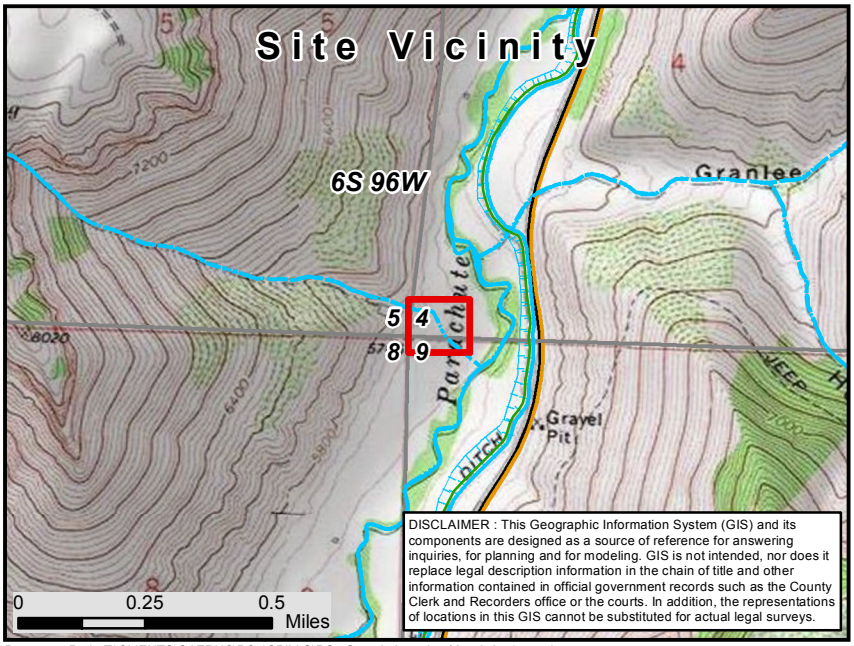
Parachute Creek 7 (Chevron 41A-8D) (Location ID 335811)
Partially Buried Vessel Removal (Non-Facility ID 435734)
COGCC Spill/Release Tracking # 2145596
Form 4 (Notice of Completion)
Narrative Attachment

This Form 4 (Notice of Completion) was prepared for the purpose of describing completed work associated with the assessment of soil during the removal of a partially buried vessel (PBV) (Non-Facility ID 435734) at the Parachute Creek 7 (Chevron 41A-8D) pad location (Location ID 335811) in the Caerus Piceance, LLC (Caerus) area of operations. This assessment was conducted using procedures approved under COGCC Remediation #8164. A sample Location map is included as an attachment to this form.

Upon removing the PBV from the ground, visual observations and field screening of soil around and below the tank indicated that impacted soil was present. All impacted soil was removed and disposed of at ECDC Landfill in East Carbon, Utah.

On July 11, 2013, confirmation soil samples were collected from the soil around and beneath the removed PBV (North Wall, 6', South Wall, 6', East Wall, 6', West Wall, 6', and Excavation Footprint, 10'). Soil samples were submitted for laboratory analysis of all COGCC Table 910-1 analytes, except for sodium adsorption ration (SAR) and electrical conductivity (EC). However, these confirmation samples were collected at a depth greater than three feet below the ground surface and the COGCC does not apply the Concentration Level for SAR and EC to soils deeper than three feet below ground surface. Analytical results indicate all soil samples were in compliance with COGCC Table 910-1 Concentration Levels for all analytes or were within background concentrations. A background sample from a nearby pad (Chevron 41-8D, COGCC Location ID 324196) was used for comparison. Samples locations are depicted on the attached Sample Location Map and laboratory analytical results are summarized in the attached analytical table. Laboratory analytical reports are included as an attachment.

Based on removal of the PBV and soil analytical results, Caerus requests an NFA designation for this project.



DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

CAERUS OIL AND GAS LLC

Sample Location Map

Location: Parachute Creek 7

39.547093 -108.120699
T6S R96W Sec 4 L11

- Sample Point
- Caerus Pad
- Perennial Stream
- Intermittent Stream
- Ditch/Canal
- Roads
- Township & Range
- Section
- Excavated Area

N

0 50 100 Feet

HRL Compliance Solutions, Inc. Environmental Consultants

Document Path: T:\CLIENTS\CAERUS\PC7\SPILLS\PC7 Sample Location Map 3-24-15.mxd

Date: 3/24/2015 bhall

Caerus Piceance LLC
Parachute Creek 7 PBV Removal
Soil Sample Confirmation and Background Analytical Results

			Sample ID					
COGCC Table 910-1 Analytical Suite	**Table 910-1 Standard**	**Units**	**North Wall, 6'**	**South Wall, 6'**	**East Wall, 6'**	**West Wall, 6'**	**Excavation Footprint, 10'**	**BKGD 1***
Sample Date			**7/11/2013**	**7/11/2013**	**7/11/2013**	**7/11/2013**	**7/11/2013**	**7/10/2013**
Organics								
TEPH (DRO)	**500**	**mg/kg**	110	84	130	97	190	NA
TVPH (GRO)	**500**	**mg/kg**	ND	ND	ND	ND	22	NA
TPH	**500**	**mg/kg**	110	84	130	97	212	NA
BENZENE	**0.17**	**mg/kg**	ND	ND	ND	ND	ND	NA
TOLUENE	**85**	**mg/kg**	ND	ND	ND	0.045	0.060	NA
ETHYLBENZENE	**100**	**mg/kg**	ND	ND	ND	ND	ND	NA
XYLENE TOTAL	**175**	**mg/kg**	0.190	ND	ND	ND	0.300	NA
ACENAPHTHENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA
ANTHRACENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA
BENZO(A)ANTRHACENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA
BENZO(A)PYRENE	**0.022**	**mg/kg**	ND	ND	ND	ND	ND	NA
BENZO(B)FLUORANTHENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA
BENZO(K)FLUORANTHENE	**2.2**	**mg/kg**	ND	ND	ND	ND	ND	NA
CHRYSENE	**22**	**mg/kg**	ND	ND	ND	ND	ND	NA
DIBENZO(A,H)ANTHRANCENE	**0.022**	**mg/kg**	ND	ND	ND	ND	ND	NA
FLUORANTHENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA
FLUORENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA
INDENO(1,2,3-CD)PYRENE	**0.22**	**mg/kg**	ND	ND	ND	ND	ND	NA
NAPHTHALENE	**23**	**mg/kg**	ND	ND	ND	ND	ND	NA
PYRENE	**1,000**	**mg/kg**	ND	ND	ND	ND	ND	NA
Metals								
MERCURY	**23**	**mg/kg**	0.022	0.022	0.023	0.021	0.024	NA
ARSENIC	**0.39**	**mg/kg**	20	27	18	28	18	39
BARIUM	**15,000**	**mg/kg**	2,000	480	600	550	780	NA
CADMIUM	**70**	**mg/kg**	ND	0.90	ND	ND	ND	NA
CHROMIUM (III)	**120,000**	**mg/kg**	21	22	23	23	19	NA
CHROMIUM (VI)	**23**	**mg/kg**	ND	ND	ND	ND	ND	NA
COPPER	**3,100**	**mg/kg**	24	23	24	25	24	NA
LEAD	**400**	**mg/kg**	18	17	17	20	17	NA
NICKEL	**1,600**	**mg/kg**	19	18	20	20	17	NA
SELENIUM	**390**	**mg/kg**	2.1	2.7	ND	ND	ND	NA
SILVER	**390**	**mg/kg**	ND	ND	ND	ND	ND	NA
ZINC	**23,000**	**mg/kg**	66	57	66	61	63	NA
Inorganics								
Sodium Adsorption Ratio	**<12**	**unitless**	NA	NA	NA	NA	NA	NA
Electric Conductivity	**<4mmhos/cm or 2x background**	**mmhos/cm**	NA	NA	NA	NA	NA	NA
pH	**6 to 9**	**SU**	8.5	7.9	8.3	8.1	8.3	NA

Notes:

*This background sample was collected near another pad location, Chevron 41-8D (COGCC Location ID 324196)

highlight indicates reading above COGCC Table 910-1 standards

ND - non detect

NA - not analyzed

SU - standard unit

mg/kg - milligram per kilogram

mmhos/cm - millimhos per centimeter

TEPH - total petroleum hydrocarbons - Diesel range organics

TVPH - total petroleum hydrocarbons - gasoline range organics

TPH - total petroleum hydrocarbons (TEPH and TVPH combined)

COGCC - Colorado Oil and Gas Conservation Commission

17-Jul-2013

Herman Lucero
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **PDC Parachute Creek 7 13-199-3 7/11/13** Work Order: **1307449**

Dear Herman,

ALS Environmental received 5 samples on 13-Jul-2013 09:45 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 31.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 17-Jul-13

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: **1307449**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307449-01	North Wall, 6'	Soil		7/11/2013 14:35	7/13/2013 09:45	☐
1307449-02	South Wall, 6'	Soil		7/11/2013 14:32	7/13/2013 09:45	☐
1307449-03	East Wall, 6'	Soil		7/11/2013 14:40	7/13/2013 09:45	☐
1307449-04	West Wall, 6'	Soil		7/11/2013 14:30	7/13/2013 09:45	☐
1307449-05	Excavation Footprint, 10'	Soil		7/11/2013 14:20	7/13/2013 09:45	☐

ALS Group USA, Corp

Date: 17-Jul-13

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: 1307449

Case Narrative

The samples were mostly gravel. There was not enough soil to run SAR on any of the samples.

Batch 49704 MS/MSD data for Mercury is not related to this project's samples. No data requires qualification.

Batch 49715 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 49762 sample North Wall, 6" MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low.

ALS Group USA, Corp

Date: 17-Jul-13

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
WorkOrder: **1307449**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: 1307449
Sample ID: North Wall, 6'
Lab ID: 1307449-01
Collection Date: 7/11/2013 02:35 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **CW**
DRO (C10-C28)	**110**		**5.1**	**mg/Kg-dry**	1	7/16/2013 01:41 AM
Surr: 4-Terphenyl-d14	*72.9*		*39-115*	*%REC*	1	7/16/2013 01:41 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	7/16/2013 12:35 PM
Surr: Toluene-d8	*93.7*		*50-150*	*%REC*	50	7/16/2013 12:35 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/15/2013**	Analyst: **LR**
Mercury	**0.022**		**0.014**	**mg/Kg-dry**	1	7/15/2013 07:08 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/15/2013**	Analyst: **RH**
Arsenic	**20**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Barium	**2,000**		**21**	**mg/Kg-dry**	50	7/16/2013 01:31 PM
Cadmium	ND		0.84	mg/Kg-dry	5	7/16/2013 01:46 AM
Chromium	**21**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Copper	**24**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Lead	**18**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Nickel	**19**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Selenium	**2.1**	J	**2.1**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
Silver	ND		2.1	mg/Kg-dry	5	7/16/2013 01:46 AM
Zinc	**66**		**4.2**	**mg/Kg-dry**	5	7/16/2013 01:46 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Acenaphthylene	ND		37	µg/Kg-dry	1	7/16/2013 02:01 PM
Anthracene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Benzo(a)anthracene	ND		21	µg/Kg-dry	1	7/16/2013 02:01 PM
Benzo(a)pyrene	ND		21	µg/Kg-dry	1	7/16/2013 02:01 PM
Benzo(b)fluoranthene	ND		22	µg/Kg-dry	1	7/16/2013 02:01 PM
Benzo(g,h,i)perylene	ND		34	µg/Kg-dry	1	7/16/2013 02:01 PM
Benzo(k)fluoranthene	ND		22	µg/Kg-dry	1	7/16/2013 02:01 PM
Chrysene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Dibenzo(a,h)anthracene	ND		22	µg/Kg-dry	1	7/16/2013 02:01 PM
Fluoranthene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Fluorene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Indeno(1,2,3-cd)pyrene	ND		25	µg/Kg-dry	1	7/16/2013 02:01 PM
Naphthalene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Pyrene	ND		18	µg/Kg-dry	1	7/16/2013 02:01 PM
Surr: 2-Fluorobiphenyl	*0*		*12-100*	*%REC*	1	7/16/2013 02:01 PM
Surr: 4-Terphenyl-d14	*0*		*25-137*	*%REC*	1	7/16/2013 02:01 PM
Surr: Nitrobenzene-d5	*0*		*37-107*	*%REC*	1	7/16/2013 02:01 PM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: North Wall, 6' **Lab ID:** 1307449-01
Collection Date: 7/11/2013 02:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/15/2013**	Analyst: **AK**
Benzene	ND		38	µg/Kg-dry	1	7/15/2013 01:50 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	7/15/2013 01:50 PM
m,p-Xylene	**170**		**76**	**µg/Kg-dry**	1	7/15/2013 01:50 PM
o-Xylene	ND		38	µg/Kg-dry	1	7/15/2013 01:50 PM
Toluene	ND		38	µg/Kg-dry	1	7/15/2013 01:50 PM
Xylenes, Total	**190**		**110**	**µg/Kg-dry**	1	7/15/2013 01:50 PM
Surr: 1,2-Dichloroethane-d4	*98.8*		*70-130*	*%REC*	1	7/15/2013 01:50 PM
Surr: 4-Bromofluorobenzene	*99.5*		*70-130*	*%REC*	1	7/15/2013 01:50 PM
Surr: Dibromofluoromethane	*94.6*		*70-130*	*%REC*	1	7/15/2013 01:50 PM
Surr: Toluene-d8	*94.8*		*70-130*	*%REC*	1	7/15/2013 01:50 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**21**		**0.63**	**mg/Kg-dry**	1	7/17/2013 09:50 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/16/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.62	mg/Kg-dry	1	7/16/2013 04:00 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**21**		**0.050**	**% of sample**	1	7/15/2013 01:20 PM
PH			**SW9045D**			Analyst: **CH**
pH	**8.5**			**s.u.**	1	7/15/2013 11:20 AM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: 1307449
Sample ID: South Wall, 6'
Lab ID: 1307449-02
Collection Date: 7/11/2013 02:32 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **CW**
DRO (C10-C28)	**84**		**5.6**	**mg/Kg-dry**	1	7/16/2013 03:11 AM
Surr: 4-Terphenyl-d14	*76.5*		*39-115*	*%REC*	1	7/16/2013 03:11 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.4	mg/Kg-dry	50	7/15/2013 04:26 PM
Surr: Toluene-d8	*99.7*		*50-150*	*%REC*	50	7/15/2013 04:26 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/15/2013**	Analyst: **LR**
Mercury	**0.022**		**0.016**	**mg/Kg-dry**	1	7/15/2013 07:10 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/15/2013**	Analyst: **RH**
Arsenic	**27**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Barium	**480**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Cadmium	**0.90**		**0.84**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Chromium	**23**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Copper	**23**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Lead	**17**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Nickel	**18**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Selenium	**2.7**		**2.1**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
Silver	ND		2.1	mg/Kg-dry	5	7/16/2013 01:52 AM
Zinc	**57**		**4.2**	**mg/Kg-dry**	5	7/16/2013 01:52 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
Acenaphthene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Acenaphthylene	ND		40	µg/Kg-dry	1	7/16/2013 02:23 PM
Anthracene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Benzo(a)anthracene	ND		23	µg/Kg-dry	1	7/16/2013 02:23 PM
Benzo(a)pyrene	ND		22	µg/Kg-dry	1	7/16/2013 02:23 PM
Benzo(b)fluoranthene	ND		24	µg/Kg-dry	1	7/16/2013 02:23 PM
Benzo(g,h,i)perylene	ND		38	µg/Kg-dry	1	7/16/2013 02:23 PM
Benzo(k)fluoranthene	ND		24	µg/Kg-dry	1	7/16/2013 02:23 PM
Chrysene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Dibenzo(a,h)anthracene	ND		24	µg/Kg-dry	1	7/16/2013 02:23 PM
Fluoranthene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Fluorene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Indeno(1,2,3-cd)pyrene	ND		27	µg/Kg-dry	1	7/16/2013 02:23 PM
Naphthalene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Pyrene	ND		20	µg/Kg-dry	1	7/16/2013 02:23 PM
Surr: 2-Fluorobiphenyl	*0*		*12-100*	*%REC*	1	7/16/2013 02:23 PM
Surr: 4-Terphenyl-d14	*0*		*25-137*	*%REC*	1	7/16/2013 02:23 PM
Surr: Nitrobenzene-d5	*0*		*37-107*	*%REC*	1	7/16/2013 02:23 PM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: South Wall, 6' **Lab ID:** 1307449-02
Collection Date: 7/11/2013 02:32 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/15/2013**	Analyst: **AK**
Benzene	ND		40	µg/Kg-dry	1	7/15/2013 02:15 PM
Ethylbenzene	ND		40	µg/Kg-dry	1	7/15/2013 02:15 PM
m,p-Xylene	ND		81	µg/Kg-dry	1	7/15/2013 02:15 PM
o-Xylene	ND		40	µg/Kg-dry	1	7/15/2013 02:15 PM
Toluene	ND		40	µg/Kg-dry	1	7/15/2013 02:15 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	7/15/2013 02:15 PM
Surr: 1,2-Dichloroethane-d4	*106*		*70-130*	*%REC*	1	7/15/2013 02:15 PM
Surr: 4-Bromofluorobenzene	*106*		*70-130*	*%REC*	1	7/15/2013 02:15 PM
Surr: Dibromofluoromethane	*105*		*70-130*	*%REC*	1	7/15/2013 02:15 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	7/15/2013 02:15 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**22**		**0.67**	**mg/Kg-dry**	1	7/17/2013 09:50 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/16/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.65	mg/Kg-dry	1	7/16/2013 04:00 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**26**		**0.050**	**% of sample**	1	7/15/2013 01:20 PM
PH			**SW9045D**			Analyst: **CH**
pH	**7.9**			**s.u.**	1	7/15/2013 11:20 AM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: 1307449
Sample ID: East Wall, 6'
Lab ID: 1307449-03
Collection Date: 7/11/2013 02:40 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **CW**
DRO (C10-C28)	**130**		**5.3**	**mg/Kg-dry**	1	7/16/2013 04:41 AM
Surr: 4-Terphenyl-d14	*76.9*		*39-115*	*%REC*	1	7/16/2013 04:41 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.2	mg/Kg-dry	50	7/15/2013 04:51 PM
Surr: Toluene-d8	*98.5*		*50-150*	*%REC*	50	7/15/2013 04:51 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/15/2013**	Analyst: **LR**
Mercury	**0.023**		**0.017**	**mg/Kg-dry**	1	7/15/2013 07:12 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/15/2013**	Analyst: **RH**
Arsenic	**18**		**2.2**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
Barium	**600**		**22**	**mg/Kg-dry**	50	7/16/2013 01:36 PM
Cadmium	ND		0.86	mg/Kg-dry	5	7/16/2013 01:57 AM
Chromium	**23**		**2.2**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
Copper	**24**		**2.2**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
Lead	**17**		**2.2**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
Nickel	**20**		**2.2**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
Selenium	ND		2.2	mg/Kg-dry	5	7/16/2013 01:57 AM
Silver	ND		2.2	mg/Kg-dry	5	7/16/2013 01:57 AM
Zinc	**66**		**4.3**	**mg/Kg-dry**	5	7/16/2013 01:57 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
Acenaphthene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Acenaphthylene	ND		38	µg/Kg-dry	1	7/16/2013 02:46 PM
Anthracene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Benzo(a)anthracene	ND		22	µg/Kg-dry	1	7/16/2013 02:46 PM
Benzo(a)pyrene	ND		22	µg/Kg-dry	1	7/16/2013 02:46 PM
Benzo(b)fluoranthene	ND		23	µg/Kg-dry	1	7/16/2013 02:46 PM
Benzo(g,h,i)perylene	ND		36	µg/Kg-dry	1	7/16/2013 02:46 PM
Benzo(k)fluoranthene	ND		23	µg/Kg-dry	1	7/16/2013 02:46 PM
Chrysene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Dibenzo(a,h)anthracene	ND		23	µg/Kg-dry	1	7/16/2013 02:46 PM
Fluoranthene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Fluorene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Indeno(1,2,3-cd)pyrene	ND		26	µg/Kg-dry	1	7/16/2013 02:46 PM
Naphthalene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Pyrene	ND		19	µg/Kg-dry	1	7/16/2013 02:46 PM
Surr: 2-Fluorobiphenyl	*0*		*12-100*	*%REC*	1	7/16/2013 02:46 PM
Surr: 4-Terphenyl-d14	*0*		*25-137*	*%REC*	1	7/16/2013 02:46 PM
Surr: Nitrobenzene-d5	*0*		*37-107*	*%REC*	1	7/16/2013 02:46 PM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: East Wall, 6' **Lab ID:** 1307449-03
Collection Date: 7/11/2013 02:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/15/2013**	Analyst: **AK**
Benzene	ND		38	µg/Kg-dry	1	7/15/2013 02:39 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	7/15/2013 02:39 PM
m,p-Xylene	ND		77	µg/Kg-dry	1	7/15/2013 02:39 PM
o-Xylene	ND		38	µg/Kg-dry	1	7/15/2013 02:39 PM
Toluene	ND		38	µg/Kg-dry	1	7/15/2013 02:39 PM
Xylenes, Total	ND		120	µg/Kg-dry	1	7/15/2013 02:39 PM
Surr: 1,2-Dichloroethane-d4	*99.2*		*70-130*	*%REC*	1	7/15/2013 02:39 PM
Surr: 4-Bromofluorobenzene	*92.6*		*70-130*	*%REC*	1	7/15/2013 02:39 PM
Surr: Dibromofluoromethane	*94.0*		*70-130*	*%REC*	1	7/15/2013 02:39 PM
Surr: Toluene-d8	*90.3*		*70-130*	*%REC*	1	7/15/2013 02:39 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**23**		**0.64**	**mg/Kg-dry**	1	7/17/2013 09:50 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/16/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.63	mg/Kg-dry	1	7/16/2013 04:00 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**22**		**0.050**	**% of sample**	1	7/15/2013 01:20 PM
PH			**SW9045D**			Analyst: **CH**
pH	**8.3**			**s.u.**	1	7/15/2013 11:20 AM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13
Work Order: 1307449
Sample ID: West Wall, 6'
Lab ID: 1307449-04
Collection Date: 7/11/2013 02:30 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **CW**
DRO (C10-C28)	**97**		**4.9**	**mg/Kg-dry**	1	7/16/2013 04:11 AM
Surr: 4-Terphenyl-d14	*87.4*		*39-115*	*%REC*	1	7/16/2013 04:11 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		3.0	mg/Kg-dry	50	7/15/2013 05:16 PM
Surr: Toluene-d8	*99.5*		*50-150*	*%REC*	50	7/15/2013 05:16 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/15/2013**	Analyst: **LR**
Mercury	**0.021**		**0.015**	**mg/Kg-dry**	1	7/15/2013 07:14 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/15/2013**	Analyst: **RH**
Arsenic	**28**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Barium	**550**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Cadmium	ND		0.85	mg/Kg-dry	5	7/16/2013 02:03 AM
Chromium	**23**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Copper	**25**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Lead	**20**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Nickel	**20**		**2.1**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
Selenium	ND		2.1	mg/Kg-dry	5	7/16/2013 02:03 AM
Silver	ND		2.1	mg/Kg-dry	5	7/16/2013 02:03 AM
Zinc	**61**		**4.3**	**mg/Kg-dry**	5	7/16/2013 02:03 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
Acenaphthene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Acenaphthylene	ND		35	µg/Kg-dry	1	7/16/2013 03:08 PM
Anthracene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	7/16/2013 03:08 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	7/16/2013 03:08 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	7/16/2013 03:08 PM
Benzo(g,h,i)perylene	ND		33	µg/Kg-dry	1	7/16/2013 03:08 PM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	7/16/2013 03:08 PM
Chrysene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	7/16/2013 03:08 PM
Fluoranthene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Fluorene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	7/16/2013 03:08 PM
Naphthalene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Pyrene	ND		18	µg/Kg-dry	1	7/16/2013 03:08 PM
Surr: 2-Fluorobiphenyl	*0*		*12-100*	*%REC*	1	7/16/2013 03:08 PM
Surr: 4-Terphenyl-d14	*0*		*25-137*	*%REC*	1	7/16/2013 03:08 PM
Surr: Nitrobenzene-d5	*0*		*37-107*	*%REC*	1	7/16/2013 03:08 PM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: West Wall, 6' **Lab ID:** 1307449-04
Collection Date: 7/11/2013 02:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/15/2013**	Analyst: **AK**
Benzene	ND		36	µg/Kg-dry	1	7/15/2013 03:04 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	7/15/2013 03:04 PM
m,p-Xylene	ND		72	µg/Kg-dry	1	7/15/2013 03:04 PM
o-Xylene	ND		36	µg/Kg-dry	1	7/15/2013 03:04 PM
Toluene	**45**		**36**	**µg/Kg-dry**	1	7/15/2013 03:04 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	7/15/2013 03:04 PM
Surr: 1,2-Dichloroethane-d4	*99.1*		*70-130*	*%REC*	1	7/15/2013 03:04 PM
Surr: 4-Bromofluorobenzene	*98.6*		*70-130*	*%REC*	1	7/15/2013 03:04 PM
Surr: Dibromofluoromethane	*97.6*		*70-130*	*%REC*	1	7/15/2013 03:04 PM
Surr: Toluene-d8	*93.0*		*70-130*	*%REC*	1	7/15/2013 03:04 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**23**		**0.60**	**mg/Kg-dry**	1	7/17/2013 09:50 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/16/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	7/16/2013 04:00 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**17**		**0.050**	**% of sample**	1	7/15/2013 01:20 PM
PH			**SW9045D**			Analyst: **CH**
pH	**8.1**			**s.u.**	1	7/15/2013 11:20 AM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: Excavation Footprint, 10' **Lab ID:** 1307449-05
Collection Date: 7/11/2013 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **CW**
DRO (C10-C28)	**190**		**5.6**	**mg/Kg-dry**	1	7/16/2013 03:41 AM
Surr: 4-Terphenyl-d14	*93.8*		*39-115*	*%REC*	1	7/16/2013 03:41 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**22**		**3.4**	**mg/Kg-dry**	50	7/15/2013 05:41 PM
Surr: Toluene-d8	*97.5*		*50-150*	*%REC*	50	7/15/2013 05:41 PM
MERCURY BY CVAA			**SW7471**		Prep Date: **7/15/2013**	Analyst: **LR**
Mercury	**0.024**		**0.016**	**mg/Kg-dry**	1	7/15/2013 07:22 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/15/2013**	Analyst: **RH**
Arsenic	**18**		**2.4**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
Barium	**780**		**24**	**mg/Kg-dry**	50	7/16/2013 01:43 PM
Cadmium	ND		0.95	mg/Kg-dry	5	7/16/2013 02:09 AM
Chromium	**19**		**2.4**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
Copper	**24**		**2.4**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
Lead	**17**		**2.4**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
Nickel	**17**		**2.4**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
Selenium	ND		2.4	mg/Kg-dry	5	7/16/2013 02:09 AM
Silver	ND		2.4	mg/Kg-dry	5	7/16/2013 02:09 AM
Zinc	**63**		**4.7**	**mg/Kg-dry**	5	7/16/2013 02:09 AM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
Acenaphthene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Acenaphthylene	ND		40	µg/Kg-dry	1	7/16/2013 03:30 PM
Anthracene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Benzo(a)anthracene	ND		23	µg/Kg-dry	1	7/16/2013 03:30 PM
Benzo(a)pyrene	ND		22	µg/Kg-dry	1	7/16/2013 03:30 PM
Benzo(b)fluoranthene	ND		24	µg/Kg-dry	1	7/16/2013 03:30 PM
Benzo(g,h,i)perylene	ND		38	µg/Kg-dry	1	7/16/2013 03:30 PM
Benzo(k)fluoranthene	ND		24	µg/Kg-dry	1	7/16/2013 03:30 PM
Chrysene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Dibenzo(a,h)anthracene	ND		24	µg/Kg-dry	1	7/16/2013 03:30 PM
Fluoranthene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Fluorene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Indeno(1,2,3-cd)pyrene	ND		27	µg/Kg-dry	1	7/16/2013 03:30 PM
Naphthalene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Pyrene	ND		20	µg/Kg-dry	1	7/16/2013 03:30 PM
Surr: 2-Fluorobiphenyl	*0*		*12-100*	*%REC*	1	7/16/2013 03:30 PM
Surr: 4-Terphenyl-d14	*0*		*25-137*	*%REC*	1	7/16/2013 03:30 PM
Surr: Nitrobenzene-d5	*0*		*37-107*	*%REC*	1	7/16/2013 03:30 PM

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

ALS Group USA, Corp

Date: *17-Jul-13*

Client: HRL Compliance Solutions
Project: PDC Parachute Creek 7 13-199-3 7/11/13 **Work Order:** 1307449
Sample ID: Excavation Footprint, 10' **Lab ID:** 1307449-05
Collection Date: 7/11/2013 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**		Prep Date: **7/15/2013**	Analyst: **AK**
Benzene	ND		41	µg/Kg-dry	1	7/15/2013 03:28 PM
Ethylbenzene	ND		41	µg/Kg-dry	1	7/15/2013 03:28 PM
m,p-Xylene	**250**		**83**	**µg/Kg-dry**	1	7/15/2013 03:28 PM
o-Xylene	**56**		**41**	**µg/Kg-dry**	1	7/15/2013 03:28 PM
Toluene	**60**		**41**	**µg/Kg-dry**	1	7/15/2013 03:28 PM
Xylenes, Total	**300**		**120**	**µg/Kg-dry**	1	7/15/2013 03:28 PM
Surr: 1,2-Dichloroethane-d4	*99.6*		*70-130*	*%REC*	1	7/15/2013 03:28 PM
Surr: 4-Bromofluorobenzene	*101*		*70-130*	*%REC*	1	7/15/2013 03:28 PM
Surr: Dibromofluoromethane	*97.8*		*70-130*	*%REC*	1	7/15/2013 03:28 PM
Surr: Toluene-d8	*94.4*		*70-130*	*%REC*	1	7/15/2013 03:28 PM
CHROMIUM, TRIVALENT			**CALCULATION**			Analyst: **MB**
Chromium, Trivalent	**19**		**0.69**	**mg/Kg-dry**	1	7/17/2013 09:50 AM
CHROMIUM, HEXAVALENT			**SW7196A**		Prep Date: **7/16/2013**	Analyst: **MB**
Chromium, Hexavalent	ND		0.68	mg/Kg-dry	1	7/16/2013 04:00 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**28**		**0.050**	**% of sample**	1	7/15/2013 01:20 PM
PH			**SW9045D**			Analyst: **CH**
pH	**8.3**			**s.u.**	1	7/15/2013 11:20 AM

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

ALS Group USA, Corp

Date: 17-Jul-13

Client: HRL Compliance Solutions

QC BATCH REPORT

Work Order: 1307449

Project: PDC Parachute Creek 7 13-199-3 7/11/13

Batch ID: **49698** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKS1-49698-49698** Units: **mg/Kg** Analysis Date: **7/15/2013 04:13 PM**

Client ID: Run ID: **GC8_130715A** SeqNo: **2379370** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	*1.427*	0	*1.667*	0	*85.6*	*39-115*	0			

LCS Sample ID: **DLCSS1-49698-49698** Units: **mg/Kg** Analysis Date: **7/15/2013 04:43 PM**

Client ID: Run ID: **GC8_130715A** SeqNo: **2379371** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	140	4.2	166.7	0	84	49-124	0			
Surr: 4-Terphenyl-d14	*1.172*	0	*1.667*	0	*70.3*	*39-115*	0			

MS Sample ID: **1307301-01A MS** Units: **mg/Kg** Analysis Date: **7/15/2013 05:13 PM**

Client ID: Run ID: **GC8_130715A** SeqNo: **2379372** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	273.4	8.2	328.4	0	83.3	49-130	0			
Surr: 4-Terphenyl-d14	*2.334*	0	*3.284*	0	*71.1*	*39-115*	0			

MSD Sample ID: **1307301-01A MSD** Units: **mg/Kg** Analysis Date: **7/15/2013 05:43 PM**

Client ID: Run ID: **GC8_130715A** SeqNo: **2379373** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	274.2	8.0	318.5	0	86.1	49-130	273.4	0.27	30	
Surr: 4-Terphenyl-d14	*2.217*	0	*3.185*	0	*69.6*	*39-115*	2.334	*5.14*	*30*	

The following samples were analyzed in this batch: 1307449-01B, 1307449-02B, 1307449-03B, 1307449-04B, 1307449-05B

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **R123613** Instrument ID **GC10** Method: **SW8015**

MBLK Sample ID: **GBLK1-130715-R123613** Units: **µg/L** Analysis Date: **7/15/2013 03:12 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379226** 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	*104.4*	0	*100*	0	*104*	*70-130*	0			

LCS Sample ID: **GLCS1-130715-R123613** Units: **µg/L** Analysis Date: **7/15/2013 02:47 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379225** 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)	7204	200	10000	0	72	70-130	0			
Surr: Toluene-d8	*108.6*	0	*100*	0	*109*	*70-130*	0			

MS Sample ID: **1307451-02A MS** Units: **µg/L** Analysis Date: **7/15/2013 11:00 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379234** 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)	7536	200	10000	0	75.4	70-130	0			
Surr: Toluene-d8	*103.9*	0	*100*	0	*104*	*70-130*	0			

MSD Sample ID: **1307451-02A MSD** Units: **µg/L** Analysis Date: **7/15/2013 11:24 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379235** 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)	7382	200	10000	0	73.8	70-130	7536	2.07	30	
Surr: Toluene-d8	*106.2*	0	*100*	0	*106*	*70-130*	103.9	*2.19*	*30*	

The following samples were analyzed in this batch:

1307449-02A	1307449-03A	1307449-04A
1307449-05A		

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **R123668** Instrument ID **GC10** Method: **SW8015**

MBLK Sample ID: **GBLK1-130716-R123668** Units: **µg/L** Analysis Date: **7/16/2013 12:10 PM**
Client ID: Run ID: **GC10_130716A** SeqNo: **2380434** 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	*105.4*	0	*100*	0	*105*	*70-130*	0			

LCS Sample ID: **GLCS1-130716-R123668** Units: **µg/L** Analysis Date: **7/16/2013 11:46 AM**
Client ID: Run ID: **GC10_130716A** SeqNo: **2380433** 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)	7831	200	10000	0	78.3	70-130	0			
Surr: Toluene-d8	*110*	0	*100*	0	*110*	*70-130*	0			

MS Sample ID: **1307506-01A MS** Units: **µg/L** Analysis Date: **7/16/2013 08:54 PM**
Client ID: Run ID: **GC10_130716A** SeqNo: **2380785** 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)	8446	200	10000	0	84.5	70-130	0			
Surr: Toluene-d8	*108.5*	0	*100*	0	*108*	*70-130*	0			

MSD Sample ID: **1307506-01A MSD** Units: **µg/L** Analysis Date: **7/16/2013 09:18 PM**
Client ID: Run ID: **GC10_130716A** SeqNo: **2380786** 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)	8173	200	10000	0	81.7	70-130	8446	3.29	30	
Surr: Toluene-d8	*107.1*	0	*100*	0	*107*	*70-130*	108.5	*1.27*	*30*	

The following samples were analyzed in this batch: 1307449-01A

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49704** Instrument ID **HG1** Method: **SW7471**

MBLK Sample ID: **MBLK-49704-49704** Units: **mg/Kg** Analysis Date: **7/15/2013 06:28 PM**
Client ID: Run ID: **HG1_130715B** SeqNo: **2379132** Prep Date: **7/15/2013** 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-49704-49704** Units: **mg/Kg** Analysis Date: **7/15/2013 06:32 PM**
Client ID: Run ID: **HG1_130715B** SeqNo: **2379134** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1757	0.020	0.1665	0	106	80-120	0			

MS Sample ID: **1307476-02BMS** Units: **mg/Kg** Analysis Date: **7/15/2013 07:29 PM**
Client ID: Run ID: **HG1_130715B** SeqNo: **2379194** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1846	0.015	0.1269	0.01737	132	75-125	0			S

MSD Sample ID: **1307476-02BMSD** Units: **mg/Kg** Analysis Date: **7/15/2013 07:31 PM**
Client ID: Run ID: **HG1_130715B** SeqNo: **2379196** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1431	0.015	0.1261	0.01737	99.6	75-125	0.1846	25.3	35	

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49715** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-49715-49715** Units: **mg/Kg** Analysis Date: **7/15/2013 11:19 PM**
Client ID: Run ID: **ICPMS1_130715A** SeqNo: **2379239** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.02632	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	0.04206	0.25								J
Silver	ND	0.25								
Zinc	0.1775	0.50								J

LCS Sample ID: **LCS-49715-49715** Units: **mg/Kg** Analysis Date: **7/15/2013 11:25 PM**
Client ID: Run ID: **ICPMS1_130715A** SeqNo: **2379240** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.757	0.25	5	0	95.1	80-120	0			
Barium	5.225	0.25	5	0	104	80-120	0			
Cadmium	4.985	0.10	5	0	99.7	80-120	0			
Chromium	4.984	0.25	5	0	99.7	80-120	0			
Copper	5.265	0.25	5	0	105	80-120	0			
Lead	5.215	0.25	5	0	104	80-120	0			
Nickel	4.969	0.25	5	0	99.4	80-120	0			
Selenium	4.37	0.25	5	0	87.4	80-120	0			
Silver	4.778	0.25	5	0	95.6	80-120	0			
Zinc	4.909	0.50	5	0	98.2	80-120	0			

MS Sample ID: **1307368-01BMS** Units: **mg/Kg** Analysis Date: **7/16/2013 12:53 AM**
Client ID: Run ID: **ICPMS1_130715A** SeqNo: **2379257** Prep Date: **7/15/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.65	1.9	7.508	6.32	84.3	75-125	0			
Barium	542	1.9	7.508	596.5	-726	75-125	0			SO
Cadmium	8.604	0.75	7.508	0.743	105	75-125	0			
Chromium	17.69	1.9	7.508	11.16	86.9	75-125	0			
Copper	16.48	1.9	7.508	10.75	76.3	75-125	0			
Lead	18.09	1.9	7.508	11.16	92.4	75-125	0			
Nickel	17.4	1.9	7.508	11.48	78.8	75-125	0			
Selenium	7.297	1.9	7.508	1.28	80.2	75-125	0			
Silver	6.464	1.9	7.508	0.03684	85.6	75-125	0			
Zinc	48.39	3.8	7.508	40.5	105	75-125	0			O

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49715** Instrument ID **ICPMS1** Method: **SW6020A**

MSD Sample ID: **1307368-01BMSD** Units: **mg/Kg** Analysis Date: **7/16/2013 01:40 AM**
Client ID: Run ID: **ICPMS1_130715A** SeqNo: **2379265** Prep Date: **7/15/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	14.33	1.8	7.353	6.32	109	75-125	12.65	12.5	25	
Barium	699.3	1.8	7.353	596.5	1400	75-125	542	25.3	25	SREO
Cadmium	8.636	0.74	7.353	0.743	107	75-125	8.604	0.376	25	
Chromium	21.21	1.8	7.353	11.16	137	75-125	17.69	18.1	25	S
Copper	19.93	1.8	7.353	10.75	125	75-125	16.48	18.9	25	
Lead	21.08	1.8	7.353	11.16	135	75-125	18.09	15.3	25	S
Nickel	20.42	1.8	7.353	11.48	122	75-125	17.4	16	25	
Selenium	8.283	1.8	7.353	1.28	95.2	75-125	7.297	12.7	25	
Silver	7.11	1.8	7.353	0.03684	96.2	75-125	6.464	9.52	25	
Zinc	53.49	3.7	7.353	40.5	177	75-125	48.39	10	25	SO

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49697** Instrument ID **SVMS5** Method: **SW8270**

MBLK Sample ID: **SBLKS1-49697-49697** Units: **µg/Kg** Analysis Date: **7/16/2013 11:25 AM**
Client ID: Run ID: **SVMS5_130716A** SeqNo: **2380524** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Acenaphthylene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
Surr: 2-Fluorobiphenyl	*1366*	0	*1667*	0	*0*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1921*	0	*1667*	0	*0*	*25-137*	0			
Surr: Nitrobenzene-d5	*1410*	0	*1667*	0	*0*	*37-107*	0			

LCS Sample ID: **SLCSS1-49697-49697** Units: **µg/Kg** Analysis Date: **7/16/2013 11:47 AM**
Client ID: Run ID: **SVMS5_130716A** SeqNo: **2380525** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	565	30	666.7	0	0	45-110	0			
Acenaphthylene	514.7	30	666.7	0	0	45-105	0			
Anthracene	664	30	666.7	0	0	55-105	0			
Benzo(a)anthracene	503	30	666.7	0	0	50-110	0			
Benzo(a)pyrene	666	30	666.7	0	0	50-110	0			
Benzo(b)fluoranthene	536	30	666.7	0	0	45-115	0			
Benzo(g,h,i)perylene	628	30	666.7	0	0	40-125	0			
Benzo(k)fluoranthene	677.3	30	666.7	0	0	45-115	0			
Chrysene	690.3	30	666.7	0	0	55-110	0			
Dibenzo(a,h)anthracene	717.7	30	666.7	0	0	40-125	0			
Fluoranthene	562	30	666.7	0	0	55-115	0			
Fluorene	590	30	666.7	0	0	50-110	0			
Indeno(1,2,3-cd)pyrene	597.7	30	666.7	0	0	40-120	0			
Naphthalene	548.3	30	666.7	0	0	40-105	0			
Pyrene	698.3	30	666.7	0	0	45-125	0			
Surr: 2-Fluorobiphenyl	*1321*	0	*1667*	0	*0*	*12-100*	0			
Surr: 4-Terphenyl-d14	*1933*	0	*1667*	0	*0*	*25-137*	0			
Surr: Nitrobenzene-d5	*1390*	0	*1667*	0	*0*	*37-107*	0			

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49697** Instrument ID **SVMS5** Method: **SW8270**

MS Sample ID: **1307301-01A MS** Units: **µg/Kg** Analysis Date: **7/16/2013 12:54 PM**
Client ID: Run ID: **SVMS5_130716A** SeqNo: **2380526** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1191	60	1330	0	0	45-110	0			
Acenaphthylene	1143	60	1330	0	0	45-105	0			
Anthracene	1253	60	1330	0	0	55-105	0			
Benzo(a)anthracene	1045	60	1330	0	0	50-110	0			
Benzo(a)pyrene	1351	60	1330	0	0	50-110	0			
Benzo(b)fluoranthene	1395	60	1330	0	0	45-115	0			
Benzo(g,h,i)perylene	1289	60	1330	0	0	40-125	0			
Benzo(k)fluoranthene	1222	60	1330	0	0	45-115	0			
Chrysene	1429	60	1330	0	0	55-110	0			
Dibenzo(a,h)anthracene	1421	60	1330	0	0	40-125	0			
Fluoranthene	1155	60	1330	0	0	55-115	0			
Fluorene	1211	60	1330	0	0	50-110	0			
Indeno(1,2,3-cd)pyrene	1266	60	1330	0	0	40-120	0			
Naphthalene	1094	60	1330	0	0	40-105	0			
Pyrene	1345	60	1330	0	0	45-125	0			
Surr: 2-Fluorobiphenyl	*2807*	0	*3325*	0	*0*	*12-100*	0			
Surr: 4-Terphenyl-d14	*3714*	0	*3325*	0	*0*	*25-137*	0			
Surr: Nitrobenzene-d5	*2652*	0	*3325*	0	*0*	*37-107*	0			

MSD Sample ID: **1307301-01A MSD** Units: **µg/Kg** Analysis Date: **7/16/2013 01:16 PM**
Client ID: Run ID: **SVMS5_130716A** SeqNo: **2380527** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	996.9	59	1306	0	0	45-110	1191	0	30	
Acenaphthylene	964.9	59	1306	0	0	45-105	1143	0	30	
Anthracene	1248	59	1306	0	0	55-105	1253	0	30	
Benzo(a)anthracene	1042	59	1306	0	0	50-110	1045	0	30	
Benzo(a)pyrene	1256	59	1306	0	0	50-110	1351	0	30	
Benzo(b)fluoranthene	1183	59	1306	0	0	45-115	1395	0	30	
Benzo(g,h,i)perylene	1266	59	1306	0	0	40-125	1289	0	30	
Benzo(k)fluoranthene	1246	59	1306	0	0	45-115	1222	0	30	
Chrysene	1403	59	1306	0	0	55-110	1429	0	30	
Dibenzo(a,h)anthracene	1284	59	1306	0	0	40-125	1421	0	30	
Fluoranthene	1135	59	1306	0	0	55-115	1155	0	30	
Fluorene	1133	59	1306	0	0	50-110	1211	0	30	
Indeno(1,2,3-cd)pyrene	1172	59	1306	0	0	40-120	1266	0	30	
Naphthalene	1069	59	1306	0	0	40-105	1094	0	30	
Pyrene	1331	59	1306	0	0	45-125	1345	0	30	
Surr: 2-Fluorobiphenyl	*2482*	0	*3264*	0	*0*	*12-100*	2807	*0*	*40*	
Surr: 4-Terphenyl-d14	*3605*	0	*3264*	0	*0*	*25-137*	3714	*0*	*40*	
Surr: Nitrobenzene-d5	*2786*	0	*3264*	0	*0*	*37-107*	2652	*0*	*40*	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49697** Instrument ID **SVMS5** Method: **SW8270**

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49706** Instrument ID **VMS9** Method: **SW8260B**

MBLK Sample ID: **MBLK-49706-49706** Units: **µg/Kg** Analysis Date: **7/15/2013 01:24 PM**
Client ID: Run ID: **VMS9_130715A** SeqNo: **2379317** Prep Date: **7/15/2013** 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	*1015*	0	*1000*	0	*102*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*983.5*	0	*1000*	0	*98.4*	*70-130*	0			
Surr: Dibromofluoromethane	*992*	0	*1000*	0	*99.2*	*70-130*	0			
Surr: Toluene-d8	*1018*	0	*1000*	0	*102*	*70-130*	0			

LCS Sample ID: **LCS-49706-49706** Units: **µg/Kg** Analysis Date: **7/15/2013 12:16 PM**
Client ID: Run ID: **VMS9_130715A** SeqNo: **2379315** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1030	30	1000	0	103	75-125	0			
Ethylbenzene	1070	30	1000	0	107	75-125	0			
m,p-Xylene	1962	60	2000	0	98.1	80-125	0			
o-Xylene	1048	30	1000	0	105	75-125	0			
Toluene	1036	30	1000	0	104	70-125	0			
Xylenes, Total	3009	90	3000	0	100	75-125	0			
Surr: 1,2-Dichloroethane-d4	*963*	0	*1000*	0	*96.3*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1010*	0	*1000*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*1026*	0	*1000*	0	*103*	*70-130*	0			
Surr: Toluene-d8	*1018*	0	*1000*	0	*102*	*70-130*	0			

MS Sample ID: **1307470-02A MS** Units: **µg/Kg** Analysis Date: **7/16/2013 07:38 AM**
Client ID: Run ID: **VMS5_130715B** SeqNo: **2379802** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	917	30	1000	0	91.7	75-125	0			
Ethylbenzene	905	30	1000	0	90.5	75-125	0			
m,p-Xylene	1821	60	2000	0	91	80-125	0			
o-Xylene	907	30	1000	0	90.7	75-125	0			
Toluene	899.5	30	1000	0	90	70-125	0			
Xylenes, Total	2728	90	3000	0	90.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	*975*	0	*1000*	0	*97.5*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1032*	0	*1000*	0	*103*	*70-130*	0			
Surr: Dibromofluoromethane	*972*	0	*1000*	0	*97.2*	*70-130*	0			
Surr: Toluene-d8	*1032*	0	*1000*	0	*103*	*70-130*	0			

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49706** Instrument ID **VMS9** Method: **SW8260B**

MSD Sample ID: **1307470-02A MSD** Units: **µg/Kg** Analysis Date: **7/16/2013 08:00 AM**
Client ID: Run ID: **VMS5_130715B** SeqNo: **2379806** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	935.5	30	1000	0	93.6	75-125	917	2	30	
Ethylbenzene	922.5	30	1000	0	92.2	75-125	905	1.92	30	
m,p-Xylene	1870	60	2000	0	93.5	80-125	1821	2.63	30	
o-Xylene	945.5	30	1000	0	94.6	75-125	907	4.16	30	
Toluene	925.5	30	1000	0	92.6	70-125	899.5	2.85	30	
Xylenes, Total	2815	90	3000	0	93.8	75-125	2728	3.14	30	
Surr: 1,2-Dichloroethane-d4	*1010*	0	*1000*	0	*101*	*70-130*	975	*3.58*	*30*	
Surr: 4-Bromofluorobenzene	*1044*	0	*1000*	0	*104*	*70-130*	1032	*1.06*	*30*	
Surr: Dibromofluoromethane	*1002*	0	*1000*	0	*100*	*70-130*	972	*2.99*	*30*	
Surr: Toluene-d8	*1031*	0	*1000*	0	*103*	*70-130*	1032	*0.0969*	*30*	

The following samples were analyzed in this batch: 1307449-01A 1307449-02A 1307449-03A 1307449-04A 1307449-05A

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **49762** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK Sample ID: **MBLK-49762-49762** Units: **mg/Kg** Analysis Date: **7/16/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130716U** SeqNo: **2380604** Prep Date: **7/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49								

LCS Sample ID: **LCS-49762-49762** Units: **mg/Kg** Analysis Date: **7/16/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130716U** SeqNo: **2380603** Prep Date: **7/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.7818	0.23	0.9091	0	86	75-110	0			

MS Sample ID: **1307449-01B MS** Units: **mg/Kg** Analysis Date: **7/16/2013 04:00 PM**
Client ID: **North Wall, 6'** Run ID: **WETCHEM_130716U** SeqNo: **2380596** Prep Date: **7/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.4921	0.49	1.969	0.09091	20.4	60-130	0			S

MSD Sample ID: **1307449-01B MSD** Units: **mg/Kg** Analysis Date: **7/16/2013 04:00 PM**
Client ID: **North Wall, 6'** Run ID: **WETCHEM_130716U** SeqNo: **2380597** Prep Date: **7/16/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5929	0.49	1.976	0.09091	25.4	60-130	0.4921	18.6	30	S

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **R123592** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **WLCSS1-130715-R123592** Units: **s.u.** Analysis Date: **7/15/2013 11:20 AM**
Client ID: Run ID: **WETCHEM_130715L** SeqNo: **2378704** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.35	0	4.4	0	98.9	90-110	0			

DUP Sample ID: **1307449-01B DUP** Units: **s.u.** Analysis Date: **7/15/2013 11:20 AM**
Client ID: **North Wall, 6'** Run ID: **WETCHEM_130715L** SeqNo: **2378717** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.53	0	0	0	0	0-0	8.49	0.47	20	

DUP Sample ID: **1307467-01B DUP** Units: **s.u.** Analysis Date: **7/15/2013 11:20 AM**
Client ID: Run ID: **WETCHEM_130715L** SeqNo: **2378723** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.8	0	0	0	0	0-0	8.77	0.341	20	

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

Client: HRL Compliance Solutions
Work Order: 1307449
Project: PDC Parachute Creek 7 13-199-3 7/11/13

QC BATCH REPORT

Batch ID: **R123642** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R123642** Units: **% of sample** Analysis Date: **7/15/2013 01:20 PM**
Client ID: Run ID: **MOIST_130715B** SeqNo: **2379943** 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-R123642** Units: **% of sample** Analysis Date: **7/15/2013 01:20 PM**
Client ID: Run ID: **MOIST_130715B** SeqNo: **2379942** 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: **1307433-05B DUP** Units: **% of sample** Analysis Date: **7/15/2013 01:20 PM**
Client ID: Run ID: **MOIST_130715B** SeqNo: **2379921** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.91	0.050	0	0	0	0-0	15.64	1.71	20	

DUP Sample ID: **1307476-01B DUP** Units: **% of sample** Analysis Date: **7/15/2013 01:20 PM**
Client ID: Run ID: **MOIST_130715B** SeqNo: **2379938** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.99	0.050	0	0	0	0-0	5.86	2.19	20	

The following samples were analyzed in this batch:

1307449-01B	1307449-02B	1307449-03B
1307449-04B	1307449-05B	

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

ALS Laboratory Group

3352 128th Ave. Holland, MI 49424
TF: (800) 443-1511 PH: (616) 399-6070 FX: (616) 399-6185

Chain-of-Custody

Form 202r8

WORKORDER # 1307449

PAGE 1 of 1

DISPOSAL (By Lab) or Return to Client

PROJECT NAME	PDC PARACHUTE CREEK 7	SAMPLER	Casey Richardson
PROJECT No.	13-199-3	SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HCSI	BILL TO COMPANY	PDC Energy
SEND REPORT TO	Herman Lucero	INVOICE ATTN TO	Ed Winters
ADDRESS	2385 F 1/2 Road	ADDRESS	120 Railroad Ave. Suite D
CITY / STATE / ZIP	Grand Junction, CO. 81505	CITY / STATE / ZIP	Parachute, CO 81635
PHONE	970-243-3271	PHONE	970-285-9606
FAX	970-243-3280	FAX	
E-MAIL	hlucero@hrlcomp.com crichardson@hrlcomp.com	E-MAIL	ewinters@pdce.com

DATE 7-12-13

TURNAROUND 24 HOUR

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	DRO	GRO	BTEX	TOTAL METALS - TABEL 910-1	SEMI VOLS - PAH	SAR	EC	pH
1	NORTH WALL, 6'	SOIL	7-11-13	1435	3	8		X	X	X	X	X	X	X	X
2	SOUTH WALL, 6'			1432											
3	EAST WALL, 6'			1440											
4	WEST WALL, 6'			1430											
5	EXCAVATION FOOTPRINT, 10'			1420											

*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:

SIMS IF MOISTURE CONTENT ABOVE 30%.

3.0C

QC PACKAGE (check below)	
x	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Casey Richardson	7-12-13	1320
RECEIVED BY			7-12-13	1320
RELINQUISHED BY			7-12-13	1330
RECEIVED BY		Diane F Shea	7/13/13	0945
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **13-Jul-13 09:45**

Work Order: **1307449** Received by: **DS**

Checklist completed by Diane Shaw eSignature 13-Jul-13 Date Reviewed by: Ann Preston eSignature 14-Jul-13 Date

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.0 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/13/2013 11:37:50 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
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

FedEx Express

J13111302120326

Ship Date: 12JUL13
ActWgt: 65.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-071213-3
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070
BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

TRK# 0201 7962 2098 6562

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 GRRA

49424
MI-US
GRR

518G1/AA04/53A5

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.

Lab Hub LLC. Custody seal

Date: 7-12

Time: 1 PM

2002

30-Jul-2013

Herman Lucero
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Caerus Chevron 41-8D 13-199 7/22/13** Work Order: **1307799**

Dear Herman,

ALS Environmental received 3 samples on 23-Jul-2013 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 14.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

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

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
Work Order: **1307799**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307799-01	BKGD 1	Soil		7/22/2013 13:45	7/23/2013 10:00	☐
1307799-02	BKGD 2	Soil		7/22/2013 13:35	7/23/2013 10:00	☐
1307799-03	BKGD 3	Soil		7/22/2013 13:30	7/23/2013 10:00	☐

ALS Group USA, Corp

Date: 30-Jul-13

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13
WorkOrder: **1307799**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	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

Acronym	Description
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

Units Reported	Description
% of sample	Percent of Sample
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: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13 **Work Order:** 1307799
Sample ID: BKGD 1 **Lab ID:** 1307799-01
Collection Date: 7/22/2013 01:45 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**39**		**9.2**	**mg/Kg-dry**	5	7/27/2013 02:20 AM
SOLUBLE CATIONS FOR SAR			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **RH**
Calcium	**81**		**10**	**mg/L**	20	7/26/2013 03:49 PM
Magnesium	**28**		**4.0**	**mg/L**	20	7/26/2013 03:49 PM
Sodium	**120**		**4.0**	**mg/L**	20	7/26/2013 03:49 PM
SODIUM ADSORPTION RATIO			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **RH**
Sodium Adsorption Ratio	**2.8**		**0.010**	**none**	1	7/26/2013
ELECTRICAL CONDUCTIVITY (SAR)			**USDA H60 METHO**		Prep Date: **7/25/2013**	Analyst: **JB**
Electrical Conductivity @ Saturation	**1.2**		**0.050**	**mmhos/cm @25**	10	7/25/2013 03:10 PM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**82**		**0.050**	**% of sample**	1	7/23/2013 12:40 PM
PH			**SW9045D**		Prep Date: **7/23/2013**	Analyst: **JB**
pH	**9.1**			**s.u.**	1	7/23/2013 11:00 AM

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

ALS Group USA, Corp

Date: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13 **Work Order:** 1307799
Sample ID: BKGD 2 **Lab ID:** 1307799-02
Collection Date: 7/22/2013 01:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**8.3**		**2.0**	**mg/Kg-dry**	5	7/27/2013 02:44 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**7.3**		**0.050**	**% of sample**	1	7/23/2013

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

ALS Group USA, Corp

Date: *30-Jul-13*

Client: HRL Compliance Solutions
Project: Caerus Chevron 41-8D 13-199 7/22/13 **Work Order:** 1307799
Sample ID: BKGD 3 **Lab ID:** 1307799-03
Collection Date: 7/22/2013 01:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/25/2013**	Analyst: **ML**
Arsenic	**8.6**		**1.8**	**mg/Kg-dry**	5	7/27/2013 02:50 AM
MOISTURE			**A2540 G**			Analyst: **BD**
Moisture	**5.2**		**0.050**	**% of sample**	1	7/23/2013

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

QC BATCH REPORT

Batch ID: **50013** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-50013-50013** Units: **mg/Kg** Analysis Date: **7/26/2013 02:01 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392468** Prep Date: **7/25/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.03916	0.25								J

LCS Sample ID: **LCS-50013-50013** Units: **mg/Kg** Analysis Date: **7/26/2013 02:07 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392469** Prep Date: **7/25/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.799	0.25	5	0	96	80-120	0			

MS Sample ID: **1307769-02BMS** Units: **mg/Kg** Analysis Date: **7/26/2013 02:19 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392471** Prep Date: **7/25/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.8	1.9	7.418	5.276	101	75-125	0			

MSD Sample ID: **1307769-02BMSD** Units: **mg/Kg** Analysis Date: **7/26/2013 02:25 PM**

Client ID: Run ID: **ICPMS1_130726A** SeqNo: **2392472** Prep Date: **7/25/2013** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	13.82	1.9	7.645	5.276	112	75-125	12.8	7.68	25	

The following samples were analyzed in this batch: 1307799-01A 1307799-02A 1307799-03A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49915** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP Sample ID: **1307634-01B DUP** Units: **mmhos/cm @25°C** Analysis Date: **7/25/2013 03:10 PM**
Client ID: Run ID: **WETCHEM_130725J** SeqNo: **2390794** Prep Date: **7/25/2013** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.583	0.050	0	0	0		1.847	15.4	50	

The following samples were analyzed in this batch: 1307799-01B

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **49934** Instrument ID **WETCHEM** Method: **SW9045D**

LCS Sample ID: **LCS-49934-49934** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: Run ID: **WETCHEM_130723L** SeqNo: **2388161** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.53	0	4.4	0	103	90-110	0			

DUP Sample ID: **1307798-01B DUP** Units: **s.u.** Analysis Date: **7/23/2013 11:00 AM**
Client ID: Run ID: **WETCHEM_130723L** SeqNo: **2388163** Prep Date: **7/23/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.13	0	0	0	0	0-0	9.13	0	20	

The following samples were analyzed in this batch: 1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124049** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388372** 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-R124049** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388371** 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: **1307776-06A DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388357** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	48.63	0.050	0	0	0	0-0	49.35	1.47	20	

DUP Sample ID: **1307798-01B DUP** Units: **% of sample** Analysis Date: **7/23/2013 12:40 PM**
Client ID: Run ID: **MOIST_130723A** SeqNo: **2388365** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.99	0.050	0	0	0	0-0	20.28	1.44	20	

The following samples were analyzed in this batch: 1307799-01A

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

Client: HRL Compliance Solutions
Work Order: 1307799
Project: Caerus Chevron 41-8D 13-199 7/22/13

QC BATCH REPORT

Batch ID: **R124058** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R124058** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388576** 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-R124058** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388574** 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: **1307794-01B DUP** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388528** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.1	0.050	0	0	0	0-0	15.45	2.29	20	

DUP Sample ID: **1307801-04A DUP** Units: **% of sample** Analysis Date: **7/23/2013**
Client ID: Run ID: **MOIST_130723C** SeqNo: **2388551** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	32.26	0.050	0	0	0	0-0	31.81	1.4	20	

The following samples were analyzed in this batch: 1307799-02A 1307799-03A

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

Form 202r8

WORKORDER # 1307799

PAGE 1 of 1

PROJECT NAME	CAERUS CHEVRON 41-8D	SAMPLER	Casey Richardson	DATE	7-22-13
PROJECT No.	13-199	SITE ID		TURNAROUND	5 DAY
		EDD FORMAT		DISPOSAL	~~By Lab~~ or Return to Client
COMPANY NAME	HCSI	PURCHASE ORDER			
SEND REPORT TO	Herman Lucero	BILL TO COMPANY	PDC Energy		
ADDRESS	2385 F 1/2 Road	INVOICE ATTN TO	Ed Winters		
CITY / STATE / ZIP	Grand Junction, CO. 81505	ADDRESS	120 Railroad Ave. Suite D		
PHONE	970-243-3271	CITY / STATE / ZIP	Parachute, CO 81635		
FAX	970-243-3280	PHONE	970-285-9606		
E-MAIL	hlucero@hrlcomp.com	FAX			
		E-MAIL	ewinters@petd.com		

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	SAR/EC/pH	ARSENIC
1	BKGD 1	SOIL	7-22-13	1345	2	8		X	X
2	BKGD 2	SOIL	7-22-13	1335	1	8			X
3	BKGD 3	SOIL	7-22-13	1330	1	8			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: 5.0C

QC PACKAGE (check below)	
x	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Casey Richardson	7-22-13	1625
RECEIVED BY		Colby Koerner	7/22/13	1625
RELINQUISHED BY		Colby Koerner	7/22/13	1625
RECEIVED BY	Fed Ex			
RELINQUISHED BY				
RECEIVED BY		Diane F Shea	7/23/13	1000

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **23-Jul-13 10:00**

Work Order: **1307799** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 23-Jul-13 (Date) Reviewed by: Ann Preston (eSignature) 28-Jul-13 (Date)

Matrices: Soil
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.0 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/23/2013 10:56:26 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
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

FedEx Express

J13111302120326

Ship Date: 22JUL13
ActWgt: 80.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-072213-3
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070 BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

TUE - 23 JUL 3:00P
STANDARD OVERNIGHT

TRK# 0201 **7962 8879 8431**

XX GRRA

49424
MI-US
GRR

518G1/AA04/93AB

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