HCSI
ENVIRONMENTAL CONSULTANTS

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July 26, 2013

Rocky Mountain Natural Gas, LLC-Wolf Creek #12
Site Investigation & Remediation
Form 27 Document #1949185 Conditions of Approval (COA) Report
HCSI Job #13-113

Introduction

This comprehensive report presents the field work performed regarding the Colorado Oil and Gas Conservation Commission 'Comments and Conditions of Approval (COAs) associated with Form 27 document number 1949185. Field work was conducted in four (4) days between the dates of July 12, 2013 through July 17, 2013.

The Wolf Creek #12 pad is located in the NW SE quarter quarter of Sec. 35, Township 8 South, Range 90 West in the White River National Forest of Pitkin County, Colorado (Latitude 39.314378°, Longitude -107.404195°).

Background

HRL Compliance Solutions, Inc. (HCSI) was contacted by Rocky Mountain Natural Gas, LLC (RMNG) to conduct a site characterization pertaining to the demolition of the Wolf Creek #12 dehy building and associated AST's. The demolished building and equipment are to be upgraded at a later date.

After completion of the site characterization and submittal of Form 27 document #1949185, HCSI was contacted by RMNG to perform the six (6) tasks contained within the document titled 'Comments and Conditions of Approval (COAs). This report summarizes bullet points 4 and 5 (Site Reconnaissance and Visual Inspection within 0.25 mile radius of Well #12, Site Reconnaissance and Visual Inspection of Wolf Creek respectively) of the COA document.

Site Reconnaissance and Visual Inspection of Wolf Creek

HCSI personnel mobilized to the site July 12, 2013 to perform a site reconnaissance and visual inspection of Wolf Creek (bullet point 5 of COA) to determine if perched groundwater may daylight as seeps or springs into Wolf Creek as well as visual observations of the Creek if water was present. Per the COA document, if seeps or springs were identified or, there is an indication of hydrocarbon presence to the Creek, they were to be sampled and analyzed for table 910-1 constituents, but at a minimum for total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

In general, and within a 0.25 mile radius of well #12, Wolf Creek proper flows in a south-southeast to a north-northwest direction on the west side of the well #12 pad. The site reconnaissance and visual inspection of Wolf Creek was performed by hiking next to Wolf Creek from the #12 well pad to the confluence of the east-to-west flowing Thompson Creek Ditch (TCD).

After inspection, it is deemed that there were no seeps or springs that daylight and/or flow into the section of Wolf Creek located from well #12 to the TCD confluence. Also, at this time, there were no other sources of surface water actively flowing into this section of Wolf Creek.

Site Reconnaissance and Visual Inspection within a 0.25 mile Radius of Well #12

Field work regarding 'site reconnaissance and visual inspection within a 0.25 mile radius of well #12' (bullet point 4 of COA) was performed by HCSI personnel on July 12, 15, 16, and 17, 2013. Per the COA document, if seeps or springs were identified, they were to be sampled and analyzed for table 910-1 constituents, but at a minimum for total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The site reconnaissance and visual inspection within a 0.25 mile radius of well #12 was performed by dividing the 0.25 mile radius area surrounding well #12 into four (4) quadrants. Quadrant 1 being northwest (NW), quadrant 2 northeast (NE), quadrant 3 southeast (SE), and quadrant 4 southwest (SW). For completeness, the quadrants were traversed and inspected individually. In general, the quadrants were inspected systematically by traversing lines (conditions allowing) from well #12 to the 0.25 mile radius perimeter every 45 degrees (from 0 to 360) and the 0.25 mile radius perimeter.

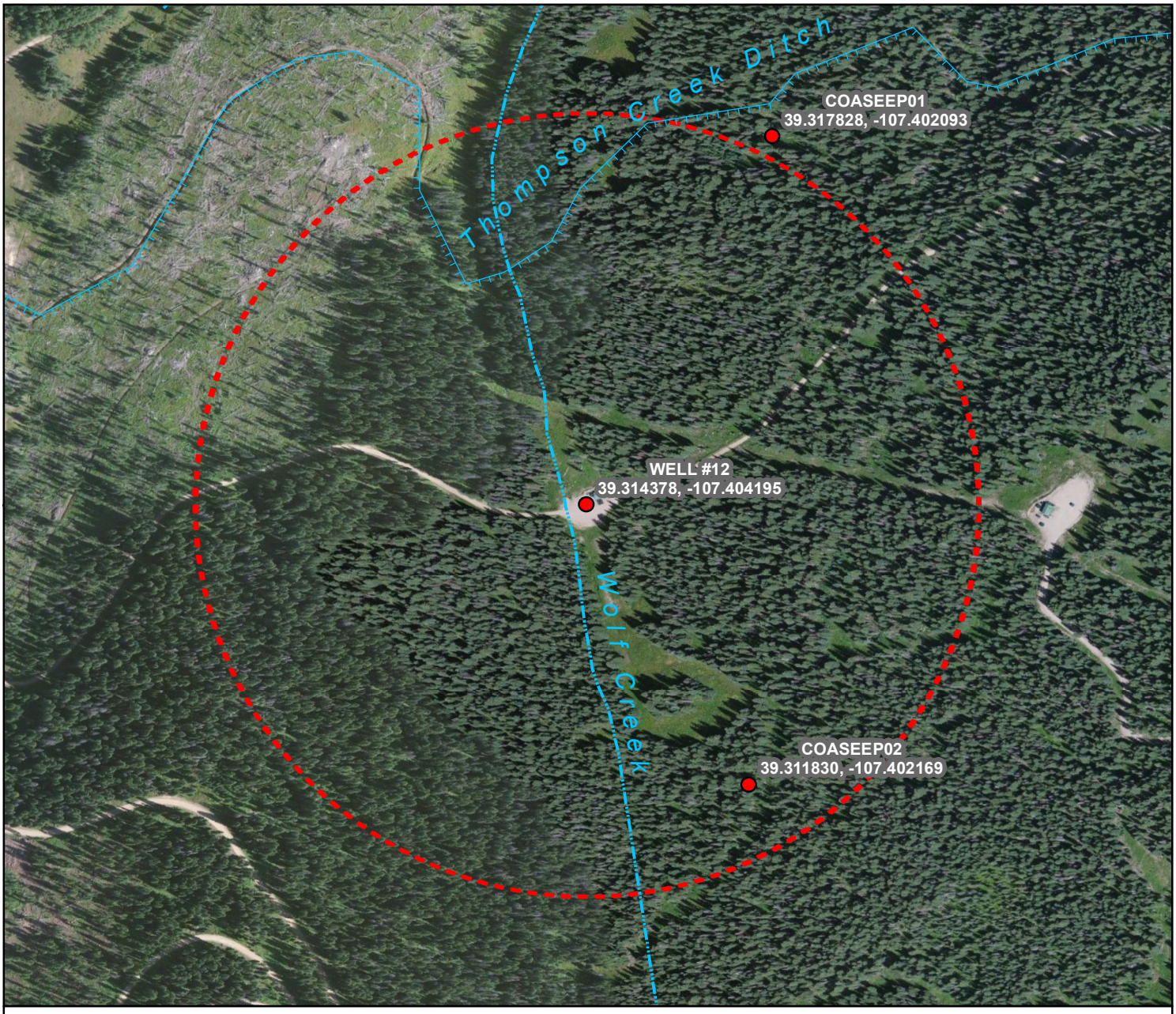
During the reconnaissance and inspection within the 0.25 mile radius area, two (2) seeps were identified (Appendix A, Figure 1). The first, COASeep01 is located in quadrant 2 (NE) near the 0.25 mile radius perimeter. At this time, the seep was very low-flowing and trickles down into the TCD. This seep was sampled July 17, 2013 and was submitted for analysis of GRO, DRO, ORO, BTEX, and 910-1 Metals. Field parameters were collected using a YSI multi-parameter meter during sampling. The results are presented in Appendix B, Table 1.

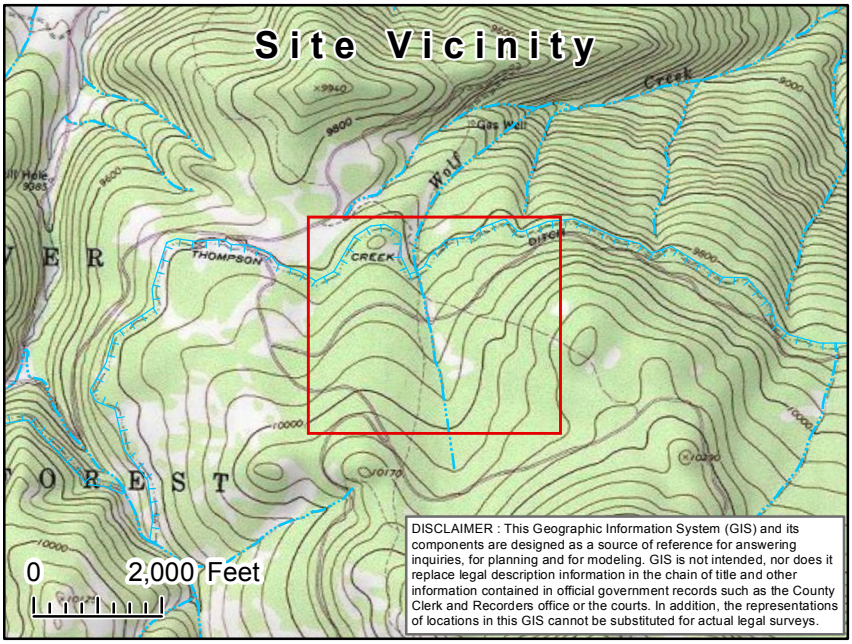
The second seep COASeep02 was identified in quadrant 3 (SE) and was sampled July 17, 2013 and submitted for analysis of GRO, DRO, ORO, BTEX, and 910-1 Metals. Full analytical results for the samples are presented in Appendix C, Table 1. After inspection, it is deemed that there were no springs within a 0.25 mile radius of well #12.

Conclusions

Based on the analytical lab results, constituents of concern do not exceed COGCC or CDPHE thresholds.

Appendix A
Aerial Map





COA Reconnaissance & Inspection

Location: Wolf Creek Well 12

Rocky Mountain Natural Gas, LLC

Legend

- Sample Location
- Ditch
- Intermittent Stream
- Quarter Mile Buffer

N
W E
S

0 250 500 Feet

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T:\Client_Specific\2008\Source_Gas\Spills\Wolf Creek Well 12\Wolf Creek 12 COA Reconnaissance & Inspection Map 2013-07-24.mxd HCSI_anees

Revision Date: 7/24/2013 5:42:44 PM

Appendix B
Water Field Parameters

Table 1. Water Field Parameters

SourceGas Wolf Creek #12 COA Seep Field Parameters																	
Sample ID	**Latitude**	**Longitude**	**Date**	**Time**	**°C**	**mS/cm[c]**	**mS/cm**	**Ω*cm**	**TDS g/L**	**Sal**	**DO %**	**DO mg/L**	**pH**	**pHmV**	**ORP**	**Sampled (Y/N)**	**Notes**
COASeep01	39.317828	-107.402093	7/17/2013	1024	14.63	0.218	0.175	5717.8	0.141	0.10	30.5	3.09	6.64	-7.1	2.3	Y	-
COASeep02	39.311830	-107.402169	7/17/2013	1233	16.34	0.089	0.074	13373.0	0.058	0.04	24.3	2.35	6.38	5.7	108.6	Y	-

Appendix C
Analytical Lab Results

Table 2. Analytical Lab Results

Water Analysis		Exceeds Standard					Method	GC-FID - DRO (C10-C28)	GC-FID - ORO (C28-C40)	GC-FID - GRO (C6-C10)	CVAA - Mercury	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS	SW8260 [VOC_8260_W]	SW8260 [VOC_8260_W]	SW8260 [VOC_8260_W]	SW8260 [VOC_8260_W]	SW8260 [VOC_8260_W]	SW8260 [VOC_8260_W]
N/A = Not Applicable		NT = Not Tested					Analyte	Diesel Range Organics	Oil Range Organics	Gasoline Range Organics	Mercury	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Zinc	Benzene	Ethylbenzene	m,p-Xylene	o-Xylene	Toluene	Xylenes, Total
							Units	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
							COGCC Table 910-1 Standards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	700	N/A	N/A	560 to 1,000	1,400 to 10,000
Sample ID	**Well #**	**Latitude**	**Longitude**	**Matrix**	**Sample Date**	**WO #**	**CSEV Standards**	N/A	N/A	N/A	0.0011	0.01	2	0.005	N/A	0.02	0.05	0.1	0.02	0.05	2	5	700	N/A	N/A	560	1400
COASeep01	12	39.317828	-107.402093	Water	7/17/2013	1307618-01		< 0.10	< 0.10	< 0.20	< 0.00020	< 0.0050	0.25	< 0.0020	< 0.0050	0.0054	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.023	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 3.0
COASeep02	12	39.311830	-107.402169	Water	7/17/2013	1307618-02		< 0.10	< 0.10	< 0.20	< 0.00020	< 0.0050	0.017	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 3.0
Trip Blank	12	N/A	N/A	Water	7/17/2013	1307618-03		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 3.0

19-Jul-2013

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

Re: **Wolf Creek #12 13-113 7/17/13** Work Order: **1307618**

Dear Herman,

ALS Environmental received 3 samples on 18-Jul-2013 09:00 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 17.

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: 19-Jul-13

Client: HRL Compliance Solutions
Project: Wolf Creek #12 13-113 7/17/13
Work Order: **1307618**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307618-01	COASeep01	Water		7/17/2013 10:24	7/18/2013 09:00	☐
1307618-02	COASeep02	Water		7/17/2013 12:33	7/18/2013 09:00	☐
1307618-03	Trip Blank	Water		7/17/2013 07:00	7/18/2013 09:00	☐

ALS Group USA, Corp

Date: 19-Jul-13

Client: HRL Compliance Solutions
Project: Wolf Creek #12 13-113 7/17/13
WorkOrder: **1307618**

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
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: *19-Jul-13*

Client: HRL Compliance Solutions
Project: Wolf Creek #12 13-113 7/17/13 **Work Order:** 1307618
Sample ID: COASeep01 **Lab ID:** 1307618-01
Collection Date: 7/17/2013 10:24 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/18/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/18/2013 05:00 PM
ORO (C28-C40)	ND		0.10	mg/L	1	7/18/2013 05:00 PM
Surr: 4-Terphenyl-d14	*62.9*		*21-90*	*%REC*	1	7/18/2013 05:00 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	7/18/2013 02:55 PM
Surr: Toluene-d8	*119*		*70-130*	*%REC*	1	7/18/2013 02:55 PM
MERCURY BY CVAA			**SW7470**		Prep Date: **7/18/2013**	Analyst: **LR**
Mercury	ND		0.00020	mg/L	1	7/18/2013 03:37 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/19/2013**	Analyst: **RH**
Arsenic	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Barium	**0.25**		**0.0050**	**mg/L**	1	7/19/2013 01:03 PM
Cadmium	ND		0.0020	mg/L	1	7/19/2013 01:03 PM
Chromium	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Copper	**0.0054**		**0.0050**	**mg/L**	1	7/19/2013 01:03 PM
Lead	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Nickel	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Selenium	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Silver	ND		0.0050	mg/L	1	7/19/2013 01:03 PM
Zinc	**0.023**		**0.010**	**mg/L**	1	7/19/2013 01:03 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	7/19/2013 08:07 AM
Ethylbenzene	ND		1.0	µg/L	1	7/19/2013 08:07 AM
m,p-Xylene	ND		2.0	µg/L	1	7/19/2013 08:07 AM
o-Xylene	ND		1.0	µg/L	1	7/19/2013 08:07 AM
Toluene	ND		1.0	µg/L	1	7/19/2013 08:07 AM
Xylenes, Total	ND		3.0	µg/L	1	7/19/2013 08:07 AM
Surr: 1,2-Dichloroethane-d4	*91.4*		*70-120*	*%REC*	1	7/19/2013 08:07 AM
Surr: 4-Bromofluorobenzene	*96.0*		*75-120*	*%REC*	1	7/19/2013 08:07 AM
Surr: Dibromofluoromethane	*94.4*		*85-115*	*%REC*	1	7/19/2013 08:07 AM
Surr: Toluene-d8	*94.5*		*85-120*	*%REC*	1	7/19/2013 08:07 AM

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

ALS Group USA, Corp

Date: *19-Jul-13*

Client: HRL Compliance Solutions
Project: Wolf Creek #12 13-113 7/17/13 **Work Order:** 1307618
Sample ID: COASeep02 **Lab ID:** 1307618-02
Collection Date: 7/17/2013 12:33 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/18/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/18/2013 05:30 PM
ORO (C28-C40)	ND		0.10	mg/L	1	7/18/2013 05:30 PM
Surr: 4-Terphenyl-d14	*62.0*		*21-90*	*%REC*	1	7/18/2013 05:30 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	7/18/2013 03:20 PM
Surr: Toluene-d8	*115*		*70-130*	*%REC*	1	7/18/2013 03:20 PM
MERCURY BY CVAA			**SW7470**		Prep Date: **7/18/2013**	Analyst: **LR**
Mercury	ND		0.00020	mg/L	1	7/18/2013 03:39 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **7/19/2013**	Analyst: **RH**
Arsenic	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Barium	**0.017**		**0.0050**	**mg/L**	1	7/19/2013 01:08 PM
Cadmium	ND		0.0020	mg/L	1	7/19/2013 01:08 PM
Chromium	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Copper	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Lead	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Nickel	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Selenium	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Silver	ND		0.0050	mg/L	1	7/19/2013 01:08 PM
Zinc	ND		0.010	mg/L	1	7/19/2013 01:08 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	7/18/2013 08:22 PM
Ethylbenzene	ND		1.0	µg/L	1	7/18/2013 08:22 PM
m,p-Xylene	ND		2.0	µg/L	1	7/18/2013 08:22 PM
o-Xylene	ND		1.0	µg/L	1	7/18/2013 08:22 PM
Toluene	ND		1.0	µg/L	1	7/18/2013 08:22 PM
Xylenes, Total	ND		3.0	µg/L	1	7/18/2013 08:22 PM
Surr: 1,2-Dichloroethane-d4	*91.4*		*70-120*	*%REC*	1	7/18/2013 08:22 PM
Surr: 4-Bromofluorobenzene	*96.2*		*75-120*	*%REC*	1	7/18/2013 08:22 PM
Surr: Dibromofluoromethane	*95.8*		*85-115*	*%REC*	1	7/18/2013 08:22 PM
Surr: Toluene-d8	*94.0*		*85-120*	*%REC*	1	7/18/2013 08:22 PM

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

ALS Group USA, Corp

Date: *19-Jul-13*

Client: HRL Compliance Solutions
Project: Wolf Creek #12 13-113 7/17/13 **Work Order:** 1307618
Sample ID: Trip Blank **Lab ID:** 1307618-03
Collection Date: 7/17/2013 07:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	7/18/2013 05:30 PM
Ethylbenzene	ND		1.0	µg/L	1	7/18/2013 05:30 PM
m,p-Xylene	ND		2.0	µg/L	1	7/18/2013 05:30 PM
o-Xylene	ND		1.0	µg/L	1	7/18/2013 05:30 PM
Toluene	ND		1.0	µg/L	1	7/18/2013 05:30 PM
Xylenes, Total	ND		3.0	µg/L	1	7/18/2013 05:30 PM
Surr: 1,2-Dichloroethane-d4	*92.9*		*70-120*	*%REC*	1	7/18/2013 05:30 PM
Surr: 4-Bromofluorobenzene	*93.6*		*75-120*	*%REC*	1	7/18/2013 05:30 PM
Surr: Dibromofluoromethane	*98.8*		*85-115*	*%REC*	1	7/18/2013 05:30 PM
Surr: Toluene-d8	*91.4*		*85-120*	*%REC*	1	7/18/2013 05:30 PM

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

ALS Group USA, Corp

Date: 19-Jul-13

Client: HRL Compliance Solutions

QC BATCH REPORT

Work Order: 1307618

Project: Wolf Creek #12 13-113 7/17/13

Batch ID: **49823** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKW1-49823-49823** Units: **mg/L** Analysis Date: **7/18/2013 01:30 PM**

Client ID: Run ID: **GC8_130718B** SeqNo: **2384838** Prep Date: **7/18/2013** 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								
ORO (C28-C40)	ND	0.10								
Surr: 4-Terphenyl-d14	*0.07575*	0	*0.1143*	0	*66.3*	*21-90*	0			

LCS Sample ID: **DLCSW1-49823-49823** Units: **mg/L** Analysis Date: **7/18/2013 02:00 PM**

Client ID: Run ID: **GC8_130718B** SeqNo: **2384839** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	5.779	0.10	11.43	0	50.6	44-116	0			
ORO (C28-C40)	6.781	0.10	11.43	0	59.3	44-116	0			
Surr: 4-Terphenyl-d14	*0.0771*	0	*0.1143*	0	*67.5*	*21-90*	0			

MS Sample ID: **1307581-01B MS** Units: **mg/L** Analysis Date: **7/18/2013 02:30 PM**

Client ID: Run ID: **GC8_130718B** SeqNo: **2384840** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	22.06	0.35	40	0	55.2	44-116	0			
ORO (C28-C40)	24.78	0.35	40	0	61.9	44-116	0			
Surr: 4-Terphenyl-d14	*0.2854*	0	*0.4*	0	*71.3*	*21-90*	0			

MSD Sample ID: **1307581-01B MSD** Units: **mg/L** Analysis Date: **7/18/2013 03:00 PM**

Client ID: Run ID: **GC8_130718B** SeqNo: **2384842** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	20.78	0.35	40	0	52	44-116	22.06	5.97	30	
ORO (C28-C40)	23.96	0.35	40	0	59.9	44-116	24.78	3.37	30	
Surr: 4-Terphenyl-d14	*0.2734*	0	*0.4*	0	*68.4*	*21-90*	0.2854	*4.27*	*30*	

The following samples were analyzed in this batch: 1307618-01B 1307618-02B

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **R123843** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **GBLK1-130718-R123843** Units: **µg/L** Analysis Date: **7/18/2013 09:00 AM**
Client ID: Run ID: **GC9_130718A** SeqNo: **2383648** 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	*109.5*	0	*100*	0	*109*	*70-130*	0			

LCS Sample ID: **GLCS1-130718-R123843** Units: **µg/L** Analysis Date: **7/18/2013 08:35 AM**
Client ID: Run ID: **GC9_130718A** SeqNo: **2383647** 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)	9710	200	10000	0	97.1	70-130	0			
Surr: Toluene-d8	*117.6*	0	*100*	0	*118*	*70-130*	0			

MS Sample ID: **1307591-01A MS** Units: **µg/L** Analysis Date: **7/18/2013 05:52 PM**
Client ID: Run ID: **GC9_130718A** SeqNo: **2384067** 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)	8427	200	10000	0	84.3	70-130	0			
Surr: Toluene-d8	*108.5*	0	*100*	0	*109*	*70-130*	0			

MSD Sample ID: **1307591-01A MSD** Units: **µg/L** Analysis Date: **7/18/2013 06:17 PM**
Client ID: Run ID: **GC9_130718A** SeqNo: **2383951** 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)	8068	200	10000	0	80.7	70-130	8427	4.35	30	
Surr: Toluene-d8	*107.7*	0	*100*	0	*108*	*70-130*	108.5	*0.758*	*30*	

The following samples were analyzed in this batch: 1307618-01A 1307618-02A

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **49831** Instrument ID **HG1** Method: **SW7470**

MBLK Sample ID: **MBLK-49831-49831** Units: **mg/L** Analysis Date: **7/18/2013 03:15 PM**
Client ID: Run ID: **HG1_130718A** SeqNo: **2383155** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **LCS-49831-49831** Units: **mg/L** Analysis Date: **7/18/2013 03:17 PM**
Client ID: Run ID: **HG1_130718A** SeqNo: **2383156** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.002133	0.00020	0.002	0	107	80-120	0			

MS Sample ID: **1307496-04AMS** Units: **mg/L** Analysis Date: **7/18/2013 03:21 PM**
Client ID: Run ID: **HG1_130718A** SeqNo: **2383160** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.02	0.0020	0.02	-0.00016	101	75-125	0			

MSD Sample ID: **1307496-04AMSD** Units: **mg/L** Analysis Date: **7/18/2013 03:23 PM**
Client ID: Run ID: **HG1_130718A** SeqNo: **2383162** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0188	0.0020	0.02	-0.00016	94.8	75-125	0.02	6.19	20	

The following samples were analyzed in this batch: 1307618-01C 1307618-02C

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **49859** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK Sample ID: **MBLK-49859-49859** Units: **mg/L** Analysis Date: **7/19/2013 12:28 PM**
Client ID: Run ID: **ICPMS2_130719A** SeqNo: **2384442** Prep Date: **7/19/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Chromium	ND	0.0050								
Copper	ND	0.0050								
Lead	ND	0.0050								
Nickel	0.0006784	0.0050								J
Selenium	ND	0.0050								
Silver	ND	0.0050								
Zinc	0.0009227	0.010								J

LCS Sample ID: **LCS-49859-49859** Units: **mg/L** Analysis Date: **7/19/2013 12:33 PM**
Client ID: Run ID: **ICPMS2_130719A** SeqNo: **2384445** Prep Date: **7/19/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1039	0.0050	0.1	0	104	80-120	0			
Barium	0.1004	0.0050	0.1	0	100	80-120	0			
Cadmium	0.1005	0.0020	0.1	0	100	80-120	0			
Chromium	0.09989	0.0050	0.1	0	99.9	80-120	0			
Copper	0.09434	0.0050	0.1	0	94.3	80-120	0			
Lead	0.1008	0.0050	0.1	0	101	80-120	0			
Nickel	0.0934	0.0050	0.1	0	93.4	80-120	0			
Selenium	0.1011	0.0050	0.1	0	101	80-120	0			
Silver	0.0959	0.0050	0.1	0	95.9	80-120	0			
Zinc	0.09779	0.010	0.1	0	97.8	80-120	0			

MS Sample ID: **1307439-02CMS** Units: **mg/L** Analysis Date: **7/19/2013 12:43 PM**
Client ID: Run ID: **ICPMS2_130719A** SeqNo: **2384448** Prep Date: **7/19/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1069	0.0050	0.1	0.002079	105	75-125	0			
Barium	0.1856	0.0050	0.1	0.08584	99.8	75-125	0			
Cadmium	0.09898	0.0020	0.1	-5.999E-05	99	75-125	0			
Chromium	0.1007	0.0050	0.1	0.001738	99	75-125	0			
Copper	0.09518	0.0050	0.1	0.003473	91.7	75-125	0			
Lead	0.1067	0.0050	0.1	0.00577	101	75-125	0			
Nickel	0.09542	0.0050	0.1	0.003712	91.7	75-125	0			
Selenium	0.09916	0.0050	0.1	0.002098	97.1	75-125	0			
Silver	0.09009	0.0050	0.1	9.647E-06	90.1	75-125	0			
Zinc	0.1143	0.010	0.1	0.01964	94.7	75-125	0			

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **49859** Instrument ID **ICPMS2** Method: **SW6020A**

MSD Sample ID: **1307439-02CMSD** Units: **mg/L** Analysis Date: **7/19/2013 12:48 PM**

Client ID: Run ID: **ICPMS2_130719A** SeqNo: **2384449** Prep Date: **7/19/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1065	0.0050	0.1	0.002079	104	75-125	0.1069	0.375	20	
Barium	0.183	0.0050	0.1	0.08584	97.2	75-125	0.1856	1.41	20	
Cadmium	0.099	0.0020	0.1	-5.999E-05	99.1	75-125	0.09898	0.0202	20	
Chromium	0.09927	0.0050	0.1	0.001738	97.5	75-125	0.1007	1.43	20	
Copper	0.09571	0.0050	0.1	0.003473	92.2	75-125	0.09518	0.555	20	
Lead	0.1065	0.0050	0.1	0.00577	101	75-125	0.1067	0.188	20	
Nickel	0.0955	0.0050	0.1	0.003712	91.8	75-125	0.09542	0.0838	20	
Selenium	0.09412	0.0050	0.1	0.002098	92	75-125	0.09916	5.22	20	
Silver	0.08955	0.0050	0.1	9.647E-06	89.5	75-125	0.09009	0.601	20	
Zinc	0.1147	0.010	0.1	0.01964	95.1	75-125	0.1143	0.349	20	

The following samples were analyzed in this batch: 1307618-01C 1307618-02C

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **R123840** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW1-130718-R123840** Units: **µg/L** Analysis Date: **7/18/2013 05:06 PM**
Client ID: Run ID: **VMS7_130718A** SeqNo: **2383886** 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								
Surr: 1,2-Dichloroethane-d4	*18.41*	0	*20*	0	*92*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*18.63*	0	*20*	0	*93.2*	*75-120*	0			
Surr: Dibromofluoromethane	*19.51*	0	*20*	0	*97.6*	*85-115*	0			
Surr: Toluene-d8	*17.94*	0	*20*	0	*89.7*	*85-120*	0			

LCS Sample ID: **VLCSW1-130718-R123840** Units: **µg/L** Analysis Date: **7/18/2013 03:52 PM**
Client ID: Run ID: **VMS7_130718A** SeqNo: **2383885** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.64	1.0	20	0	103	80-120	0			
Ethylbenzene	19.6	1.0	20	0	98	75-125	0			
m,p-Xylene	38.48	2.0	40	0	96.2	75-130	0			
o-Xylene	19.3	1.0	20	0	96.5	80-120	0			
Toluene	19.39	1.0	20	0	97	75-120	0			
Xylenes, Total	57.78	3.0	60	0	96.3	75-130	0			
Surr: 1,2-Dichloroethane-d4	*18.85*	0	*20*	0	*94.2*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.54*	0	*20*	0	*97.7*	*75-120*	0			
Surr: Dibromofluoromethane	*19.69*	0	*20*	0	*98.4*	*85-115*	0			
Surr: Toluene-d8	*18.63*	0	*20*	0	*93.2*	*85-120*	0			

MS Sample ID: **1307618-01A MS** Units: **µg/L** Analysis Date: **7/19/2013 01:39 AM**
Client ID: **COASeep01** Run ID: **VMS7_130718A** SeqNo: **2383899** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1853	100	2000	0	92.6	80-120	0			
Ethylbenzene	1717	100	2000	0	85.8	75-125	0			
m,p-Xylene	3372	200	4000	0	84.3	75-130	0			
o-Xylene	1701	100	2000	0	85	80-120	0			
Toluene	1691	100	2000	0	84.6	75-120	0			
Xylenes, Total	5073	300	6000	0	84.6	75-130	0			
Surr: 1,2-Dichloroethane-d4	*1795*	0	*2000*	0	*89.8*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*1868*	0	*2000*	0	*93.4*	*75-120*	0			
Surr: Dibromofluoromethane	*1907*	0	*2000*	0	*95.4*	*85-115*	0			
Surr: Toluene-d8	*1804*	0	*2000*	0	*90.2*	*85-120*	0			

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **R123840** Instrument ID **VMS7** Method: **SW8260**

MSD Sample ID: **1307618-01A MSD** Units: **µg/L** Analysis Date: **7/19/2013 02:05 AM**
Client ID: **COASeep01** Run ID: **VMS7_130718A** SeqNo: **2383900** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1834	100	2000	0	91.7	80-120	1853	1.03	30	
Ethylbenzene	1734	100	2000	0	86.7	75-125	1717	0.985	30	
m,p-Xylene	3404	200	4000	0	85.1	75-130	3372	0.945	30	
o-Xylene	1761	100	2000	0	88	80-120	1701	3.47	30	
Toluene	1755	100	2000	0	87.8	75-120	1691	3.71	30	
Xylenes, Total	5165	300	6000	0	86.1	75-130	5073	1.8	30	
Surr: 1,2-Dichloroethane-d4	*1781*	0	*2000*	0	*89*	*70-120*	1795	*0.783*	*30*	
Surr: 4-Bromofluorobenzene	*1893*	0	*2000*	0	*94.6*	*75-120*	1868	*1.33*	*30*	
Surr: Dibromofluoromethane	*1925*	0	*2000*	0	*96.2*	*85-115*	1907	*0.939*	*30*	
Surr: Toluene-d8	*1848*	0	*2000*	0	*92.4*	*85-120*	1804	*2.41*	*30*	

The following samples were analyzed in this batch: 1307618-01A 1307618-02A 1307618-03A

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

Client: HRL Compliance Solutions
Work Order: 1307618
Project: Wolf Creek #12 13-113 7/17/13

QC BATCH REPORT

Batch ID: **R123853A** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW2-130718-R123853A** Units: **µg/L** Analysis Date: **7/19/2013 05:18 AM**
Client ID: Run ID: **VMS7_130718B** SeqNo: **2384621** 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								
Surr: 1,2-Dichloroethane-d4	*18.25*	0	*20*	0	*91.2*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*18.75*	0	*20*	0	*93.8*	*75-120*	0			
Surr: Dibromofluoromethane	*19.21*	0	*20*	0	*96*	*85-115*	0			
Surr: Toluene-d8	*18.31*	0	*20*	0	*91.6*	*85-120*	0			

LCS Sample ID: **VLCSW2-130718-R123853A** Units: **µg/L** Analysis Date: **7/19/2013 04:06 AM**
Client ID: Run ID: **VMS7_130718B** SeqNo: **2384620** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.27	1.0	20	0	96.4	80-120	0			
Ethylbenzene	18.1	1.0	20	0	90.5	75-125	0			
m,p-Xylene	36.37	2.0	40	0	90.9	75-130	0			
o-Xylene	18.05	1.0	20	0	90.2	80-120	0			
Toluene	18.36	1.0	20	0	91.8	75-120	0			
Xylenes, Total	54.42	3.0	60	0	90.7	75-130	0			
Surr: 1,2-Dichloroethane-d4	*18.05*	0	*20*	0	*90.2*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.14*	0	*20*	0	*95.7*	*75-120*	0			
Surr: Dibromofluoromethane	*19.34*	0	*20*	0	*96.7*	*85-115*	0			
Surr: Toluene-d8	*18.35*	0	*20*	0	*91.8*	*85-120*	0			

The following samples were analyzed in this batch: 1307618-01A

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

ALS Laboratory Group

3352 128th Avenue Holland MI, 49424

PH: (616) 399-6070

Chain-of-Custody

Form 202r8

WORKORDER # 1307618

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	Wolf Creek #12	SAMPLER	Mike Lobato
PROJECT No.	13-113	SITE ID	Wolf Creek #12
		EDD FORMAT	COGCC, CSEV
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	HRL Compliance Solutions, Inc.
SEND REPORT TO	Herman Lucero, Mike Lobato	INVOICE ATTN TO	Herman Lucero
ADDRESS	2385 F 1/2 Road	ADDRESS	2385 F 1/2 Road
CITY / STATE / ZIP	Grand Junction, CO 81505	CITY / STATE / ZIP	Grand Junction, CO 81505
PHONE	970-243-3271	PHONE	970-243-3271
FAX	970-243-3280	FAX	970-243-3280
E-MAIL	hlucero@hrlcomp.com, mlobato@hrlcomp.com	E-MAIL	hlucero@hrlcomp.com

DATE 7/17/13

TURNAROUND 24hr

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	GRO	DRO	ORO	BTEX	Methyls (COGCC 910-1 table)
1	COASeep01	W	7/17/13	1024	19	1,2,8		X	X	X	X	X
2	COASeep02	W	7/17/13	1233	19	1,2,8		X	X	X	X	X
3	Trip Blank	W	7/17/13	0700	1	8		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:	500cc Poly hno HNO_3 preserv. Clear VOA's (HCL). 5.8C

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-HNO_3 3-H_2SO_4 4-NaOH 5-$NaHSO_4$ 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Mike Lobato	Mike Lobato	7/17/13	1648
RECEIVED BY		Colby Koerner LabTech	7/17/13	1648
RELINQUISHED BY		Colby Koerner		
RECEIVED BY	FedEx			
RELINQUISHED BY				
RECEIVED BY		Diane F Shea	7/18/13	0900

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **18-Jul-13 09:00**

Work Order: **1307618** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 18-Jul-13 (Date) Reviewed by: Ann Preston (eSignature) 19-Jul-13 (Date)

Matrices: Water
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):	5.8 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/18/2013 10:18:20 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: 17JUL13
ActWgt: 40.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-071713-7
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070
BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

THU - 18 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7962 5643 8958

XX GRRA

49424
MI-US
GRR

518G1/AAD4/63AB

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.

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Lab Hub LLC. Custody seal
Date: 7/17/13
Time: 1600