 3030185		Prep Date: 11/11/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
GRO (C6-C10)		380800	2,500	500000	0	76.2	70-130	0	
<i>Surr: Toluene-d8</i>		4347	0	5000	0	86.9	50-150	0	
MSD	Sample ID: 1411499-07A MSD				Units: µg/Kg		Analysis Date: 11/12/2014 06:14 AM		
Client ID:	Run ID: GC9_141111A				SeqNo: 3030186		Prep Date: 11/11/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
GRO (C6-C10)		366000	2,500	500000	0	73.2	70-130	380800	3.97 30
<i>Surr: Toluene-d8</i>		3939	0	5000	0	78.8	50-150	4347	9.85 30

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65115** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-65115-65115			Units: mg/Kg		Analysis Date: 11/17/2014 10:47 PM				
Client ID:		Run ID: HG1_141117A			SeqNo: 3039188		Prep Date: 11/17/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		ND		0.020							
LCS		Sample ID: LCS-65115-65115			Units: mg/Kg		Analysis Date: 11/17/2014 10:50 PM				
Client ID:		Run ID: HG1_141117A			SeqNo: 3039189		Prep Date: 11/17/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.1688	0.020	0.1665	0	101	80-120	0			
MS		Sample ID: 1411573-11BMS			Units: mg/Kg		Analysis Date: 11/17/2014 11:25 PM				
Client ID:		Run ID: HG1_141117A			SeqNo: 3039206		Prep Date: 11/17/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.1197	0.012	0.1041	0.005879	109	75-125	0			
MSD		Sample ID: 1411573-11BMSD			Units: mg/Kg		Analysis Date: 11/17/2014 11:27 PM				
Client ID:		Run ID: HG1_141117A			SeqNo: 3039207		Prep Date: 11/17/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury		0.1136	0.012	0.1041	0.005879	104	75-125	0.1197	5.22	35	

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65050** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 1411585-01CDUP			Units: mg/L		Analysis Date: 11/17/2014 09:42 PM			
Client ID:		Run ID: ICP2_141117A			SeqNo: 3038918		Prep Date: 11/17/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	2125	5.0	0	0	0	0-0	2030	4.61		
Sodium	908.7	2.0	0	0	0	0-0	913.6	0.542		

DUP		Sample ID: 1411585-01CDUP			Units: mg/L		Analysis Date: 11/18/2014 12:03 PM			
Client ID:		Run ID: ICP2_141118A			SeqNo: 3040142		Prep Date: 11/17/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	1.065	2.0	0	0	0	0-0	1.661	0		J

DUP		Sample ID: 1411585-01CDUP			Units: none		Analysis Date: 11/18/2014			
Client ID:		Run ID: SAR_141118A			SeqNo: 3040222		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.425	0.010	0	0	0		5.581	2.82	50	

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65118** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK	Sample ID: MBLK-65118-65118			Units: mg/Kg		Analysis Date: 11/17/2014 07:14 PM			
Client ID:	Run ID: ICP2_141117A			SeqNo: 3038806		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Arsenic	ND	0.25							
Barium	ND	0.25							
Cadmium	ND	0.50							
Chromium	ND	0.25							
Copper	ND	0.50							
Lead	ND	0.25							
Nickel	ND	0.25							
Selenium	ND	0.50							
Silver	ND	0.25							
Zinc	ND	0.50							

MBLK	Sample ID: MBLK-65118-65118			Units: mg/Kg		Analysis Date: 11/18/2014 10:35 AM			
Client ID:	Run ID: ICP2_141118A			SeqNo: 3039660		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Arsenic	ND	0.25							
Barium	ND	0.25							
Cadmium	ND	0.50							
Chromium	ND	0.25							
Copper	ND	0.50							
Lead	ND	0.25							
Nickel	ND	0.25							
Selenium	ND	0.50							
Silver	ND	0.25							
Zinc	ND	0.50							

LCS	Sample ID: LCS-65118-65118			Units: mg/Kg		Analysis Date: 11/17/2014 07:20 PM			
Client ID:	Run ID: ICP2_141117A			SeqNo: 3038807		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Arsenic	5.231	0.25	5	0	105	80-120	0		
Barium	4.989	0.25	5	0	99.8	80-120	0		
Cadmium	4.837	0.50	5	0	96.7	80-120	0		
Chromium	5.333	0.25	5	0	107	80-120	0		
Copper	5.538	0.50	5	0	111	80-120	0		
Lead	5.226	0.25	5	0	105	80-120	0		
Nickel	5.313	0.25	5	0	106	80-120	0		
Selenium	5.015	0.50	5	0	100	80-120	0		
Silver	5.529	0.25	5	0	111	80-120	0		
Zinc	5.255	0.50	5	0	105	80-120	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65118** Instrument ID **ICP2** Method: **SW846 6010C**

LCS	Sample ID: LCS-65118-65118			Units: mg/Kg			Analysis Date: 11/18/2014 10:41 AM			
Client ID:	Run ID: ICP2_141118A			SeqNo: 3039662			Prep Date: 11/17/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.643	0.25	5	0	92.9	80-120		0		
Barium	4.539	0.25	5	0	90.8	80-120		0		
Cadmium	4.561	0.50	5	0	91.2	80-120		0		
Chromium	4.847	0.25	5	0	96.9	80-120		0		
Copper	4.882	0.50	5	0	97.6	80-120		0		
Lead	4.74	0.25	5	0	94.8	80-120		0		
Nickel	4.929	0.25	5	0	98.6	80-120		0		
Selenium	4.722	0.50	5	0	94.4	80-120		0		
Silver	4.749	0.25	5	0	95	80-120		0		
Zinc	4.79	0.50	5	0	95.8	80-120		0		

MS	Sample ID: 1411399-05AMS			Units: mg/Kg			Analysis Date: 11/17/2014 07:53 PM			
Client ID: Eastern Side @ 2ft	Run ID: ICP2_141117A			SeqNo: 3038813			Prep Date: 11/17/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	140.3	0.33	6.57	213.7	-1120	75-125		0		SO
Cadmium	6.611	0.66	6.57	0.03896	100	75-125		0		
Zinc	41.26	0.66	6.57	34.27	106	75-125		0		O

MS	Sample ID: 1411399-05AMS			Units: mg/Kg			Analysis Date: 11/18/2014 02:20 PM			
Client ID: Eastern Side @ 2ft	Run ID: ICP2_141118A			SeqNo: 3040781			Prep Date: 11/17/2014			DF: 2
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	6.666	0.66	6.57	2.866	57.8	75-125		0		S
Copper	12.9	1.3	6.57	7.175	87.1	75-125		0		
Lead	16.52	0.66	6.57	10.32	94.4	75-125		0		
Nickel	11.41	0.66	6.57	6.053	81.5	75-125		0		
Selenium	6.121	1.3	6.57	0.2863	88.8	75-125		0		
Silver	6.807	0.66	6.57	0.05337	103	75-125		0		

MSD	Sample ID: 1411399-05AMSD			Units: mg/Kg			Analysis Date: 11/17/2014 07:59 PM			
Client ID: Eastern Side @ 2ft	Run ID: ICP2_141117A			SeqNo: 3038814			Prep Date: 11/17/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	194.2	0.33	6.536	213.7	-300	75-125	140.3	32.2	20	SRO
Cadmium	6.541	0.65	6.536	0.03896	99.5	75-125	6.611	1.08	20	
Zinc	43.33	0.65	6.536	34.27	139	75-125	41.26	4.88	20	SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65118** Instrument ID **ICP2** Method: **SW846 6010C**

MSD				Sample ID: 1411399-05AMSD			Units: mg/Kg		Analysis Date: 11/18/2014 02:25 PM		
Client ID: Eastern Side @ 2ft		Run ID: ICP2_141118A		SeqNo: 3040782		Prep Date: 11/17/2014		DF: 2			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	6.849	0.65	6.536	2.866	60.9	75-125	6.666	2.7	20	S	
Copper	13.58	1.3	6.536	7.175	98	75-125	12.9	5.18	20		
Lead	16.49	0.65	6.536	10.32	94.5	75-125	16.52	0.155	20		
Nickel	11.47	0.65	6.536	6.053	82.9	75-125	11.41	0.546	20		
Selenium	6.066	1.3	6.536	0.2863	88.4	75-125	6.121	0.912	20		
Silver	6.871	0.65	6.536	0.05337	104	75-125	6.807	0.937	20		

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64877** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-64877-64877			Units: µg/Kg		Analysis Date: 11/11/2014 05:13 PM			
Client ID:		Run ID: SVMS5_141111A			SeqNo: 3030887		Prep Date: 11/11/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1217	0	1667	0	73	12-100		0		
<i>Surr: 4-Terphenyl-d14</i>	1632	0	1667	0	97.9	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	1209	0	1667	0	72.5	37-107		0		

LCS		Sample ID: SLCSS1-64877-64877			Units: µg/Kg		Analysis Date: 11/11/2014 05:37 PM			
Client ID:		Run ID: SVMS5_141111A			SeqNo: 3030890		Prep Date: 11/11/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	596	6.7	666.7	0	89.4	45-110		0		
Acenaphthylene	602	6.7	666.7	0	90.3	45-105		0		
Anthracene	681.7	6.7	666.7	0	102	55-105		0		
Benzo(a)anthracene	684.3	6.7	666.7	0	103	50-110		0		
Benzo(a)pyrene	709	6.7	666.7	0	106	50-110		0		
Benzo(b)fluoranthene	731.7	6.7	666.7	0	110	45-115		0		
Benzo(g,h,i)perylene	717.3	6.7	666.7	0	108	40-125		0		
Benzo(k)fluoranthene	725	6.7	666.7	0	109	45-115		0		
Chrysene	713.3	6.7	666.7	0	107	55-110		0		
Dibenzo(a,h)anthracene	736.7	6.7	666.7	0	110	40-125		0		
Fluoranthene	719.7	6.7	666.7	0	108	55-115		0		
Fluorene	623	6.7	666.7	0	93.4	50-110		0		
Indeno(1,2,3-cd)pyrene	729	6.7	666.7	0	109	40-120		0		
Naphthalene	569.3	6.7	666.7	0	85.4	40-105		0		
Pyrene	699.3	6.7	666.7	0	105	45-125		0		
<i>Surr: 2-Fluorobiphenyl</i>	1235	0	1667	0	74.1	12-100		0		
<i>Surr: 4-Terphenyl-d14</i>	1603	0	1667	0	96.2	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	1261	0	1667	0	75.7	37-107		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64877** Instrument ID **SVMS5** Method: **SW846 8270D**

MS	Sample ID: 1411435-01B MS				Units: µg/Kg		Analysis Date: 11/11/2014 08:32 PM			
Client ID:	Run ID: SVMS5_141111A			SeqNo: 3030894		Prep Date: 11/11/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1109	13	1256	0	88.3	45-110		0		
Acenaphthylene	1152	13	1256	0	91.7	45-105		0		
Anthracene	1278	13	1256	0	102	55-105		0		
Benzo(a)anthracene	1283	13	1256	0	102	50-110		0		
Benzo(a)pyrene	1312	13	1256	0	104	50-110		0		
Benzo(b)fluoranthene	1397	13	1256	0	111	45-115		0		
Benzo(g,h,i)perylene	1280	13	1256	0	102	40-125		0		
Benzo(k)fluoranthene	1410	13	1256	0	112	45-115		0		
Chrysene	1276	13	1256	0	102	55-110		0		
Dibenzo(a,h)anthracene	1223	13	1256	0	97.4	40-125		0		
Fluoranthene	1329	13	1256	0	106	55-115		0		
Fluorene	1181	13	1256	0	94	50-110		0		
Indeno(1,2,3-cd)pyrene	1299	13	1256	0	103	40-120		0		
Naphthalene	1044	13	1256	0	83.1	40-105		0		
Pyrene	1300	13	1256	0	103	45-125		0		
<i>Surr: 2-Fluorobiphenyl</i>	2292	0	3140	0	73	12-100		0		
<i>Surr: 4-Terphenyl-d14</i>	2832	0	3140	0	90.2	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	2352	0	3140	0	74.9	37-107		0		

MSD	Sample ID: 1411435-01B MSD				Units: µg/Kg		Analysis Date: 11/11/2014 08:55 PM			
Client ID:	Run ID: SVMS5_141111A			SeqNo: 3030896		Prep Date: 11/11/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1168	13	1272	0	91.8	45-110	1109	5.2	30	
Acenaphthylene	1210	13	1272	0	95.1	45-105	1152	4.95	30	
Anthracene	1349	13	1272	0	106	55-105	1278	5.4	30	S
Benzo(a)anthracene	1347	13	1272	0	106	50-110	1283	4.91	30	
Benzo(a)pyrene	1398	13	1272	0	110	50-110	1312	6.34	30	
Benzo(b)fluoranthene	1540	13	1272	0	121	45-115	1397	9.73	30	S
Benzo(g,h,i)perylene	1319	13	1272	0	104	40-125	1280	3.01	30	
Benzo(k)fluoranthene	1494	13	1272	0	117	45-115	1410	5.74	30	S
Chrysene	1357	13	1272	0	107	55-110	1276	6.15	30	
Dibenzo(a,h)anthracene	1293	13	1272	0	102	40-125	1223	5.53	30	
Fluoranthene	1404	13	1272	0	110	55-115	1329	5.51	30	
Fluorene	1267	13	1272	0	99.6	50-110	1181	7.04	30	
Indeno(1,2,3-cd)pyrene	1361	13	1272	0	107	40-120	1299	4.63	30	
Naphthalene	1108	13	1272	0	87.1	40-105	1044	5.96	30	
Pyrene	1376	13	1272	0	108	45-125	1300	5.7	30	
<i>Surr: 2-Fluorobiphenyl</i>	2423	0	3180	0	76.2	12-100	2292	5.57	40	
<i>Surr: 4-Terphenyl-d14</i>	3022	0	3180	0	95.1	25-137	2832	6.5	40	
<i>Surr: Nitrobenzene-d5</i>	2539	0	3180	0	79.9	37-107	2352	7.67	40	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64877** Instrument ID **SVMS5** Method: **SW846 8270D**

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 11 of 19

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64837** Instrument ID **VMS8** Method: **SW8260B**

MBLK		Sample ID: MBLK-64837-64837			Units: µg/Kg		Analysis Date: 11/10/2014 01:04 PM			
Client ID:		Run ID: VMS8_141110A			SeqNo: 3027230		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	941	0	1000	0	94.1	70-130		0		
Surr: 4-Bromofluorobenzene	948	0	1000	0	94.8	70-130		0		
Surr: Dibromofluoromethane	982	0	1000	0	98.2	70-130		0		
Surr: Toluene-d8	957.5	0	1000	0	95.8	70-130		0		

LCS		Sample ID: LCS-64837-64837			Units: µg/Kg		Analysis Date: 11/10/2014 10:37 AM			
Client ID:		Run ID: VMS8_141110A			SeqNo: 3027225		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	963	30	1000	0	96.3	75-125		0		
Ethylbenzene	1016	30	1000	0	102	75-125		0		
m,p-Xylene	2006	60	2000	0	100	80-125		0		
o-Xylene	988	30	1000	0	98.8	75-125		0		
Toluene	1012	30	1000	0	101	70-125		0		
Xylenes, Total	2994	90	3000	0	99.8	75-125		0		
Surr: 1,2-Dichloroethane-d4	932	0	1000	0	93.2	70-130		0		
Surr: 4-Bromofluorobenzene	948.5	0	1000	0	94.8	70-130		0		
Surr: Dibromofluoromethane	989.5	0	1000	0	99	70-130		0		
Surr: Toluene-d8	976.5	0	1000	0	97.6	70-130		0		

MS		Sample ID: 1411428-07A MS			Units: µg/Kg		Analysis Date: 11/11/2014 11:24 AM			
Client ID:		Run ID: VMS7_141110B			SeqNo: 3028891		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1084	30	1000	0	108	75-125		0		
Ethylbenzene	1010	30	1000	11	99.9	75-125		0		
m,p-Xylene	2031	60	2000	0	102	80-125		0		
o-Xylene	1001	30	1000	0	100	75-125		0		
Toluene	1008	30	1000	0	101	70-125		0		
Xylenes, Total	3032	90	3000	0	101	75-125		0		
Surr: 1,2-Dichloroethane-d4	899	0	1000	0	89.9	70-130		0		
Surr: 4-Bromofluorobenzene	1022	0	1000	0	102	70-130		0		
Surr: Dibromofluoromethane	967	0	1000	0	96.7	70-130		0		
Surr: Toluene-d8	922	0	1000	0	92.2	70-130		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64837** Instrument ID **VMS8** Method: **SW8260B**

MSD	Sample ID: 1411428-07A MSD				Units: µg/Kg			Analysis Date: 11/11/2014 11:49 AM		
Client ID:	Run ID: VMS7_141110B				SeqNo: 3028892		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1070	30	1000	0	107	75-125	1084	1.3	30	
Ethylbenzene	1013	30	1000	11	100	75-125	1010	0.297	30	
m,p-Xylene	2032	60	2000	0	102	80-125	2031	0.0246	30	
o-Xylene	1011	30	1000	0	101	75-125	1001	0.994	30	
Toluene	998	30	1000	0	99.8	70-125	1008	1.05	30	
Xylenes, Total	3042	90	3000	0	101	75-125	3032	0.346	30	
Surr: 1,2-Dichloroethane-d4	906.5	0	1000	0	90.6	70-130	899	0.831	30	
Surr: 4-Bromofluorobenzene	1023	0	1000	0	102	70-130	1022	0.0978	30	
Surr: Dibromofluoromethane	962.5	0	1000	0	96.2	70-130	967	0.466	30	
Surr: Toluene-d8	929.5	0	1000	0	93	70-130	922	0.81	30	

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64849** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-64849-64849			Units: µg/Kg		Analysis Date: 11/10/2014 01:36 PM			
Client ID:		Run ID: VMS6_141110A			SeqNo: 3028736		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	992	0	1000	0	99.2	70-130				0
Surr: 4-Bromofluorobenzene	923	0	1000	0	92.3	70-130				0
Surr: Dibromofluoromethane	932	0	1000	0	93.2	70-130				0
Surr: Toluene-d8	955.5	0	1000	0	95.6	70-130				0

LCS		Sample ID: LCS-64849-64849			Units: µg/Kg		Analysis Date: 11/10/2014 11:52 AM			
Client ID:		Run ID: VMS6_141110A			SeqNo: 3028734		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1134	30	1000	0	113	75-125				0
Ethylbenzene	1118	30	1000	0	112	75-125				0
m,p-Xylene	2173	60	2000	0	109	80-125				0
o-Xylene	1066	30	1000	0	107	75-125				0
Toluene	1084	30	1000	0	108	70-125				0
Xylenes, Total	3238	90	3000	0	108	75-125				0
Surr: 1,2-Dichloroethane-d4	1028	0	1000	0	103	70-130				0
Surr: 4-Bromofluorobenzene	998	0	1000	0	99.8	70-130				0
Surr: Dibromofluoromethane	1048	0	1000	0	105	70-130				0
Surr: Toluene-d8	961.5	0	1000	0	96.2	70-130				0

MS		Sample ID: 1411311-12A MS			Units: µg/Kg		Analysis Date: 11/11/2014 07:58 PM			
Client ID:		Run ID: VMS8_141111A			SeqNo: 3029922		Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	953	30	1000	0	95.3	75-125				0
Ethylbenzene	998	30	1000	0	99.8	75-125				0
m,p-Xylene	1976	60	2000	0	98.8	80-125				0
o-Xylene	959.5	30	1000	0	96	75-125				0
Toluene	973	30	1000	0	97.3	70-125				0
Xylenes, Total	2935	90	3000	0	97.8	75-125				0
Surr: 1,2-Dichloroethane-d4	963.5	0	1000	0	96.4	70-130				0
Surr: 4-Bromofluorobenzene	996	0	1000	0	99.6	70-130				0
Surr: Dibromofluoromethane	984.5	0	1000	0	98.4	70-130				0
Surr: Toluene-d8	964	0	1000	0	96.4	70-130				0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **64849** Instrument ID **VMS6** Method: **SW8260B**

MSD	Sample ID: 1411311-12A MSD			Units: µg/Kg			Analysis Date: 11/11/2014 08:23 PM			
Client ID:	Run ID: VMS8_141111A			SeqNo: 3029929			Prep Date: 11/10/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	928.5	30	1000	0	92.8	75-125	953	2.6	30	
Ethylbenzene	986.5	30	1000	0	98.6	75-125	998	1.16	30	
m,p-Xylene	1958	60	2000	0	97.9	80-125	1976	0.864	30	
o-Xylene	960.5	30	1000	0	96	75-125	959.5	0.104	30	
Toluene	968.5	30	1000	0	96.8	70-125	973	0.464	30	
Xylenes, Total	2919	90	3000	0	97.3	75-125	2935	0.547	30	
Surr: 1,2-Dichloroethane-d4	969.5	0	1000	0	97	70-130	963.5	0.621	30	
Surr: 4-Bromofluorobenzene	977	0	1000	0	97.7	70-130	996	1.93	30	
Surr: Dibromofluoromethane	997.5	0	1000	0	99.8	70-130	984.5	1.31	30	
Surr: Toluene-d8	975	0	1000	0	97.5	70-130	964	1.13	30	

The following samples were analyzed in this batch: | 1411399-05A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65050** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP	Sample ID: 1411585-01C DUP			Units: mmhos/cm @25°C		Analysis Date: 11/18/2014 02:40 PM			
Client ID:	Run ID: WETCHEM_141118H			SeqNo: 3040498		Prep Date: 11/17/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD Limit	Qual
Electrical Conductivity @ Saturation	18.1	0.050	0	0	0		17.76	1.9	50

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC Page: 16 of 19

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65124** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-R152634-65124			Units: s.u.		Analysis Date: 11/17/2014 02:00 PM			
Client ID:		Run ID: WETCHEM_141117F			SeqNo: 3038352		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.97	0	4	0	99.2	90-110		0		
DUP	Sample ID: 1411399-01A DUP			Units: s.u.		Analysis Date: 11/17/2014 02:00 PM				
Client ID:	Center Bottom - Eastern Side @ 10ft		Run ID: WETCHEM_141117F		SeqNo: 3038354		Prep Date: 11/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.85	0	0	0	0	0-0	9.04	2.12	20	H
DUP	Sample ID: 1411770-01B DUP			Units: s.u.		Analysis Date: 11/17/2014 02:00 PM				
Client ID:	Run ID: WETCHEM_141117F		SeqNo: 3038366		Prep Date: 11/17/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.68	0	0	0	0	0-0	7.86	2.32	20	

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **65195** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-65195-65195			Units: mg/Kg			Analysis Date: 11/18/2014 03:30 PM		
Client ID:	Run ID: WETCHEM_141118P			SeqNo: 3041099			Prep Date: 11/17/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Chromium, Hexavalent		ND	0.50						
LCS	Sample ID: LCS-65195-65195			Units: mg/Kg			Analysis Date: 11/18/2014 03:30 PM		
Client ID:	Run ID: WETCHEM_141118P			SeqNo: 3041098			Prep Date: 11/17/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Chromium, Hexavalent		1.672	0.50	2	0	83.6	80-120	0	
MS	Sample ID: 1411399-01A MS			Units: mg/Kg			Analysis Date: 11/18/2014 03:30 PM		
Client ID: Center Bottom - Eastern Side @ 10ft	Run ID: WETCHEM_141118P			SeqNo: 3041086			Prep Date: 11/17/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Chromium, Hexavalent		1.564	0.51	2.058	0.166	67.9	75-125	0	S
MS	Sample ID: 1411399-01A MSI			Units: mg/Kg			Analysis Date: 11/18/2014 03:30 PM		
Client ID: Center Bottom - Eastern Side @ 10ft	Run ID: WETCHEM_141118P			SeqNo: 3041088			Prep Date: 11/17/2014		DF: 100
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Chromium, Hexavalent		778.5	51	925	0.166	84.1	75-125	0	
MSD	Sample ID: 1411399-01A MSD			Units: mg/Kg			Analysis Date: 11/18/2014 03:30 PM		
Client ID: Center Bottom - Eastern Side @ 10ft	Run ID: WETCHEM_141118P			SeqNo: 3041087			Prep Date: 11/17/2014		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Chromium, Hexavalent		1.624	0.52	2.066	0.166	70.6	75-125	1.564	3.78 20 S

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411399
Project: Ursa Lundgren Pit Closure - Exc Conf. 11.6.14

QC BATCH REPORT

Batch ID: **R152458** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R152458			Units: % of sample		Analysis Date: 11/12/2014 09:05 AM			
Client ID:		Run ID: MOIST_141112C			SeqNo: 3033947		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		ND		0.050						
LCS		Sample ID: LCS-R152458			Units: % of sample		Analysis Date: 11/12/2014 09:05 AM			
Client ID:		Run ID: MOIST_141112C			SeqNo: 3033946		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		100	0.050	100	0	100	99.5-100.5	0		
DUP		Sample ID: 1411392-40A DUP			Units: % of sample		Analysis Date: 11/12/2014 09:05 AM			
Client ID:		Run ID: MOIST_141112C			SeqNo: 3033926		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		14.96	0.050	0	0	0	0-0	14.65	2.09	20
DUP		Sample ID: 1411392-50A DUP			Units: % of sample		Analysis Date: 11/12/2014 09:05 AM			
Client ID:		Run ID: MOIST_141112C			SeqNo: 3033936		Prep Date:		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual	
Moisture		10.38	0.050	0	0	0	0-0	11.12	6.88	20

The following samples were analyzed in this batch:

1411399-01A	1411399-02A	1411399-03A
1411399-04A	1411399-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

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Chain-of-Custody

Form 202s

WORKORDER #	1411399
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PROJECT NAME		SAMPLER	Kris Rowe			DATE		11/6/2014		PAGE	1 of 1			
PROJECT No.		SITE ID	Lundgren Pit			TURNAROUND		Standard		DISPOSAL	By Lab or Return to Client			
		EDD FORMAT												
		PURCHASE ORDER												
COMPANY NAME		HRL COMPLIANCE SOLUTIONS Inc.		BILL TO COMPANY	HRL									
SEND REPORT TO		Kris Rowe		INVOICE ATTN TO										
ADDRESS		2385 F 1/2 RD		ADDRESS										
CITY / STATE / ZIP		GRAND JUNCTION CO 81505		CITY / STATE / ZIP										
PHONE		970-243-3271		PHONE										
FAX		970-243-3280		FAX										
E-MAIL		krowe@hrlcomp.com		E-MAIL										
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO	BTEX	910-1 Metals	Semi Vols - PAH	SAR/ECIPH	
1	Center Bottom - Eastern Side @ 10ft -	S	11/6/2014	12:10	1	1,8		X	X	X	X	X	X	
2	Center Bottom - Western Side @ 10ft	S	11/6/2014	12:00	1	1,8		X	X	X	X	X	X	
3	Northeast Corner @ 2ft	S	11/6/2014	12:30	1	1,8		X	X	X	X	X	X	
4	Southwest Corner @ 1ft	S	11/6/2014	13:00	1	1,8		X	X	X	X	X	X	
5	Eastern Side @ 2ft	S	11/6/2014	13:15	1	1,8		X	X	X	X	X	X	

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: See Below ↓

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

Analyze DRO/GRO/BTEX first. If they are below COGCC Table 910-1 standards, finish the remaining analysis. If they exceed, do not run the remaining analysis on the sample.

Call Kris Rowe 970-261-2015 with questions

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
Kris Rowe		Kris Rowe	11/6/2014	1645
MM		MM	11-6-14	1645
KM		KM	11-6-14	1647
JB		JB	11/6/14	1030
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 07-Nov-14 10:30

Work Order: 1411399

Received by: TBB

Checklist completed by <u>Diane Shaw</u> eSignature	07-Nov-14 Date	Reviewed by: <u>Ann Preston</u> eSignature	10-Nov-14 Date
--	-------------------	---	-------------------

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.2 c</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/7/2014 4:27:06 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-8070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue
Holland, MI 49424

Origin ID: HLMA



Ship Date: 08NOV14
A/R Wgt: 62.0 LB
C/A/C: 2264840/NET3550

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code

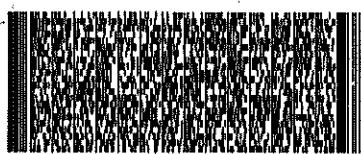


Ref # 1186143
Invoice #
PO #
Dept # Parachute

SHIP TO: (616) 399-8070
sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

BILL SENDER



2 of 2 FRI - 07 NOV 10:30A
Priority Overnight

Serial 77177436 6987

Metril 77177436 7056

68 HLMA

49424
MI-US
GRR



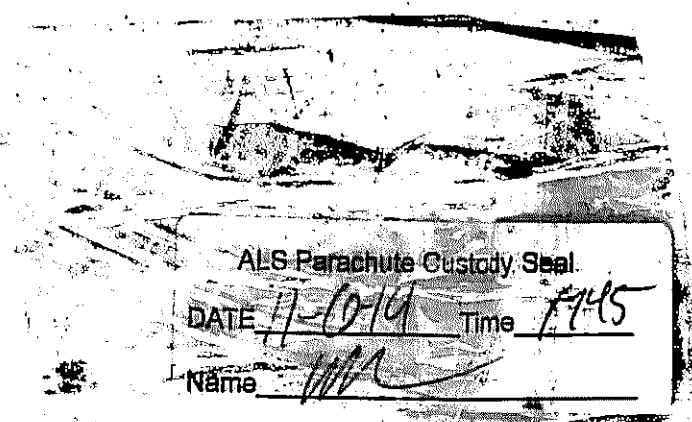
EXCLUSIVELY

After printing this label:

1. Use the Print button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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20-Nov-2014

Kris Rowe
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Ursa Lundgren Pit Exc Conf. 11.18.14**

Work Order: **1411948**

Dear Kris,

ALS Environmental received 2 samples on 19-Nov-2014 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 12.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Exc Conf. 11.18.14
Work Order: **1411948**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1411948-01	Southwest Corner Exc (SP6) @ 2ft	Soil		11/18/2014 13:30	11/19/2014 10:00	<input type="checkbox"/>
1411948-02	South Center Exc (SP4) @ 2ft	Soil		11/18/2014 14:00	11/19/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Exc Conf. 11.18.14
WorkOrder: 1411948

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: 20-Nov-14

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Exc Conf. 11.18.14
Sample ID: Southwest Corner Exc (SP6) @ 2ft
Collection Date: 11/18/2014 01:30 PM

Work Order: 1411948
Lab ID: 1411948-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	11	4.3	mg/Kg-dry	1	Prep: SW3541 / 11/19/14	Analyst: IT
Surr: 4-Terphenyl-d14	54.6	39-133	%REC	1	11/19/2014 08:20 PM	11/19/2014 08:20 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND	2.6	mg/Kg-dry	1	Prep: SW5035 / 11/19/14	Analyst: IT
Surr: Toluene-d8	103	50-150	%REC	1	11/19/2014 04:09 PM	11/19/2014 04:09 PM
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND	31	µg/Kg-dry	1	Prep: SW5035 / 11/19/14	Analyst: BG
Ethylbenzene	ND	31	µg/Kg-dry	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
m,p-Xylene	ND	63	µg/Kg-dry	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
o-Xylene	ND	31	µg/Kg-dry	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Toluene	ND	31	µg/Kg-dry	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Xylenes, Total	ND	94	µg/Kg-dry	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Surr: 1,2-Dichloroethane-d4	97.4	70-130	%REC	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Surr: 4-Bromofluorobenzene	99.6	70-130	%REC	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Surr: Dibromofluoromethane	90.6	70-130	%REC	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
Surr: Toluene-d8	94.8	70-130	%REC	1	11/19/2014 02:27 PM	11/19/2014 02:27 PM
MOISTURE						
Moisture	4.4	A2540 G 0.050	% of sample	1	Analyst: EVB	11/19/2014 12:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc
Project: Ursa Lundgren Pit Exc Conf. 11.18.14
Sample ID: South Center Exc (SP4) @ 2ft
Collection Date: 11/18/2014 02:00 PM

Work Order: 1411948
Lab ID: 1411948-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M			
DRO (C10-C28)	14		4.4	mg/Kg-dry	1	11/19/2014 08:48 PM
Surr: 4-Terphenyl-d14	56.9		39-133	%REC	1	11/19/2014 08:48 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015			
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	11/19/2014 04:35 PM
Surr: Toluene-d8	115		50-150	%REC	1	11/19/2014 04:35 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			
Benzene	ND		32	µg/Kg-dry	1	11/19/2014 02:52 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	11/19/2014 02:52 PM
m,p-Xylene	ND		64	µg/Kg-dry	1	11/19/2014 02:52 PM
o-Xylene	ND		32	µg/Kg-dry	1	11/19/2014 02:52 PM
Toluene	ND		32	µg/Kg-dry	1	11/19/2014 02:52 PM
Xylenes, Total	ND		96	µg/Kg-dry	1	11/19/2014 02:52 PM
Surr: 1,2-Dichloroethane-d4	97.9		70-130	%REC	1	11/19/2014 02:52 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	11/19/2014 02:52 PM
Surr: Dibromofluoromethane	90.8		70-130	%REC	1	11/19/2014 02:52 PM
Surr: Toluene-d8	97.4		70-130	%REC	1	11/19/2014 02:52 PM
MOISTURE			A2540 G			
Moisture	6.2		0.050	% of sample	1	Analyst: EVB 11/19/2014 12:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc

Work Order: 1411948

Project: Ursa Lundgren Pit Exc Conf. 11.18.14

QC BATCH REPORTBatch ID: **65206**Instrument ID **GC8**Method: **SW8015M**

MBLK		Sample ID: DBLKS1-65206-65206				Units: mg/Kg		Analysis Date: 11/19/2014 05:06 PM		
Client ID:		Run ID: GC8_141119A			SeqNo: 3044505		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	1.216	0	2		0	60.8	39-133	0		
LCS		Sample ID: DLCSS1-65206-65206				Units: mg/Kg		Analysis Date: 11/19/2014 05:34 PM		
Client ID:		Run ID: GC8_141119A			SeqNo: 3044506		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	148.6	5.0	200		0	74.3	61-109	0		
<i>Surr: 4-Terphenyl-d14</i>	1.055	0	2		0	52.7	39-133	0		
MS		Sample ID: 1411786-06C MS				Units: mg/Kg		Analysis Date: 11/19/2014 06:02 PM		
Client ID:		Run ID: GC8_141119A			SeqNo: 3044508		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	220.2	7.8	313.9		18.15	64.4	48-110	0		
<i>Surr: 4-Terphenyl-d14</i>	1.753	0	3.139		0	55.9	39-133	0		
MSD		Sample ID: 1411786-06C MSD				Units: mg/Kg		Analysis Date: 11/19/2014 06:29 PM		
Client ID:		Run ID: GC8_141119A			SeqNo: 3044509		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	242.8	8.1	325.3		18.15	69	48-110	220.2	9.76	30
<i>Surr: 4-Terphenyl-d14</i>	2.013	0	3.253		0	61.9	39-133	1.753	13.8	30

The following samples were analyzed in this batch:

1411948-01A

1411948-02A

Client: HRL Compliance Solutions, Inc
Work Order: 1411948
Project: Ursa Lundgren Pit Exc Conf. 11.18.14

QC BATCH REPORT

Batch ID: **65209** Instrument ID **GC9** Method: **SW8015**

MLBK		Sample ID: MLBK-65209-65209			Units: µg/Kg		Analysis Date: 11/19/2014 03:44 PM			
Client ID:		Run ID: GC9_141119A			SeqNo: 3043901		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	6342	0	5000	0	127	50-150	0			

LCS		Sample ID: LCS-65209-65209			Units: µg/Kg		Analysis Date: 11/19/2014 02:53 PM			
Client ID:		Run ID: GC9_141119A			SeqNo: 3043900		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	588000	2,500	500000	0	118	70-130	0			
<i>Surr: Toluene-d8</i>	5017	0	5000	0	100	50-150	0			

MS		Sample ID: 1411948-01A MS			Units: µg/Kg		Analysis Date: 11/20/2014 01:06 AM			
Client ID: Southwest Corner Exc (SP6) @ 2ft		Run ID: GC9_141119A			SeqNo: 3044417		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	537300	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	4587	0	5000	0	91.7	50-150	0			

MSD		Sample ID: 1411948-01A MSD			Units: µg/Kg		Analysis Date: 11/20/2014 01:31 AM			
Client ID: Southwest Corner Exc (SP6) @ 2ft		Run ID: GC9_141119A			SeqNo: 3044418		Prep Date: 11/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	512200	2,500	500000	0	102	70-130	537300	4.78	30	
<i>Surr: Toluene-d8</i>	4618	0	5000	0	92.4	50-150	4587	0.684	30	

The following samples were analyzed in this batch: | 1411948-01A | 1411948-02A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411948
Project: Ursa Lundgren Pit Exc Conf. 11.18.14

QC BATCH REPORT

Batch ID: **65208** Instrument ID **VMS8** Method: **SW8260B**

MS	Sample ID: 1411958-01A MS			Units: µg/Kg			Analysis Date: 11/19/2014 09:40 PM			
Client ID:	Run ID: VMS8_141119A			SeqNo: 3045000			Prep Date: 11/19/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	976	30	1000	0	97.6	75-125		0		
Ethylbenzene	979.5	30	1000	0	98	75-125		0		
m,p-Xylene	1963	60	2000	0	98.2	80-125		0		
o-Xylene	963	30	1000	0	96.3	75-125		0		
Toluene	967.5	30	1000	0	96.8	70-125		0		
Xylenes, Total	2926	90	3000	0	97.5	75-125		0		
<i>Surr: 1,2-Dichloroethane-d4</i>	1006	0	1000	0	101	70-130		0		
<i>Surr: 4-Bromofluorobenzene</i>	1015	0	1000	0	102	70-130		0		
<i>Surr: Dibromofluoromethane</i>	997.5	0	1000	0	99.8	70-130		0		
<i>Surr: Toluene-d8</i>	974	0	1000	0	97.4	70-130		0		

MSD	Sample ID: 1411958-01A MSD			Units: µg/Kg			Analysis Date: 11/19/2014 10:04 PM			
Client ID:	Run ID: VMS8_141119A			SeqNo: 3045001			Prep Date: 11/19/2014			DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	984	30	1000	0	98.4	75-125	976	0.816	30	
Ethylbenzene	994.5	30	1000	0	99.4	75-125	979.5	1.52	30	
m,p-Xylene	1972	60	2000	0	98.6	80-125	1963	0.483	30	
o-Xylene	985	30	1000	0	98.5	75-125	963	2.26	30	
Toluene	960.5	30	1000	0	96	70-125	967.5	0.726	30	
Xylenes, Total	2958	90	3000	0	98.6	75-125	2926	1.07	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	1011	0	1000	0	101	70-130	1006	0.496	30	
<i>Surr: 4-Bromofluorobenzene</i>	996	0	1000	0	99.6	70-130	1015	1.89	30	
<i>Surr: Dibromofluoromethane</i>	990	0	1000	0	99	70-130	997.5	0.755	30	
<i>Surr: Toluene-d8</i>	965.5	0	1000	0	96.6	70-130	974	0.877	30	

The following samples were analyzed in this batch:

1411948-01A 1411948-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1411948
Project: Ursa Lundgren Pit Exc Conf. 11.18.14

QC BATCH REPORT

Batch ID: **R152853** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R152853			Units: % of sample		Analysis Date: 11/19/2014 12:30 PM		
Client ID:		Run ID: MOIST_141119E			SeqNo: 3043832		Prep Date:		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Moisture		ND		0.050					
LCS		Sample ID: LCS-R152853			Units: % of sample		Analysis Date: 11/19/2014 12:30 PM		
Client ID:		Run ID: MOIST_141119E			SeqNo: 3043831		Prep Date:		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Moisture		100	0.050	100	0	100	99.5-100.5	0	
DUP		Sample ID: 1411948-01A DUP			Units: % of sample		Analysis Date: 11/19/2014 12:30 PM		
Client ID: Southwest Corner Exc (SP6) @ 2ft		Run ID: MOIST_141119E			SeqNo: 3043829		Prep Date:		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Moisture		4.94	0.050	0	0	0	0-0	4.45	10.4 20

The following samples were analyzed in this batch:

1411948-01A 1411948-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 19-Nov-14 10:00

Work Order: 1411948

Received by: DS

Checklist completed by <u>Diane Shaw</u> eSignature	19-Nov-14 Date	Reviewed by: <u>Ann Preston</u> eSignature	19-Nov-14 Date
--	-------------------	---	-------------------

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.0 c</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/19/2014 11:18:51 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (816) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RLA



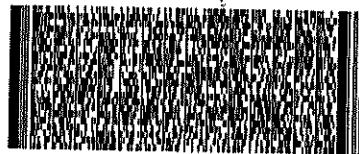
Ship Date: 18NOV14
 Asz/Wgt: 50.0 LB
 CAD: 22B4840/NET3550

Dims: 24 X 15 X 15 IN

SHIP TO: (616) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE

BILL SENDER

HOLLAND, MI 49424



Delivery Address Bar Code

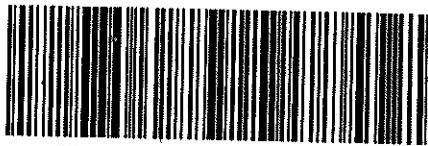
Ref # 111814-1
 Invoice #
 PO # Parachute
 Dept #

2 of 5

MPN# 7719 0841 8250
 0283
 Mstr# 7719 0841 8456

WED - 19 NOV 10:30A
PRIORITY OVERNIGHT

49424
 MI-US
 GRR



522G1816C8A/C9

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
 Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income, interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Parachute Custody Seal
 DATE 11-18 Time 1740
 Name J.M.C.

Appendix 4: Background Raw Analytical Results



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-1 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:30

ESC Sample # : L722057-16

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	7.7		su	9045D	09/23/14	1
Sodium Adsorption Ratio	0.62			Calc.	09/19/14	1
Specific Conductance	160		umhos/cm	9050AMod	09/24/14	1
Arsenic	5.8	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/25/14 09:26 Printed: 09/25/14 09:27
L722057-16 (PH) - 7.7@21.3c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-2 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:35

ESC Sample # : L722057-17

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	8.4	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/25/14 09:26 Printed: 09/25/14 09:27



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 25, 2014

Kris Rowe
HRL Compliance Solutions- CO
2385 F ? Road
Grand Junction, CO 81505

Date Received : September 17, 2014
Description : Ursa - Lundgren Pit Closure Sampling
Sample ID : BKGD-3 0-6IN
Collected By : Kris Rowe
Collection Date : 09/16/14 12:40

ESC Sample # : L722057-18

Site ID : LUNDGREN PIT

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Arsenic	4.4	2.0	mg/kg	6010B	09/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/25/14 09:26 Printed: 09/25/14 09:27

Appendix 5: ECDC Environmental Disposal Approval



Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile # 40411417976	Expiration Date 10/15/2015	
I. Decision Request:	<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Recertification <input type="checkbox"/> Change		
Disposal Facility: 4041 - ECDC Environmental L/F			
Generator Name: URSA OPERATING CO, LLC			
Generator Site Address: 792 BUCKHORN DR			
City: RIFLE	County: _____	State: CO	Zip: _____
Name of Waste: SOIL IMPACTED WITH PRODUCTION FLUID			
Estimated Annual Volume: 400 Cubic Yards			

II. Special Waste Department Decision: Approved Rejected

Management Method(s): Landfill Solidification Bioremediation Transfer Facility

Problematic Special Waste according to Republic? Yes No

If yes, which one? _____

Approved by Special Waste Review Committee? Yes No Not Applicable

Precautions, Conditions or Limitations on Approval

The waste described on this Waste Profile Sheet must meet the requirements of 40 CFR 261.4(b)(5) - Oil and Natural Gas Exemption.

Special Waste Analyst Signature: _____

Date: 10/16/2014

Name (Printed): Terry Staley

III. Facility Decision:

Approved Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: _____
Date: 10/16/2014

Name (Printed): _____

Appendix 6: Downgradient Water Well Raw Analytical Data



18-Dec-2013

Mark Mumby
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **URSA Lundgren Monitoring Well 12.5.13**

Work Order: **1312430**

Dear Mark,

ALS Environmental received 2 samples on 09-Dec-2013 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 17.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: HRL Compliance Solutions
Project: URSA Lundgren Monitoring Well 12.5.13
Work Order: 1312430

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1312430-01	Downgradient Monitoring Well #1	Water		12/5/2013 13:30	12/9/2013 09:30	<input type="checkbox"/>
1312430-02	Trip Blank	Water		12/5/2013	12/9/2013 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions
Project: URSA Lundgren Monitoring Well 12.5.13
Work Order: 1312430

Case Narrative

Batch R132049 sample 1312430-01 for pH was received after the holding time had expired. It was analyzed at the request of the client. Results should be considered estimated.

Client: HRL Compliance Solutions
Project: URSA Lundgren Monitoring Well 12.5.13
WorkOrder: 1312430

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group USA, Corp
Date: 18-Dec-13

Client: HRL Compliance Solutions
Project: URSA Lundgren Monitoring Well 12.5.13 **Work Order:** 1312430
Sample ID: Downgradient Monitoring Well #1 **Lab ID:** 1312430-01
Collection Date: 12/5/2013 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	ND		0.10	mg/L	1	12/11/2013 08:45 PM
Surr: 4-Terphenyl-d14	55.4		21-90	%REC	1	12/11/2013 08:45 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		0.20	mg/L	1	12/11/2013 11:03 PM
Surr: Toluene-d8	104		70-130	%REC	1	12/11/2013 11:03 PM
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND		1.0	µg/L	1	12/12/2013 08:06 AM
Ethylbenzene	ND		1.0	µg/L	1	12/12/2013 08:06 AM
m,p-Xylene	ND		2.0	µg/L	1	12/12/2013 08:06 AM
o-Xylene	ND		1.0	µg/L	1	12/12/2013 08:06 AM
Toluene	ND		1.0	µg/L	1	12/12/2013 08:06 AM
Xylenes, Total	ND		3.0	µg/L	1	12/12/2013 08:06 AM
Surr: 1,2-Dichloroethane-d4	108		70-120	%REC	1	12/12/2013 08:06 AM
Surr: 4-Bromofluorobenzene	90.8		75-120	%REC	1	12/12/2013 08:06 AM
Surr: Dibromofluoromethane	99.6		85-115	%REC	1	12/12/2013 08:06 AM
Surr: Toluene-d8	93.8		85-120	%REC	1	12/12/2013 08:06 AM
ANIONS BY ION CHROMATOGRAPHY						
Chloride	310		100	mg/L	100	12/16/2013 10:42 AM
Sulfate	1,400		100	mg/L	100	12/16/2013 10:42 AM
PH						
pH (laboratory)	8.12	H		s.u.	1	12/9/2013 11:00 AM
SULFIDE						
Sulfide	ND		1.0	mg/L	1	12/12/2013 08:45 AM
TOTAL DISSOLVED SOLIDS						
Total Dissolved Solids	2,400		A2540 C-97		Prep Date: 12/10/2013	Analyst: YM
			10	mg/L	1	12/10/2013 10:50 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions
Project: URSA Lundgren Monitoring Well 12.5.13 **Work Order:** 1312430
Sample ID: Trip Blank **Lab ID:** 1312430-02
Collection Date: 12/5/2013 **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND		1.0	µg/L	1	12/12/2013 01:14 AM
Ethylbenzene	ND		1.0	µg/L	1	12/12/2013 01:14 AM
m,p-Xylene	ND		2.0	µg/L	1	12/12/2013 01:14 AM
o-Xylene	ND		1.0	µg/L	1	12/12/2013 01:14 AM
Toluene	ND		1.0	µg/L	1	12/12/2013 01:14 AM
Xylenes, Total	ND		3.0	µg/L	1	12/12/2013 01:14 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	99.1		70-120	%REC	1	12/12/2013 01:14 AM
<i>Surr: 4-Bromofluorobenzene</i>	97.1		75-120	%REC	1	12/12/2013 01:14 AM
<i>Surr: Dibromofluoromethane</i>	96.1		85-115	%REC	1	12/12/2013 01:14 AM
<i>Surr: Toluene-d8</i>	96.2		85-120	%REC	1	12/12/2013 01:14 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions

Work Order: 1312430

Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORTBatch ID: **54047**Instrument ID **GC8**Method: **SW8015M**

MBLK Sample ID: DBLKW1-54047-54047			Units: mg/L			Analysis Date: 12/11/2013 06:45 PM				
Client ID:		Run ID: GC8_131211B		SeqNo: 2576105		Prep Date: 12/11/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
<i>Surr: 4-Terphenyl-d14</i>	0.07945	0	0.1143		0	69.5	21-90	0		

LCS Sample ID: DLCSW1-54047-54047			Units: mg/L			Analysis Date: 12/11/2013 07:15 PM				
Client ID:		Run ID: GC8_131211B		SeqNo: 2576106		Prep Date: 12/11/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	9.012	0.10	11.43		0	78.9	44-116	0		
<i>Surr: 4-Terphenyl-d14</i>	0.07831	0	0.1143		0	68.5	21-90	0		

MS Sample ID: 1312430-01B MS			Units: mg/L			Analysis Date: 12/11/2013 07:45 PM				
Client ID: Downgradient Monitoring Well #1		Run ID: GC8_131211B		SeqNo: 2576107		Prep Date: 12/11/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	32.56	0.35	40		0	81.4	44-116	0		
<i>Surr: 4-Terphenyl-d14</i>	0.27	0	0.4		0	67.5	21-90	0		

MSD Sample ID: 1312430-01B MSD			Units: mg/L			Analysis Date: 12/11/2013 08:15 PM				
Client ID: Downgradient Monitoring Well #1		Run ID: GC8_131211B		SeqNo: 2576108		Prep Date: 12/11/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	28.27	0.35	40		0	70.7	44-116	32.56	14.1	30
<i>Surr: 4-Terphenyl-d14</i>	0.2729	0	0.4		0	68.2	21-90	0.27	1.06	30

The following samples were analyzed in this batch: **1312430-01B**

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132315** Instrument ID **GC10** Method: **SW8015**

MBLK	Sample ID: GBLKW1-131211-R132315				Units: µg/L			Analysis Date: 12/11/2013 09:28 PM		
Client ID:	Run ID: GC10_131211B				SeqNo: 2576479		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	104.6	0	100	0	105	70-130		0		
LCS	Sample ID: GLCSW1-131211-R132315				Units: µg/L			Analysis Date: 12/11/2013 09:05 PM		
Client ID:	Run ID: GC10_131211B				SeqNo: 2576478		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9779	200	10000	0	97.8	70-130		0		
Surr: Toluene-d8	108.1	0	100	0	108	70-130		0		
MS	Sample ID: 1312473-01A MS				Units: µg/L			Analysis Date: 12/12/2013 02:34 AM		
Client ID:	Run ID: GC10_131211B				SeqNo: 2576485		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	17960	200	10000	8841	91.2	70-130		0		
Surr: Toluene-d8	107.3	0	100	0	107	70-130		0		
MSD	Sample ID: 1312473-01A MSD				Units: µg/L			Analysis Date: 12/12/2013 02:58 AM		
Client ID:	Run ID: GC10_131211B				SeqNo: 2576486		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	17580	200	10000	8841	87.4	70-130	17960	2.11	30	
Surr: Toluene-d8	106.4	0	100	0	106	70-130	107.3	0.795	30	

The following samples were analyzed in this batch:

1312430-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132258A** Instrument ID **VMS9** Method: **SW8260**

MBLK		Sample ID: VBLKW2-131211-R132258A			Units: µg/L		Analysis Date: 12/12/2013 12:49 PM			
Client ID:		Run ID: VMS9_131211B			SeqNo: 2575770		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	20.32	0	20	0	102	70-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.39	0	20	0	97	75-120	0			
<i>Surr: Dibromofluoromethane</i>	19.55	0	20	0	97.8	85-115	0			
<i>Surr: Toluene-d8</i>	19.23	0	20	0	96.2	85-120	0			

LCS		Sample ID: VLCSW3-131211-R132258A			Units: µg/L		Analysis Date: 12/11/2013 11:37 PM			
Client ID:		Run ID: VMS9_131211B			SeqNo: 2575757		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.15	1.0	20	0	106	80-120	0			
Ethylbenzene	21.89	1.0	20	0	109	75-125	0			
m,p-Xylene	43.45	2.0	40	0	109	75-130	0			
o-Xylene	22.59	1.0	20	0	113	80-120	0			
Toluene	21.3	1.0	20	0	106	75-120	0			
Xylenes, Total	66.04	3.0	60	0	110	75-130	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	19.61	0	20	0	98	70-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	20.71	0	20	0	104	75-120	0			
<i>Surr: Dibromofluoromethane</i>	19.47	0	20	0	97.4	85-115	0			
<i>Surr: Toluene-d8</i>	19.5	0	20	0	97.5	85-120	0			

MS		Sample ID: 1312430-01A MS			Units: µg/L		Analysis Date: 12/12/2013 09:18 AM			
Client ID: Downdgradient Monitoring Well #1		Run ID: VMS9_131211B			SeqNo: 2575768		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.52	1.0	20	0	108	80-120	0			
Ethylbenzene	22.02	1.0	20	0	110	75-125	0			
m,p-Xylene	42.8	2.0	40	0	107	75-130	0			
o-Xylene	22.07	1.0	20	0	110	80-120	0			
Toluene	20.84	1.0	20	0	104	75-120	0			
Xylenes, Total	64.87	3.0	60	0	108	75-130	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	20.34	0	20	0	102	70-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	20.67	0	20	0	103	75-120	0			
<i>Surr: Dibromofluoromethane</i>	19.6	0	20	0	98	85-115	0			
<i>Surr: Toluene-d8</i>	19.52	0	20	0	97.6	85-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132258A** Instrument ID **VMS9** Method: **SW8260**

MSD Sample ID: 1312430-01A MSD				Units: µg/L			Analysis Date: 12/12/2013 09:42 AM			
Client ID: Downgradient Monitoring Well #1		Run ID: VMS9_131211B		SeqNo: 2575769		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.13	1.0	20	0	101	80-120	21.52	6.67	30	
Ethylbenzene	20.17	1.0	20	0	101	75-125	22.02	8.77	30	
m,p-Xylene	40.13	2.0	40	0	100	75-130	42.8	6.44	30	
o-Xylene	20.57	1.0	20	0	103	80-120	22.07	7.04	30	
Toluene	19.68	1.0	20	0	98.4	75-120	20.84	5.73	30	
Xylenes, Total	60.7	3.0	60	0	101	75-130	64.87	6.64	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	19.92	0	20	0	99.6	70-120	20.34	2.09	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.38	0	20	0	102	75-120	20.67	1.41	30	
<i>Surr: Dibromofluoromethane</i>	19.63	0	20	0	98.2	85-115	19.6	0.153	30	
<i>Surr: Toluene-d8</i>	19.55	0	20	0	97.8	85-120	19.52	0.154	30	

The following samples were analyzed in this batch: | 1312430-01A 1312430-02A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **54024** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-54024-54024			Units: mg/L		Analysis Date: 12/10/2013 10:50 AM				
Client ID:		Run ID: TDS_131210A			SeqNo: 2573659		Prep Date: 12/10/2013		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids		ND		10							
LCS		Sample ID: LCS-54024-54024			Units: mg/L		Analysis Date: 12/10/2013 10:50 AM				
Client ID:		Run ID: TDS_131210A			SeqNo: 2573658		Prep Date: 12/10/2013		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids		464	10	495	0	93.7	80-120		0		
DUP		Sample ID: 1312338-01A DUP			Units: mg/L		Analysis Date: 12/10/2013 10:50 AM				
Client ID:		Run ID: TDS_131210A			SeqNo: 2573646		Prep Date: 12/10/2013		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids		1988	10	0	0	0	0-0		1960	1.42	20
DUP		Sample ID: 1312363-01A DUP			Units: mg/L		Analysis Date: 12/10/2013 10:50 AM				
Client ID:		Run ID: TDS_131210A			SeqNo: 2573650		Prep Date: 12/10/2013		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids		429	10	0	0	0	0-0		423	1.41	20

The following samples were analyzed in this batch:

1312430-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132049** Instrument ID **WETCHEM** Method: **SW9040**

LCS		Sample ID: WLCSW1-131209-R132049			Units: s.u.			Analysis Date: 12/9/2013 11:00 AM			
Client ID:		Run ID: WETCHEM_131209Q			SeqNo: 2571535			Prep Date: 			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)		3.9	0	4	0	97.5	90-110		0		
DUP		Sample ID: 1312075-04A DUP			Units: s.u.			Analysis Date: 12/9/2013 11:00 AM			
Client ID:		Run ID: WETCHEM_131209Q			SeqNo: 2571537			Prep Date: 			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)		5.69	0	0	0	0	0-0	5.68	0.176	20	
DUP		Sample ID: 1312357-05A DUP			Units: s.u.			Analysis Date: 12/9/2013 11:00 AM			
Client ID:		Run ID: WETCHEM_131209Q			SeqNo: 2571545			Prep Date: 			
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)		12.03	0	0	0	0	0-0	12.01	0.166	20	H

The following samples were analyzed in this batch:

1312430-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132266** Instrument ID **WETCHEM** Method: **SW9030**

MBLK		Sample ID: WBLKW1-121213-R132266			Units: mg/L		Analysis Date: 12/12/2013 08:45 AM		
Client ID:		Run ID: WETCHEM_131212A			SeqNo: 2575507		Prep Date:		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Sulfide		ND		1.0					

LCS		Sample ID: WLCSW1-121213-R132266			Units: mg/L		Analysis Date: 12/12/2013 08:45 AM		
Client ID:		Run ID: WETCHEM_131212A			SeqNo: 2575508		Prep Date:		DF: 1
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Sulfide		7.92	1.0	10.75	0	73.7	60-140	0	

The following samples were analyzed in this batch:

1312430-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1312430
Project: URSA Lundgren Monitoring Well 12.5.13

QC BATCH REPORT

Batch ID: **R132513** Instrument ID **IC4** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R132513			Units: mg/L		Analysis Date: 12/16/2013 08:40 AM			
Client ID:		Run ID: IC4_131216A			SeqNo: 2582263		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.2124	1.0								J
Sulfate	ND	1.0								
LCS		Sample ID: LCS-R132513			Units: mg/L		Analysis Date: 12/16/2013 09:00 AM			
Client ID:		Run ID: IC4_131216A			SeqNo: 2582264		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.629	1.0	10	0	96.3	88-107				0
Sulfate	9.918	1.0	10	0	99.2	85-110				0
MS		Sample ID: 1312503-05A MS			Units: mg/L		Analysis Date: 12/16/2013 01:03 PM			
Client ID:		Run ID: IC4_131216A			SeqNo: 2582271		Prep Date:		DF: 40	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	628.5	40	200	416.7	106	75-125				0
Sulfate	292.5	40	200	93.6	99.4	75-125				0
MSD		Sample ID: 1312503-05A MSD			Units: mg/L		Analysis Date: 12/16/2013 01:23 PM			
Client ID:		Run ID: IC4_131216A			SeqNo: 2582272		Prep Date:		DF: 40	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	625.9	40	200	416.7	105	75-125	628.5	0.418	20	
Sulfate	288.2	40	200	93.6	97.3	75-125	292.5	1.47	20	

The following samples were analyzed in this batch:

1312430-01D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

1312430

WORKORDER #
1312427

Form 202r8

PROJECT NAME	<u>URSGa Kandgren Monitoring</u>	SAMPLER	Reed Wold			DATE	<u>12/15/13</u>			PAGE	1	of
PROJECT No.	<u>Water Well</u>	SITE ID	<u>Kandgren A</u>			TURNAROUND	<u>5 day</u>			DISPOSAL	<u>By Lab</u>	or Return to Client
COMPANY NAME	HRL Compliance	EDD FORMAT				BTEX	Chloride Diss/Gas Sulfides/Sulfates TDS PH					
SEND REPORT TO	Mark Mumby	PURCHASE ORDER										
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY										
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO										
PHONE	970-243-3271	ADDRESS										
FAX	970-243-3280	CITY / STATE / ZIP										
E-MAIL	<u>mmumby@hrlcomp.com</u> <u>rwold@hrlcomp.com</u>	PHONE										
	E-MAIL	FAX										
Lab ID	<u>Knows HRL Comp.com</u>	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC				
01	<u>Downgradient Monitoring W</u>			<u>12/15/13</u>	<u>1:30</u>	<u>10</u>	<u>1,8</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>Well #1</u>							<u>X</u>				
02	<u>Top Blank</u>											

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

5.0e W

QC PACKAGE (check below)

X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		Reed Wold	12/15/13	3:00
RELINQUISHED BY		W	12-5	3:00
RECEIVED BY		Ashley Baril	12/15/13	3:00
RELINQUISHED BY	RECEIVED BY	Ashley Baril	12/19/13	09:30

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 09-Dec-13 09:30

Work Order: 1312430

Received by: AB

Checklist completed by <u>Ashley Beard</u> eSignature	09-Dec-13 Date	Reviewed by: <u>Lee Arnold</u> eSignature	10-Dec-13 Date
--	-------------------	--	-------------------

Matrices: water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.0</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>12/9/2013 2:38:11 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
 Lab Hub, LLC
 127 E First Street
 PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 05DEC13
 AsWgt: 50.0 LB
 CAD: 103923490/NET34325

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



J1320130282325

SHIP TO: (616) 399-6070
Sample receiving
ALS Holland
3352 128TH AVE

BILL RECIPIENT

Ref # 1001-120513-3
 Invoice #
 PO #
 Dept #

HOLLAND, MI 49424

FRI - 06 DEC AA
 STANDARD OVERNIGHT

TRK# 7973 2718 9416

0201

49424
 MI-US
 GRR



51AG49051AGE

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