



March 19, 2015

Stan Spencer
NW Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
796 Megan Ave, Suite 201,
Rifle, CO 81650

Re: PA 13-32 Drilling Mud Spill Closure Request

Dear Mr. Spencer,

Attached are the laboratory reports and the sample location map for soil samples collected from the impacted area and nearby non-impacted native soil in order to close the drilling mud spill that occurred at the PA 13-32 well pad and was discovered on June 5, 2014.

One grab sample was collected from the impacted area and was analyzed for the constituents listed in Table 910-1. Three grab samples were collected from nearby non-impacted, native soil to establish the background concentrations for arsenic. The grab sample collected from the impacted area exceeded COGCC cleanup standards for TPHs. The area was resampled on 3/16/2015.

As the attached laboratory reports indicate, all constituents of concern listed in the COGCC Table 910-1 tested below the cleanup requirements or below the background concentrations with the exception of the inorganics. Therefore, in accordance with COGCC guideline Q32 regarding inorganics, the impacted area will be covered with 3' of clean soil during the final reclamation of the site. Based on these results, WPX respectfully requests closure of this incident.

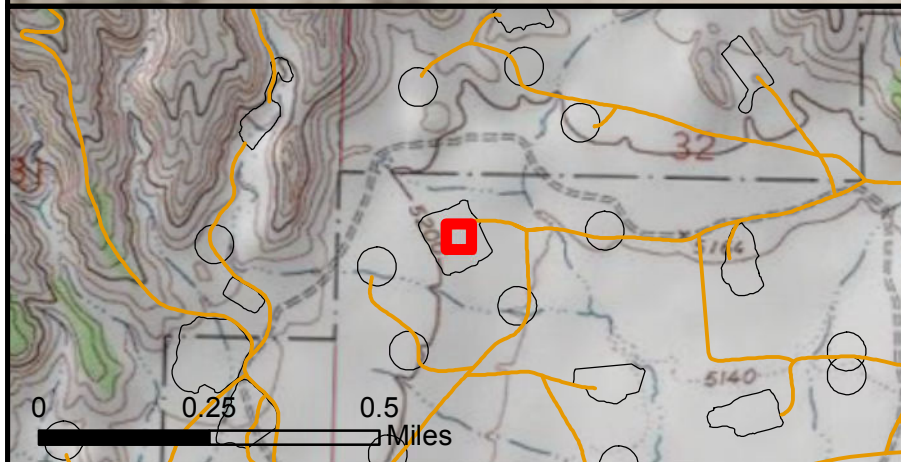
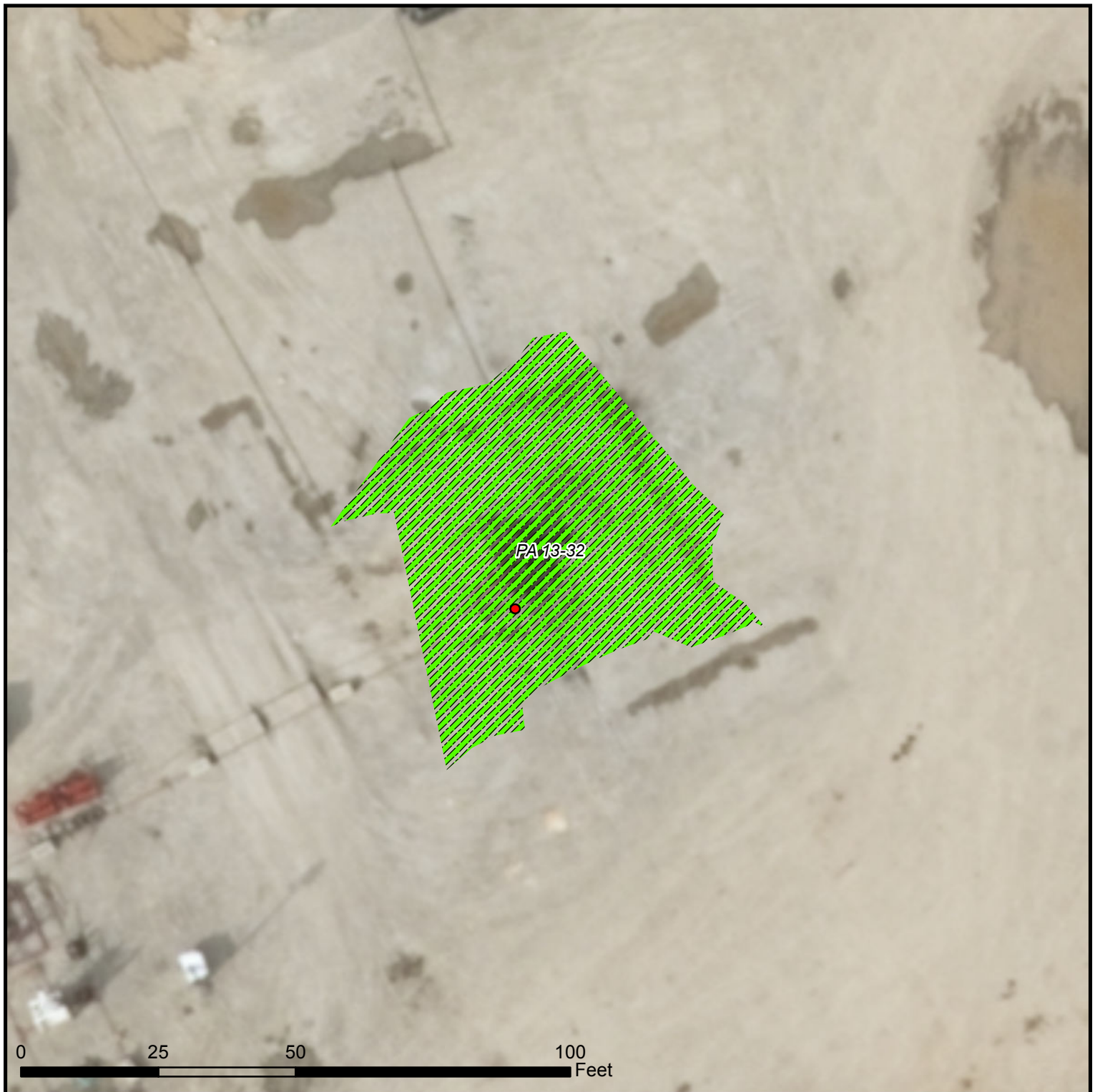
Please do not hesitate to contact me at (970) 683-2295 should you have any questions or concerns regarding this information.

Sincerely,

Karolina Blaney
Environmental Specialist

Attachments (2)

- Sampling Location Map
- Laboratory Reports



Spill Closure Map

PA 13-32

39.479754 -108.027901
Section 32, Township 6 South, Range 95 West

- Sample Location
- ▨ Impacted Area
- Road (from Garfield County)
- Existing Road
- Stream
- Existing Pad
- River



PA 13-32 Analytical Summary

Contaminant of Concern ↓	COGCC standards	Location →	PA 13-32	PA 13-32	PA 13-32-BK-1	PA 13-32-BK-2	PA 13-32-BK-3
		Date Sampled →	10/30/2014	3/16/2015	10/30/2015	10/30/2015	10/30/2015
Organic Compounds in Soil							
TPH (DRO+GRO)	500	mg/kg	860	24			
DRO		mg/kg	860	24			
GRO		mg/kg	ND	ND			
Benzene	0.17	mg/kg	ND				
Toluene	85	mg/kg	ND				
Ethylbenzene	100	mg/kg	ND				
Xylenes (Total)	175	mg/kg	ND				
Acenaphthene	1,000	mg/kg	ND				
Anthracene	1,000	mg/kg	ND				
Benzo(A)anthracene	0.22	mg/kg	ND				
Benzo(B)fluoranthene	0.22	mg/kg	ND				
Benzo(K)fluoranthene	2.2	mg/kg	ND				
Benzo(A)pyrene	0.022	mg/kg	ND				
Chrysene	22	mg/kg	0.013				
Dibenzo(A,H)anthracene	0.022	mg/kg	ND				
Fluoranthene	1,000	mg/kg	ND				
Fluorene	1,000	mg/kg	ND				
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND				
Naphthalene	23	mg/kg	ND				
Pyrene	1,000	mg/kg	0.082				
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/cm	14				
SAR	<12		8.9				
pH	6-9		8.1				
Metals in Soil							
Arsenic	0.39	mg/kg	5.8		10	9.5	8.1
Barium total	15,000	mg/kg	6500				
Cadmium	70	mg/kg	ND				
Chromium (III)	120,000	mg/kg	10				
Chromium (VI)	23	mg/kg	ND				
Copper	3,100	mg/kg	22				
Lead	400	mg/kg	17				
Mercury	23	mg/kg	0.18				
Nickel	1,600	mg/kg	11				
Selenium	390	mg/kg	0.72				
Silver	390	mg/kg	ND				
Zinc	23,000	mg/kg	54				



06-Nov-2014

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

Re: **WPX PA 13-32 Confirmation 10.30.14**

Work Order: **14101822**

Dear Mark,

ALS Environmental received 1 sample on 31-Oct-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 23.

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 PA 13-32 Confirmation 10.30.14
Work Order: 14101822

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>
14101822-01	Confirmation	Soil		10/30/2014 13:05	10/31/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Confirmation 10.30.14
Work Order: 14101822

Case Narrative

Batch 64547 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 64568 sample 14101822-01 DRO surrogate recovery was high due to matrix interference. The MS/MSD recoveries for the DRO surrogate were also above control limits. The MSD recovery for DRO was low. Both the MS recovery and RPD met quality control criteria. No data requires qualification for DRO.

Batch 64582 MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

Batch 64630 sample 14101822-01 had one low surrogate recovery for PAH. The LCS recoveries for Benzo(g,h,i)perylene and Indeno (1,2,3-cd)pyrene were above the upper control limit. The sample was non-detect for Benzo(g,h,i)perylene and Indeno (1,2,3-cd)pyrene. No data requires qualification for the high LCS recoveries. Reporting limits may be biased low due to the low surrogate recovery.

Batch 64672 sample 14101822-01 MS/MSD recoveries for Hexavalent Chromium were below the lower control limit. The corresponding reporting limit 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: 06-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Confirmation 10.30.14
Sample ID: Confirmation
Collection Date: 10/30/2014 01:05 PM

Work Order: 14101822
Lab ID: 14101822-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	860		SW8015M		Prep: SW3541 / 11/2/14	Analyst: IT
Surr: 4-Terphenyl-d14	327	S	39-133	%REC	1	11/3/2014 05:18 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 11/3/14	Analyst: IT
Surr: Toluene-d8	102		50-150	%REC	1	11/4/2014 12:29 PM
MERCURY BY CVAA						
Mercury	0.18		SW7471		Prep: SW7471 / 11/3/14	Analyst: LR
			0.016	mg/Kg-dry	1	11/3/2014 07:17 PM
METALS ANALYSIS BY ICP						
Arsenic	5.8		SW846 6010C		Prep: SW3050B / 10/31/14	Analyst: JEC
Barium	6,500		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Cadmium	ND		4.0	mg/Kg-dry	10	11/3/2014 01:10 PM
Chromium	11		0.32	mg/Kg-dry	1	10/31/2014 06:39 PM
Copper	22		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Lead	17		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Nickel	11		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Selenium	0.72		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Silver	ND		0.40	mg/Kg-dry	1	10/31/2014 06:39 PM
Zinc	54		0.81	mg/Kg-dry	1	10/31/2014 06:39 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 11/3/14	Analyst: JEC
Calcium	1,400		5.0	mg/L	10	11/3/2014 04:25 PM
Magnesium	240		2.0	mg/L	10	11/3/2014 04:25 PM
Sodium	1,400		2.0	mg/L	10	11/3/2014 04:25 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHOD		Prep: USDA Method 20B / 11/3/14	Analyst: JEC
Sodium Adsorption Ratio	8.9		0.010	none	1	11/3/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 11/4/14	Analyst: RS
Acenaphthene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Acenaphthylene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Anthracene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Benzo(a)anthracene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Benzo(a)pyrene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Benzo(b)fluoranthene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Benzo(g,h,i)perylene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Benzo(k)fluoranthene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Chrysene	13		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM

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

ALS Group USA, Corp

Date: 06-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Confirmation 10.30.14
Sample ID: Confirmation
Collection Date: 10/30/2014 01:05 PM

Work Order: 14101822
Lab ID: 14101822-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Fluoranthene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Fluorene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Indeno(1,2,3-cd)pyrene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Naphthalene	ND		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Pyrene	82		6.8	µg/Kg-dry	1	11/5/2014 05:01 AM
Surr: 2-Fluorobiphenyl	35.9		12-100	%REC	1	11/5/2014 05:01 AM
Surr: 4-Terphenyl-d14	43.6		25-137	%REC	1	11/5/2014 05:01 AM
Surr: Nitrobenzene-d5	30.1	S	37-107	%REC	1	11/5/2014 05:01 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 11/3/14		Analyst: AK
Benzene	ND		31	µg/Kg-dry	1	11/4/2014 12:12 PM
Ethylbenzene	ND		31	µg/Kg-dry	1	11/4/2014 12:12 PM
m,p-Xylene	ND		62	µg/Kg-dry	1	11/4/2014 12:12 PM
o-Xylene	ND		31	µg/Kg-dry	1	11/4/2014 12:12 PM
Toluene	ND		31	µg/Kg-dry	1	11/4/2014 12:12 PM
Xylenes, Total	ND		93	µg/Kg-dry	1	11/4/2014 12:12 PM
Surr: 1,2-Dichloroethane-d4	88.8		70-130	%REC	1	11/4/2014 12:12 PM
Surr: 4-Bromofluorobenzene	94.4		70-130	%REC	1	11/4/2014 12:12 PM
Surr: Dibromofluoromethane	93.8		70-130	%REC	1	11/4/2014 12:12 PM
Surr: Toluene-d8	91.2		70-130	%REC	1	11/4/2014 12:12 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 11/3/14		Analyst: JB
Electrical Conductivity @ Saturation	14		0.050	mmhos/cm @25	10	11/3/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	10		0.52	mg/Kg-dry	1	11/4/2014 06:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 11/3/14		Analyst: MB
Chromium, Hexavalent	ND		0.52	mg/Kg-dry	1	11/4/2014 03:30 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	3.6		0.050	% of sample	1	11/3/2014 10:00 AM
PH			SW9045D	Prep: EXTRACT / 10/31/14		Analyst: JB
pH	8.1			s.u.	1	10/31/2014 02:30 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64568** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-64568-64568				Units: mg/Kg		Analysis Date: 11/3/2014 02:41 PM		
Client ID:		Run ID: GC8_141103A				SeqNo: 3015809		Prep Date: 11/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.353	0	2	0	67.6	39-133	0			

LCS		Sample ID: DLCSS1-64568-64568				Units: mg/Kg		Analysis Date: 11/3/2014 03:21 PM		
Client ID:		Run ID: GC8_141103A				SeqNo: 3015810		Prep Date: 11/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	280.4	5.0	400	0	70.1	61-109	0			
Surr: 4-Terphenyl-d14	1.607	0	2	0	80.4	39-133	0			

MS		Sample ID: 14101822-01B MS				Units: mg/Kg		Analysis Date: 11/3/2014 04:22 PM		
Client ID: Confirmation		Run ID: GC8_141103A				SeqNo: 3015811		Prep Date: 11/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1129	7.8	313.1	824.2	97.3	48-110	0			
Surr: 4-Terphenyl-d14	6.766	0	3.131	0	216	39-133	0			S

MSD		Sample ID: 14101822-01B MSD				Units: mg/Kg		Analysis Date: 11/3/2014 04:50 PM		
Client ID: Confirmation		Run ID: GC8_141103A				SeqNo: 3015812		Prep Date: 11/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	974.1	7.9	316.7	824.2	47.3	48-110	1129	14.7	30	S
Surr: 4-Terphenyl-d14	5.996	0	3.167	0	189	39-133	6.766	12.1	30	S

The following samples were analyzed in this batch: | 14101822-01B |

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64607** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-64607-64607				Units: µg/Kg		Analysis Date: 11/3/2014 07:02 PM		
Client ID:		Run ID: GC9_141103A				SeqNo: 3015848		Prep Date: 11/3/2014		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>	6024	0	5000	0	120	50-150	0			

MBLK		Sample ID: MBLK-64607-64607				Units: µg/Kg		Analysis Date: 11/4/2014 06:27 PM		
Client ID:		Run ID: GC9_141104A				SeqNo: 3018241		Prep Date: 11/3/2014		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>	6983	0	5000	0	140	50-150	0			

LCS		Sample ID: LCS-64607-64607				Units: µg/Kg		Analysis Date: 11/3/2014 06:37 PM		
Client ID:		Run ID: GC9_141103A				SeqNo: 3015847		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	526000	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	4262	0	5000	0	85.2	50-150	0			

LCS		Sample ID: LCS-64607-64607				Units: µg/Kg		Analysis Date: 11/4/2014 06:01 PM		
Client ID:		Run ID: GC9_141104A				SeqNo: 3018240		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	587600	2,500	500000	0	118	70-130	0			
<i>Surr: Toluene-d8</i>	4351	0	5000	0	87	50-150	0			

MS		Sample ID: 1411021-01A MS				Units: µg/Kg		Analysis Date: 11/3/2014 09:33 PM		
Client ID:		Run ID: GC9_141103A				SeqNo: 3015854		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	530100	2,500	500000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	4467	0	5000	0	89.3	50-150	0			

MSD		Sample ID: 1411021-01A MSD				Units: µg/Kg		Analysis Date: 11/3/2014 09:58 PM		
Client ID:		Run ID: GC9_141103A				SeqNo: 3015855		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	520600	2,500	500000	0	104	70-130	530100	1.81	30	
<i>Surr: Toluene-d8</i>	4324	0	5000	0	86.5	50-150	4467	3.25	30	

The following samples were analyzed in this batch:

14101822-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64561** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-64561-64561				Units: mg/Kg			Analysis Date: 11/3/2014 07:03 PM			
Client ID:				Run ID: HG1_141103A				SeqNo: 3015377			Prep Date: 11/3/2014		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-64561-64561				Units:mg/Kg		Analysis Date: 11/3/2014 07:05 PM		
Client ID:		Run ID: HG1_141103A		SeqNo:3015378		Prep Date: 11/3/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1917 0.020 0.1665 0 115 80-120 0

MS		Sample ID: 14101829-08CMS					Units:mg/Kg		Analysis Date: 11/4/2014 01:48 PM		
Client ID:			Run ID: HG1_141104A			SeqNo:3016367		Prep Date: 11/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1641 0.013 0.1104 0.04181 111 75-125 0

MSD				Sample ID: 14101829-08CMSD				Units: mg/Kg		Analysis Date: 11/4/2014 01:50 PM													
Client ID:				Run ID: HG1_141104A				SeqNo: 3016368		Prep Date: 11/3/2014		DF: 1											
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury 0.1659 0.013 0.11 0.04181 113 75-125 0.1641 1.07 35

The following samples were analyzed in this batch:

14101822-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64547** Instrument ID **ICP2** Method: **SW846 6010C**

Sample ID: MBLK-64547-64547					Units: mg/Kg		Analysis Date: 10/31/2014 05:59 PM				
Client ID:			Run ID: ICP2_141031B			SeqNo: 3013182		Prep Date: 10/31/2014		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	0.50									
Chromium	ND	0.25									
Copper	ND	0.50									
Lead	ND	0.25									
Nickel	ND	0.25									
Selenium	ND	0.50									
Silver	ND	0.25									
Zinc	0.1616	0.50								J	

LCS					Sample ID: LCS-64547-64547			Units:mg/Kg		Analysis Date: 10/31/2014 06:04 PM	
Client ID:			Run ID: ICP2_141031B			SeqNo:3013183		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	4.698	0.25	5	0	94	80-120	0				
Barium	4.693	0.25	5	0	93.9	80-120	0				
Cadmium	4.521	0.50	5	0	90.4	80-120	0				
Chromium	4.838	0.25	5	0	96.8	80-120	0				
Copper	4.869	0.50	5	0	97.4	80-120	0				
Lead	4.768	0.25	5	0	95.4	80-120	0				
Nickel	4.749	0.25	5	0	95	80-120	0				
Selenium	4.747	0.50	5	0	94.9	80-120	0				
Silver	4.927	0.25	5	0	98.5	80-120	0				
Zinc	5.021	0.50	5	0	100	80-120	0				

MS					Sample ID: 14101823-03AMS			Units: mg/Kg		Analysis Date: 10/31/2014 07:24 PM	
Client ID:			Run ID: ICP2_141031B			SeqNo: 3013197		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	15.46	0.38	7.508	7.58	105	75-125	0				
Barium	242.1	0.38	7.508	266	-318	75-125	0			SO	
Cadmium	7.121	0.75	7.508	0.1906	92.3	75-125	0				
Chromium	18.31	0.38	7.508	10.66	102	75-125	0				
Copper	19.91	0.75	7.508	13.2	89.3	75-125	0				
Lead	26.37	0.38	7.508	19.95	85.5	75-125	0				
Nickel	20.94	0.38	7.508	13.89	93.9	75-125	0				
Selenium	7.369	0.75	7.508	0.3791	93.1	75-125	0				
Silver	8.355	0.38	7.508	-0.03233	112	75-125	0				
Zinc	76.58	0.75	7.508	67.38	123	75-125	0			O	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64547** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 14101823-03AMSD				Units: mg/Kg		Analysis Date: 10/31/2014 07:29 PM		
Client ID:		Run ID: ICP2_141031B				SeqNo: 3013198		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	14.57	0.37	7.496	7.58	93.2	75-125	15.46	5.94	20	
Barium	268.5	0.37	7.496	266	33.6	75-125	242.1	10.3	20	SO
Cadmium	7.08	0.75	7.496	0.1906	91.9	75-125	7.121	0.577	20	
Chromium	17.9	0.37	7.496	10.66	96.5	75-125	18.31	2.25	20	
Copper	19.51	0.75	7.496	13.2	84	75-125	19.91	2.04	20	
Lead	25.67	0.37	7.496	19.95	76.3	75-125	26.37	2.7	20	
Nickel	20.24	0.37	7.496	13.89	84.8	75-125	20.94	3.38	20	
Selenium	7.556	0.75	7.496	0.3791	95.7	75-125	7.369	2.5	20	
Silver	8.241	0.37	7.496	-0.03233	110	75-125	8.355	1.38	20	
Zinc	74.71	0.75	7.496	67.38	97.9	75-125	76.58	2.47	20	O

The following samples were analyzed in this batch: 14101822-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64562** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 14101822-01C DUP				Units: mg/L		Analysis Date: 11/3/2014 04:31 PM		
Client ID: Confirmation		Run ID: ICP2_141103A				SeqNo: 3014904		Prep Date: 11/3/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	1136	5.0	0	0	0	0-0	1411	21.6		
Magnesium	209	2.0	0	0	0	0-0	241.7	14.5		
Sodium	1283	2.0	0	0	0	0-0	1371	6.59		

DUP		Sample ID: 14101822-01C DUP				Units: none		Analysis Date: 11/3/2014		
Client ID: Confirmation		Run ID: SAR_141103A				SeqNo: 3014941		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	9.183	0.010	0	0	0		8.872	3.45	50	

The following samples were analyzed in this batch:

14101822-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64630** Instrument ID **SVMS4** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-64630-64630				Units: µg/Kg		Analysis Date: 11/4/2014 06:30 PM		
Client ID:		Run ID: SVMS4_141104A				SeqNo: 3019133		Prep Date: 11/4/2014		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>	1366	0	1667	0	82	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1768	0	1667	0	106	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1161	0	1667	0	69.7	37-107	0			

LCS		Sample ID: SLCSS1-64630-64630				Units: µg/Kg		Analysis Date: 11/4/2014 06:55 PM		
Client ID:		Run ID: SVMS4_141104A				SeqNo: 3019134		Prep Date: 11/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	584	6.7	666.7	0	87.6	45-110	0			
Acenaphthylene	631.3	6.7	666.7	0	94.7	45-105	0			
Anthracene	693	6.7	666.7	0	104	55-105	0			
Benzo(a)anthracene	694.7	6.7	666.7	0	104	50-110	0			
Benzo(a)pyrene	710.3	6.7	666.7	0	107	50-110	0			
Benzo(b)fluoranthene	673.3	6.7	666.7	0	101	45-115	0			
Benzo(g,h,i)perylene	905.7	6.7	666.7	0	136	40-125	0			S
Benzo(k)fluoranthene	664.3	6.7	666.7	0	99.6	45-115	0			
Chrysene	698.3	6.7	666.7	0	105	55-110	0			
Dibenzo(a,h)anthracene	833.3	6.7	666.7	0	125	40-125	0			
Fluoranthene	686.3	6.7	666.7	0	103	55-115	0			
Fluorene	596.7	6.7	666.7	0	89.5	50-110	0			
Indeno(1,2,3-cd)pyrene	873	6.7	666.7	0	131	40-120	0			S
Naphthalene	531.3	6.7	666.7	0	79.7	40-105	0			
Pyrene	776.7	6.7	666.7	0	116	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1342	0	1667	0	80.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1724	0	1667	0	103	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1191	0	1667	0	71.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64630** Instrument ID **SVMS4** Method: **SW846 8270D**

MS				Sample ID: 14101764-01B MS			Units: µg/Kg		Analysis Date: 11/4/2014 07:20 PM	
Client ID:		Run ID: SVMS4_141104A			SeqNo: 3019140		Prep Date: 11/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1016	13	1288	4.654	78.5	45-110	0			
Acenaphthylene	1079	13	1288	21.28	82.1	45-105	0			
Anthracene	1218	13	1288	0	94.5	55-105	0			
Benzo(a)anthracene	1148	13	1288	55.19	84.9	50-110	0			
Benzo(a)pyrene	1162	13	1288	90.43	83.2	50-110	0			
Benzo(b)fluoranthene	1117	13	1288	101.7	78.8	45-115	0			
Benzo(g,h,i)perylene	1357	13	1288	47.21	102	40-125	0			
Benzo(k)fluoranthene	1111	13	1288	51.2	82.3	45-115	0			
Chrysene	1143	13	1288	55.19	84.4	55-110	0			
Dibenzo(a,h)anthracene	1311	13	1288	0	102	40-125	0			
Fluoranthene	1278	13	1288	135.6	88.7	55-115	0			
Fluorene	1021	13	1288	0	79.2	50-110	0			
Indeno(1,2,3-cd)pyrene	1340	13	1288	81.12	97.7	40-120	0			
Naphthalene	915.8	13	1288	0	71.1	40-105	0			
Pyrene	1186	13	1288	101.1	84.2	45-125	0			
Surr: 2-Fluorobiphenyl	2251	0	3220	0	69.9	12-100	0			
Surr: 4-Terphenyl-d14	2648	0	3220	0	82.2	25-137	0			
Surr: Nitrobenzene-d5	1936	0	3220	0	60.1	37-107	0			

MSD				Sample ID: 14101764-01B MSD			Units: µg/Kg		Analysis Date: 11/4/2014 07:46 PM	
Client ID:		Run ID: SVMS4_141104A			SeqNo: 3019141		Prep Date: 11/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1025	13	1277	4.654	79.9	45-110	1016	0.926	30	
Acenaphthylene	1090	13	1277	21.28	83.7	45-105	1079	1.06	30	
Anthracene	1219	13	1277	0	95.4	55-105	1218	0.114	30	
Benzo(a)anthracene	1155	13	1277	55.19	86.1	50-110	1148	0.559	30	
Benzo(a)pyrene	1146	13	1277	90.43	82.6	50-110	1162	1.39	30	
Benzo(b)fluoranthene	1130	13	1277	101.7	80.5	45-115	1117	1.22	30	
Benzo(g,h,i)perylene	1332	13	1277	47.21	101	40-125	1357	1.84	30	
Benzo(k)fluoranthene	1081	13	1277	51.2	80.6	45-115	1111	2.71	30	
Chrysene	1141	13	1277	55.19	85	55-110	1143	0.104	30	
Dibenzo(a,h)anthracene	1287	13	1277	0	101	40-125	1311	1.82	30	
Fluoranthene	1281	13	1277	135.6	89.6	55-115	1278	0.169	30	
Fluorene	1058	13	1277	0	82.8	50-110	1021	3.61	30	
Indeno(1,2,3-cd)pyrene	1318	13	1277	81.12	96.8	40-120	1340	1.61	30	
Naphthalene	851.4	13	1277	0	66.6	40-105	915.8	7.29	30	
Pyrene	1163	13	1277	101.1	83.1	45-125	1186	1.93	30	
Surr: 2-Fluorobiphenyl	2225	0	3194	0	69.7	12-100	2251	1.15	40	
Surr: 4-Terphenyl-d14	2508	0	3194	0	78.5	25-137	2648	5.41	40	
Surr: Nitrobenzene-d5	1810	0	3194	0	56.7	37-107	1936	6.72	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64630** Instrument ID **SVMS4** Method: **SW846 8270D**

The following samples were analyzed in this batch:

14101822-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64582** Instrument ID **VMS6** Method: **SW8260B**

MBLK				Sample ID: MBLK-64582-64582				Units: µg/Kg			Analysis Date: 11/3/2014 10:10 AM			
Client ID:				Run ID: VMS6_141103A				SeqNo:3015600			Prep Date: 11/3/2014		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	970.5	0	1000	0	97	70-130		0						
Surr: 4-Bromofluorobenzene	994	0	1000	0	99.4	70-130		0						
Surr: Dibromofluoromethane	957	0	1000	0	95.7	70-130		0						
Surr: Toluene-d8	999	0	1000	0	99.9	70-130		0						

LCS				Sample ID: LCS-64582-64582			Units: µg/Kg		Analysis Date: 11/3/2014 08:52 AM		
Client ID:		Run ID: VMS6_141103A			SeqNo:3015599		Prep Date: 11/3/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1078	30	1000	0	108	75-125	0				
Ethylbenzene	1057	30	1000	0	106	75-125	0				
m,p-Xylene	2054	60	2000	0	103	80-125	0				
o-Xylene	1006	30	1000	0	101	75-125	0				
Toluene	1028	30	1000	0	103	70-125	0				
Xylenes, Total	3061	90	3000	0	102	75-125	0				
Surr: 1,2-Dichloroethane-d4	1016	0	1000	0	102	70-130	0				
Surr: 4-Bromofluorobenzene	977	0	1000	0	97.7	70-130	0				
Surr: Dibromofluoromethane	1023	0	1000	0	102	70-130	0				
Surr: Toluene-d8	996.5	0	1000	0	99.6	70-130	0				

MS				Sample ID: 14101834-02B MS				Units: µg/Kg		Analysis Date: 11/6/2014 12:00 PM	
Client ID:			Run ID: VMS6_141105A			SeqNo:3020227		Prep Date: 11/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1112	30	1000	89	102	75-125	0				
Ethylbenzene	513.5	30	1000	9	50.4	75-125	0			S	
m,p-Xylene	779.5	60	2000	17.5	38.1	80-125	0			S	
o-Xylene	380	30	1000	0	38	75-125	0			S	
Toluene	741.5	30	1000	13.5	72.8	70-125	0				
Surr: 1,2-Dichloroethane-d4	991	0	1000	0	99.1	70-130	0				
Surr: 4-Bromofluorobenzene	952	0	1000	0	95.2	70-130	0				
Surr: Dibromofluoromethane	1027	0	1000	0	103	70-130	0				
Surr: Toluene-d8	996	0	1000	0	99.6	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64582** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: 14101834-02B MSD				Units: µg/Kg		Analysis Date: 11/6/2014 12:25 PM	
Client ID:			Run ID: VMS6_141105A			SeqNo: 3020228		Prep Date: 11/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1073	30	1000	89	98.4	75-125	1112	3.61	30		
Ethylbenzene	488	30	1000	9	47.9	75-125	513.5	5.09	30	S	
m,p-Xylene	725.5	60	2000	17.5	35.4	80-125	779.5	7.18	30	S	
o-Xylene	360.5	30	1000	0	36	75-125	380	5.27	30	S	
Toluene	699	30	1000	13.5	68.6	70-125	741.5	5.9	30	S	
Surr: 1,2-Dichloroethane-d4	983	0	1000	0	98.3	70-130	991	0.811	30		
Surr: 4-Bromofluorobenzene	928	0	1000	0	92.8	70-130	952	2.55	30		
Surr: Dibromofluoromethane	986	0	1000	0	98.6	70-130	1027	4.07	30		
Surr: Toluene-d8	996.5	0	1000	0	99.6	70-130	996	0.0502	30		

The following samples were analyzed in this batch:

14101822-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64548** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-64548-64548				Units: s.u.		Analysis Date: 10/31/2014 02:30 PM			
Client ID:		Run ID: WETCHEM_141031I				SeqNo: 3011817		Prep Date: 10/31/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	3.95	0	4	0	98.8	90-110	0				

DUP		Sample ID: 14101769-01B DUP					Units: s.u.		Analysis Date: 10/31/2014 02:30 PM		
Client ID:		Run ID: WETCHEM_141031I			SeqNo: 3011820		Prep Date: 10/31/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.54	0	0	0	0	0-0	8.67	1.51	20		

The following samples were analyzed in this batch:

14101822-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64562** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14101822-01C DUP				Units: mmhos/cm @25°C		Analysis Date: 11/3/2014 02:00 PM		
Client ID: Confirmation		Run ID: WETCHEM_141103C				SeqNo: 3014038		Prep Date: 11/3/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	12.23	0.050	0	0	0		13.83	12.3	50	

The following samples were analyzed in this batch:

14101822-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **64672** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-64672-64672				Units: mg/Kg		Analysis Date: 11/4/2014 03:30 PM		
Client ID:		Run ID: WETCHEM_141104F				SeqNo: 3017175		Prep Date: 11/3/2014		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-64672-64672				Units: mg/Kg		Analysis Date: 11/4/2014 03:30 PM		
Client ID:		Run ID: WETCHEM_141104F				SeqNo: 3017174		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.772 0.50 2 0 88.6 80-120 0

MS		Sample ID: 14101822-01B MS				Units: mg/Kg		Analysis Date: 11/4/2014 03:30 PM		
Client ID: Confirmation		Run ID: WETCHEM_141104F				SeqNo: 3017170		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.3098 0.49 1.961 0.2151 4.83 75-125 0 JS

MS		Sample ID: 14101822-01B MSI				Units: mg/Kg		Analysis Date: 11/4/2014 03:30 PM		
Client ID: Confirmation		Run ID: WETCHEM_141104F				SeqNo: 3017172		Prep Date: 11/3/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 604 50 689.6 0.2151 87.6 75-125 0

MSD		Sample ID: 14101822-01B MSD				Units: mg/Kg		Analysis Date: 11/4/2014 03:30 PM		
Client ID: Confirmation		Run ID: WETCHEM_141104F				SeqNo: 3017171		Prep Date: 11/3/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4078 0.49 1.961 0.2151 9.83 75-125 0.3098 0 20 JS

The following samples were analyzed in this batch:

14101822-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101822
Project: WPX PA 13-32 Confirmation 10.30.14

QC BATCH REPORT

Batch ID: **R151775** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R151775				Units: % of sample		Analysis Date: 11/3/2014 10:00 AM		
Client ID:		Run ID: MOIST_141103A				SeqNo: 3016985		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-R151775				Units: % of sample		Analysis Date: 11/3/2014 10:00 AM		
Client ID:		Run ID: MOIST_141103A				SeqNo: 3016984		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: 14101871-01A DUP				Units: % of sample		Analysis Date: 11/3/2014 10:00 AM		
Client ID:		Run ID: MOIST_141103A				SeqNo: 3016975		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.46 0.050 0 0 0 0-0 19.81 1.78 20

DUP		Sample ID: 1411021-01B DUP				Units: % of sample		Analysis Date: 11/3/2014 10:00 AM		
Client ID:		Run ID: MOIST_141103A				SeqNo: 3016979		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 12.26 0.050 0 0 0 0-0 12.46 1.62 20

The following samples were analyzed in this batch:

14101822-01B

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

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **31-Oct-14 10:00**

Work Order: **14101822**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	31-Oct-14	Reviewed by: <u>Ann Preston</u>	02-Nov-14
eSignature	Date	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):	<u>4.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>10/31/2014 12:43:13 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



18-Mar-2015

Karolina Blaney
WPX Energy Rocky Mountain, LLC
1058 Country Rd 215
Parachute, CO 81635

Re: **PA 13-32 Confirmation**

Work Order: **1503897**

Dear Karolina,

ALS Environmental received 1 sample on 17-Mar-2015 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 10.

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

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
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 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: WPX Energy Rocky Mountain, LLC
Project: PA 13-32 Confirmation
Work Order: 1503897

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>
1503897-01	PA 13-32	Soil		3/16/2015 09:30	3/17/2015 09:30	<input type="checkbox"/>

Client: WPX Energy Rocky Mountain, LLC
Project: PA 13-32 Confirmation
WorkOrder: 1503897

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
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

<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:** 18-Mar-15**Client:** WPX Energy Rocky Mountain, LLC**Project:** PA 13-32 Confirmation**Work Order:** 1503897**Sample ID:** PA 13-32**Lab ID:** 1503897-01**Collection Date:** 3/16/2015 09:30 AM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	24		SW8015M		Prep: SW3541 / 3/17/15	Analyst: IT
			4.6	mg/Kg-dry	1	3/18/2015 05:43 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>67.4</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	3/18/2015 05:43 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015D		Prep: SW5035 / 3/17/15	Analyst: IT
			2.8	mg/Kg-dry	1	3/17/2015 07:21 PM
<i>Surr: Toluene-d8</i>	<i>114</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	3/17/2015 07:21 PM
MOISTURE						
Moisture	11		E160.3M			Analyst: EVB
			0.050	% of sample	1	3/17/2015 04:33 PM

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

ALS Group USA, Corp

Date: 18-Mar-15

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503897
Project: PA 13-32 Confirmation

QC BATCH REPORT

Batch ID: **68695** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-68695-68695				Units: mg/Kg		Analysis Date: 3/17/2015 05:16 PM		
Client ID:		Run ID: GC8_150317A				SeqNo: 3182895		Prep Date: 3/17/2015		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>	1.328	0	2	0	66.4	39-133	0			

LCS		Sample ID: DLCSS1-68695-68695				Units: mg/Kg		Analysis Date: 3/17/2015 05:46 PM		
Client ID:		Run ID: GC8_150317A				SeqNo: 3182896		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	164.7	5.0	200	0	82.3	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	1.122	0	2	0	56.1	39-133	0			

MS		Sample ID: 1503762-06B MS				Units: mg/Kg		Analysis Date: 3/17/2015 06:46 PM		
Client ID:		Run ID: GC8_150317A				SeqNo: 3182897		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	298.3	8.1	325.7	45.17	77.7	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	2.013	0	3.257	0	61.8	39-133	0			

MSD		Sample ID: 1503762-06B MSD				Units: mg/Kg		Analysis Date: 3/17/2015 07:16 PM		
Client ID:		Run ID: GC8_150317A				SeqNo: 3182898		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	291.2	7.9	318	45.17	77.4	48-110	298.3	2.39	30	
<i>Surr: 4-Terphenyl-d14</i>	1.921	0	3.18	0	60.4	39-133	2.013	4.7	30	

The following samples were analyzed in this batch: 1503897-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503897
Project: PA 13-32 Confirmation

QC BATCH REPORT

Batch ID: **68714** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-68714-68714				Units: µg/Kg		Analysis Date: 3/17/2015 05:17 PM		
Client ID:		Run ID: GC9_150317A				SeqNo: 3182913		Prep Date: 3/17/2015		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	4896	0	5000	0	97.9	50-150	0			

LCS		Sample ID: LCS-68714-68714				Units: µg/Kg		Analysis Date: 3/17/2015 04:54 PM		
Client ID:		Run ID: GC9_150317A				SeqNo: 3182912		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493800	2,500	500000	0	98.8	70-130	0			
Surr: Toluene-d8	4812	0	5000	0	96.2	50-150	0			

MS		Sample ID: 1503878-01B MS				Units: µg/Kg		Analysis Date: 3/17/2015 08:11 PM		
Client ID:		Run ID: GC9_150317A				SeqNo: 3182920		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	457400	2,500	500000	0	91.5	70-130	0			
Surr: Toluene-d8	4528	0	5000	0	90.6	50-150	0			

MSD		Sample ID: 1503878-01B MSD				Units: µg/Kg		Analysis Date: 3/17/2015 08:36 PM		
Client ID:		Run ID: GC9_150317A				SeqNo: 3182921		Prep Date: 3/17/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	444400	2,500	500000	0	88.9	70-130	457400	2.88	30	
Surr: Toluene-d8	4934	0	5000	0	98.7	50-150	4528	8.57	30	

The following samples were analyzed in this batch:

1503897-01A

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

Client: WPX Energy Rocky Mountain, LLC
Work Order: 1503897
Project: PA 13-32 Confirmation

QC BATCH REPORT

Batch ID: **R159368** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R159368					Units: % of sample		Analysis Date: 3/17/2015 04:33 PM		
Client ID:			Run ID: MOIST_150317A			SeqNo: 3182763		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-R159368				Units: % of sample		Analysis Date: 3/17/2015 04:33 PM		
Client ID:		Run ID: MOIST_150317A			SeqNo: 3182762		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: 1503800-01B DUP				Units: % of sample			Analysis Date: 3/17/2015 04:33 PM			
Client ID:				Run ID: MOIST_150317A				SeqNo: 3182733			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 15.72 0.050 0 0 0 16.89 7.18 20

DUP				Sample ID: 1503807-05A DUP				Units: % of sample			Analysis Date: 3/17/2015 04:33 PM			
Client ID:				Run ID: MOIST_150317A				SeqNo: 3182740			Prep Date:		DF: 1	
Analyte		Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

Moisture 6.81 0.050 0 0 0 6.61 2.98 20

The following samples were analyzed in this batch:

1503897-01A

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



ALS Laboratory Group

HOLLAND, Michigan 49424

Chain-of-Custody

Form 202r6

WORKORDER #

1503897

PAGE

1 of 1

PROJECT NAME	PA 13-32 Confirmation	SAMPLER							DATE							TURNAROUND	24 hrs						DISPOSAL	By Lab or Return to Client									
PROJECT No.		EDD FORMAT							DRO + GRO																								
		PURCHASE ORDER																															
COMPANY NAME	WPX Energy	BILL TO COMPANY	WPX Energy																														
SEND REPORT TO	Blaney	INVOICE ATTN TO	Karolina Blaney, Leo Braun																														
ADDRESS		ADDRESS	1058 Co Rd 215																														
CITY / STATE / ZIP		CITY / STATE / ZIP	Parachute CO 81635																														
PHONE		PHONE	970-683-2295																														
FAX		FAX																															
E-MAIL	Karolina.blaney@wpxenergy.com	E-MAIL	Karolina.blaney@wpxenergy.com; leo.braun@wpxenergy.com																														
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC																										
1	PA 13-32	S	3/16/2015	9:30	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:	<p>4.2.2 @</p>
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	Karolina Blaney	karolina blaney	3/16/2015	16:00
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	3-16	16:00
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	3-16	16:00
RECEIVED BY	Diane F. Ste	Diane F. Ste	3/17/15	0930
RELINQUISHED BY				
RECEIVED BY				

From: (818) 298-1033
 Nick Martinez
 ALS Environmental
 127 E. 1st Street

Origin ID: RILA



PARACHUTE, CO 81835

SHIP TO: (616) 399-6870
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

HOLLAND, MI 49424

Ship Date: 16MAR15
 ActWgt: 50.0 LB
 CAD: 2264846/NET3610

Delivery Address Bar Code



Raf # 031815-1
 Invoice #
 PO # Parachute
 Dept #

1 of 2

TUE - 17 MAR 10:30A
 PRIORITY OVERNIGHT

TRK# 7731 4002 6983

0281

MASTER

49424

MI-US

GRR

XX HLMA



53711679AEE48

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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ALS Parachute Custody Seal

Time 1700

Date 3-16

Name [Signature]

Sample Receipt Checklist

Client Name: **WPX**

Date/Time Received: **17-Mar-15 09:30**

Work Order: **1503897**

Received by: **DS**

Checklist completed by Diane Shaw 17-Mar-15
eSignature Date

Reviewed by: Chad Whelton 17-Mar-15
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):	<u>4.2 c</u> <u>SR2</u>		
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>3/17/2015 10:29:04 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



05-Nov-2014

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

Re: **WPX PA 13-32 Backgrounds 10.30.14**

Work Order: **14101823**

Dear Mark,

ALS Environmental received 3 samples on 31-Oct-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 10.

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 

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Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Backgrounds 10.30.14
Work Order: 14101823

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>
14101823-01	PA 13-32-BK-1	Soil		10/30/2014 11:35	10/31/2014 10:00	<input type="checkbox"/>
14101823-02	PA 13-32-BK-2	Soil		10/30/2014 11:38	10/31/2014 10:00	<input type="checkbox"/>
14101823-03	PA 13-32-BK-3	Soil		10/30/2014 11:43	10/31/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Backgrounds 10.30.14
WorkOrder: 14101823

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: 05-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Backgrounds 10.30.14
Sample ID: PA 13-32-BK-1
Collection Date: 10/30/2014 11:35 AM

Work Order: 14101823
Lab ID: 14101823-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	10		SW846 6010C 0.37	mg/Kg-dry	1	Prep: SW3050B / 10/31/14 Analyst: JEC 10/31/2014 06:45 PM
MOISTURE						
Moisture	4.6		A2540 G 0.050	% of sample	1	Analyst: EVB 10/31/2014 03:45 PM

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

ALS Group USA, Corp

Date: 05-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Backgrounds 10.30.14
Sample ID: PA 13-32-BK-2
Collection Date: 10/30/2014 11:38 AM

Work Order: 14101823
Lab ID: 14101823-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 10/31/14	Analyst: JEC
Arsenic	9.5		0.35	mg/Kg-dry	1	10/31/2014 06:50 PM
MOISTURE			A2540 G			Analyst: EVB
Moisture	6.1		0.050	% of sample	1	10/31/2014 03:45 PM

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

ALS Group USA, Corp

Date: 05-Nov-14

Client: HRL Compliance Solutions, Inc
Project: WPX PA 13-32 Backgrounds 10.30.14
Sample ID: PA 13-32-BK-3
Collection Date: 10/30/2014 11:43 AM

Work Order: 14101823
Lab ID: 14101823-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	8.1		SW846 6010C 0.40	mg/Kg-dry	1	Prep: SW3050B / 10/31/14 Analyst: JEC 10/31/2014 07:18 PM
MOISTURE						
Moisture	6.0		A2540 G 0.050	% of sample	1	Analyst: EVB 10/31/2014 03:45 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14101823
Project: WPX PA 13-32 Backgrounds 10.30.14

QC BATCH REPORT

Batch ID: 64547 Instrument ID ICP2 Method: SW846 6010C

MBLK		Sample ID: MBLK-64547-64547				Units:mg/Kg		Analysis Date: 10/31/2014 05:59 PM		
Client ID:		Run ID: ICP2_141031B				SeqNo:3013182		Prep Date: 10/31/2014		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-64547-64547				Units:mg/Kg		Analysis Date: 10/31/2014 06:04 PM		
Client ID:		Run ID: ICP2_141031B				SeqNo:3013183		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.698	0.25	5	0	94	80-120	0			

MS		Sample ID: 14101823-03AMS				Units:mg/Kg		Analysis Date: 10/31/2014 07:24 PM		
Client ID: PA 13-32-BK-3		Run ID: ICP2_141031B				SeqNo:3013197		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.46	0.38	7.508	7.58	105	75-125	0			

MSD		Sample ID: 14101823-03AMSD				Units:mg/Kg		Analysis Date: 10/31/2014 07:29 PM		
Client ID: PA 13-32-BK-3		Run ID: ICP2_141031B				SeqNo:3013198		Prep Date: 10/31/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	14.57	0.37	7.496	7.58	93.2	75-125	15.46	5.94	20	

The following samples were analyzed in this batch:

14101823-01A	14101823-02A	14101823-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 14101823
Project: WPX PA 13-32 Backgrounds 10.30.14

QC BATCH REPORT

Batch ID: **R151634** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R151634				Units: % of sample		Analysis Date: 10/31/2014 03:45 PM		
Client ID:		Run ID: MOIST_141031C				SeqNo: 3013684		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-R151634				Units: % of sample		Analysis Date: 10/31/2014 03:45 PM		
Client ID:		Run ID: MOIST_141031C				SeqNo: 3013683		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: 14101540-01B DUP				Units: % of sample		Analysis Date: 10/31/2014 03:45 PM		
Client ID:		Run ID: MOIST_141031C				SeqNo: 3013662		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.77 0.050 0 0 0 0-0 14.98 8.42 20

DUP		Sample ID: 14101767-01B DUP				Units: % of sample		Analysis Date: 10/31/2014 03:45 PM		
Client ID:		Run ID: MOIST_141031C				SeqNo: 3013670		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.95 0.050 0 0 0 0-0 15.49 2.93 20

The following samples were analyzed in this batch:

14101823-01A	14101823-02A	14101823-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **31-Oct-14 10:00**

Work Order: **14101823**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	31-Oct-14	Reviewed by: <u>Ann Preston</u>	02-Nov-14
eSignature	Date	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):	<u>4.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>10/31/2014 12:45:17 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: