

## WPX ENERGY Sample Location Map: RG 12-14-298

39.880624 -108.366894  
Section 14, Township 2 South, Range 98 West

<ul style="list-style-type: none"> <li>Sample Location</li> <li>Impacted Area</li> </ul>	<ul style="list-style-type: none"> <li>CO Highways</li> <li>County Roads</li> <li>Local Streets</li> <li>WPX Access</li> </ul>	<ul style="list-style-type: none"> <li>Ditch</li> <li>Intermittent Stream</li> <li>Perennial Stream</li> <li>Waterbody</li> <li>Watershed</li> </ul>
<b>PLSS</b> <ul style="list-style-type: none"> <li>Township</li> <li>Section</li> </ul>		



H&L COMPLIANCE SOLUTIONS, INC.  
ENVIRONMENTAL CONSULTANTS



Author: B. Hall
Revision: 3
Date: 12/10/2014



# Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	Off Location	SS-01	SS-01	SS-02	SS-02	SS-03	SS-03
		Date Sampled	8/11/2014	9/5/2014	11/7/2014	9/5/2014	11/7/2014	9/5/2014	11/7/2014
Organic Compounds in Soil									
TPH	500	mg/kg	42	2,000	360	800	360	1,300	300
DRO		mg/kg	42	2,000	360	800	360	1,300	300
GRO		mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzene	0.17	mg/kg	ND	ND		ND		ND	
Toluene	85	mg/kg	ND	ND		ND		ND	
Ethylbenzene	100	mg/kg	ND	ND		ND		ND	
Xylenes (Total)	175	mg/kg	ND	ND		ND		ND	
Acenaphthene	1,000	mg/kg	ND	ND		ND		ND	
Anthracene	1,000	mg/kg	ND	ND		ND		ND	
Benzo(A)anthracene	0.22	mg/kg	ND	ND		ND		ND	
Benzo(B)fluoranthene	0.22	mg/kg	ND	ND		ND		ND	
Benzo(K)fluoranthene	2.2	mg/kg	ND	ND		ND		ND	
Benzo(A)pyrene	0.022	mg/kg	ND	ND		ND		ND	
Chrysene	22	mg/kg	ND	ND		ND		ND	
Dibenzo(A,H)anthracene	0.022	mg/kg	ND	ND		ND		ND	
Fluoranthene	1,000	mg/kg	ND	ND		ND		ND	
Fluorene	1,000	mg/kg	ND	ND		ND		ND	
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND	ND		ND		ND	
Naphthalene	23	mg/kg	ND	ND		ND		ND	
Pyrene	1,000	mg/kg	ND	ND		ND		ND	
Inorganics in Soil									
EC	<4 or 2 x background	mmhos/cm	8.4	3.8		2.8		8	
SAR	<12		24	26		18		36	
pH	6-9		8.8	9.3		9.2		8.9	
Metals in Soil									
Arsenic	0.39	mg/kg	3.5	3.5		4		4.7	
Barium total	15,000	mg/kg	320	1500		1300		1900	
Cadmium	70	mg/kg	ND	ND		ND		ND	
Chromium (III)	120,000	mg/kg	29	17		16		19	
Chromium (VI)	23	mg/kg	ND	ND		ND		ND	
Copper	3,100	mg/kg	13	18		29		50	
Lead	400	mg/kg	16	6.6		6.8		7.4	
Mercury	23	mg/kg	ND	ND		ND		ND	
Nickel	1,600	mg/kg	16	21		21		21	
Selenium	390	mg/kg	2.8	ND		ND		ND	
Silver	390	mg/kg	ND	ND		ND		ND	
Zinc	23,000	mg/kg	50	43		47		46	

# Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	RG 12-14-298-B-1	RG 12-14-298-B-2	RG 12-14-298-B-3	RG 12-14-298-B-4
		Date Sampled	9/5/2014	9/5/2014	9/5/2014	9/5/2014
Organic Compounds in Soil						
TPH	500	mg/kg				
DRO		mg/kg				
GRO		mg/kg				
Benzene	0.17	mg/kg				
Toluene	85	mg/kg				
Ethylbenzene	100	mg/kg				
Xylenes (Total)	175	mg/kg				
Acenaphthene	1,000	mg/kg				
Anthracene	1,000	mg/kg				
Benzo(A)anthracene	0.22	mg/kg				
Benzo(B)fluoranthene	0.22	mg/kg				
Benzo(K)fluoranthene	2.2	mg/kg				
Benzo(A)pyrene	0.022	mg/kg				
Chrysene	22	mg/kg				
Dibenzo(A,H)anthracene	0.022	mg/kg				
Fluoranthene	1,000	mg/kg				
Fluorene	1,000	mg/kg				
Indeno(1,2,3-cd)pyrene	0.22	mg/kg				
Naphthalene	23	mg/kg				
Pyrene	1,000	mg/kg				
Inorganics in Soil						
EC	<4 or 2 x background	mmhos/cm				0.65
SAR	<12					0.72
pH	6-9					8.3
Metals in Soil						
Arsenic	0.39	mg/kg	4.4	6.1	3.5	4.5
Barium total	15,000	mg/kg				
Cadmium	70	mg/kg				
Chromium (III)	120,000	mg/kg				
Chromium (VI)	23	mg/kg				
Copper	3,100	mg/kg				
Lead	400	mg/kg				
Mercury	23	mg/kg				
Nickel	1,600	mg/kg				
Selenium	390	mg/kg				
Silver	390	mg/kg				
Zinc	23,000	mg/kg				



19-Aug-2014

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

Re: **WPX RG 12-14-298 Release 8.11.14**

Work Order: **1408600**

Dear Mark,

ALS Environmental received 1 sample on 13-Aug-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 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](http://www.alsglobal.com)

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Release 8.11.14  
**Work Order:** 1408600

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**Work Order Sample Summary**

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<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>
1408600-01	OFF Location	Soil		8/11/2014 12:45	8/13/2014 09:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Release 8.11.14  
**Work Order:** 1408600

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**Case Narrative**

Batch 61647 sample OFF Location MS/MSD recoveries for Barium were above control limits, however, the result in the parent sample was greater than 4x the spiked amount. No qualification is required for Barium.

Batch 61699 sample OFF Location MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low for Hexavalent Chromium.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

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

# ALS Group USA, Corp

Date: 19-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Release 8.11.14  
**Sample ID:** OFF Location  
**Collection Date:** 8/11/2014 12:45 PM

**Work Order:** 1408600  
**Lab ID:** 1408600-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>42</b>		<b>SW8015M</b>		Prep: SW3541 / 8/14/14	Analyst: <b>IT</b>
Surr: 4-Terphenyl-d14	58.2		5.0	mg/Kg-dry	1	8/14/2014 07:08 PM
			39-133	%REC	1	8/14/2014 07:08 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 8/13/14	Analyst: <b>IT</b>
Surr: Toluene-d8	107		3.0	mg/Kg-dry	1	8/14/2014 11:22 AM
			50-150	%REC	1	8/14/2014 11:22 AM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep: SW7471 / 8/13/14	Analyst: <b>JEJ</b>
			0.018	mg/Kg-dry	1	8/14/2014 11:35 AM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>3.5</b>		<b>SW6020A</b>		Prep: SW3050B / 8/1/14	Analyst: <b>ML</b>
Barium	320		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Cadmium	ND		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Chromium	30		0.88	mg/Kg-dry	5	8/14/2014 01:06 PM
Copper	13		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Lead	16		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Nickel	16		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Selenium	2.8		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Silver	ND		2.2	mg/Kg-dry	5	8/14/2014 01:06 PM
Zinc	50		4.4	mg/Kg-dry	5	8/14/2014 01:06 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 8/15/14	Analyst: <b>RH</b>
Calcium	160		10	mg/L	20	8/15/2014 02:38 PM
Magnesium	43		4.0	mg/L	20	8/15/2014 02:38 PM
Sodium	1,300		4.0	mg/L	20	8/15/2014 02:38 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 8/15/14	Analyst: <b>RH</b>
Sodium Adsorption Ratio	24		0.010	none	1	8/15/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 8/14/14	Analyst: <b>RM</b>
Acenaphthene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Acenaphthylene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Anthracene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Benzo(a)anthracene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Benzo(a)pyrene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Benzo(b)fluoranthene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Benzo(g,h,i)perylene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Benzo(k)fluoranthene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Chrysene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM

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



# ALS Group USA, Corp

Date: 19-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Release 8.11.14  
**Sample ID:** OFF Location  
**Collection Date:** 8/11/2014 12:45 PM

**Work Order:** 1408600  
**Lab ID:** 1408600-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Fluoranthene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Fluorene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Indeno(1,2,3-cd)pyrene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Naphthalene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Pyrene	ND		8.0	µg/Kg-dry	1	8/15/2014 01:27 PM
Surr: 2-Fluorobiphenyl	67.9		12-100	%REC	1	8/15/2014 01:27 PM
Surr: 4-Terphenyl-d14	94.2		25-137	%REC	1	8/15/2014 01:27 PM
Surr: Nitrobenzene-d5	66.3		37-107	%REC	1	8/15/2014 01:27 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 8/13/14		Analyst: RS
Benzene	ND		36	µg/Kg-dry	1	8/13/2014 09:33 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	8/13/2014 09:33 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	8/13/2014 09:33 PM
o-Xylene	ND		36	µg/Kg-dry	1	8/13/2014 09:33 PM
Toluene	ND		36	µg/Kg-dry	1	8/13/2014 09:33 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	8/13/2014 09:33 PM
Surr: 1,2-Dichloroethane-d4	109		70-130	%REC	1	8/13/2014 09:33 PM
Surr: 4-Bromofluorobenzene	90.0		70-130	%REC	1	8/13/2014 09:33 PM
Surr: Dibromofluoromethane	108		70-130	%REC	1	8/13/2014 09:33 PM
Surr: Toluene-d8	96.8		70-130	%REC	1	8/13/2014 09:33 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHOD	Prep: USDA Method 20B / 8/15/14		Analyst: JB
Electrical Conductivity @ Saturation	8.4		0.050	mmhos/cm @25	10	8/15/2014 02:45 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: EE
Chromium, Trivalent	29		0.59	mg/Kg-dry	1	8/15/2014 04:45 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 8/14/14		Analyst: EE
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	8/15/2014 03:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	8/13/2014 04:12 PM
PH			SW9045D	Prep: EXTRACT / 8/14/14		Analyst: TM
pH	8.8			s.u.	1	8/14/2014 03:34 PM

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

# ALS Group USA, Corp

Date: 19-Aug-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61670** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-61670-61670</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 05:08 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890555</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.271	0	1.667	0	76.3	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-61670-61670</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 05:38 PM</b>		
Client ID:		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890556</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	130.5	4.2	166.7	0	78.3	61-109	0			
Surr: 4-Terphenyl-d14	1.202	0	1.667	0	72.1	39-133	0			

<b>MS</b>		Sample ID: <b>1408600-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 06:08 PM</b>		
Client ID: <b>OFF Location</b>		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890557</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	248.4	8.0	320.9	35.34	66.4	48-110	0			
Surr: 4-Terphenyl-d14	2.094	0	3.209	0	65.2	39-133	0			

<b>MSD</b>		Sample ID: <b>1408600-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 06:38 PM</b>		
Client ID: <b>OFF Location</b>		Run ID: <b>GC8_140814A</b>				SeqNo: <b>2890558</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	272.9	8.3	330.3	35.34	71.9	48-110	248.4	9.39	30	
Surr: 4-Terphenyl-d14	2.29	0	3.303	0	69.3	39-133	2.094	8.95	30	

The following samples were analyzed in this batch: | 1408600-01B |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61646**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-61646-61646</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 10:32 AM</b>		
Client ID:		Run ID: <b>GC9_140814A</b>				SeqNo: <b>2889776</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
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>	4630	0	5000	0	92.6	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-61646-61646</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 10:06 AM</b>		
Client ID:		Run ID: <b>GC9_140814A</b>				SeqNo: <b>2889775</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	482700	2,500	500000	0	96.5	70-130	0			
<i>Surr: Toluene-d8</i>	4324	0	5000	0	86.5	50-150	0			

<b>MS</b>		Sample ID: <b>1408593-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 11:47 AM</b>		
Client ID:		Run ID: <b>GC9_140814A</b>				SeqNo: <b>2889779</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	507100	2,500	500000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	4354	0	5000	0	87.1	50-150	0			

<b>MSD</b>		Sample ID: <b>1408593-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/14/2014 12:13 PM</b>		
Client ID:		Run ID: <b>GC9_140814A</b>				SeqNo: <b>2889780</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	512000	2,500	500000	0	102	70-130	507100	0.955	30	
<i>Surr: Toluene-d8</i>	4346	0	5000	0	86.9	50-150	4354	0.161	30	

The following samples were analyzed in this batch:

1408600-01A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61641**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-61641-61641</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/14/2014 10:56 AM</b>		
Client ID:		Run ID: <b>HG1_140814A</b>				SeqNo: <b>2889174</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00225	0.020								J

<b>LCS</b>		Sample ID: <b>LCS-61641-61641</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/14/2014 10:58 AM</b>		
Client ID:		Run ID: <b>HG1_140814A</b>				SeqNo: <b>2889175</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1847	0.020	0.1665		0	111	80-120	0		

<b>MS</b>		Sample ID: <b>1408599-09AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 11:31 AM</b>		
Client ID:		Run ID: <b>HG1_140814A</b>				SeqNo: <b>2889189</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1183	0.012	0.1041	0.003882	110	75-125		0		

<b>MSD</b>		Sample ID: <b>1408599-09AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 11:33 AM</b>		
Client ID:		Run ID: <b>HG1_140814A</b>				SeqNo: <b>2889190</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1171	0.012	0.1041	0.003882	109	75-125	0.1183	1.02	35	

The following samples were analyzed in this batch:

1408600-01B

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61644**      Instrument ID **ICPMS2**      Method: **SW6020A**

DUP				Sample ID: <b>1408600-01C DUP</b>			Units: <b>mg/L</b>		Analysis Date: <b>8/15/2014 02:44 PM</b>	
Client ID: <b>OFF Location</b>				Run ID: <b>ICPMS2_140815A</b>			SeqNo: <b>2892226</b>		Prep Date: <b>8/15/2014</b>	
									DF: <b>20</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	181.7	10	0	0	0	0-0	164.4	10		
Magnesium	47.78	4.0	0	0	0	0-0	42.88	10.8		
Sodium	1436	4.0	0	0	0	0-0	1310	9.18		

DUP				Sample ID: <b>1408600-01C DUP</b>			Units: <b>none</b>		Analysis Date: <b>8/15/2014</b>	
Client ID: <b>OFF Location</b>				Run ID: <b>SAR_140815A</b>			SeqNo: <b>2892428</b>		Prep Date: <b>8/15/2014</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	24.5	0.010	0	0	0		23.52	4.05	50	

The following samples were analyzed in this batch: | 1408600-01C |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61647**      Instrument ID **ICPMS1**      Method: **SW6020A**

Sample ID: MBLK-61647-61647				Units:mg/Kg			Analysis Date: 8/14/2014 12:48 PM			
Client ID:		Run ID: ICPMS1_140814A			SeqNo:2889381		Prep Date: 8/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04098	0.25								J
Barium	ND	0.25								
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	0.05715	0.50								J

LCS				Sample ID: LCS-61647-61647				Units:mg/Kg			Analysis Date: 8/14/2014 12:54 PM			
Client ID:				Run ID: ICPMS1_140814A				SeqNo:2889382			Prep Date: 8/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.872	0.25	5	0	97.4	80-120	0							
Barium	4.766	0.25	5	0	95.3	80-120	0							
Cadmium	4.728	0.10	5	0	94.6	80-120	0							
Chromium	5.14	0.25	5	0	103	80-120	0							
Copper	4.92	0.25	5	0	98.4	80-120	0							
Lead	4.664	0.25	5	0	93.3	80-120	0							
Nickel	5.105	0.25	5	0	102	80-120	0							
Selenium	4.677	0.25	5	0	93.5	80-120	0							
Silver	4.832	0.25	5	0	96.6	80-120	0							
Zinc	4.884	0.50	5	0	97.7	80-120	0							

MS					Sample ID: 1408600-01BMS		Units:mg/Kg		Analysis Date: 8/14/2014 01:12 PM		
Client ID: OFF Location			Run ID: ICPMS1_140814A			SeqNo:2889385		Prep Date: 8/1/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.03	1.8	7.375	2.987	95.5	75-125	0				
Barium	319.7	1.8	7.375	265.9	729	75-125	0			SO	
Cadmium	7.507	0.74	7.375	0.214	98.9	75-125	0				
Chromium	32.5	1.8	7.375	25.18	99.3	75-125	0				
Copper	16.78	1.8	7.375	10.89	79.9	75-125	0				
Lead	19.42	1.8	7.375	13.13	85.4	75-125	0				
Nickel	21.95	1.8	7.375	13.7	112	75-125	0				
Selenium	8.824	1.8	7.375	2.353	87.7	75-125	0				
Silver	6.755	1.8	7.375	0.06688	90.7	75-125	0				
Zinc	49.71	3.7	7.375	42.21	102	75-125	0			O	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61647**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD				Sample ID: <b>1408600-01BMSD</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>8/14/2014 01:18 PM</b>	
Client ID: <b>OFF Location</b>				Run ID: <b>ICPMS1_140814A</b>			SeqNo: <b>2889386</b>		Prep Date: <b>8/1/2014</b>	
							DF: <b>5</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.72	1.9	7.418	2.987	104	75-125	10.03	6.65	25	
Barium	277	1.9	7.418	265.9	150	75-125	319.7	14.3	25	SO
Cadmium	7.726	0.74	7.418	0.214	101	75-125	7.507	2.87	25	
Chromium	33.51	1.9	7.418	25.18	112	75-125	32.5	3.05	25	
Copper	16.71	1.9	7.418	10.89	78.5	75-125	16.78	0.402	25	
Lead	19.82	1.9	7.418	13.13	90.3	75-125	19.42	2.02	25	
Nickel	21.36	1.9	7.418	13.7	103	75-125	21.95	2.7	25	
Selenium	9.251	1.9	7.418	2.353	93	75-125	8.824	4.72	25	
Silver	6.947	1.9	7.418	0.06688	92.7	75-125	6.755	2.8	25	
Zinc	49.07	3.7	7.418	42.21	92.5	75-125	49.71	1.28	25	O

The following samples were analyzed in this batch:      1408600-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61669**      Instrument ID **SVMS8**      Method: **SW846 8270D**

MBLK		Sample ID: <b>SBLKS1-61669-61669</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 10:20 AM</b>		
Client ID:		Run ID: <b>SVMS8_140815A</b>				SeqNo: <b>2894431</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
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>	1171	0	1667	0	70.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1685	0	1667	0	101	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1108	0	1667	0	66.5	37-107	0			

LCS		Sample ID: <b>SLCSS1-61669-61669</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 09:47 AM</b>		
Client ID:		Run ID: <b>SVMS8_140815A</b>				SeqNo: <b>2894430</b>		Prep Date: <b>8/14/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	480.3	6.7	666.7	0	72	45-110	0			
Acenaphthylene	493	6.7	666.7	0	73.9	45-105	0			
Anthracene	573	6.7	666.7	0	85.9	55-105	0			
Benzo(a)anthracene	544.3	6.7	666.7	0	81.6	50-110	0			
Benzo(a)pyrene	613.7	6.7	666.7	0	92	50-110	0			
Benzo(b)fluoranthene	649.7	6.7	666.7	0	97.4	45-115	0			
Benzo(g,h,i)perylene	534	6.7	666.7	0	80.1	40-125	0			
Benzo(k)fluoranthene	621.7	6.7	666.7	0	93.2	45-115	0			
Chrysene	579.7	6.7	666.7	0	86.9	55-110	0			
Dibenzo(a,h)anthracene	527.7	6.7	666.7	0	79.1	40-125	0			
Fluoranthene	567	6.7	666.7	0	85	55-115	0			
Fluorene	521.3	6.7	666.7	0	78.2	50-110	0			
Indeno(1,2,3-cd)pyrene	552.3	6.7	666.7	0	82.8	40-120	0			
Naphthalene	479	6.7	666.7	0	71.8	40-105	0			
Pyrene	690	6.7	666.7	0	103	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1204	0	1667	0	72.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1747	0	1667	0	105	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1241	0	1667	0	74.5	37-107	0			

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61669**      Instrument ID **SVMS8**      Method: **SW846 8270D**

MS				Sample ID: <b>1408600-01B MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 12:47 PM</b>	
Client ID: <b>OFF Location</b>				Run ID: <b>SVMS8_140815A</b>			SeqNo: <b>2894437</b>		Prep Date: <b>8/14/2014</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	914.5	13	1294	0	70.7	45-110	0			
Acenaphthylene	958.5	13	1294	0	74.1	45-105	0			
Anthracene	1129	13	1294	0	87.3	55-105	0			
Benzo(a)anthracene	1097	13	1294	0	84.8	50-110	0			
Benzo(a)pyrene	1231	13	1294	0	95.2	50-110	0			
Benzo(b)fluoranthene	1226	13	1294	0	94.7	45-115	0			
Benzo(g,h,i)perylene	1092	13	1294	0	84.4	40-125	0			
Benzo(k)fluoranthene	1142	13	1294	0	88.2	45-115	0			
Chrysene	1074	13	1294	0	83	55-110	0			
Dibenzo(a,h)anthracene	1114	13	1294	0	86.1	40-125	0			
Fluoranthene	1082	13	1294	0	83.6	55-115	0			
Fluorene	990.2	13	1294	0	76.5	50-110	0			
Indeno(1,2,3-cd)pyrene	1220	13	1294	0	94.3	40-120	0			
Naphthalene	889.3	13	1294	0	68.7	40-105	0			
Pyrene	1323	13	1294	0	102	45-125	0			
Surr: 2-Fluorobiphenyl	2348	0	3234	0	72.6	12-100	0			
Surr: 4-Terphenyl-d14	3200	0	3234	0	99	25-137	0			
Surr: Nitrobenzene-d5	2334	0	3234	0	72.2	37-107	0			

MSD				Sample ID: <b>1408600-01B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/15/2014 01:07 PM</b>	
Client ID: <b>OFF Location</b>				Run ID: <b>SVMS8_140815A</b>			SeqNo: <b>2894438</b>		Prep Date: <b>8/14/2014</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	981.7	13	1333	0	73.6	45-110	914.5	7.09	30	
Acenaphthylene	1032	13	1333	0	77.4	45-105	958.5	7.43	30	
Anthracene	1205	13	1333	0	90.4	55-105	1129	6.49	30	
Benzo(a)anthracene	1169	13	1333	0	87.7	50-110	1097	6.37	30	
Benzo(a)pyrene	1294	13	1333	0	97.1	50-110	1231	4.98	30	
Benzo(b)fluoranthene	1276	13	1333	0	95.7	45-115	1226	4	30	
Benzo(g,h,i)perylene	1162	13	1333	0	87.2	40-125	1092	6.21	30	
Benzo(k)fluoranthene	1220	13	1333	0	91.5	45-115	1142	6.68	30	
Chrysene	1141	13	1333	0	85.6	55-110	1074	6.03	30	
Dibenzo(a,h)anthracene	1189	13	1333	0	89.2	40-125	1114	6.48	30	
Fluoranthene	1142	13	1333	0	85.7	55-115	1082	5.43	30	
Fluorene	1089	13	1333	0	81.7	50-110	990.2	9.51	30	
Indeno(1,2,3-cd)pyrene	1304	13	1333	0	97.8	40-120	1220	6.65	30	
Naphthalene	975.7	13	1333	0	73.2	40-105	889.3	9.27	30	
Pyrene	1414	13	1333	0	106	45-125	1323	6.65	30	
Surr: 2-Fluorobiphenyl	2526	0	3333	0	75.8	12-100	2348	7.29	40	
Surr: 4-Terphenyl-d14	3466	0	3333	0	104	25-137	3200	7.99	40	
Surr: Nitrobenzene-d5	2587	0	3333	0	77.6	37-107	2334	10.3	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

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Batch ID: **61669** Instrument ID **SVMS8** Method: **SW846 8270D**

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The following samples were analyzed in this batch:

1408600-01B
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**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61635**      Instrument ID **VMS6**      Method: **SW8260B**

<b>MBLK</b>		Sample ID: <b>MBLK-61635-61635</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/13/2014 02:54 PM</b>		
Client ID:		Run ID: <b>VMS6_140813A</b>				SeqNo: <b>2888151</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
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>951</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95.1</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1032</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>942.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>94.2</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>941.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>94.2</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-61635-61635</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/13/2014 01:35 PM</b>		
Client ID:		Run ID: <b>VMS6_140813A</b>				SeqNo: <b>2888150</b>		Prep Date: <b>8/13/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1099	30	1000	0	110	75-125	0			
Ethylbenzene	974	30	1000	0	97.4	75-125	0			
m,p-Xylene	1925	60	2000	0	96.2	80-125	0			
o-Xylene	939	30	1000	0	93.9	75-125	0			
Toluene	974.5	30	1000	0	97.4	70-125	0			
Xylenes, Total	2864	90	3000	0	95.5	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>937</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>93.7</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1030</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>103</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>982</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.2</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>952</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95.2</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

1408600-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61644** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1408600-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>8/15/2014 02:45 PM</b>		
Client ID: <b>OFF Location</b>		Run ID: <b>WETCHEM_140815F</b>				SeqNo: <b>2891564</b>		Prep Date: <b>8/15/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	8.84	0.050	0	0	0		8.37	5.46	50	

The following samples were analyzed in this batch:

1408600-01C

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61674** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-61674-61674					Units:s.u.			Analysis Date: 8/14/2014 03:34 PM			
Client ID:					Run ID: WETCHEM_140814H					SeqNo:2889696			Prep Date: 8/14/2014		DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH					4.01	0	4	0	100	90-110	0					

DUP					Sample ID: 1408600-01B DUP					Units:s.u.		Analysis Date: 8/14/2014 03:34 PM		
Client ID: OFF Location				Run ID: WETCHEM_140814H				SeqNo:2889702		Prep Date: 8/14/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		8.85	0	0	0	0	0-0	8.82	0.34	20				

<b>DUP</b>				Sample ID: <b>1408634-25D DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>8/14/2014 03:34 PM</b>			
Client ID:				Run ID: <b>WETCHEM_140814H</b>				SeqNo: <b>2889705</b>			Prep Date: <b>8/14/2014</b>		DF: <b>1</b>	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH				10.98	0	0	0	0	0-0	11.06	0.726	20		

The following samples were analyzed in this batch:

1408600-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **61699**      Instrument ID **WETCHEM**      Method: **SW7196A**

MBLK				Sample ID: MBLK-61699-61699				Units:mg/Kg			Analysis Date: 8/15/2014 03:00 PM			
Client ID:				Run ID: WETCHEM_140815K				SeqNo:2891862			Prep Date: 8/14/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		0.204	0.50								J			

LCS				Sample ID: LCS-61699-61699				Units:mg/Kg			Analysis Date: 8/15/2014 03:00 PM			
Client ID:				Run ID: WETCHEM_140815K				SeqNo:2891863			Prep Date: 8/14/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		2.072	0.50	2	0	104	80-120	0						

MS				Sample ID: 1408600-01B MS			Units:mg/Kg		Analysis Date: 8/15/2014 03:00 PM		
Client ID: OFF Location				Run ID: WETCHEM_140815K			SeqNo:2891866		Prep Date: 8/14/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium, Hexavalent	0.5534	0.49	1.976	0.4385	5.81	75-125	0			S	

MS				Sample ID: 1408600-01B MSI				Units:mg/Kg			Analysis Date: 8/15/2014 03:00 PM			
Client ID: OFF Location				Run ID: WETCHEM_140815K				SeqNo:2891868			Prep Date: 8/14/2014		DF: 100	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Chromium, Hexavalent		1483	49	1603	0.4385	92.5	75-125		0					

MSD				Sample ID: 1408600-01B MSD				Units:mg/Kg			Analysis Date: 8/15/2014 03:00 PM				
Client ID: OFF Location				Run ID: WETCHEM_140815K				SeqNo:2891867			Prep Date: 8/14/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Chromium, Hexavalent		0.5534	0.49	1.976	0.4385	5.81	75-125	0.5534	0	20	S				

The following samples were analyzed in this batch:

1408600-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1408600  
**Project:** WPX RG 12-14-298 Release 8.11.14

## QC BATCH REPORT

Batch ID: **R146259**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R146259</b>				Units: % of sample		Analysis Date: <b>8/13/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140813B</b>				SeqNo: <b>2888841</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R146259</b>				Units: % of sample		Analysis Date: <b>8/13/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140813B</b>				SeqNo: <b>2888840</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1408599-01A DUP</b>				Units: % of sample		Analysis Date: <b>8/13/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140813B</b>				SeqNo: <b>2888825</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      4.15      0.050      0      0      0      0-0      3.88      6.72      20

<b>DUP</b>		Sample ID: <b>1408599-03A DUP</b>				Units: % of sample		Analysis Date: <b>8/13/2014 04:12 PM</b>		
Client ID:		Run ID: <b>MOIST_140813B</b>				SeqNo: <b>2888828</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      6.63      0.050      0      0      0      0-0      6.8      2.53      20

The following samples were analyzed in this batch:

1408600-01B

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



# ALS Laboratory Group

3352 128th Ave. Holland, MI 49424

TF: (800) 443-1611 PH: (616) 399-8070 FX: (616) 399-8185

## Chain-of-Custody

Form 202r8

WORKORDER #

1408600

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX RG 12-14-298 RELEASE

SAMPLER

CASEY RICHARDSON

DATE

8-11-14

SITE ID

TURNAROUND

3 DAY

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HCSI

BILL TO COMPANY

WPX

SEND REPORT TO MARK MUMBY CASEY RICHARDSON

INVOICE ATTN TO

KAROLINA BLANEY

ADDRESS 2385 F 1/2 Road

ADDRESS

CITY / STATE / ZIP Grand Junction, CO. 81505

CITY / STATE / ZIP

PHONE 970-243-3271

PHONE

970-683-2295

FAX 970-243-3280

FAX

E-MAIL mmumby@hcsi.com

E-MAIL

Karolina.blaney@wpxenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

910.1

X

OFF LOCATION

SOIL

8-11-14

1245

4

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:

QC PACKAGE (check below)

x

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Casey Richardson

CASEY RICHARDSON

8-11-14

1505

RECEIVED BY

H. V. M.

H. V. M.

8-11-14

1505

RELINQUISHED BY

H. V. M.

H. V. M.

8-11-14

1510

RECEIVED BY

D. F. Shaw

Diane F. Shaw

8/13/14

0937

RELINQUISHED BY

RECEIVED BY

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **13-Aug-14 09:30**

Work Order: **1408600**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	13-Aug-14	Reviewed by: <u>Ann Preston</u>	13-Aug-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>8/13/2014 12:22:29 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:





15-Sep-2014

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

Re: **WPX RG 12-14-298 Confirmation 9.5.14**

Work Order: **1409296**

Dear Mark,

ALS Environmental received 3 samples on 06-Sep-2014 11:40 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 31.

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

Sincerely,

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Work Order:** 1409296

**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>
1409296-01	SS-01			9/5/2014 10:00	9/6/2014 11:40	<input type="checkbox"/>
1409296-02	SS 02			9/5/2014 10:17	9/6/2014 11:40	<input type="checkbox"/>
1409296-03	SS 03			9/5/2014 10:25	9/6/2014 11:40	<input type="checkbox"/>



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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Work Order:** 1409296

---

**Case Narrative**

Batch 62575 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 62590 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 625590 sample 1409296-01 reporting limits for PAHs were elevated. The extract could not be reduced to 1 ml due to high organic material.

Batch 62616 samples 1409296-01 and 1409296-03 DRO surrogate recoveries were high due to matrix interference. No data requires qualification.

Batch 62642 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% 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: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS-01  
**Collection Date:** 9/5/2014 10:00 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-01  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>2,000</b>		<b>SW8015M</b>		Prep: SW3541 / 9/10/14	Analyst: <b>IT</b>
Surr: 4-Terphenyl-d14	395	S	210	mg/Kg-dry	5	9/13/2014 05:34 PM
			39-133	%REC	5	9/13/2014 05:34 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 9/8/14	Analyst: <b>IT</b>
Surr: Toluene-d8	90.6		2.6	mg/Kg-dry	1	9/9/2014 12:27 PM
			50-150	%REC	1	9/9/2014 12:27 PM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep: SW7471 / 9/12/14	Analyst: <b>LR</b>
			0.014	mg/Kg-dry	1	9/12/2014 04:53 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Calcium	32		5.0	mg/L	10	9/11/2014 07:53 PM
Magnesium	12		2.0	mg/L	10	9/11/2014 07:53 PM
Sodium	670		2.0	mg/L	10	9/11/2014 07:53 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	3.5		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Barium	1,500		19	mg/Kg-dry	50	9/10/2014 01:27 PM
Cadmium	ND		0.77	mg/Kg-dry	5	9/9/2014 10:40 PM
Chromium	17		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Copper	18		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Lead	6.6		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Nickel	21		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Selenium	ND		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Silver	ND		1.9	mg/Kg-dry	5	9/9/2014 10:40 PM
Zinc	43		3.8	mg/Kg-dry	5	9/9/2014 10:40 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Sodium Adsorption Ratio	26		0.010	none	1	9/11/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 9/10/14	Analyst: <b>MK</b>
Acenaphthene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Acenaphthylene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Anthracene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Benzo(a)anthracene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Benzo(a)pyrene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Benzo(b)fluoranthene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Benzo(g,h,i)perylene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Benzo(k)fluoranthene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Chrysene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM

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

# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS-01  
**Collection Date:** 9/5/2014 10:00 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-01  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Fluoranthene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Fluorene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Indeno(1,2,3-cd)pyrene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Naphthalene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Pyrene	ND		69	µg/Kg-dry	1	9/11/2014 05:13 PM
Surr: 2-Fluorobiphenyl	87.0		12-100	%REC	1	9/11/2014 05:13 PM
Surr: 4-Terphenyl-d14	114		25-137	%REC	1	9/11/2014 05:13 PM
Surr: Nitrobenzene-d5	78.2		37-107	%REC	1	9/11/2014 05:13 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 9/8/14		Analyst: <b>RS</b>
Benzene	ND		31	µg/Kg-dry	1	9/12/2014 11:16 PM
Ethylbenzene	ND		31	µg/Kg-dry	1	9/12/2014 11:16 PM
<b>m,p-Xylene</b>	<b>100</b>		<b>63</b>	<b>µg/Kg-dry</b>	1	9/12/2014 11:16 PM
o-Xylene	ND		31	µg/Kg-dry	1	9/12/2014 11:16 PM
<b>Toluene</b>	<b>49</b>		<b>31</b>	<b>µg/Kg-dry</b>	1	9/12/2014 11:16 PM
<b>Xylenes, Total</b>	<b>100</b>		<b>94</b>	<b>µg/Kg-dry</b>	1	9/12/2014 11:16 PM
Surr: 1,2-Dichloroethane-d4	103		70-130	%REC	1	9/12/2014 11:16 PM
Surr: 4-Bromofluorobenzene	95.2		70-130	%REC	1	9/12/2014 11:16 PM
Surr: Dibromofluoromethane	97.4		70-130	%REC	1	9/12/2014 11:16 PM
Surr: Toluene-d8	96.0		70-130	%REC	1	9/12/2014 11:16 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 9/10/14		Analyst: <b>JB</b>
<b>Electrical Conductivity @ Saturation</b>	<b>3.8</b>		<b>0.050</b>	<b>mmhos/cm @25</b>	10	9/11/2014 11:00 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>MB</b>
<b>Chromium, Trivalent</b>	<b>17</b>		<b>0.52</b>	<b>mg/Kg-dry</b>	1	9/11/2014 02:00 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 9/8/14		Analyst: <b>MB</b>
<b>Chromium, Hexavalent</b>	ND		0.52	mg/Kg-dry	1	9/10/2014 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
<b>Moisture</b>	<b>4.5</b>		<b>0.050</b>	<b>% of sample</b>	1	9/11/2014 09:51 AM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 9/9/14		Analyst: <b>STP</b>
<b>pH</b>	<b>9.3</b>			<b>s.u.</b>	1	9/9/2014 04:15 PM

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

# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS 02  
**Collection Date:** 9/5/2014 10:17 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-02  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>800</b>		<b>SW8015M</b>		Prep: SW3541 / 9/10/14	Analyst: <b>IT</b>
Surr: 4-Terphenyl-d14	68.0		4.2	mg/Kg-dry	1	9/13/2014 06:00 PM
			39-133	%REC	1	9/13/2014 06:00 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 9/9/14	Analyst: <b>IT</b>
Surr: Toluene-d8	87.2		2.6	mg/Kg-dry	1	9/11/2014 02:57 AM
			50-150	%REC	1	9/11/2014 02:57 AM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep: SW7471 / 9/12/14	Analyst: <b>LR</b>
			0.016	mg/Kg-dry	1	9/12/2014 04:56 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Calcium	30		5.0	mg/L	10	9/11/2014 08:12 PM
Magnesium	12		2.0	mg/L	10	9/11/2014 08:12 PM
Sodium	470		2.0	mg/L	10	9/11/2014 08:12 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	4.0		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Barium	1,300		17	mg/Kg-dry	50	9/10/2014 01:36 PM
Cadmium	ND		0.70	mg/Kg-dry	5	9/9/2014 10:46 PM
Chromium	16		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Copper	29		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Lead	6.8		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Nickel	21		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Selenium	ND		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Silver	ND		1.7	mg/Kg-dry	5	9/9/2014 10:46 PM
Zinc	47		3.5	mg/Kg-dry	5	9/9/2014 10:46 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Sodium Adsorption Ratio	18		0.010	none	1	9/11/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 9/10/14	Analyst: <b>MK</b>
Acenaphthene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Acenaphthylene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Anthracene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Benzo(a)anthracene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Benzo(a)pyrene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Benzo(b)fluoranthene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Benzo(g,h,i)perylene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Benzo(k)fluoranthene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Chrysene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM

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

# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS 02  
**Collection Date:** 9/5/2014 10:17 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-02  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Fluoranthene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Fluorene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Indeno(1,2,3-cd)pyrene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Naphthalene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Pyrene	ND		6.8	µg/Kg-dry	1	9/11/2014 05:34 PM
Surr: 2-Fluorobiphenyl	71.9		12-100	%REC	1	9/11/2014 05:34 PM
Surr: 4-Terphenyl-d14	102		25-137	%REC	1	9/11/2014 05:34 PM
Surr: Nitrobenzene-d5	66.7		37-107	%REC	1	9/11/2014 05:34 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 9/9/14		Analyst: <b>RS</b>
Benzene	ND		32	µg/Kg-dry	1	9/12/2014 11:41 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	9/12/2014 11:41 PM
m,p-Xylene	ND		63	µg/Kg-dry	1	9/12/2014 11:41 PM
o-Xylene	ND		32	µg/Kg-dry	1	9/12/2014 11:41 PM
Toluene	ND		32	µg/Kg-dry	1	9/12/2014 11:41 PM
Xylenes, Total	ND		95	µg/Kg-dry	1	9/12/2014 11:41 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	9/12/2014 11:41 PM
Surr: 4-Bromofluorobenzene	96.4		70-130	%REC	1	9/12/2014 11:41 PM
Surr: Dibromofluoromethane	98.4		70-130	%REC	1	9/12/2014 11:41 PM
Surr: Toluene-d8	95.6		70-130	%REC	1	9/12/2014 11:41 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 9/10/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	2.8		0.050	mmhos/cm @25	10	9/11/2014 11:00 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>MB</b>
Chromium, Trivalent	16		0.53	mg/Kg-dry	1	9/11/2014 02:00 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 9/8/14		Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.52	mg/Kg-dry	1	9/10/2014 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	5.0		0.050	% of sample	1	9/11/2014 09:51 AM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 9/9/14		Analyst: <b>STP</b>
pH	9.2			s.u.	1	9/9/2014 04:15 PM

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

# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS 03  
**Collection Date:** 9/5/2014 10:25 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-03  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>1,300</b>		<b>SW8015M</b>		Prep: SW3541 / 9/10/14	Analyst: <b>IT</b>
Surr: 4-Terphenyl-d14	288	S	4.3	mg/Kg-dry	1	9/13/2014 06:26 PM
			39-133	%REC	1	9/13/2014 06:26 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 9/9/14	Analyst: <b>IT</b>
Surr: Toluene-d8	90.0		2.6	mg/Kg-dry	1	9/11/2014 03:21 AM
			50-150	%REC	1	9/11/2014 03:21 AM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep: SW7471 / 9/12/14	Analyst: <b>LR</b>
			0.016	mg/Kg-dry	1	9/12/2014 04:58 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW846 6010C</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Calcium	72		5.0	mg/L	10	9/11/2014 08:17 PM
Magnesium	25		2.0	mg/L	10	9/11/2014 08:17 PM
Sodium	1,400		2.0	mg/L	10	9/11/2014 08:17 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	4.7		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Barium	1,900		18	mg/Kg-dry	50	9/10/2014 01:42 PM
Cadmium	ND		0.73	mg/Kg-dry	5	9/9/2014 10:52 PM
Chromium	19		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Copper	50		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Lead	7.4		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Nickel	21		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Selenium	ND		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Silver	ND		1.8	mg/Kg-dry	5	9/9/2014 10:52 PM
Zinc	46		3.7	mg/Kg-dry	5	9/9/2014 10:52 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Sodium Adsorption Ratio	36		0.010	none	1	9/11/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 9/10/14	Analyst: <b>MK</b>
Acenaphthene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Acenaphthylene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Anthracene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Benzo(a)anthracene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Benzo(a)pyrene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Benzo(b)fluoranthene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Benzo(g,h,i)perylene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Benzo(k)fluoranthene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Chrysene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM

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

# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14  
**Sample ID:** SS 03  
**Collection Date:** 9/5/2014 10:25 AM

**Work Order:** 1409296  
**Lab ID:** 1409296-03  
**Matrix:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Fluoranthene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Fluorene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Indeno(1,2,3-cd)pyrene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Naphthalene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Pyrene	ND		7.0	µg/Kg-dry	1	9/11/2014 05:54 PM
Surr: 2-Fluorobiphenyl	78.2		12-100	%REC	1	9/11/2014 05:54 PM
Surr: 4-Terphenyl-d14	91.0		25-137	%REC	1	9/11/2014 05:54 PM
Surr: Nitrobenzene-d5	71.6		37-107	%REC	1	9/11/2014 05:54 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 9/9/14		Analyst: <b>RS</b>
Benzene	ND		32	µg/Kg-dry	1	9/13/2014 12:05 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	9/13/2014 12:05 PM
m,p-Xylene	ND		63	µg/Kg-dry	1	9/13/2014 12:05 PM
o-Xylene	ND		32	µg/Kg-dry	1	9/13/2014 12:05 PM
Toluene	ND		32	µg/Kg-dry	1	9/13/2014 12:05 PM
Xylenes, Total	ND		95	µg/Kg-dry	1	9/13/2014 12:05 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	9/13/2014 12:05 PM
Surr: 4-Bromofluorobenzene	96.6		70-130	%REC	1	9/13/2014 12:05 PM
Surr: Dibromofluoromethane	96.1		70-130	%REC	1	9/13/2014 12:05 PM
Surr: Toluene-d8	96.8		70-130	%REC	1	9/13/2014 12:05 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 9/10/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	8.0		0.050	mmhos/cm @25	10	9/11/2014 11:00 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>MB</b>
Chromium, Trivalent	19		0.53	mg/Kg-dry	1	9/11/2014 02:00 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 9/8/14		Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.52	mg/Kg-dry	1	9/10/2014 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	4.9		0.050	% of sample	1	9/11/2014 09:51 AM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 9/9/14		Analyst: <b>STP</b>
pH	8.9		s.u.		1	9/9/2014 04:15 PM

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



# ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62616** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-62616-62616</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2014 02:28 PM</b>		
Client ID:		Run ID: <b>GC8_140913A</b>				SeqNo: <b>2934199</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
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	1.637	0	2	0	81.8	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-62616-62616</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2014 02:55 PM</b>		
Client ID:		Run ID: <b>GC8_140913A</b>				SeqNo: <b>2934202</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	157.1	5.0	200	0	78.5	61-109	0			
Surr: 4-Terphenyl-d14	1.566	0	2	0	78.3	39-133	0			

<b>MS</b>		Sample ID: <b>1409362-17A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2014 03:48 PM</b>		
Client ID:		Run ID: <b>GC8_140913A</b>				SeqNo: <b>2934204</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	248.2	8.1	325.7	0	76.2	48-110	0			
Surr: 4-Terphenyl-d14	2.323	0	3.257	0	71.3	39-133	0			

<b>MSD</b>		Sample ID: <b>1409362-17A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/13/2014 04:14 PM</b>		
Client ID:		Run ID: <b>GC8_140913A</b>				SeqNo: <b>2934207</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	231.5	7.9	315	0	73.5	48-110	248.2	6.94	30	
Surr: 4-Terphenyl-d14	2.363	0	3.15	0	75	39-133	2.323	1.71	30	

The following samples were analyzed in this batch: 1409296-01B 1409296-02B 1409296-03B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62504**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-62504-62504</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/8/2014 06:32 PM</b>		
Client ID:		Run ID: <b>GC9_140908A</b>				SeqNo: <b>2925046</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
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>	4930	0	5000	0	98.6	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-62504-62504</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/8/2014 06:06 PM</b>		
Client ID:		Run ID: <b>GC9_140908A</b>				SeqNo: <b>2925044</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	530300	2,500	500000	0	106	70-130	0			
<i>Surr: Toluene-d8</i>	5507	0	5000	0	110	50-150	0			

<b>MS</b>		Sample ID: <b>1409213-02A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/9/2014 12:53 PM</b>		
Client ID:		Run ID: <b>GC9_140908A</b>				SeqNo: <b>2925061</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	515100	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	4252	0	5000	0	85	50-150	0			

<b>MSD</b>		Sample ID: <b>1409213-02A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/9/2014 01:18 AM</b>		
Client ID:		Run ID: <b>GC9_140908A</b>				SeqNo: <b>2925058</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	509200	2,500	500000	0	102	70-130	515100	1.16	30	
<i>Surr: Toluene-d8</i>	4286	0	5000	0	85.7	50-150	4252	0.808	30	

The following samples were analyzed in this batch:

1409296-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62573**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-62573-62573</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 12:40 PM</b>		
Client ID:		Run ID: <b>GC9_140910A</b>				SeqNo: <b>2928470</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
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>5718</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>114</i>	<i>50-150</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-62573-62573</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 11:49 AM</b>		
Client ID:		Run ID: <b>GC9_140910A</b>				SeqNo: <b>2928468</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	494000	2,500	500000	0	98.8	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4302</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>86</i>	<i>50-150</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1409336-04A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/11/2014 03:45 AM</b>		
Client ID:		Run ID: <b>GC10_140910A</b>				SeqNo: <b>2929898</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	614200	2,500	500000	79990	107	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4591</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>91.8</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1409336-04A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/11/2014 04:09 AM</b>		
Client ID:		Run ID: <b>GC10_140910A</b>				SeqNo: <b>2929941</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	602200	2,500	500000	79990	104	70-130	614200	1.97	30	
<i>Surr: Toluene-d8</i>	<i>4644</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>92.9</i>	<i>50-150</i>	<i>4591</i>	<i>1.16</i>	<i>30</i>	

The following samples were analyzed in this batch:

1409296-02A      1409296-03A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62718**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-62718-62718</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/12/2014 04:06 PM</b>		
Client ID:		Run ID: <b>HG1_140912B</b>				SeqNo: <b>2932764</b>		Prep Date: <b>9/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.020

<b>LCS</b>		Sample ID: <b>LCS-62718-62718</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/12/2014 04:09 PM</b>		
Client ID:		Run ID: <b>HG1_140912B</b>				SeqNo: <b>2932765</b>		Prep Date: <b>9/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1756      0.020      0.1665      0      105      80-120      0

<b>MS</b>		Sample ID: <b>1409272-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/12/2014 04:39 PM</b>		
Client ID:		Run ID: <b>HG1_140912B</b>				SeqNo: <b>2932778</b>		Prep Date: <b>9/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1448      0.013      0.1084      0.02924      107      75-125      0

<b>MSD</b>		Sample ID: <b>1409272-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/12/2014 04:41 PM</b>		
Client ID:		Run ID: <b>HG1_140912B</b>				SeqNo: <b>2932779</b>		Prep Date: <b>9/12/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1353      0.013      0.1055      0.02924      101      75-125      0.1448      6.76      35

The following samples were analyzed in this batch:

1409296-01B	1409296-02B	1409296-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62545** Instrument ID **SAR** Method: **USDA H60 Method**

DUP				Sample ID: 1409291-04BDUP				Units: none			Analysis Date: 9/11/2014			
Client ID:				Run ID: SAR_140911A				SeqNo: 2934325			Prep Date: 9/10/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Sodium Adsorption Ratio		0.5811	0.010	0	0	0			0					

The following samples were analyzed in this batch:

1409296-01C	1409296-02C	1409296-03C
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62575**      Instrument ID **ICPMS1**      Method: **SW6020A**

MBLK				Sample ID: MBLK-62575-62575				Units:mg/Kg		Analysis Date: 9/9/2014 08:14 PM	
Client ID:			Run ID: ICPMS1_140909A			SeqNo:2927331		Prep Date: 9/9/2014		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	0.001054	0.10								J	
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	0.03795	0.50								J	

LCS				Sample ID: LCS-62575-62575				Units:mg/Kg			Analysis Date: 9/9/2014 08:20 PM			
Client ID:				Run ID: ICPMS1_140909A				SeqNo:2927332			Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.42	0.25	5	0	88.4	80-120	0							
Barium	4.444	0.25	5	0	88.9	80-120	0							
Cadmium	4.54	0.10	5	0	90.8	80-120	0							
Chromium	4.554	0.25	5	0	91.1	80-120	0							
Copper	4.506	0.25	5	0	90.1	80-120	0							
Lead	4.46	0.25	5	0	89.2	80-120	0							
Nickel	4.578	0.25	5	0	91.6	80-120	0							
Selenium	4.52	0.25	5	0	90.4	80-120	0							
Silver	4.487	0.25	5	0	89.7	80-120	0							
Zinc	4.407	0.50	5	0	88.1	80-120	0							

MS					Sample ID: 1409291-04AMS		Units:mg/Kg		Analysis Date: 9/9/2014 09:57 PM		
Client ID:			Run ID: ICPMS1_140909A			SeqNo:2927361		Prep Date: 9/9/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.19	1.7	6.711	3.952	92.9	75-125	0				
Barium	233.6	1.7	6.711	228.6	73.8	75-125	0			SO	
Cadmium	6.517	0.67	6.711	0.1888	94.3	75-125	0				
Chromium	25.47	1.7	6.711	18.92	97.7	75-125	0				
Copper	15.23	1.7	6.711	9.032	92.4	75-125	0				
Lead	18.3	1.7	6.711	11.28	105	75-125	0				
Nickel	18.71	1.7	6.711	12.51	92.4	75-125	0				
Selenium	8.208	1.7	6.711	1.972	92.9	75-125	0				
Silver	5.678	1.7	6.711	0.0485	83.9	75-125	0				
Zinc	43.93	3.4	6.711	36.82	106	75-125	0			O	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62575**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1409291-04AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/9/2014 10:03 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140909A</b>				SeqNo: <b>2927362</b>		Prep Date: <b>9/9/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.983	1.7	6.693	3.952	90.1	75-125	10.19	2.03	25	
Barium	236.8	1.7	6.693	228.6	122	75-125	233.6	1.36	25	O
Cadmium	6.466	0.67	6.693	0.1888	93.8	75-125	6.517	0.784	25	
Chromium	25.67	1.7	6.693	18.92	101	75-125	25.47	0.78	25	
Copper	14.96	1.7	6.693	9.032	88.6	75-125	15.23	1.8	25	
Lead	17.64	1.7	6.693	11.28	95	75-125	18.3	3.68	25	
Nickel	18.17	1.7	6.693	12.51	84.6	75-125	18.71	2.92	25	
Selenium	7.246	1.7	6.693	1.972	78.8	75-125	8.208	12.5	25	
Silver	5.696	1.7	6.693	0.0485	84.4	75-125	5.678	0.321	25	
Zinc	42.87	3.3	6.693	36.82	90.5	75-125	43.93	2.43	25	O

The following samples were analyzed in this batch:      1409296-01B      1409296-02B      1409296-03B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62590**      Instrument ID **SVMS8**      Method: **SW846 8270D**

MBLK		Sample ID: <b>SBLKS1-62590-62590</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 05:41 PM</b>		
Client ID:		Run ID: <b>SVMS8_140910A</b>				SeqNo: <b>2928886</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
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>	1231	0	1667	0	73.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2107	0	1667	0	126	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1220	0	1667	0	73.2	37-107	0			

LCS		Sample ID: <b>SLCSS1-62590-62590</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 06:01 PM</b>		
Client ID:		Run ID: <b>SVMS8_140910A</b>				SeqNo: <b>2928888</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	566.3	6.7	666.7	0	84.9	45-110	0			
Acenaphthylene	601.7	6.7	666.7	0	90.2	45-105	0			
Anthracene	642.3	6.7	666.7	0	96.3	55-105	0			
Benzo(a)anthracene	677.3	6.7	666.7	0	102	50-110	0			
Benzo(a)pyrene	650	6.7	666.7	0	97.5	50-110	0			
Benzo(b)fluoranthene	663.7	6.7	666.7	0	99.5	45-115	0			
Benzo(g,h,i)perylene	615.3	6.7	666.7	0	92.3	40-125	0			
Benzo(k)fluoranthene	647.7	6.7	666.7	0	97.1	45-115	0			
Chrysene	718	6.7	666.7	0	108	55-110	0			
Dibenzo(a,h)anthracene	590.7	6.7	666.7	0	88.6	40-125	0			
Fluoranthene	592	6.7	666.7	0	88.8	55-115	0			
Fluorene	557.7	6.7	666.7	0	83.6	50-110	0			
Indeno(1,2,3-cd)pyrene	613.7	6.7	666.7	0	92	40-120	0			
Naphthalene	565	6.7	666.7	0	84.7	40-105	0			
Pyrene	771.7	6.7	666.7	0	116	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1460	0	1667	0	87.6	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1922	0	1667	0	115	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1383	0	1667	0	83	37-107	0			

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62590**      Instrument ID **SVMS8**      Method: **SW846 8270D**

MS				Sample ID: <b>1409284-02A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 07:50 PM</b>	
Client ID:		Run ID: <b>SVMS8_140910A</b>			SeqNo: <b>2930992</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1018	13	1255	0	81.1	45-110	0			
Acenaphthylene	1063	13	1255	0	84.7	45-105	0			
Anthracene	1177	13	1255	0	93.7	55-105	0			
Benzo(a)anthracene	1280	13	1255	11.79	101	50-110	0			
Benzo(a)pyrene	1211	13	1255	0	96.5	50-110	0			
Benzo(b)fluoranthene	1255	13	1255	0	99.9	45-115	0			
Benzo(g,h,i)perylene	1346	13	1255	0	107	40-125	0			
Benzo(k)fluoranthene	1219	13	1255	0	97.1	45-115	0			
Chrysene	1339	13	1255	0	107	55-110	0			
Dibenzo(a,h)anthracene	1265	13	1255	0	101	40-125	0			
Fluoranthene	966.7	13	1255	0	77	55-115	0			
Fluorene	1038	13	1255	0	82.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1340	13	1255	6.223	106	40-120	0			
Naphthalene	959.8	13	1255	0	76.4	40-105	0			
Pyrene	1591	13	1255	0	127	45-125	0			S
Surr: 2-Fluorobiphenyl	2565	0	3139	0	81.7	12-100	0			
Surr: 4-Terphenyl-d14	3909	0	3139	0	125	25-137	0			
Surr: Nitrobenzene-d5	2478	0	3139	0	78.9	37-107	0			

MSD				Sample ID: <b>1409284-02A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>9/10/2014 08:10 PM</b>	
Client ID:		Run ID: <b>SVMS8_140910A</b>			SeqNo: <b>2930993</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1012	13	1286	0	78.7	45-110	1018	0.59	30	
Acenaphthylene	1039	13	1286	0	80.7	45-105	1063	2.36	30	
Anthracene	1217	13	1286	0	94.6	55-105	1177	3.37	30	
Benzo(a)anthracene	1170	13	1286	11.79	90	50-110	1280	9	30	
Benzo(a)pyrene	1237	13	1286	0	96.2	50-110	1211	2.1	30	
Benzo(b)fluoranthene	1216	13	1286	0	94.5	45-115	1255	3.14	30	
Benzo(g,h,i)perylene	1372	13	1286	0	107	40-125	1346	1.9	30	
Benzo(k)fluoranthene	1231	13	1286	0	95.7	45-115	1219	0.962	30	
Chrysene	1225	13	1286	0	95.2	55-110	1339	8.88	30	
Dibenzo(a,h)anthracene	1294	13	1286	0	101	40-125	1265	2.27	30	
Fluoranthene	1056	13	1286	0	82.1	55-115	966.7	8.82	30	
Fluorene	1014	13	1286	0	78.8	50-110	1038	2.35	30	
Indeno(1,2,3-cd)pyrene	1364	13	1286	6.223	106	40-120	1340	1.76	30	
Naphthalene	928.6	13	1286	0	72.2	40-105	959.8	3.31	30	
Pyrene	1348	13	1286	0	105	45-125	1591	16.6	30	
Surr: 2-Fluorobiphenyl	2449	0	3215	0	76.2	12-100	2565	4.63	40	
Surr: 4-Terphenyl-d14	3322	0	3215	0	103	25-137	3909	16.2	40	
Surr: Nitrobenzene-d5	2348	0	3215	0	73	37-107	2478	5.38	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

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Batch ID: **62590**      Instrument ID **SVMS8**      Method: **SW846 8270D**

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**The following samples were analyzed in this batch:**

1409296-01B	1409296-02B	1409296-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62537**      Instrument ID **VMS7**      Method: **SW8260B**

MBLK				Sample ID: MBLK-62537-62537				Units: µg/Kg			Analysis Date: 9/9/2014 03:08 AM		
Client ID:			Run ID: VMS7_140908B				SeqNo:2925761			Prep Date: 9/8/2014		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	1007	0	1000	0	101	70-130		0					
Surr: 4-Bromofluorobenzene	1008	0	1000	0	101	70-130		0					
Surr: Dibromofluoromethane	975	0	1000	0	97.5	70-130		0					
Surr: Toluene-d8	985.5	0	1000	0	98.6	70-130		0					

LCS				Sample ID: LCS-62537-62537			Units: µg/Kg		Analysis Date: 9/9/2014 12:38 PM		
Client ID:		Run ID: VMS7_140908B			SeqNo:2925767		Prep Date: 9/8/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	908.5	30	1000	0	90.8	75-125	0				
Ethylbenzene	896	30	1000	0	89.6	75-125	0				
m,p-Xylene	1788	60	2000	0	89.4	80-125	0				
o-Xylene	895	30	1000	0	89.5	75-125	0				
Toluene	880.5	30	1000	0	88	70-125	0				
Xylenes, Total	2683	90	3000	0	89.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	1018	0	1000	0	102	70-130	0				
Surr: 4-Bromofluorobenzene	1018	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	1020	0	1000	0	102	70-130	0				
Surr: Toluene-d8	994.5	0	1000	0	99.4	70-130	0				

MS					Sample ID: 1409274-02A MS			Units: µg/Kg		Analysis Date: 9/11/2014 01:53 AM	
Client ID:			Run ID: VMS6_140910A			SeqNo:2929532		Prep Date: 9/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	986.5	30	1000	0	98.6	75-125	0				
Ethylbenzene	989	30	1000	0	98.9	75-125	0				
m,p-Xylene	2006	60	2000	16	99.5	80-125	0				
o-Xylene	1008	30	1000	0	101	75-125	0				
Toluene	1016	30	1000	13.5	100	70-125	0				
Xylenes, Total	3014	90	3000	0	100	75-125	0				
Surr: 1,2-Dichloroethane-d4	989	0	1000	0	98.9	70-130	0				
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	0				
Surr: Toluene-d8	989	0	1000	0	98.9	70-130	0				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62537**      Instrument ID **VMS7**      Method: **SW8260B**

MSD				Sample ID: 1409274-02A MSD				Units: µg/Kg		Analysis Date: 9/11/2014 02:19 AM	
Client ID:			Run ID: VMS6_140910A			SeqNo: 2929534		Prep Date: 9/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	960	30	1000	0	96	75-125	986.5	2.72	30		
Ethylbenzene	986.5	30	1000	0	98.6	75-125	989	0.253	30		
m,p-Xylene	1996	60	2000	16	99	80-125	2006	0.5	30		
o-Xylene	1002	30	1000	0	100	75-125	1008	0.498	30		
Toluene	994.5	30	1000	13.5	98.1	70-125	1016	2.14	30		
Xylenes, Total	2998	90	3000	0	100	75-125	3014	0.499	30		
Surr: 1,2-Dichloroethane-d4	995	0	1000	0	99.5	70-130	989	0.605	30		
Surr: 4-Bromofluorobenzene	1022	0	1000	0	102	70-130	1006	1.53	30		
Surr: Dibromofluoromethane	1014	0	1000	0	101	70-130	981.5	3.26	30		
Surr: Toluene-d8	983	0	1000	0	98.3	70-130	989	0.609	30		

The following samples were analyzed in this batch: 1409296-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62566**      Instrument ID **VMS8**      Method: **SW8260B**

MBLK				Sample ID: MBLK-62566-62566				Units: µg/Kg			Analysis Date: 9/10/2014 02:09 PM		
Client ID:			Run ID: VMS8_140910A				SeqNo:2928346			Prep Date: 9/9/2014		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											
Surr: 1,2-Dichloroethane-d4	998.5	0	1000	0	99.8	70-130		0					
Surr: 4-Bromofluorobenzene	992	0	1000	0	99.2	70-130		0					
Surr: Dibromofluoromethane	989.5	0	1000	0	99	70-130		0					
Surr: Toluene-d8	958	0	1000	0	95.8	70-130		0					

LCS				Sample ID: LCS-62566-62566				Units: µg/Kg			Analysis Date: 9/9/2014 10:11 AM			
Client ID:				Run ID: VMS8_140909A				SeqNo:2927252			Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	1014	30	1000	0	101	75-125	0							
Ethylbenzene	1032	30	1000	0	103	75-125	0							
m,p-Xylene	2028	60	2000	0	101	80-125	0							
o-Xylene	1022	30	1000	0	102	75-125	0							
Toluene	988.5	30	1000	0	98.8	70-125	0							
Xylenes, Total	3050	90	3000	0	102	75-125	0							
Surr: 1,2-Dichloroethane-d4	1002	0	1000	0	100	70-130	0							
Surr: 4-Bromofluorobenzene	990.5	0	1000	0	99	70-130	0							
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0							
Surr: Toluene-d8	969	0	1000	0	96.9	70-130	0							

MS					Sample ID: 1409322-17A MS		Units: µg/Kg		Analysis Date: 9/13/2014 06:43 AM		
Client ID:			Run ID: VMS7_140912B			SeqNo:2933491		Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	936.5	30	1000	0	93.6	75-125	0				
Ethylbenzene	913	30	1000	0	91.3	75-125	0				
m,p-Xylene	1773	60	2000	0	88.6	80-125	0				
o-Xylene	908	30	1000	0	90.8	75-125	0				
Toluene	909	30	1000	0	90.9	70-125	0				
Xylenes, Total	2681	90	3000	0	89.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	973.5	0	1000	0	97.4	70-130	0				
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	972	0	1000	0	97.2	70-130	0				
Surr: Toluene-d8	995	0	1000	0	99.5	70-130	0				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62566**      Instrument ID **VMS8**      Method: **SW8260B**

MSD				Sample ID: 1409322-17A MSD				Units: µg/Kg		Analysis Date: 9/13/2014 07:08 AM	
Client ID:			Run ID: VMS7_140912B			SeqNo: 2933492		Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	936	30	1000	0	93.6	75-125	936.5	0.0534	30		
Ethylbenzene	897	30	1000	0	89.7	75-125	913	1.77	30		
m,p-Xylene	1748	60	2000	0	87.4	80-125	1773	1.42	30		
o-Xylene	898	30	1000	0	89.8	75-125	908	1.11	30		
Toluene	892.5	30	1000	0	89.2	70-125	909	1.83	30		
Xylenes, Total	2646	90	3000	0	88.2	75-125	2681	1.31	30		
Surr: 1,2-Dichloroethane-d4	987.5	0	1000	0	98.8	70-130	973.5	1.43	30		
Surr: 4-Bromofluorobenzene	999	0	1000	0	99.9	70-130	1014	1.44	30		
Surr: Dibromofluoromethane	992.5	0	1000	0	99.2	70-130	972	2.09	30		
Surr: Toluene-d8	981.5	0	1000	0	98.2	70-130	995	1.37	30		

The following samples were analyzed in this batch:      1409296-02A      1409296-03A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62545** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1409291-04B DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>9/11/2014 11:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140911D</b>				SeqNo: <b>2929761</b>		Prep Date: <b>9/10/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.604	0.050	0	0	0		0.648	7.03	50	

The following samples were analyzed in this batch:

1409296-01C	1409296-02C	1409296-03C
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62587** Instrument ID **WETCHEM** Method: **SW9045D**

Sample ID: 1409222-01A DUP					Units:s.u.		Analysis Date: 9/9/2014 04:15 PM				
Client ID:			Run ID: WETCHEM_1409090			SeqNo:2926637		Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.81	0	0	0	0	0-0	7.78	0.385	20		

DUP					Sample ID: 1409293-01B DUP					Units:s.u.			Analysis Date: 9/9/2014 04:15 PM		
Client ID:				Run ID: WETCHEM_1409090				SeqNo:2926647			Prep Date: 9/9/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH		9.21	0	0	0	0	0-0	9.18	0.326	20					

The following samples were analyzed in this batch:

1409296-01B	1409296-02B	1409296-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **62642**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-62642-62642</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/10/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140910M</b>				SeqNo: <b>2928216</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-62642-62642</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/10/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140910M</b>				SeqNo: <b>2928215</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.82      0.50      2      0      91      80-120      0

<b>MS</b>		Sample ID: <b>1409213-03B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/10/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140910M</b>				SeqNo: <b>2928200</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
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      0.1608      -8.2      75-125      0      S

<b>MS</b>		Sample ID: <b>1409213-03B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/10/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140910M</b>				SeqNo: <b>2928202</b>		Prep Date: <b>9/8/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      601.6      49      839.2      0.1608      71.7      75-125      0      S

<b>MSD</b>		Sample ID: <b>1409213-03B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/10/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140910M</b>				SeqNo: <b>2928201</b>		Prep Date: <b>9/8/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.5079      0.49      1.969      0.1608      17.6      75-125      0.1137      127      20      SR

The following samples were analyzed in this batch:

1409296-01B	1409296-02B	1409296-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409296  
**Project:** WPX RG 12-14-298 Confirmation 9.5.14

## QC BATCH REPORT

Batch ID: **R148032**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>				Sample ID: <b>WBLKS-R148032</b>				Units: % of sample			Analysis Date: <b>9/11/2014 09:51 AM</b>												
Client ID:				Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931825</b>			Prep Date:		DF: <b>1</b>										
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-R148032				Units: % of sample			Analysis Date: 9/11/2014 09:51 AM			
Client ID:				Run ID: MOIST_140911A				SeqNo: 2931824		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

<b>DUP</b>				Sample ID: <b>1409307-04A DUP</b>				Units: % of sample			Analysis Date: <b>9/11/2014 09:51 AM</b>												
Client ID:				Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931813</b>			Prep Date:		DF: <b>1</b>										
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Moisture      27.97      0.050      0      0      0      0-0      28.33      1.28      20

<b>DUP</b>				Sample ID: <b>1409387-03A DUP</b>				Units: % of sample		Analysis Date: <b>9/11/2014 09:51 AM</b>			
Client ID:				Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931821</b>		Prep Date:		DF: <b>1</b>	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      5.03      0.050      0      0      0      0-0      4.98      0.999      20

The following samples were analyzed in this batch:

1409296-01B	1409296-02B	1409296-03B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER #

1409296

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX RG 12-14-298

PROJECT No.

SAMPLER

CASEY RICHARDSON

SITE ID

CONFIRMATION

DATE

9.5.14

TURNAROUND

5 DAY

EDD FORMAT

PURCHASE ORDER

BILL TO COMPANY

WPX Energy

INVOICE ATTN TO

KAROLINA GLANEY

ADDRESS

2385 F 1/2 Road

ADDRESS

1058 County Road 215

CITY / STATE / ZIP

Grand Junction, CO. 81505

CITY / STATE / ZIP

Parachute, CO 81635

PHONE

970-243-3271

PHONE

970-683-2295

FAX

970-243-3280

FAX

970-285-9573

E-MAIL

mumby@hrlcomp.com  
crichardson@hrlcomp.com

E-MAIL

karolina.blanc@wp

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

GR0/BTEX

PAH/PAH/PAH

SEB/EC/PH

1 SS 01

Soil

9.5.14

1010

3

8

x

x

x

2 SS 02

1

1

1017

1

1

x

x

x

3 SS 03

1

1

1025

1

1

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

or metals or anions, please detail analytes below.

Comments:

*[Handwritten signature]*

QC PACKAGE (check below)

x

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

3.2<sup>oc</sup>

RELINQUISHED BY

*[Handwritten signature]*

RECEIVED BY

*[Handwritten signature]*

RELINQUISHED BY

*[Handwritten signature]*

RECEIVED BY

*[Handwritten signature]*

RELINQUISHED BY

*[Handwritten signature]*

RECEIVED BY

*[Handwritten signature]*

SIGNATURE

PRINTED NAME

DATE

TIME

CASEY RICHARDSON

9.5.14

1635

*[Handwritten signature]*

9.5.14

1635

*[Handwritten signature]*

9-5

1040

*[Handwritten signature]*

09/04/14

1740

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: **06-Sep-14 11:40**

Work Order: **1409296**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	08-Sep-14	Reviewed by: <u>Ann Preston</u>	09-Sep-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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>3.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>9/8/2014 10:33:10 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:			

Login Notes:

-----

Client Contacted:

Date Contacted:

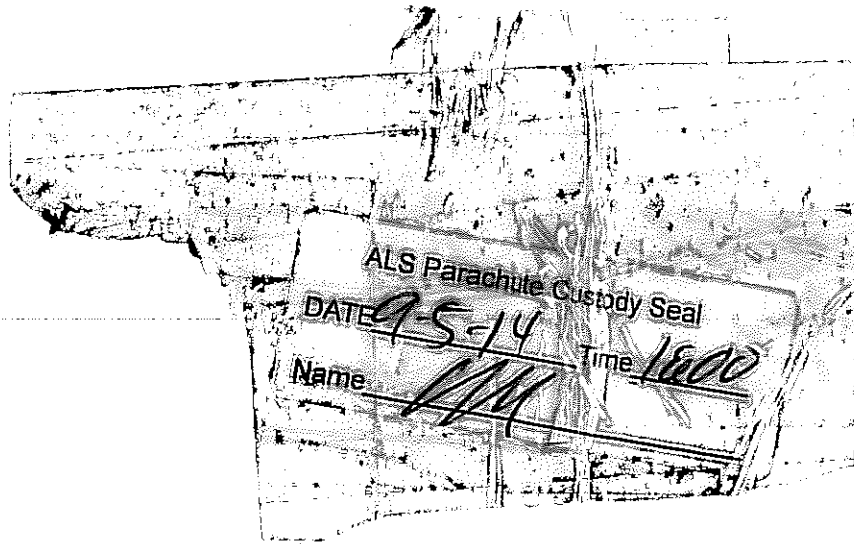
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:





13-Nov-2014

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

Re: **WPX RG 12.14.298 Confirmation 11.7.14**

Work Order: **1411430**

Dear Mark,

ALS Environmental received 3 samples on 08-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 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 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14  
**Work Order:** 1411430

---

**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>
1411430-01	SS01.110714	Soil		11/7/2014 11:20	11/8/2014 10:00	<input type="checkbox"/>
1411430-02	SS02.110714	Soil		11/7/2014 11:28	11/8/2014 10:00	<input type="checkbox"/>
1411430-03	SS03.110714	Soil		11/7/2014 11:34	11/8/2014 10:00	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14  
**WorkOrder:** 1411430

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

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



**ALS Group USA, Corp****Date:** 13-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14  
**Sample ID:** SS01.110714  
**Collection Date:** 11/7/2014 11:20 AM

**Work Order:** 1411430  
**Lab ID:** 1411430-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>360</b>		<b>SW8015M</b>		Prep: SW3541 / 11/10/14	Analyst: <b>CW</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>72.8</i>		<i>39-133</i>	<i>mg/Kg-dry</i>	<i>4</i>	11/11/2014 07:03 AM
				<i>%REC</i>	<i>4</i>	11/11/2014 07:03 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 11/11/14	Analyst: <b>CW</b>
<i>Surr: Toluene-d8</i>	<i>116</i>		<i>50-150</i>	<i>mg/Kg-dry</i>	<i>1</i>	11/12/2014 04:39 PM
				<i>%REC</i>	<i>1</i>	11/12/2014 04:39 PM
<b>MOISTURE</b>						
<b>Moisture</b>	<b>11</b>		<b>A2540 G</b>			Analyst: <b>EVB</b>
			<b>0.050</b>	<b>% of sample</b>	<b>1</b>	11/11/2014 05:00 PM

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

**ALS Group USA, Corp**

Date: 13-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14  
**Sample ID:** SS02.110714  
**Collection Date:** 11/7/2014 11:28 AM

**Work Order:** 1411430  
**Lab ID:** 1411430-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 11/10/14	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>360</b>		<b>35</b>	<b>mg/Kg-dry</b>	<b>4</b>	11/11/2014 06:08 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>75.8</i>		<i>39-133</i>	<i>%REC</i>	<i>4</i>	11/11/2014 06:08 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 11/11/14	Analyst: <b>CW</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>2.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/12/2014 05:04 PM
<i>Surr: Toluene-d8</i>	<i>119</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	11/12/2014 05:04 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>EVB</b>
<b>Moisture</b>	<b>7.0</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	11/11/2014 05:00 PM

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

**ALS Group USA, Corp****Date:** 13-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14  
**Sample ID:** SS03.110714  
**Collection Date:** 11/7/2014 11:34 AM

**Work Order:** 1411430  
**Lab ID:** 1411430-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 11/10/14	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>300</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/11/2014 04:18 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>86.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	11/11/2014 04:18 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 11/11/14	Analyst: <b>CW</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>2.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/12/2014 05:29 PM
<i>Surr: Toluene-d8</i>	<i>118</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	11/12/2014 05:29 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>EVB</b>
<b>Moisture</b>	<b>8.3</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	11/11/2014 05:00 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1411430  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14

**QC BATCH REPORT**

Batch ID: **64821** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-64821-64821</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/10/2014 06:40 PM</b>		
Client ID:		Run ID: <b>GC8_141110B</b>				SeqNo: <b>3028855</b>		Prep Date: <b>11/10/2014</b>		DF: <b>1</b>
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	1.448	0	2	0	72.4	39-133		0		

<b>LCS</b>		Sample ID: <b>DLCSS1-64821-64821</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/10/2014 07:07 PM</b>		
Client ID:		Run ID: <b>GC8_141110B</b>				SeqNo: <b>3028856</b>		Prep Date: <b>11/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	183	5.0	200	0	91.5	61-109		0		
Surr: 4-Terphenyl-d14	1.275	0	2	0	63.8	39-133		0		

<b>MS</b>		Sample ID: <b>1411311-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/10/2014 07:35 PM</b>		
Client ID:		Run ID: <b>GC8_141110B</b>				SeqNo: <b>3028857</b>		Prep Date: <b>11/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	293	8.2	328.6	14.42	84.8	48-110		0		
Surr: 4-Terphenyl-d14	2.043	0	3.286	0	62.2	39-133		0		

<b>MSD</b>		Sample ID: <b>1411311-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/10/2014 08:02 PM</b>		
Client ID:		Run ID: <b>GC8_141110B</b>				SeqNo: <b>3028858</b>		Prep Date: <b>11/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	291.5	8.1	322.9	14.42	85.8	48-110	293	0.499	30	
Surr: 4-Terphenyl-d14	1.858	0	3.229	0	57.5	39-133	2.043	9.51	30	

The following samples were analyzed in this batch: | 1411430-01A | 1411430-02A | 1411430-03A |

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1411430  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14

## QC BATCH REPORT

Batch ID: **64906**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-64906-64906</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/12/2014 04:13 PM</b>		
Client ID:		Run ID: <b>GC9_141112A</b>				SeqNo: <b>3032769</b>		Prep Date: <b>11/11/2014</b>		DF: <b>1</b>
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>6104</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>122</i>	<i>50-150</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>LCS-64906-64906</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/12/2014 03:48 PM</b>		
Client ID:		Run ID: <b>GC9_141112A</b>				SeqNo: <b>3032768</b>		Prep Date: <b>11/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	475100	2,500	500000	0	95	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5968</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>119</i>	<i>50-150</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1411429-07A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2014 03:13 AM</b>		
Client ID:		Run ID: <b>GC9_141112A</b>				SeqNo: <b>3032807</b>		Prep Date: <b>11/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	435900	2,500	500000	0	87.2	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4672</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>93.4</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1411429-07A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/13/2014 03:38 AM</b>		
Client ID:		Run ID: <b>GC9_141112A</b>				SeqNo: <b>3032814</b>		Prep Date: <b>11/11/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	439700	2,500	500000	0	87.9	70-130	435900	0.868	30	
<i>Surr: Toluene-d8</i>	<i>4582</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>91.6</i>	<i>50-150</i>	<i>4672</i>	<i>1.96</i>	<i>30</i>	

The following samples were analyzed in this batch:

1411430-01A	1411430-02A	1411430-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1411430  
**Project:** WPX RG 12.14.298 Confirmation 11.7.14

## QC BATCH REPORT

Batch ID: **R152373**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R152373</b>				Units: % of sample		Analysis Date: <b>11/11/2014 05:00 PM</b>		
Client ID:		Run ID: <b>MOIST_141111D</b>				SeqNo: <b>3031646</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R152373</b>				Units: % of sample		Analysis Date: <b>11/11/2014 05:00 PM</b>		
Client ID:		Run ID: <b>MOIST_141111D</b>				SeqNo: <b>3031645</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1411412-05A DUP</b>				Units: % of sample		Analysis Date: <b>11/11/2014 05:00 PM</b>		
Client ID:		Run ID: <b>MOIST_141111D</b>				SeqNo: <b>3031627</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      10.73      0.050      0      0      0      0-0      11.03      2.76      20

<b>DUP</b>		Sample ID: <b>1411430-03A DUP</b>				Units: % of sample		Analysis Date: <b>11/11/2014 05:00 PM</b>		
Client ID: <b>SS03.110714</b>		Run ID: <b>MOIST_141111D</b>				SeqNo: <b>3031632</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      8.67      0.050      0      0      0      0-0      8.29      4.48      20

The following samples were analyzed in this batch:

1411430-01A	1411430-02A	1411430-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**WORKORDER**  
#

1411430

Form 202r8

**PAGE**

1 of 1


## DISPOSAL







~~BY Lab~~ or Return to Client

[illegible]

\*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.**

<b>Comments:</b>  <div style="text-align: center;"> <math>4.8^{\circ}\text{C}</math>   </div>	<b>QC PACKAGE (check below)</b>	
	<input checked="" type="checkbox"/>	LEVEL III (Standard QC)
	<input type="checkbox"/>	LEVEL III (Std QC + forms)
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>	
<b>Preservative Key:</b> 1-HCl    2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH    5-NaHSO <sub>4</sub> 7-Other    8-4 degrees C    9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		CASEY RICHARDSON	11-7-14	1405
RECEIVED BY			11-7-14	1510
RELINQUISHED BY			11-7-14	1530
RECEIVED BY		KEITH L. KEREJWA	11/8/14	1000
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **08-Nov-14 10:00**

Work Order: **1411430**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	08-Nov-14	Reviewed by: <u>Ann Preston</u>	10-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>11/8/2014 11:08:46 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:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:





15-Sep-2014

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

Re: **WPX RG 12-14-298 Backgrounds 9.5.14**

Work Order: **1409291**

Dear Mark,

ALS Environmental received 4 samples on 06-Sep-2014 11:40 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 15.

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](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14  
**Work Order:** 1409291

---

**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>
1409291-01	RG 12-14-298-B-1	Soil		9/5/2014 10:37	9/6/2014 11:40	<input type="checkbox"/>
1409291-02	RG 12-14-298-B-2	Soil		9/5/2014 10:40	9/6/2014 11:40	<input type="checkbox"/>
1409291-03	RG 12-14-298-B-3	Soil		9/5/2014 10:44	9/6/2014 11:40	<input type="checkbox"/>
1409291-04	RG 12-14-298-B-4	Soil		9/5/2014 10:48	9/6/2014 11:40	<input type="checkbox"/>

---

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

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

## ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14  
**Sample ID:** RG 12-14-298-B-1  
**Collection Date:** 9/5/2014 10:37 AM

**Work Order:** 1409291  
**Lab ID:** 1409291-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	4.4		2.3	mg/Kg-dry	5	9/9/2014 09:33 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	12		0.050	% of sample	1	9/11/2014 09:51 AM

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

**ALS Group USA, Corp****Date:** 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14  
**Sample ID:** RG 12-14-298-B-2  
**Collection Date:** 9/5/2014 10:40 AM

**Work Order:** 1409291  
**Lab ID:** 1409291-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	6.1		2.1	mg/Kg-dry	5	9/9/2014 09:39 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	13		0.050	% of sample	1	9/11/2014 09:51 AM

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

## ALS Group USA, Corp

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14  
**Sample ID:** RG 12-14-298-B-3  
**Collection Date:** 9/5/2014 10:44 AM

**Work Order:** 1409291  
**Lab ID:** 1409291-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	3.5		2.0	mg/Kg-dry	5	9/9/2014 09:45 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	10		0.050	% of sample	1	9/11/2014 09:51 AM

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

**ALS Group USA, Corp**

Date: 15-Sep-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14  
**Sample ID:** RG 12-14-298-B-4  
**Collection Date:** 9/5/2014 10:48 AM

**Work Order:** 1409291  
**Lab ID:** 1409291-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW846 6010C</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Calcium	93		5.0	mg/L	10	9/11/2014 07:38 PM
Magnesium	10		2.0	mg/L	10	9/11/2014 07:38 PM
Sodium	27		2.0	mg/L	10	9/11/2014 07:38 PM
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 9/9/14	Analyst: <b>ML</b>
Arsenic	4.5		1.9	mg/Kg-dry	5	9/9/2014 09:51 PM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JEC</b>
Sodium Adsorption Ratio	0.72		0.010	none	1	9/11/2014
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 9/10/14	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	0.65		0.050	mmhos/cm @25	10	9/11/2014 11:00 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>RLM</b>
Moisture	13		0.050	% of sample	1	9/11/2014 09:51 AM
<b>PH</b>			<b>SW9045D</b>		Prep: EXTRACT / 9/9/14	Analyst: <b>STP</b>
pH	8.3			s.u.	1	9/9/2014 04:15 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409291  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14

# QC BATCH REPORT

Batch ID: **62545** Instrument ID **SAR** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1409291-04BDUP</b>				Units: <b>none</b>		Analysis Date: <b>9/11/2014</b>		
Client ID: <b>RG 12-14-298-B-4</b>			Run ID: <b>SAR_140911A</b>			SeqNo: <b>2934325</b>		Prep Date: <b>9/10/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.5811	0.010	0	0	0			0		

The following samples were analyzed in this batch:

1409291-04B



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409291  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14

## QC BATCH REPORT

Batch ID: **62575**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-62575-62575</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/9/2014 08:14 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140909A</b>				SeqNo: <b>2927331</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

<b>LCS</b>		Sample ID: <b>LCS-62575-62575</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/9/2014 08:20 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140909A</b>				SeqNo: <b>2927332</b>		Prep Date: <b>9/9/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.42	0.25	5	0	88.4	80-120	0			

<b>MS</b>		Sample ID: <b>1409291-04AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/9/2014 09:57 PM</b>		
Client ID: <b>RG 12-14-298-B-4</b>		Run ID: <b>ICPMS1_140909A</b>				SeqNo: <b>2927361</b>		Prep Date: <b>9/9/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.19	1.7	6.711	3.952	92.9	75-125	0			

<b>MSD</b>		Sample ID: <b>1409291-04AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/9/2014 10:03 PM</b>		
Client ID: <b>RG 12-14-298-B-4</b>		Run ID: <b>ICPMS1_140909A</b>				SeqNo: <b>2927362</b>		Prep Date: <b>9/9/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.983	1.7	6.693	3.952	90.1	75-125	10.19	2.03	25	

The following samples were analyzed in this batch:

1409291-01A	1409291-02A	1409291-03A
1409291-04A		

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409291  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14

## QC BATCH REPORT

Batch ID: **62545** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1409291-04B DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>9/11/2014 11:00 AM</b>		
Client ID: <b>RG 12-14-298-B-4</b>		Run ID: <b>WETCHEM_140911D</b>				SeqNo: <b>2929761</b>		Prep Date: <b>9/10/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.604	0.050	0	0	0		0.648	7.03	50	

The following samples were analyzed in this batch:

1409291-04B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409291  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14

## QC BATCH REPORT

Batch ID: **62587** Instrument ID **WETCHEM** Method: **SW9045D**

Sample ID: 1409222-01A DUP					Units: s.u.		Analysis Date: 9/9/2014 04:15 PM				
Client ID:			Run ID: WETCHEM_1409090			SeqNo: 2926637		Prep Date: 9/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.81	0	0	0	0	0-0	7.78	0.385	20		

DUP					Sample ID: 1409293-01B DUP				Units:s.u.			Analysis Date: 9/9/2014 04:15 PM			
Client ID:				Run ID: WETCHEM_1409090				SeqNo:2926647			Prep Date: 9/9/2014			DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
pH		9.21	0	0	0	0	0-0	9.18	0.326	20					

The following samples were analyzed in this batch:

1409291-04A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1409291  
**Project:** WPX RG 12-14-298 Backgrounds 9.5.14

## QC BATCH REPORT

Batch ID: **R148032**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R148032</b>				Units: % of sample		Analysis Date: <b>9/11/2014 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931825</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R148032</b>				Units: % of sample		Analysis Date: <b>9/11/2014 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931824</b>		Prep Date:		DF: <b>1</b>
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

<b>DUP</b>		Sample ID: <b>1409307-04A DUP</b>				Units: % of sample		Analysis Date: <b>9/11/2014 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931813</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      27.97      0.050      0      0      0      0-0      28.33      1.28      20

<b>DUP</b>		Sample ID: <b>1409387-03A DUP</b>				Units: % of sample		Analysis Date: <b>9/11/2014 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_140911A</b>				SeqNo: <b>2931821</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      5.03      0.050      0      0      0      0-0      4.98      0.999      20

The following samples were analyzed in this batch:

1409291-01A	1409291-02A	1409291-03A
1409291-04A		

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



# ALS Laboratory Group

3352 128th Ave. Holland, MI 49424  
TF: (800) 443-1511 PH: (816) 399-8070 FX: (816) 399-8185

## Chain-of-Custody

Form 202rd

WORKORDER #

1409291

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX RG 12-14-298

SAMPLER

CASEY RICHARDSON

DATE

9.5.14

PROJECT No. BACKGROUNDS

SITE ID

TURNAROUND

5 DAY

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HCSI

BILL TO COMPANY

WPX Energy

SEND REPORT TO MARK MUMBY

INVOICE ATTN TO

KAROLINA BLANEY

ADDRESS 2385 F 1/2 Road

ADDRESS

1058 County Road 215

CITY/STATE/ZIP Grand Junction, CO. 81505

CITY/STATE/ZIP

Parachute, CO 81635

PHONE 970-243-3271

PHONE

970-683-2295

FAX 970-243-3280

FAX

970-285-9573

E-MAIL mmumby@hcsincorp.com

E-MAIL

karolina.blaney@wpxenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

ARSENIC  
SAR, EC, H

1 RG 12-14-298-B-1

S

9.5.14

1037

1

8

X

2 RG 12-14-298-B-2

1

1

1040

1

1

X

3 RG 12-14-298-B-3

1

1

1044

1

1

X

4 RG 12-14-298-B-4

1

1

1048

2

1

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

or metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

x

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

3.20C

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Casey Richardson

CASEY RICHARDSON

9.5.14

1635

RECEIVED BY

N/M

N/M

9.5.14

1625

RELINQUISHED BY

N/M

N/M

9.5

1638

RECEIVED BY

T.B. JAMES

T.B. JAMES

09/04/14

1740

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: **06-Sep-14 11:40**

Work Order: **1409291**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	08-Sep-14	Reviewed by: <u>Ann Preston</u>	09-Sep-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>3.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>9/8/2014 10:28:34 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:			

Login Notes:

-----

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Parachute Custody Seat  
DATE 9-5-14 Time 1600  
Name [Signature]