

WPXENERGY



Notice of Completion Report for
Clough 14-22 MV

COGCC RELEASE #2148356

WPX Energy Rocky Mountain, LLC
1058 County Road 215
Parachute, CO 81635

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1. Introduction

The purpose of this Notice of Completion report is to summarize groundwater sampling, soil sampling, and remediation activities undertaken by WPX Energy Rocky Mountain LLC (WPX) at the Clough 14-22MV well pad (site) since March 22, 2014. The data described below supports the conclusion that groundwater standards at this site are below the COGCC Table 910-1 requirements. Based on the information presented in this document, WPX respectfully requests COGCC to grant a No Further Action Determination and closure of the incident #2148356.

2. Site Location

The site is located in the SESW of Section 22, Township 6 South Range 94 West of the 6th Prime Meridian, Garfield County, Colorado. The Colorado River, at its closest point, is approximately 3000 feet to the southeast. The site is located at latitude 39.506589 and longitude -107.87860. The site is situated on Quaternary age alluvial deposits consisting of loam, sand, and river cobbles at approximately 11 feet (See Attachment A for the Site Location Map).

3. Release Summary

The release was caused by corrosion of a buried condensate dump line. The leak was discovered during a quarterly pressure integrity test of the dump line. The leaking line, buried approximately five (5) feet below the pad surface, allowed the condensate to be released into subsurface soils. The impacted area was excavated the week of March 24, 2014 to a depth of approximately eleven (11) feet where river cobble and groundwater was encountered making further excavation impractical. HRL Compliance Solutions, Inc (HRL) was contracted by WPX to provide oversight of the remediation activities and to conduct soil and groundwater sampling.

4. Source Removal

The impacted soil was excavated the week of March 24, 2014. Confirmation samples, collected from all four (4) walls of the excavation, were in compliance with the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 standards. On April 3, 2014, permission was granted by the COGCC allowing the excavation to be backfilled with clean native material. Three background samples were collected and analyzed for arsenic. As the released material was condensate, SAR, pH, and EC were not included or analyzed in the background samples.

Approximately 1300 cubic yards of impacted soil were excavated and landfarmed on location to reduce hydrocarbon levels below COGCC Table 910-1 standards. Due to the pad size constraints, the soil was landfarmed in four separate batches. The soil was spread to a thickness of approximately 18 inches or less and was treated with a microbial solution. The frequency the soil was turned and watered was dependent on seasonal temperatures and soil moisture screenings. The impacted soil was field screened to monitor hydrocarbon concentrations. Once field screening indicated that the hydrocarbon concentrations are below the COGCC Table 910-1 allowable standards, a five point composite sample was collected from each landfarm batch and sent to an accredited lab for confirmation.

Treated landfarms batch # 1, 2, and 3 were reused as a backfill material on another remediation project (Spill tracking # 400666271). This beneficial reuse of treated E&P waste was permitted and approved with a sundry notice Form 4, COGCC document # 400679620. Landfarm batch # 4 was incorporated into the pad's surface.

The analytical results for soil samples collected from the excavation, landfarms, and backgrounds are presented in Table 1. The raw analytical data and the confirmation sample locations are included in Attachment B.

5. Groundwater Monitoring

The groundwater impacts at the Clough 14-22MV were limited to the excavated area beneath the former location of the production tanks. This area was excavated to a depth of approximately 11 feet bgs where hydrocarbon-impacted groundwater was encountered. A surface water sample collected from the bottom of the excavation has benzene concentrations which exceed the COGCC Table 910-1 standards. On April 3, 2014, a Form 27 was requested by COGCC to address potential groundwater contamination downgradient of the excavated area.

In accordance with the approved Form 27, four (4) two inch monitoring wells were installed downgradient and one (1) two inch monitoring well was installed upgradient of the excavated area. All wells were drilled to a total depth of 25 feet. 20 feet of screen was installed beginning at 5 feet bgs to the total depth of 25 feet bgs (see Attachment C - well log and completion diagrams). During drilling activities, cuttings were field screened using a photo ionization detector and no evidence of hydrocarbon impact was observed from the entire drilling interval.

HRL conducted four groundwater sampling events starting with a round of baseline samples collected on June 26, 2014. Potentiometric maps for all four sampling events and the monitoring well locations are provided as Attachment D. Before each sampling event, the fluid levels were measured in five site monitoring wells. Groundwater samples and field parameters were obtained following well purging. Groundwater samples were collected using a peristaltic pump with dedicated polyethylene tubing. All samples were placed into laboratory provided containers, stored on ice, and shipped overnight to ALS

Environmental in Holland, Michigan using chain-of-custody protocol. Groundwater samples were analyzed for the following parameters:

Water

• Benzene-Toluene-Ethylbenzene-Xylenes (BTEX).....	EPA Method SW8260
• Total Dissolved Solids.....	EPA E.160.1
• Chloride.....	EPA Method SW9056
• Sulfate.....	EPA Method SW9056
• Temperature.....	Field Measurement YSI
• Electrical Conductivity.....	Field Measurement YSI
• Resistivity.....	Field Measurement YSI
• Salinity.....	Field Measurement YSI
• Dissolved Oxygen.....	Field Measurement YSI
• pH.....	Field Measurement YSI
• Oxygen Reduction Potential.....	Field Measurement YSI

Benzene is the primary contaminant of concern at the site. BTEX results for all groundwater samples collected during this site investigation tested non-detectable or below their respective laboratory reporting limits. Table 2 and Table 3 included in the Attachment E summarize the groundwater analytical data and field measurements.

6. Well Abandonment and Reclamation

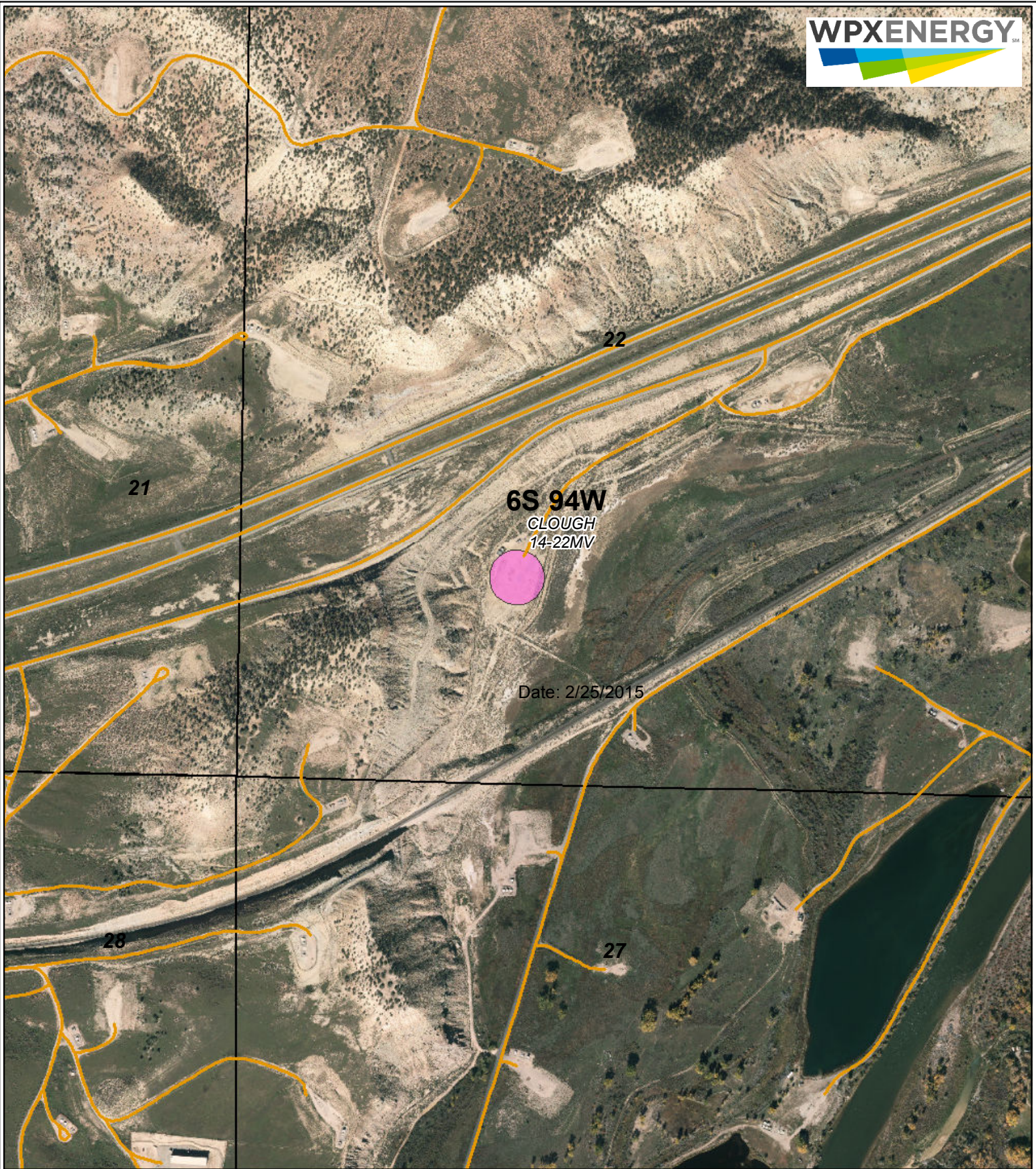
Upon COGCC's approval of this closure request, wells will be plugged, sealed, and abandoned either pursuant to Rule 16.2 of the Colorado Water Well Construction Rules, or by removing all casing that was installed and by filling the holes with clean native clays, cement, or high solid bentonite grout to within five (5) feet of the ground surface. The top five (5) feet of the hole will be filled with materials less permeable than the surrounding soils that are adequately compacted to prevent settling.

7. Summary



With the completion of the first quarter of 2015 sampling event, four sampling events have been performed at the Clough 14-22MV location since June 2014. Based on the data presented herein and in prior reports, it is WPX's opinion that groundwater has not been impacted by the release discovered on March 22, 2014. The contaminant of concern (BTEX) has been below their respective groundwater cleanup levels in all four quarterly sampling events.

WPX respectfully requests that COGCC concur that remediation requirements necessary to protect human health and the environment have been successfully satisfied and that COGCC now grant regulatory closure for this project.

Attachment A

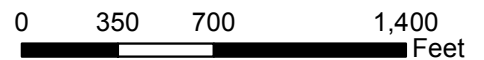
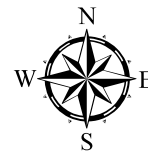


Legend

-  Existing Road
-  Clough 14-22MV

**Clough 14-22MV Site
Location Map**

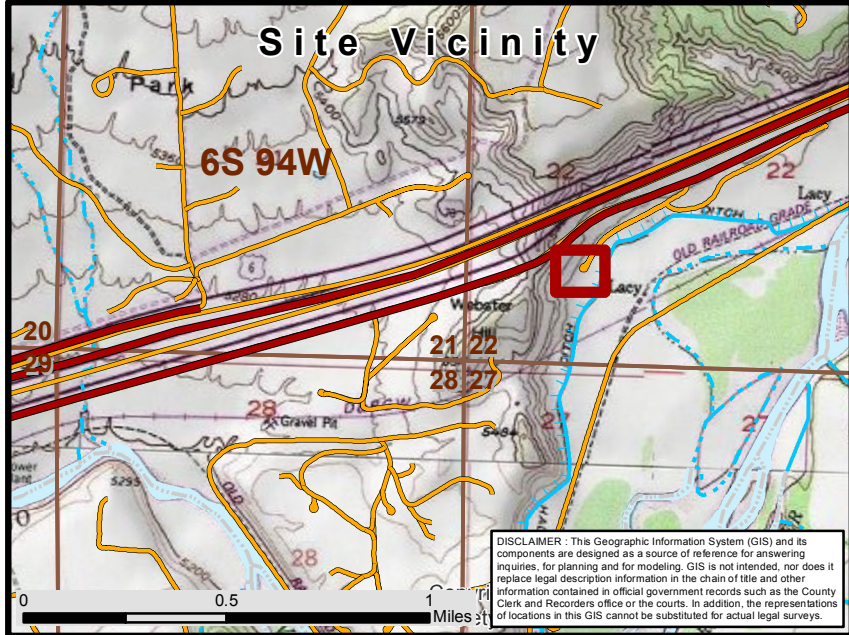
February 25, 2015



Attachment B



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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 Records office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

Sample Location Map
Location: Clough 14-22 MV
 39.507060 -107.878716
 WPX Energy

<ul style="list-style-type: none"> ● Sample Location Excavated Area PLSS Township Section 	<p>Transportation Features</p> <ul style="list-style-type: none"> Public Roads Access Roads <p>Hydrographic Features</p> <ul style="list-style-type: none"> Perennial Stream Ditch/Canal
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HRS COMPLIANCE SOLUTIONS, INC.

Table 1

Soil Analytical Results
Clough 14-22 MV

Contaminant of Concern ↓	COGCC standards	Location →	South Wall	South Wall	East Wall	West Wall	North Wall
		Date Sampled →	3/25/2014	3/28/2014	3/25/2014	3/25/2014	3/25/2014
Organic Compounds in Soil							
TPH	500	mg/kg	1,570	320	59	59	115
DRO		mg/kg	470	320	15	18	15
GRO		mg/kg	1,100	<3	44	41	100
Benzene	0.17	mg/kg	1.1	0.13	0.057	<0.034	0.17
Toluene	85	mg/kg	41	<0.036	0.4	0.11	2.1
Ethylbenzene	100	mg/kg	14	<0.036	0.068	0.055	0.33
Xylenes (Total)	175	mg/kg	220	0.29	1.7	0.64	6.2
Acenaphthene	1,000	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Anthracene	1,000	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Benzo(A)anthracene	0.22	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Benzo(B)fluoranthene	0.22	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Benzo(K)fluoranthene	2.2	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Benzo(A)pyrene	0.022	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Chrysene	22	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Fluoranthene	1,000	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Fluorene	1,000	mg/kg	0.029		<0.0077	<0.0074	<0.008
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Naphthalene	23	mg/kg	0.45		<0.0077	<0.0074	<0.008
Pyrene	1,000	mg/kg	<0.0076		<0.0077	<0.0074	<0.008
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/cm	12		34	14	62
SAR	<12		43		35	18	51
pH	6-9		9.1		8.1	8.2	8.3
Metals in Soil							
Arsenic	0.39	mg/kg	7.9		5.3	6.8	5
Barium total	15,000	mg/kg	120		120	160	110
Cadmium	70	mg/kg	<0.88		<0.89	<0.91	<0.9
Chromium (III)	120,000	mg/kg	10		9	9.7	10
Chromium (VI)	23	mg/kg	<0.58		<0.57	<0.57	<0.61
Copper	3,100	mg/kg	13		10	12	11
Lead	400	mg/kg	13		10	12	10
Mercury	23	mg/kg	<0.016		<0.016	0.019	<0.016
Nickel	1,600	mg/kg	16		14	15	16
Selenium	390	mg/kg	<2.2		<2.2	<2.3	<2.3
Silver	390	mg/kg	<2.2		<2.2	<2.3	<2.3
Zinc	23,000	mg/kg	57		53	59	58

Table 1

Soil Analytical Results
Clough 14-22 MV

Contaminant of Concern ↓	COGCC standards	Location →	Landfarm Batch 1	Landfarm Batch 2	Landfarm Batch 3	Landfarm Batch 3
		Date Sampled →	4/15/2014	5/6/2014	6/17/2014	8/22/2014
Organic Compounds in Soil						
TPH	500	mg/kg	147	119	740	31
DRO		mg/kg	96	59	150	31
GRO		mg/kg	51	60	590	<2.8
Benzene	0.17	mg/kg	<0.034	<0.034	<0.035	
Toluene	85	mg/kg	0.036	<0.034	0.55	
Ethylbenzene	100	mg/kg	<0.034	<0.034	0.23	
Xylenes (Total)	175	mg/kg	1.3	0.3	7.3	
Acenaphthene	1,000	mg/kg	<0.0075	<0.0075	<0.0077	
Anthracene	1,000	mg/kg	<0.0075	<0.0075	<0.0077	
Benzo(A)anthracene	0.22	mg/kg	<0.0075	0.0086	<0.0077	
Benzo(B)fluoranthene	0.22	mg/kg	<0.0075	<0.0075	<0.0077	
Benzo(K)fluoranthene	2.2	mg/kg	<0.0075	<0.0075	<0.0077	
Benzo(A)pyrene	0.022	mg/kg	<0.0075	<0.0075	<0.0077	
Chrysene	22	mg/kg	<0.0075	<0.0075	<0.0077	
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0075	<0.0075	<0.0077	
Fluoranthene	1,000	mg/kg	<0.0075	<0.0075	<0.0077	
Fluorene	1,000	mg/kg	<0.0075	<0.0075	<0.0077	
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0075	<0.0075	<0.0077	
Naphthalene	23	mg/kg	<0.0075	0.014	0.15	
Pyrene	1,000	mg/kg	<0.0075	<0.0075	<0.0077	
Inorganics in Soil						
EC	<4 or 2 x background	mmhos/cm	21	10	16	
SAR	<12		26	14	18	
pH	6-9		8	8.7	8.2	
Metals in Soil						
Arsenic	0.39	mg/kg	6.2	6.9	7.8	
Barium total	15,000	mg/kg	350	160	240	
Cadmium	70	mg/kg	<0.85	<0.88	<0.89	
Chromium (III)	120,000	mg/kg	10	8.6	10	
Chromium (VI)	23	mg/kg	<0.58	<0.58	<0.59	
Copper	3,100	mg/kg	11	12	13	
Lead	400	mg/kg	13	11	12	
Mercury	23	mg/kg	0.022	0.017	0.029	
Nickel	1,600	mg/kg	15	15	16	
Selenium	390	mg/kg	<2.1	<2.2	<2.2	
Silver	390	mg/kg	<2.1	<2.2	<2.2	
Zinc	23,000	mg/kg	55	55	55	

Table 1

Soil Analytical Results
Clough 14-22 MV

Contaminant of Concern ↓	COGCC standards	Location →	Landfarm Batch 4	Landfarm Batch 4	Clough 14-22-B-1	Clough 14-22-B-2	Clough 14-22-B-3
		Date Sampled →	9/12/2014	9/19/2014	4/9/2014	4/9/2014	4/9/2014
Organic Compounds in Soil							
TPH	500	mg/kg	1,640	188			
DRO		mg/kg	140	150			
GRO		mg/kg	1500	38			
Benzene	0.17	mg/kg	<0.036				
Toluene	85	mg/kg	0.68				
Ethylbenzene	100	mg/kg	5.3				
Xylenes (Total)	175	mg/kg	110				
Acenaphthene	1,000	mg/kg	0.0098				
Anthracene	1,000	mg/kg	<0.0079				
Benzo(A)anthracene	0.22	mg/kg	<0.0079				
Benzo(B)fluoranthene	0.22	mg/kg	<0.0079				
Benzo(K)fluoranthene	2.2	mg/kg	<0.0079				
Benzo(A)pyrene	0.022	mg/kg	<0.0079				
Chrysene	22	mg/kg	<0.0079				
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0079				
Fluoranthene	1,000	mg/kg	<0.0079				
Fluorene	1,000	mg/kg	0.016				
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0079				
Naphthalene	23	mg/kg	0.089				
Pyrene	1,000	mg/kg	<0.0079				
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/cm	14				
SAR	<12		22				
pH	6-9		8.4				
Metals in Soil							
Arsenic	0.39	mg/kg	6.3		4.9	5.4	8.7
Barium total	15,000	mg/kg	170				
Cadmium	70	mg/kg	<0.82				
Chromium (III)	120,000	mg/kg					
Chromium (VI)	23	mg/kg					
Copper	3,100	mg/kg	11				
Lead	400	mg/kg	12				
Mercury	23	mg/kg	0.037				
Nickel	1,600	mg/kg	13				
Selenium	390	mg/kg	2.3				
Silver	390	mg/kg	<2.0				
Zinc	23,000	mg/kg	50				



31-Mar-2014

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

Re: **WPX Clough 14-22 Condensate Spill 3.25.14**

Work Order: **14031137**

Dear Mark,

ALS Environmental received 4 samples on 26-Mar-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 30.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Work Order: 14031137

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14031137-01	South Wall	Soil		3/25/2014 15:50	3/26/2014 09:30	<input type="checkbox"/>
14031137-02	East Wall	Soil		3/25/2014 15:40	3/26/2014 09:30	<input type="checkbox"/>
14031137-03	West Wall	Soil		3/25/2014 16:00	3/26/2014 09:30	<input type="checkbox"/>
14031137-04	North Wall	Soil		3/25/2014 16:10	3/26/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Work Order: 14031137

Case Narrative

Batch 56918 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 57006 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 56917 sample 14031137-01 was run at a dilution for BTEX due to high concentrations of target and non target analytes. One surrogate recovery was above control limits, but all results associated with this surrogate were reported from the dilution. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: South Wall
Collection Date: 3/25/2014 03:50 PM

Work Order: 14031137
Lab ID: 14031137-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 3/26/14	Analyst: IT
DRO (C10-C28)	470		4.8	mg/Kg-dry	1	3/27/2014 12:27 PM
<i>Surr: 4-Terphenyl-d14</i>	45.1		39-115	%REC	1	3/27/2014 12:27 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 3/26/14	Analyst: IT
GRO (C6-C10)	1,100		2.9	mg/Kg-dry	1	3/27/2014 06:01 AM
<i>Surr: Toluene-d8</i>	118		50-150	%REC	1	3/27/2014 06:01 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 3/27/14	Analyst: LR
Mercury	ND		0.016	mg/Kg-dry	1	3/27/2014 01:37 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 3/26/14	Analyst: ML
Arsenic	7.9		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Barium	120		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Cadmium	ND		0.88	mg/Kg-dry	5	3/27/2014 04:18 AM
Chromium	10		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Copper	13		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Lead	13		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Nickel	16		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Selenium	ND		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Silver	ND		2.2	mg/Kg-dry	5	3/27/2014 04:18 AM
Zinc	57		4.4	mg/Kg-dry	5	3/27/2014 04:18 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Calcium	41		10	mg/L	20	3/30/2014 08:02 AM
Magnesium	60		4.0	mg/L	20	3/30/2014 08:02 AM
Sodium	1,800		4.0	mg/L	20	3/30/2014 08:02 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Sodium Adsorption Ratio	43		0.010	none	1	3/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 3/26/14	Analyst: RM
Acenaphthene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Acenaphthylene	29		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Anthracene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Benzo(a)anthracene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Benzo(a)pyrene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Benzo(b)fluoranthene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Benzo(g,h,i)perylene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Benzo(k)fluoranthene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Chrysene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: South Wall
Collection Date: 3/25/2014 03:50 PM

Work Order: 14031137
Lab ID: 14031137-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Fluoranthene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Fluorene	29		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Naphthalene	450		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Pyrene	ND		7.6	µg/Kg-dry	1	3/26/2014 07:57 PM
Surr: 2-Fluorobiphenyl	64.3		12-100	%REC	1	3/26/2014 07:57 PM
Surr: 4-Terphenyl-d14	85.5		25-137	%REC	1	3/26/2014 07:57 PM
Surr: Nitrobenzene-d5	80.6		37-107	%REC	1	3/26/2014 07:57 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 3/26/14	Analyst: AK	
Benzene	1,100		35	µg/Kg-dry	1	3/26/2014 06:49 PM
Ethylbenzene	14,000		690	µg/Kg-dry	20	3/27/2014 11:13 AM
m,p-Xylene	200,000		1,400	µg/Kg-dry	20	3/27/2014 11:13 AM
o-Xylene	26,000		690	µg/Kg-dry	20	3/27/2014 11:13 AM
Toluene	41,000		690	µg/Kg-dry	20	3/27/2014 11:13 AM
Xylenes, Total	220,000		2,100	µg/Kg-dry	20	3/27/2014 11:13 AM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	1	3/26/2014 06:49 PM
Surr: 1,2-Dichloroethane-d4	97.8		70-130	%REC	20	3/27/2014 11:13 AM
Surr: 4-Bromofluorobenzene	97.9		70-130	%REC	1	3/26/2014 06:49 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	20	3/27/2014 11:13 AM
Surr: Dibromofluoromethane	96.0		70-130	%REC	20	3/27/2014 11:13 AM
Surr: Dibromofluoromethane	98.1		70-130	%REC	1	3/26/2014 06:49 PM
Surr: Toluene-d8	114		70-130	%REC	20	3/27/2014 11:13 AM
Surr: Toluene-d8	150	S	70-130	%REC	1	3/26/2014 06:49 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 3/28/14	Analyst: JJG	
Electrical Conductivity @ Saturation	12		0.12	mmhos/cm @25	25	3/29/2014 09:20 AM
CHROMIUM, TRIVALENT			CALCULATION		Analyst: JJG	
Chromium, Trivalent	10		0.58	mg/Kg-dry	1	3/28/2014 04:10 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 3/27/14	Analyst: MB	
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	3/28/2014 09:00 AM
MOISTURE			A2540 G		Analyst: AT	
Moisture	13		0.050	% of sample	1	3/26/2014 12:16 PM
PH			SW9045D	Prep: EXTRACT / 3/26/14	Analyst: AT	
pH	9.1			s.u.	1	3/26/2014 04:30 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: East Wall
Collection Date: 3/25/2014 03:40 PM

Work Order: 14031137
Lab ID: 14031137-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 3/26/14	Analyst: IT
DRO (C10-C28)	15		4.8	mg/Kg-dry	1	3/27/2014 12:57 PM
<i>Surr: 4-Terphenyl-d14</i>	63.1		39-115	%REC	1	3/27/2014 12:57 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 3/26/14	Analyst: IT
GRO (C6-C10)	44		2.9	mg/Kg-dry	1	3/27/2014 06:26 AM
<i>Surr: Toluene-d8</i>	114		50-150	%REC	1	3/27/2014 06:26 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 3/27/14	Analyst: LR
Mercury	ND		0.016	mg/Kg-dry	1	3/27/2014 01:39 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 3/26/14	Analyst: ML
Arsenic	5.3		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Barium	120		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Cadmium	ND		0.89	mg/Kg-dry	5	3/27/2014 04:24 AM
Chromium	9.0		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Copper	10		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Lead	10		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Nickel	14		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Selenium	ND		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Silver	ND		2.2	mg/Kg-dry	5	3/27/2014 04:24 AM
Zinc	53		4.4	mg/Kg-dry	5	3/27/2014 04:24 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Calcium	530		10	mg/L	20	3/30/2014 08:08 AM
Magnesium	560		4.0	mg/L	20	3/30/2014 08:08 AM
Sodium	4,900		40	mg/L	200	3/30/2014 05:47 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Sodium Adsorption Ratio	35		0.010	none	1	3/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 3/26/14	Analyst: RM
Acenaphthene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Anthracene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Chrysene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: East Wall
Collection Date: 3/25/2014 03:40 PM

Work Order: 14031137
Lab ID: 14031137-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Fluorene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Pyrene	ND		7.7	µg/Kg-dry	1	3/26/2014 08:17 PM
Surr: 2-Fluorobiphenyl	63.9		12-100	%REC	1	3/26/2014 08:17 PM
Surr: 4-Terphenyl-d14	88.6		25-137	%REC	1	3/26/2014 08:17 PM
Surr: Nitrobenzene-d5	67.4		37-107	%REC	1	3/26/2014 08:17 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 3/26/14	Analyst: AK
Benzene	57		35	µg/Kg-dry	1	3/26/2014 04:47 PM
Ethylbenzene	68		35	µg/Kg-dry	1	3/26/2014 04:47 PM
m,p-Xylene	1,400		69	µg/Kg-dry	1	3/26/2014 04:47 PM
o-Xylene	230		35	µg/Kg-dry	1	3/26/2014 04:47 PM
Toluene	400		35	µg/Kg-dry	1	3/26/2014 04:47 PM
Xylenes, Total	1,700		100	µg/Kg-dry	1	3/26/2014 04:47 PM
Surr: 1,2-Dichloroethane-d4	97.4		70-130	%REC	1	3/26/2014 04:47 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	3/26/2014 04:47 PM
Surr: Dibromofluoromethane	96.1		70-130	%REC	1	3/26/2014 04:47 PM
Surr: Toluene-d8	103		70-130	%REC	1	3/26/2014 04:47 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: JJG
Electrical Conductivity @ Saturation	34		0.12	mmhos/cm @25	25	3/29/2014 09:20 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.0		0.58	mg/Kg-dry	1	3/28/2014 04:10 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 3/27/14	Analyst: MB
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	3/28/2014 09:00 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	13		0.050	% of sample	1	3/26/2014 12:16 PM
PH			SW9045D		Prep: EXTRACT / 3/26/14	Analyst: AT
pH	8.1			s.u.	1	3/26/2014 04:30 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: West Wall
Collection Date: 3/25/2014 04:00 PM

Work Order: 14031137
Lab ID: 14031137-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 3/26/14	Analyst: IT
DRO (C10-C28)	18		4.6	mg/Kg-dry	1	3/27/2014 01:27 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>64.9</i>		<i>39-115</i>	<i>%REC</i>	1	3/27/2014 01:27 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 3/26/14	Analyst: IT
GRO (C6-C10)	41		2.9	mg/Kg-dry	1	3/27/2014 06:52 AM
<i>Surr: Toluene-d8</i>	<i>119</i>		<i>50-150</i>	<i>%REC</i>	1	3/27/2014 06:52 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 3/27/14	Analyst: LR
Mercury	0.019		0.016	mg/Kg-dry	1	3/27/2014 01:41 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 3/26/14	Analyst: ML
Arsenic	6.8		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Barium	160		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Cadmium	ND		0.91	mg/Kg-dry	5	3/27/2014 04:30 AM
Chromium	9.9		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Copper	12		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Lead	12		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Nickel	15		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Selenium	ND		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Silver	ND		2.3	mg/Kg-dry	5	3/27/2014 04:30 AM
Zinc	59		4.5	mg/Kg-dry	5	3/27/2014 04:30 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Calcium	440		10	mg/L	20	3/30/2014 08:20 AM
Magnesium	190		4.0	mg/L	20	3/30/2014 08:20 AM
Sodium	1,800		4.0	mg/L	20	3/30/2014 08:20 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Sodium Adsorption Ratio	18		0.010	none	1	3/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 3/26/14	Analyst: RM
Acenaphthene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Acenaphthylene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Anthracene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Benzo(a)anthracene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Benzo(a)pyrene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Benzo(b)fluoranthene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Benzo(g,h,i)perylene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Benzo(k)fluoranthene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Chrysene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: West Wall
Collection Date: 3/25/2014 04:00 PM

Work Order: 14031137
Lab ID: 14031137-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Fluoranthene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Fluorene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Indeno(1,2,3-cd)pyrene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Naphthalene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Pyrene	ND		7.4	µg/Kg-dry	1	3/26/2014 08:37 PM
Surr: 2-Fluorobiphenyl	63.4		12-100	%REC	1	3/26/2014 08:37 PM
Surr: 4-Terphenyl-d14	89.9		25-137	%REC	1	3/26/2014 08:37 PM
Surr: Nitrobenzene-d5	58.5		37-107	%REC	1	3/26/2014 08:37 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 3/26/14	Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	3/26/2014 05:11 PM
Ethylbenzene	55		34	µg/Kg-dry	1	3/26/2014 05:11 PM
m,p-Xylene	570		69	µg/Kg-dry	1	3/26/2014 05:11 PM
o-Xylene	71		34	µg/Kg-dry	1	3/26/2014 05:11 PM
Toluene	110		34	µg/Kg-dry	1	3/26/2014 05:11 PM
Xylenes, Total	640		100	µg/Kg-dry	1	3/26/2014 05:11 PM
Surr: 1,2-Dichloroethane-d4	98.1		70-130	%REC	1	3/26/2014 05:11 PM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	3/26/2014 05:11 PM
Surr: Dibromofluoromethane	96.1		70-130	%REC	1	3/26/2014 05:11 PM
Surr: Toluene-d8	101		70-130	%REC	1	3/26/2014 05:11 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: JJG
Electrical Conductivity @ Saturation	14		0.12	mmhos/cm @25	25	3/29/2014 09:20 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.7		0.57	mg/Kg-dry	1	3/28/2014 04:10 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 3/27/14	Analyst: MB
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	3/28/2014 09:00 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	13		0.050	% of sample	1	3/26/2014 12:16 PM
PH			SW9045D		Prep: EXTRACT / 3/26/14	Analyst: AT
pH	8.2			s.u.	1	3/26/2014 04:30 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: North Wall
Collection Date: 3/25/2014 04:10 PM

Work Order: 14031137
Lab ID: 14031137-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 3/26/14	Analyst: IT
DRO (C10-C28)	15		5.0	mg/Kg-dry	1	3/27/2014 10:58 AM
Surr: 4-Terphenyl-d14	71.6		39-115	%REC	1	3/27/2014 10:58 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 3/26/14	Analyst: IT
GRO (C6-C10)	100		3.0	mg/Kg-dry	1	3/27/2014 07:17 AM
Surr: Toluene-d8	116		50-150	%REC	1	3/27/2014 07:17 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 3/27/14	Analyst: LR
Mercury	ND		0.016	mg/Kg-dry	1	3/27/2014 01:43 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 3/26/14	Analyst: ML
Arsenic	5.0		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Barium	110		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Cadmium	ND		0.90	mg/Kg-dry	5	3/27/2014 04:55 AM
Chromium	10		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Copper	11		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Lead	10		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Nickel	16		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Selenium	ND		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Silver	ND		2.3	mg/Kg-dry	5	3/27/2014 04:55 AM
Zinc	58		4.5	mg/Kg-dry	5	3/27/2014 04:55 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Calcium	630		10	mg/L	20	3/30/2014 08:26 AM
Magnesium	1,300		4.0	mg/L	20	3/30/2014 08:26 AM
Sodium	9,800		40	mg/L	200	3/30/2014 05:58 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 3/28/14	Analyst: RH
Sodium Adsorption Ratio	51		0.010	none	1	3/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 3/26/14	Analyst: RM
Acenaphthene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Acenaphthylene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Anthracene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Benzo(a)anthracene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Benzo(a)pyrene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Benzo(b)fluoranthene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Benzo(g,h,i)perylene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Benzo(k)fluoranthene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Chrysene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM

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

ALS Group USA, Corp

Date: 31-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.25.14
Sample ID: North Wall
Collection Date: 3/25/2014 04:10 PM

Work Order: 14031137
Lab ID: 14031137-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Fluoranthene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Fluorene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Indeno(1,2,3-cd)pyrene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Naphthalene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Pyrene	ND		8.0	µg/Kg-dry	1	3/26/2014 06:56 PM
Surr: 2-Fluorobiphenyl	72.4		12-100	%REC	1	3/26/2014 06:56 PM
Surr: 4-Terphenyl-d14	101		25-137	%REC	1	3/26/2014 06:56 PM
Surr: Nitrobenzene-d5	78.1		37-107	%REC	1	3/26/2014 06:56 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 3/26/14		Analyst: AK
Benzene	170		36	µg/Kg-dry	1	3/26/2014 05:36 PM
Ethylbenzene	330		36	µg/Kg-dry	1	3/26/2014 05:36 PM
m,p-Xylene	5,400		72	µg/Kg-dry	1	3/26/2014 05:36 PM
o-Xylene	810		36	µg/Kg-dry	1	3/26/2014 05:36 PM
Toluene	2,100		36	µg/Kg-dry	1	3/26/2014 05:36 PM
Xylenes, Total	6,200		110	µg/Kg-dry	1	3/26/2014 05:36 PM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	1	3/26/2014 05:36 PM
Surr: 4-Bromofluorobenzene	95.4		70-130	%REC	1	3/26/2014 05:36 PM
Surr: Dibromofluoromethane	95.1		70-130	%REC	1	3/26/2014 05:36 PM
Surr: Toluene-d8	105		70-130	%REC	1	3/26/2014 05:36 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 3/28/14		Analyst: JJG
Electrical Conductivity @ Saturation	62		0.12	mmhos/cm @25	25	3/29/2014 09:20 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.60	mg/Kg-dry	1	3/28/2014 04:10 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 3/27/14		Analyst: MB
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	3/28/2014 09:00 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	17		0.050	% of sample	1	3/26/2014 12:16 PM
PH			SW9045D	Prep: EXTRACT / 3/26/14		Analyst: AT
pH	8.3			s.u.	1	3/26/2014 04:30 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56914** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-56914-56914				Units: mg/Kg		Analysis Date: 3/27/2014 08:58 AM		
Client ID:		Run ID: GC8_140327A		SeqNo: 2688092		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.225	0	1.667	0	73.5	39-115	0			

LCS		Sample ID: DLCSS1-56914-56914				Units: mg/Kg		Analysis Date: 3/27/2014 09:28 AM		
Client ID:		Run ID: GC8_140327A		SeqNo: 2688095		Prep Date: 3/26/2014		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	4.2	166.7	0	84.2	49-124	0			
<i>Surr: 4-Terphenyl-d14</i>	1.165	0	1.667	0	69.9	39-115	0			

MS		Sample ID: 14031137-04B MS				Units: mg/Kg		Analysis Date: 3/27/2014 09:58 AM		
Client ID: North Wall		Run ID: GC8_140327A		SeqNo: 2688097		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	261.5	7.8	313.4	12.27	79.5	49-130	0			
<i>Surr: 4-Terphenyl-d14</i>	2.219	0	3.134	0	70.8	39-115	0			

MSD		Sample ID: 14031137-04B MSD				Units: mg/Kg		Analysis Date: 3/27/2014 10:28 AM		
Client ID: North Wall		Run ID: GC8_140327A		SeqNo: 2688099		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	262.7	7.9	317.8	12.27	78.8	49-130	261.5	0.459	30	
<i>Surr: 4-Terphenyl-d14</i>	2.134	0	3.178	0	67.2	39-115	2.219	3.87	30	

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56908** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-56908-56908				Units: µg/Kg		Analysis Date: 3/26/2014 11:39 PM		
Client ID:		Run ID: GC9_140326B		SeqNo: 2686961		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5810</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>116</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-56908-56908				Units: µg/Kg		Analysis Date: 3/26/2014 11:13 PM		
Client ID:		Run ID: GC9_140326B		SeqNo: 2686959		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	537200	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4772</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.4</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 14031137-04A MS				Units: µg/Kg		Analysis Date: 3/27/2014 08:59 AM		
Client ID: North Wall		Run ID: GC9_140326B		SeqNo: 2686985		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	670900	2,500	500000	84720	117	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5271</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>105</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 14031137-04A MSD				Units: µg/Kg		Analysis Date: 3/27/2014 09:25 AM		
Client ID: North Wall		Run ID: GC9_140326B		SeqNo: 2686987		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	645900	2,500	500000	84720	112	70-130	670900	3.79	30	
<i>Surr: Toluene-d8</i>	<i>4904</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>98.1</i>	<i>50-150</i>	<i>5271</i>	<i>7.22</i>	<i>30</i>	

The following samples were analyzed in this batch:

14031137-01A	14031137-02A	14031137-03A
14031137-04A		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56945** Instrument ID **HG1** Method: **SW7471**

MBLK	Sample ID: MBLK-56945-56945				Units: mg/Kg			Analysis Date: 3/27/2014 01:30 PM		
Client ID:	Run ID: HG1_140327A				SeqNo: 2687823		Prep Date: 3/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS	Sample ID: LCS-56945-56945				Units: mg/Kg			Analysis Date: 3/27/2014 01:32 PM		
Client ID:	Run ID: HG1_140327A				SeqNo: 2687824		Prep Date: 3/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1878 0.020 0.1665 0 113 80-120 0

MS	Sample ID: 1403953-01AMS				Units: mg/Kg			Analysis Date: 3/27/2014 02:04 PM		
Client ID:	Run ID: HG1_140327A				SeqNo: 2687838		Prep Date: 3/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1758 0.016 0.1309 0.02819 113 75-125 0

MSD	Sample ID: 1403953-01AMSD				Units: mg/Kg			Analysis Date: 3/27/2014 02:07 PM		
Client ID:	Run ID: HG1_140327A				SeqNo: 2687839		Prep Date: 3/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1677 0.015 0.1281 0.02819 109 75-125 0.1758 4.73 35

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56918** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-56918-56918				Units: mg/Kg		Analysis Date: 3/26/2014 11:52 PM		
Client ID:		Run ID: ICPMS1_140326A			SeqNo: 2686681		Prep Date: 3/26/2014		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	ND	0.25								
Cadmium	0.00145	0.10								J
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.001064	0.25								J
Zinc	ND	0.50								

MBLK		Sample ID: MBLK-56918-56918				Units: mg/Kg		Analysis Date: 3/27/2014 01:33 PM		
Client ID:		Run ID: ICPMS1_140327A			SeqNo: 2688014		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-56918-56918				Units: mg/Kg		Analysis Date: 3/26/2014 11:58 PM		
Client ID:		Run ID: ICPMS1_140326A			SeqNo: 2686682		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	4.741	0.25	5	0	94.8	80-120	0			
Cadmium	4.72	0.10	5	0	94.4	80-120	0			
Chromium	4.726	0.25	5	0	94.5	80-120	0			
Copper	4.798	0.25	5	0	96	80-120	0			
Lead	4.777	0.25	5	0	95.5	80-120	0			
Nickel	4.682	0.25	5	0	93.6	80-120	0			
Selenium	4.32	0.25	5	0	86.4	80-120	0			
Silver	4.652	0.25	5	0	93	80-120	0			
Zinc	4.664	0.50	5	0	93.3	80-120	0			

LCS		Sample ID: LCS-56918-56918				Units: mg/Kg		Analysis Date: 3/27/2014 01:39 PM		
Client ID:		Run ID: ICPMS1_140327A			SeqNo: 2688016		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.743	0.25	5	0	94.9	80-120	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56918** Instrument ID **ICPMS1** Method: **SW6020A**

MS		Sample ID: 14031119-03AMS				Units: mg/Kg		Analysis Date: 3/27/2014 03:42 AM		
Client ID:		Run ID: ICPMS1_140326A			SeqNo: 2686717		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.549	0.37	7.474	0.5149	94.1	75-125	0			
Barium	12.54	0.37	7.474	4.242	111	75-125	0			
Cadmium	7.134	0.15	7.474	0.02365	95.1	75-125	0			
Chromium	9.993	0.37	7.474	2.166	105	75-125	0			
Copper	8.505	0.37	7.474	1.181	98	75-125	0			
Lead	8.52	0.37	7.474	1.108	99.2	75-125	0			
Nickel	9.17	0.37	7.474	1.678	100	75-125	0			
Selenium	7.072	0.37	7.474	0.2965	90.7	75-125	0			
Silver	6.88	0.37	7.474	0.001369	92	75-125	0			
Zinc	16.11	0.75	7.474	6.454	129	75-125	0			S

MSD		Sample ID: 14031119-03AMSD				Units: mg/Kg		Analysis Date: 3/27/2014 03:48 AM		
Client ID:		Run ID: ICPMS1_140326A			SeqNo: 2686718		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.318	0.38	7.599	0.5149	89.5	75-125	7.549	3.1	25	
Barium	12.05	0.38	7.599	4.242	103	75-125	12.54	3.98	25	
Cadmium	7.125	0.15	7.599	0.02365	93.5	75-125	7.134	0.118	25	
Chromium	9.286	0.38	7.599	2.166	93.7	75-125	9.993	7.33	25	
Copper	8.343	0.38	7.599	1.181	94.3	75-125	8.505	1.92	25	
Lead	8.214	0.38	7.599	1.108	93.5	75-125	8.52	3.66	25	
Nickel	8.906	0.38	7.599	1.678	95.1	75-125	9.17	2.93	25	
Selenium	7.008	0.38	7.599	0.2965	88.3	75-125	7.072	0.911	25	
Silver	6.869	0.38	7.599	0.001369	90.4	75-125	6.88	0.151	25	
Zinc	13.56	0.76	7.599	6.454	93.5	75-125	16.11	17.2	25	

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **57015** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14031137-02CDUP				Units: mg/L		Analysis Date: 3/30/2014 08:14 AM		
Client ID: East Wall		Run ID: ICPMS2_140329A				SeqNo: 2691010		Prep Date: 3/28/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	538.6	10	0	0	0	0-0	533.6	0.933		
Magnesium	557.8	4.0	0	0	0	0-0	564	1.11		

DUP		Sample ID: 14031137-02CDUP				Units: mg/L		Analysis Date: 3/30/2014 05:52 PM		
Client ID: East Wall		Run ID: ICPMS2_140330A				SeqNo: 2691071		Prep Date: 3/28/2014		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sodium	4842	40	0	0	0	0-0	4896	1.11		
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DUP		Sample ID: 14031137-02CDUP				Units: none		Analysis Date: 3/29/2014		
Client ID: East Wall		Run ID: SAR_140329A				SeqNo: 2691847		Prep Date: 3/28/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Sodium Adsorption Ratio	34.91	0.010	0	0	0		35.24	0.93	50	
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The following samples were analyzed in this batch:

14031137-01C	14031137-02C	14031137-03C
14031137-04C		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56915** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-56915-56915				Units: µg/Kg		Analysis Date: 3/26/2014 05:34 PM		
Client ID:		Run ID: SVMS8_140326A		SeqNo: 2687752		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1190	0	1667	0	71.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1726	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1246	0	1667	0	74.8	37-107	0			

LCS		Sample ID: SLCSS1-56915-56915				Units: µg/Kg		Analysis Date: 3/26/2014 05:55 PM		
Client ID:		Run ID: SVMS8_140326A		SeqNo: 2687712		Prep Date: 3/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	497.3	6.7	666.7	0	74.6	45-110	0			
Acenaphthylene	512.3	6.7	666.7	0	76.8	45-105	0			
Anthracene	600	6.7	666.7	0	90	55-105	0			
Benzo(a)anthracene	602.3	6.7	666.7	0	90.3	50-110	0			
Benzo(a)pyrene	620.7	6.7	666.7	0	93.1	50-110	0			
Benzo(b)fluoranthene	601	6.7	666.7	0	90.1	45-115	0			
Benzo(g,h,i)perylene	623	6.7	666.7	0	93.4	40-125	0			
Benzo(k)fluoranthene	587	6.7	666.7	0	88	45-115	0			
Chrysene	582.3	6.7	666.7	0	87.3	55-110	0			
Dibenzo(a,h)anthracene	644.3	6.7	666.7	0	96.6	40-125	0			
Fluoranthene	566	6.7	666.7	0	84.9	55-115	0			
Fluorene	519.3	6.7	666.7	0	77.9	50-110	0			
Indeno(1,2,3-cd)pyrene	641.7	6.7	666.7	0	96.2	40-120	0			
Naphthalene	451.7	6.7	666.7	0	67.7	40-105	0			
Pyrene	637	6.7	666.7	0	95.5	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1147	0	1667	0	68.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1740	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1248	0	1667	0	74.9	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: 56915 Instrument ID SVMS8 Method: SW8270

MS				Sample ID: 14031137-04B MS			Units: µg/Kg		Analysis Date: 3/26/2014 06:15 PM		
Client ID: North Wall				Run ID: SVMS8_140326A			SeqNo: 2687715		Prep Date: 3/26/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	994.5	13	1285	0	77.4	45-110	0				
Acenaphthylene	1048	13	1285	0	81.6	45-105	0				
Anthracene	1144	13	1285	0	89	55-105	0				
Benzo(a)anthracene	1144	13	1285	0	89	50-110	0				
Benzo(a)pyrene	1153	13	1285	0	89.7	50-110	0				
Benzo(b)fluoranthene	1126	13	1285	0	87.6	45-115	0				
Benzo(g,h,i)perylene	1191	13	1285	0	92.7	40-125	0				
Benzo(k)fluoranthene	1081	13	1285	0	84.1	45-115	0				
Chrysene	1053	13	1285	0	81.9	55-110	0				
Dibenzo(a,h)anthracene	1216	13	1285	0	94.6	40-125	0				
Fluoranthene	1055	13	1285	0	82.1	55-115	0				
Fluorene	1020	13	1285	0	79.4	50-110	0				
Indeno(1,2,3-cd)pyrene	1206	13	1285	0	93.9	40-120	0				
Naphthalene	909.7	13	1285	0	70.8	40-105	0				
Pyrene	1199	13	1285	0	93.3	45-125	0				
Surr: 2-Fluorobiphenyl	2381	0	3212	0	74.1	12-100	0				
Surr: 4-Terphenyl-d14	3264	0	3212	0	102	25-137	0				
Surr: Nitrobenzene-d5	2576	0	3212	0	80.2	37-107	0				

MSD				Sample ID: 14031137-04B MSD			Units: µg/Kg		Analysis Date: 3/26/2014 06:35 PM		
Client ID: North Wall				Run ID: SVMS8_140326A			SeqNo: 2687717		Prep Date: 3/26/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1024	13	1298	0	78.9	45-110	994.5	2.93	30		
Acenaphthylene	1049	13	1298	0	80.8	45-105	1048	0.0904	30		
Anthracene	1156	13	1298	0	89.1	55-105	1144	1.13	30		
Benzo(a)anthracene	1151	13	1298	0	88.6	50-110	1144	0.62	30		
Benzo(a)pyrene	1169	13	1298	0	90	50-110	1153	1.4	30		
Benzo(b)fluoranthene	1143	13	1298	0	88.1	45-115	1126	1.53	30		
Benzo(g,h,i)perylene	1236	13	1298	0	95.2	40-125	1191	3.67	30		
Benzo(k)fluoranthene	1083	13	1298	0	83.4	45-115	1081	0.238	30		
Chrysene	1070	13	1298	0	82.4	55-110	1053	1.56	30		
Dibenzo(a,h)anthracene	1231	13	1298	0	94.8	40-125	1216	1.22	30		
Fluoranthene	1094	13	1298	0	84.3	55-115	1055	3.66	30		
Fluorene	1045	13	1298	0	80.5	50-110	1020	2.39	30		
Indeno(1,2,3-cd)pyrene	1275	13	1298	0	98.2	40-120	1206	5.54	30		
Naphthalene	937.8	13	1298	0	72.2	40-105	909.7	3.04	30		
Pyrene	1190	13	1298	0	91.7	45-125	1199	0.77	30		
Surr: 2-Fluorobiphenyl	2398	0	3245	0	73.9	12-100	2381	0.716	40		
Surr: 4-Terphenyl-d14	3240	0	3245	0	99.8	25-137	3264	0.753	40		
Surr: Nitrobenzene-d5	2590	0	3245	0	79.8	37-107	2576	0.539	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56915** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56917** Instrument ID **VMS9** Method: **SW8260B**

MBLK		Sample ID: MBLK-56917-56917				Units: µg/Kg		Analysis Date: 3/27/2014 11:27 AM		
Client ID:		Run ID: VMS9_140326B			SeqNo: 2687641		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	1031	0	1000	0	103	70-130	0			
Surr: 4-Bromofluorobenzene	961	0	1000	0	96.1	70-130	0			
Surr: Dibromofluoromethane	1022	0	1000	0	102	70-130	0			
Surr: Toluene-d8	1006	0	1000	0	101	70-130	0			

LCS		Sample ID: LCS-56917-56917				Units: µg/Kg		Analysis Date: 3/26/2014 03:53 PM		
Client ID:		Run ID: VMS9_140326A			SeqNo: 2687640		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1034	30	1000	0	103	75-125	0			
Ethylbenzene	1063	30	1000	0	106	75-125	0			
m,p-Xylene	2164	60	2000	0	108	80-125	0			
o-Xylene	1090	30	1000	0	109	75-125	0			
Toluene	1006	30	1000	0	101	70-125	0			
Xylenes, Total	3254	90	3000	0	108	75-125	0			
Surr: 1,2-Dichloroethane-d4	947.5	0	1000	0	94.8	70-130	0			
Surr: 4-Bromofluorobenzene	1012	0	1000	0	101	70-130	0			
Surr: Dibromofluoromethane	961	0	1000	0	96.1	70-130	0			
Surr: Toluene-d8	997	0	1000	0	99.7	70-130	0			

MS		Sample ID: 14031138-01A MS				Units: µg/Kg		Analysis Date: 3/26/2014 08:03 PM		
Client ID:		Run ID: VMS8_140326A			SeqNo: 2686859		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	952.5	30	1000	0	95.2	75-125	0			
Ethylbenzene	1039	30	1000	0	104	75-125	0			
m,p-Xylene	2158	60	2000	64	105	80-125	0			
o-Xylene	1057	30	1000	0	106	75-125	0			
Toluene	1032	30	1000	30.5	100	70-125	0			
Xylenes, Total	3215	90	3000	64	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	966.5	0	1000	0	96.6	70-130	0			
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	976.5	0	1000	0	97.6	70-130	0			
Surr: Toluene-d8	998	0	1000	0	99.8	70-130	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: 56917 Instrument ID VMS9 Method: SW8260B

MSD		Sample ID: 14031138-01A MSD				Units: µg/Kg		Analysis Date: 3/26/2014 08:27 PM		
Client ID:		Run ID: VMS8_140326A			SeqNo: 2686864		Prep Date: 3/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	923.5	30	1000	0	92.4	75-125	952.5	3.09	30	
Ethylbenzene	996.5	30	1000	0	99.6	75-125	1039	4.18	30	
m,p-Xylene	2060	60	2000	64	99.8	80-125	2158	4.67	30	
o-Xylene	994.5	30	1000	0	99.4	75-125	1057	6.09	30	
Toluene	978.5	30	1000	30.5	94.8	70-125	1032	5.37	30	
Xylenes, Total	3054	90	3000	64	99.7	75-125	3215	5.14	30	
Surr: 1,2-Dichloroethane-d4	960	0	1000	0	96	70-130	966.5	0.675	30	
Surr: 4-Bromofluorobenzene	1012	0	1000	0	101	70-130	1026	1.47	30	
Surr: Dibromofluoromethane	968.5	0	1000	0	96.8	70-130	976.5	0.823	30	
Surr: Toluene-d8	999.5	0	1000	0	100	70-130	998	0.15	30	

The following samples were analyzed in this batch:

14031137-01A	14031137-02A	14031137-03A
14031137-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **56924** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: LCS-56924-56924		Units: s.u.		Analysis Date: 3/26/2014 04:30 PM					
Client ID:	Run ID: WETCHEM_140326X		SeqNo: 2687666		Prep Date: 3/26/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.94	0	4	0	98.5	90-110	0			

DUP	Sample ID: 14031136-01B DUP		Units: s.u.		Analysis Date: 3/26/2014 04:30 PM					
Client ID:	Run ID: WETCHEM_140326X		SeqNo: 2687668		Prep Date: 3/26/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.85	0	0	0	0	0-0	7.76	1.15	20	

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **57006** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-57006-57006		Units: mg/Kg		Analysis Date: 3/28/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140328E		SeqNo: 2688917		Prep Date: 3/27/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS	Sample ID: LCS-57006-57006		Units: mg/Kg		Analysis Date: 3/28/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140328E		SeqNo: 2688918		Prep Date: 3/27/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.88 0.50 2 0 94 80-120 0

MS	Sample ID: 14031136-01B MS		Units: mg/Kg		Analysis Date: 3/28/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140328E		SeqNo: 2688927		Prep Date: 3/27/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49 1.961 0.119 -6.07 75-125 0 S

MS	Sample ID: 14031136-01B MSI		Units: mg/Kg		Analysis Date: 3/28/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140328E		SeqNo: 2688929		Prep Date: 3/27/2014 DF: 100					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 904.8 50 772.6 0.119 117 75-125 0

MSD	Sample ID: 14031136-01B MSD		Units: mg/Kg		Analysis Date: 3/28/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140328E		SeqNo: 2688928		Prep Date: 3/27/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50 2 0.119 -5.95 75-125 0.1176 0 20 S

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031137
Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **57015** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP	Sample ID: 14031137-02C DUP		Units: mmhos/cm @25°C		Analysis Date: 3/29/2014 09:20 AM					
Client ID: East Wall	Run ID: WETCHEM_140329A		SeqNo: 2690198		Prep Date: 3/28/2014 DF: 25					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	33.32	0.12	0	0	0		34.48	3.39	50	

The following samples were analyzed in this batch:

14031137-01C	14031137-02C	14031137-03C
14031137-04C		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031137
 Project: WPX Clough 14-22 Condensate Spill 3.25.14

QC BATCH REPORT

Batch ID: **R137838** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R137838				Units: % of sample			Analysis Date: 3/26/2014 12:16 PM		
Client ID:	Run ID: MOIST_140326C			SeqNo: 2687310		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-R137838				Units: % of sample			Analysis Date: 3/26/2014 12:16 PM		
Client ID:	Run ID: MOIST_140326C			SeqNo: 2687309		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: 14031091-04A DUP				Units: % of sample			Analysis Date: 3/26/2014 12:16 PM		
Client ID:	Run ID: MOIST_140326C			SeqNo: 2687284		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 96.73 0.050 0 0 0 0-0 96.58 0.155 20

DUP	Sample ID: 14031104-09A DUP				Units: % of sample			Analysis Date: 3/26/2014 12:16 PM		
Client ID:	Run ID: MOIST_140326C			SeqNo: 2687298		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 85.37 0.050 0 0 0 0-0 86.02 0.759 20

The following samples were analyzed in this batch:

14031137-01B	14031137-02B	14031137-03B
14031137-04B		

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 #	14031137
-------------	----------


PROJECT NAME	WPX clough 14-22	SAMPLER	Reed Wold	DATE	3/25/14	PAGE	1 of 1
PROJECT No.	condensate spill	SITE ID	Blough 14-22	TURNAROUND	24HR	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HCSI	EDD FORMAT					
SEND REPORT TO	Mark Mumby	PURCHASE ORDER					
ADDRESS	2385 F1/2 Rd	BILL TO COMPANY	WPX				
CITY/STATE/ZIP	Grand Junction CO 81506	INVOICE ATTN TO	Karolina Blancy				
PHONE	970-243-3271	ADDRESS					
FAX	970-243-3280	CITY/STATE/ZIP					
E-MAIL	Mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE					
		FAX					
		E-MAIL					

BTEX/2620
 DR/PAH/Metals
 SAR/EC/PM

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
1	South Wall	SO	3/25/14	3:50	3	8		X	X	X										
2	East Wall			3:40				X	X	X										
3	West Wall			4:00				X	X	X										
4	North Wall			4:10				0	X	X										


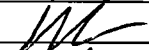

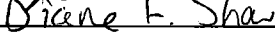
*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments: 
 See attached table for Analyte Method
 4.4°C

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

Perservative 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		Reed Wold	3/25/14	4:20
RECEIVED BY			3-25	4:20
RELINQUISHED BY			3-25	9:45
RECEIVED BY		Diane F. Shaw	3/26/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **26-Mar-14 09:30**

Work Order: **14031137**

Received by: **DS**

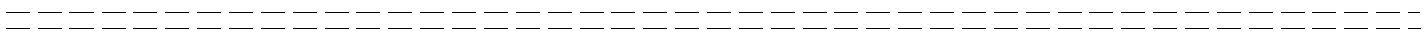
Checklist completed by Diane Shaw 26-Mar-14
eSignature Date

Reviewed by: Ann Preston 26-Mar-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="4.4 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="3/26/2014 10:46:23 AM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

Origin ID: RILA



Ship Date: 25MAR14
ActWgt: 60.0 LB
CAD: 103923490/NET3490
Dims: 25 X 14 X 15 IN

127 E First Street
PARACHUTE, CO 81635



J14101402670326

Delivery Address Bar Code



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

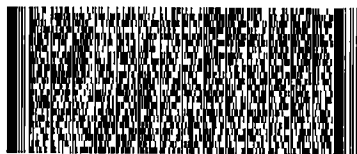
BILL RECIPIENT

Ref # 1001-032514-6
Invoice #
PO #
Dept #

HOLLAND, MI 49424

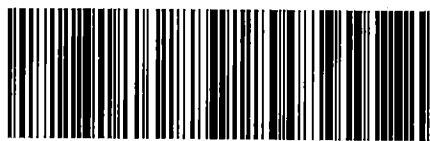
WED - 26 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 7983 3597 6044
0201



XX GRRR

49424
MI-US
GRR



SZG1/CC4F/220

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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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Handwritten signature: CS

Handwritten signature: RILA



02-Apr-2014

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

Re: **WPX Clough 14-22 Condensate Spill 3.28.14**

Work Order: **14031368**

Dear Mark,

ALS Environmental received 1 sample on 29-Mar-2014 10:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 11.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.28.14
Work Order: 14031368

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14031368-01	South Wall	Soil		3/28/2014 14:00	3/29/2014 10:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.28.14
WorkOrder: 14031368

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 02-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Condensate Spill 3.28.14
Sample ID: South Wall
Collection Date: 3/28/2014 02:00 PM

Work Order: 14031368
Lab ID: 14031368-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 3/31/14	Analyst: IT
DRO (C10-C28)	320		4.9	mg/Kg-dry	1	4/1/2014 03:58 AM
<i>Surr: 4-Terphenyl-d14</i>	66.9		39-115	%REC	1	4/1/2014 03:58 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 3/31/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	4/1/2014 04:08 PM
<i>Surr: Toluene-d8</i>	97.2		50-150	%REC	1	4/1/2014 04:08 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 3/31/14	Analyst: AK
Benzene	130		36	µg/Kg-dry	1	3/31/2014 02:36 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	3/31/2014 02:36 PM
m,p-Xylene	250		71	µg/Kg-dry	1	3/31/2014 02:36 PM
o-Xylene	37		36	µg/Kg-dry	1	3/31/2014 02:36 PM
Toluene	ND		36	µg/Kg-dry	1	3/31/2014 02:36 PM
Xylenes, Total	290		110	µg/Kg-dry	1	3/31/2014 02:36 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	97.2		70-130	%REC	1	3/31/2014 02:36 PM
<i>Surr: 4-Bromofluorobenzene</i>	102		70-130	%REC	1	3/31/2014 02:36 PM
<i>Surr: Dibromofluoromethane</i>	98.2		70-130	%REC	1	3/31/2014 02:36 PM
<i>Surr: Toluene-d8</i>	96.2		70-130	%REC	1	3/31/2014 02:36 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	16		0.050	% of sample	1	3/31/2014 09:13 AM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14031368
Project: WPX Clough 14-22 Condensate Spill 3.28.14

QC BATCH REPORT

Batch ID: **57041** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-57041-57041				Units: mg/Kg		Analysis Date: 3/31/2014 11:59 PM		
Client ID:		Run ID: GC8_140331B		SeqNo: 2694265		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	0.9027	0	1.667	0	54.2	39-115	0			

LCS		Sample ID: DLCSS1-57041-57041				Units: mg/Kg		Analysis Date: 4/1/2014 12:29 PM		
Client ID:		Run ID: GC8_140331B		SeqNo: 2694280		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	139.5	4.2	166.7	0	83.7	49-124	0			
<i>Surr: 4-Terphenyl-d14</i>	1.028	0	1.667	0	61.7	39-115	0			

MS		Sample ID: 14031325-05B MS				Units: mg/Kg		Analysis Date: 4/1/2014 12:59 PM		
Client ID:		Run ID: GC8_140331B		SeqNo: 2694281		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	345.6	8.1	322.8	9.837	104	49-130	0			
<i>Surr: 4-Terphenyl-d14</i>	2.489	0	3.228	0	77.1	39-115	0			

MSD		Sample ID: 14031325-05B MSD				Units: mg/Kg		Analysis Date: 4/1/2014 01:28 AM		
Client ID:		Run ID: GC8_140331B		SeqNo: 2694267		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	287	8.2	328.2	9.837	84.4	49-130	345.6	18.5	30	
<i>Surr: 4-Terphenyl-d14</i>	2.23	0	3.282	0	67.9	39-115	2.489	11	30	

The following samples were analyzed in this batch: 14031368-01A

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031368
 Project: WPX Clough 14-22 Condensate Spill 3.28.14

QC BATCH REPORT

Batch ID: **57048** Instrument ID **GC9** Method: **PUBL-SW-140**

MBLK	Sample ID: MBLK-57048-57048				Units: µg/Kg			Analysis Date: 4/1/2014 12:32 PM		
Client ID:	Run ID: GC9_140331B			SeqNo: 2693355		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10) ND 1,000

MBLK	Sample ID: MBLK-57048-57048				Units: µg/Kg			Analysis Date: 4/1/2014 03:43 PM		
Client ID:	Run ID: GC9_140401B			SeqNo: 2694710		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10) ND 2,500

Surr: Toluene-d8 4870 0 5000 0 97.4 50-150 0

LCS	Sample ID: LCS-57048-57048				Units: µg/Kg			Analysis Date: 3/31/2014 10:45 PM		
Client ID:	Run ID: GC9_140331B			SeqNo: 2693336		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10) 10380 1,000 10000 0 104 80-120 0

LCS	Sample ID: LCS-57048-57048				Units: µg/Kg			Analysis Date: 4/1/2014 02:19 PM		
Client ID:	Run ID: GC9_140401B			SeqNo: 2694709		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10) 487500 2,500 500000 0 97.5 70-130 0

Surr: Toluene-d8 4176 0 5000 0 83.5 50-150 0

LCSD	Sample ID: LCSD-57048-57048				Units: µg/Kg			Analysis Date: 4/1/2014 01:51 AM		
Client ID:	Run ID: GC9_140331B			SeqNo: 2693337		Prep Date: 3/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

GRO (C6-C10) 11300 1,000 10000 0 113 80-120 10380 8.57 20

The following samples were analyzed in this batch:

14031368-01A

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14031368
 Project: WPX Clough 14-22 Condensate Spill 3.28.14

QC BATCH REPORT

Batch ID: **57047** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: MBLK-57047-57047			Units: µg/Kg			Analysis Date: 3/31/2014 12:28 PM		
Client ID:		Run ID: VMS5_140331A			SeqNo: 2692048		Prep Date: 3/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	968	0	1000	0	96.8	70-130	0			
Surr: 4-Bromofluorobenzene	986	0	1000	0	98.6	70-130	0			
Surr: Dibromofluoromethane	960	0	1000	0	96	70-130	0			
Surr: Toluene-d8	959.5	0	1000	0	96	70-130	0			

LCS		Sample ID: LCS-57047-57047			Units: µg/Kg			Analysis Date: 3/31/2014 11:10 AM		
Client ID:		Run ID: VMS5_140331A			SeqNo: 2692047		Prep Date: 3/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1052	30	1000	0	105	75-125	0			
Ethylbenzene	1011	30	1000	0	101	75-125	0			
m,p-Xylene	1998	60	2000	0	99.9	80-125	0			
o-Xylene	1001	30	1000	0	100	75-125	0			
Toluene	979.5	30	1000	0	98	70-125	0			
Xylenes, Total	2999	90	3000	0	100	75-125	0			
Surr: 1,2-Dichloroethane-d4	965.5	0	1000	0	96.6	70-130	0			
Surr: 4-Bromofluorobenzene	987	0	1000	0	98.7	70-130	0			
Surr: Dibromofluoromethane	1001	0	1000	0	100	70-130	0			
Surr: Toluene-d8	958.5	0	1000	0	95.8	70-130	0			

The following samples were analyzed in this batch:

14031368-01A

Client: HRL Compliance Solutions, Inc
 Work Order: 14031368
 Project: WPX Clough 14-22 Condensate Spill 3.28.14

QC BATCH REPORT

Batch ID: **R138129** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R138129		Units: % of sample				Analysis Date: 3/31/2014 09:13 AM			
Client ID:	Run ID: MOIST_140331A		SeqNo: 2693375		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-R138129		Units: % of sample				Analysis Date: 3/31/2014 09:13 AM			
Client ID:	Run ID: MOIST_140331A		SeqNo: 2693374		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.95 0.050 100 0 100 99.5-100.5 0

DUP	Sample ID: 14031368-01A DUP		Units: % of sample				Analysis Date: 3/31/2014 09:13 AM			
Client ID: South Wall	Run ID: MOIST_140331A		SeqNo: 2693358		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.68 0.050 0 0 0 0-0 15.7 6.71 20

DUP	Sample ID: 14031398-07B DUP		Units: % of sample				Analysis Date: 3/31/2014 09:13 AM			
Client ID:	Run ID: MOIST_140331A		SeqNo: 2693365		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.24 0.050 0 0 0 0-0 17.24 5.64 20

The following samples were analyzed in this batch:

14031368-01A

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 #	14031368
PAGE	1 of 1

PROJECT NAME	WPX Clough 14-22 carbonate spill	SAMPLER	Reed Wold				DATE	3/28/14				DISPOSAL	By Lab or Return to Client			
PROJECT No.		SITE ID	Clough 14-22				TURNAROUND	24HR								
COMPANY NAME	HRL Compliance	EDD FORMAT					Lab 1876X DRG									
SEND REPORT TO	Mark Mumby	PURCHASE ORDER														
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX													
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	Karolina Blaney													
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215													
FAX	970-243-3280	CITY / STATE / ZIP	Parachure CO 81635													
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-683-2295													
E-MAIL		FAX														
E-MAIL		E-MAIL	Karolina.blaney@wpxenergy.com													
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC									
1	South Wall	SO	3/28/14	2:00	1	8	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: 3.4' L 	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	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		Reed Wold	3/28/14	3:00
RECEIVED BY		Colby Koerner	3/28/14	15:15
RELINQUISHED BY		Colby Koerner	3/28/14	15:30
RECEIVED BY	FedEx			
RELINQUISHED BY		Diane F. Sha	3/29/14	10:30
RECEIVED BY		Diane F. Sha	3/29/14	10:30

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **29-Mar-14 10:30**

Work Order: **14031368**

Received by: **DS**

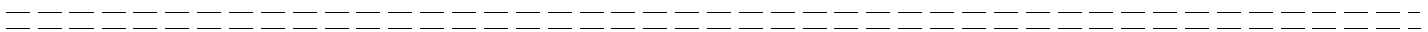
Checklist completed by Diane Shaw 29-Mar-14
eSignature Date

Reviewed by: Ann Preston 31-Mar-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.4 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="3/29/2014 12:54:02 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

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

Origin ID: RILA

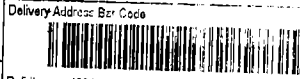


Ship Date: 28MAR14
 ActWgt: 52.0 LB
 CAD: 103623490 WRE 73490

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

HOLLAND, MI 49424

BILL RECIPIENT



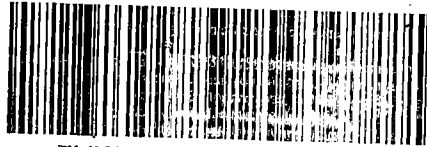
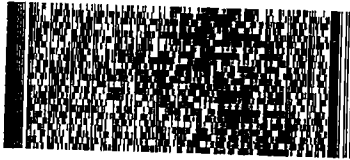
Ref # 1001 032614 1
 Invoice #
 PO #
 Dept #

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 79E3 7445 0703
 0201

X0 GRRR

49424
 MI-US
GRR

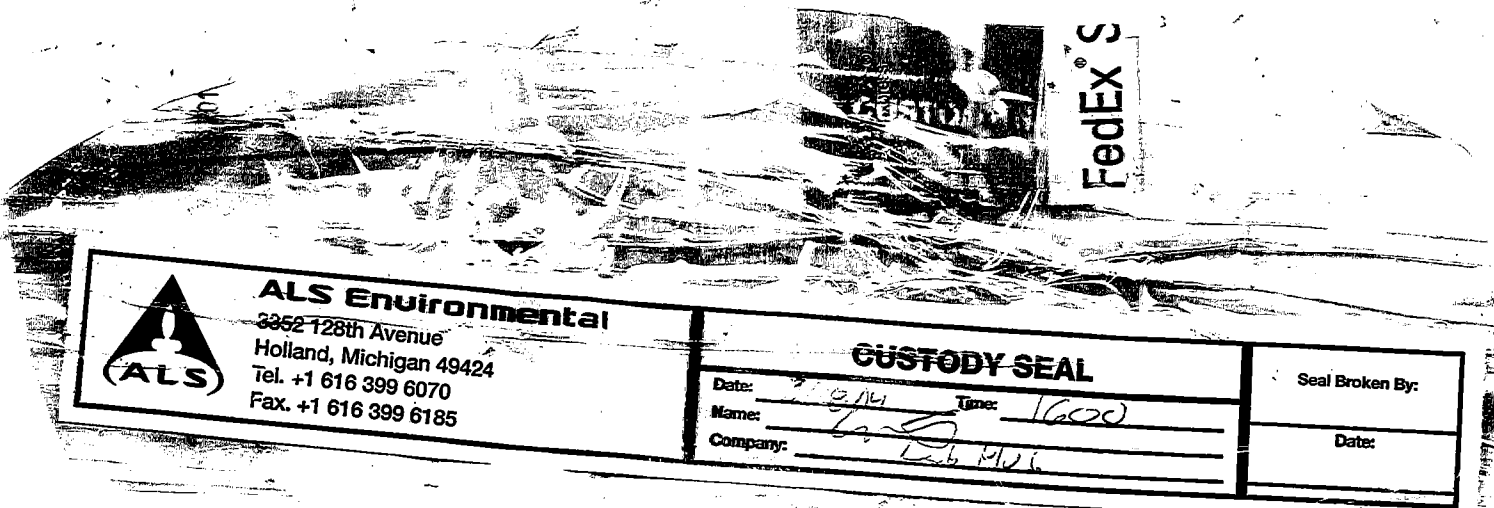


5225-1004/F220

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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ALS Environmental
 3352 128th Avenue
 Holland, Michigan 49424
 Tel. +1 616 399 6070
 Fax. +1 616 399 6185

CUSTODY SEAL

Date: 3/28/14 Time: 1600
 Name: [Signature]
 Company: Lab Hub

Seal Broken By:

Date:



28-Apr-2014

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

Re: **WPX Clough 14-22 Landfarm 4.15.14**

Work Order: **1404924**

Dear Mark,

ALS Environmental received 1 sample on 17-Apr-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 4.15.14
Work Order: 1404924

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1404924-01	Batch 1	Soil		4/15/2014 13:20	4/17/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 4.15.14
Work Order: 1404924

Case Narrative

Batch 57712 sample Batch 1 MS/MSD recoveries for Chromium were above control limits. The corresponding result in the parent sample may be biased high for Chromium. The MS/MSD recoveries for Barium and the RPD, and the MS recover for Zinc were outside control limits, however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Barium and Zinc.

Batch 57786 duplicate data for SAR is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 28-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 4.15.14
Sample ID: Batch 1
Collection Date: 4/15/2014 01:20 PM

Work Order: 1404924
Lab ID: 1404924-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 4/18/14	Analyst: IT
DRO (C10-C28)	96		4.7	mg/Kg-dry	1	4/21/2014 01:10 AM
<i>Surr: 4-Terphenyl-d14</i>	100		39-115	%REC	1	4/21/2014 01:10 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 4/17/14	Analyst: IT
GRO (C6-C10)	51		2.8	mg/Kg-dry	1	4/18/2014 05:42 AM
<i>Surr: Toluene-d8</i>	122		50-150	%REC	1	4/18/2014 05:42 AM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 4/18/14	Analyst: LR
Mercury	0.022		0.015	mg/Kg-dry	1	4/18/2014 01:31 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 4/18/14	Analyst: ML
Arsenic	6.2		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Barium	350		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Cadmium	ND		0.85	mg/Kg-dry	5	4/23/2014 02:53 AM
Chromium	10		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Copper	11		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Lead	13		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Nickel	15		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Selenium	ND		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Silver	ND		2.1	mg/Kg-dry	5	4/23/2014 02:53 AM
Zinc	55		4.3	mg/Kg-dry	5	4/23/2014 02:53 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 4/23/14	Analyst: RH
Calcium	560		10	mg/L	20	4/25/2014 07:54 PM
Magnesium	350		4.0	mg/L	20	4/25/2014 07:54 PM
Sodium	3,200		4.0	mg/L	20	4/25/2014 07:54 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 4/23/14	Analyst: RH
Sodium Adsorption Ratio	26		0.010	none	1	4/25/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 4/18/14	Analyst: RM
Acenaphthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Chrysene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM

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

ALS Group USA, Corp

Date: 28-Apr-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 4.15.14
Sample ID: Batch 1
Collection Date: 4/15/2014 01:20 PM

Work Order: 1404924
Lab ID: 1404924-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Fluorene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Naphthalene	36		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Pyrene	ND		7.5	µg/Kg-dry	1	4/20/2014 10:55 PM
Surr: 2-Fluorobiphenyl	64.9		12-100	%REC	1	4/20/2014 10:55 PM
Surr: 4-Terphenyl-d14	93.6		25-137	%REC	1	4/20/2014 10:55 PM
Surr: Nitrobenzene-d5	64.0		37-107	%REC	1	4/20/2014 10:55 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 4/17/14	Analyst: RS
Benzene	ND		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	4/22/2014 07:31 PM
m,p-Xylene	1,000		68	µg/Kg-dry	1	4/22/2014 07:31 PM
o-Xylene	320		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Toluene	36		34	µg/Kg-dry	1	4/22/2014 07:31 PM
Xylenes, Total	1,300		100	µg/Kg-dry	1	4/22/2014 07:31 PM
Surr: 1,2-Dichloroethane-d4	97.6		70-130	%REC	1	4/22/2014 07:31 PM
Surr: 4-Bromofluorobenzene	106		70-130	%REC	1	4/22/2014 07:31 PM
Surr: Dibromofluoromethane	91.4		70-130	%REC	1	4/22/2014 07:31 PM
Surr: Toluene-d8	98.3		70-130	%REC	1	4/22/2014 07:31 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 4/23/14	Analyst: JB
Electrical Conductivity @ Saturation	21		0.050	mmhos/cm @25	10	4/24/2014 04:30 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.57	mg/Kg-dry	1	4/23/2014 03:49 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 4/19/14	Analyst: MB
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	4/22/2014 12:45 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	12		0.050	% of sample	1	4/18/2014 09:48 AM
PH			SW9045D		Prep: EXTRACT / 4/18/14	Analyst: KF
pH	8.0			s.u.	1	4/18/2014 10:30 AM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57735** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: DBLKS1-57735-57735				Units: mg/Kg		Analysis Date: 4/20/2014 03:11 PM		
Client ID:		Run ID: GC8_140420A		SeqNo: 2723140		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.32	0	1.667	0	79.2	39-115	0			

LCS		Sample ID: DLCSS1-57735-57735				Units: mg/Kg		Analysis Date: 4/20/2014 03:41 PM		
Client ID:		Run ID: GC8_140420A		SeqNo: 2723141		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	187.3	4.2	166.7	0	112	49-124	0			
<i>Surr: 4-Terphenyl-d14</i>	1.625	0	1.667	0	97.5	39-115	0			

MS		Sample ID: 1404898-24C MS				Units: mg/Kg		Analysis Date: 4/20/2014 04:11 PM		
Client ID:		Run ID: GC8_140420A		SeqNo: 2723142		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	360.6	8.2	326.1	0	111	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	3.091	0	3.261	0	94.8	39-115	0			

MSD		Sample ID: 1404898-24C MSD				Units: mg/Kg		Analysis Date: 4/20/2014 04:41 PM		
Client ID:		Run ID: GC8_140420A		SeqNo: 2723143		Prep Date: 4/18/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	356.7	8.3	330.8	0	108	60-130	360.6	1.11	30	
<i>Surr: 4-Terphenyl-d14</i>	3.137	0	3.308	0	94.8	39-115	3.091	1.5	30	

The following samples were analyzed in this batch: | 1404924-01B |

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57701** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-57701-57701				Units: µg/Kg		Analysis Date: 4/17/2014 10:03 PM		
Client ID:		Run ID: GC10_140417B				SeqNo: 2719657		Prep Date: 4/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5688	0	5000	0	114	50-150	0			

LCS		Sample ID: LCS-57701-57701				Units: µg/Kg		Analysis Date: 4/17/2014 08:51 PM		
Client ID:		Run ID: GC10_140417B				SeqNo: 2719656		Prep Date: 4/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	565500	2,500	500000	0	113	70-130	0			
<i>Surr: Toluene-d8</i>	5197	0	5000	0	104	50-150	0			

MS		Sample ID: 1404846-03A MS				Units: µg/Kg		Analysis Date: 4/18/2014 06:06 AM		
Client ID:		Run ID: GC10_140417B				SeqNo: 2719667		Prep Date: 4/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	511900	2,500	500000	0	102	70-130	0			
<i>Surr: Toluene-d8</i>	5886	0	5000	0	118	50-150	0			

MSD		Sample ID: 1404846-03A MSD				Units: µg/Kg		Analysis Date: 4/18/2014 06:30 AM		
Client ID:		Run ID: GC10_140417B				SeqNo: 2719668		Prep Date: 4/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	520400	2,500	500000	0	104	70-130	511900	1.66	30	
<i>Surr: Toluene-d8</i>	5936	0	5000	0	119	50-150	5886	0.846	30	

The following samples were analyzed in this batch: 1404924-01A

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57720** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-57720-57720				Units: mg/Kg		Analysis Date: 4/18/2014 01:26 PM		
Client ID:		Run ID: HG1_140418A			SeqNo: 2720046		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-57720-57720				Units: mg/Kg		Analysis Date: 4/18/2014 01:28 PM		
Client ID:		Run ID: HG1_140418A			SeqNo: 2720048		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1552 0.020 0.1665 0 93.2 80-120 0

MS		Sample ID: 1404924-01BMS				Units: mg/Kg		Analysis Date: 4/18/2014 01:33 PM		
Client ID: Batch 1		Run ID: HG1_140418A			SeqNo: 2720307		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1451 0.015 0.1229 0.01938 102 75-125 0

MSD		Sample ID: 1404924-01BMSD				Units: mg/Kg		Analysis Date: 4/18/2014 01:35 PM		
Client ID: Batch 1		Run ID: HG1_140418A			SeqNo: 2720308		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1445 0.014 0.1199 0.01938 104 75-125 0.1451 0.417 35

The following samples were analyzed in this batch: 1404924-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: 57712 Instrument ID ICPMS1 Method: SW6020A

MBLK		Sample ID: MBLK-57712-57712				Units: mg/Kg		Analysis Date: 4/22/2014 10:36 PM		
Client ID:		Run ID: ICPMS1_140422A			SeqNo: 2726336		Prep Date: 4/18/2014		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	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.00171	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.002006	0.25								J
Zinc	0.2064	0.50								J

LCS		Sample ID: LCS-57712-57712				Units: mg/Kg		Analysis Date: 4/22/2014 10:42 PM		
Client ID:		Run ID: ICPMS1_140422A			SeqNo: 2726337		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.324	0.25	5	0	86.5	80-120	0			
Barium	4.669	0.25	5	0	93.4	80-120	0			
Cadmium	4.416	0.10	5	0	88.3	80-120	0			
Chromium	4.798	0.25	5	0	96	80-120	0			
Copper	5.02	0.25	5	0	100	80-120	0			
Lead	5.055	0.25	5	0	101	80-120	0			
Nickel	4.86	0.25	5	0	97.2	80-120	0			
Selenium	4.084	0.25	5	0	81.7	80-120	0			
Silver	4.771	0.25	5	0	95.4	80-120	0			
Zinc	4.462	0.50	5	0	89.2	80-120	0			

MS		Sample ID: 1404924-01BMS				Units: mg/Kg		Analysis Date: 4/23/2014 02:59 AM		
Client ID: Batch 1		Run ID: ICPMS1_140422A			SeqNo: 2726399		Prep Date: 4/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.25	1.9	7.587	5.443	89.7	75-125	0			
Barium	171.8	1.9	7.587	304.1	-1740	75-125	0			SO
Cadmium	7.318	0.76	7.587	0.4542	90.5	75-125	0			
Chromium	19.29	1.9	7.587	9.197	133	75-125	0			S
Copper	17.58	1.9	7.587	10.11	98.4	75-125	0			
Lead	18.25	1.9	7.587	11.59	87.8	75-125	0			
Nickel	21.84	1.9	7.587	13.48	110	75-125	0			
Selenium	7.079	1.9	7.587	0.9835	80.3	75-125	0			
Silver	6.411	1.9	7.587	0.02116	84.2	75-125	0			
Zinc	59.29	3.8	7.587	48.31	145	75-125	0			SO

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57712** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1404924-01BMSD				Units: mg/Kg		Analysis Date: 4/23/2014 03:04 AM		
Client ID: Batch 1		Run ID: ICPMS1_140422A			SeqNo: 2726400		Prep Date: 4/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.72	1.8	7.31	5.443	99.6	75-125	12.25	3.79	25	
Barium	348.9	1.8	7.31	304.1	614	75-125	171.8	68	25	SRO
Cadmium	8.077	0.73	7.31	0.4542	104	75-125	7.318	9.87	25	
Chromium	18.45	1.8	7.31	9.197	127	75-125	19.29	4.47	25	S
Copper	16.65	1.8	7.31	10.11	89.5	75-125	17.58	5.4	25	
Lead	19.21	1.8	7.31	11.59	104	75-125	18.25	5.08	25	
Nickel	20.24	1.8	7.31	13.48	92.4	75-125	21.84	7.6	25	
Selenium	7.811	1.8	7.31	0.9835	93.4	75-125	7.079	9.83	25	
Silver	6.923	1.8	7.31	0.02116	94.4	75-125	6.411	7.67	25	
Zinc	55.85	3.7	7.31	48.31	103	75-125	59.29	5.99	25	O

The following samples were analyzed in this batch: | 1404924-01B |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57786** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 1404990-01ADUP				Units: mg/L		Analysis Date: 4/25/2014 07:38 PM		
Client ID:		Run ID: ICPMS2_140425B			SeqNo: 2731250		Prep Date: 4/23/2014		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	112	10	0	0	0	0-0	109.8	2		
Magnesium	22.8	4.0	0	0	0	0-0	22.7	0.44		
Sodium	2.386	4.0	0	0	0	0-0	9.804	0		J

DUP		Sample ID: 1404990-01ADUP				Units: none		Analysis Date: 4/25/2014		
Client ID:		Run ID: SAR_140425A			SeqNo: 2731280		Prep Date: 4/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.05372	0.010	0	0	0		0.01434	116	50	R

The following samples were analyzed in this batch: | 1404924-01C |

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: 57734 Instrument ID SVMS8 Method: SW8270

MBLK		Sample ID: SBLKS1-57734-57734				Units: µg/Kg		Analysis Date: 4/20/2014 05:06 PM		
Client ID:		Run ID: SVMS8_140420A			SeqNo: 2725680		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1249	0	1667	0	74.9	12-100	0			
Surr: 4-Terphenyl-d14	1933	0	1667	0	116	25-137	0			
Surr: Nitrobenzene-d5	1247	0	1667	0	74.8	37-107	0			

LCS		Sample ID: SLCSS1-57734-57734				Units: µg/Kg		Analysis Date: 4/20/2014 05:26 PM		
Client ID:		Run ID: SVMS8_140420A			SeqNo: 2725681		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	545	6.7	666.7	0	81.7	45-110	0			
Acenaphthylene	590.3	6.7	666.7	0	88.5	45-105	0			
Anthracene	641.7	6.7	666.7	0	96.2	55-105	0			
Benzo(a)anthracene	650	6.7	666.7	0	97.5	50-110	0			
Benzo(a)pyrene	730.3	6.7	666.7	0	110	50-110	0			
Benzo(b)fluoranthene	722.7	6.7	666.7	0	108	45-115	0			
Benzo(g,h,i)perylene	706	6.7	666.7	0	106	40-125	0			
Benzo(k)fluoranthene	725.3	6.7	666.7	0	109	45-115	0			
Chrysene	638.3	6.7	666.7	0	95.7	55-110	0			
Dibenzo(a,h)anthracene	723.3	6.7	666.7	0	108	40-125	0			
Fluoranthene	634	6.7	666.7	0	95.1	55-115	0			
Fluorene	554.7	6.7	666.7	0	83.2	50-110	0			
Indeno(1,2,3-cd)pyrene	709.3	6.7	666.7	0	106	40-120	0			
Naphthalene	537.3	6.7	666.7	0	80.6	40-105	0			
Pyrene	774	6.7	666.7	0	116	45-125	0			
Surr: 2-Fluorobiphenyl	1351	0	1667	0	81.1	12-100	0			
Surr: 4-Terphenyl-d14	1939	0	1667	0	116	25-137	0			
Surr: Nitrobenzene-d5	1306	0	1667	0	78.3	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: 57734 Instrument ID SVMS8 Method: SW8270

MS				Sample ID: 1404898-11C MS			Units: µg/Kg		Analysis Date: 4/20/2014 06:07 PM		
Client ID:		Run ID: SVMS8_140420A		SeqNo: 2725683		Prep Date: 4/18/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1025	13	1273	0	80.5	45-110	0				
Acenaphthylene	1085	13	1273	0	85.2	45-105	0				
Anthracene	1222	13	1273	0	96	55-105	0				
Benzo(a)anthracene	1294	13	1273	42.39	98.3	50-110	0				
Benzo(a)pyrene	1388	13	1273	0	109	50-110	0				
Benzo(b)fluoranthene	1391	13	1273	56.74	105	45-115	0				
Benzo(g,h,i)perylene	1456	13	1273	0	114	40-125	0				
Benzo(k)fluoranthene	1381	13	1273	0	108	45-115	0				
Chrysene	1252	13	1273	33.26	95.7	55-110	0				
Dibenzo(a,h)anthracene	1416	13	1273	0	111	40-125	0				
Fluoranthene	1282	13	1273	39.79	97.6	55-115	0				
Fluorene	1061	13	1273	0	83.4	50-110	0				
Indeno(1,2,3-cd)pyrene	1480	13	1273	0	116	40-120	0				
Naphthalene	941.2	13	1273	0	73.9	40-105	0				
Pyrene	1514	13	1273	35.22	116	45-125	0				
Surr: 2-Fluorobiphenyl	2490	0	3182	0	78.3	12-100	0				
Surr: 4-Terphenyl-d14	3768	0	3182	0	118	25-137	0				
Surr: Nitrobenzene-d5	2203	0	3182	0	69.2	37-107	0				

MSD				Sample ID: 1404898-11C MSD			Units: µg/Kg		Analysis Date: 4/20/2014 06:28 PM		
Client ID:		Run ID: SVMS8_140420A		SeqNo: 2725684		Prep Date: 4/18/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1091	13	1299	0	84	45-110	1025	6.2	30		
Acenaphthylene	1108	13	1299	0	85.3	45-105	1085	2.12	30		
Anthracene	1251	13	1299	0	96.3	55-105	1222	2.37	30		
Benzo(a)anthracene	1291	13	1299	42.39	96.2	50-110	1294	0.183	30		
Benzo(a)pyrene	1413	13	1299	0	109	50-110	1388	1.82	30		
Benzo(b)fluoranthene	1426	13	1299	56.74	105	45-115	1391	2.46	30		
Benzo(g,h,i)perylene	1454	13	1299	0	112	40-125	1456	0.159	30		
Benzo(k)fluoranthene	1413	13	1299	0	109	45-115	1381	2.28	30		
Chrysene	1295	13	1299	33.26	97.1	55-110	1252	3.37	30		
Dibenzo(a,h)anthracene	1442	13	1299	0	111	40-125	1416	1.83	30		
Fluoranthene	1318	13	1299	39.79	98.4	55-115	1282	2.75	30		
Fluorene	1095	13	1299	0	84.3	50-110	1061	3.08	30		
Indeno(1,2,3-cd)pyrene	1471	13	1299	0	113	40-120	1480	0.608	30		
Naphthalene	1052	13	1299	0	81	40-105	941.2	11.1	30		
Pyrene	1503	13	1299	35.22	113	45-125	1514	0.722	30		
Surr: 2-Fluorobiphenyl	2687	0	3246	0	82.8	12-100	2490	7.62	40		
Surr: 4-Terphenyl-d14	3784	0	3246	0	117	25-137	3768	0.422	40		
Surr: Nitrobenzene-d5	2554	0	3246	0	78.7	37-107	2203	14.7	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57734** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

1404924-01B

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57682** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: MBLK-57682-57682			Units: µg/Kg			Analysis Date: 4/17/2014 04:39 PM		
Client ID:		Run ID: VMS5_140417A			SeqNo: 2719938		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	927	0	1000	0	92.7	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	964.5	0	1000	0	96.4	70-130	0			
<i>Surr: Dibromofluoromethane</i>	979	0	1000	0	97.9	70-130	0			
<i>Surr: Toluene-d8</i>	973	0	1000	0	97.3	70-130	0			

LCS		Sample ID: LCS-57682-57682			Units: µg/Kg			Analysis Date: 4/17/2014 03:22 PM		
Client ID:		Run ID: VMS5_140417A			SeqNo: 2719937		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1076	30	1000	0	108	75-125	0			
Ethylbenzene	1050	30	1000	0	105	75-125	0			
m,p-Xylene	2088	60	2000	0	104	80-125	0			
o-Xylene	1054	30	1000	0	105	75-125	0			
Toluene	1026	30	1000	0	103	70-125	0			
Xylenes, Total	3142	90	3000	0	105	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	922	0	1000	0	92.2	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	984.5	0	1000	0	98.4	70-130	0			
<i>Surr: Dibromofluoromethane</i>	988.5	0	1000	0	98.8	70-130	0			
<i>Surr: Toluene-d8</i>	973	0	1000	0	97.3	70-130	0			

MS		Sample ID: 1404846-02A MS			Units: µg/Kg			Analysis Date: 4/21/2014 06:54 AM		
Client ID:		Run ID: VMS6_140420A			SeqNo: 2722832		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1124	30	1000	0	112	75-125	0			
Ethylbenzene	1075	30	1000	0	108	75-125	0			
m,p-Xylene	2150	60	2000	0	108	80-125	0			
o-Xylene	1072	30	1000	0	107	75-125	0			
Toluene	1028	30	1000	0	103	70-125	0			
Xylenes, Total	3222	90	3000	0	107	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1032	0	1000	0	103	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1035	0	1000	0	104	70-130	0			
<i>Surr: Dibromofluoromethane</i>	993	0	1000	0	99.3	70-130	0			
<i>Surr: Toluene-d8</i>	966.5	0	1000	0	96.6	70-130	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57682** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1404846-02A MSD				Units: µg/Kg		Analysis Date: 4/21/2014 07:19 AM		
Client ID:		Run ID: VMS6_140420A			SeqNo: 2722833		Prep Date: 4/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1073	30	1000	0	107	75-125	1124	4.6	30	
Ethylbenzene	1022	30	1000	0	102	75-125	1075	5.01	30	
m,p-Xylene	2047	60	2000	0	102	80-125	2150	4.91	30	
o-Xylene	1042	30	1000	0	104	75-125	1072	2.79	30	
Toluene	989.5	30	1000	0	99	70-125	1028	3.87	30	
Xylenes, Total	3090	90	3000	0	103	75-125	3222	4.2	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1008</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>1032</i>	<i>2.45</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1037</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>104</i>	<i>70-130</i>	<i>1035</i>	<i>0.193</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>979.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98</i>	<i>70-130</i>	<i>993</i>	<i>1.37</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>963</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>96.3</i>	<i>70-130</i>	<i>966.5</i>	<i>0.363</i>	<i>30</i>	

The following samples were analyzed in this batch: | 1404924-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57747** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-57747-57747				Units: s.u.		Analysis Date: 4/18/2014 10:30 AM		
Client ID:		Run ID: WETCHEM_140418C			SeqNo: 2719890		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 3.99 0 4 0 99.8 90-110 0

DUP		Sample ID: 1404900-01B DUP				Units: s.u.		Analysis Date: 4/18/2014 10:30 AM		
Client ID:		Run ID: WETCHEM_140418C			SeqNo: 2719893		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 8.08 0 0 0 0 0-0 8 0.995 20

DUP		Sample ID: 1404933-03A DUP				Units: s.u.		Analysis Date: 4/18/2014 10:30 AM		
Client ID:		Run ID: WETCHEM_140418C			SeqNo: 2719907		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 7.86 0 0 0 0 0-0 7.97 1.39 20

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
Work Order: 1404924
Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57786** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP	Sample ID: 1404990-01A DUP				Units: mmhos/cm @25°C		Analysis Date: 4/24/2014 04:30 PM			
Client ID:	Run ID: WETCHEM_140424Q			SeqNo: 2729608		Prep Date: 4/23/2014		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.677	0.050	0	0	0		0.693	2.34	50	

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **57812** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-57812-57812				Units: mg/Kg		Analysis Date: 4/22/2014 12:45 PM		
Client ID:		Run ID: WETCHEM_140422G		SeqNo: 2725862		Prep Date: 4/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-57812-57812				Units: mg/Kg		Analysis Date: 4/22/2014 12:45 PM		
Client ID:		Run ID: WETCHEM_140422G		SeqNo: 2725863		Prep Date: 4/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.06 0.50 2 0 103 80-120 0

MS		Sample ID: 1404884-13C MS				Units: mg/Kg		Analysis Date: 4/22/2014 12:45 PM		
Client ID:		Run ID: WETCHEM_140422G		SeqNo: 2725867		Prep Date: 4/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.262 0.49 1.953 0.5296 88.7 75-125 0

MS		Sample ID: 1404884-13C MSI				Units: mg/Kg		Analysis Date: 4/22/2014 12:45 PM		
Client ID:		Run ID: WETCHEM_140422G		SeqNo: 2725869		Prep Date: 4/19/2014		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1167 50 1231 0.5296 94.7 75-125 0

MSD		Sample ID: 1404884-13C MSD				Units: mg/Kg		Analysis Date: 4/22/2014 12:45 PM		
Client ID:		Run ID: WETCHEM_140422G		SeqNo: 2725868		Prep Date: 4/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.289 0.49 1.976 0.5296 89 75-125 2.262 1.18 20

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1404924
 Project: WPX Clough 14-22 Landfarm 4.15.14

QC BATCH REPORT

Batch ID: **R139243** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R139243				Units: % of sample			Analysis Date: 4/18/2014 09:48 AM		
Client ID:	Run ID: MOIST_140418A			SeqNo: 2721735		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-R139243				Units: % of sample			Analysis Date: 4/18/2014 09:48 AM		
Client ID:	Run ID: MOIST_140418A			SeqNo: 2721734		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: 1404928-01A DUP				Units: % of sample			Analysis Date: 4/18/2014 09:48 AM		
Client ID:	Run ID: MOIST_140418A			SeqNo: 2721728		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 18.34 0.050 0 0 0 0-0 19.02 3.64 20

DUP	Sample ID: 1404928-02A DUP				Units: % of sample			Analysis Date: 4/18/2014 09:48 AM		
Client ID:	Run ID: MOIST_140418A			SeqNo: 2721730		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.8 0.050 0 0 0 0-0 13.96 5.84 20

The following samples were analyzed in this batch: 1404924-01B

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 2028

WORKORDER #	1404924
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PROJECT NAME	WPX Clough 14-22	SAMPLER	Reed Wold					DATE	4/15/14					PAGE	1 of 1								
PROJECT No.	last year	SITE ID	Clough 14-22					TURNAROUND	standard					DISPOSAL	By Lab or Return to Client								
COMPANY NAME	HRL Compliance	EDD FORMAT						BTK/LRO DRG/PPM/Metals SAR/EC/PM															
SEND REPORT TO	Mark Mumby	PURCHASE ORDER																					
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX																				
CITY/STATE/ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	Karolina Blaney																				
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215																				
FAX	970-243-3280	CITY/STATE/ZIP	Parachute CO 81635																				
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-683-2295																				
E-MAIL		E-MAIL	Karolina.blaney@wpxenergy.com																				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC																
1	Substr Batch 1	SO	4/15/14	7:20	3	8	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: *[Handwritten signature]*
3.2c

QC PACKAGE (check below)	
<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
<input type="checkbox"/>	LEVEL III (Std QC + forms)
<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>[Signature]</i>	Reed Wold	4/15/14	2:00
RECEIVED BY	<i>[Signature]</i>	N.Mc	4-15	2:00
RELINQUISHED BY	<i>[Signature]</i>	N.Mc	4-15	2:30
RECEIVED BY	<i>[Signature]</i>	KEITH W. HERNANDEZ	4/17/14	09:30
RELINQUISHED BY				
RECEIVED BY				

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **17-Apr-14 09:30**

Work Order: **1404924**

Received by: **KRW**

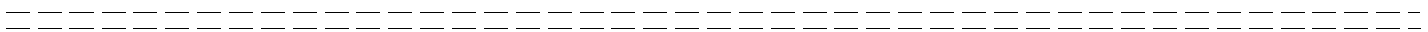
Checklist completed by Keith Warena 17-Apr-14
eSignature Date

Reviewed by: Ann Preston 18-Apr-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.2 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="4/17/2014 3:10:08 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (616) 398-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue
Holland, MI 49424

Origin ID: GRRR



Ship Date: 15APR14
ActWgt: 71.0 LB
CAD: 2264840/INET3490
Dim: 24 X 15 X 15 IN

SHIP TO: (616) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL BENDER

Delivery Address Bar Code



Ref # 041514-2
Invoice #
PO #
Dept #

WED - 16 APR AA
STANDARD OVERNIGHT

TRK# 7985 5782 6288
0201

49424
MI-US
GRR

68 GRRR



622G17806F220

After printing this label:

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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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SOI



16-May-2014

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

Re: **WPX Clough 14-22 Landfarm 5.6.14**

Work Order: **1405435**

Dear Mark,

ALS Environmental received 1 sample on 08-May-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental ALS

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Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 5.6.14
Work Order: 1405435

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1405435-01	Batch 2	Soil		5/6/2014 12:35	5/8/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 5.6.14
Work Order: 1405435

Case Narrative

Batch 58506 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58523 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch R140517 duplicate data for pH is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 16-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 5.6.14
Sample ID: Batch 2
Collection Date: 5/6/2014 12:35 PM

Work Order: 1405435
Lab ID: 1405435-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/9/14	Analyst: IT
DRO (C10-C28)	59		4.7	mg/Kg-dry	1	5/12/2014 06:04 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>84.7</i>		<i>39-133</i>	<i>%REC</i>	1	5/12/2014 06:04 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/9/14	Analyst: IT
GRO (C6-C10)	60		2.9	mg/Kg-dry	1	5/12/2014 04:25 PM
<i>Surr: Toluene-d8</i>	<i>105</i>		<i>50-150</i>	<i>%REC</i>	1	5/12/2014 04:25 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/14/14	Analyst: LR
Mercury	0.017		0.017	mg/Kg-dry	1	5/15/2014 02:51 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/12/14	Analyst: ML
Arsenic	6.9		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Barium	160		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Cadmium	ND		0.88	mg/Kg-dry	5	5/13/2014 03:52 PM
Chromium	9.2		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Copper	12		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Lead	11		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Nickel	15		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Selenium	ND		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Silver	ND		2.2	mg/Kg-dry	5	5/13/2014 03:52 PM
Zinc	55		4.4	mg/Kg-dry	5	5/13/2014 03:52 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/11/14	Analyst: RH
Calcium	350		10	mg/L	20	5/12/2014 05:13 PM
Magnesium	160		4.0	mg/L	20	5/12/2014 05:13 PM
Sodium	1,200		4.0	mg/L	20	5/12/2014 05:13 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/11/14	Analyst: RH
Sodium Adsorption Ratio	14		0.010	none	1	5/12/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/9/14	Analyst: RM
Acenaphthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Anthracene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(a)anthracene	8.6		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Chrysene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM

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

ALS Group USA, Corp

Date: 16-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm 5.6.14
Sample ID: Batch 2
Collection Date: 5/6/2014 12:35 PM

Work Order: 1405435
Lab ID: 1405435-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Fluorene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Naphthalene	14		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Pyrene	ND		7.5	µg/Kg-dry	1	5/14/2014 09:43 PM
Surr: 2-Fluorobiphenyl	69.1		12-100	%REC	1	5/14/2014 09:43 PM
Surr: 4-Terphenyl-d14	108		25-137	%REC	1	5/14/2014 09:43 PM
Surr: Nitrobenzene-d5	76.6		37-107	%REC	1	5/14/2014 09:43 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 5/9/14	Analyst: RS
Benzene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
m,p-Xylene	240		69	µg/Kg-dry	1	5/13/2014 08:47 AM
o-Xylene	56		34	µg/Kg-dry	1	5/13/2014 08:47 AM
Toluene	ND		34	µg/Kg-dry	1	5/13/2014 08:47 AM
Xylenes, Total	300		100	µg/Kg-dry	1	5/13/2014 08:47 AM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	5/13/2014 08:47 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	5/13/2014 08:47 AM
Surr: Dibromofluoromethane	94.3		70-130	%REC	1	5/13/2014 08:47 AM
Surr: Toluene-d8	105		70-130	%REC	1	5/13/2014 08:47 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 5/11/14	Analyst: JB
Electrical Conductivity @ Saturation	10		0.050	mmhos/cm @25	10	5/12/2014 09:00 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	8.6		0.57	mg/Kg-dry	1	5/15/2014 08:35 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 5/13/14	Analyst: JJ
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	5/13/2014 03:30 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	13		0.050	% of sample	1	5/9/2014 01:48 PM
PH			SW9045D		Prep: EXTRACT / 5/9/14	Analyst: AT
pH	8.7			s.u.	1	5/9/2014 04:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58446** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-58446-58446				Units: mg/Kg		Analysis Date: 5/12/2014 03:04 PM		
Client ID:		Run ID: GC8_140512B		SeqNo: 2757211		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.446	0	1.667	0	86.8	39-133	0			

LCS		Sample ID: DLCSS1-58446-58446				Units: mg/Kg		Analysis Date: 5/12/2014 03:34 PM		
Client ID:		Run ID: GC8_140512B		SeqNo: 2757212		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	125.3	4.2	166.7	0	75.2	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.274	0	1.667	0	76.4	39-133	0			

MS		Sample ID: 1405436-01B MS				Units: mg/Kg		Analysis Date: 5/12/2014 04:04 PM		
Client ID:		Run ID: GC8_140512B		SeqNo: 2757213		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	425.3	8.3	330.2	137.5	87.2	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	2.698	0	3.302	0	81.7	39-133	0			

MSD		Sample ID: 1405436-01B MSD				Units: mg/Kg		Analysis Date: 5/12/2014 04:34 PM		
Client ID:		Run ID: GC8_140512B		SeqNo: 2757214		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	386.9	8.0	321.2	137.5	77.6	48-110	425.3	9.46	30	
<i>Surr: 4-Terphenyl-d14</i>	2.719	0	3.212	0	84.6	39-133	2.698	0.769	30	

The following samples were analyzed in this batch: | 1405435-01B |

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58442** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-58442-58442				Units: µg/Kg		Analysis Date: 5/12/2014 03:58 PM		
Client ID:		Run ID: GC9_140512A		SeqNo: 2757219		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4978	0	5000	0	99.6	50-150	0			

LCS		Sample ID: LCS-58442-58442				Units: µg/Kg		Analysis Date: 5/12/2014 03:32 PM		
Client ID:		Run ID: GC9_140512A		SeqNo: 2757218		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	477000	2,500	500000	0	95.4	70-130	0			
<i>Surr: Toluene-d8</i>	4667	0	5000	0	93.3	50-150	0			

MS		Sample ID: 1405435-01A MS				Units: µg/Kg		Analysis Date: 5/12/2014 05:41 PM		
Client ID: Batch 2		Run ID: GC9_140512A		SeqNo: 2757223		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	491000	2,500	500000	52180	87.8	70-130	0			
<i>Surr: Toluene-d8</i>	4630	0	5000	0	92.6	50-150	0			

MSD		Sample ID: 1405435-01A MSD				Units: µg/Kg		Analysis Date: 5/12/2014 06:07 PM		
Client ID: Batch 2		Run ID: GC9_140512A		SeqNo: 2757224		Prep Date: 5/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	494300	2,500	500000	52180	88.4	70-130	491000	0.674	30	
<i>Surr: Toluene-d8</i>	4809	0	5000	0	96.2	50-150	4630	3.78	30	

The following samples were analyzed in this batch:

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58623** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-58623-58623				Units: mg/Kg		Analysis Date: 5/15/2014 01:41 PM		
Client ID:		Run ID: HG1_140515A				SeqNo: 2763432		Prep Date: 5/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001583	0.020								J

LCS		Sample ID: LCS-58623-58623				Units: mg/Kg		Analysis Date: 5/15/2014 01:43 PM		
Client ID:		Run ID: HG1_140515A				SeqNo: 2763433		Prep Date: 5/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1639	0.020	0.1665		0	98.4	80-120	0		

MS		Sample ID: 1405435-01BMS				Units: mg/Kg		Analysis Date: 5/15/2014 02:53 PM		
Client ID: Batch 2		Run ID: HG1_140515A				SeqNo: 2763473		Prep Date: 5/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1431	0.014	0.1152	0.01498	111	75-125		0		

MSD		Sample ID: 1405435-01BMSD				Units: mg/Kg		Analysis Date: 5/15/2014 02:55 PM		
Client ID: Batch 2		Run ID: HG1_140515A				SeqNo: 2763474		Prep Date: 5/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1406	0.014	0.1142	0.01498	110	75-125	0.1431	1.81	35	

The following samples were analyzed in this batch: 1405435-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58428** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 1405436-01CDUP				Units: mg/L		Analysis Date: 5/12/2014 05:36 PM		
Client ID:		Run ID: ICPMS2_140512A			SeqNo: 2756829		Prep Date: 5/11/2014		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	8.558	10	0	0	0	0-0	9.802	0		J
Magnesium	11.67	4.0	0	0	0	0-0	12	2.82		
Sodium	575.6	4.0	0	0	0	0-0	570.4	0.908		

DUP		Sample ID: 1405436-01CDUP				Units: none		Analysis Date: 5/12/2014		
Client ID:		Run ID: SAR_140512A			SeqNo: 2757592		Prep Date: 5/11/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	30.06	0.010	0	0	0		28.87	4.03	50	

The following samples were analyzed in this batch: | 1405435-01C |

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58506** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58506-58506				Units: mg/Kg		Analysis Date: 5/13/2014 12:22 PM		
Client ID:		Run ID: ICPMS1_140513A			SeqNo: 2759492		Prep Date: 5/12/2014		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	0.02722	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-58506-58506				Units: mg/Kg		Analysis Date: 5/13/2014 12:28 PM		
Client ID:		Run ID: ICPMS1_140513A			SeqNo: 2759493		Prep Date: 5/12/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.402	0.25	5	0	88	80-120	0			
Barium	4.798	0.25	5	0	96	80-120	0			
Cadmium	4.588	0.10	5	0	91.8	80-120	0			
Chromium	5.125	0.25	5	0	102	80-120	0			
Copper	4.86	0.25	5	0	97.2	80-120	0			
Lead	4.779	0.25	5	0	95.6	80-120	0			
Nickel	5.07	0.25	5	0	101	80-120	0			
Selenium	4.275	0.25	5	0	85.5	80-120	0			
Silver	4.752	0.25	5	0	95	80-120	0			
Zinc	4.474	0.50	5	0	89.5	80-120	0			

MS		Sample ID: 1405359-05AMS				Units: mg/Kg		Analysis Date: 5/13/2014 01:27 PM		
Client ID:		Run ID: ICPMS1_140513A			SeqNo: 2759503		Prep Date: 5/12/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.66	1.9	7.776	3.353	93.9	75-125	0			
Barium	36.62	1.9	7.776	30.28	81.5	75-125	0			
Cadmium	7.621	0.78	7.776	0.09543	96.8	75-125	0			
Chromium	21.08	1.9	7.776	11.9	118	75-125	0			
Copper	15.43	1.9	7.776	8.132	93.8	75-125	0			
Lead	184.6	1.9	7.776	7.628	2280	75-125	0			S
Nickel	18.31	1.9	7.776	11.34	89.7	75-125	0			
Selenium	7.947	1.9	7.776	1.446	83.6	75-125	0			
Silver	7.224	1.9	7.776	0.01683	92.7	75-125	0			
Zinc	166.9	3.9	7.776	28.29	1780	75-125	0			S

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58506** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1405359-05AMSD				Units: mg/Kg		Analysis Date: 5/13/2014 01:32 PM			
Client ID:		Run ID: ICPMS1_140513A			SeqNo: 2759504		Prep Date: 5/12/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.87	1.9	7.634	3.353	98.4	75-125	10.66	1.95	25		
Barium	42.98	1.9	7.634	30.28	166	75-125	36.62	16	25	S	
Cadmium	7.573	0.76	7.634	0.09543	97.9	75-125	7.621	0.632	25		
Chromium	21.8	1.9	7.634	11.9	130	75-125	21.08	3.36	25	S	
Copper	16.81	1.9	7.634	8.132	114	75-125	15.43	8.55	25		
Lead	24.56	1.9	7.634	7.628	222	75-125	184.6	153	25	SR	
Nickel	20.17	1.9	7.634	11.34	116	75-125	18.31	9.66	25		
Selenium	8.13	1.9	7.634	1.446	87.6	75-125	7.947	2.27	25		
Silver	7.233	1.9	7.634	0.01683	94.5	75-125	7.224	0.123	25		
Zinc	53.47	3.8	7.634	28.29	330	75-125	166.9	103	25	SR	

The following samples were analyzed in this batch: | 1405435-01B |

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58445** Instrument ID **SVMS7** Method: **SW8270**

MBLK		Sample ID: SBLKS1-58445-58445				Units: µg/Kg		Analysis Date: 5/12/2014 04:46 PM		
Client ID:		Run ID: SVMS7_140512A				SeqNo: 2761086		Prep Date: 5/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1291	0	1667	0	77.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2078	0	1667	0	125	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1030	0	1667	0	61.8	37-107	0			

LCS		Sample ID: SLCSS1-58445-58445				Units: µg/Kg		Analysis Date: 5/12/2014 03:16 PM		
Client ID:		Run ID: SVMS7_140512A				SeqNo: 2761079		Prep Date: 5/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	424.3	6.7	666.7	0	63.6	45-110	0			
Acenaphthylene	478.7	6.7	666.7	0	71.8	45-105	0			
Anthracene	498	6.7	666.7	0	74.7	55-105	0			
Benzo(a)anthracene	608.7	6.7	666.7	0	91.3	50-110	0			
Benzo(a)pyrene	622.7	6.7	666.7	0	93.4	50-110	0			
Benzo(b)fluoranthene	611.3	6.7	666.7	0	91.7	45-115	0			
Benzo(g,h,i)perylene	566.3	6.7	666.7	0	84.9	40-125	0			
Benzo(k)fluoranthene	610	6.7	666.7	0	91.5	45-115	0			
Chrysene	577	6.7	666.7	0	86.5	55-110	0			
Dibenzo(a,h)anthracene	534	6.7	666.7	0	80.1	40-125	0			
Fluoranthene	537.3	6.7	666.7	0	80.6	55-115	0			
Fluorene	464.7	6.7	666.7	0	69.7	50-110	0			
Indeno(1,2,3-cd)pyrene	574.3	6.7	666.7	0	86.1	40-120	0			
Naphthalene	434.7	6.7	666.7	0	65.2	40-105	0			
Pyrene	641	6.7	666.7	0	96.1	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1324	0	1667	0	79.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1994	0	1667	0	120	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1153	0	1667	0	69.2	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58445** Instrument ID **SVMS7** Method: **SW8270**

MS				Sample ID: 1405359-01A MS			Units: µg/Kg		Analysis Date: 5/12/2014 03:39 PM		
Client ID:		Run ID: SVMS7_140512A		SeqNo: 2761081		Prep Date: 5/9/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	813.2	13	1283	0	63.4	45-110	0				
Acenaphthylene	868.4	13	1283	0	67.7	45-105	0				
Anthracene	941.5	13	1283	0	73.4	55-105	0				
Benzo(a)anthracene	1102	13	1283	31.03	83.5	50-110	0				
Benzo(a)pyrene	1029	13	1283	22.54	78.4	50-110	0				
Benzo(b)fluoranthene	1082	13	1283	56.5	79.9	45-115	0				
Benzo(g,h,i)perylene	1102	13	1283	22.86	84.1	40-125	0				
Benzo(k)fluoranthene	1129	13	1283	0	88	45-115	0				
Chrysene	1193	13	1283	34.62	90.3	55-110	0				
Dibenzo(a,h)anthracene	1047	13	1283	0	81.6	40-125	0				
Fluoranthene	918.4	13	1283	45.4	68.1	55-115	0				
Fluorene	869	13	1283	0	67.7	50-110	0				
Indeno(1,2,3-cd)pyrene	1181	13	1283	28.74	89.8	40-120	0				
Naphthalene	732.4	13	1283	0	57.1	40-105	0				
Pyrene	1274	13	1283	57.48	94.8	45-125	0				
Surr: 2-Fluorobiphenyl	2469	0	3207	0	77	12-100	0				
Surr: 4-Terphenyl-d14	3865	0	3207	0	121	25-137	0				
Surr: Nitrobenzene-d5	1866	0	3207	0	58.2	37-107	0				

MSD				Sample ID: 1405359-01A MSD			Units: µg/Kg		Analysis Date: 5/12/2014 04:01 PM		
Client ID:		Run ID: SVMS7_140512A		SeqNo: 2761083		Prep Date: 5/9/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	872.5	13	1328	0	65.7	45-110	813.2	7.03	30		
Acenaphthylene	987.3	13	1328	0	74.3	45-105	868.4	12.8	30		
Anthracene	988.6	13	1328	0	74.4	55-105	941.5	4.88	30		
Benzo(a)anthracene	1268	13	1328	31.03	93.2	50-110	1102	14	30		
Benzo(a)pyrene	1215	13	1328	22.54	89.8	50-110	1029	16.6	30		
Benzo(b)fluoranthene	1219	13	1328	56.5	87.5	45-115	1082	11.9	30		
Benzo(g,h,i)perylene	1227	13	1328	22.86	90.7	40-125	1102	10.7	30		
Benzo(k)fluoranthene	1232	13	1328	0	92.7	45-115	1129	8.66	30		
Chrysene	1275	13	1328	34.62	93.4	55-110	1193	6.64	30		
Dibenzo(a,h)anthracene	1206	13	1328	0	90.8	40-125	1047	14.1	30		
Fluoranthene	992.6	13	1328	45.4	71.3	55-115	918.4	7.77	30		
Fluorene	981.3	13	1328	0	73.9	50-110	869	12.1	30		
Indeno(1,2,3-cd)pyrene	1409	13	1328	28.74	104	40-120	1181	17.6	30		
Naphthalene	817.3	13	1328	0	61.5	40-105	732.4	11	30		
Pyrene	1410	13	1328	57.48	102	45-125	1274	10.1	30		
Surr: 2-Fluorobiphenyl	2825	0	3320	0	85.1	12-100	2469	13.4	40		
Surr: 4-Terphenyl-d14	4507	0	3320	0	136	25-137	3865	15.3	40		
Surr: Nitrobenzene-d5	2048	0	3320	0	61.7	37-107	1866	9.3	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58445** Instrument ID **SVMS7** Method: **SW8270**

The following samples were analyzed in this batch:

1405435-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58440** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: MBLK-58440-58440			Units: µg/Kg			Analysis Date: 5/9/2014 12:49 PM		
Client ID:		Run ID: VMS5_140509A			SeqNo: 2753449		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1044</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>104</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>971.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.2</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1024</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1002</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

LCS		Sample ID: LCS-58440-58440			Units: µg/Kg			Analysis Date: 5/9/2014 11:32 AM		
Client ID:		Run ID: VMS5_140509A			SeqNo: 2753448		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1035	30	1000	0	104	75-125	0			
Ethylbenzene	1026	30	1000	0	103	75-125	0			
m,p-Xylene	2037	60	2000	0	102	80-125	0			
o-Xylene	1030	30	1000	0	103	75-125	0			
Toluene	1002	30	1000	0	100	70-125	0			
Xylenes, Total	3067	90	3000	0	102	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1050</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>977</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.7</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1024</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>999</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.9</i>	<i>70-130</i>	<i>0</i>			

MS		Sample ID: 1405359-06B MS			Units: µg/Kg			Analysis Date: 5/12/2014 09:06 PM		
Client ID:		Run ID: VMS6_140512A			SeqNo: 2757446		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1002	30	1000	0	100	75-125	0			
Ethylbenzene	988.5	30	1000	0	98.8	75-125	0			
m,p-Xylene	1980	60	2000	0	99	80-125	0			
o-Xylene	1011	30	1000	0	101	75-125	0			
Toluene	981.5	30	1000	0	98.2	70-125	0			
Xylenes, Total	2991	90	3000	0	99.7	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>988.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.8</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>995</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.5</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1006</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>984.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>70-130</i>	<i>0</i>			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58440** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1405359-06B MSD				Units: µg/Kg		Analysis Date: 5/12/2014 09:32 PM		
Client ID:		Run ID: VMS6_140512A			SeqNo: 2757447		Prep Date: 5/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	967	30	1000	0	96.7	75-125	1002	3.6	30	
Ethylbenzene	956.5	30	1000	0	95.6	75-125	988.5	3.29	30	
m,p-Xylene	1940	60	2000	0	97	80-125	1980	2.07	30	
o-Xylene	989.5	30	1000	0	99	75-125	1011	2.15	30	
Toluene	955.5	30	1000	0	95.6	70-125	981.5	2.68	30	
Xylenes, Total	2929	90	3000	0	97.6	75-125	2991	2.09	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	987	0	1000	0	98.7	70-130	988.5	0.152	30	
<i>Surr: 4-Bromofluorobenzene</i>	1016	0	1000	0	102	70-130	995	2.04	30	
<i>Surr: Dibromofluoromethane</i>	1012	0	1000	0	101	70-130	1006	0.594	30	
<i>Surr: Toluene-d8</i>	992.5	0	1000	0	99.2	70-130	984.5	0.809	30	

The following samples were analyzed in this batch: | 1405435-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405435
Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58428** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup	Sample ID: 1405436-01C DUP		Units: mmhos/cm @25°C		Analysis Date: 5/12/2014 09:00 AM					
Client ID:	Run ID: WETCHEM_140512B		SeqNo: 2754793		Prep Date: 5/11/2014		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.23	0.050	0	0	0		3.02	6.72	50	

The following samples were analyzed in this batch:

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **58523** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-58523-58523		Units: mg/Kg		Analysis Date: 5/13/2014 03:30 PM					
Client ID:	Run ID: WETCHEM_140513M		SeqNo: 2758707		Prep Date: 5/13/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS	Sample ID: LCS-58523-58523		Units: mg/Kg		Analysis Date: 5/13/2014 03:30 PM					
Client ID:	Run ID: WETCHEM_140513M		SeqNo: 2758708		Prep Date: 5/13/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.816 0.49 1.953 0 93 80-120 0

MS	Sample ID: 1405433-01BMS		Units: mg/Kg		Analysis Date: 5/13/2014 03:30 PM					
Client ID:	Run ID: WETCHEM_140513M		SeqNo: 2758710		Prep Date: 5/13/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.763 0.50 2.008 0.8924 43.4 75-125 0 S

MS	Sample ID: 1405433-01BMSI		Units: mg/Kg		Analysis Date: 5/13/2014 03:30 PM					
Client ID:	Run ID: WETCHEM_140513M		SeqNo: 2758712		Prep Date: 5/13/2014 DF: 100					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1048 49 1552 0.8924 67.5 75-125 0 S

MSD	Sample ID: 1405433-01BMSD		Units: mg/Kg		Analysis Date: 5/13/2014 03:30 PM					
Client ID:	Run ID: WETCHEM_140513M		SeqNo: 2758711		Prep Date: 5/13/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.649 0.50 1.992 0.8924 38 75-125 1.763 6.66 20 S

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405435
 Project: WPX Clough 14-22 Landfarm 5.6.14

QC BATCH REPORT

Batch ID: **R140517** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R140517				Units: % of sample		Analysis Date: 5/9/2014 01:48 PM			
Client ID:		Run ID: MOIST_140509A				SeqNo: 2754835		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-R140517				Units: % of sample		Analysis Date: 5/9/2014 01:48 PM			
Client ID:		Run ID: MOIST_140509A				SeqNo: 2754834		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: 1405402-02A DUP				Units: % of sample		Analysis Date: 5/9/2014 01:48 PM			
Client ID:		Run ID: MOIST_140509A				SeqNo: 2754812		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 6.94 0.050 0 0 0 0-0 6.42 7.78 20 H

DUP		Sample ID: 1405436-01B DUP				Units: % of sample		Analysis Date: 5/9/2014 01:48 PM			
Client ID:		Run ID: MOIST_140509A				SeqNo: 2754833		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 13.29 0.050 0 0 0 0-0 12.95 2.59 20

The following samples were analyzed in this batch:

1405435-01B

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 2026

WORKORDER #	1405435
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SAMPLER	Reed Wold	DATE	5/7/14	PAGE	1 of 1
PROJECT NAME	WPX Clough 14-22	TURNAROUND	Standard	DISPOSAL	By Lab or Return to Client
PROJECT No.	Land form	BTEX/PAHs DRG IPAH Metals SARC/Fe/PA			
COMPANY NAME	HRL Compliance				
SEND REPORT TO	Mark Mumby				
ADDRESS	2385 F 1/2 Rd				
CITY / STATE / ZIP	Grand Junction, CO 81506				
PHONE	970-243-3271				
FAX	970-243-3280				
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com				
SITE ID	Clough 14-22	BILL TO COMPANY	WPX	INVOICE ATTN TO	Karolina Blaney
EDD FORMAT		ADDRESS	1058 Co Rd 215	CITY / STATE / ZIP	Parachute CO 81635
PURCHASE ORDER		PHONE	970-883-2295	FAX	
E-MAIL	Karolina.blaney@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
1	Batch 2	So	5/6/14	12:35	3	8		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:

[Handwritten Signature] 3.6°C

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	<i>[Signature]</i>	Reed Wold	5/7/14	2:00
RECEIVED BY	<i>[Signature]</i>	N.M.	5-7-14	2:00
RELINQUISHED BY	<i>[Signature]</i>	Nick M.	5-7-14	2:10
RECEIVED BY	<i>[Signature]</i>	Karla WIERENCA	5/8/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **08-May-14 09:30**

Work Order: **1405435**

Received by: **KRW**

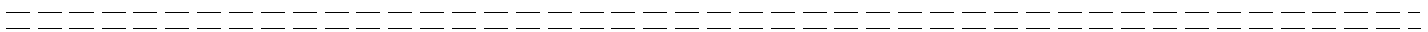
Checklist completed by Keith Warena 08-May-14
eSignature Date

Reviewed by: Ann Preston 09-May-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.6 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="5/8/2014 4:50:57 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

FedEx Express **NEW Package**
US Airbill

FedEx Tracking Number **8022 0273 1928**

Form ID No **0200**

Registered Mail Only

1 From
Date 5/7/14
Sender's Name Mike Lobato Phone 970 361-2216
Company HRL Compliance Solutions, Inc.
Address 2385 F 1/2 Rd.
City Grand Junction State CO ZIP 81507

2 Your Internal Billing Reference

3 To
Recipient's Name Sample Receiving Phone 666 399-6070
Company ALS Environmental
Address 3352 128th Ave
City Holland State MI ZIP 49424

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.
 HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day in select locations.



fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

4 Express Package Service * To most locations.
NOTE: Service order has changed. Please select carefully. Packages up to 150 lbs.
For packages over 100 lbs., use the new
FedEx Express Freight US Acket.

Next Business Day | **7 or 3 Business Days**

<input type="checkbox"/> FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on 2. Monday unless SATURDAY Delivery is selected.	<input type="checkbox"/> FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available.
<input checked="" type="checkbox"/> FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.	<input type="checkbox"/> FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
<input type="checkbox"/> FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.	<input type="checkbox"/> FedEx Express Saver Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit \$500.

FedEx Envelope* FedEx Pak* FedEx Box FedEx Tube Other

6 Special Handling and Delivery Signature Options

SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
Package may be left without obtaining a signature for delivery.

Direct Signature
Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

No Yes As per attached Shipper's Declaration. Yes Shipper's Declaration not required. Dry Ice Dry Ice, 5, UN 1845 _____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. Cargo Aircraft Only

7 Payment Bill to: _____ Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

Sender from file in Section 1 will be billed. Recipient Third Party Credit Card Cash/Check

Total Packages 7 Total Weight _____ Credit Card Auth. _____

Our liability is limited to US\$500 unless you declare a higher value. See the current FedEx Service Guide for details. **644**

Print Date 01/2 - Part 710/001 © 2012 FedEx - PRINTED IN U.S.A. 2013

Signature: Mike Lobato
Date: 5/7/14

CUSTODY SEAL
ENVIRONMENTAL GUARANTEE SUPPLY
9607 San Leandro St. Oakland, CA 94623-8425
800-233-8425



25-Jun-2014

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

Re: **WPX Clough 14-22 Batch 3 6.17.14**

Work Order: **1406920**

Dear Mark,

ALS Environmental received 1 sample on 18-Jun-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is ZZ.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 3 6.17.14
Work Order: 1406920

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1406920-01	Batch 3	Soil		6/17/2014 11:15	6/18/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 3 6.17.14
Work Order: 1406920

Case Narrative

Batch 59827 sample 1406920-01 reporting limits for Metals were elevated due to dilution for high concentrations of non-target analytes. The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 59850 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 59905 sample Batch 3 MS/MSD recoveries for Hexavalent Chromium were below the control limit. The corresponding reporting limit in the parent sample may be biased low.

Batch 59909 duplicate data for pH is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 25-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 3 6.17.14
Sample ID: Batch 3
Collection Date: 6/17/2014 11:15 AM

Work Order: 1406920
Lab ID: 1406920-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/19/14	Analyst: IT
DRO (C10-C28)	150		4.8	mg/Kg-dry	1	6/20/2014 03:44 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>84.4</i>		<i>39-133</i>	<i>%REC</i>	1	6/20/2014 03:44 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/18/14	Analyst: IT
GRO (C6-C10)	590		2.9	mg/Kg-dry	1	6/20/2014 01:09 PM
<i>Surr: Toluene-d8</i>	<i>107</i>		<i>50-150</i>	<i>%REC</i>	1	6/20/2014 01:09 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 6/18/14	Analyst: LR
Mercury	0.029		0.016	mg/Kg-dry	1	6/19/2014 04:17 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 6/18/14	Analyst: ML
Arsenic	7.8		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Barium	240		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Cadmium	ND		0.89	mg/Kg-dry	5	6/20/2014 05:49 AM
Chromium	10		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Copper	13		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Lead	12		2.2	mg/Kg-dry	5	6/20/2014 11:32 PM
Nickel	16		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Selenium	ND		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Silver	ND		2.2	mg/Kg-dry	5	6/20/2014 05:49 AM
Zinc	55		4.4	mg/Kg-dry	5	6/20/2014 05:49 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/23/14	Analyst: RH
Calcium	540		10	mg/L	20	6/24/2014 10:49 PM
Magnesium	250		4.0	mg/L	20	6/24/2014 10:49 PM
Sodium	2,100		4.0	mg/L	20	6/24/2014 10:49 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/23/14	Analyst: RH
Sodium Adsorption Ratio	18		0.010	none	1	6/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/19/14	Analyst: RM
Acenaphthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Chrysene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM

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

ALS Group USA, Corp

Date: 25-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 3 6.17.14
Sample ID: Batch 3
Collection Date: 6/17/2014 11:15 AM

Work Order: 1406920
Lab ID: 1406920-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Fluoranthene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Fluorene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Naphthalene	150		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Pyrene	ND		7.7	µg/Kg-dry	1	6/20/2014 12:37 AM
Surr: 2-Fluorobiphenyl	76.1		12-100	%REC	1	6/20/2014 12:37 AM
Surr: 4-Terphenyl-d14	82.2		25-137	%REC	1	6/20/2014 12:37 AM
Surr: Nitrobenzene-d5	79.2		37-107	%REC	1	6/20/2014 12:37 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 6/18/14	Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Ethylbenzene	230		35	µg/Kg-dry	1	6/18/2014 09:34 PM
m,p-Xylene	6,200		70	µg/Kg-dry	1	6/18/2014 09:34 PM
o-Xylene	1,100		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Toluene	550		35	µg/Kg-dry	1	6/18/2014 09:34 PM
Xylenes, Total	7,300		110	µg/Kg-dry	1	6/18/2014 09:34 PM
Surr: 1,2-Dichloroethane-d4	93.6		70-130	%REC	1	6/18/2014 09:34 PM
Surr: 4-Bromofluorobenzene	99.3		70-130	%REC	1	6/18/2014 09:34 PM
Surr: Dibromofluoromethane	88.1		70-130	%REC	1	6/18/2014 09:34 PM
Surr: Toluene-d8	121		70-130	%REC	1	6/18/2014 09:34 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 6/23/14	Analyst: JB
Electrical Conductivity @ Saturation	16		0.050	mmhos/cm @25	10	6/23/2014 04:30 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.59	mg/Kg-dry	1	6/24/2014 08:33 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 6/19/14	Analyst: JJ
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	6/20/2014 02:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	15		0.050	% of sample	1	6/19/2014 12:06 PM
PH			SW9045D		Prep: EXTRACT / 6/20/14	Analyst: AT
pH	8.2			s.u.	1	6/20/2014 04:30 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59851** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-59851-59851				Units: mg/Kg		Analysis Date: 6/19/2014 09:45 PM			
Client ID:		Run ID: GC8_140619B		SeqNo: 2817163		Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	ND	5.0									
<i>Surr: 4-Terphenyl-d14</i>	2.019	0	2	0	101	39-133		0			

LCS		Sample ID: DLCSS1-59851-59851				Units: mg/Kg		Analysis Date: 6/19/2014 10:14 PM			
Client ID:		Run ID: GC8_140619B		SeqNo: 2817165		Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	155.2	5.0	200	0	77.6	61-109		0			
<i>Surr: 4-Terphenyl-d14</i>	1.676	0	2	0	83.8	39-133		0			

MS		Sample ID: 1406917-01A MS				Units: mg/Kg		Analysis Date: 6/19/2014 10:44 PM			
Client ID:		Run ID: GC8_140619B		SeqNo: 2817167		Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	641.6	7.9	316.4	337.1	96.3	48-110		0			
<i>Surr: 4-Terphenyl-d14</i>	2.792	0	3.164	0	88.2	39-133		0			

MSD		Sample ID: 1406917-01A MSD				Units: mg/Kg		Analysis Date: 6/19/2014 11:14 PM			
Client ID:		Run ID: GC8_140619B		SeqNo: 2817169		Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	583.9	8.0	321.6	337.1	76.7	48-110	641.6	9.42	30		
<i>Surr: 4-Terphenyl-d14</i>	3.167	0	3.216	0	98.5	39-133	2.792	12.6	30		

The following samples were analyzed in this batch: | 1406920-01B |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59819** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-59819-59819				Units: µg/Kg		Analysis Date: 6/18/2014 02:21 PM			
Client ID:		Run ID: GC9_140618A				SeqNo: 2815353		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	ND	2,500									
<i>Surr: Toluene-d8</i>	5030	0	5000	0	101	50-150	0				

LCS		Sample ID: LCS-59819-59819				Units: µg/Kg		Analysis Date: 6/18/2014 01:55 PM			
Client ID:		Run ID: GC9_140618A				SeqNo: 2815352		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	515800	2,500	500000	0	103	70-130	0				
<i>Surr: Toluene-d8</i>	5864	0	5000	0	117	50-150	0				

MS		Sample ID: 1406837-01A MS				Units: µg/Kg		Analysis Date: 6/18/2014 02:47 PM			
Client ID:		Run ID: GC9_140618A				SeqNo: 2815354		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	469200	2,500	500000	0	93.8	70-130	0				
<i>Surr: Toluene-d8</i>	5880	0	5000	0	118	50-150	0				

MSD		Sample ID: 1406837-01A MSD				Units: µg/Kg		Analysis Date: 6/18/2014 03:12 PM			
Client ID:		Run ID: GC9_140618A				SeqNo: 2815355		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	464200	2,500	500000	0	92.8	70-130	469200	1.06	30		
<i>Surr: Toluene-d8</i>	5874	0	5000	0	117	50-150	5880	0.102	30		

The following samples were analyzed in this batch: 1406920-01A

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59845** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59845-59845				Units: mg/Kg		Analysis Date: 6/19/2014 03:07 PM		
Client ID:		Run ID: HG1_140619A			SeqNo: 2815753		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-59845-59845				Units: mg/Kg		Analysis Date: 6/19/2014 03:16 PM		
Client ID:		Run ID: HG1_140619A			SeqNo: 2815963		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1722 0.020 0.1665 0 103 80-120 0

MS		Sample ID: 1406920-01BMS				Units: mg/Kg		Analysis Date: 6/19/2014 04:20 PM		
Client ID: Batch 3		Run ID: HG1_140619A			SeqNo: 2816091		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1455 0.013 0.1115 0.02458 108 75-125 0

MSD		Sample ID: 1406920-01BMSD				Units: mg/Kg		Analysis Date: 6/19/2014 04:23 PM		
Client ID: Batch 3		Run ID: HG1_140619A			SeqNo: 2816093		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1561 0.014 0.113 0.02458 116 75-125 0.1455 7.01 35

The following samples were analyzed in this batch: 1406920-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59827** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-59827-59827				Units: mg/Kg		Analysis Date: 6/20/2014 02:42 AM		
Client ID:		Run ID: ICPMS1_140619A			SeqNo: 2817104		Prep Date: 6/18/2014		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	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Nickel	0.0613	0.25								J
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK		Sample ID: MBLK-59827-59827				Units: mg/Kg		Analysis Date: 6/20/2014 08:38 PM		
Client ID:		Run ID: ICPMS1_140620A			SeqNo: 2818714		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.25								

LCS		Sample ID: LCS-59827-59827				Units: mg/Kg		Analysis Date: 6/20/2014 02:48 AM		
Client ID:		Run ID: ICPMS1_140619A			SeqNo: 2817105		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.528	0.25	5	0	90.6	80-120	0			
Barium	4.53	0.25	5	0	90.6	80-120	0			
Cadmium	4.5	0.10	5	0	90	80-120	0			
Chromium	5.2	0.25	5	0	104	80-120	0			
Copper	5.02	0.25	5	0	100	80-120	0			
Nickel	5.07	0.25	5	0	101	80-120	0			
Selenium	4.658	0.25	5	0	93.2	80-120	0			
Silver	4.706	0.25	5	0	94.1	80-120	0			
Zinc	4.679	0.50	5	0	93.6	80-120	0			

LCS		Sample ID: LCS-59827-59827				Units: mg/Kg		Analysis Date: 6/20/2014 08:45 PM		
Client ID:		Run ID: ICPMS1_140620A			SeqNo: 2818717		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	4.402	0.25	5	0	88	80-120	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: 59827 Instrument ID ICPMS1 Method: SW6020A

MS		Sample ID: 1406758-05BMS				Units: mg/Kg		Analysis Date: 6/20/2014 03:32 AM		
Client ID:		Run ID: ICPMS1_140619A			SeqNo: 2817112		Prep Date: 6/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.972	2.0	8.13	2.9	87	75-125	0			
Barium	117.3	2.0	8.13	93.37	294	75-125	0			SO
Cadmium	7.565	0.81	8.13	0.1499	91.2	75-125	0			
Chromium	19.71	2.0	8.13	8.238	141	75-125	0			S
Copper	13.52	2.0	8.13	6.285	89	75-125	0			
Nickel	19.11	2.0	8.13	11.94	88.2	75-125	0			
Selenium	7.642	2.0	8.13	1.255	78.6	75-125	0			
Silver	7.089	2.0	8.13	0.02767	86.9	75-125	0			
Zinc	32.54	4.1	8.13	23.58	110	75-125	0			

MS		Sample ID: 1406758-05BMS				Units: mg/Kg		Analysis Date: 6/20/2014 09:29 PM		
Client ID:		Run ID: ICPMS1_140620A			SeqNo: 2818735		Prep Date: 6/18/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	11.8	4.1	8.13	4.453	90.3	75-125	0			

MSD		Sample ID: 1406758-05BMSD				Units: mg/Kg		Analysis Date: 6/20/2014 03:38 AM		
Client ID:		Run ID: ICPMS1_140619A			SeqNo: 2817113		Prep Date: 6/18/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.34	2.1	8.251	2.9	90.2	75-125	9.972	3.61	25	
Barium	134.1	2.1	8.251	93.37	493	75-125	117.3	13.4	25	SO
Cadmium	7.723	0.83	8.251	0.1499	91.8	75-125	7.565	2.06	25	
Chromium	19.34	2.1	8.251	8.238	135	75-125	19.71	1.86	25	S
Copper	13.81	2.1	8.251	6.285	91.2	75-125	13.52	2.07	25	
Nickel	19.73	2.1	8.251	11.94	94.4	75-125	19.11	3.18	25	
Selenium	9.41	2.1	8.251	1.255	98.8	75-125	7.642	20.7	25	
Silver	7.277	2.1	8.251	0.02767	87.9	75-125	7.089	2.61	25	
Zinc	34.07	4.1	8.251	23.58	127	75-125	32.54	4.61	25	S

MSD		Sample ID: 1406758-05BMSD				Units: mg/Kg		Analysis Date: 6/20/2014 09:36 PM		
Client ID:		Run ID: ICPMS1_140620A			SeqNo: 2818738		Prep Date: 6/18/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	11.39	4.1	8.251	4.453	84	75-125	11.8	3.54	25	

The following samples were analyzed in this batch: 1406920-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59849** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 1406920-01CDUP				Units: mg/L		Analysis Date: 6/24/2014 10:56 PM		
Client ID: Batch 3		Run ID: ICPMS2_140623A				SeqNo: 2822870		Prep Date: 6/23/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	527.8	10	0	0	0	0-0	543.6	2.95		
Magnesium	242	4.0	0	0	0	0-0	253.6	4.68		
Sodium	1961	4.0	0	0	0	0-0	2062	5.01		

DUP		Sample ID: 1406920-01CDUP				Units: none		Analysis Date: 6/23/2014		
Client ID: Batch 3		Run ID: SAR_140623A				SeqNo: 2823154		Prep Date: 6/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	17.74	0.010	0	0	0		18.31	3.16	50	

The following samples were analyzed in this batch: | 1406920-01C |

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59850** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-59850-59850				Units: µg/Kg		Analysis Date: 6/19/2014 07:03 PM		
Client ID:		Run ID: SVMS8_140619A		SeqNo: 2818351		Prep Date: 6/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1121	0	1667	0	67.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1665	0	1667	0	99.9	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1174	0	1667	0	70.5	37-107	0			

LCS		Sample ID: SLCSS1-59850-59850				Units: µg/Kg		Analysis Date: 6/19/2014 07:24 PM		
Client ID:		Run ID: SVMS8_140619A		SeqNo: 2818353		Prep Date: 6/19/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	518.3	6.7	666.7	0	77.7	45-110	0			
Acenaphthylene	502.7	6.7	666.7	0	75.4	45-105	0			
Anthracene	594	6.7	666.7	0	89.1	55-105	0			
Benzo(a)anthracene	608	6.7	666.7	0	91.2	50-110	0			
Benzo(a)pyrene	620	6.7	666.7	0	93	50-110	0			
Benzo(b)fluoranthene	643.7	6.7	666.7	0	96.5	45-115	0			
Benzo(g,h,i)perylene	604.3	6.7	666.7	0	90.6	40-125	0			
Benzo(k)fluoranthene	660.3	6.7	666.7	0	99	45-115	0			
Chrysene	617.7	6.7	666.7	0	92.6	55-110	0			
Dibenzo(a,h)anthracene	632.7	6.7	666.7	0	94.9	40-125	0			
Fluoranthene	637.3	6.7	666.7	0	95.6	55-115	0			
Fluorene	550.7	6.7	666.7	0	82.6	50-110	0			
Indeno(1,2,3-cd)pyrene	559.3	6.7	666.7	0	83.9	40-120	0			
Naphthalene	442.3	6.7	666.7	0	66.3	40-105	0			
Pyrene	628.7	6.7	666.7	0	94.3	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1099	0	1667	0	65.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1666	0	1667	0	100	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1123	0	1667	0	67.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59850** Instrument ID **SVMS8** Method: **SW8270**

MS		Sample ID: 1406884-08B MS			Units: µg/Kg			Analysis Date: 6/19/2014 09:14 PM		
Client ID:		Run ID: SVMS8_140619A			SeqNo: 2818355		Prep Date: 6/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1258	13	1312	17.14	94.6	45-110	0			
Acenaphthylene	1241	13	1312	0	94.6	45-105	0			
Anthracene	1252	13	1312	19.77	93.9	55-105	0			
Benzo(a)anthracene	1243	13	1312	54.38	90.6	50-110	0			
Benzo(a)pyrene	1371	13	1312	19.11	103	50-110	0			
Benzo(b)fluoranthene	985.7	13	1312	16.81	73.9	45-115	0			
Benzo(g,h,i)perylene	1221	13	1312	31.31	90.7	40-125	0			
Benzo(k)fluoranthene	1431	13	1312	17.8	108	45-115	0			
Chrysene	1306	13	1312	158.5	87.5	55-110	0			
Dibenzo(a,h)anthracene	1329	13	1312	0	101	40-125	0			
Fluoranthene	1452	13	1312	91.62	104	55-115	0			
Fluorene	1224	13	1312	0	93.3	50-110	0			
Indeno(1,2,3-cd)pyrene	1628	13	1312	29.66	122	40-120	0			S
Naphthalene	1119	13	1312	0	85.3	40-105	0			
Pyrene	1050	13	1312	81.07	73.9	45-125	0			
Surr: 2-Fluorobiphenyl	2843	0	3279	0	86.7	12-100	0			
Surr: 4-Terphenyl-d14	2534	0	3279	0	77.3	25-137	0			
Surr: Nitrobenzene-d5	2743	0	3279	0	83.7	37-107	0			

MSD		Sample ID: 1406884-08B MSD			Units: µg/Kg			Analysis Date: 6/19/2014 09:35 PM		
Client ID:		Run ID: SVMS8_140619A			SeqNo: 2818356		Prep Date: 6/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1198	13	1251	17.14	94.4	45-110	1258	4.88	30	
Acenaphthylene	1167	13	1251	0	93.2	45-105	1241	6.16	30	
Anthracene	1213	13	1251	19.77	95.4	55-105	1252	3.17	30	
Benzo(a)anthracene	1160	13	1251	54.38	88.3	50-110	1243	6.91	30	
Benzo(a)pyrene	1254	13	1251	19.11	98.7	50-110	1371	8.92	30	
Benzo(b)fluoranthene	959	13	1251	16.81	75.3	45-115	985.7	2.75	30	
Benzo(g,h,i)perylene	1111	13	1251	31.31	86.3	40-125	1221	9.45	30	
Benzo(k)fluoranthene	1361	13	1251	17.8	107	45-115	1431	5.05	30	
Chrysene	1264	13	1251	158.5	88.4	55-110	1306	3.28	30	
Dibenzo(a,h)anthracene	1265	13	1251	0	101	40-125	1329	4.92	30	
Fluoranthene	1427	13	1251	91.62	107	55-115	1452	1.7	30	
Fluorene	1154	13	1251	0	92.2	50-110	1224	5.96	30	
Indeno(1,2,3-cd)pyrene	1546	13	1251	29.66	121	40-120	1628	5.17	30	S
Naphthalene	1050	13	1251	0	83.9	40-105	1119	6.32	30	
Pyrene	980.2	13	1251	81.07	71.9	45-125	1050	6.87	30	
Surr: 2-Fluorobiphenyl	2650	0	3128	0	84.7	12-100	2843	7.01	40	
Surr: 4-Terphenyl-d14	2395	0	3128	0	76.6	25-137	2534	5.66	40	
Surr: Nitrobenzene-d5	2587	0	3128	0	82.7	37-107	2743	5.85	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59850** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

1406920-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59833** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-59833-59833				Units: µg/Kg		Analysis Date: 6/18/2014 05:14 PM		
Client ID:		Run ID: VMS6_140618A			SeqNo: 2814899		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
Surr: 1,2-Dichloroethane-d4	957.5	0	1000	0	95.8	70-130	0			
Surr: 4-Bromofluorobenzene	970	0	1000	0	97	70-130	0			
Surr: Dibromofluoromethane	942.5	0	1000	0	94.2	70-130	0			
Surr: Toluene-d8	964.5	0	1000	0	96.4	70-130	0			

LCS		Sample ID: LCS-59833-59833				Units: µg/Kg		Analysis Date: 6/18/2014 03:56 PM		
Client ID:		Run ID: VMS6_140618A			SeqNo: 2814896		Prep Date: 6/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1069	30	1000	0	107	75-125	0			
Ethylbenzene	1051	30	1000	0	105	75-125	0			
m,p-Xylene	2106	60	2000	0	105	80-125	0			
o-Xylene	1044	30	1000	0	104	75-125	0			
Toluene	1040	30	1000	0	104	70-125	0			
Xylenes, Total	3149	90	3000	0	105	75-125	0			
Surr: 1,2-Dichloroethane-d4	933	0	1000	0	93.3	70-130	0			
Surr: 4-Bromofluorobenzene	1012	0	1000	0	101	70-130	0			
Surr: Dibromofluoromethane	1004	0	1000	0	100	70-130	0			
Surr: Toluene-d8	985	0	1000	0	98.5	70-130	0			

MS		Sample ID: 1406831-03A MS				Units: µg/Kg		Analysis Date: 6/20/2014 11:15 AM		
Client ID:		Run ID: VMS9_140619B			SeqNo: 2817912		Prep Date: 6/18/2014		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	138800	3,000	100000	33850	105	75-125	0			
Ethylbenzene	97850	3,000	100000	9100	88.8	75-125	0			
m,p-Xylene	230600	6,000	200000	36150	97.2	80-125	0			
o-Xylene	103000	3,000	100000	11450	91.6	75-125	0			
Toluene	185800	3,000	100000	72050	114	70-125	0			
Xylenes, Total	333600	9,000	300000	47000	95.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	99650	0	100000	0	99.6	70-130	0			
Surr: 4-Bromofluorobenzene	102800	0	100000	0	103	70-130	0			
Surr: Dibromofluoromethane	95250	0	100000	0	95.2	70-130	0			
Surr: Toluene-d8	97400	0	100000	0	97.4	70-130	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59833** Instrument ID **VMS6** Method: **SW8260B**

MSD		Sample ID: 1406831-03A MSD				Units: µg/Kg		Analysis Date: 6/20/2014 11:40 AM		
Client ID:		Run ID: VMS9_140619B			SeqNo: 2817913		Prep Date: 6/18/2014		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	134500	3,000	100000	33850	101	75-125	138800	3.15	30	
Ethylbenzene	96050	3,000	100000	9100	87	75-125	97850	1.86	30	
m,p-Xylene	227600	6,000	200000	36150	95.8	80-125	230600	1.27	30	
o-Xylene	103200	3,000	100000	11450	91.8	75-125	103000	0.194	30	
Toluene	183200	3,000	100000	72050	111	70-125	185800	1.41	30	
Xylenes, Total	330800	9,000	300000	47000	94.6	75-125	333600	0.813	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>98850</i>	<i>0</i>	<i>100000</i>	<i>0</i>	<i>98.8</i>	<i>70-130</i>	<i>99650</i>	<i>0.806</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>105300</i>	<i>0</i>	<i>100000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>102800</i>	<i>2.35</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>92850</i>	<i>0</i>	<i>100000</i>	<i>0</i>	<i>92.8</i>	<i>70-130</i>	<i>95250</i>	<i>2.55</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>100400</i>	<i>0</i>	<i>100000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>97400</i>	<i>2.98</i>	<i>30</i>	

The following samples were analyzed in this batch: | 1406920-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59849** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP	Sample ID: 1406920-01C DUP		Units: mmhos/cm @25°C		Analysis Date: 6/23/2014 04:30 PM					
Client ID: Batch 3	Run ID: WETCHEM_140623N		SeqNo: 2820587		Prep Date: 6/23/2014		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	15.39	0.050	0	0	0		15.95	3.57	50	

The following samples were analyzed in this batch:

1406920-01C

Client: HRL Compliance Solutions, Inc
 Work Order: 1406920
 Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59905** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-59905-59905				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID:	Run ID: WETCHEM_140620N			SeqNo: 2818410	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS	Sample ID: LCS-59905-59905				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID:	Run ID: WETCHEM_140620N			SeqNo: 2818411	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.824 0.50 2 0 91.2 80-120 0

MS	Sample ID: 1406920-01B MS				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID: Batch 3	Run ID: WETCHEM_140620N			SeqNo: 2818416	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.51 2.024 0 0 75-125 0 S

MS	Sample ID: 1406920-01B MS2				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID: Batch 3	Run ID: WETCHEM_140620N			SeqNo: 2818417	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50 1.984 0 0 75-125 0 S

MS	Sample ID: 1406920-01B MSI				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID: Batch 3	Run ID: WETCHEM_140620N			SeqNo: 2818420	Prep Date: 6/19/2014		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 172.2 5.0 1310 0 13.1 75-125 0 S

MSD	Sample ID: 1406920-01B MSD				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID: Batch 3	Run ID: WETCHEM_140620N			SeqNo: 2818418	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50 1.992 0 0 75-125 0 0 20 S

MSD	Sample ID: 1406920-01B MSD2				Units: mg/Kg			Analysis Date: 6/20/2014 02:00 PM		
Client ID: Batch 3	Run ID: WETCHEM_140620N			SeqNo: 2818419	Prep Date: 6/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49 1.961 0 0 75-125 0 S

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **59909** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: LCS-59909-59909		Units: s.u.		Analysis Date: 6/20/2014 04:30 PM					
Client ID:	Run ID: WETCHEM_140620M		SeqNo: 2818306		Prep Date: 6/20/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 4.02 0 4 0 100 90-110 0

DUP	Sample ID: 14061024-01B DUP		Units: s.u.		Analysis Date: 6/20/2014 04:30 PM					
Client ID:	Run ID: WETCHEM_140620M		SeqNo: 2818314		Prep Date: 6/20/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 9.04 0 0 0 0 0-0 8.98 0.666 20 H

DUP	Sample ID: 14061030-04B DUP		Units: s.u.		Analysis Date: 6/20/2014 04:30 PM					
Client ID:	Run ID: WETCHEM_140620M		SeqNo: 2818319		Prep Date: 6/20/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 6.74 0 0 0 0 0-0 6.75 0.148 20 H

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406920
Project: WPX Clough 14-22 Batch 3 6.17.14

QC BATCH REPORT

Batch ID: **R143055** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R143055				Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:		Run ID: MOIST_140619C				SeqNo: 2817519		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-R143055				Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:		Run ID: MOIST_140619C				SeqNo: 2817518		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1406822-01A DUP				Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:		Run ID: MOIST_140619C				SeqNo: 2817497		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 80.05 0.050 0 0 0 0-0 81.31 1.56 20

DUP		Sample ID: 1406978-02A DUP				Units: % of sample		Analysis Date: 6/19/2014 12:06 PM		
Client ID:		Run ID: MOIST_140619C				SeqNo: 2817517		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 6.93 0.050 0 0 0 0-0 6.58 5.18 20

The following samples were analyzed in this batch: 1406920-01B

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **18-Jun-14 10:00**

Work Order: **1406920**

Received by: **DS**

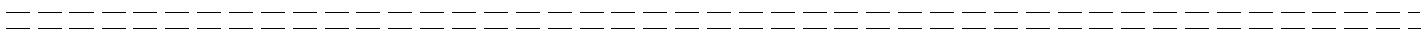
Checklist completed by Diane Shaw 18-Jun-14
eSignature Date

Reviewed by: Ann Preston 18-Jun-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.8 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="6/18/2014 1:02:43 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (970) 285-5783
Nick Martinez
ALS Environmental
127 E. 1st Street
PARACHUTE, CO 81835

Origin ID: RLA



Ship Date: 17 JUN 14
ActWgt: 47.0 LB
CAD: 2264840/NET3490

Dim: 24 X 15 X 15 IN

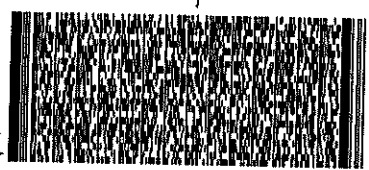
SHIP TO: (816) 399-8870
BILL BENDER
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424



Ref # 061814-1
Invoice #
PO # Parachute
Dept #

4 of 4

WED - 18 JUN 10:30A
PRIORITY OVERNIGHT



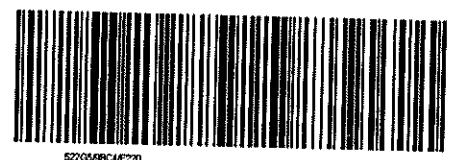
MPS# 7703 3544 4970

Mstr# 7703 3544 4855

6201

XX GRR

49424
MI-US
GRR



5220569C4F220

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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ALS Parachute Custody Seal

DATE 0-17 Time 12:00

Name [Signature]



29-Aug-2014

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

Re: **WPX Clough 14-22 Landfarm Batch 3 8.22.14**

Work Order: **14081237**

Dear Mark,

ALS Environmental received 1 sample on 23-Aug-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 9.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14
Work Order: 14081237

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14081237-01	Batch 3	Soil		8/22/2014 14:30	8/23/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14
WorkOrder: 14081237

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 29-Aug-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14
Sample ID: Batch 3
Collection Date: 8/22/2014 02:30 PM

Work Order: 14081237
Lab ID: 14081237-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 8/26/14	Analyst: IT
DRO (C10-C28)	31		4.5	mg/Kg-dry	1	8/27/2014 02:57 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>67.4</i>		<i>39-133</i>	<i>%REC</i>	1	8/27/2014 02:57 AM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 8/28/14	Analyst: IT
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	8/28/2014 03:00 PM
<i>Surr: Toluene-d8</i>	<i>102</i>		<i>50-150</i>	<i>%REC</i>	1	8/28/2014 03:00 PM
MOISTURE			A2540 G			Analyst: KF
Moisture	9.2		0.050	% of sample	1	8/26/2014 03:51 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 14081237

Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14

Batch ID: **62037**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-62037-62037				Units: mg/Kg		Analysis Date: 8/27/2014 01:16 AM		
Client ID:		Run ID: GC8_140826A		SeqNo: 2905861		Prep Date: 8/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
<i>Surr: 4-Terphenyl-d14</i>	1.738	0	2	0	86.9	39-133	0			

LCS		Sample ID: DLCSS1-62037-62037				Units: mg/Kg		Analysis Date: 8/27/2014 01:41 AM		
Client ID:		Run ID: GC8_140826A		SeqNo: 2905866		Prep Date: 8/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	145.6	5.0	200	0	72.8	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.303	0	2	0	65.1	39-133	0			

MS		Sample ID: 14081237-01A MS				Units: mg/Kg		Analysis Date: 8/27/2014 02:06 AM		
Client ID: Batch 3		Run ID: GC8_140826A		SeqNo: 2905869		Prep Date: 8/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	316.1	7.9	314.9	27.71	91.6	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	2.569	0	3.149	0	81.6	39-133	0			

MSD		Sample ID: 14081237-01A MSD				Units: mg/Kg		Analysis Date: 8/27/2014 02:32 AM		
Client ID: Batch 3		Run ID: GC8_140826A		SeqNo: 2905871		Prep Date: 8/26/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	299.3	8.0	319.6	27.71	85	48-110	316.1	5.46	30	
<i>Surr: 4-Terphenyl-d14</i>	2.496	0	3.196	0	78.1	39-133	2.569	2.88	30	

The following samples were analyzed in this batch: | 14081237-01A |

Client: HRL Compliance Solutions, Inc
 Work Order: 14081237
 Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14

QC BATCH REPORT

Batch ID: **62161** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-62161-62161				Units: µg/Kg		Analysis Date: 8/28/2014 02:35 PM		
Client ID:		Run ID: GC9_140828A				SeqNo: 2908940		Prep Date: 8/28/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>4781</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>95.6</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-62161-62161				Units: µg/Kg		Analysis Date: 8/28/2014 02:09 PM		
Client ID:		Run ID: GC9_140828A				SeqNo: 2908939		Prep Date: 8/28/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	536400	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5945</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>119</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 14081237-01A MS				Units: µg/Kg		Analysis Date: 8/29/2014 02:46 AM		
Client ID: Batch 3		Run ID: GC9_140828A				SeqNo: 2909212		Prep Date: 8/28/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	532200	2,500	500000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6074</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>121</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 14081237-01A MSD				Units: µg/Kg		Analysis Date: 8/29/2014 03:11 AM		
Client ID: Batch 3		Run ID: GC9_140828A				SeqNo: 2909214		Prep Date: 8/28/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	487100	2,500	500000	0	97.4	70-130	532200	8.86	30	
<i>Surr: Toluene-d8</i>	<i>5918</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>118</i>	<i>50-150</i>	<i>6074</i>	<i>2.6</i>	<i>30</i>	

The following samples were analyzed in this batch: 14081237-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14081237
Project: WPX Clough 14-22 Landfarm Batch 3 8.22.14

QC BATCH REPORT

Batch ID: **R147044** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R147044				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM		
Client ID:	Run ID: MOIST_140826E				SeqNo: 2906406		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-R147044				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM		
Client ID:	Run ID: MOIST_140826E				SeqNo: 2906405		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: 14081124-01A DUP				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM		
Client ID:	Run ID: MOIST_140826E				SeqNo: 2906384		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.63 0.050 0 0 0 0-0 7.62 0.131 20

DUP	Sample ID: 14081157-03A DUP				Units: % of sample			Analysis Date: 8/26/2014 03:51 PM		
Client ID:	Run ID: MOIST_140826E				SeqNo: 2906395		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 9.99 0.050 0 0 0 0-0 9.28 7.37 20

The following samples were analyzed in this batch: 14081237-01A

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



ALS Laboratory Group

225 Commerca Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1811 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER	14081237
-----------	----------

PROJECT NAME	WPX Clough 14-22	SAMPLER	Reed Wold	DATE	8/22/14	PAGE	1 of 1
PROJECT No.	landfarm Batch 3	SITE ID	Clough 14-22	TURNAROUND	3 Day	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HRL Compliance	EDD FORMAT		DRO 1680			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER					
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX				
CITY / STATE / ZIP	Grand Junction, CO 81508	INVOICE ATTN TO	Karolina Blaney				
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215				
FAX	970-243-3280	CITY / STATE / ZIP	Parachute CO 81635				
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-883-2295				
E-MAIL		FAX					
E-MAIL		E-MAIL	Karolina.blaney@wpxenergy.com				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	Bottles	Pres.	QC
1	Batch 3	SO	8/22/14	2:30	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: *48*

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	<i>Reed Wold</i>	Reed Wold	8/22/14	3:00
RECEIVED BY	<i>WMM</i>	WMM	8/22/14	2:00
RELINQUISHED BY	<i>WMM</i>	WMM	8/22/14	500
RECEIVED BY	<i>Keira Wierent</i>	Keira Wierent	8/22/14	1000
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **23-Aug-14 10:00**

Work Order: **14081237**

Received by: **KRW**

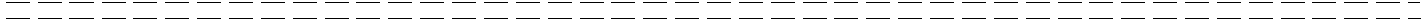
Checklist completed by Keith Warena 23-Aug-14
eSignature Date

Reviewed by: Ann Preston 25-Aug-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="4.8 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="8/23/2014 12:04:31 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:



18-Sep-2014

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

Re: **WPX Clough 14-22 Batch 4 9.12.14**

Work Order: **1409660**

Dear Mark,

ALS Environmental received 1 sample on 13-Sep-2014 10:45 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 22.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.12.14
Work Order: 1409660

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1409660-01	Batch 4	Soil		9/12/2014 12:00	9/13/2014 10:45	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.12.14
Work Order: 1409660

Case Narrative

Batch 62751 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 62753 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Batch 62781 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 62792 MS/MSD data for Mercury is not related to this project's samples. No data requires qualification.

Batch 62817 sample 1409660-01 was run at a dilution for BTEX due to high concentrations of target and non target analytes.

Batch 62818 sample 1409660-01 GRO surrogate recovery was high due to matrix interference. No data requires qualification.

Batch 62832 sample Batch 4 MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding results in the parent sample may be biased low for Hexavalent Chromium.

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

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

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

ALS Group USA, Corp

Date: 18-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.12.14
Sample ID: Batch 4
Collection Date: 9/12/2014 12:00 PM

Work Order: 1409660
Lab ID: 1409660-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 9/15/14	Analyst: IT
DRO (C10-C28)	140		4.9	mg/Kg-dry	1	9/16/2014 09:52 PM
Surr: 4-Terphenyl-d14	71.6		39-133	%REC	1	9/16/2014 09:52 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 9/16/14	Analyst: IT
GRO (C6-C10)	1,500		3.0	mg/Kg-dry	1	9/16/2014 08:17 PM
Surr: Toluene-d8	583	S	50-150	%REC	1	9/16/2014 08:17 PM
MERCURY BY CVA						
			SW7471		Prep: SW7471 / 9/15/14	Analyst: JEC
Mercury	0.037		0.017	mg/Kg-dry	1	9/16/2014 09:31 AM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 9/17/14	Analyst: JEC
Calcium	510		5.0	mg/L	10	9/18/2014 01:21 PM
Magnesium	200		2.0	mg/L	10	9/18/2014 01:21 PM
Sodium	2,400		20	mg/L	100	9/18/2014 02:18 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 9/15/14	Analyst: RH
Arsenic	6.3		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Barium	170		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Cadmium	ND		0.82	mg/Kg-dry	5	9/15/2014 08:00 PM
Chromium	10		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Copper	11		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Lead	12		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Nickel	13		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Selenium	2.3		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Silver	ND		2.0	mg/Kg-dry	5	9/15/2014 08:00 PM
Zinc	50		4.1	mg/Kg-dry	5	9/15/2014 08:00 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 9/17/14	Analyst: JEC
Sodium Adsorption Ratio	22		0.010	none	1	9/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 9/15/14	Analyst: RM
Acenaphthene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Acenaphthylene	9.8		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Anthracene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Benzo(a)anthracene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Chrysene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM

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

ALS Group USA, Corp

Date: 18-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.12.14
Sample ID: Batch 4
Collection Date: 9/12/2014 12:00 PM

Work Order: 1409660
Lab ID: 1409660-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Fluorene	16		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Naphthalene	89		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Pyrene	ND		7.9	µg/Kg-dry	1	9/16/2014 11:56 PM
Surr: 2-Fluorobiphenyl	60.9		12-100	%REC	1	9/16/2014 11:56 PM
Surr: 4-Terphenyl-d14	81.8		25-137	%REC	1	9/16/2014 11:56 PM
Surr: Nitrobenzene-d5	62.3		37-107	%REC	1	9/16/2014 11:56 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 9/16/14		Analyst: RS
Benzene	ND		360	µg/Kg-dry	10	9/16/2014 02:39 PM
Ethylbenzene	5,300		360	µg/Kg-dry	10	9/16/2014 02:39 PM
m,p-Xylene	95,000		710	µg/Kg-dry	10	9/16/2014 02:39 PM
o-Xylene	13,000		360	µg/Kg-dry	10	9/16/2014 02:39 PM
Toluene	680		360	µg/Kg-dry	10	9/16/2014 02:39 PM
Xylenes, Total	110,000		1,100	µg/Kg-dry	10	9/16/2014 02:39 PM
Surr: 1,2-Dichloroethane-d4	94.1		70-130	%REC	10	9/16/2014 02:39 PM
Surr: 4-Bromofluorobenzene	98.9		70-130	%REC	10	9/16/2014 02:39 PM
Surr: Dibromofluoromethane	91.7		70-130	%REC	10	9/16/2014 02:39 PM
Surr: Toluene-d8	104		70-130	%REC	10	9/16/2014 02:39 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 9/17/14		Analyst: JB
Electrical Conductivity @ Saturation	14		0.050	mmhos/cm @25	10	9/17/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	10		0.60	mg/Kg-dry	1	9/17/2014 02:58 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 9/15/14		Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	9/16/2014 10:00 AM
MOISTURE			A2540 G			Analyst: RLM
Moisture	16		0.050	% of sample	1	9/15/2014 07:15 PM
PH			SW9045D	Prep: EXTRACT / 9/16/14		Analyst: STP
pH	8.4			s.u.	1	9/16/2014 02:10 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409660
Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62753** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-62753-62753				Units: mg/Kg		Analysis Date: 9/16/2014 01:08 PM			
Client ID:		Run ID: GC8_140916B				SeqNo: 2938294		Prep Date: 9/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	ND	4.2									
<i>Surr: 4-Terphenyl-d14</i>	1.518	0	1.667	0	91.1	39-133	0				

LCS		Sample ID: DLCSS1-62753-62753				Units: mg/Kg		Analysis Date: 9/16/2014 01:36 PM			
Client ID:		Run ID: GC8_140916B				SeqNo: 2938295		Prep Date: 9/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	139.8	4.2	166.7	0	83.9	61-109	0				
<i>Surr: 4-Terphenyl-d14</i>	1.249	0	1.667	0	75	39-133	0				

MS		Sample ID: 1409588-01B MS				Units: mg/Kg		Analysis Date: 9/16/2014 02:03 PM			
Client ID:		Run ID: GC8_140916B				SeqNo: 2938296		Prep Date: 9/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	1501	8.0	318.3	866.8	199	48-110	0			S	
<i>Surr: 4-Terphenyl-d14</i>	3.473	0	3.183	0	109	39-133	0				

MSD		Sample ID: 1409588-01B MSD				Units: mg/Kg		Analysis Date: 9/16/2014 02:31 PM			
Client ID:		Run ID: GC8_140916B				SeqNo: 2938297		Prep Date: 9/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	1851	8.1	323.1	866.8	305	48-110	1501	20.9	30	S	
<i>Surr: 4-Terphenyl-d14</i>	3.543	0	3.231	0	110	39-133	3.473	1.98	30		

The following samples were analyzed in this batch: | 1409660-01B |

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62818** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-62818-62818				Units: µg/Kg		Analysis Date: 9/16/2014 04:28 PM		
Client ID:		Run ID: GC9_140916B				SeqNo: 2938455		Prep Date: 9/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5336	0	5000	0	107	50-150	0			

LCS		Sample ID: LCS-62818-62818				Units: µg/Kg		Analysis Date: 9/16/2014 03:37 PM		
Client ID:		Run ID: GC9_140916B				SeqNo: 2938453		Prep Date: 9/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	525600	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	6080	0	5000	0	122	50-150	0			

MS		Sample ID: 1409739-01A MS				Units: µg/Kg		Analysis Date: 9/17/2014 06:21 PM		
Client ID:		Run ID: GC9_140917A				SeqNo: 2940489		Prep Date: 9/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	497100	2,500	500000	0	99.4	70-130	0			
<i>Surr: Toluene-d8</i>	4242	0	5000	0	84.8	50-150	0			

MSD		Sample ID: 1409739-01A MSD				Units: µg/Kg		Analysis Date: 9/17/2014 06:47 PM		
Client ID:		Run ID: GC9_140917A				SeqNo: 2940490		Prep Date: 9/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495500	2,500	500000	0	99.1	70-130	497100	0.311	30	
<i>Surr: Toluene-d8</i>	4371	0	5000	0	87.4	50-150	4242	3	30	

The following samples were analyzed in this batch:

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62792** Instrument ID **HG1** Method: **SW7471**

MBLK	Sample ID: MBLK-62792-62792					Units: mg/Kg		Analysis Date: 9/15/2014 09:07 PM		
Client ID:	Run ID: HG1_140915B			SeqNo: 2936492		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS	Sample ID: LCS-62792-62792					Units: mg/Kg		Analysis Date: 9/15/2014 09:09 PM		
Client ID:	Run ID: HG1_140915B			SeqNo: 2936494		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.165 0.020 0.1665 0 99.1 80-120 0

MS	Sample ID: 1409531-01AMS					Units: mg/Kg		Analysis Date: 9/16/2014 10:53 AM		
Client ID:	Run ID: HG1_140916A			SeqNo: 2936697		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1231 0.013 0.1112 0.04374 71.3 75-125 0 S

MSD	Sample ID: 1409531-01AMSD					Units: mg/Kg		Analysis Date: 9/16/2014 10:55 AM		
Client ID:	Run ID: HG1_140916A			SeqNo: 2936698		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1159 0.013 0.1097 0.04374 65.8 75-125 0.1231 5.97 35 S

The following samples were analyzed in this batch: 1409660-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62781** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-62781-62781				Units: mg/Kg		Analysis Date: 9/15/2014 04:33 PM		
Client ID:		Run ID: ICPMS1_140915A			SeqNo: 2935583		Prep Date: 9/15/2014		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	ND	0.25								
Cadmium	0.003889	0.10								J
Chromium	ND	0.25								
Copper	0.05955	0.25								J
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.003814	0.25								J
Zinc	ND	0.50								

LCS		Sample ID: LCS-62781-62781				Units: mg/Kg		Analysis Date: 9/15/2014 04:40 PM		
Client ID:		Run ID: ICPMS1_140915A			SeqNo: 2935584		Prep Date: 9/15/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.237	0.25	5	0	84.7	80-120	0			
Barium	4.39	0.25	5	0	87.8	80-120	0			
Cadmium	4.442	0.10	5	0	88.8	80-120	0			
Chromium	4.826	0.25	5	0	96.5	80-120	0			
Copper	4.725	0.25	5	0	94.5	80-120	0			
Lead	4.422	0.25	5	0	88.4	80-120	0			
Nickel	4.696	0.25	5	0	93.9	80-120	0			
Selenium	4.402	0.25	5	0	88	80-120	0			
Silver	4.613	0.25	5	0	92.3	80-120	0			
Zinc	4.609	0.50	5	0	92.2	80-120	0			

MS		Sample ID: 1409617-04CMS				Units: mg/Kg		Analysis Date: 9/15/2014 05:16 PM		
Client ID:		Run ID: ICPMS1_140915A			SeqNo: 2936265		Prep Date: 9/15/2014		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.383	1.5	7.386	0.2878	96.1	75-125	0			
Barium	10.47	1.5	7.386	4.258	84.1	75-125	0			
Cadmium	6.733	0.59	7.386	0.04045	90.6	75-125	0			
Chromium	8.248	1.5	7.386	1.177	95.7	75-125	0			
Copper	7.052	1.5	7.386	0.6138	87.2	75-125	0			
Lead	10.17	1.5	7.386	4.973	70.4	75-125	0			S
Nickel	8.086	1.5	7.386	1.7	86.5	75-125	0			
Selenium	7.146	1.5	7.386	2.171	67.4	75-125	0			S
Silver	6.768	1.5	7.386	0.002206	91.6	75-125	0			
Zinc	10.69	3.0	7.386	3.408	98.6	75-125	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409660
Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62781** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1409617-04CMSD				Units: mg/Kg		Analysis Date: 9/15/2014 05:22 PM			
Client ID:		Run ID: ICPMS1_140915A			SeqNo: 2936266		Prep Date: 9/15/2014		DF: 4		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	7.935	1.5	7.396	0.2878	103	75-125	5.968	28.3	25	R	
Barium	11.61	1.5	7.396	4.258	99.4	75-125	11.46	1.28	25		
Cadmium	7.322	0.59	7.396	0.04045	98.5	75-125	7.037	3.98	25		
Chromium	9	1.5	7.396	1.177	106	75-125	8.526	5.41	25		
Copper	7.488	1.5	7.396	0.6138	92.9	75-125	7.004	6.68	25		
Lead	8.198	1.5	7.396	4.973	43.6	75-125	10.41	23.8	25	S	
Nickel	8.743	1.5	7.396	1.7	95.2	75-125	9.338	6.59	25		
Selenium	7.577	1.5	7.396	2.171	73.1	75-125	8.762	14.5	25	S	
Silver	7.178	1.5	7.396	0.002206	97	75-125	6.753	6.09	25		
Zinc	11.14	3.0	7.396	3.408	105	75-125	10.27	8.15	25		

The following samples were analyzed in this batch: | 1409660-01B |

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: 62751 Instrument ID SVMS4 Method: SW846 8270D

MBLK		Sample ID: SBLKS1-62751-62751				Units: µg/Kg		Analysis Date: 9/16/2014 01:23 PM		
Client ID:		Run ID: SVMS4_140916A		SeqNo: 2937323		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1246	0	1667	0	74.8	12-100	0			
Surr: 4-Terphenyl-d14	1695	0	1667	0	102	25-137	0			
Surr: Nitrobenzene-d5	927	0	1667	0	55.6	37-107	0			

LCS		Sample ID: SLCSS1-62751-62751				Units: µg/Kg		Analysis Date: 9/16/2014 12:08 PM		
Client ID:		Run ID: SVMS4_140916A		SeqNo: 2937322		Prep Date: 9/15/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	527.7	6.7	666.7	0	79.1	45-110	0			
Acenaphthylene	534.3	6.7	666.7	0	80.1	45-105	0			
Anthracene	683.7	6.7	666.7	0	103	55-105	0			
Benzo(a)anthracene	666.3	6.7	666.7	0	99.9	50-110	0			
Benzo(a)pyrene	625.3	6.7	666.7	0	93.8	50-110	0			
Benzo(b)fluoranthene	617.3	6.7	666.7	0	92.6	45-115	0			
Benzo(g,h,i)perylene	717	6.7	666.7	0	108	40-125	0			
Benzo(k)fluoranthene	661.3	6.7	666.7	0	99.2	45-115	0			
Chrysene	715.7	6.7	666.7	0	107	55-110	0			
Dibenzo(a,h)anthracene	709.7	6.7	666.7	0	106	40-125	0			
Fluoranthene	639	6.7	666.7	0	95.8	55-115	0			
Fluorene	612.3	6.7	666.7	0	91.8	50-110	0			
Indeno(1,2,3-cd)pyrene	751.7	6.7	666.7	0	113	40-120	0			
Naphthalene	519.7	6.7	666.7	0	77.9	40-105	0			
Pyrene	717.7	6.7	666.7	0	108	45-125	0			
Surr: 2-Fluorobiphenyl	1259	0	1667	0	75.6	12-100	0			
Surr: 4-Terphenyl-d14	1776	0	1667	0	107	25-137	0			
Surr: Nitrobenzene-d5	988.3	0	1667	0	59.3	37-107	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: 62751 Instrument ID SVMS4 Method: SW846 8270D

MS				Sample ID: 1409626-01B MS			Units: µg/Kg		Analysis Date: 9/16/2014 04:56 PM		
Client ID:		Run ID: SVMS4_140916A			SeqNo: 2937600		Prep Date: 9/15/2014		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1114	130	1273	0	87.5	45-110	0				
Acenaphthylene	1311	130	1273	0	103	45-105	0				
Anthracene	1528	130	1273	0	120	55-105	0			S	
Benzo(a)anthracene	1521	130	1273	0	119	50-110	0			S	
Benzo(a)pyrene	1776	130	1273	0	139	50-110	0			S	
Benzo(b)fluoranthene	1687	130	1273	0	132	45-115	0			S	
Benzo(g,h,i)perylene	1470	130	1273	0	115	40-125	0				
Benzo(k)fluoranthene	1318	130	1273	0	103	45-115	0				
Chrysene	1286	130	1273	0	101	55-110	0				
Dibenzo(a,h)anthracene	1878	130	1273	0	147	40-125	0			S	
Fluoranthene	1617	130	1273	0	127	55-115	0			S	
Fluorene	1579	130	1273	0	124	50-110	0			S	
Indeno(1,2,3-cd)pyrene	1935	130	1273	0	152	40-120	0			S	
Naphthalene	1438	130	1273	0	113	40-105	0			S	
Pyrene	1521	130	1273	0	119	45-125	0				
Surr: 2-Fluorobiphenyl	2400	0	3183	0	75.4	12-100	0				
Surr: 4-Terphenyl-d14	3278	0	3183	0	103	25-137	0				
Surr: Nitrobenzene-d5	2361	0	3183	0	74.2	37-107	0				

MSD				Sample ID: 1409626-01B MSD			Units: µg/Kg		Analysis Date: 9/16/2014 05:21 PM		
Client ID:		Run ID: SVMS4_140916A			SeqNo: 2937601		Prep Date: 9/15/2014		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1179	130	1295	0	91	45-110	1114	5.64	30		
Acenaphthylene	1302	130	1295	0	100	45-105	1311	0.737	30		
Anthracene	1813	130	1295	0	140	55-105	1528	17.1	30	S	
Benzo(a)anthracene	1567	130	1295	0	121	50-110	1521	2.97	30	S	
Benzo(a)pyrene	1800	130	1295	0	139	50-110	1776	1.36	30	S	
Benzo(b)fluoranthene	1742	130	1295	0	134	45-115	1687	3.22	30	S	
Benzo(g,h,i)perylene	1509	130	1295	0	116	40-125	1470	2.58	30		
Benzo(k)fluoranthene	1334	130	1295	0	103	45-115	1318	1.24	30		
Chrysene	1321	130	1295	0	102	55-110	1286	2.71	30		
Dibenzo(a,h)anthracene	1943	130	1295	0	150	40-125	1878	3.4	30	S	
Fluoranthene	1703	130	1295	0	131	55-115	1617	5.2	30	S	
Fluorene	1871	130	1295	0	144	50-110	1579	17	30	S	
Indeno(1,2,3-cd)pyrene	2370	130	1295	0	183	40-120	1935	20.2	30	S	
Naphthalene	1878	130	1295	0	145	40-105	1438	26.5	30	S	
Pyrene	1619	130	1295	0	125	45-125	1521	6.22	30		
Surr: 2-Fluorobiphenyl	2538	0	3238	0	78.4	12-100	2400	5.62	40		
Surr: 4-Terphenyl-d14	3199	0	3238	0	98.8	25-137	3278	2.44	40		
Surr: Nitrobenzene-d5	3082	0	3238	0	95.2	37-107	2361	26.5	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409660
Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62751** Instrument ID **SVMS4** Method: **SW846 8270D**

The following samples were analyzed in this batch:

1409660-01B

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62817** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-62817-62817				Units: µg/Kg		Analysis Date: 9/17/2014 04:17 PM		
Client ID:		Run ID: VMS6_140917A			SeqNo: 2940092		Prep Date: 9/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	949	0	1000	0	94.9	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	967	0	1000	0	96.7	70-130	0			
<i>Surr: Dibromofluoromethane</i>	952	0	1000	0	95.2	70-130	0			
<i>Surr: Toluene-d8</i>	912.5	0	1000	0	91.2	70-130	0			

LCS		Sample ID: LCS-62817-62817				Units: µg/Kg		Analysis Date: 9/17/2014 03:00 PM		
Client ID:		Run ID: VMS6_140917A			SeqNo: 2940091		Prep Date: 9/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	999	30	1000	0	99.9	75-125	0			
Ethylbenzene	995	30	1000	0	99.5	75-125	0			
m,p-Xylene	2012	60	2000	0	101	80-125	0			
o-Xylene	1001	30	1000	0	100	75-125	0			
Toluene	982.5	30	1000	0	98.2	70-125	0			
Xylenes, Total	3012	90	3000	0	100	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	947.5	0	1000	0	94.8	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	995.5	0	1000	0	99.6	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1012	0	1000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	936.5	0	1000	0	93.6	70-130	0			

The following samples were analyzed in this batch:

1409660-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1409660
Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62793** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP	Sample ID: 1409667-02B DUP		Units: mmhos/cm @25°C		Analysis Date: 9/17/2014 02:00 PM					
Client ID:	Run ID: WETCHEM_1409171		SeqNo: 2939237		Prep Date: 9/17/2014 DF: 10					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	39.1	0.050	0	0	0		40.4	3.27	50	

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62832** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-62832-62832		Units: mg/Kg		Analysis Date: 9/16/2014 10:00 AM					
Client ID:	Run ID: WETCHEM_140916B		SeqNo: 2937028		Prep Date: 9/15/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS	Sample ID: LCS-62832-62832		Units: mg/Kg		Analysis Date: 9/16/2014 10:00 AM					
Client ID:	Run ID: WETCHEM_140916B		SeqNo: 2937027		Prep Date: 9/15/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.872 0.50 2 0 93.6 80-120 0

MS	Sample ID: 1409660-01B MS		Units: mg/Kg		Analysis Date: 9/16/2014 10:00 AM					
Client ID: Batch 4	Run ID: WETCHEM_140916B		SeqNo: 2937023		Prep Date: 9/15/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.1608 0.49 1.961 0.06275 5 75-125 0 JS

MS	Sample ID: 1409660-01B MSI		Units: mg/Kg		Analysis Date: 9/16/2014 10:00 AM					
Client ID: Batch 4	Run ID: WETCHEM_140916B		SeqNo: 2937025		Prep Date: 9/15/2014 DF: 100					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1060 50 1294 0.06275 82 75-125 0

MSD	Sample ID: 1409660-01B MSD		Units: mg/Kg		Analysis Date: 9/16/2014 10:00 AM					
Client ID: Batch 4	Run ID: WETCHEM_140916B		SeqNo: 2937024		Prep Date: 9/15/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.2143 0.50 1.984 0.06275 7.64 75-125 0.1608 0 20 JS

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409660
Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **62833** Instrument ID **WETCHEM** Method: **SW9045D**

DUP		Sample ID: 1409656-04B DUP				Units: s.u.		Analysis Date: 9/16/2014 02:10 PM		
Client ID:		Run ID: WETCHEM_140916J		SeqNo: 2937538		Prep Date: 9/16/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.03	0	0	0	0	0-0	8.03	0	20	

DUP		Sample ID: 1409660-01B DUP				Units: s.u.		Analysis Date: 9/16/2014 02:10 PM		
Client ID: Batch 4		Run ID: WETCHEM_140916J		SeqNo: 2937540		Prep Date: 9/16/2014		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	8.43	1.18	20	

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409660
 Project: WPX Clough 14-22 Batch 4 9.12.14

QC BATCH REPORT

Batch ID: **R148238** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: WBLKS-R148238				Units: % of sample			Analysis Date: 9/15/2014 07:15 PM		
Client ID:	Run ID: MOIST_140915D			SeqNo: 2937067		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-R148238				Units: % of sample			Analysis Date: 9/15/2014 07:15 PM		
Client ID:	Run ID: MOIST_140915D			SeqNo: 2937065		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: 1409532-08B DUP				Units: % of sample			Analysis Date: 9/15/2014 07:15 PM		
Client ID:	Run ID: MOIST_140915D			SeqNo: 2937035		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.76 0.050 0 0 0 0-0 15.87 0.696 20

DUP	Sample ID: 1409668-01A DUP				Units: % of sample			Analysis Date: 9/15/2014 07:15 PM		
Client ID:	Run ID: MOIST_140915D			SeqNo: 2937061		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 63.61 0.050 0 0 0 0-0 62.53 1.71 20

The following samples were analyzed in this batch: 1409660-01B

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



ALS Laboratory Group

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

Chain-of-Custody

Form 202b

WORKORDER #	1409660
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

PROJECT NAME	WPX clough 14-22	SAMPLER	Reed Wold	DATE	9/12/14
PROJECT No.	Batch 4	SITE ID	clough 14-22	TURNAROUND	3 Day
COMPANY NAME	HRL Compliance	EDD FORMAT			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER			
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX Energy		
CITY/STATE/ZIP	Grand Junction, CO 81508	INVOICE ATTN TO	Karolina Blance		
PHONE	970-243-3271	ADDRESS			
FAX	970-243-3280	CITY/STATE/ZIP			
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE			
		FAX			
		E-MAIL			

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC												
1	Batch 4	SO	9/12/14	12:00	3	8		X	X	✓									

BTEX/MSO
 DDD/PAH/MSLs
 SARA/CPH

*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: 3.4°C 	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	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		Reed Wold	9/12/14	1230
RECEIVED BY		W.M.	9-12-14	1230
RELINQUISHED BY		Diane E. Sh...	9/13/14	1045
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **13-Sep-14 10:45**

Work Order: **1409660**

Received by: **DS**

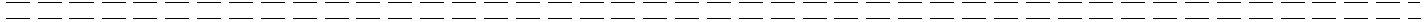
Checklist completed by *Diane Shaw* 15-Sep-14
eSignature Date

Reviewed by: *Ann Preston* 15-Sep-14
eSignature Date

Matrices: **Soil**
 Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.4 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="9/15/2014 8:47:10 AM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (818) 399-0070
Nick Martinez
ALS Environmental
127 E. 1st Street
PARACHUTE, CO 81035

Origin ID: RLA



Ship Date: 12SEP14
Acct Wgt: 54.8 LB
CAD: 2264640/NET3550
Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (818) 399-0070
sample receiving
ALS Laboratory Group
3352 128TH AVE

BILL BENDER

Ref # 091214-1
Invoice #
PO # Parachute
Dept #

HOLLAND, MI 48424

1 of 3

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7711 4528 8733

EXPI

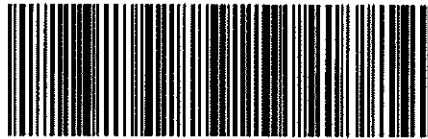
MASTER

49424

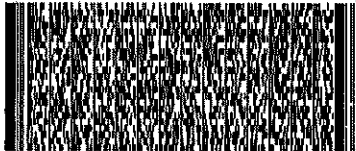
MS-LS

GRR

XO HLMA



8222UCB4MPC2



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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ALS Parachute Custody Seal

DATE 9-17-14 Time 1:00

Name Nick Martinez



25-Sep-2014

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

Re: **WPX Clough 14-22 Batch 4 9.19.14**

Work Order: **14091027**

Dear Mark,

ALS Environmental received 1 sample on 20-Sep-2014 10:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 12.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.19.14
Work Order: 14091027

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14091027-01	Batch 4	Soil		9/19/2014 10:40	9/20/2014 10:30	<input type="checkbox"/>

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.19.14
Work Order: 14091027

Case Narrative

Batch 63010 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.19.14
WorkOrder: 14091027

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 25-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Batch 4 9.19.14
Sample ID: Batch 4
Collection Date: 9/19/2014 10:40 AM

Work Order: 14091027
Lab ID: 14091027-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3541 / 9/22/14	Analyst: IT
DRO (C10-C28)	150		4.7	mg/Kg-dry	1	9/23/2014 12:15 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>77.0</i>		<i>39-133</i>	<i>%REC</i>	1	9/23/2014 12:15 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015		Prep: SW5035 / 9/22/14	Analyst: IT
GRO (C6-C10)	38		2.8	mg/Kg-dry	1	9/22/2014 03:06 PM
<i>Surr: Toluene-d8</i>	<i>120</i>		<i>50-150</i>	<i>%REC</i>	1	9/22/2014 03:06 PM
MOISTURE			A2540 G			Analyst: RLM
Moisture	11		0.050	% of sample	1	9/22/2014 10:30 AM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14091027
Project: WPX Clough 14-22 Batch 4 9.19.14

QC BATCH REPORT

Batch ID: **63010** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-63010-63010				Units: mg/Kg		Analysis Date: 9/22/2014 05:22 PM			
Client ID:		Run ID: GC8_140922A				SeqNo: 2947982		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	ND	4.2									
<i>Surr: 4-Terphenyl-d14</i>	1.345	0	1.667	0	80.7	39-133	0				

LCS		Sample ID: DLCSS1-63010-63010				Units: mg/Kg		Analysis Date: 9/22/2014 05:49 PM			
Client ID:		Run ID: GC8_140922A				SeqNo: 2947985		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	169.3	4.2	166.7	0	102	61-109	0				
<i>Surr: 4-Terphenyl-d14</i>	1.305	0	1.667	0	78.3	39-133	0				

MS		Sample ID: 14091000-03B MS				Units: mg/Kg		Analysis Date: 9/23/2014 10:42 AM			
Client ID:		Run ID: GC8_140923A				SeqNo: 2948157		Prep Date: 9/22/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	8522	80	321.3	5668	888	48-110	0			SO	
<i>Surr: 4-Terphenyl-d14</i>	7.738	0	3.213	0	241	39-133	0			S	

MSD		Sample ID: 14091000-03B MSD				Units: mg/Kg		Analysis Date: 9/23/2014 11:10 AM			
Client ID:		Run ID: GC8_140923A				SeqNo: 2948160		Prep Date: 9/22/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	9230	81	324.3	5668	1100	48-110	8522	7.98	30	SO	
<i>Surr: 4-Terphenyl-d14</i>	3.1	0	3.243	0	95.6	39-133	7.738	85.6	30	R	

The following samples were analyzed in this batch: | 14091027-01B |

Client: HRL Compliance Solutions, Inc
 Work Order: 14091027
 Project: WPX Clough 14-22 Batch 4 9.19.14

QC BATCH REPORT

Batch ID: **63020** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-63020-63020				Units: µg/Kg		Analysis Date: 9/22/2014 01:24 PM			
Client ID:		Run ID: GC9_140922A				SeqNo: 2946717		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	ND	2,500									
<i>Surr: Toluene-d8</i>	4742	0	5000	0	94.8	50-150	0				

LCS		Sample ID: LCS-63020-63020				Units: µg/Kg		Analysis Date: 9/22/2014 12:59 PM			
Client ID:		Run ID: GC9_140922A				SeqNo: 2946715		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	534800	2,500	500000	0	107	70-130	0				
<i>Surr: Toluene-d8</i>	4522	0	5000	0	90.4	50-150	0				

MS		Sample ID: 1409892-01A MS				Units: µg/Kg		Analysis Date: 9/22/2014 04:23 PM			
Client ID:		Run ID: GC9_140922A				SeqNo: 2947635		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	550800	2,500	500000	0	110	70-130	0				
<i>Surr: Toluene-d8</i>	4463	0	5000	0	89.3	50-150	0				

MSD		Sample ID: 1409892-01A MSD				Units: µg/Kg		Analysis Date: 9/22/2014 04:48 PM			
Client ID:		Run ID: GC9_140922A				SeqNo: 2947636		Prep Date: 9/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
GRO (C6-C10)	525000	2,500	500000	0	105	70-130	550800	4.8	30		
<i>Surr: Toluene-d8</i>	4456	0	5000	0	89.1	50-150	4463	0.168	30		

The following samples were analyzed in this batch: 14091027-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14091027
Project: WPX Clough 14-22 Batch 4 9.19.14

QC BATCH REPORT

Batch ID: **R148707** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R148707				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM			
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947929		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-R148707				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM			
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947928		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: 14091023-01B DUP				Units: % of sample		Analysis Date: 9/22/2014 10:30 AM			
Client ID:		Run ID: MOIST_140922A				SeqNo: 2947918		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 18.38 0.050 0 0 0 0-0 17.79 3.26 20

The following samples were analyzed in this batch: 14091027-01B

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 202b

WORKORDER #	14091027
PAGE	1 of 1

PROJECT NAME	WPX clough 14-22	SAMPLER	Reed Wold	DATE	9/19/14	DISPOSAL	By Lab or Return to Client
PROJECT No.	Batch 4	SITE ID	clough 14-22	TURNAROUND	3 Day		
COMPANY NAME	HRL Compliance	EDD FORMAT					
SEND REPORT TO	Mark Mumby	PURCHASE ORDER					
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX				
CITY/STATE/ZIP	Grand Junction, CO 81508	INVOICE ATTN TO	Karolina Blaney				
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215				
FAX	970-243-3280	CITY/STATE/ZIP	Parachute CO 81635				
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-683-2205				
E-MAIL		E-MAIL	Karolina.blaney@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	Bottles	Pres.	QC
-01	Batch 4	SO	9/19/14	10:40	3	8	X X X

-B7777777
 DR. C. (B7777777)
 S. R. (B7777777)
 J. R. (B7777777)

*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: 3.9c	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>	

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	9/19/14	12:20
RECEIVED BY			9-19-14	12:20
RELINQUISHED BY			9-19-14	12:30
RECEIVED BY		J. R. (B7777777)	9/20/14	10:30
RELINQUISHED BY				
RECEIVED BY				

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

Ann Preston

From: Blaney, Karolina [Karolina.Blaney@wpxenergy.com]
Sent: Wednesday, September 24, 2014 10:41 AM
To: Ann Preston; mmumby@hrlcomp.com
Cc: rwold@hrlcomp.com
Subject: RE: 14091027 WPX Clough 14-22 Batch 4 9.19.14 WOA

Ann,
This sample needs to be analyzed for DRO and GRO only.
Thank you,

Karolina Blaney
Karolina Blaney
2001 130th Avenue
Calhoun, MI 49414
Tel: 616-218-5574
Fax: 616-218-5575

karolina.blaney@wpxenergy.com

From: Ann Preston [mailto:Ann.Preston@ALSGlobal.com]
Sent: Monday, September 22, 2014 8:41 AM
To: mmumby@hrlcomp.com
Cc: Blaney, Karolina; rwold@hrlcomp.com
Subject: 14091027 WPX Clough 14-22 Batch 4 9.19.14 WOA

Please see the attached work order acknowledgement that contains the sample IDs, test assignment, and costs associated with the recent samples you submitted. Please let me know if you have any changes, otherwise we will proceed as shown. Modifications to the final report, after issue, may incur additional cost.

Regards,

Ann

ANNOUNCEMENT: In order to better serve you, improvements to Webtrieve™ are coming soon!
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Take our short online customer survey for a chance to win a FREE iPad!

Ann L. Preston

Ann L. Preston
2001 130th Avenue
Calhoun, MI 49414 USA

Phone: 616-218-5574
Fax: 616-218-5575
www.alsglobal.com



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Sep-14 10:30**

Work Order: **14091027**

Received by: **JR**

Checklist completed by Joseph Rebar 20-Sep-14
eSignature Date

Reviewed by: Ann Preston 22-Sep-14
eSignature 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

Sample(s) received on ice? Yes No

Temperature(s)/Thermometer(s): 3.4C

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 9/20/2014 11:28:14 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:

[Empty text box for comments]

CorrectiveAction:

[Empty text box for corrective action]

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

Origin ID: RILA



Ship Date: 19SEP14
ActWgt: 75.0 LB
CAD: 2284846/NET3550
Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



BHP TO: (816) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL SENDER

Ref # 001014-1
Invoice # Parachute
PO #
Dept #

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7712 2235 7960

6201

49424
MI-UP
GRR

XO HLMA



52201A31818AC9

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Attachment C



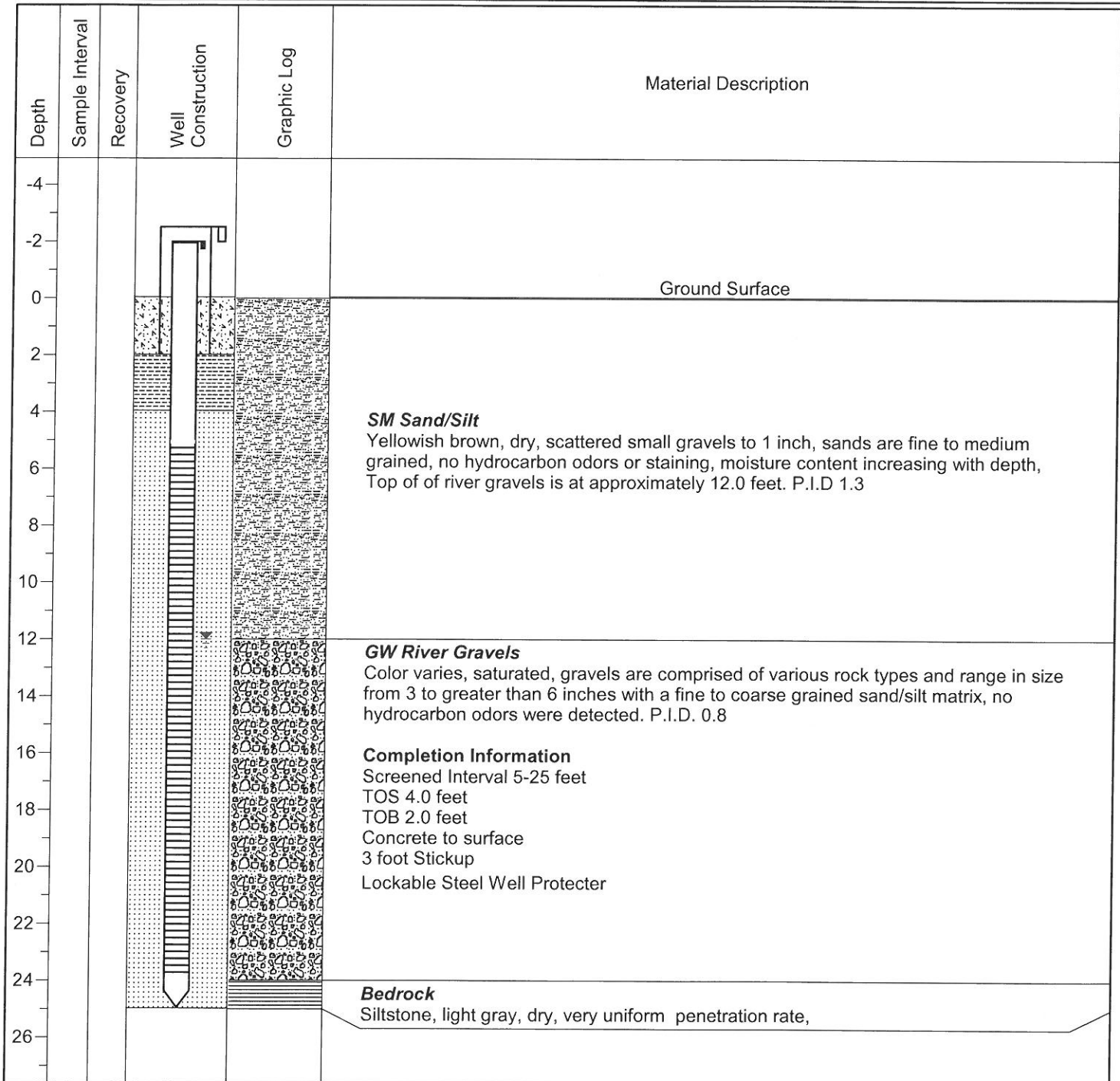
HCSI
DRILLING SERVICES - REMEDIATION - TOOL SERVICES

Well Summary

2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

Project: Clough 14-22MV
Location: Clough 14-22MV Well PAD
Date(s): 6/16/2014
Contractor: D.A. Smith Crilling
Rig Type: Simco 9100
Drilling Method: Air Rotary/ODEX
Sample Type: Cuttings

Well Name: MW-1
Total Depth: 25 Feet
Elevation TOC: 5233.62
Elevation Ground: 5231.04
Latitude: 39.507224N
Longitude: -107.878414W
Logged By: M.E. Mumby





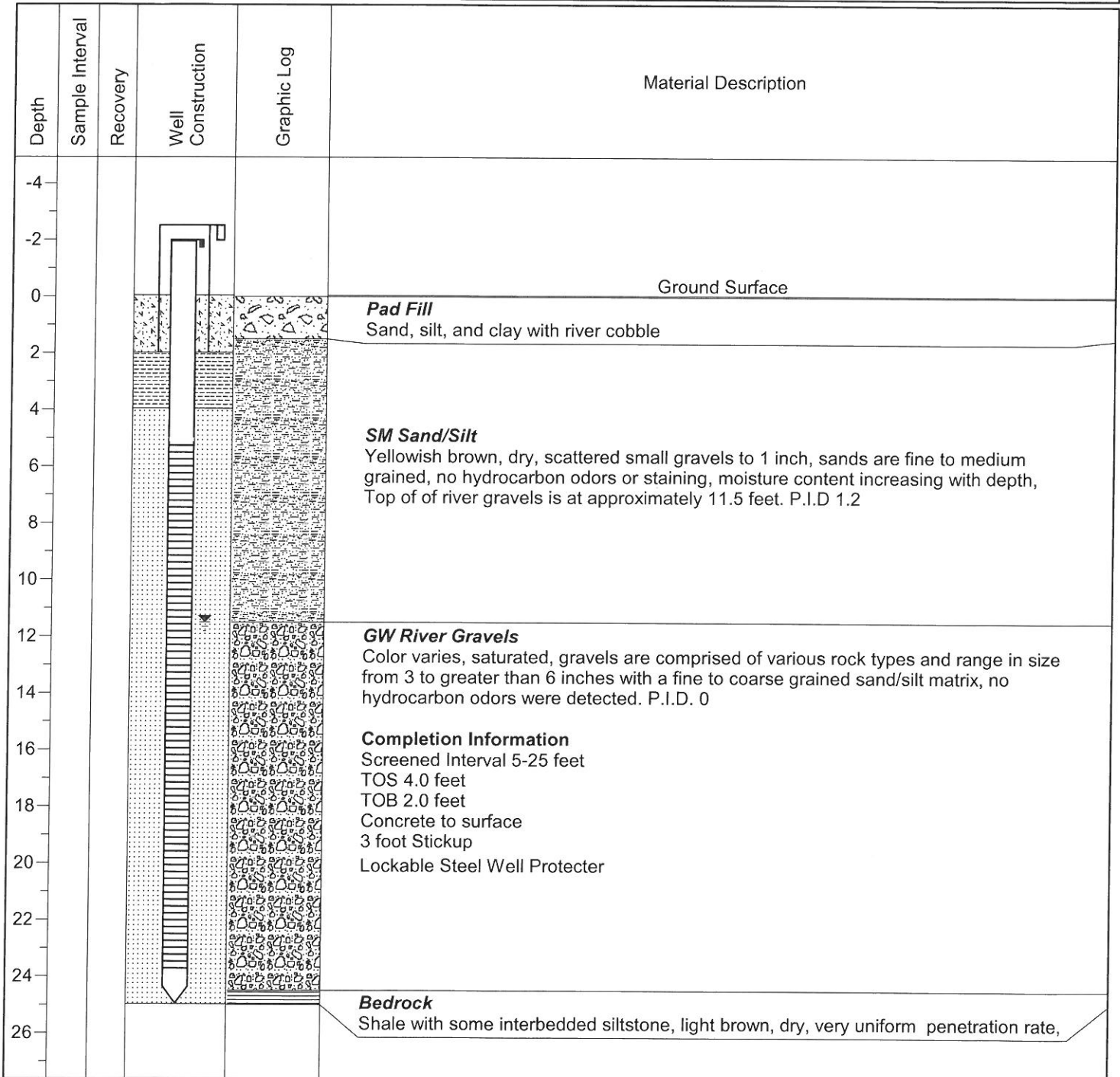
HCSI
DRILLING SERVICES • GRAND JUNCTION, COLORADO

Well Summary

2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

Project: Clough 14-22MV
Location: Clough 14-22MV Well PAD
Date(s): 6/16/2014
Contractor: D.A. Smith Crilling
Rig Type: Simco 9100
Drilling Method: Air Rotary/ODEX
Sample Type: Cuttings

Well Name: MW-2
Total Depth: 25 Feet
Elevation TOC: 5233.51
Elevation Ground: 5231.22
Latitude: 39.506996N
Longitude: -107.878418W
Logged By: M.E. Mumby





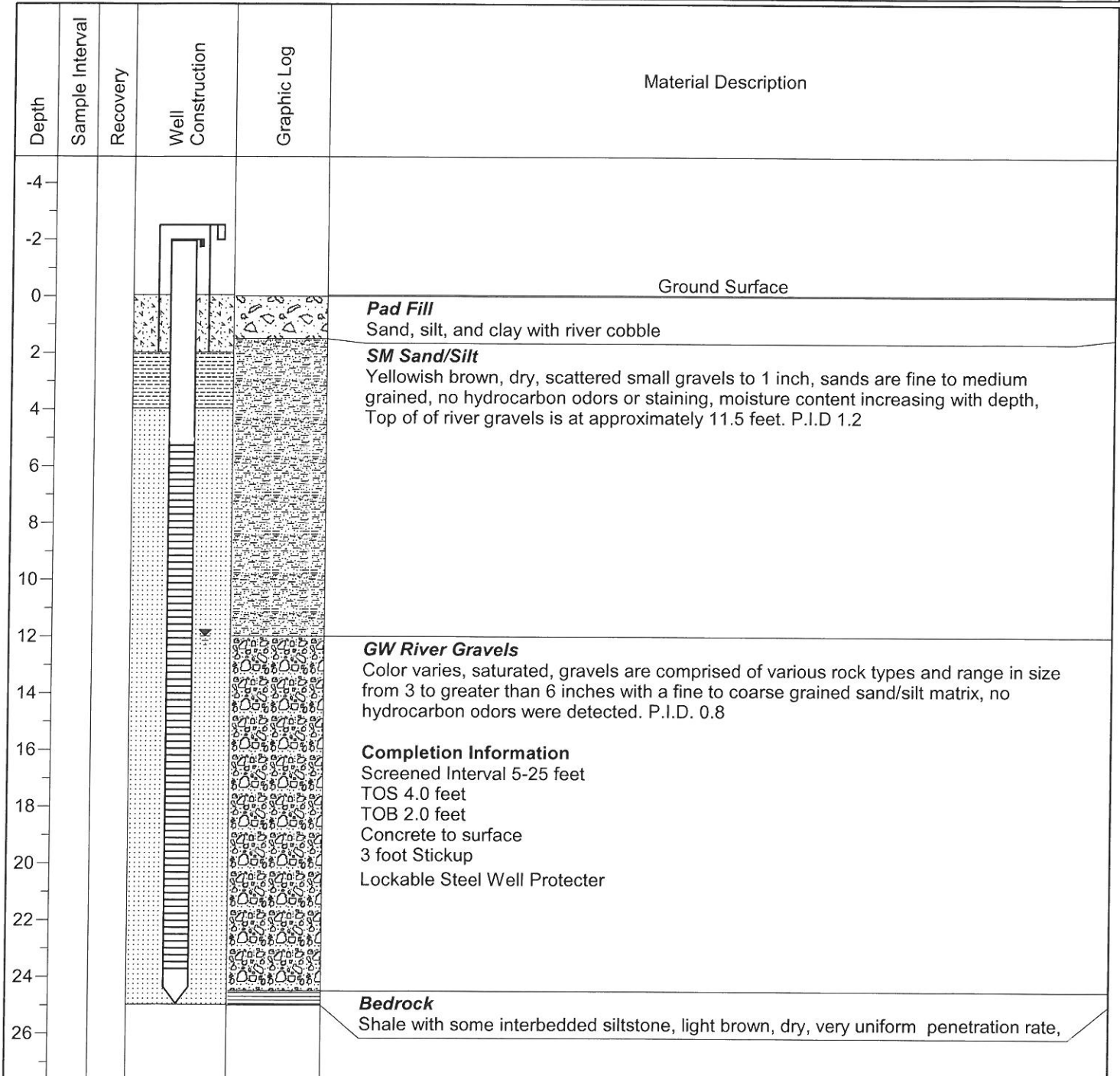
HCSI
DRILLING SERVICES-GRAND JUNCTION COLORADO

Well Summary

2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

Project: Clough 14-22MV
Location: Clough 14-22MV Well PAD
Date(s): 6/16/2014
Contractor: D.A. Smith Crilling
Rig Type: Simco 9100
Drilling Method: Air Rotary/ODEX
Sample Type: Cuttings

Well Name: MW-3
Total Depth: 25 Feet
Elevation TOC: 5233.76
Elevation Ground: 5231.55
Latitude: 39.506931N
Longitude: -107.878584W
Logged By: M.E. Mumby





HCSI
DRILLING SERVICES • GEASD FUS • TDM • SNO • GRADE

Well Summary

2385 F 1/2 Road
 Grand Junction, CO 81507
 970-243-3271

Project: Clough 14-22MV
Location: Clough 14-22MV Well PAD
Date(s): 6/17/2014
Contractor: D.A. Smith Crilling
Rig Type: Simco 9100
Drilling Method: Air Rotary/ODEX
Sample Type: Cuttings

Well Name: MW-4
Total Depth: 25 Feet
Elevation TOC: 5233.93
Elevation Ground: 5231.23
Latitude: 39.506822N
Longitude: -107.878726W
Logged By: M.E. Mumby

Depth	Sample Interval	Recovery	Well Construction	Graphic Log	Material Description
-4					
-2					
0					Ground Surface
2					Pad Fill Sand, silt, and clay with abundant river cobble
4					
6					SM Sand/Silt Yellowish brown, dry, scattered small gravels to 1 inch, sands are fine to medium grained, no hydrocarbon odors or staining, moisture content increasing with depth, Top of of river gravels is at approximately 11.5 feet. P.I.D 1.2
8					
10					
12					
14					GW River Gravels Color varies, saturated, gravels are comprised of various rock types and range in size from 3 to greater than 6 inches with a fine to coarse grained sand/silt matrix, silt content is increasing, no hydrocarbon odors were detected. P.I.D. 0
16					
18					Completion Information Screened Interval 5-25 feet TOS 4.0 feet TOB 2.0 feet Concrete to surface 3 foot Stickup Lockable Steel Well Protector
20					
22					
24					
26					



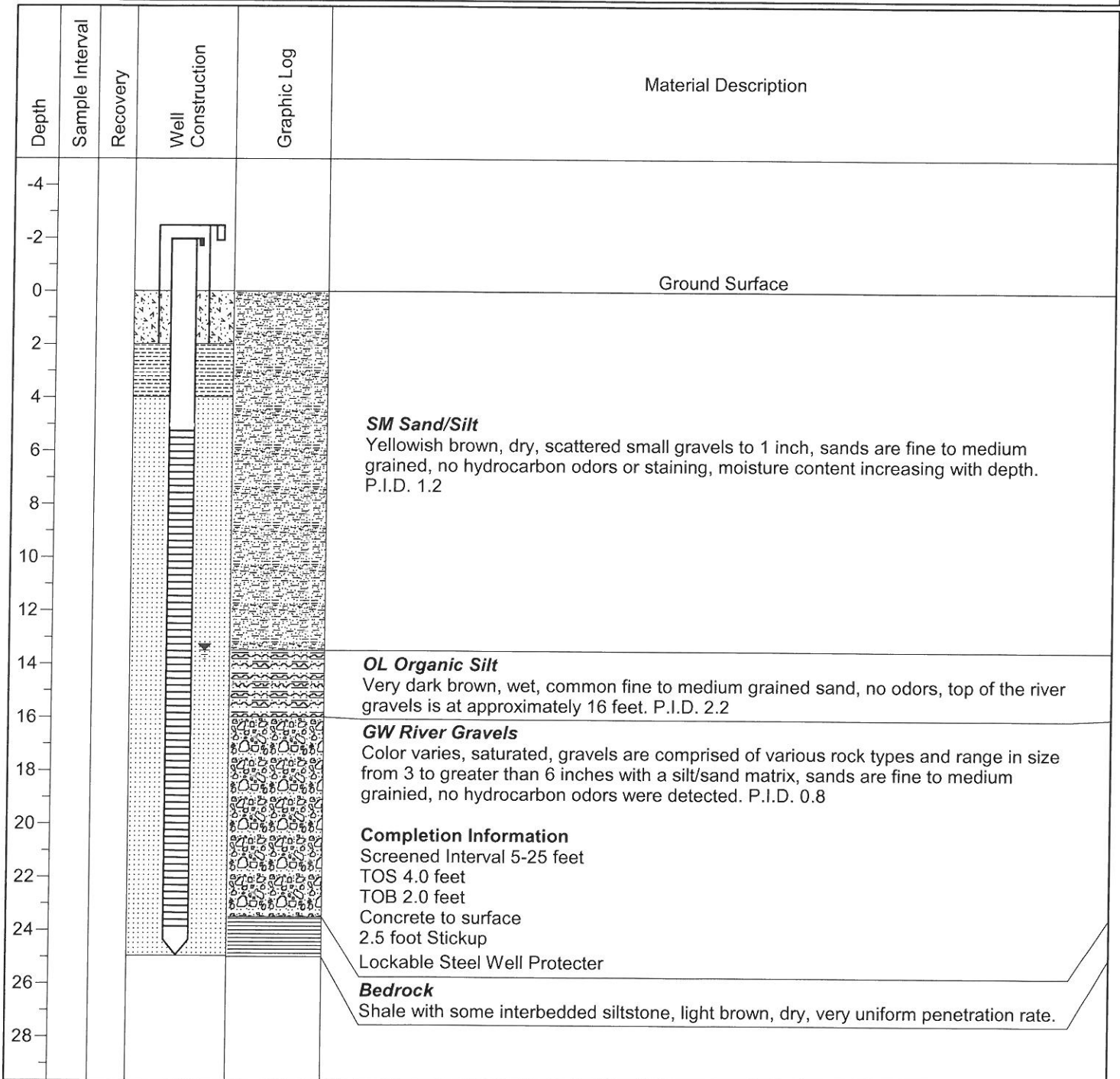
HCSI
DRILLING SERVICE TO THE GRAND JUNCTION AREA

Well Summary

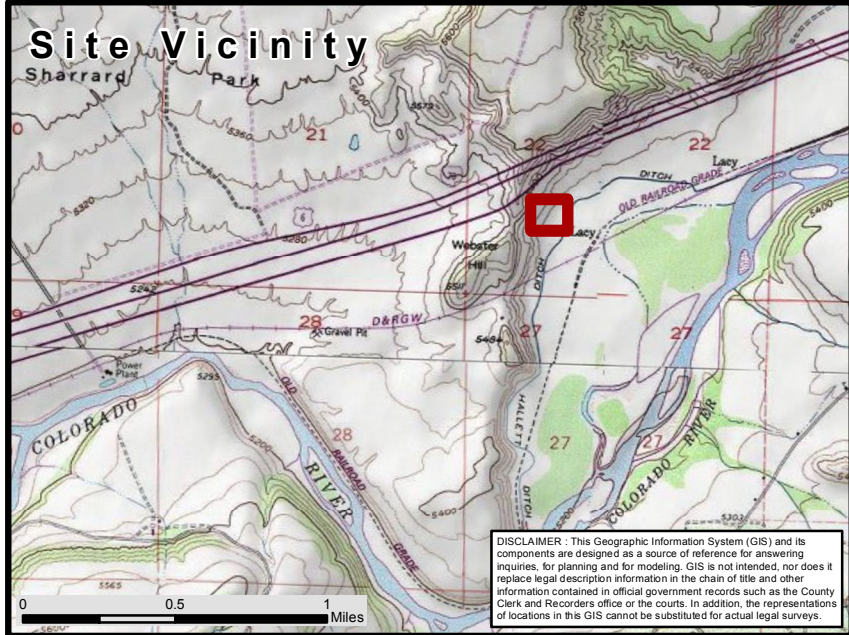
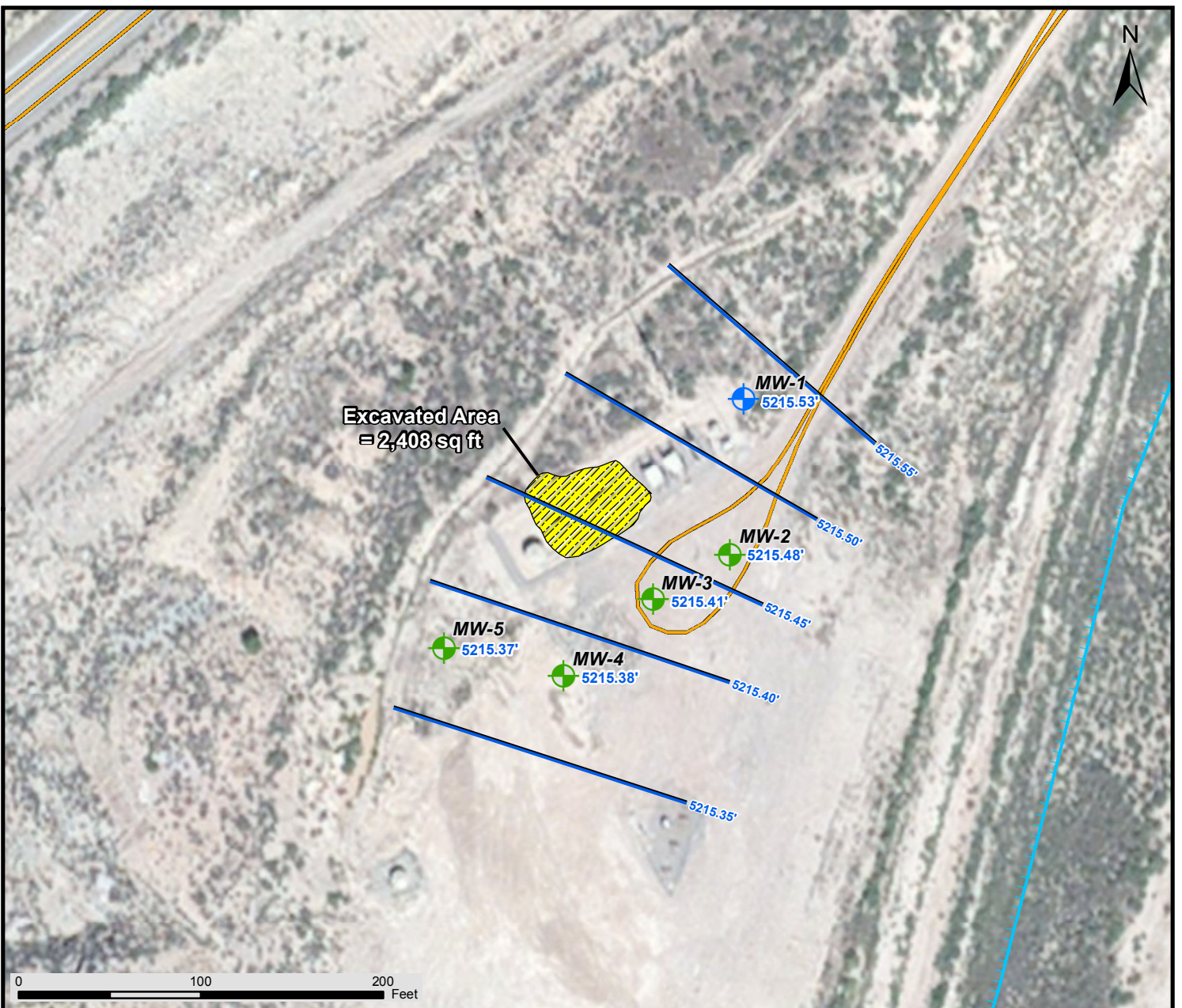
2385 F 1/2 Road
Grand Junction, CO 81507
970-243-3271

Project: Clough 14-22MV
Location: Clough 14-22MV Well PAD
Date(s): 6/17/2014
Contractor: D.A. Smith Drilling
Rig Type: Simco 9100
Drilling Method: Air Rotary/ODEX
Sample Type: Cuttings

Well Name: MW-5
Total Depth: 25 Feet
Elevation TOC: 5234.02
Elevation Ground: 5231.56
Latitude: 39.506865N
Longitude: -107.878957W
Logged By: M.E. Mumby



Attachment D

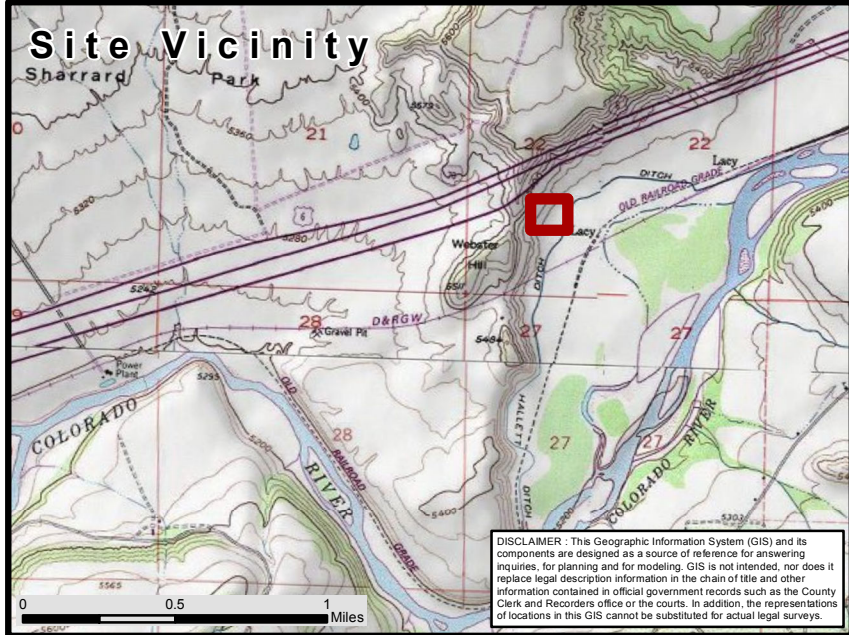
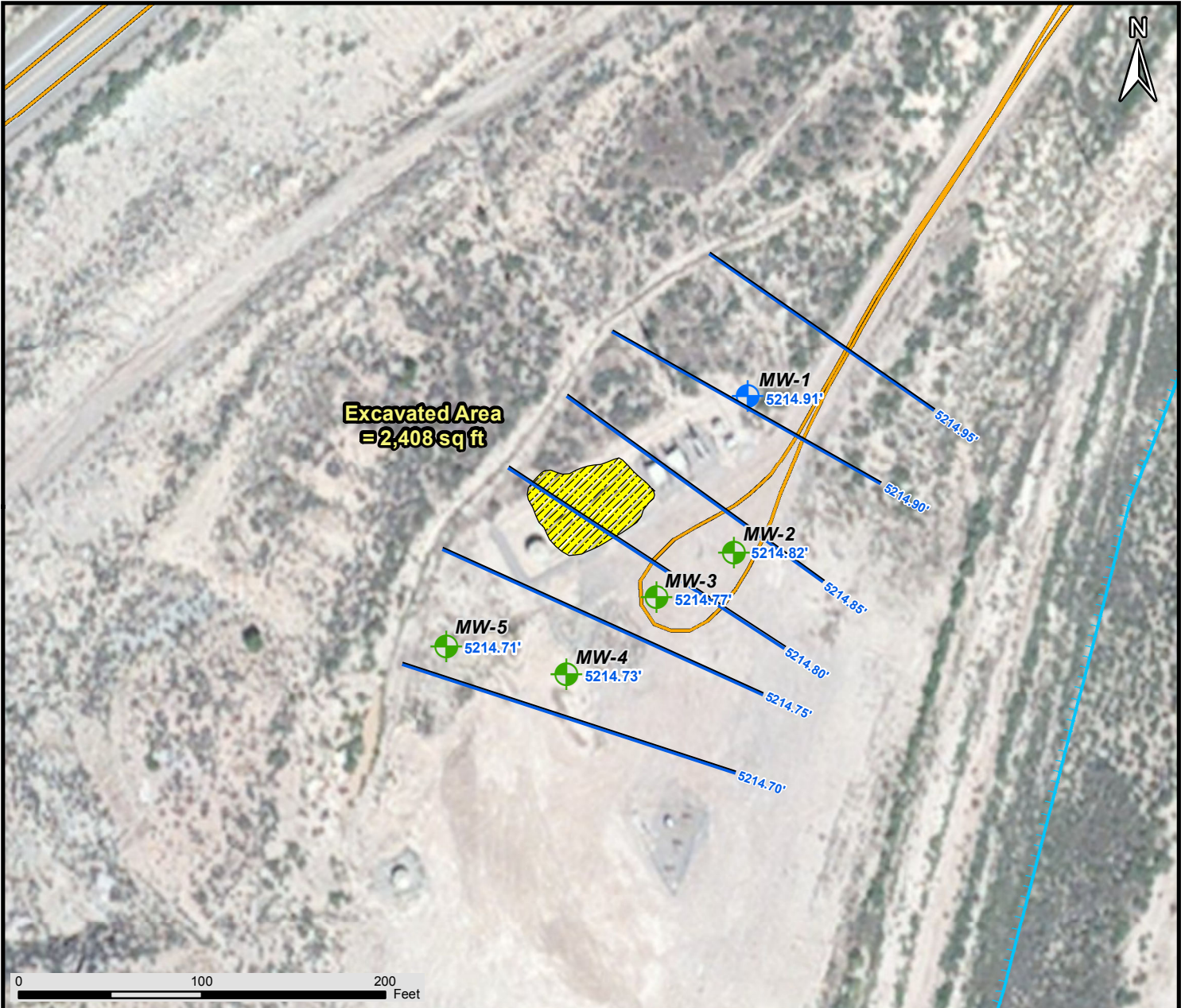


DISCLAIMER: This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official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

2nd Qtr 2014 Potentiometric Map
Location: Clough 14-22
 39.507060 -107.878716
 WPX Energy

- | | |
|----------------------|--------------------------------|
| Upgradient Well | Transportation Features |
| Downgradient Well | Public Roads |
| Potentiometric Lines | Access Roads |
| Excavated Area | Hydrographic Features |
| PLSS | Perennial Stream |
| Township | Intermittent Stream |
| Section | |



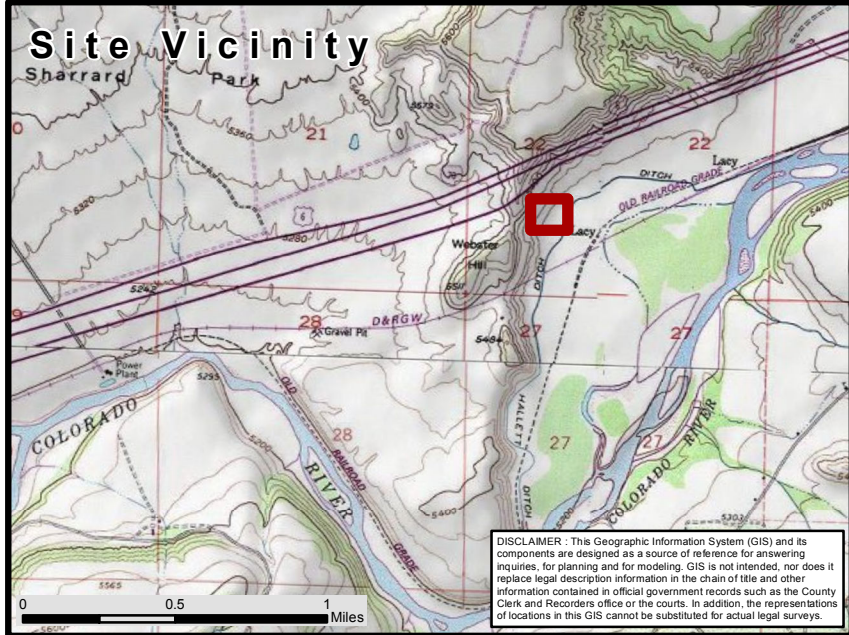


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3rd Qtr 2014 Potentiometric Map
Location: Clough 14-22
 39.507060 -107.878716
 WPX Energy

- | | |
|----------------------|--------------------------------|
| Upgradient Well | Transportation Features |
| Downgradient Well | Public Roads |
| Potentiometric Lines | Access Roads |
| Excavated Area | Hydrographic Features |
| PLSS | Perennial Stream |
| Township | Ditch |
| Section | |



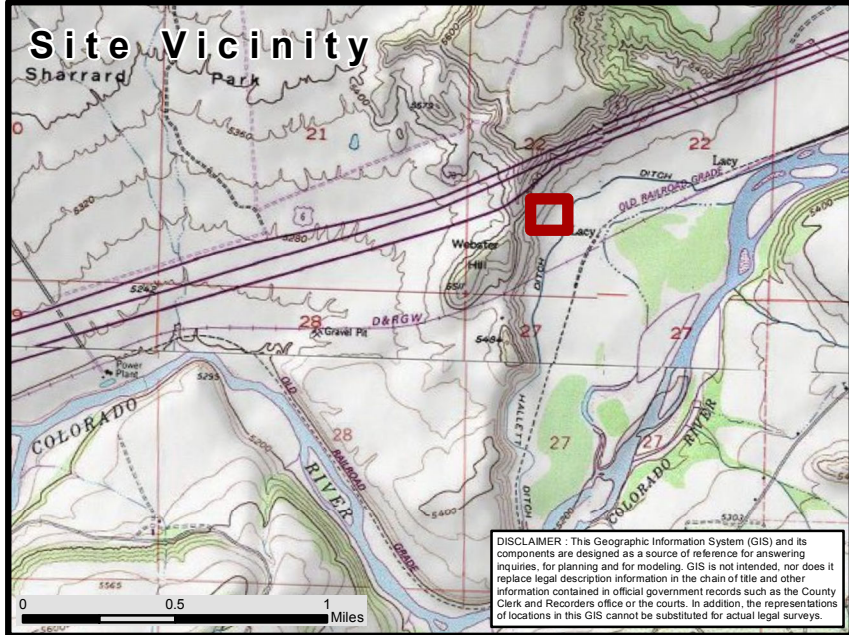


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4th Qtr 2014 Potentiometric Map
Location: Clough 14-22
 39.507060 -107.878716
 WPX Energy

- | | |
|----------------------|--------------------------------|
| Upgradient Well | Transportation Features |
| Downgradient Well | Public Roads |
| Potentiometric Lines | Access Roads |
| Excavated Area | Hydrographic Features |
| PLSS | Perennial Stream |
| Township | Ditch |
| Section | |





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1st Qtr 2015 Potentiometric Map
Location: Clough 14-22
 39.507060 -107.878716
 WPX Energy

- | | | |
|--|----------------------|--------------------------------|
| | Upgradient Well | Transportation Features |
| | Downgradient Well | Public Roads |
| | Potentiometric Lines | Access Roads |
| | Excavated Area | Hydrographic Features |
| | PLSS Township | Perennial Stream |
| | PLSS Section | Ditch |

WPX ENERGY

HRI COMPLIANCE SOLUTIONS, INC.
 Environmental Consultants

Attachment E

Table 2

Clough 14-22 MV Groundwater Analytical Results

Sample ID:	Unit	COGCC Table 910-1 Standards	MW 1 (Background)	MW 1 (Background)	MW 1 (Background)	MW 1 (Background)	MW2	MW2	MW2
Date Sampled:			6/26/2014	9/18/2014	11/21/2014	2/9/2015	6/26/2014	9/18/2014	11/21/2014
Depth to Water (ft.)			18.09	18.71	18.6	18.44	18.03	18.69	18.55
GC/MS Volatiles (SW846 8260B)									
Benzene	ug/l	5 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	700 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	560 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	ug/l	1400 ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Metals Analysis									
Calcium	mg/l		490	410	550	460	460	420	500
Iron	mg/l		<0.8	<0.8	<0.8	<0.80	<0.8	<0.8	<0.8
Magnesium	mg/l		710	580	770	680	670	540	690
Manganese	mg/l		0.53	0.93	1.2	1.2	0.13	0.57	0.92
Potassium	mg/l		13	11	28	14	15	13	23
Selenium	mg/l		<0.05	<0.05	<0.10	<0.10	<0.05	<0.05	<0.10
Sodium	mg/l		4100	3600	4600	4,300	3800	3200	4100
General Chemistry									
Alkalinity, Bicarbonate as CaCO ₃	mg/l		750	810	810	790	700	790	780
Alkalinity, Carbonate	mg/l		<10	<10	<10	<10	<10	<10	<10
Alkalinity, Total as CaCO ₃	mg/l		750	810	810	790	700	790	780
Nitrogen, Nitrate	mg/l		<0.02	<0.02	<0.02	0.023	<0.02	<0.02	<0.02
Nitrogen, Nitrite	mg/l		<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	<0.02
Chloride	mg/l	1.25 x bkgd	3000	3100	3200	2,500	3000	2800	3200
Sulfate	mg/l	1.25 x bkgd	8100	8500	9300	7,100	7500	7700	7800
TDS	mg/l	1.25 x bkgd	17000	18000	18000	18,000	16000	17000	16000
pH			7.06	7.06	7.38	7.03	7.15	7.02	7.34

Table 2

Clough 14-22 MV Groundwater Analytical Results

Sample ID:	Unit	COGCC Table 910-1 Standards	MW2	MW 3	MW 3	MW 3	MW 3	MW 4	MW 4	MW 4
Date Sampled:			2/9/2015	6/26/2014	9/18/2014	11/21/2014	2/9/2015	6/26/2014	6/26/2014	11/21/2014
Depth to Water (ft.)			18.41	18.35	18.99	18.84	18.71	18.55	19.2	19.06
GC/MS Volatiles (SW846 8260B)										
Benzene	ug/l	5 ug/l	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	700 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	560 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	ug/l	1400 ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Metals Analysis										
Calcium	mg/l		460	500	500	520	450	540	470	530
Iron	mg/l		<0.80	<0.8	<0.8	<0.8	<0.80	<0.8	<0.8	<0.8
Magnesium	mg/l		680	850	850	860	750	950	780	890
Manganese	mg/l		1.1	1.4	2.2	2.7	2.2	3	3.5	4.3
Potassium	mg/l		15	15	15	23	15	14	12	18
Selenium	mg/l		<0.10	<0.05	<0.05	<0.10	<0.10	<0.05	<0.05	<0.10
Sodium	mg/l		4,000	4600	3700	5000	4,600	4900	4100	5800
General Chemistry										
Alkalinity, Bicarbonate as CaCO3	mg/l		780	780	860	830	840	840	850	840
Alkalinity, Carbonate	mg/l		<10	<10	<10	<10	<10	<10	<10	<10
Alkalinity, Total as CaCO3	mg/l		780	780	860	830	840	840	850	840
Nitrogen, Nitrate	mg/l		<0.020	<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	<0.02
Nitrogen, Nitrite	mg/l		<0.020	<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	<0.02
Chloride	mg/l	1.25 x bkgd	2,500	3900	3700	3700	2,800	4600	3800	3500
Sulfate	mg/l	1.25 x bkgd	6,500	9300	9100	9100	7,200	9500	8600	8700
TDS	mg/l	1.25 x bkgd	17,000	21000	20000	20000	19,000	22000	20000	20000
pH			7.03	7.04	7.18	7.3	7.00	6.91	7.06	7.3

Table 2

Clough 14-22 MV Groundwater Analytical Results

Sample ID:	Unit	COGCC Table 910-1 Standards	MW 4	MW 5	MW 5	MW 5	MW 5
Date Sampled:			2/9/2015	6/26/2014	9/18/2014	11/21/2014	2/9/2015
Depth to Water (ft.)			18.91	18.65	19.31	19.18	19.01
GC/MS Volatiles (SW846 8260B)							
Benzene	ug/l	5 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	ug/l	700 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l	560 ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	ug/l	1400 ug/l	<3.0	<3.0	<3.0	<3.0	<3.0
Metals Analysis							
Calcium	mg/l		450	450	450	480	420
Iron	mg/l		<0.80	<0.8	<0.8	<0.8	<0.80
Magnesium	mg/l		810	860	830	870	800
Manganese	mg/l		3.7	1.5	0.85	0.95	0.70
Potassium	mg/l		13	20	16	21	17
Selenium	mg/l		<0.10	<0.05	<0.05	<0.10	<0.10
Sodium	mg/l		4,600	5100	4600	6300	5,400
General Chemistry							
Alkalinity, Bicarbonate as CaCO3	mg/l		840	620	750	770	770
Alkalinity, Carbonate	mg/l		<10	<10	<10	<10	<10
Alkalinity, Total as CaCO3	mg/l		840	620	750	770	770
Nitrogen, Nitrate	mg/l		<0.020	<0.02	<0.02	<0.02	<0.020
Nitrogen, Nitrite	mg/l		<0.020	<0.02	<0.02	<0.02	<0.020
Chloride	mg/l	1.25 x bkgd	3,000	4100	3800	4000	3,700
Sulfate	mg/l	1.25 x bkgd	7,100	11000	10000	10000	9,900
TDS	mg/l	1.25 x bkgd	20,000	20000	22000	22000	21,000
pH			6.92	7.44	7.19	7.46	7.17

Table 3

Clough 14-22MV Field Measurements

YSI 556 Field Parameters →→→			Temperature	Conductivity	Conductivity	Resistivity	TDS	Salinity	Dissolved Oxygen	Dissolved Oxygen	pH	pH	ORP	Water Levels
Sample Location	Media	Sampling Date	°C	mS/cm ²	mS/cm	Ω/cm	g/L		%	mg/L		m/V		TOC (ft)
MW-1	Groundwater	6/26/2014	15.97	21.87	18.1	55.26	14.22	13.20	39.00	3.53	7.05	-13.60	188.5	18.06
MW-1	Groundwater	9/18/2014	15.10	19.93	16.44	61.99	12.95	11.93	6.40	0.59	8.91	-17.5	224.10	18.71
MW-1	Groundwater	11/21/2014	14.27	22.76	18.09	5.27	14.79	13.78	16.20	1.52	6.92	-22.9	221.90	18.60
MW-1	Groundwater	2/9/2015	13.31	22.93	17.81	56.14	14.90	13.88	3.20	0.30	7.04	-18.2	86.10	18.44
MW-2	Groundwater	6/26/2014	16.68	20.34	17.18	58.18	13.18	12.15	89.50	7.95	7.26	-22.9	154.60	18.03
MW-2	Groundwater	9/18/2014	15.45	18.99	15.51	64.51	12.32	11.30	5.20	0.49	6.89	-17.0	189.70	18.69
MW-2	Groundwater	11/21/2014	14.62	21.37	17.13	58.37	13.89	12.87	8.90	0.84	6.96	-24.9	187.30	18.55
MW-2	Groundwater	2/9/2015	13.19	21.8	16.88	59.23	14.17	13.14	3.80	0.36	7.31	-27.2	63.00	18.41
MW-3	Groundwater	6/26/2014	17.10	24.61	20.9	47.82	15.98	14.99	46.00	4.00	7.04	-13.0	159.50	18.35
MW-3	Groundwater	9/18/2014	15.45	22.45	18.33	54.62	14.58	13.56	4.00	0.36	6.96	-20.5	174.40	18.99
MW-3	Groundwater	11/21/2014	14.50	24.95	19.95	50.13	16.22	15.23	6.40	0.60	6.89	-21.2	117.30	18.84
MW-3	Groundwater	2/9/2015	13.47	24.31	18.95	52.77	15.80	14.80	2.60	0.24	7.15	-22.0	60.00	18.71
MW-4	Groundwater	6/26/2014	15.80	26.25	21.72	46.02	16.94	15.98	22.80	2.02	6.85	-4.3	168.10	18.55
MW-4	Groundwater	9/18/2014	15.73	22.77	18.74	53.37	14.79	13.78	2.30	0.21	6.79	-11.4	176.20	19.20
MW-4	Groundwater	11/21/2014	14.48	25.5	20.38	49.07	16.58	15.60	7.80	0.72	6.83	-18.0	126.40	19.06
MW-4	Groundwater	2/9/2015	13.48	25.44	19.84	50.40	16.53	15.55	2.10	0.20	7.22	-24.2	49.40	18.91
MW-5	Groundwater	6/26/2014	17.28	26.67	22.76	43.93	17.32	16.87	22.70	1.95	7.62	-39.1	128.00	18.65
MW-5	Groundwater	9/18/2014	15.20	23.97	19.49	51.30	15.68	14.58	2.90	0.26	7.17	-32.5	-9.00	19.31
MW-5	Groundwater	11/21/2014	14.31	27.32	21.74	46.00	17.76	16.82	6.90	0.64	7.11	-32.9	-28.60	19.18
MW-5	Groundwater	2/9/2015	14.24	27.15	21.57	46.36	17.65	16.70	5.50	0.51	7.24	-24.9	59.10	19.01



17-Feb-2015

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

Re: **WPX Clough 14-22 Monitoring Wells 2.9.15**

Work Order: **1502369**

Dear Mark,

ALS Environmental received 6 samples on 10-Feb-2015 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 25.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Work Order: 1502369

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1502369-01	MW1	Water		2/9/2015 10:40	2/10/2015 10:00	<input type="checkbox"/>
1502369-02	MW2	Water		2/9/2015 11:20	2/10/2015 10:00	<input type="checkbox"/>
1502369-03	MW3	Water		2/9/2015 12:00	2/10/2015 10:00	<input type="checkbox"/>
1502369-04	MW4	Water		2/9/2015 12:45	2/10/2015 10:00	<input type="checkbox"/>
1502369-05	MW5	Water		2/9/2015 13:35	2/10/2015 10:00	<input type="checkbox"/>
1502369-06	Trip Blank	Water		2/9/2015 13:35	2/10/2015 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Work Order: 1502369

Case Narrative

Batch 67612 sample MW5 MS/MSD recoveries for Sodium were below control limits, however, the result in the parent sample was greater than 4x the spiked amount. No qualification is required for Sodium. The reporting limit for Iron was elevated due to dilution needed to eliminate matrix-related interference.

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
WorkOrder: 1502369

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: MW1
Collection Date: 2/9/2015 10:40 AM

Work Order: 1502369
Lab ID: 1502369-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/11/15	Analyst: JEC
Calcium	460		5.0	mg/L	10	2/16/2015 11:01 AM
Iron	ND		0.80	mg/L	10	2/16/2015 11:01 AM
Magnesium	680		2.0	mg/L	10	2/16/2015 11:01 AM
Manganese	1.2		0.050	mg/L	10	2/16/2015 11:01 AM
Potassium	14		4.0	mg/L	20	2/16/2015 01:08 PM
Selenium	ND		0.10	mg/L	10	2/16/2015 11:01 AM
Sodium	4,300		4.0	mg/L	20	2/16/2015 01:08 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	2/11/2015 05:56 AM
Ethylbenzene	ND		1.0	µg/L	1	2/11/2015 05:56 AM
m,p-Xylene	ND		2.0	µg/L	1	2/11/2015 05:56 AM
o-Xylene	ND		1.0	µg/L	1	2/11/2015 05:56 AM
Toluene	ND		1.0	µg/L	1	2/11/2015 05:56 AM
Xylenes, Total	ND		3.0	µg/L	1	2/11/2015 05:56 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	2/11/2015 05:56 AM
Surr: 4-Bromofluorobenzene	89.9		80-110	%REC	1	2/11/2015 05:56 AM
Surr: Dibromofluoromethane	94.5		85-115	%REC	1	2/11/2015 05:56 AM
Surr: Toluene-d8	97.5		85-110	%REC	1	2/11/2015 05:56 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	790		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	790		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	2,500		1,000	mg/L	1000	2/10/2015 07:24 PM
Sulfate	7,100		1,000	mg/L	1000	2/10/2015 07:24 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: ED
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/10/2015 01:45 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	0.023		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.03			s.u.	1	2/10/2015 12:10 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	18,000		10	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: MW2
Collection Date: 2/9/2015 11:20 AM

Work Order: 1502369
Lab ID: 1502369-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/11/15	Analyst: JEC
Calcium	460		5.0	mg/L	10	2/16/2015 11:07 AM
Iron	ND		0.80	mg/L	10	2/16/2015 11:07 AM
Magnesium	680		2.0	mg/L	10	2/16/2015 11:07 AM
Manganese	1.1		0.050	mg/L	10	2/16/2015 11:07 AM
Potassium	15		4.0	mg/L	20	2/16/2015 01:14 PM
Selenium	ND		0.10	mg/L	10	2/16/2015 11:07 AM
Sodium	4,000		4.0	mg/L	20	2/16/2015 01:14 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	2/11/2015 06:22 AM
Ethylbenzene	ND		1.0	µg/L	1	2/11/2015 06:22 AM
m,p-Xylene	ND		2.0	µg/L	1	2/11/2015 06:22 AM
o-Xylene	ND		1.0	µg/L	1	2/11/2015 06:22 AM
Toluene	ND		1.0	µg/L	1	2/11/2015 06:22 AM
Xylenes, Total	ND		3.0	µg/L	1	2/11/2015 06:22 AM
Surr: 1,2-Dichloroethane-d4	92.6		75-120	%REC	1	2/11/2015 06:22 AM
Surr: 4-Bromofluorobenzene	96.9		80-110	%REC	1	2/11/2015 06:22 AM
Surr: Dibromofluoromethane	96.8		85-115	%REC	1	2/11/2015 06:22 AM
Surr: Toluene-d8	91.6		85-110	%REC	1	2/11/2015 06:22 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	780		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	780		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	2,500		1,000	mg/L	1000	2/10/2015 07:44 PM
Sulfate	6,500		1,000	mg/L	1000	2/10/2015 07:44 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: ED
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/10/2015 01:45 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.03			s.u.	1	2/10/2015 12:10 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	17,000		10	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: MW3
Collection Date: 2/9/2015 12:00 PM

Work Order: 1502369
Lab ID: 1502369-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/11/15	Analyst: JEC
Calcium	450		5.0	mg/L	10	2/16/2015 11:13 AM
Iron	ND		0.80	mg/L	10	2/16/2015 11:13 AM
Magnesium	750		2.0	mg/L	10	2/16/2015 11:13 AM
Manganese	2.2		0.050	mg/L	10	2/16/2015 11:13 AM
Potassium	15		4.0	mg/L	20	2/16/2015 01:20 PM
Selenium	ND		0.10	mg/L	10	2/16/2015 11:13 AM
Sodium	4,600		4.0	mg/L	20	2/16/2015 01:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	2/11/2015 06:48 AM
Ethylbenzene	ND		1.0	µg/L	1	2/11/2015 06:48 AM
m,p-Xylene	ND		2.0	µg/L	1	2/11/2015 06:48 AM
o-Xylene	ND		1.0	µg/L	1	2/11/2015 06:48 AM
Toluene	ND		1.0	µg/L	1	2/11/2015 06:48 AM
Xylenes, Total	ND		3.0	µg/L	1	2/11/2015 06:48 AM
Surr: 1,2-Dichloroethane-d4	91.0		75-120	%REC	1	2/11/2015 06:48 AM
Surr: 4-Bromofluorobenzene	103		80-110	%REC	1	2/11/2015 06:48 AM
Surr: Dibromofluoromethane	86.8		85-115	%REC	1	2/11/2015 06:48 AM
Surr: Toluene-d8	103		85-110	%REC	1	2/11/2015 06:48 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	840		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	840		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	2,800		1,000	mg/L	1000	2/10/2015 08:05 PM
Sulfate	7,200		1,000	mg/L	1000	2/10/2015 08:05 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: ED
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/10/2015 01:45 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.00			s.u.	1	2/10/2015 12:10 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	19,000		10	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: MW4
Collection Date: 2/9/2015 12:45 PM

Work Order: 1502369
Lab ID: 1502369-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/11/15	Analyst: JEC
Calcium	450		5.0	mg/L	10	2/16/2015 11:19 AM
Iron	ND		0.80	mg/L	10	2/16/2015 11:19 AM
Magnesium	810		2.0	mg/L	10	2/16/2015 11:19 AM
Manganese	3.7		0.050	mg/L	10	2/16/2015 11:19 AM
Potassium	13		4.0	mg/L	20	2/16/2015 01:25 PM
Selenium	ND		0.10	mg/L	10	2/16/2015 11:19 AM
Sodium	4,600		4.0	mg/L	20	2/16/2015 01:25 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	2/11/2015 07:14 AM
Ethylbenzene	ND		1.0	µg/L	1	2/11/2015 07:14 AM
m,p-Xylene	ND		2.0	µg/L	1	2/11/2015 07:14 AM
o-Xylene	ND		1.0	µg/L	1	2/11/2015 07:14 AM
Toluene	ND		1.0	µg/L	1	2/11/2015 07:14 AM
Xylenes, Total	ND		3.0	µg/L	1	2/11/2015 07:14 AM
Surr: 1,2-Dichloroethane-d4	97.6		75-120	%REC	1	2/11/2015 07:14 AM
Surr: 4-Bromofluorobenzene	97.2		80-110	%REC	1	2/11/2015 07:14 AM
Surr: Dibromofluoromethane	93.2		85-115	%REC	1	2/11/2015 07:14 AM
Surr: Toluene-d8	99.4		85-110	%REC	1	2/11/2015 07:14 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	840		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	840		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,000		1,000	mg/L	1000	2/10/2015 08:25 PM
Sulfate	7,100		1,000	mg/L	1000	2/10/2015 08:25 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: ED
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/10/2015 01:45 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	6.92			s.u.	1	2/10/2015 12:10 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	20,000		10	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: MW5
Collection Date: 2/9/2015 01:35 PM

Work Order: 1502369
Lab ID: 1502369-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: FILTER / 2/11/15	Analyst: JEC
Calcium	420		5.0	mg/L	10	2/16/2015 11:24 AM
Iron	ND		0.80	mg/L	10	2/16/2015 11:24 AM
Magnesium	800		2.0	mg/L	10	2/16/2015 11:24 AM
Manganese	0.70		0.050	mg/L	10	2/16/2015 11:24 AM
Potassium	17		4.0	mg/L	20	2/16/2015 01:31 PM
Selenium	ND		0.10	mg/L	10	2/16/2015 11:24 AM
Sodium	5,400		4.0	mg/L	20	2/16/2015 01:31 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	µg/L	1	2/12/2015 05:54 PM
Ethylbenzene	ND		1.0	µg/L	1	2/12/2015 05:54 PM
m,p-Xylene	ND		2.0	µg/L	1	2/12/2015 05:54 PM
o-Xylene	ND		1.0	µg/L	1	2/12/2015 05:54 PM
Toluene	ND		1.0	µg/L	1	2/12/2015 05:54 PM
Xylenes, Total	ND		3.0	µg/L	1	2/12/2015 05:54 PM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	2/12/2015 05:54 PM
Surr: 4-Bromofluorobenzene	97.3		80-110	%REC	1	2/12/2015 05:54 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	2/12/2015 05:54 PM
Surr: Toluene-d8	98.8		85-110	%REC	1	2/12/2015 05:54 PM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	770		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	2/11/2015 09:58 AM
Alkalinity, Total (as CaCO3)	770		12	mg/L	1	2/11/2015 09:58 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,700		1,000	mg/L	1000	2/10/2015 08:45 PM
Sulfate	9,900		1,000	mg/L	1000	2/10/2015 08:45 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: ED
Nitrogen, Nitrite	ND		0.020	mg/L	1	2/10/2015 01:45 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	2/11/2015 10:09 AM
PH (LABORATORY)			SW9040			Analyst: EE
pH (laboratory)	7.17			s.u.	1	2/10/2015 12:10 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 2/11/15	Analyst: STP
Total Dissolved Solids	21,000		10	mg/L	1	2/11/2015 03:45 PM

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

ALS Group USA, Corp

Date: 17-Feb-15

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 2.9.15
Sample ID: Trip Blank
Collection Date: 2/9/2015 01:35 PM

Work Order: 1502369
Lab ID: 1502369-06
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	2/11/2015 03:19 AM
Ethylbenzene	ND		1.0	µg/L	1	2/11/2015 03:19 AM
m,p-Xylene	ND		2.0	µg/L	1	2/11/2015 03:19 AM
o-Xylene	ND		1.0	µg/L	1	2/11/2015 03:19 AM
Toluene	ND		1.0	µg/L	1	2/11/2015 03:19 AM
Xylenes, Total	ND		3.0	µg/L	1	2/11/2015 03:19 AM
Surr: 1,2-Dichloroethane-d4	96.6		75-120	%REC	1	2/11/2015 03:19 AM
Surr: 4-Bromofluorobenzene	96.8		80-110	%REC	1	2/11/2015 03:19 AM
Surr: Dibromofluoromethane	95.7		85-115	%REC	1	2/11/2015 03:19 AM
Surr: Toluene-d8	97.6		85-110	%REC	1	2/11/2015 03:19 AM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1502369

Project: WPX Clough 14-22 Monitoring Wells 2.9.15

Batch ID: **67612** Instrument ID **ICP2** Method: **SW846 6010C (Dissolve)**

MBLK		Sample ID: MBLK-67612-67612				Units: mg/L		Analysis Date: 2/16/2015 10:50 AM			
Client ID:		Run ID: ICP2_150216A				SeqNo: 3144263		Prep Date: 2/11/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	ND	0.50									
Iron	ND	0.080									
Magnesium	ND	0.20									
Manganese	ND	0.0050									
Potassium	ND	0.20									
Selenium	ND	0.010									
Sodium	ND	0.20									

LCS		Sample ID: LCS-67612-67612				Units: mg/L		Analysis Date: 2/16/2015 10:56 AM			
Client ID:		Run ID: ICP2_150216A				SeqNo: 3144264		Prep Date: 2/11/2015		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	9.434	0.50	10	0	94.3	80-120	0				
Iron	9.748	0.080	10	0	97.5	80-120	0				
Magnesium	10.14	0.20	10	0	101	80-120	0				
Manganese	0.09627	0.0050	0.1	0	96.3	80-120	0				
Potassium	9.609	0.20	10	0	96.1	80-120	0				
Selenium	0.09728	0.010	0.1	0	97.3	80-120	0				
Sodium	9.881	0.20	10	0	98.8	80-120	0				

MS		Sample ID: 1502369-05BMS				Units: mg/L		Analysis Date: 2/16/2015 11:30 AM			
Client ID: MW5		Run ID: ICP2_150216A				SeqNo: 3144270		Prep Date: 2/11/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	502.2	5.0	100	418.8	83.4	75-125	0			O	
Iron	101.5	0.80	100	0.2564	101	75-125	0				
Magnesium	885.8	2.0	100	799	86.8	75-125	0			O	
Manganese	1.664	0.050	1	0.6958	96.8	75-125	0				
Selenium	1.174	0.10	1	-0.01149	119	75-125	0				

MS		Sample ID: 1502369-05BMS				Units: mg/L		Analysis Date: 2/16/2015 01:37 PM			
Client ID: MW5		Run ID: ICP2_150216A				SeqNo: 3144413		Prep Date: 2/11/2015		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Potassium	195.9	4.0	200	16.85	89.5	75-125	0				
Sodium	5465	4.0	200	5406	29.4	75-125	0			SO	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: 67612 Instrument ID ICP2 Method: SW846 6010C (Dissolve)

MSD		Sample ID: 1502369-05BMSD				Units: mg/L		Analysis Date: 2/16/2015 11:36 AM		
Client ID: MW5		Run ID: ICP2_150216A			SeqNo: 3144271		Prep Date: 2/11/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	503.9	5.0	100	418.8	85.1	75-125	502.2	0.339	20	O
Iron	102.3	0.80	100	0.2564	102	75-125	101.5	0.765	20	
Magnesium	888.5	2.0	100	799	89.5	75-125	885.8	0.299	20	O
Manganese	1.671	0.050	1	0.6958	97.5	75-125	1.664	0.442	20	
Selenium	1.172	0.10	1	-0.01149	118	75-125	1.174	0.144	20	

MSD		Sample ID: 1502369-05BMSD				Units: mg/L		Analysis Date: 2/16/2015 01:43 PM		
Client ID: MW5		Run ID: ICP2_150216A			SeqNo: 3144414		Prep Date: 2/11/2015		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	200.7	4.0	200	16.85	91.9	75-125	195.9	2.41	20	
Sodium	5463	4.0	200	5406	28.1	75-125	5465	0.0467	20	SO

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157323A** Instrument ID **VMS6** Method: **SW8260**

MBLK		Sample ID: VBLKW2-150210-R157323A				Units: µg/L		Analysis Date: 2/11/2015 02:26 AM			
Client ID:		Run ID: VMS6_150210B				SeqNo: 3140296		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	19.94	0	20	0	99.7	75-120	0				
Surr: 4-Bromofluorobenzene	19.57	0	20	0	97.8	80-110	0				
Surr: Dibromofluoromethane	19.25	0	20	0	96.2	85-115	0				
Surr: Toluene-d8	19.8	0	20	0	99	85-110	0				

LCS		Sample ID: VLCSW2-150210-R157323A				Units: µg/L		Analysis Date: 2/11/2015 01:34 AM			
Client ID:		Run ID: VMS6_150210B				SeqNo: 3140295		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	20.35	1.0	20	0	102	85-125	0				
Ethylbenzene	21.31	1.0	20	0	107	85-125	0				
m,p-Xylene	42.37	2.0	40	0	106	75-130	0				
o-Xylene	21.08	1.0	20	0	105	80-125	0				
Toluene	20.17	1.0	20	0	101	85-125	0				
Xylenes, Total	63.45	3.0	60	0	106	80-126	0				
Surr: 1,2-Dichloroethane-d4	19.48	0	20	0	97.4	75-120	0				
Surr: 4-Bromofluorobenzene	20.1	0	20	0	100	80-110	0				
Surr: Dibromofluoromethane	20.01	0	20	0	100	85-115	0				
Surr: Toluene-d8	19.56	0	20	0	97.8	85-110	0				

MS		Sample ID: 1502369-01A MS				Units: µg/L		Analysis Date: 2/11/2015 11:36 AM			
Client ID: MW1		Run ID: VMS6_150210B				SeqNo: 3140423		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	10.47	1.0	10	0	105	85-125	0				
Ethylbenzene	10.92	1.0	10	0	109	85-125	0				
m,p-Xylene	22.75	2.0	20	0	114	75-130	0				
o-Xylene	11.39	1.0	10	0	114	80-125	0				
Toluene	11.19	1.0	10	0	112	85-125	0				
Xylenes, Total	34.14	3.0	30	0	114	80-126	0				
Surr: 1,2-Dichloroethane-d4	17.65	0	20	0	88.2	75-120	0				
Surr: 4-Bromofluorobenzene	20.76	0	20	0	104	80-110	0				
Surr: Dibromofluoromethane	18.02	0	20	0	90.1	85-115	0				
Surr: Toluene-d8	19.59	0	20	0	98	85-110	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502369
Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157323A** Instrument ID **VMS6** Method: **SW8260**

MSD		Sample ID: 1502369-01A MSD				Units: µg/L		Analysis Date: 2/11/2015 12:02 PM		
Client ID: MW1		Run ID: VMS6_150210B				SeqNo: 3140427		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	12.02	1.0	10	0	120	85-125	10.47	13.8	30	
Ethylbenzene	11.56	1.0	10	0	116	85-125	10.92	5.69	30	
m,p-Xylene	22.5	2.0	20	0	112	75-130	22.75	1.1	30	
o-Xylene	11.29	1.0	10	0	113	80-125	11.39	0.882	30	
Toluene	10.59	1.0	10	0	106	85-125	11.19	5.51	30	
Xylenes, Total	33.79	3.0	30	0	113	80-126	34.14	1.03	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	20.65	0	20	0	103	75-120	17.65	15.7	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.33	0	20	0	102	80-110	20.76	2.09	30	
<i>Surr: Dibromofluoromethane</i>	21.05	0	20	0	105	85-115	18.02	15.5	30	
<i>Surr: Toluene-d8</i>	18.86	0	20	0	94.3	85-110	19.59	3.8	30	

The following samples were analyzed in this batch:

1502369-01A	1502369-02A	1502369-03A
1502369-04A	1502369-06A	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157405** Instrument ID **VMS5** Method: **SW8260**

MBLK		Sample ID: VBLKW1-150212-R157405				Units: µg/L		Analysis Date: 2/12/2015 11:53 AM		
Client ID:		Run ID: VMS5_150212A			SeqNo: 3142450		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	19.91	0	20	0	99.6	75-120	0			
Surr: 4-Bromofluorobenzene	19.33	0	20	0	96.6	80-110	0			
Surr: Dibromofluoromethane	19.6	0	20	0	98	85-115	0			
Surr: Toluene-d8	19.38	0	20	0	96.9	85-110	0			

LCS		Sample ID: VLCSW1-150212-R157405				Units: µg/L		Analysis Date: 2/12/2015 10:36 AM		
Client ID:		Run ID: VMS5_150212A			SeqNo: 3142449		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.85	1.0	20	0	114	85-125	0			
Ethylbenzene	23.37	1.0	20	0	117	85-125	0			
m,p-Xylene	46.79	2.0	40	0	117	75-130	0			
o-Xylene	23.18	1.0	20	0	116	80-125	0			
Toluene	23.08	1.0	20	0	115	85-125	0			
Xylenes, Total	69.97	3.0	60	0	117	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.7	0	20	0	98.5	75-120	0			
Surr: 4-Bromofluorobenzene	20	0	20	0	100	80-110	0			
Surr: Dibromofluoromethane	19.63	0	20	0	98.2	85-115	0			
Surr: Toluene-d8	20.18	0	20	0	101	85-110	0			

MS		Sample ID: 1502441-02A MS				Units: µg/L		Analysis Date: 2/12/2015 08:55 PM		
Client ID:		Run ID: VMS5_150212A			SeqNo: 3142465		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	24.12	1.0	20	0.6	118	85-125	0			
Ethylbenzene	24.7	1.0	20	0	124	85-125	0			
m,p-Xylene	49.08	2.0	40	0	123	75-130	0			
o-Xylene	23.76	1.0	20	0	119	80-125	0			
Toluene	23.88	1.0	20	0	119	85-125	0			
Xylenes, Total	72.84	3.0	60	0	121	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.67	0	20	0	98.4	75-120	0			
Surr: 4-Bromofluorobenzene	20.12	0	20	0	101	80-110	0			
Surr: Dibromofluoromethane	19.52	0	20	0	97.6	85-115	0			
Surr: Toluene-d8	19.73	0	20	0	98.6	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502369
Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157405** Instrument ID **VMS5** Method: **SW8260**

MSD		Sample ID: 1502441-02A MSD				Units: µg/L		Analysis Date: 2/12/2015 09:20 PM		
Client ID:		Run ID: VMS5_150212A			SeqNo: 3142466		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	23.55	1.0	20	0.6	115	85-125	24.12	2.39	30	
Ethylbenzene	24.94	1.0	20	0	125	85-125	24.7	0.967	30	
m,p-Xylene	49.97	2.0	40	0	125	75-130	49.08	1.8	30	
o-Xylene	24.29	1.0	20	0	121	80-125	23.76	2.21	30	
Toluene	23.19	1.0	20	0	116	85-125	23.88	2.93	30	
Xylenes, Total	74.26	3.0	60	0	124	80-126	72.84	1.93	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	19.59	0	20	0	98	75-120	19.67	0.408	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.06	0	20	0	100	80-110	20.12	0.299	30	
<i>Surr: Dibromofluoromethane</i>	19.81	0	20	0	99	85-115	19.52	1.47	30	
<i>Surr: Toluene-d8</i>	19.78	0	20	0	98.9	85-110	19.73	0.253	30	

The following samples were analyzed in this batch: | 1502369-05A |

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **67600** Instrument ID **TDS** Method: **A2540 C-97**

MBLK	Sample ID: MBLK-67600-67600		Units: mg/L		Analysis Date: 2/11/2015 03:45 PM					
Client ID:	Run ID: TDS_150211B		SeqNo: 3140714		Prep Date: 2/11/2015 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS	Sample ID: LCS-67600-67600		Units: mg/L		Analysis Date: 2/11/2015 03:45 PM					
Client ID:	Run ID: TDS_150211B		SeqNo: 3140713		Prep Date: 2/11/2015 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 494 10 495 0 99.8 80-120 0

DUP	Sample ID: 1502252-03A DUP		Units: mg/L		Analysis Date: 2/11/2015 03:45 PM					
Client ID:	Run ID: TDS_150211B		SeqNo: 3140680		Prep Date: 2/11/2015 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 552 10 0 0 0 0-0 548 0.727 20

DUP	Sample ID: 1502318-01A DUP		Units: mg/L		Analysis Date: 2/11/2015 03:45 PM					
Client ID:	Run ID: TDS_150211B		SeqNo: 3140692		Prep Date: 2/11/2015 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 72 10 0 0 0 0-0 72 0 20

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502369
Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157313** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK	Sample ID: WBLKW1-150210-R157313				Units: mg/L			Analysis Date: 2/10/2015 01:45 PM		
Client ID:	Run ID: WETCHEM_150210H				SeqNo: 3139672		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite ND 0.020

LCS	Sample ID: WLCSW1-150210-R157313				Units: mg/L			Analysis Date: 2/10/2015 01:45 PM		
Client ID:	Run ID: WETCHEM_150210H				SeqNo: 3139673		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1989 0.020 0.2 0 99.4 80-120 0

MS	Sample ID: 1502055-03BMS				Units: mg/L			Analysis Date: 2/10/2015 01:45 PM		
Client ID:	Run ID: WETCHEM_150210H				SeqNo: 3139676		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1982 0.020 0.2 0.0043 97 75-125 0

MSD	Sample ID: 1502055-03BMSD				Units: mg/L			Analysis Date: 2/10/2015 01:45 PM		
Client ID:	Run ID: WETCHEM_150210H				SeqNo: 3139677		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1965 0.020 0.2 0.0043 96.1 75-125 0.1982 0.861 20

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1502369
Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157318b** Instrument ID **WETCHEM** Method: **SW9040**

LCS	Sample ID: WLCSW1-021015-R157318b				Units: s.u.		Analysis Date: 2/10/2015 12:10 PM			
Client ID:	Run ID: WETCHEM_150210I			SeqNo: 3139710		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 3.99 0 4 0 99.8 90-110 0

DUP	Sample ID: 1502369-01B DUP				Units: s.u.		Analysis Date: 2/10/2015 12:10 PM			
Client ID: MW1	Run ID: WETCHEM_150210I			SeqNo: 3139712		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 7.03 0 0 0 0 0-0 7.03 0 20

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

Client: HRL Compliance Solutions, Inc
Work Order: 1502369
Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157355** Instrument ID **IC3** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R157355				Units: mg/L		Analysis Date: 2/10/2015 12:14 PM			
Client ID:		Run ID: IC3_150210A				SeqNo: 3140503		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	ND	1.0									
Sulfate	ND	1.0									

LCS		Sample ID: LCS-R157355				Units: mg/L		Analysis Date: 2/10/2015 12:34 PM			
Client ID:		Run ID: IC3_150210A				SeqNo: 3140504		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	9.48	1.0	10	0	94.8	88-110	0				
Sulfate	9.58	1.0	10	0	95.8	85-110	0				

MS		Sample ID: 1502306-02A MS				Units: mg/L		Analysis Date: 2/10/2015 06:44 PM			
Client ID:		Run ID: IC3_150210A				SeqNo: 3140523		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	471.2	100	500	0	94.2	75-125	0				
Sulfate	1144	100	500	644.3	100	75-125	0				

MSD		Sample ID: 1502306-02A MSD				Units: mg/L		Analysis Date: 2/10/2015 07:04 PM			
Client ID:		Run ID: IC3_150210A				SeqNo: 3140526		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	471.9	100	500	0	94.4	75-125	471.2	0.136	20		
Sulfate	1141	100	500	644.3	99.4	75-125	1144	0.266	20		

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157358a** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-021115-R157358a				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140540		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	3.96	10								J
Alkalinity, Carbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	3.96	12								J

LCS		Sample ID: WLCSW1-021115-R157358a				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140541		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (as CaCO3)	882.9	10	925	0	95.4	70-130	0			
Alkalinity, Total (as CaCO3)	922.4	12	1000	0	92.2	90-106	0			

DUP		Sample ID: 1502318-01A DUP				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID:		Run ID: TITRATOR 1_150211A				SeqNo: 3140549		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	15.84	10	0	0	0		17.45	9.67	20	
Alkalinity, Carbonate (as CaCO3)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO3)	15.84	12	0	0	0		17.45	9.67	20	

DUP		Sample ID: 1502369-01B DUP				Units: mg/L		Analysis Date: 2/11/2015 09:58 AM		
Client ID: MW1		Run ID: TITRATOR 1_150211A				SeqNo: 3140587		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	798.5	10	0	0	0		793.9	0.578	20	
Alkalinity, Carbonate (as CaCO3)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO3)	798.5	12	0	0	0		793.9	0.578	20	

The following samples were analyzed in this batch:

1502369-01B	1502369-02B	1502369-03B
1502369-04B	1502369-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1502369
 Project: WPX Clough 14-22 Monitoring Wells 2.9.15

QC BATCH REPORT

Batch ID: **R157385** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK	Sample ID: MBLK-R157385		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID:	Run ID: LACHAT2_150211B		SeqNo: 3140853		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS	Sample ID: LCS-R157385		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID:	Run ID: LACHAT2_150211B		SeqNo: 3140854		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.134 0.020 5 0 103 90-110 0

MS	Sample ID: 1502028-09A MS		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID:	Run ID: LACHAT2_150211B		SeqNo: 3140856		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.928 0.020 5 0 98.6 90-110 0

MS	Sample ID: 1502369-05C MS		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID: MW5	Run ID: LACHAT2_150211B		SeqNo: 3140869		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.928 0.020 5 0 98.6 90-110 0

MSD	Sample ID: 1502028-09A MSD		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID:	Run ID: LACHAT2_150211B		SeqNo: 3140857		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.936 0.020 5 0 98.7 90-110 4.928 0.142 20

MSD	Sample ID: 1502369-05C MSD		Units: mg/L		Analysis Date: 2/11/2015 10:09 AM					
Client ID: MW5	Run ID: LACHAT2_150211B		SeqNo: 3140870		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.864 0.020 5 0 97.3 90-110 4.928 1.31 20

The following samples were analyzed in this batch:

1502369-01C	1502369-02C	1502369-03C
1502369-04C	1502369-05C	

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



ALS Environmental

3352 128th Avenue Holland, MI 49424
 PH: (616) 399-0070

Chain-of-Custody

Form 20210

WORKORDER #

1502369

PROJECT NAME	Clough 14-22 Monitoring Wells		SAMPLER	Matthew Fought				DATE	02/09/15				PAGE	1 of 1						
PROJECT No		SITEID	Clough 14-22 MV Prod				TURNAROUND	Standard 5 Day				DISPOSAL	By Lab or Return to Client							
COMPANY NAME	HRL Compliance Solutions, Inc.		BILL TO COMPANY	WPX Energy				ALKALINITY												
SEND REPORT TO	Mark Mumby		INVOICE ATTN TO	Karolina Blaney				ANIONS BY ION CHROMAT.												
ADDRESS	2385 F 1/2 Road		ADDRESS	1058 Co. Rd. 215				METALS DISSOLVED												
CITY/STATE/ZIP	Grand Junction, CO 81505		CITY/STATE/ZIP	Parachute, CO 81635				NITROGEN, NITRATE												
PHONE	970-243-3271		PHONE	970-683-2295				NITROGEN, NITRITE												
FAX	970-243-3280		FAX					PH												
E-MAIL	mmumby@hrlcomp.com; mfought@hrlcomp.com crichardson@hrlcomp.com		E-MAIL	Karolina.blaney@wpxenergy.com				TDS												
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
1	MW1	W	02/09/15	10:40	5	1,3,8		X	X	X	X	X	X	X	X	X	X	X	X	
2	MW2	W	02/09/15	11:20	5	1,3,8		X	X	X	X	X	X	X	X	X	X	X	X	
3	MW3	W	02/09/15	12:00	5	1,3,8		X	X	X	X	X	X	X	X	X	X	X	X	
4	MW4	W	02/09/15	12:45	5	1,3,8		X	X	X	X	X	X	X	X	X	X	X	X	
5	MW5	W	02/09/15	1:35	5	1,3,8		X	X	X	X	X	X	X	X	X	X	X	X	
6	TRIP BLANK	L	02/09/15	1:35	1	1,8														

*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: *[Signature]*
 Metals: Ca, Fe, Mg, Mn, Na, K, Se
 Anions: Cl, SO4
 Please CC: all emails to provided contacts.

QC PACKAGE (check below)	
<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
<input type="checkbox"/>	LEVEL III (Std QC + forms)
<input type="checkbox"/>	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	<i>[Signature]</i>	Matthew Fought	02/09/15	1:40
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	02-9-15	1410
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	2-9-15	1400
RECEIVED BY	<i>[Signature]</i>	TIS, BEAMISH	02/10/15	1000
RELINQUISHED BY				
RECEIVED BY				

426

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **10-Feb-15 10:00**

Work Order: **1502369**

Received by: **TBB**

Checklist completed by Diane Shaw 10-Feb-15
eSignature Date

Reviewed by: Ann Preston 11-Feb-15
eSignature 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

Sample(s) received on ice? Yes No

Temperature(s)/Thermometer(s): 4.2 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 2/10/2015 1:54:24 PM

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: (916) 296-1033
Nick Marinaz
ALS Environmental
177 E. 1st Street
PARACHUTE, CO 81635

Origin ID: RUA



Ship Date: 00FEB15
Actual: 40.0 LB
CAD: Z284840NET3018

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (916) 339-4479
sample receiving
ALS Laboratory Group
3352 128TH AVE

BILL BENDER

Ref # 020915-2
Invoice #
PO # Parachute
Dept #

HOLLAND, MI 49424

2 of 2

TUE - 10 FEB 10:30A
PRIORITY OVERNIGHT

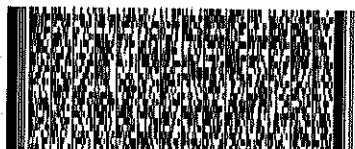
MP# 7728 7196 2820

6253

Mstr# 7728 7196 2727

6281

49424
MI-US
GRR



XX HLMA



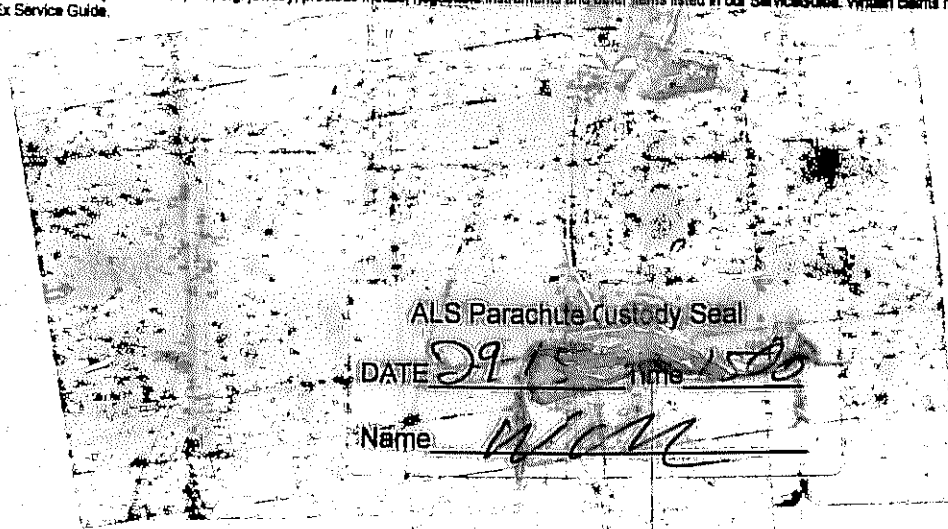
537H1B3EE6

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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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ALS Parachute Custody Seal

DATE 02/15/15 Time 1:50

Name [Signature]



08-Jul-2014

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

Re: **WPX Clough 14-22 MW 6.26.14**

Work Order: **14061482**

Dear Mark,

ALS Environmental received 6 samples on 27-Jun-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 26.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Chad Whelton

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a small blue triangle with a yellow flame.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Work Order: 14061482

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14061482-01	Clough 14-22 MW1	Water		6/26/2014 11:00	6/27/2014 09:30	<input type="checkbox"/>
14061482-02	Clough 14-22 MW2	Water		6/26/2014 11:20	6/27/2014 09:30	<input type="checkbox"/>
14061482-03	Clough 14-22 MW3	Water		6/26/2014 11:40	6/27/2014 09:30	<input type="checkbox"/>
14061482-04	Clough 14-22 MW4	Water		6/26/2014 12:00	6/27/2014 09:30	<input type="checkbox"/>
14061482-05	Clough 14-22 MW5	Water		6/26/2014 12:20	6/27/2014 09:30	<input type="checkbox"/>
14061482-06	Trip Blank	Water		6/26/2014	6/27/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Work Order: 14061482

Case Narrative

Batch R143500, Method PH_9040_W, Sample 14061482-01C, -02C, -03C, -04C and -05C:
This is considered a "field test" and, as such, the recommended sample holding time expired prior to sample receipt.

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
WorkOrder: 14061482

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Clough 14-22 MW1
Collection Date: 6/26/2014 11:00 AM

Work Order: 14061482
Lab ID: 14061482-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 6/30/14	Analyst: ML
Calcium	490		5.0	mg/L	10	7/6/2014 07:39 PM
Iron	ND		0.80	mg/L	10	7/6/2014 07:39 PM
Magnesium	710		2.0	mg/L	10	7/6/2014 07:39 PM
Manganese	0.53		0.050	mg/L	10	7/6/2014 07:39 PM
Potassium	13		2.0	mg/L	10	7/6/2014 07:39 PM
Selenium	ND		0.050	mg/L	10	7/6/2014 07:39 PM
Sodium	4,100		20	mg/L	100	7/7/2014 11:25 AM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	7/2/2014 08:09 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 08:09 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 08:09 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 08:09 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 08:09 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 08:09 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	7/2/2014 08:09 AM
Surr: 4-Bromofluorobenzene	97.5		80-110	%REC	1	7/2/2014 08:09 AM
Surr: Dibromofluoromethane	97.2		85-115	%REC	1	7/2/2014 08:09 AM
Surr: Toluene-d8	93.2		85-110	%REC	1	7/2/2014 08:09 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	750		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Total (as CaCO3)	750		12	mg/L	1	7/1/2014 10:35 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,000		500	mg/L	500	7/3/2014 06:05 AM
Sulfate	8,100		500	mg/L	500	7/3/2014 06:05 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: EE
Nitrogen, Nitrite	ND		0.020	mg/L	1	6/27/2014 10:15 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	6/30/2014 11:02 AM
PH			SW9040			Analyst: EE
pH (laboratory)	7.06			s.u.	1	6/27/2014 10:45 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/28/14	Analyst: JI
Total Dissolved Solids	17,000		10	mg/L	1	6/28/2014 04:45 PM

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Clough 14-22 MW2
Collection Date: 6/26/2014 11:20 AM

Work Order: 14061482
Lab ID: 14061482-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 6/30/14	Analyst: ML
Calcium	460		5.0	mg/L	10	7/6/2014 07:45 PM
Iron	ND		0.80	mg/L	10	7/6/2014 07:45 PM
Magnesium	670		2.0	mg/L	10	7/6/2014 07:45 PM
Manganese	0.13		0.050	mg/L	10	7/6/2014 07:45 PM
Potassium	15		2.0	mg/L	10	7/6/2014 07:45 PM
Selenium	ND		0.050	mg/L	10	7/6/2014 07:45 PM
Sodium	3,800		20	mg/L	100	7/7/2014 11:31 AM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	7/2/2014 08:35 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 08:35 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 08:35 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 08:35 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 08:35 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 08:35 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	7/2/2014 08:35 AM
Surr: 4-Bromofluorobenzene	101		80-110	%REC	1	7/2/2014 08:35 AM
Surr: Dibromofluoromethane	97.8		85-115	%REC	1	7/2/2014 08:35 AM
Surr: Toluene-d8	95.7		85-110	%REC	1	7/2/2014 08:35 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	700		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Total (as CaCO3)	700		12	mg/L	1	7/1/2014 10:35 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,000		500	mg/L	500	7/3/2014 06:26 AM
Sulfate	7,500		500	mg/L	500	7/3/2014 06:26 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: EE
Nitrogen, Nitrite	0.030		0.020	mg/L	1	6/27/2014 10:15 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	6/30/2014 11:02 AM
PH			SW9040			Analyst: EE
pH (laboratory)	7.15			s.u.	1	6/27/2014 10:45 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/28/14	Analyst: JI
Total Dissolved Solids	16,000		20	mg/L	1	6/28/2014 04:45 PM

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Clough 14-22 MW3
Collection Date: 6/26/2014 11:40 AM

Work Order: 14061482
Lab ID: 14061482-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 6/30/14	Analyst: ML
Calcium	500		5.0	mg/L	10	7/6/2014 07:51 PM
Iron	ND		0.80	mg/L	10	7/6/2014 07:51 PM
Magnesium	850		2.0	mg/L	10	7/6/2014 07:51 PM
Manganese	1.4		0.050	mg/L	10	7/6/2014 07:51 PM
Potassium	15		2.0	mg/L	10	7/6/2014 07:51 PM
Selenium	ND		0.050	mg/L	10	7/6/2014 07:51 PM
Sodium	4,600		20	mg/L	100	7/7/2014 11:37 AM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	7/2/2014 09:01 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 09:01 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 09:01 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 09:01 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 09:01 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 09:01 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	7/2/2014 09:01 AM
Surr: 4-Bromofluorobenzene	96.8		80-110	%REC	1	7/2/2014 09:01 AM
Surr: Dibromofluoromethane	98.0		85-115	%REC	1	7/2/2014 09:01 AM
Surr: Toluene-d8	93.8		85-110	%REC	1	7/2/2014 09:01 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	780		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Total (as CaCO3)	780		12	mg/L	1	7/1/2014 10:35 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,900		1,000	mg/L	1000	7/3/2014 07:26 AM
Sulfate	9,300		1,000	mg/L	1000	7/3/2014 07:26 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: EE
Nitrogen, Nitrite	ND		0.020	mg/L	1	6/27/2014 10:15 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	6/30/2014 11:02 AM
PH			SW9040			Analyst: EE
pH (laboratory)	7.04			s.u.	1	6/27/2014 10:45 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/28/14	Analyst: JI
Total Dissolved Solids	21,000		20	mg/L	1	6/28/2014 04:45 PM

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Clough 14-22 MW4
Collection Date: 6/26/2014 12:00 PM

Work Order: 14061482
Lab ID: 14061482-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 6/30/14	Analyst: ML
Calcium	540		5.0	mg/L	10	7/6/2014 07:58 PM
Iron	ND		0.80	mg/L	10	7/6/2014 07:58 PM
Magnesium	950		2.0	mg/L	10	7/6/2014 07:58 PM
Manganese	3.0		0.050	mg/L	10	7/6/2014 07:58 PM
Potassium	14		2.0	mg/L	10	7/6/2014 07:58 PM
Selenium	ND		0.050	mg/L	10	7/6/2014 07:58 PM
Sodium	4,900		20	mg/L	100	7/7/2014 11:43 AM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	7/2/2014 09:27 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 09:27 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 09:27 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 09:27 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 09:27 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 09:27 AM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	7/2/2014 09:27 AM
Surr: 4-Bromofluorobenzene	97.4		80-110	%REC	1	7/2/2014 09:27 AM
Surr: Dibromofluoromethane	100		85-115	%REC	1	7/2/2014 09:27 AM
Surr: Toluene-d8	93.4		85-110	%REC	1	7/2/2014 09:27 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	840		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Total (as CaCO3)	840		12	mg/L	1	7/1/2014 10:35 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	4,600		1,000	mg/L	1000	7/3/2014 07:46 AM
Sulfate	9,500		1,000	mg/L	1000	7/3/2014 07:46 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: EE
Nitrogen, Nitrite	ND		0.020	mg/L	1	6/27/2014 10:15 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	6/30/2014 11:02 AM
PH			SW9040			Analyst: EE
pH (laboratory)	6.91			s.u.	1	6/27/2014 10:45 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/28/14	Analyst: JJ
Total Dissolved Solids	22,000		20	mg/L	1	6/28/2014 04:45 PM

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Clough 14-22 MW5
Collection Date: 6/26/2014 12:20 PM

Work Order: 14061482
Lab ID: 14061482-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 6/30/14	Analyst: ML
Calcium	450		5.0	mg/L	10	7/6/2014 08:04 PM
Iron	ND		0.80	mg/L	10	7/6/2014 08:04 PM
Magnesium	860		2.0	mg/L	10	7/6/2014 08:04 PM
Manganese	1.5		0.050	mg/L	10	7/6/2014 08:04 PM
Potassium	20		2.0	mg/L	10	7/6/2014 08:04 PM
Selenium	ND		0.050	mg/L	10	7/6/2014 08:04 PM
Sodium	5,100		20	mg/L	100	7/7/2014 11:50 AM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	7/2/2014 09:53 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 09:53 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 09:53 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 09:53 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 09:53 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 09:53 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	7/2/2014 09:53 AM
Surr: 4-Bromofluorobenzene	97.8		80-110	%REC	1	7/2/2014 09:53 AM
Surr: Dibromofluoromethane	98.2		85-115	%REC	1	7/2/2014 09:53 AM
Surr: Toluene-d8	91.4		85-110	%REC	1	7/2/2014 09:53 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	620		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	7/1/2014 10:35 AM
Alkalinity, Total (as CaCO3)	620		12	mg/L	1	7/1/2014 10:35 AM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	4,100		1,000	mg/L	1000	7/3/2014 08:07 AM
Sulfate	11,000		1,000	mg/L	1000	7/3/2014 08:07 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: EE
Nitrogen, Nitrite	ND		0.020	mg/L	1	6/27/2014 10:15 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	6/30/2014 11:02 AM
PH			SW9040			Analyst: EE
pH (laboratory)	7.44			s.u.	1	6/27/2014 10:45 AM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 6/28/14	Analyst: JJ
Total Dissolved Solids	20,000		20	mg/L	1	6/28/2014 04:45 PM

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

ALS Group USA, Corp

Date: 08-Jul-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 6.26.14
Sample ID: Trip Blank
Collection Date: 6/26/2014

Work Order: 14061482
Lab ID: 14061482-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260		Analyst: RS	
Benzene	ND		1.0	µg/L	1	7/2/2014 03:04 AM
Ethylbenzene	ND		1.0	µg/L	1	7/2/2014 03:04 AM
m,p-Xylene	ND		2.0	µg/L	1	7/2/2014 03:04 AM
o-Xylene	ND		1.0	µg/L	1	7/2/2014 03:04 AM
Toluene	ND		1.0	µg/L	1	7/2/2014 03:04 AM
Xylenes, Total	ND		3.0	µg/L	1	7/2/2014 03:04 AM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	7/2/2014 03:04 AM
Surr: 4-Bromofluorobenzene	96.9		80-110	%REC	1	7/2/2014 03:04 AM
Surr: Dibromofluoromethane	96.9		85-115	%REC	1	7/2/2014 03:04 AM
Surr: Toluene-d8	95.2		85-110	%REC	1	7/2/2014 03:04 AM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **60101** Instrument ID **ICPMS2** Method: **E200.8** **(Dissolve)**

MBLK		Sample ID: MBLK-60101-60101				Units: mg/L		Analysis Date: 7/2/2014 05:16 AM		
Client ID:		Run ID: ICPMS2_140701A			SeqNo: 2832447		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron ND 0.080

MBLK		Sample ID: MBLK-60101-60101				Units: mg/L		Analysis Date: 7/2/2014 05:16 AM		
Client ID:		Run ID: ICPMS2_140701A			SeqNo: 2833717		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron ND 0.080
 Magnesium ND 0.20
 Manganese ND 0.0050
 Potassium ND 0.20
 Selenium ND 0.0050
 Sodium ND 0.20

MBLK		Sample ID: MBLK-60101-60101				Units: mg/L		Analysis Date: 7/3/2014 11:10 PM		
Client ID:		Run ID: ICPMS2_140703A			SeqNo: 2836749		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium ND 0.50

LCS		Sample ID: LCS-60101-60101				Units: mg/L		Analysis Date: 7/2/2014 05:22 AM		
Client ID:		Run ID: ICPMS2_140701A			SeqNo: 2832448		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron 9.267 0.080 10 0 92.7 85-115 0

LCS		Sample ID: LCS-60101-60101				Units: mg/L		Analysis Date: 7/2/2014 05:22 AM		
Client ID:		Run ID: ICPMS2_140701A			SeqNo: 2833718		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron 9.267 0.080 10 0 92.7 80-120 0
 Magnesium 9.251 0.20 10 0 92.5 80-120 0
 Manganese 0.08963 0.0050 0.1 0 89.6 80-120 0
 Potassium 8.967 0.20 10 0 89.7 80-120 0
 Selenium 0.0899 0.0050 0.1 0 89.9 80-120 0
 Sodium 9.036 0.20 10 0 90.4 80-120 0

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **60101** Instrument ID **ICPMS2** Method: **E200.8** **(Dissolve)**

LCS		Sample ID: LCS-60101-60101				Units: mg/L		Analysis Date: 7/3/2014 11:35 PM		
Client ID:		Run ID: ICPMS2_140703A				SeqNo: 2836753		Prep Date: 6/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	9.315	0.50	10	0	93.2	80-120	0			
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MS		Sample ID: 14061435-01AMS				Units: mg/L		Analysis Date: 7/2/2014 05:47 AM		
Client ID:		Run ID: ICPMS2_140701A				SeqNo: 2832452		Prep Date: 6/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron	10.31	0.080	10	0.1753	101	70-130	0			
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MS		Sample ID: 14061436-01AMS				Units: mg/L		Analysis Date: 7/2/2014 06:06 AM		
Client ID:		Run ID: ICPMS2_140701A				SeqNo: 2832455		Prep Date: 6/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron	10.39	0.080	10	0.04043	103	70-130	0			
Magnesium	26.32	0.20	10	16.75	95.7	70-130	0			
Manganese	0.1061	0.0050	0.1	0.005204	101	70-130	0			
Potassium	15.79	0.20	10	5.492	103	70-130	0			
Selenium	0.1022	0.0050	0.1	0.004206	98	70-130	0			
Sodium	73.82	0.20	10	65.87	79.5	70-130	0			O

MS		Sample ID: 14061436-01AMS				Units: mg/L		Analysis Date: 7/3/2014 11:41 PM		
Client ID:		Run ID: ICPMS2_140703A				SeqNo: 2836754		Prep Date: 6/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Calcium	26.23	0.50	10	16.58	96.5	75-125	0			
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MSD		Sample ID: 14061435-01AMSD				Units: mg/L		Analysis Date: 7/2/2014 05:53 AM		
Client ID:		Run ID: ICPMS2_140701A				SeqNo: 2832453		Prep Date: 6/30/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Iron	10.32	0.080	10	0.1753	101	70-130	10.31	0.0969	20	
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **60101** Instrument ID **ICPMS2** Method: **E200.8** **(Dissolve)**

MSD		Sample ID: 14061436-01AMSD				Units: mg/L		Analysis Date: 7/2/2014 06:12 AM		
Client ID:		Run ID: ICPMS2_140701A			SeqNo: 2832456		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.64	0.080	10	0.04043	106	70-130	10.39	2.38	20	
Magnesium	26.96	0.20	10	16.75	102	70-130	26.32	2.4	20	
Manganese	0.1082	0.0050	0.1	0.005204	103	70-130	0.1061	1.96	20	
Potassium	16.14	0.20	10	5.492	106	70-130	15.79	2.19	20	
Selenium	0.1087	0.0050	0.1	0.004206	104	70-130	0.1022	6.16	20	
Sodium	75.43	0.20	10	65.87	95.6	70-130	73.82	2.16	20	O

MSD		Sample ID: 14061436-01AMSD				Units: mg/L		Analysis Date: 7/3/2014 11:48 PM		
Client ID:		Run ID: ICPMS2_140703A			SeqNo: 2836755		Prep Date: 6/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	26.25	0.50	10	16.58	96.7	75-125	26.23	0.0762	20	

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

Client: HRL Compliance Solutions, Inc
 Work Order: 14061482
 Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143704A** Instrument ID **VMS5** Method: **SW8260**

MBLK		Sample ID: VBLKW2-140701-R143704A				Units: µg/L		Analysis Date: 7/2/2014 02:13 AM		
Client ID:		Run ID: VMS5_140701B				SeqNo: 2832980		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	20.3	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	19.2	0	20	0	96	80-110	0			
Surr: Dibromofluoromethane	19.2	0	20	0	96	85-115	0			
Surr: Toluene-d8	18.43	0	20	0	92.2	85-110	0			

LCS		Sample ID: VLCSW2-140701-R143704A				Units: µg/L		Analysis Date: 7/2/2014 01:23 AM		
Client ID:		Run ID: VMS5_140701B				SeqNo: 2832979		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.75	1.0	20	0	98.8	85-125	0			
Ethylbenzene	19.67	1.0	20	0	98.4	85-125	0			
m,p-Xylene	39.11	2.0	40	0	97.8	75-130	0			
o-Xylene	19.52	1.0	20	0	97.6	80-125	0			
Toluene	19.93	1.0	20	0	99.6	85-125	0			
Xylenes, Total	58.63	3.0	60	0	97.7	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.75	0	20	0	98.8	75-120	0			
Surr: 4-Bromofluorobenzene	19.96	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	19.18	0	20	0	95.9	85-115	0			
Surr: Toluene-d8	18.95	0	20	0	94.8	85-110	0			

MS		Sample ID: 14061482-05A MS				Units: µg/L		Analysis Date: 7/2/2014 10:44 AM		
Client ID: Clough 14-22 MW5		Run ID: VMS5_140701B				SeqNo: 2833121		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.78	1.0	20	0	93.9	85-125	0			
Ethylbenzene	18.31	1.0	20	0	91.6	85-125	0			
m,p-Xylene	36.41	2.0	40	0	91	75-130	0			
o-Xylene	18.11	1.0	20	0	90.6	80-125	0			
Toluene	18.59	1.0	20	0	93	85-125	0			
Xylenes, Total	54.52	3.0	60	0	90.9	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.18	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	20.32	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	19.88	0	20	0	99.4	85-115	0			
Surr: Toluene-d8	19.16	0	20	0	95.8	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143704A** Instrument ID **VMS5** Method: **SW8260**

MSD		Sample ID: 14061482-05A MSD				Units: µg/L		Analysis Date: 7/2/2014 11:10 AM		
Client ID: Clough 14-22 MW5		Run ID: VMS5_140701B		SeqNo: 2833122		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.84	1.0	20	0	94.2	85-125	18.78	0.319	30	
Ethylbenzene	18.83	1.0	20	0	94.2	85-125	18.31	2.8	30	
m,p-Xylene	37.23	2.0	40	0	93.1	75-130	36.41	2.23	30	
o-Xylene	18.6	1.0	20	0	93	80-125	18.11	2.67	30	
Toluene	18.67	1.0	20	0	93.4	85-125	18.59	0.429	30	
Xylenes, Total	55.83	3.0	60	0	93	80-126	54.52	2.37	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	20.27	0	20	0	101	75-120	20.18	0.445	30	
<i>Surr: 4-Bromofluorobenzene</i>	19.91	0	20	0	99.6	80-110	20.32	2.04	30	
<i>Surr: Dibromofluoromethane</i>	19.94	0	20	0	99.7	85-115	19.88	0.301	30	
<i>Surr: Toluene-d8</i>	18.63	0	20	0	93.2	85-110	19.16	2.8	30	

The following samples were analyzed in this batch:

14061482-01A	14061482-02A	14061482-03A
14061482-04A	14061482-05A	14061482-06A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **60129** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MB-60129-60129				Units: mg/L		Analysis Date: 6/28/2014 04:45 PM		
Client ID:		Run ID: TDS_140628B		SeqNo: 2827897		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS		Sample ID: LCS-60129-60129				Units: mg/L		Analysis Date: 6/28/2014 04:45 PM		
Client ID:		Run ID: TDS_140628B		SeqNo: 2827898		Prep Date: 6/28/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 472 10 495 0 95.4 80-120 0

DUP		Sample ID: 14061112-06C DUP				Units: mg/L		Analysis Date: 6/28/2014 04:45 PM		
Client ID:		Run ID: TDS_140628B		SeqNo: 2827900		Prep Date: 6/28/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 836 20 0 0 0 0-0 856 2.36 20

DUP		Sample ID: 14061462-07C DUP				Units: mg/L		Analysis Date: 6/28/2014 04:45 PM		
Client ID:		Run ID: TDS_140628B		SeqNo: 2827914		Prep Date: 6/28/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 5560 100 0 0 0 0-0 5540 0.36 20

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143458** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK	Sample ID: WBLKW1-062714-R143458				Units: mg/L			Analysis Date: 6/27/2014 10:15 AM		
Client ID:	Run ID: WETCHEM_140627E			SeqNo: 2827065		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite ND 0.020

LCS	Sample ID: WLCSW1-062714-R143458				Units: mg/L			Analysis Date: 6/27/2014 10:15 AM		
Client ID:	Run ID: WETCHEM_140627E			SeqNo: 2827066		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1925 0.020 0.2 0 96.2 80-120 0

MS	Sample ID: 1406077-29B MS				Units: mg/L			Analysis Date: 6/27/2014 10:15 AM		
Client ID:	Run ID: WETCHEM_140627E			SeqNo: 2827068		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1869 0.020 0.2 0.0087 89.1 75-125 0

MSD	Sample ID: 1406077-29B MSD				Units: mg/L			Analysis Date: 6/27/2014 10:15 AM		
Client ID:	Run ID: WETCHEM_140627E			SeqNo: 2827069		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1865 0.020 0.2 0.0087 88.9 75-125 0.1869 0.214 20

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143500** Instrument ID **WETCHEM** Method: **A4500-H B-96**

LCS		Sample ID: WLCSW1-062714-R143500				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827621		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 3.96 0 4 0 99 90-110 0

LCS		Sample ID: WLCSW1-140627-R143500				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827656		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 3.96 0 4 0 99 90-110 0

LCS		Sample ID: WLCSW1-140627-R143500				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827661		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 3.96 0 4 0 99 90-110 0

LCS		Sample ID: WLCSW1-140627-R143500				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827664		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 3.96 0 4 0 99 90-110 0

DUP		Sample ID: 14061435-02A DUP				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827623		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 7.01 0 0 0 0 0-0 7 0.143 20

DUP		Sample ID: 14061447-01C DUP				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID:		Run ID: WETCHEM_140627L			SeqNo: 2827658		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 7.16 0 0 0 0 0-0 7.16 0 20

DUP		Sample ID: 14061482-01C DUP				Units: s.u.		Analysis Date: 6/27/2014 10:45 AM		
Client ID: Clough 14-22 MW1		Run ID: WETCHEM_140627L			SeqNo: 2827667		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH (laboratory) 7.06 0 0 0 0 0-0 7.06 0 20

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143500** Instrument ID **WETCHEM** Method: **A4500-H B-96**

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143591** Instrument ID: **LACHAT2** Method: **E353.2 R2.0**

MBLK		Sample ID: WBLKW1-140630-R143591				Units: mg/L		Analysis Date: 6/30/2014 11:02 AM		
Client ID:		Run ID: LACHAT2_140630A		SeqNo: 2829765		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS		Sample ID: WLCSW1-140630-R143591				Units: mg/L		Analysis Date: 6/30/2014 11:02 AM		
Client ID:		Run ID: LACHAT2_140630A		SeqNo: 2829766		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.865 0.020 5 0 97.3 90-110 0

MS		Sample ID: 14061482-01D MS				Units: mg/L		Analysis Date: 6/30/2014 11:02 AM		
Client ID: Clough 14-22 MW1		Run ID: LACHAT2_140630A		SeqNo: 2829768		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.884 0.020 5 0 97.7 90-110 0

MSD		Sample ID: 14061482-01D MSD				Units: mg/L		Analysis Date: 6/30/2014 11:02 AM		
Client ID: Clough 14-22 MW1		Run ID: LACHAT2_140630A		SeqNo: 2829769		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.908 0.020 5 0 98.2 90-110 4.884 0.49 20

The following samples were analyzed in this batch:

14061482-01D	14061482-02D	14061482-03D
14061482-04D	14061482-05D	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143665b** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-070114-R143665b				Units: mg/L		Analysis Date: 7/1/2014 10:35 AM		
Client ID:		Run ID: TITRATOR 1_140701A			SeqNo: 2831440		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	3.79	10								J
Alkalinity, Carbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	3.79	12								J

LCS		Sample ID: WLCSW1-070114-R143665b				Units: mg/L		Analysis Date: 7/1/2014 10:35 AM		
Client ID:		Run ID: TITRATOR 1_140701A			SeqNo: 2831441		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (as CaCO3)	904.2	10	925	0	97.8	70-130	0			
Alkalinity, Total (as CaCO3)	937.2	12	1000	0	93.7	90-106	0			

DUP		Sample ID: 14061420-19B DUP				Units: mg/L		Analysis Date: 7/1/2014 10:35 AM		
Client ID:		Run ID: TITRATOR 1_140701A			SeqNo: 2831443		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (as CaCO3)	60.89	12	0	0	0		56.69	7.14	20	

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061482
Project: WPX Clough 14-22 MW 6.26.14

QC BATCH REPORT

Batch ID: **R143860** Instrument ID **IC4** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R143860				Units: mg/L		Analysis Date: 7/3/2014 02:43 AM		
Client ID:		Run ID: IC4_140703A				SeqNo: 2836066		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R143860				Units: mg/L		Analysis Date: 7/3/2014 03:03 AM		
Client ID:		Run ID: IC4_140703A				SeqNo: 2836067		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.42	1.0	10	0	94.2	88-107	0			
Sulfate	9.566	1.0	10	0	95.7	85-110	0			

MS		Sample ID: 14061255-15A MS				Units: mg/L		Analysis Date: 7/3/2014 08:47 AM		
Client ID:		Run ID: IC4_140703A				SeqNo: 2836084		Prep Date:		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2720	200	1000	1690	103	75-125	0			
Sulfate	971.4	200	1000	51.48	92	75-125	0			

MSD		Sample ID: 14061255-15A MSD				Units: mg/L		Analysis Date: 7/3/2014 09:07 AM		
Client ID:		Run ID: IC4_140703A				SeqNo: 2836085		Prep Date:		DF: 200
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2707	200	1000	1690	102	75-125	2720	0.476	20	
Sulfate	958.4	200	1000	51.48	90.7	75-125	971.4	1.35	20	

The following samples were analyzed in this batch:

14061482-01C	14061482-02C	14061482-03C
14061482-04C	14061482-05C	

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 #	14061482
PAGE	1 of 1

PROJECT NAME	WPX Clough 14-22 Monitors	SAMPLER	Reed Wold	DATE	6/26/14
PROJECT No.	Wells	SITE ID	clough 14-22	TURNAROUND	5 Day
COMPANY NAME	HRL Compliance	EDD FORMAT			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER			
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX		
CITY / STATE / ZIP	Grand Junction, CO 81506	INVOICE ATTN TO	Karolina Blaney		
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215		
FAX	970-243-3280	CITY / STATE / ZIP	Parachure CO 81635		
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	PHONE	970-883-2295		
		E-MAIL	Karolina.blaney@wpxenergy.com		

See Attached
 BTEX
 Dissolve in Mg/Mn/Br
 HK
 C/S/Sy N/G N/S
 TDS
 P/T

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	clough 14-22 MW 1	W	6/26/14	11:00	10	1,8	
2	" " MW 2	↓	↓	11:20	↓	↓	
3	" " MW 3	↓	↓	11:40	↓	↓	
4	" " MW 4	↓	↓	12:00	↓	↓	
5	" " MW 5	↓	↓	12:20	↓	↓	

*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: 4.0-2 	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forma)
	<input type="checkbox"/>	LEVEL IV (Std QC + forma + 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		Reed Wold	6/26/14	1:00
RECEIVED BY		N.M.	6-26-14	1:00
RELINQUISHED BY		N.M.	6-26	1:00
RECEIVED BY		Diane F. Shea	6/27/14	0930
RELINQUISHED BY				
RECEIVED BY				

BTEX
Benzene
Toluene
Ethylbenzene
Xylene (total)
Metals
Calcium
Iron
Magnesium
Manganese
Potassium
Selenium
Sodium
General Chemistry
Alkalinity, Bicarbonate as CaCO3
Alkalinity, Carbonate
Alkalinity, Total as CaCO3
Chloride
Nitrogen, Nitrate
Nitrogen Nitrite
Solids, Total Dissolved
Sulfate
pH

} Diss

→ H2SO4

5 vohiel
 4 vohiel
 1 Lp neat

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **27-Jun-14 09:30**

Work Order: **14061482**

Received by: **DS**

Checklist completed by Diane Shaw 27-Jun-14
eSignature Date

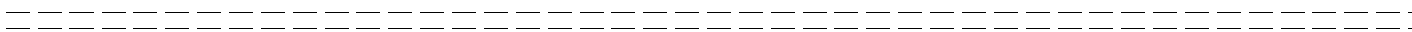
Reviewed by: Ann Preston 29-Jun-14
eSignature Date

Matrices: **Water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="4.0 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="6/27/2014 4:36:01 PM"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:

From: (970) 285-5783
Nick Martinez
ALS Environmental
127 E. 1st Street
PARACHUTE, CO 81635

Origin ID: RLA



Ship Date: 26 JUN 14
ActWgt: 09.0 LB
CAD: 2264840/NET13480
Dims: 14 X 28 X 15 IN



SHIP TO: (616) 399-6970
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL SENDER

Ref # 082014-1
Invoice #
PO # Parachute
Dept #

2 of 3
FRI - 27 JUN 10:30A
PRIORITY OVERNIGHT

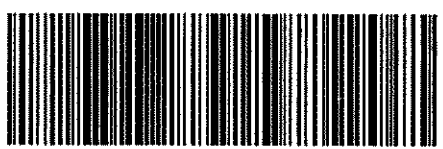


MP5# 7704 3816 2788
0263

Matr# 7704 3816 2755 0281

49424
MI-US
GRR

XX GRR



522G58BC4F220

- *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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ALS Parachute Custody Seal
 DATE 6-26
 Time 10:00
 Name [Signature]



26-Sep-2014

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

Re: **WPX Clough 14-22 MW 9.18.14**

Work Order: **1409994**

Dear Mark,

ALS Environmental received 6 samples on 19-Sep-2014 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 26.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Work Order: 1409994

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1409994-01	MW1	Water		9/18/2014 10:30	9/19/2014 09:00	<input type="checkbox"/>
1409994-02	MW2	Water		9/18/2014 10:50	9/19/2014 09:00	<input type="checkbox"/>
1409994-03	MW3	Water		9/18/2014 11:10	9/19/2014 09:00	<input type="checkbox"/>
1409994-04	MW4	Water		9/18/2014 11:25	9/19/2014 09:00	<input type="checkbox"/>
1409994-05	MW5	Water		9/18/2014 11:40	9/19/2014 09:00	<input type="checkbox"/>
1409994-06	Trip Blank	Water		9/18/2014	9/19/2014 09:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Work Order: 1409994

Case Narrative

Batch 63057 samples 1409994-01 through 1409994-05 reporting limits for Metals were elevated due to dilution for high concentrations of non-target analytes.

Batch 63057B MS/MSD data for Sodium is not related to this project's samples. No data requires qualification.

Batch R148568 duplicate data for pH is not related to this project's samples. No data requires qualification.

Batch R148771 MS/MSD data for Nitrate is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
WorkOrder: 1409994

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: MW1
Collection Date: 9/18/2014 10:30 AM

Work Order: 1409994
Lab ID: 1409994-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 9/22/14	Analyst: RH
Calcium	410		5.0	mg/L	10	9/24/2014 02:32 AM
Iron	ND		0.80	mg/L	10	9/24/2014 02:32 AM
Magnesium	580		20	mg/L	100	9/24/2014 03:25 PM
Manganese	0.93		0.050	mg/L	10	9/24/2014 02:32 AM
Potassium	11		2.0	mg/L	10	9/24/2014 02:32 AM
Selenium	ND		0.050	mg/L	10	9/24/2014 02:32 AM
Sodium	3,600		20	mg/L	100	9/24/2014 03:25 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	9/26/2014 04:33 AM
Ethylbenzene	ND		1.0	µg/L	1	9/26/2014 04:33 AM
m,p-Xylene	ND		2.0	µg/L	1	9/26/2014 04:33 AM
o-Xylene	ND		1.0	µg/L	1	9/26/2014 04:33 AM
Toluene	ND		1.0	µg/L	1	9/26/2014 04:33 AM
Xylenes, Total	ND		3.0	µg/L	1	9/26/2014 04:33 AM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	1	9/26/2014 04:33 AM
Surr: 4-Bromofluorobenzene	90.2		80-110	%REC	1	9/26/2014 04:33 AM
Surr: Dibromofluoromethane	106		85-115	%REC	1	9/26/2014 04:33 AM
Surr: Toluene-d8	95.8		85-110	%REC	1	9/26/2014 04:33 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	810		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Total (as CaCO3)	810		12	mg/L	1	9/24/2014 12:02 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,100		400	mg/L	400	9/22/2014 03:57 PM
Sulfate	8,500		1,000	mg/L	1000	9/22/2014 06:19 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	9/19/2014 10:00 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	9/23/2014 01:52 PM
PH			SW9040			Analyst: JB
pH (laboratory)	7.06			s.u.	1	9/19/2014 04:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/24/14	Analyst: STP
Total Dissolved Solids	18,000		20	mg/L	1	9/24/2014 08:30 AM

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: MW2
Collection Date: 9/18/2014 10:50 AM

Work Order: 1409994
Lab ID: 1409994-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 9/22/14	Analyst: RH
Calcium	420		5.0	mg/L	10	9/24/2014 02:38 AM
Iron	ND		0.80	mg/L	10	9/24/2014 02:38 AM
Magnesium	540		20	mg/L	100	9/24/2014 03:31 PM
Manganese	0.57		0.050	mg/L	10	9/24/2014 02:38 AM
Potassium	13		2.0	mg/L	10	9/24/2014 02:38 AM
Selenium	ND		0.050	mg/L	10	9/24/2014 02:38 AM
Sodium	3,200		20	mg/L	100	9/24/2014 03:31 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	9/26/2014 04:58 AM
Ethylbenzene	ND		1.0	µg/L	1	9/26/2014 04:58 AM
m,p-Xylene	ND		2.0	µg/L	1	9/26/2014 04:58 AM
o-Xylene	ND		1.0	µg/L	1	9/26/2014 04:58 AM
Toluene	ND		1.0	µg/L	1	9/26/2014 04:58 AM
Xylenes, Total	ND		3.0	µg/L	1	9/26/2014 04:58 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	9/26/2014 04:58 AM
Surr: 4-Bromofluorobenzene	88.3		80-110	%REC	1	9/26/2014 04:58 AM
Surr: Dibromofluoromethane	107		85-115	%REC	1	9/26/2014 04:58 AM
Surr: Toluene-d8	97.6		85-110	%REC	1	9/26/2014 04:58 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	790		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Total (as CaCO3)	790		12	mg/L	1	9/24/2014 12:02 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	2,800		400	mg/L	400	9/22/2014 04:58 PM
Sulfate	7,700		400	mg/L	400	9/22/2014 04:58 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	9/19/2014 10:00 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	0.077		0.020	mg/L	1	9/23/2014 01:52 PM
PH			SW9040			Analyst: JB
pH (laboratory)	7.02			s.u.	1	9/19/2014 04:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/24/14	Analyst: STP
Total Dissolved Solids	17,000		20	mg/L	1	9/24/2014 08:30 AM

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: MW3
Collection Date: 9/18/2014 11:10 AM

Work Order: 1409994
Lab ID: 1409994-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 9/22/14	Analyst: RH
Calcium	500		5.0	mg/L	10	9/24/2014 04:22 AM
Iron	ND		0.80	mg/L	10	9/24/2014 04:22 AM
Magnesium	850		2.0	mg/L	10	9/24/2014 04:22 AM
Manganese	2.2		0.050	mg/L	10	9/24/2014 04:22 AM
Potassium	15		2.0	mg/L	10	9/24/2014 04:22 AM
Selenium	ND		0.050	mg/L	10	9/24/2014 04:22 AM
Sodium	3,700		20	mg/L	100	9/24/2014 03:37 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	9/26/2014 05:23 AM
Ethylbenzene	ND		1.0	µg/L	1	9/26/2014 05:23 AM
m,p-Xylene	ND		2.0	µg/L	1	9/26/2014 05:23 AM
o-Xylene	ND		1.0	µg/L	1	9/26/2014 05:23 AM
Toluene	ND		1.0	µg/L	1	9/26/2014 05:23 AM
Xylenes, Total	ND		3.0	µg/L	1	9/26/2014 05:23 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	1	9/26/2014 05:23 AM
Surr: 4-Bromofluorobenzene	90.0		80-110	%REC	1	9/26/2014 05:23 AM
Surr: Dibromofluoromethane	106		85-115	%REC	1	9/26/2014 05:23 AM
Surr: Toluene-d8	96.7		85-110	%REC	1	9/26/2014 05:23 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	860		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Total (as CaCO3)	860		12	mg/L	1	9/24/2014 12:02 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,700		400	mg/L	400	9/22/2014 05:18 PM
Sulfate	9,100		1,000	mg/L	1000	9/22/2014 07:19 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	9/19/2014 10:00 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	9/23/2014 01:52 PM
PH			SW9040			Analyst: JB
pH (laboratory)	7.18			s.u.	1	9/19/2014 04:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/24/14	Analyst: STP
Total Dissolved Solids	20,000		20	mg/L	1	9/24/2014 08:30 AM

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: MW4
Collection Date: 9/18/2014 11:25 AM

Work Order: 1409994
Lab ID: 1409994-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 9/22/14	Analyst: RH
Calcium	470		5.0	mg/L	10	9/24/2014 04:28 AM
Iron	ND		0.80	mg/L	10	9/24/2014 04:28 AM
Magnesium	780		2.0	mg/L	10	9/24/2014 04:28 AM
Manganese	3.5		0.050	mg/L	10	9/24/2014 04:28 AM
Potassium	12		2.0	mg/L	10	9/24/2014 04:28 AM
Selenium	ND		0.050	mg/L	10	9/24/2014 04:28 AM
Sodium	4,100		20	mg/L	100	9/24/2014 03:44 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	9/26/2014 05:48 AM
Ethylbenzene	ND		1.0	µg/L	1	9/26/2014 05:48 AM
m,p-Xylene	ND		2.0	µg/L	1	9/26/2014 05:48 AM
o-Xylene	ND		1.0	µg/L	1	9/26/2014 05:48 AM
Toluene	ND		1.0	µg/L	1	9/26/2014 05:48 AM
Xylenes, Total	ND		3.0	µg/L	1	9/26/2014 05:48 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	1	9/26/2014 05:48 AM
Surr: 4-Bromofluorobenzene	91.2		80-110	%REC	1	9/26/2014 05:48 AM
Surr: Dibromofluoromethane	106		85-115	%REC	1	9/26/2014 05:48 AM
Surr: Toluene-d8	97.7		85-110	%REC	1	9/26/2014 05:48 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	850		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Total (as CaCO3)	850		12	mg/L	1	9/24/2014 12:02 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,800		400	mg/L	400	9/22/2014 05:38 PM
Sulfate	8,600		1,000	mg/L	1000	9/22/2014 07:39 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	9/19/2014 10:00 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	0.12		0.020	mg/L	1	9/23/2014 01:52 PM
PH			SW9040			Analyst: JB
pH (laboratory)	7.06			s.u.	1	9/19/2014 04:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/24/14	Analyst: STP
Total Dissolved Solids	20,000		20	mg/L	1	9/24/2014 08:30 AM

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: MW5
Collection Date: 9/18/2014 11:40 AM

Work Order: 1409994
Lab ID: 1409994-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS (DISSOLVED)			SW6020A		Prep: FILTER / 9/22/14	Analyst: RH
Calcium	450		5.0	mg/L	10	9/24/2014 04:34 AM
Iron	ND		0.80	mg/L	10	9/24/2014 04:34 AM
Magnesium	830		2.0	mg/L	10	9/24/2014 04:34 AM
Manganese	0.85		0.050	mg/L	10	9/24/2014 04:34 AM
Potassium	16		2.0	mg/L	10	9/24/2014 04:34 AM
Selenium	ND		0.050	mg/L	10	9/24/2014 04:34 AM
Sodium	4,600		20	mg/L	100	9/24/2014 03:50 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: RS
Benzene	ND		1.0	µg/L	1	9/26/2014 06:12 AM
Ethylbenzene	ND		1.0	µg/L	1	9/26/2014 06:12 AM
m,p-Xylene	ND		2.0	µg/L	1	9/26/2014 06:12 AM
o-Xylene	ND		1.0	µg/L	1	9/26/2014 06:12 AM
Toluene	ND		1.0	µg/L	1	9/26/2014 06:12 AM
Xylenes, Total	ND		3.0	µg/L	1	9/26/2014 06:12 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	9/26/2014 06:12 AM
Surr: 4-Bromofluorobenzene	91.0		80-110	%REC	1	9/26/2014 06:12 AM
Surr: Dibromofluoromethane	105		85-115	%REC	1	9/26/2014 06:12 AM
Surr: Toluene-d8	97.2		85-110	%REC	1	9/26/2014 06:12 AM
ALKALINITY			A2320 B-97			Analyst: EE
Alkalinity, Bicarbonate (as CaCO3)	750		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	9/24/2014 12:02 PM
Alkalinity, Total (as CaCO3)	750		12	mg/L	1	9/24/2014 12:02 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	3,800		400	mg/L	400	9/22/2014 05:58 PM
Sulfate	10,000		1,000	mg/L	1000	9/22/2014 08:00 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JB
Nitrogen, Nitrite	ND		0.020	mg/L	1	9/19/2014 10:00 AM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	9/23/2014 01:52 PM
PH			SW9040			Analyst: JB
pH (laboratory)	7.19			s.u.	1	9/19/2014 04:00 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 9/24/14	Analyst: STP
Total Dissolved Solids	22,000		20	mg/L	1	9/24/2014 08:30 AM

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

ALS Group USA, Corp

Date: 26-Sep-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 MW 9.18.14
Sample ID: Trip Blank
Collection Date: 9/18/2014

Work Order: 1409994
Lab ID: 1409994-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260		Analyst: RS	
Benzene	ND		1.0	µg/L	1	9/25/2014 08:09 PM
Ethylbenzene	ND		1.0	µg/L	1	9/25/2014 08:09 PM
m,p-Xylene	ND		2.0	µg/L	1	9/25/2014 08:09 PM
o-Xylene	ND		1.0	µg/L	1	9/25/2014 08:09 PM
Toluene	ND		1.0	µg/L	1	9/25/2014 08:09 PM
Xylenes, Total	ND		3.0	µg/L	1	9/25/2014 08:09 PM
Surr: 1,2-Dichloroethane-d4	99.1		75-120	%REC	1	9/25/2014 08:09 PM
Surr: 4-Bromofluorobenzene	98.8		80-110	%REC	1	9/25/2014 08:09 PM
Surr: Dibromofluoromethane	98.4		85-115	%REC	1	9/25/2014 08:09 PM
Surr: Toluene-d8	97.2		85-110	%REC	1	9/25/2014 08:09 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409994
Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **63057B** Instrument ID **ICPMS2** Method: **SW6020A (Dissolve)**

MBLK		Sample ID: MBLK-63057-63057B				Units: mg/L		Analysis Date: 9/22/2014 05:23 PM			
Client ID:		Run ID: ICPMS2_140922A			SeqNo: 2947422		Prep Date: 9/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	ND	0.50									
Iron	ND	0.080									
Magnesium	ND	0.20									
Manganese	ND	0.0050									
Potassium	ND	0.20									
Selenium	ND	0.0050									
Sodium	ND	0.20									

LCS		Sample ID: LCS-63057-63057B				Units: mg/L		Analysis Date: 9/22/2014 05:30 PM			
Client ID:		Run ID: ICPMS2_140922A			SeqNo: 2947423		Prep Date: 9/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	9.088	0.50	10	0	90.9	80-120	0				
Iron	9.002	0.080	10	0	90	80-120	0				
Magnesium	9.172	0.20	10	0	91.7	80-120	0				
Manganese	0.08427	0.0050	0.1	0	84.3	80-120	0				
Potassium	9.099	0.20	10	0	91	80-120	0				
Selenium	0.08799	0.0050	0.1	0	88	80-120	0				
Sodium	9.089	0.20	10	0	90.9	80-120	0				

MS		Sample ID: 1409974-01AMS				Units: mg/L		Analysis Date: 9/22/2014 05:54 PM			
Client ID:		Run ID: ICPMS2_140922A			SeqNo: 2947427		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	16.31	0.50	10	7.409	89	75-125	0				
Iron	9.167	0.080	10	0.00223	91.6	75-125	0				
Magnesium	9.946	0.20	10	0.7109	92.4	75-125	0				
Manganese	0.1242	0.0050	0.1	0.0302	94	75-125	0				
Potassium	16.77	0.20	10	7.612	91.6	75-125	0				
Selenium	0.1366	0.0050	0.1	0.03419	102	75-125	0				
Sodium	322.5	0.20	10	323.7	-12	75-125	0			SEO	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409994
Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **63057B** Instrument ID **ICPMS2** Method: **SW6020A** **(Dissolve)**

MSD		Sample ID: 1409974-01AMSD				Units: mg/L		Analysis Date: 9/22/2014 06:00 PM		
Client ID:		Run ID: ICPMS2_140922A			SeqNo: 2947428		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	16.26	0.50	10	7.409	88.5	75-125	16.31	0.307	20	
Iron	9.259	0.080	10	0.00223	92.6	75-125	9.167	0.999	20	
Magnesium	9.94	0.20	10	0.7109	92.3	75-125	9.946	0.0603	20	
Manganese	0.1247	0.0050	0.1	0.0302	94.5	75-125	0.1242	0.402	20	
Potassium	16.69	0.20	10	7.612	90.8	75-125	16.77	0.478	20	
Selenium	0.1355	0.0050	0.1	0.03419	101	75-125	0.1366	0.809	20	
Sodium	320.8	0.20	10	323.7	-29	75-125	322.5	0.529	20	SEO

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148902** Instrument ID **VMS8** Method: **SW8260**

MBLK		Sample ID: VBLKW1-140925-R148902				Units: µg/L		Analysis Date: 9/25/2014 02:47 PM		
Client ID:		Run ID: VMS8_140925A			SeqNo: 2953722		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	1.69	2.0								J
o-Xylene	ND	1.0								
Toluene	0.38	1.0								J
Xylenes, Total	1.69	3.0								J
Surr: 1,2-Dichloroethane-d4	19.71	0	20	0	98.6	75-120	0			
Surr: 4-Bromofluorobenzene	19.96	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.17	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.83	0	20	0	99.2	85-110	0			

LCS		Sample ID: VLCSW1-140925-R148902				Units: µg/L		Analysis Date: 9/25/2014 01:09 PM		
Client ID:		Run ID: VMS8_140925A			SeqNo: 2953721		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.38	1.0	20	0	96.9	85-125	0			
Ethylbenzene	19.9	1.0	20	0	99.5	85-125	0			
m,p-Xylene	41.03	2.0	40	0	103	75-130	0			
o-Xylene	19.89	1.0	20	0	99.4	80-125	0			
Toluene	20.97	1.0	20	0	105	85-125	0			
Xylenes, Total	60.92	3.0	60	0	102	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.79	0	20	0	99	75-120	0			
Surr: 4-Bromofluorobenzene	19.21	0	20	0	96	80-110	0			
Surr: Dibromofluoromethane	19.64	0	20	0	98.2	85-115	0			
Surr: Toluene-d8	19.66	0	20	0	98.3	85-110	0			

MS		Sample ID: 1409857-12A MS				Units: µg/L		Analysis Date: 9/25/2014 11:26 PM		
Client ID:		Run ID: VMS8_140925A			SeqNo: 2953734		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.78	1.0	20	0	98.9	85-125	0			
Ethylbenzene	19.1	1.0	20	0	95.5	85-125	0			
m,p-Xylene	38.04	2.0	40	0	95.1	75-130	0			
o-Xylene	18.94	1.0	20	0	94.7	80-125	0			
Toluene	20.41	1.0	20	0	102	85-125	0			
Xylenes, Total	56.98	3.0	60	0	95	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.08	0	20	0	100	75-120	0			
Surr: 4-Bromofluorobenzene	20.74	0	20	0	104	80-110	0			
Surr: Dibromofluoromethane	20.52	0	20	0	103	85-115	0			
Surr: Toluene-d8	19.64	0	20	0	98.2	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409994
Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148902** Instrument ID **VMS8** Method: **SW8260**

MSD		Sample ID: 1409857-12A MSD				Units: µg/L		Analysis Date: 9/25/2014 11:50 PM		
Client ID:		Run ID: VMS8_140925A			SeqNo: 2953735		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.15	1.0	20	0	95.8	85-125	19.78	3.24	30	
Ethylbenzene	18.27	1.0	20	0	91.4	85-125	19.1	4.44	30	
m,p-Xylene	36.45	2.0	40	0	91.1	75-130	38.04	4.27	30	
o-Xylene	18.08	1.0	20	0	90.4	80-125	18.94	4.65	30	
Toluene	19.29	1.0	20	0	96.4	85-125	20.41	5.64	30	
Xylenes, Total	54.53	3.0	60	0	90.9	80-126	56.98	4.39	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	20.04	0	20	0	100	75-120	20.08	0.199	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.49	0	20	0	102	80-110	20.74	1.21	30	
<i>Surr: Dibromofluoromethane</i>	20.77	0	20	0	104	85-115	20.52	1.21	30	
<i>Surr: Toluene-d8</i>	19.59	0	20	0	98	85-110	19.64	0.255	30	

The following samples were analyzed in this batch: | 1409994-06A |

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148981** Instrument ID **VMS9** Method: **SW8260**

MBLK		Sample ID: VBLKW3-140925-R148981				Units: µg/L		Analysis Date: 9/26/2014 03:44 AM		
Client ID:		Run ID: VMS9_140925B				SeqNo: 2954328		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	21.58	0	20	0	108	75-120	0			
Surr: 4-Bromofluorobenzene	18.02	0	20	0	90.1	80-110	0			
Surr: Dibromofluoromethane	20.96	0	20	0	105	85-115	0			
Surr: Toluene-d8	19.48	0	20	0	97.4	85-110	0			

LCS		Sample ID: VLCSW2-140925-R148981				Units: µg/L		Analysis Date: 9/26/2014 02:29 AM		
Client ID:		Run ID: VMS9_140925B				SeqNo: 2954327		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.5	1.0	20	0	112	85-125	0			
Ethylbenzene	19.12	1.0	20	0	95.6	85-125	0			
m,p-Xylene	39.2	2.0	40	0	98	75-130	0			
o-Xylene	19.17	1.0	20	0	95.8	80-125	0			
Toluene	19.82	1.0	20	0	99.1	85-125	0			
Xylenes, Total	58.37	3.0	60	0	97.3	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.43	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	20.66	0	20	0	103	80-110	0			
Surr: Dibromofluoromethane	20.42	0	20	0	102	85-115	0			
Surr: Toluene-d8	19.89	0	20	0	99.4	85-110	0			

MS		Sample ID: 1409994-04A MS				Units: µg/L		Analysis Date: 9/26/2014 12:23 PM		
Client ID: MW4		Run ID: VMS9_140925B				SeqNo: 2954394		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.93	1.0	20	0	110	85-125	0			
Ethylbenzene	19.26	1.0	20	0	96.3	85-125	0			
m,p-Xylene	39.82	2.0	40	0	99.6	75-130	0			
o-Xylene	18.95	1.0	20	0	94.8	80-125	0			
Toluene	19.44	1.0	20	0	97.2	85-125	0			
Xylenes, Total	58.77	3.0	60	0	98	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.73	0	20	0	104	75-120	0			
Surr: 4-Bromofluorobenzene	20.13	0	20	0	101	80-110	0			
Surr: Dibromofluoromethane	19.06	0	20	0	95.3	85-115	0			
Surr: Toluene-d8	20.88	0	20	0	104	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409994
Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148981** Instrument ID **VMS9** Method: **SW8260**

MSD		Sample ID: 1409994-04A MSD				Units: µg/L		Analysis Date: 9/26/2014 12:48 PM		
Client ID: MW4		Run ID: VMS9_140925B			SeqNo: 2954395		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.37	1.0	20	0	107	85-125	21.93	2.59	30	
Ethylbenzene	18.16	1.0	20	0	90.8	85-125	19.26	5.88	30	
m,p-Xylene	38.07	2.0	40	0	95.2	75-130	39.82	4.49	30	
o-Xylene	18.61	1.0	20	0	93	80-125	18.95	1.81	30	
Toluene	19.09	1.0	20	0	95.4	85-125	19.44	1.82	30	
Xylenes, Total	56.68	3.0	60	0	94.5	80-126	58.77	3.62	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	19.94	0	20	0	99.7	75-120	20.73	3.88	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.74	0	20	0	104	80-110	20.13	2.99	30	
<i>Surr: Dibromofluoromethane</i>	17.9	0	20	0	89.5	85-115	19.06	6.28	30	
<i>Surr: Toluene-d8</i>	20.5	0	20	0	102	85-110	20.88	1.84	30	

The following samples were analyzed in this batch:

1409994-01A	1409994-02A	1409994-03A
1409994-04A	1409994-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1409994
Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **63116** Instrument ID **TDS** Method: **A2540 C-97**

MBLK	Sample ID: MBLK-63116-63116				Units: mg/L			Analysis Date: 9/24/2014 08:30 AM		
Client ID:	Run ID: TDS_140924C				SeqNo: 2950013		Prep Date: 9/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS	Sample ID: LCS-63116-63116				Units: mg/L			Analysis Date: 9/24/2014 08:30 AM		
Client ID:	Run ID: TDS_140924C				SeqNo: 2950012		Prep Date: 9/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 498 10 495 0 101 80-120 0

DUP	Sample ID: 1409985-03I DUP				Units: mg/L			Analysis Date: 9/24/2014 08:30 AM		
Client ID:	Run ID: TDS_140924C				SeqNo: 2950004		Prep Date: 9/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 8348 40 0 0 0 0-0 8492 1.71 20

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148507** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK	Sample ID: WBLKW1-140919-R148507				Units: mg/L			Analysis Date: 9/19/2014 10:00 AM		
Client ID:	Run ID: WETCHEM_140919D				SeqNo: 2943366		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite ND 0.020

LCS	Sample ID: WLCSW1-140919-R148507				Units: mg/L			Analysis Date: 9/19/2014 10:00 AM		
Client ID:	Run ID: WETCHEM_140919D				SeqNo: 2943367		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2041 0.020 0.2 0 102 80-120 0

MS	Sample ID: 1409015-19A MS				Units: mg/L			Analysis Date: 9/19/2014 10:00 AM		
Client ID:	Run ID: WETCHEM_140919D				SeqNo: 2943369		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2041 0.020 0.2 0.0185 92.8 75-125 0

MSD	Sample ID: 1409015-19A MSD				Units: mg/L			Analysis Date: 9/19/2014 10:00 AM		
Client ID:	Run ID: WETCHEM_140919D				SeqNo: 2943370		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2072 0.020 0.2 0.0185 94.4 75-125 0.2041 1.51 20

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148568** Instrument ID **WETCHEM** Method: **A4500-H B-96**

LCS		Sample ID: WLCSW1-140919-R148568				Units: s.u.		Analysis Date: 9/19/2014 04:00 PM			
Client ID:		Run ID: WETCHEM_140919S				SeqNo: 2944378		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH (laboratory) 3.98 0 4 0 99.5 90-110 0

LCS		Sample ID: WLCSW-140919-R148568				Units: s.u.		Analysis Date: 9/19/2014 04:00 PM			
Client ID:		Run ID: WETCHEM_140919S				SeqNo: 2944388		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH (laboratory) 3.98 0 4 0 99.5 90-110 0

DUP		Sample ID: 1409985-04I DUP				Units: s.u.		Analysis Date: 9/19/2014 04:00 PM			
Client ID:		Run ID: WETCHEM_140919S				SeqNo: 2944387		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH (laboratory) 7.4 0 0 0 0 0-0 7.39 0.135 20 H

DUP		Sample ID: 1409994-01B DUP				Units: s.u.		Analysis Date: 9/19/2014 04:00 PM			
Client ID: MW1		Run ID: WETCHEM_140919S				SeqNo: 2944392		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH (laboratory) 7.03 0 0 0 0 0-0 7.06 0.426 20

DUP		Sample ID: 14091008-01A DUP				Units: s.u.		Analysis Date: 9/19/2014 04:00 PM			
Client ID:		Run ID: WETCHEM_140919S				SeqNo: 2944486		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH (laboratory) 5.86 0 0 0 0 0-0 5.85 0.171 20 H

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148741** Instrument ID **IC4** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R148741				Units: mg/L		Analysis Date: 9/22/2014 09:10 AM			
Client ID:		Run ID: IC4_140922A				SeqNo: 2948560		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	ND	1.0									
Sulfate	ND	1.0									

LCS		Sample ID: LCS-R148741				Units: mg/L		Analysis Date: 9/22/2014 12:14 PM			
Client ID:		Run ID: IC4_140922A				SeqNo: 2948562		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	10.01	1.0	10	0	100	88-107	0				
Sulfate	9.444	1.0	10	0	94.4	85-110	0				

MS		Sample ID: 1409994-01B MS				Units: mg/L		Analysis Date: 9/22/2014 06:39 PM			
Client ID: MW1		Run ID: IC4_140922A				SeqNo: 2948585		Prep Date:		DF: 1000	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	6958	1,000	4000	3142	95.4	75-125	0				
Sulfate	12180	1,000	4000	8451	93.1	75-125	0				

MSD		Sample ID: 1409994-01B MSD				Units: mg/L		Analysis Date: 9/22/2014 06:59 PM			
Client ID: MW1		Run ID: IC4_140922A				SeqNo: 2948586		Prep Date:		DF: 1000	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	6845	1,000	4000	3142	92.6	75-125	6958	1.64	20		
Sulfate	11990	1,000	4000	8451	88.5	75-125	12180	1.55	20		

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: R148771 Instrument ID LACHAT2 Method: E353.2 R2.0

MBLK	Sample ID: MBLK-R148771		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949040		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS	Sample ID: LCS-R148771		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949041		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.175 0.020 5 0 104 90-110 0

MS	Sample ID: 14091092-01B MS		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949066		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.636 0.020 5 0.02204 92.3 90-110 0

MS	Sample ID: 1409015-23B MS		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949072		Prep Date: DF: 5					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 29.64 0.10 5 25.4 84.6 90-110 0 SO

MSD	Sample ID: 14091092-01B MSD		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949067		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.647 0.020 5 0.02204 92.5 90-110 4.636 0.237 20

MSD	Sample ID: 1409015-23B MSD		Units: mg/L		Analysis Date: 9/23/2014 01:52 PM					
Client ID:	Run ID: LACHAT2_140923F		SeqNo: 2949073		Prep Date: DF: 5					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 29.52 0.10 5 25.4 82.4 90-110 29.64 0.372 20 SO

The following samples were analyzed in this batch:

1409994-01C	1409994-02C	1409994-03C
1409994-04C	1409994-05C	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1409994
 Project: WPX Clough 14-22 MW 9.18.14

QC BATCH REPORT

Batch ID: **R148919** Instrument ID **Titration 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-092514-R148919				Units: mg/L		Analysis Date: 9/24/2014 12:02 PM		
Client ID:		Run ID: TITRATOR 1_140924B				SeqNo: 2952668		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	3.73	10								J
Alkalinity, Carbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	3.73	12								J

LCS		Sample ID: WLCSW1-092514-R148919				Units: mg/L		Analysis Date: 9/24/2014 12:02 PM		
Client ID:		Run ID: TITRATOR 1_140924B				SeqNo: 2952669		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (as CaCO3)	923.8	10	925	0	99.9	70-130	0			
Alkalinity, Total (as CaCO3)	970.2	12	1000	0	97	90-106	0			

DUP		Sample ID: 1409838-01B DUP				Units: mg/L		Analysis Date: 9/24/2014 12:02 PM		
Client ID:		Run ID: TITRATOR 1_140924B				SeqNo: 2952690		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (as CaCO3)	235	12	0	0	0		233.9	0.465	20	

DUP		Sample ID: 1409994-01B DUP				Units: mg/L		Analysis Date: 9/24/2014 12:02 PM		
Client ID: MW1		Run ID: TITRATOR 1_140924B				SeqNo: 2952691		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	803.4	10	0	0	0		805.9	0.314	20	
Alkalinity, Carbonate (as CaCO3)	ND	10	0	0	0		0	0	20	
Alkalinity, Total (as CaCO3)	803.4	12	0	0	0		805.9	0.314	20	

The following samples were analyzed in this batch:

1409994-01B	1409994-02B	1409994-03B
1409994-04B	1409994-05B	

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

BTEX
Benzene
Toluene
Ethylbenzene
Xylene (total)
Metals
Calcium
Iron
Magnesium
Manganese
Potassium
Selenium
Sodium
General Chemistry
Alkalinity, Bicarbonate as CaCO ₃
Alkalinity, Carbonate
Alkalinity, Total as CaCO ₃
Chloride
Nitrogen, Nitrate
Nitrogen Nitrite
Solids, Total Dissolved
Sulfate
pH

Diss

H₂SO₄

Clough 14-22

Monitoring Wells

Bottles

250 H₂SO₄

250 HNO₃

LL Polly

3 HCL VOA's

5 vohcl

4 vohcl

1 LP next

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **19-Sep-14 09:00**

Work Order: **1409994**

Received by: **DS**

Checklist completed by Diane Shaw 19-Sep-14
eSignature Date

Reviewed by: Ann Preston 19-Sep-14
eSignature Date

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="2.6 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="9/19/2014 3:35:11 PM"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Parachute Custody Seal

DATE 9-15

Time 7:00

Name [Signature]



05-Dec-2014

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

Re: **WPX Clough 14-22 Monitoring Wells 11.21.14**

Work Order: **14111202**

Dear Mark,

ALS Environmental received 5 samples on 22-Nov-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 26.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental ALS Environmental logo icon consisting of a stylized green leaf or flame shape.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Work Order: 14111202

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14111202-01	MW1	Water		11/21/2014 10:50	11/22/2014 10:00	<input type="checkbox"/>
14111202-02	MW2	Water		11/21/2014 11:08	11/22/2014 10:00	<input type="checkbox"/>
14111202-03	MW3	Water		11/21/2014 11:20	11/22/2014 10:00	<input type="checkbox"/>
14111202-04	MW4	Water		11/21/2014 11:35	11/22/2014 10:00	<input type="checkbox"/>
14111202-05	MW5	Water		11/21/2014 11:48	11/22/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Work Order: 14111202

Case Narrative

Batch 65423 sample MW1, MW2 and MW5 reporting limits for Iron were elevated due to dilution for high concentrations of non-target analytes. Sample MW4 MS/MSD recovery for Potassium was above control limits. However, the MSD recovery and the RPD between the MS and MSD were in control. No qualification is required for Potassium. The MS/MSD recoveries for Calcium, Magnesium, Manganese and Sodium were outside control limits, however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Calcium, Magnesium, Manganese and Sodium.

Batch R153672 sample MW1 MS/MSD recoveries for Chloride and Sulfate were below control limits; however, the results in the parent sample were greater than 4x the spiked amount. No qualification is required for Chloride and Sulfate.

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
WorkOrder: 14111202

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 05-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Sample ID: MW1
Collection Date: 11/21/2014 10:50 AM

Work Order: 14111202
Lab ID: 14111202-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: SW3005A / 11/25/14	Analyst: JEC
Calcium	550		5.0	mg/L	10	11/25/2014 05:29 PM
Iron	ND		0.80	mg/L	10	11/25/2014 05:29 PM
Magnesium	770		2.0	mg/L	10	11/25/2014 05:29 PM
Manganese	1.2		0.050	mg/L	10	11/25/2014 05:29 PM
Potassium	28		2.0	mg/L	10	11/25/2014 05:29 PM
Sodium	46,000		200	mg/L	1000	11/26/2014 01:57 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: JDW
Benzene	ND		1.0	µg/L	1	11/30/2014 11:30 AM
Ethylbenzene	ND		1.0	µg/L	1	11/30/2014 11:30 AM
m,p-Xylene	ND		2.0	µg/L	1	11/30/2014 11:30 AM
o-Xylene	ND		1.0	µg/L	1	11/30/2014 11:30 AM
Toluene	ND		1.0	µg/L	1	11/30/2014 11:30 AM
Xylenes, Total	ND		3.0	µg/L	1	11/30/2014 11:30 AM
Surr: 1,2-Dichloroethane-d4	98.8		75-120	%REC	1	11/30/2014 11:30 AM
Surr: 4-Bromofluorobenzene	95.8		80-110	%REC	1	11/30/2014 11:30 AM
Surr: Dibromofluoromethane	95.2		85-115	%REC	1	11/30/2014 11:30 AM
Surr: Toluene-d8	101		85-110	%REC	1	11/30/2014 11:30 AM
ALKALINITY			A2320 B-97			Analyst: JB
Alkalinity, Bicarbonate (as CaCO3)	810		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Total (as CaCO3)	810		12	mg/L	1	11/25/2014 05:36 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: JJG
Chloride	3,200		500	mg/L	500	12/4/2014 02:05 AM
Sulfate	9,300		500	mg/L	500	12/4/2014 02:05 AM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JJG
Nitrogen, Nitrite	ND		0.020	mg/L	1	11/22/2014 02:00 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	11/24/2014 01:20 PM
PH (LABORATORY)			SW9040			Analyst: JB
pH (laboratory)	7.38			s.u.	1	11/25/2014 05:36 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 11/30/14	Analyst: STP
Total Dissolved Solids	18,000		20	mg/L	1	12/1/2014 08:30 AM

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

ALS Group USA, Corp

Date: 05-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Sample ID: MW2
Collection Date: 11/21/2014 11:08 AM

Work Order: 14111202
Lab ID: 14111202-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: SW3005A / 11/25/14	Analyst: JEC
Calcium	500		5.0	mg/L	10	11/25/2014 05:35 PM
Iron	ND		0.80	mg/L	10	11/25/2014 05:35 PM
Magnesium	690		2.0	mg/L	10	11/25/2014 05:35 PM
Manganese	0.92		0.050	mg/L	10	11/25/2014 05:35 PM
Potassium	23		2.0	mg/L	10	11/25/2014 05:35 PM
Sodium	41,000		200	mg/L	1000	11/26/2014 02:03 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: JDW
Benzene	ND		1.0	µg/L	1	11/30/2014 11:55 AM
Ethylbenzene	ND		1.0	µg/L	1	11/30/2014 11:55 AM
m,p-Xylene	ND		2.0	µg/L	1	11/30/2014 11:55 AM
o-Xylene	ND		1.0	µg/L	1	11/30/2014 11:55 AM
Toluene	ND		1.0	µg/L	1	11/30/2014 11:55 AM
Xylenes, Total	ND		3.0	µg/L	1	11/30/2014 11:55 AM
Surr: 1,2-Dichloroethane-d4	98.0		75-120	%REC	1	11/30/2014 11:55 AM
Surr: 4-Bromofluorobenzene	97.3		80-110	%REC	1	11/30/2014 11:55 AM
Surr: Dibromofluoromethane	94.4		85-115	%REC	1	11/30/2014 11:55 AM
Surr: Toluene-d8	102		85-110	%REC	1	11/30/2014 11:55 AM
ALKALINITY			A2320 B-97			Analyst: JB
Alkalinity, Bicarbonate (as CaCO3)	780		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Total (as CaCO3)	780		12	mg/L	1	11/25/2014 05:36 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: JJG
Chloride	3,200		200	mg/L	200	12/4/2014 04:55 PM
Sulfate	7,800		1,000	mg/L	1000	12/4/2014 05:15 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JJG
Nitrogen, Nitrite	ND		0.020	mg/L	1	11/22/2014 02:00 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	11/24/2014 01:20 PM
PH (LABORATORY)			SW9040			Analyst: JB
pH (laboratory)	7.34			s.u.	1	11/25/2014 05:36 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 11/30/14	Analyst: STP
Total Dissolved Solids	16,000		20	mg/L	1	12/1/2014 08:30 AM

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

ALS Group USA, Corp

Date: 05-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Sample ID: MW3
Collection Date: 11/21/2014 11:20 AM

Work Order: 14111202
Lab ID: 14111202-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: SW3005A / 11/25/14	Analyst: JEC
Calcium	520		5.0	mg/L	10	11/25/2014 05:41 PM
Iron	ND		0.80	mg/L	10	11/25/2014 05:41 PM
Magnesium	860		2.0	mg/L	10	11/25/2014 05:41 PM
Manganese	2.7		0.050	mg/L	10	11/25/2014 05:41 PM
Potassium	23		2.0	mg/L	10	11/25/2014 05:41 PM
Sodium	50,000		200	mg/L	1000	11/26/2014 02:09 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: JDW
Benzene	1.4		1.0	µg/L	1	11/30/2014 12:20 PM
Ethylbenzene	ND		1.0	µg/L	1	11/30/2014 12:20 PM
m,p-Xylene	ND		2.0	µg/L	1	11/30/2014 12:20 PM
o-Xylene	ND		1.0	µg/L	1	11/30/2014 12:20 PM
Toluene	ND		1.0	µg/L	1	11/30/2014 12:20 PM
Xylenes, Total	ND		3.0	µg/L	1	11/30/2014 12:20 PM
Surr: 1,2-Dichloroethane-d4	96.4		75-120	%REC	1	11/30/2014 12:20 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	11/30/2014 12:20 PM
Surr: Dibromofluoromethane	94.4		85-115	%REC	1	11/30/2014 12:20 PM
Surr: Toluene-d8	99.4		85-110	%REC	1	11/30/2014 12:20 PM
ALKALINITY			A2320 B-97			Analyst: JB
Alkalinity, Bicarbonate (as CaCO3)	830		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Total (as CaCO3)	830		12	mg/L	1	11/25/2014 05:36 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: JJG
Chloride	3,700		500	mg/L	500	12/4/2014 05:36 PM
Sulfate	9,100		500	mg/L	500	12/4/2014 05:36 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JJG
Nitrogen, Nitrite	ND		0.020	mg/L	1	11/22/2014 02:00 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	11/24/2014 01:20 PM
PH (LABORATORY)			SW9040			Analyst: JB
pH (laboratory)	7.30			s.u.	1	11/25/2014 05:36 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 11/30/14	Analyst: STP
Total Dissolved Solids	20,000		20	mg/L	1	12/1/2014 08:30 AM

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

ALS Group USA, Corp

Date: 05-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Sample ID: MW4
Collection Date: 11/21/2014 11:35 AM

Work Order: 14111202
Lab ID: 14111202-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: SW3005A / 11/25/14	Analyst: JEC
Calcium	530		5.0	mg/L	10	11/26/2014 08:53 AM
Iron	ND		0.80	mg/L	10	11/26/2014 08:53 AM
Magnesium	890		2.0	mg/L	10	11/26/2014 08:53 AM
Manganese	4.3		0.050	mg/L	10	11/26/2014 08:53 AM
Potassium	18		2.0	mg/L	10	11/26/2014 08:53 AM
Sodium	5,800		20	mg/L	100	11/26/2014 12:59 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: JDW
Benzene	ND		1.0	µg/L	1	11/30/2014 12:46 PM
Ethylbenzene	ND		1.0	µg/L	1	11/30/2014 12:46 PM
m,p-Xylene	ND		2.0	µg/L	1	11/30/2014 12:46 PM
o-Xylene	ND		1.0	µg/L	1	11/30/2014 12:46 PM
Toluene	ND		1.0	µg/L	1	11/30/2014 12:46 PM
Xylenes, Total	ND		3.0	µg/L	1	11/30/2014 12:46 PM
Surr: 1,2-Dichloroethane-d4	98.4		75-120	%REC	1	11/30/2014 12:46 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	11/30/2014 12:46 PM
Surr: Dibromofluoromethane	95.8		85-115	%REC	1	11/30/2014 12:46 PM
Surr: Toluene-d8	101		85-110	%REC	1	11/30/2014 12:46 PM
ALKALINITY			A2320 B-97			Analyst: JB
Alkalinity, Bicarbonate (as CaCO3)	840		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Total (as CaCO3)	840		12	mg/L	1	11/25/2014 05:36 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: JJG
Chloride	3,500		500	mg/L	500	12/3/2014 04:38 PM
Sulfate	8,700		500	mg/L	500	12/3/2014 04:38 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JJG
Nitrogen, Nitrite	ND		0.020	mg/L	1	11/22/2014 02:00 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	11/24/2014 01:20 PM
PH (LABORATORY)			SW9040			Analyst: JB
pH (laboratory)	7.30			s.u.	1	11/25/2014 05:36 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 11/30/14	Analyst: STP
Total Dissolved Solids	20,000		20	mg/L	1	12/1/2014 08:30 AM

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

ALS Group USA, Corp

Date: 05-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 14-22 Monitoring Wells 11.21.14
Sample ID: MW5
Collection Date: 11/21/2014 11:48 AM

Work Order: 14111202
Lab ID: 14111202-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP (DISSOLVED)			SW846 6010C		Prep: SW3005A / 11/25/14	Analyst: JEC
Calcium	480		5.0	mg/L	10	11/26/2014 09:10 AM
Iron	ND		0.80	mg/L	10	11/26/2014 09:10 AM
Magnesium	870		2.0	mg/L	10	11/26/2014 09:10 AM
Manganese	0.95		0.050	mg/L	10	11/26/2014 09:10 AM
Potassium	21		2.0	mg/L	10	11/26/2014 09:10 AM
Sodium	630		2.0	mg/L	10	11/26/2014 01:04 PM
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: BG
Benzene	ND		1.0	µg/L	1	12/1/2014 01:18 PM
Ethylbenzene	ND		1.0	µg/L	1	12/1/2014 01:18 PM
m,p-Xylene	ND		2.0	µg/L	1	12/1/2014 01:18 PM
o-Xylene	ND		1.0	µg/L	1	12/1/2014 01:18 PM
Toluene	ND		1.0	µg/L	1	12/1/2014 01:18 PM
Xylenes, Total	ND		3.0	µg/L	1	12/1/2014 01:18 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	12/1/2014 01:18 PM
Surr: 4-Bromofluorobenzene	97.4		80-110	%REC	1	12/1/2014 01:18 PM
Surr: Dibromofluoromethane	99.6		85-115	%REC	1	12/1/2014 01:18 PM
Surr: Toluene-d8	98.0		85-110	%REC	1	12/1/2014 01:18 PM
ALKALINITY			A2320 B-97			Analyst: JB
Alkalinity, Bicarbonate (as CaCO3)	770		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Carbonate (as CaCO3)	ND		10	mg/L	1	11/25/2014 05:36 PM
Alkalinity, Total (as CaCO3)	770		12	mg/L	1	11/25/2014 05:36 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: JJG
Chloride	4,000		500	mg/L	500	12/3/2014 05:18 PM
Sulfate	10,000		1,000	mg/L	1000	12/3/2014 05:39 PM
NITROGEN, NITRITE			A4500-NO2 B			Analyst: JJG
Nitrogen, Nitrite	ND		0.020	mg/L	1	11/22/2014 02:00 PM
NITROGEN, NITRATE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate	ND		0.020	mg/L	1	11/24/2014 01:20 PM
PH (LABORATORY)			SW9040			Analyst: JB
pH (laboratory)	7.46			s.u.	1	11/25/2014 05:36 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 11/30/14	Analyst: STP
Total Dissolved Solids	22,000		20	mg/L	1	12/1/2014 08:30 AM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 14111202

Project: WPX Clough 14-22 Monitoring Wells 11.21.14

Batch ID: **65423**

Instrument ID **ICP2**

Method: **SW846 6010C**

MBLK		Sample ID: MBLK-65423-65423				Units: mg/L		Analysis Date: 11/25/2014 04:49 PM			
Client ID:		Run ID: ICP2_141125A				SeqNo: 3053681		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	ND	0.50									
Iron	ND	0.080									
Magnesium	ND	0.20									
Manganese	ND	0.0050									
Potassium	ND	0.20									

MBLK		Sample ID: MBLK-65417-65423				Units: mg/L		Analysis Date: 11/25/2014 05:06 PM			
Client ID:		Run ID: ICP2_141125A				SeqNo: 3053688		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	ND	0.50									
Iron	ND	0.080									
Magnesium	ND	0.20									
Manganese	ND	0.0050									
Potassium	ND	0.20									

MBLK		Sample ID: MBLK-65423-65423				Units: mg/L		Analysis Date: 11/26/2014 10:15 AM			
Client ID:		Run ID: ICP2_141126A				SeqNo: 3054392		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium	0.04703	0.20								J	

MBLK		Sample ID: MBLK-65417-65423				Units: mg/L		Analysis Date: 11/26/2014 10:26 AM			
Client ID:		Run ID: ICP2_141126A				SeqNo: 3054395		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium	0.05904	0.20								J	

LCS		Sample ID: LCS-65423-65423				Units: mg/L		Analysis Date: 11/25/2014 04:55 PM			
Client ID:		Run ID: ICP2_141125A				SeqNo: 3053684		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	9.522	0.50	10	0	95.2	80-120	0				
Iron	9.496	0.080	10	0	95	80-120	0				
Magnesium	9.697	0.20	10	0	97	80-120	0				
Manganese	0.0953	0.0050	0.1	0	95.3	80-120	0				
Potassium	9.452	0.20	10	0	94.5	80-120	0				

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **65423** Instrument ID **ICP2** Method: **SW846 6010C**

LCS		Sample ID: LCS-65417-65423				Units: mg/L		Analysis Date: 11/25/2014 05:00 PM			
Client ID:		Run ID: ICP2_141125A				SeqNo: 3053686		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	9.579	0.50	10	0	95.8	80-120	0				
Iron	9.518	0.080	10	0	95.2	80-120	0				
Magnesium	9.712	0.20	10	0	97.1	80-120	0				
Manganese	0.09687	0.0050	0.1	0	96.9	80-120	0				
Potassium	9.505	0.20	10	0	95	80-120	0				

LCS		Sample ID: LCS-65423-65423				Units: mg/L		Analysis Date: 11/26/2014 10:20 AM			
Client ID:		Run ID: ICP2_141126A				SeqNo: 3054393		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium	9.479	0.20	10	0	94.8	80-120	0				

LCS		Sample ID: LCS-65417-65423				Units: mg/L		Analysis Date: 11/26/2014 10:39 AM			
Client ID:		Run ID: ICP2_141126A				SeqNo: 3054397		Prep Date: 11/25/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Sodium	9.496	0.20	10	0	95	80-120	0				

MS		Sample ID: 14111202-04BMS				Units: mg/L		Analysis Date: 11/26/2014 08:59 AM			
Client ID: MW4		Run ID: ICP2_141126A				SeqNo: 3054054		Prep Date: 11/25/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	566.6	5.0	10	533.4	332	75-125	0			SO	
Iron	10.85	0.80	10	0.007937	108	75-125	0				
Magnesium	948.5	2.0	10	894.7	538	75-125	0			SO	
Manganese	4.562	0.050	0.1	4.345	217	75-125	0			SO	
Potassium	30.19	2.0	10	17.67	125	75-125	0			S	
Sodium	4842	2.0	10	4693	1490	75-125	0			SEO	

MSD		Sample ID: 14111202-04BMSD				Units: mg/L		Analysis Date: 11/26/2014 09:04 AM			
Client ID: MW4		Run ID: ICP2_141126A				SeqNo: 3054055		Prep Date: 11/25/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	520.9	5.0	10	533.4	-125	75-125	566.6	8.4	20	SO	
Iron	10.06	0.80	10	0.007937	101	75-125	10.85	7.56	20		
Magnesium	867.9	2.0	10	894.7	-269	75-125	948.5	8.88	20	SO	
Manganese	4.253	0.050	0.1	4.345	-92	75-125	4.562	7.02	20	SO	
Potassium	27.48	2.0	10	17.67	98.1	75-125	30.19	9.4	20		
Sodium	4467	2.0	10	4693	-2260	75-125	4842	8.05	20	SEO	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **65423** Instrument ID **ICP2** Method: **SW846 6010C**

The following samples were analyzed in this batch:

14111202-01B	14111202-02B	14111202-03B
14111202-04B	14111202-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153383** Instrument ID **VMS9** Method: **SW8260**

MBLK		Sample ID: VBLKW2-141129-R153383				Units: µg/L		Analysis Date: 11/30/2014 10:39 AM		
Client ID:		Run ID: VMS9_141129B				SeqNo: 3055954		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	19.25	0	20	0	96.2	75-120	0			
Surr: 4-Bromofluorobenzene	19.3	0	20	0	96.5	80-110	0			
Surr: Dibromofluoromethane	18.91	0	20	0	94.6	85-115	0			
Surr: Toluene-d8	19.74	0	20	0	98.7	85-110	0			

LCS		Sample ID: VLCSW2-141129-R153383				Units: µg/L		Analysis Date: 11/30/2014 09:23 AM		
Client ID:		Run ID: VMS9_141129B				SeqNo: 3055953		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.9	1.0	20	0	110	85-125	0			
Ethylbenzene	22.39	1.0	20	0	112	85-125	0			
m,p-Xylene	44	2.0	40	0	110	75-130	0			
o-Xylene	22.55	1.0	20	0	113	80-125	0			
Toluene	21.67	1.0	20	0	108	85-125	0			
Xylenes, Total	66.55	3.0	60	0	111	80-126	0			
Surr: 1,2-Dichloroethane-d4	18.98	0	20	0	94.9	75-120	0			
Surr: 4-Bromofluorobenzene	19.75	0	20	0	98.8	80-110	0			
Surr: Dibromofluoromethane	20	0	20	0	100	85-115	0			
Surr: Toluene-d8	20.26	0	20	0	101	85-110	0			

MS		Sample ID: 14111215-01A MS				Units: µg/L		Analysis Date: 11/30/2014 07:55 PM		
Client ID:		Run ID: VMS9_141129B				SeqNo: 3055975		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	23.2	1.0	20	0	116	85-125	0			
Ethylbenzene	23.1	1.0	20	0	116	85-125	0			
m,p-Xylene	44.52	2.0	40	0	111	75-130	0			
o-Xylene	23	1.0	20	0	115	80-125	0			
Toluene	22.6	1.0	20	0	113	85-125	0			
Xylenes, Total	67.52	3.0	60	0	113	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.01	0	20	0	95	75-120	0			
Surr: 4-Bromofluorobenzene	19.91	0	20	0	99.6	80-110	0			
Surr: Dibromofluoromethane	19.87	0	20	0	99.4	85-115	0			
Surr: Toluene-d8	20.12	0	20	0	101	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153383** Instrument ID **VMS9** Method: **SW8260**

MSD		Sample ID: 14111215-01A MSD				Units: µg/L		Analysis Date: 11/30/2014 08:20 PM		
Client ID:		Run ID: VMS9_141129B			SeqNo: 3055976		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.46	1.0	20	0	112	85-125	23.2	3.24	30	
Ethylbenzene	22.64	1.0	20	0	113	85-125	23.1	2.01	30	
m,p-Xylene	43.53	2.0	40	0	109	75-130	44.52	2.25	30	
o-Xylene	22.6	1.0	20	0	113	80-125	23	1.75	30	
Toluene	21.78	1.0	20	0	109	85-125	22.6	3.7	30	
Xylenes, Total	66.13	3.0	60	0	110	80-126	67.52	2.08	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	18.69	0	20	0	93.4	75-120	19.01	1.7	30	
<i>Surr: 4-Bromofluorobenzene</i>	20.02	0	20	0	100	80-110	19.91	0.551	30	
<i>Surr: Dibromofluoromethane</i>	20.22	0	20	0	101	85-115	19.87	1.75	30	
<i>Surr: Toluene-d8</i>	20.36	0	20	0	102	85-110	20.12	1.19	30	

The following samples were analyzed in this batch:

14111202-01A	14111202-02A	14111202-03A
14111202-04A	14111202-05A	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153388** Instrument ID **VMS6** Method: **SW8260**

MBLK		Sample ID: VBLKW1-141201-R153388				Units: µg/L		Analysis Date: 12/1/2014 12:51 PM		
Client ID:		Run ID: VMS6_141201A				SeqNo: 3056986		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	19.58	0	20	0	97.9	75-120	0			
Surr: 4-Bromofluorobenzene	19.97	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.01	0	20	0	100	85-115	0			
Surr: Toluene-d8	19.49	0	20	0	97.4	85-110	0			

LCS		Sample ID: VLCSW1-141201-R153388				Units: µg/L		Analysis Date: 12/1/2014 11:59 AM		
Client ID:		Run ID: VMS6_141201A				SeqNo: 3056984		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	40.05	1.0	40	0	100	85-125	0			
Ethylbenzene	39.67	1.0	40	0	99.2	85-125	0			
m,p-Xylene	76.89	2.0	80	0	96.1	75-130	0			
o-Xylene	38.36	1.0	40	0	95.9	80-125	0			
Toluene	38.31	1.0	40	0	95.8	85-125	0			
Xylenes, Total	115.2	3.0	120	0	96	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.65	0	20	0	98.2	75-120	0			
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.61	0	20	0	103	85-115	0			
Surr: Toluene-d8	19.29	0	20	0	96.4	85-110	0			

MS		Sample ID: 14111150-05A MS				Units: µg/L		Analysis Date: 12/1/2014 10:03 PM		
Client ID:		Run ID: VMS6_141201A				SeqNo: 3057014		Prep Date:		DF: 500
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	12200	500	10000	1030	112	85-125	0			
Ethylbenzene	13380	500	10000	1530	119	85-125	0			
m,p-Xylene	28320	1,000	20000	5470	114	75-130	0			
o-Xylene	13360	500	10000	2055	113	80-125	0			
Toluene	20420	500	10000	9655	108	85-125	0			
Xylenes, Total	41670	1,500	30000	7525	114	80-126	0			
Surr: 1,2-Dichloroethane-d4	9425	0	10000	0	94.2	75-120	0			
Surr: 4-Bromofluorobenzene	10110	0	10000	0	101	80-110	0			
Surr: Dibromofluoromethane	9465	0	10000	0	94.6	85-115	0			
Surr: Toluene-d8	9565	0	10000	0	95.6	85-110	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153388** Instrument ID **VMS6** Method: **SW8260**

MSD		Sample ID: 14111150-05A MSD				Units: µg/L		Analysis Date: 12/1/2014 10:29 PM		
Client ID:		Run ID: VMS6_141201A			SeqNo: 3057016		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	12180	500	10000	1030	112	85-125	12200	0.082	30	
Ethylbenzene	12640	500	10000	1530	111	85-125	13380	5.76	30	
m,p-Xylene	27210	1,000	20000	5470	109	75-130	28320	3.98	30	
o-Xylene	12940	500	10000	2055	109	80-125	13360	3.2	30	
Toluene	19740	500	10000	9655	101	85-125	20420	3.39	30	
Xylenes, Total	40140	1,500	30000	7525	109	80-126	41670	3.73	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	9660	0	10000	0	96.6	75-120	9425	2.46	30	
<i>Surr: 4-Bromofluorobenzene</i>	10040	0	10000	0	100	80-110	10110	0.695	30	
<i>Surr: Dibromofluoromethane</i>	10220	0	10000	0	102	85-115	9465	7.72	30	
<i>Surr: Toluene-d8</i>	9595	0	10000	0	96	85-110	9565	0.313	30	

The following samples were analyzed in this batch: | 14111202-05A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **65499** Instrument ID **TDS** Method: **A2540 C-97**

MBLK	Sample ID: MBLK-65499-65499		Units: mg/L		Analysis Date: 12/1/2014 08:30 AM					
Client ID:	Run ID: TDS_141201A		SeqNo: 3057962		Prep Date: 11/30/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 10

LCS	Sample ID: LCS-65499-65499		Units: mg/L		Analysis Date: 12/1/2014 08:30 AM					
Client ID:	Run ID: TDS_141201A		SeqNo: 3057961		Prep Date: 11/30/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 477 10 495 0 96.4 80-120 0

DUP	Sample ID: 14111202-02B DUP		Units: mg/L		Analysis Date: 12/1/2014 08:30 AM					
Client ID: MW2	Run ID: TDS_141201A		SeqNo: 3057955		Prep Date: 11/30/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 16660 20 0 0 0 0-0 16470 1.16 20

DUP	Sample ID: 14111202-03B DUP		Units: mg/L		Analysis Date: 12/1/2014 08:30 AM					
Client ID: MW3	Run ID: TDS_141201A		SeqNo: 3057957		Prep Date: 11/30/2014 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 19410 20 0 0 0 0-0 19590 0.882 20

The following samples were analyzed in this batch:

14111202-01B	14111202-02B	14111202-03B
14111202-04B	14111202-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153024** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK	Sample ID: WBLKW1-141122-R153024				Units: mg/L			Analysis Date: 11/22/2014 02:00 PM		
Client ID:	Run ID: WETCHEM_141122B				SeqNo: 3048223		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite ND 0.020

LCS	Sample ID: WLCSW1-141122-R153024				Units: mg/L			Analysis Date: 11/22/2014 02:00 PM		
Client ID:	Run ID: WETCHEM_141122B				SeqNo: 3048224		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.2192 0.020 0.2 0 110 80-120 0

MS	Sample ID: 14111202-01B MS				Units: mg/L			Analysis Date: 11/22/2014 02:00 PM		
Client ID: MW1	Run ID: WETCHEM_141122B				SeqNo: 3048226		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1842 0.020 0.2 0.0035 90.4 75-125 0

MSD	Sample ID: 14111202-01B MSD				Units: mg/L			Analysis Date: 11/22/2014 02:00 PM		
Client ID: MW1	Run ID: WETCHEM_141122B				SeqNo: 3048227		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrite 0.1839 0.020 0.2 0.0035 90.2 75-125 0.1842 0.163 20

The following samples were analyzed in this batch:

14111202-01B	14111202-02B	14111202-03B
14111202-04B	14111202-05B	

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153165** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK	Sample ID: WBLKW1-141124-R153165		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID:	Run ID: LACHAT2_141124J		SeqNo: 3051786		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS	Sample ID: WLCSW-141124-R153165		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID:	Run ID: LACHAT2_141124J		SeqNo: 3051787		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.047 0.020 5 0 101 90-110 0

MS	Sample ID: 14111069-01D MS		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID:	Run ID: LACHAT2_141124J		SeqNo: 3051790		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.271 0.020 5 0.5624 94.2 90-110 0

MS	Sample ID: 14111202-02C MS		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID: MW2	Run ID: LACHAT2_141124J		SeqNo: 3051812		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.796 0.020 5 0 95.9 90-110 0

MSD	Sample ID: 14111069-01D MSD		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID:	Run ID: LACHAT2_141124J		SeqNo: 3051791		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.275 0.020 5 0.5624 94.3 90-110 5.271 0.0759 20

mSD	Sample ID: 14111202-02C MSD		Units: mg/L		Analysis Date: 11/24/2014 01:20 PM					
Client ID: MW2	Run ID: LACHAT2_141124J		SeqNo: 3051813		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 4.752 0.020 5 0 95 90-110 4.796 0.922 20

The following samples were analyzed in this batch:

14111202-01C	14111202-02C	14111202-03C
14111202-04C		

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153167** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK	Sample ID: WBLKW1-141124-R153167				Units: mg/L			Analysis Date: 11/24/2014 01:20 PM		
Client ID:	Run ID: LACHAT2_141124K				SeqNo: 3051827			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate ND 0.020

LCS	Sample ID: WLCSW1-141124-R153167				Units: mg/L			Analysis Date: 11/24/2014 01:20 PM		
Client ID:	Run ID: LACHAT2_141124K				SeqNo: 3051828			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.013 0.020 5 0 100 90-110 0

MS	Sample ID: 1411147-19A MS				Units: mg/L			Analysis Date: 11/24/2014 01:20 PM		
Client ID:	Run ID: LACHAT2_141124K				SeqNo: 3051832			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 5.987 0.020 5 1.199 95.8 90-110 0

MSD	Sample ID: 1411147-19A MSD				Units: mg/L			Analysis Date: 11/24/2014 01:20 PM		
Client ID:	Run ID: LACHAT2_141124K				SeqNo: 3051833			Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate 6.005 0.020 5 1.199 96.1 90-110 5.987 0.3 20

The following samples were analyzed in this batch:

14111202-05C

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

Client: HRL Compliance Solutions, Inc
 Work Order: 14111202
 Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153248** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-141125-R153248				Units: mg/L		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053573		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Alkalinity, Bicarbonate (as CaCO3)	4.22	10								J	
Alkalinity, Carbonate (as CaCO3)	ND	10									
Alkalinity, Total (as CaCO3)	4.22	12								J	

LCS		Sample ID: WLCSW1-141125-R153248				Units: mg/L		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053574		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Alkalinity, Carbonate (as CaCO3)	897.6	10	925	0	97	70-130	0				
Alkalinity, Total (as CaCO3)	936.3	12	1000	0	93.6	90-106	0				

LCS		Sample ID: WLCSW-141125-R153248				Units: s.u.		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053591		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH (laboratory)	4.4	0	4.4	0	100	90-110	0				

LCS		Sample ID: WLCSW1-141125-R153248				Units: s.u.		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053602		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH (laboratory)	4.4	0	4.4	0	100	90-110	0				

DUP		Sample ID: 14111265-01A DUP				Units: mg/L		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053581		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Alkalinity, Total (as CaCO3)	166.5	12	0	0	0		170.8	2.57	20		

DUP		Sample ID: 14111255-02C DUP				Units: s.u.		Analysis Date: 11/25/2014 05:36 PM			
Client ID:		Run ID: TITRATOR 1_141125C				SeqNo: 3053597		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH (laboratory)	7.89	0	0	0	0	0-0	7.9	0.127	20		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153248** Instrument ID **Titrator 1** Method: **A2320 B-97**

DUP	Sample ID: 14111265-01A DUP				Units: s.u.		Analysis Date: 11/25/2014 05:36 PM			
Client ID:	Run ID: TITRATOR 1_141125C			SeqNo: 3053599		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)	8.52	0	0	0	0	0-0	8.48	0.471	20	

The following samples were analyzed in this batch:

14111202-01B	14111202-02B	14111202-03B
14111202-04B	14111202-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14111202
Project: WPX Clough 14-22 Monitoring Wells 11.21.14

QC BATCH REPORT

Batch ID: **R153672** Instrument ID **IC3** Method: **SW9056**

MBLK	Sample ID: CCB/MBLANK-R153672				Units: mg/L			Analysis Date: 12/3/2014 11:27 AM		
Client ID:	Run ID: IC3_141203A				SeqNo: 3062381		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS	Sample ID: CCV/LCS-R153672				Units: mg/L			Analysis Date: 12/3/2014 11:48 AM		
Client ID:	Run ID: IC3_141203A				SeqNo: 3062382		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	9.495	1.0	10	0	95	88-110	0			
Sulfate	9.76	1.0	10	0	97.6	85-110	0			

MS	Sample ID: 14111202-01B MS				Units: mg/L			Analysis Date: 12/4/2014 02:25 AM		
Client ID: MW1	Run ID: IC3_141203A				SeqNo: 3062425		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	2821	500	10	3205	-3840	75-125	0			SO
Sulfate	8246	500	10	9344	-11000	75-125	0			SO

MSD	Sample ID: 14111202-01B MSD				Units: mg/L			Analysis Date: 12/4/2014 02:45 AM		
Client ID: MW1	Run ID: IC3_141203A				SeqNo: 3062426		Prep Date:		DF: 500	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	2807	500	10	3205	-3980	75-125	2821	0.503	20	SO
Sulfate	8109	500	10	9344	-12300	75-125	8246	1.67	20	SO

The following samples were analyzed in this batch:

14111202-01B	14111202-02B	14111202-03B
14111202-04B	14111202-05B	



ALS Environmental

3352 128th Avenue Holland, MI 49424
 PH: (616) 399-6070

Chain-of-Custody

WORKORDER # **1111 202**

Form 202r8

PROJECT NAME	Clough 14-22 Monitoring Wells	SAMPLER	Mike Lobato	DATE	11/21/14	PAGE	1 of 1
PROJECT No.		SITE ID	Clough 14-22	TURNAROUND	Standard 5 Day	DISPOSAL	By Lab or Return to Client
COMPANY NAME	HRL Compliance Solutions, Inc.	EDD FORMAT		ALKALINITY (Bicarbonate Carbonate Total)			
SEND REPORT TO	Mark Mumby	PURCHASE ORDER		ANIONS BY ION CHROMAT.			
ADDRESS	2385 F 1/2 Road	BILL TO COMPANY	WPX Energy	METALS DISSOLVED			
CITY / STATE / ZIP	Grand Junction, CO 81505	INVOICE ATTN TO	Karolina Blaney	NITROGEN, NITRATE			
PHONE	970-243-3271	ADDRESS	1058 Co. Rd. 215	NITROGEN, NITRITE			
FAX	970-243-3280	CITY / STATE / ZIP	Parachute, CO 81635	PH			
E-MAIL	mmumby@hrlcomp.com; mlobato@hrlcomp.com	PHONE	970-683-2295	TDS			
		FAX		BIEX			
		E-MAIL	Karolina.blaney@wpxenergy.com				

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	ALKALINITY (Bicarbonate Carbonate Total)	ANIONS BY ION CHROMAT.	METALS DISSOLVED	NITROGEN, NITRATE	NITROGEN, NITRITE	PH	TDS
1	MW1	W	11/21/14	10:50	5	1,3,8		X	X	X	X	X	X	X
2	MW2	W	11/21/14	11:08	5	1,3,8		↓	↓	↓	↓	↓	↓	
3	MW3	W	11/21/14	11:20	5	1,3,8		↓	↓	↓	↓	↓	↓	
4	MW4	W	11/21/14	11:35	5	1,3,8		↓	↓	↓	↓	↓	↓	
5	MW5	W	11/21/14	11:48	5	1,3,8		↓	↓	↓	↓	↓	↓	
	FRIP BLANK	L	11/21/14		1	1,8								

*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: Metals: Ca, Fe, Mg, Mn, Na, K, Se
 Anions: Cl, SO4
 Refer to WO# 1409994

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

*Reservative 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	<i>Mike Lobato</i>	Mike Lobato	11/21/14	1319
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	11/21/14	1330
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	11-21-14	1400
RECEIVED BY	<i>[Signature]</i>	KETRA WIERENNA	11/22/14	1000
RELINQUISHED BY	<i>[Signature]</i>			
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-Nov-14 10:00**

Work Order: **14111202**

Received by: **KRW**

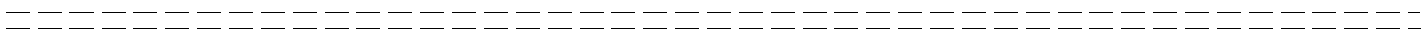
Checklist completed by Keith Warenga 22-Nov-14
eSignature Date

Reviewed by: Joseph Ribar 24-Nov-14
eSignature Date

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.4 C"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="11/22/2014 12:01:47 PM"/>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
Nick Martinez
ALS Environmental
127 E. 1st Street
PARACHUTE, CO 81635

Origin ID: RLA



Ship Date: 21NOV14
ActWgt: 58.0 LB
CAD: 22648407NET3550
Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 112114-1
Invoice # Parachute
PO #
Dept #

SHIP TO: (616) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL SENDER

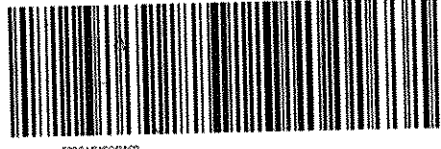
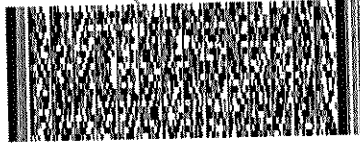
1 of 2 SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 7719 5652 1870

MASTER

49424
MI-US
GRR

XO HLMA



522G16H08BAG3

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 Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ENTRUSTED TO YOUR CARE

ALWAYS USE THE Custody Seal

DATE 11-21-14 Time 1:30

Name ALM