

**WPXENERGY Sample Location Map: Juhan 14-26H**

39.491831 -107.858389  
Section 26, Township 6 South, Range 94 West

	Transportation	Hydrography
● Sample Location	CO Highways	Ditch
▨ Impacted Area	County Roads	Intermittent Stream
PLSS	Local Streets	Perennial Stream
□ Township	Access Roads	Waterbody
□ Section		Watershed

**H&E COMPLIANCE SOLUTIONS, INC.**  
ENVIRONMENTAL CONSULTANTS

N

Author: B. Hall  
Revision: 0  
Date: 12/2/2014

Analytical Results

Contaminant of Concern ↓	COGCC standards	Location →	SS-01	Juhan 14-26-BK-1	Juhan 14-26-BK-2	Juhan 14-26-BK-3
		Date Sampled	11/20/2014	11/20/2014	11/20/2014	11/20/2014
Organic Compounds in Soil						
TPH	500	mg/kg	110			
DRO		mg/kg	110			
GRO		mg/kg	ND			
Benzene	0.17	mg/kg	ND			
Toluene	85	mg/kg	ND			
Ethylbenzene	100	mg/kg	ND			
Xylenes (Total)	175	mg/kg	ND			
Acenaphthene	1,000	mg/kg	ND			
Anthracene	1,000	mg/kg	ND			
Benzo(A)anthracene	0.22	mg/kg	ND			
Benzo(B)fluoranthene	0.22	mg/kg	ND			
Benzo(K)fluoranthene	2.2	mg/kg	ND			
Benzo(A)pyrene	0.022	mg/kg	ND			
Chrysene	22	mg/kg	ND			
Dibenzo(A,H)anthracene	0.022	mg/kg	ND			
Fluoranthene	1,000	mg/kg	ND			
Fluorene	1,000	mg/kg	ND			
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND			
Naphthalene	23	mg/kg	ND			
Pyrene	1,000	mg/kg	ND			
Inorganics in Soil						
EC	<4 or 2 x background	mmhos/cm	30	3		
SAR	<12		20	1.8		
pH	6-9		7.9	8.3		
Metals in Soil						
Arsenic	0.39	mg/kg	10	11	9.8	10
Barium total	15,000	mg/kg	440			
Cadmium	70	mg/kg	ND			
Chromium (III)	120,000	mg/kg	14			
Chromium (VI)	23	mg/kg	0.56			
Copper	3,100	mg/kg	15			
Lead	400	mg/kg	13			
Mercury	23	mg/kg	0.026			
Nickel	1,600	mg/kg	13			
Selenium	390	mg/kg	ND			
Silver	390	mg/kg	ND			
Zinc	23,000	mg/kg	56			



02-Dec-2014

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

Re: **WPX Juhan 14-26 Spill 11.20.14**

Work Order: **14111146**

Dear Mark,

ALS Environmental received 1 sample on 21-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 25.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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

Environmental ALS

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

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Spill 11.20.14  
**Work Order:** 14111146

**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>
14111146-01	Juhan 14-26 Confirmation SS01	Soil		11/20/2014 13:19	11/21/2014 10:00	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Spill 11.20.14  
**Work Order:** 14111146

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**Case Narrative**

Batch 65367 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 65478 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

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

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

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

**ALS Group USA, Corp**

Date: 02-Dec-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Spill 11.20.14  
**Sample ID:** Juhan 14-26 Confirmation SS01  
**Collection Date:** 11/20/2014 01:19 PM

**Work Order:** 14111146  
**Lab ID:** 14111146-01  
**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 / 11/24/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>110</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	1	11/25/2014 11:14 AM
<i>Surr: 4-Terphenyl-d14</i>	83.8		39-133	%REC	1	11/25/2014 11:14 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			<b>SW8015</b>		Prep: SW5035 / 11/21/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	ND		2.7	mg/Kg-dry	1	11/22/2014 02:44 PM
<i>Surr: Toluene-d8</i>	101		50-150	%REC	1	11/22/2014 02:44 PM
<b>MERCURY BY CVA</b>			<b>SW7471</b>		Prep: SW7471 / 12/1/14	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.026</b>		<b>0.013</b>	<b>mg/Kg-dry</b>	1	12/1/2014 05:02 PM
<b>METALS ANALYSIS BY ICP</b>			<b>SW846 6010C</b>		Prep: SW3050B / 11/24/14	Analyst: <b>JEC</b>
<b>Arsenic</b>	<b>10</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Barium</b>	<b>440</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Cadmium</b>	ND		0.33	mg/Kg-dry	1	11/24/2014 04:00 PM
<b>Chromium</b>	<b>14</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Copper</b>	<b>15</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Lead</b>	<b>13</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Nickel</b>	<b>13</b>		<b>0.41</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>Selenium</b>	ND		0.41	mg/Kg-dry	1	11/24/2014 04:00 PM
<b>Silver</b>	ND		0.41	mg/Kg-dry	1	11/24/2014 04:00 PM
<b>Zinc</b>	<b>56</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	1	11/24/2014 04:00 PM
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW846 6010C</b>		Prep: USDA Method 20B / 11/26/14	Analyst: <b>JEC</b>
<b>Calcium</b>	<b>1,200</b>		<b>5.0</b>	<b>mg/L</b>	10	11/26/2014 11:32 AM
<b>Magnesium</b>	<b>340</b>		<b>2.0</b>	<b>mg/L</b>	10	11/26/2014 11:32 AM
<b>Sodium</b>	<b>3,000</b>		<b>2.0</b>	<b>mg/L</b>	10	11/26/2014 11:32 AM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 11/26/14	Analyst: <b>JEC</b>
<b>Sodium Adsorption Ratio</b>	<b>20</b>		<b>0.010</b>	<b>none</b>	1	11/26/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>			<b>SW846 8270D</b>		Prep: SW3541 / 11/24/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Anthracene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Benzo(a)anthracene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Chrysene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM

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

**ALS Group USA, Corp**

Date: 02-Dec-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Spill 11.20.14  
**Sample ID:** Juhan 14-26 Confirmation SS01  
**Collection Date:** 11/20/2014 01:19 PM

**Work Order:** 14111146  
**Lab ID:** 14111146-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Fluoranthene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Fluorene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
Naphthalene	ND		7.2	µg/Kg-dry	1	11/25/2014 03:32 AM
<b>Pyrene</b>	<b>8.3</b>		<b>7.2</b>	<b>µg/Kg-dry</b>	1	11/25/2014 03:32 AM
Surr: 2-Fluorobiphenyl	74.3		12-100	%REC	1	11/25/2014 03:32 AM
Surr: 4-Terphenyl-d14	63.4		25-137	%REC	1	11/25/2014 03:32 AM
Surr: Nitrobenzene-d5	55.5		37-107	%REC	1	11/25/2014 03:32 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 11/21/14		Analyst: <b>JDW</b>
Benzene	ND		33	µg/Kg-dry	1	11/24/2014 04:56 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	11/24/2014 04:56 PM
m,p-Xylene	ND		65	µg/Kg-dry	1	11/24/2014 04:56 PM
o-Xylene	ND		33	µg/Kg-dry	1	11/24/2014 04:56 PM
Toluene	ND		33	µg/Kg-dry	1	11/24/2014 04:56 PM
Xylenes, Total	ND		98	µg/Kg-dry	1	11/24/2014 04:56 PM
Surr: 1,2-Dichloroethane-d4	99.8		70-130	%REC	1	11/24/2014 04:56 PM
Surr: 4-Bromofluorobenzene	99.8		70-130	%REC	1	11/24/2014 04:56 PM
Surr: Dibromofluoromethane	91.8		70-130	%REC	1	11/24/2014 04:56 PM
Surr: Toluene-d8	101		70-130	%REC	1	11/24/2014 04:56 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 11/26/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>30</b>		<b>0.050</b>	mmhos/cm @25	10	11/26/2014 11:45 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>MB</b>
Chromium, Trivalent	<b>14</b>		<b>0.54</b>	mg/Kg-dry	1	12/2/2014 08:50 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 11/26/14		Analyst: <b>DAH</b>
Chromium, Hexavalent	<b>0.56</b>		<b>0.54</b>	mg/Kg-dry	1	12/1/2014 12:10 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>EVB</b>
Moisture	<b>7.9</b>		<b>0.050</b>	% of sample	1	11/26/2014 02:00 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 11/24/14		Analyst: <b>STP</b>
pH	<b>7.9</b>			s.u.	1	11/24/2014 02:15 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

**QC BATCH REPORT**

Batch ID: **65365** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: <b>DBLKS1-65365-65365</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/25/2014 09:24 AM</b>			
Client ID:		Run ID: <b>GC8_141125A</b>				SeqNo: <b>3053081</b>		Prep Date: <b>11/24/2014</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									
<i>Surr: 4-Terphenyl-d14</i>	1.09	0	1.667	0	65.4	39-133	0				

LCS		Sample ID: <b>DLCSS1-65365-65365</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/25/2014 09:51 AM</b>			
Client ID:		Run ID: <b>GC8_141125A</b>				SeqNo: <b>3053084</b>		Prep Date: <b>11/24/2014</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)	167.9	4.2	166.7	0	101	61-109	0				
<i>Surr: 4-Terphenyl-d14</i>	1.026	0	1.667	0	61.5	39-133	0				

MS		Sample ID: <b>14111146-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/25/2014 10:19 AM</b>			
Client ID: <b>Juhan 14-26 Confirmation SS01</b>		Run ID: <b>GC8_141125A</b>				SeqNo: <b>3053087</b>		Prep Date: <b>11/24/2014</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)	398	7.9	316.1	103.8	93.1	48-110	0				
<i>Surr: 4-Terphenyl-d14</i>	2.389	0	3.161	0	75.6	39-133	0				

MSD		Sample ID: <b>14111146-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/25/2014 10:47 AM</b>			
Client ID: <b>Juhan 14-26 Confirmation SS01</b>		Run ID: <b>GC8_141125A</b>				SeqNo: <b>3053089</b>		Prep Date: <b>11/24/2014</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)	432	8.1	325.4	103.8	101	48-110	398	8.18	30		
<i>Surr: 4-Terphenyl-d14</i>	2.488	0	3.254	0	76.5	39-133	2.389	4.04	30		

The following samples were analyzed in this batch: | 14111146-01B |

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65316** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: <b>MBLK-65316-65316</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 02:53 PM</b>		
Client ID:		Run ID: <b>GC9_141121A</b>				SeqNo: <b>3049816</b>		Prep Date: <b>11/21/2014</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>	5354	0	5000	0	107	50-150	0			

LCS		Sample ID: <b>LCS-65316-65316</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 02:28 PM</b>		
Client ID:		Run ID: <b>GC9_141121A</b>				SeqNo: <b>3049814</b>		Prep Date: <b>11/21/2014</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)	410100	2,500	500000	0	82	70-130	0			
<i>Surr: Toluene-d8</i>	4784	0	5000	0	95.7	50-150	0			

MS		Sample ID: <b>14111037-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 08:51 PM</b>		
Client ID:		Run ID: <b>GC9_141121A</b>				SeqNo: <b>3049824</b>		Prep Date: <b>11/21/2014</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)	577200	2,500	500000	0	115	70-130	0			
<i>Surr: Toluene-d8</i>	5146	0	5000	0	103	50-150	0			

MSD		Sample ID: <b>14111037-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 09:17 PM</b>		
Client ID:		Run ID: <b>GC9_141121A</b>				SeqNo: <b>3049825</b>		Prep Date: <b>11/21/2014</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)	549400	2,500	500000	0	110	70-130	577200	4.94	30	
<i>Surr: Toluene-d8</i>	5023	0	5000	0	100	50-150	5146	2.43	30	

The following samples were analyzed in this batch: 14111146-01A

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65518** Instrument ID **HG1** Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-65518-65518</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>12/1/2014 04:37 PM</b>		
Client ID:	Run ID: <b>HG1_141201A</b>				SeqNo: <b>3056503</b>		Prep Date: <b>12/1/2014</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-65518-65518</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>12/1/2014 04:39 PM</b>		
Client ID:	Run ID: <b>HG1_141201A</b>				SeqNo: <b>3056504</b>		Prep Date: <b>12/1/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1726 0.020 0.1665 0 104 80-120 0

<b>MS</b>	Sample ID: <b>14111222-01BMS</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>12/1/2014 05:19 PM</b>		
Client ID:	Run ID: <b>HG1_141201A</b>				SeqNo: <b>3056529</b>		Prep Date: <b>12/1/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1097 0.012 0.1024 -0.001103 108 75-125 0

<b>MSD</b>	Sample ID: <b>14111222-01BMSD</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>12/1/2014 05:21 PM</b>		
Client ID:	Run ID: <b>HG1_141201A</b>				SeqNo: <b>3056530</b>		Prep Date: <b>12/1/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1067 0.012 0.1001 -0.001103 108 75-125 0.1097 2.84 35

The following samples were analyzed in this batch: 14111146-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65366**      Instrument ID **ICP2**      Method: **SW846 6010C**

DUP		Sample ID: 14111151-01BDUP				Units: mg/L		Analysis Date: 11/26/2014 11:55 AM		
Client ID:		Run ID: ICP2_141126A			SeqNo: 3054414		Prep Date: 11/26/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	265.1	5.0	0	0	0	0-0	290.8	9.25		
Magnesium	81.39	2.0	0	0	0	0-0	88.69	8.58		
Sodium	124.4	2.0	0	0	0	0-0	138.1	10.4		

DUP		Sample ID: 14111151-01BDUP				Units: none		Analysis Date: 11/26/2014		
Client ID:		Run ID: SAR_141126A			SeqNo: 3054437		Prep Date: 11/26/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.714	0.010	0	0	0		1.819	5.94	50	

The following samples were analyzed in this batch:

14111146-01C
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Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65367** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: <b>MBLK-65367-65367</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/24/2014 11:51 AM</b>		
Client ID:		Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050136</b>		Prep Date: <b>11/24/2014</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								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.272	0.50								J

MBLK		Sample ID: <b>MBLK-65367-65367</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/25/2014 03:48 PM</b>		
Client ID:		Run ID: <b>ICP2_141125A</b>			SeqNo: <b>3053809</b>		Prep Date: <b>11/24/2014</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								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.2026	0.50								J

LCS		Sample ID: <b>LCS-65367-65367</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/24/2014 12:00 PM</b>		
Client ID:		Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050137</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.688	0.25	5	0	93.8	80-120	0			
Barium	4.815	0.25	5	0	96.3	80-120	0			
Cadmium	4.606	0.50	5	0	92.1	80-120	0			
Chromium	4.979	0.25	5	0	99.6	80-120	0			
Copper	4.918	0.50	5	0	98.4	80-120	0			
Lead	4.931	0.25	5	0	98.6	80-120	0			
Nickel	4.893	0.25	5	0	97.9	80-120	0			
Selenium	4.656	0.50	5	0	93.1	80-120	0			
Silver	4.959	0.25	5	0	99.2	80-120	0			
Zinc	5.159	0.50	5	0	103	80-120	0			

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

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: 65367 Instrument ID ICP2 Method: SW846 6010C

LCS		Sample ID: LCS-65367-65367				Units: mg/Kg		Analysis Date: 11/25/2014 03:53 PM		
Client ID:		Run ID: ICP2_141125A			SeqNo: 3053810		Prep Date: 11/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.645	0.25	5	0	92.9	80-120	0			
Barium	4.725	0.25	5	0	94.5	80-120	0			
Cadmium	4.667	0.50	5	0	93.3	80-120	0			
Chromium	4.879	0.25	5	0	97.6	80-120	0			
Copper	5.007	0.50	5	0	100	80-120	0			
Lead	4.897	0.25	5	0	97.9	80-120	0			
Nickel	4.877	0.25	5	0	97.5	80-120	0			
Selenium	4.807	0.50	5	0	96.1	80-120	0			
Silver	5.056	0.25	5	0	101	80-120	0			
Zinc	5.375	0.50	5	0	108	80-120	0			

MS		Sample ID: 14111151-01AMS				Units: mg/Kg		Analysis Date: 11/24/2014 12:46 PM		
Client ID:		Run ID: ICP2_141124A			SeqNo: 3050623		Prep Date: 11/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	18.35	0.36	7.215	9.563	122	75-125	0			
Barium	246.6	0.36	7.215	254.5	-110	75-125	0			SO
Cadmium	6.802	0.72	7.215	-0.02726	94.7	75-125	0			
Chromium	26.6	0.36	7.215	15.92	148	75-125	0			S
Copper	22.98	0.72	7.215	15.24	107	75-125	0			
Lead	19.92	0.36	7.215	11.59	116	75-125	0			
Nickel	21.44	0.36	7.215	14.42	97.3	75-125	0			
Selenium	7.218	0.72	7.215	-0.007304	100	75-125	0			
Silver	8.334	0.36	7.215	-0.1477	118	75-125	0			
Zinc	65.15	0.72	7.215	51.17	194	75-125	0			SO

MSD		Sample ID: 14111151-01AMSD				Units: mg/Kg		Analysis Date: 11/24/2014 01:26 PM		
Client ID:		Run ID: ICP2_141124A			SeqNo: 3050637		Prep Date: 11/24/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	17.83	0.36	7.236	9.563	114	75-125	18.35	2.86	20	
Barium	245.2	0.36	7.236	254.5	-129	75-125	246.6	0.572	20	SO
Cadmium	6.636	0.72	7.236	-0.02726	92.1	75-125	6.802	2.48	20	
Chromium	25.6	0.36	7.236	15.92	134	75-125	26.6	3.82	20	S
Copper	21.77	0.72	7.236	15.24	90.3	75-125	22.98	5.43	20	
Lead	19.24	0.36	7.236	11.59	106	75-125	19.92	3.52	20	
Nickel	20.86	0.36	7.236	14.42	89	75-125	21.44	2.74	20	
Selenium	7.393	0.72	7.236	-0.007304	102	75-125	7.218	2.4	20	
Silver	8.131	0.36	7.236	-0.1477	114	75-125	8.334	2.47	20	
Zinc	62.91	0.72	7.236	51.17	162	75-125	65.15	3.49	20	SO

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

## QC BATCH REPORT

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Batch ID: **65367** Instrument ID **ICP2** Method: **SW846 6010C**

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

14111146-01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65364** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: <b>SBLKS1-65364-65364</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/24/2014 05:36 PM</b>		
Client ID:		Run ID: <b>SVMS8_141124A</b>			SeqNo: <b>3052817</b>		Prep Date: <b>11/24/2014</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>	1253	0	1667	0	75.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1472	0	1667	0	88.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1167	0	1667	0	70	37-107	0			

LCS		Sample ID: <b>SLCSS1-65364-65364</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/24/2014 05:56 PM</b>		
Client ID:		Run ID: <b>SVMS8_141124A</b>			SeqNo: <b>3052818</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	515.7	6.7	666.7	0	77.3	45-110	0			
Acenaphthylene	542	6.7	666.7	0	81.3	45-105	0			
Anthracene	600.3	6.7	666.7	0	90	55-105	0			
Benzo(a)anthracene	593.3	6.7	666.7	0	89	50-110	0			
Benzo(a)pyrene	681	6.7	666.7	0	102	50-110	0			
Benzo(b)fluoranthene	669.7	6.7	666.7	0	100	45-115	0			
Benzo(g,h,i)perylene	613	6.7	666.7	0	91.9	40-125	0			
Benzo(k)fluoranthene	687.7	6.7	666.7	0	103	45-115	0			
Chrysene	627.7	6.7	666.7	0	94.1	55-110	0			
Dibenzo(a,h)anthracene	636.7	6.7	666.7	0	95.5	40-125	0			
Fluoranthene	592.3	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	636.3	6.7	666.7	0	95.4	40-120	0			
Naphthalene	523	6.7	666.7	0	78.4	40-105	0			
Pyrene	633.3	6.7	666.7	0	95	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1262	0	1667	0	75.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1472	0	1667	0	88.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1261	0	1667	0	75.6	37-107	0			

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

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: 65364 Instrument ID SVMS8 Method: SW846 8270D

MS				Sample ID: 14111078-01B MS			Units: µg/Kg		Analysis Date: 11/24/2014 07:47 PM		
Client ID:		Run ID: SVMS8_141124A			SeqNo: 3052819		Prep Date: 11/24/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1149	13	1267	5.841	90.3	45-110	0				
Acenaphthylene	1154	13	1267	5.516	90.7	45-105	0				
Anthracene	1172	13	1267	21.74	90.8	55-105	0				
Benzo(a)anthracene	1237	13	1267	98.65	89.9	50-110	0				
Benzo(a)pyrene	1461	13	1267	164.2	102	50-110	0				
Benzo(b)fluoranthene	1463	13	1267	218.4	98.3	45-115	0				
Benzo(g,h,i)perylene	1432	13	1267	154.8	101	40-125	0				
Benzo(k)fluoranthene	1310	13	1267	84.04	96.8	45-115	0				
Chrysene	1343	13	1267	142.8	94.8	55-110	0				
Dibenzo(a,h)anthracene	1346	13	1267	34.72	104	40-125	0				
Fluoranthene	1412	13	1267	209.9	94.9	55-115	0				
Fluorene	1142	13	1267	6.49	89.6	50-110	0				
Indeno(1,2,3-cd)pyrene	1466	13	1267	161	103	40-120	0				
Naphthalene	904.9	13	1267	5.516	71	40-105	0				
Pyrene	1145	13	1267	155.1	78.1	45-125	0				
Surr: 2-Fluorobiphenyl	2698	0	3166	0	85.2	12-100	0				
Surr: 4-Terphenyl-d14	2332	0	3166	0	73.6	25-137	0				
Surr: Nitrobenzene-d5	2175	0	3166	0	68.7	37-107	0				

MSD				Sample ID: 14111078-01B MSD			Units: µg/Kg		Analysis Date: 11/24/2014 08:07 PM		
Client ID:		Run ID: SVMS8_141124A			SeqNo: 3052820		Prep Date: 11/24/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1050	13	1289	5.841	81	45-110	1149	9.06	30		
Acenaphthylene	1054	13	1289	5.516	81.3	45-105	1154	9.13	30		
Anthracene	1092	13	1289	21.74	83.1	55-105	1172	7	30		
Benzo(a)anthracene	1159	13	1289	98.65	82.2	50-110	1237	6.57	30		
Benzo(a)pyrene	1302	13	1289	164.2	88.3	50-110	1461	11.5	30		
Benzo(b)fluoranthene	1327	13	1289	218.4	86	45-115	1463	9.79	30		
Benzo(g,h,i)perylene	1251	13	1289	154.8	85	40-125	1432	13.5	30		
Benzo(k)fluoranthene	1218	13	1289	84.04	88	45-115	1310	7.3	30		
Chrysene	1212	13	1289	142.8	83	55-110	1343	10.2	30		
Dibenzo(a,h)anthracene	1184	13	1289	34.72	89.2	40-125	1346	12.8	30		
Fluoranthene	1325	13	1289	209.9	86.5	55-115	1412	6.33	30		
Fluorene	1061	13	1289	6.49	81.8	50-110	1142	7.3	30		
Indeno(1,2,3-cd)pyrene	1314	13	1289	161	89.5	40-120	1466	10.9	30		
Naphthalene	882.9	13	1289	5.516	68.1	40-105	904.9	2.47	30		
Pyrene	1286	13	1289	155.1	87.8	45-125	1145	11.6	30		
Surr: 2-Fluorobiphenyl	2305	0	3222	0	71.5	12-100	2698	15.7	40		
Surr: 4-Terphenyl-d14	2435	0	3222	0	75.6	25-137	2332	4.32	40		
Surr: Nitrobenzene-d5	2070	0	3222	0	64.2	37-107	2175	4.96	40		

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

## QC BATCH REPORT

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Batch ID: **65364** Instrument ID **SVMS8** Method: **SW846 8270D**

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

14111146-01B
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Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65315** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: <b>MBLK-65315-65315</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 09:51 PM</b>		
Client ID:		Run ID: <b>VMS6_141121A</b>			SeqNo: <b>3048937</b>		Prep Date: <b>11/21/2014</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>	1028	0	1000	0	103	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	976.5	0	1000	0	97.6	70-130	0			
<i>Surr: Dibromofluoromethane</i>	957.5	0	1000	0	95.8	70-130	0			
<i>Surr: Toluene-d8</i>	990.5	0	1000	0	99	70-130	0			

LCS		Sample ID: <b>LCS-65315-65315</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/21/2014 08:33 PM</b>		
Client ID:		Run ID: <b>VMS6_141121A</b>			SeqNo: <b>3048935</b>		Prep Date: <b>11/21/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1163	30	1000	0	116	75-125	0			
Ethylbenzene	1204	30	1000	0	120	75-125	0			
m,p-Xylene	2349	60	2000	0	117	80-125	0			
o-Xylene	1178	30	1000	0	118	75-125	0			
Toluene	1126	30	1000	0	113	70-125	0			
Xylenes, Total	3526	90	3000	0	118	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1006	0	1000	0	101	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1004	0	1000	0	100	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1020	0	1000	0	102	70-130	0			
<i>Surr: Toluene-d8</i>	985.5	0	1000	0	98.6	70-130	0			

MS		Sample ID: <b>14111078-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/25/2014 10:21 AM</b>		
Client ID:		Run ID: <b>VMS6_141124B</b>			SeqNo: <b>3052673</b>		Prep Date: <b>11/21/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1042	30	1000	0	104	75-125	0			
Ethylbenzene	1100	30	1000	0	110	75-125	0			
m,p-Xylene	2150	60	2000	0	108	80-125	0			
o-Xylene	1062	30	1000	0	106	75-125	0			
Toluene	1034	30	1000	0	103	70-125	0			
Xylenes, Total	3212	90	3000	0	107	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	975.5	0	1000	0	97.6	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1028	0	1000	0	103	70-130	0			
<i>Surr: Dibromofluoromethane</i>	953	0	1000	0	95.3	70-130	0			
<i>Surr: Toluene-d8</i>	970.5	0	1000	0	97	70-130	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65315**      Instrument ID **VMS6**      Method: **SW8260B**

MSD		Sample ID: 14111078-01A MSD				Units: µg/Kg		Analysis Date: 11/25/2014 10:47 AM		
Client ID:		Run ID: VMS6_141124B			SeqNo: 3052675		Prep Date: 11/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	982.5	30	1000	0	98.2	75-125	1042	5.88	30	
Ethylbenzene	1025	30	1000	0	102	75-125	1100	7.1	30	
m,p-Xylene	2048	60	2000	0	102	80-125	2150	4.86	30	
o-Xylene	1022	30	1000	0	102	75-125	1062	3.84	30	
Toluene	998.5	30	1000	0	99.8	70-125	1034	3.49	30	
Xylenes, Total	3070	90	3000	0	102	75-125	3212	4.52	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1008</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>975.5</i>	<i>3.28</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1022</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>1028</i>	<i>0.488</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1015</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>953</i>	<i>6.3</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>988.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.8</i>	<i>70-130</i>	<i>970.5</i>	<i>1.84</i>	<i>30</i>	

The following samples were analyzed in this batch: | 14111146-01A |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111146  
**Project:** WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65366** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>	Sample ID: <b>14111151-01B DUP</b>		Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>11/26/2014 11:45 AM</b>					
Client ID:	Run ID: <b>WETCHEM_141126F</b>		SeqNo: <b>3054303</b>		Prep Date: <b>11/26/2014</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	3.12	0.050	0	0	0		3.01	3.59	50	

The following samples were analyzed in this batch:

14111146-01C
--------------



Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **65478** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>	Sample ID: <b>MBLK-65478-65478</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>12/1/2014 12:10 PM</b>					
Client ID:	Run ID: <b>WETCHEM_141201K</b>		SeqNo: <b>3056321</b>		Prep Date: <b>11/26/2014</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-65478-65478</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>12/1/2014 12:10 PM</b>					
Client ID:	Run ID: <b>WETCHEM_141201K</b>		SeqNo: <b>3056320</b>		Prep Date: <b>11/26/2014</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 1.772 0.50 2 0 88.6 80-120 0

<b>MS</b>	Sample ID: <b>14111147-01B MS</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>12/1/2014 12:10 PM</b>					
Client ID:	Run ID: <b>WETCHEM_141201K</b>		SeqNo: <b>3056316</b>		Prep Date: <b>11/26/2014</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 0.568 0.50 2 0.4661 5.09 75-125 0 S

<b>MS</b>	Sample ID: <b>14111147-01B MSI</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>12/1/2014 12:10 PM</b>					
Client ID:	Run ID: <b>WETCHEM_141201K</b>		SeqNo: <b>3056318</b>		Prep Date: <b>11/26/2014</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 920 50 804.5 0.4661 114 75-125 0

<b>MSD</b>	Sample ID: <b>14111147-01B MSD</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>12/1/2014 12:10 PM</b>					
Client ID:	Run ID: <b>WETCHEM_141201K</b>		SeqNo: <b>3056317</b>		Prep Date: <b>11/26/2014</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 0.6653 0.50 1.992 0.4661 10 75-125 0.568 15.8 20 S

The following samples were analyzed in this batch:

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

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111146  
 Project: WPX Juhan 14-26 Spill 11.20.14

# QC BATCH REPORT

Batch ID: **R153384** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS-R153384</b>				Units: % of sample			Analysis Date: <b>11/26/2014 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_141126A</b>			SeqNo: <b>3056000</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-R153384</b>				Units: % of sample			Analysis Date: <b>11/26/2014 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_141126A</b>			SeqNo: <b>3055999</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>14111298-01B DUP</b>				Units: % of sample			Analysis Date: <b>11/26/2014 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_141126A</b>			SeqNo: <b>3055983</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 14.4 0.050 0 0 0 0-0 12.62 13.2 20

<b>DUP</b>	Sample ID: <b>14111367-01A DUP</b>				Units: % of sample			Analysis Date: <b>11/26/2014 02:00 PM</b>		
Client ID:	Run ID: <b>MOIST_141126A</b>			SeqNo: <b>3055989</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 15.61 0.050 0 0 0 0-0 16.58 6.03 20

The following samples were analyzed in this batch: 14111146-01B

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



**ALS Environmental**

3352 128<sup>th</sup> Avenue Holland, MI 49424  
 PH: (616) 399-6070

**Chain-of-Custody**

WORKORDER # **1411146**

PROJECT NAME: <b>Juban 14-26 Spill</b>		SAMPLER: <b>Mike Lobato</b>		DATE: <b>11/20/14</b>	PAGE: <b>1 of 1</b>															
PROJECT No.	SITE ID: <b>Juban 14-26</b>	TURNAROUND: <b>Standard 5 DAYS</b>		DISPOSAL: <b>By Lab</b> or Return to Client																
COMPANY NAME: <b>HRL Compliance Solutions, Inc.</b>	EDD FORMAT	<b>006CC TABLE 910.1</b>																		
SEND REPORT TO: <b>Mark Mumby</b>	PURCHASE ORDER																			
ADDRESS: <b>2385 F 1/2 Road</b>	BILL TO COMPANY: <b>WPX Energy</b>																			
CITY/STATE/ZIP: <b>Grand Junction, CO 81505</b>	INVOICE ATTN TO: <b>Karolina Blaney</b>																			
PHONE: <b>970-243-3271</b>	ADDRESS: <b>1058 Co. Rd. 215</b>																			
FAX: <b>970-243-3280</b>	CITY/STATE/ZIP: <b>Parachute, CO 81635</b>																			
E-MAIL: <b>mmumby@hrlcomp.com; mlobato@hrlcomp.com</b>	PHONE: <b>970-683-2295</b>																			
E-MAIL: <b>mlobato@hrlcomp.com</b>	E-MAIL: <b>Karolina.blaney@wpxenergy.com</b>						FAX													
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC													
<b>1</b>	<b>Juban 14-26 Confirmation 5501</b>	<b>S</b>	<b>11/20/14</b>	<b>13:19</b>	<b>3</b>	<b>8</b>	<b>X</b>													

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

For metals or anions, please detail analytes below.

Comments: **Complete 910.1 organics + Inorganics Table 3.4c**

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>[Signature]</i>	Mike Lobato	11/20/14	1424
RECEIVED BY	<i>[Signature]</i>	NM	11-20-14	1435
RELINQUISHED BY	<i>[Signature]</i>	NM	11-20	1500
RECEIVED BY	<i>[Signature]</i>	Diane F. Sh...	11/21/14	1000
RELINQUISHED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-Nov-14 10:00**

Work Order: **14111146**

Received by: **DS**

Checklist completed by Diane Shaw 21-Nov-14  
eSignature Date

Reviewed by: Ann Preston 21-Nov-14  
eSignature Date

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

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.4 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="11/21/2014 1:32:51 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

-----

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (816) 399-8070  
Mark Martinez  
ALS Environmental  
127 E. 1st Street  
PARACHUTE, CO 81833

Origin ID: RILA



Ship Date: 20NOV14  
Actual Wt: 75.0 LB  
CAD: 2284840NET3650  
Dims: 14 X 20 X 15 IN

Delivery Address Bar Code



BILL TO: (816) 399-8070  
sample receiving  
ALS Laboratory Group  
3352 128TH AVE  
HOLLAND, MI 49424

BILL SENDER

Ref # 112014-1  
Invoice #  
PO # Parachute  
Dept #

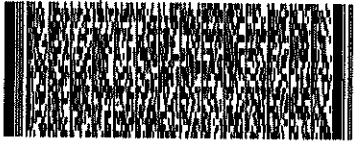
1 of 2

FRI - 21 NOV 10:30A  
PRIORITY OVERNIGHT

TRK# 7719 4112 7110  
EORI  
# MASTER #

49424  
MI-LB  
GRR

XX HLMA



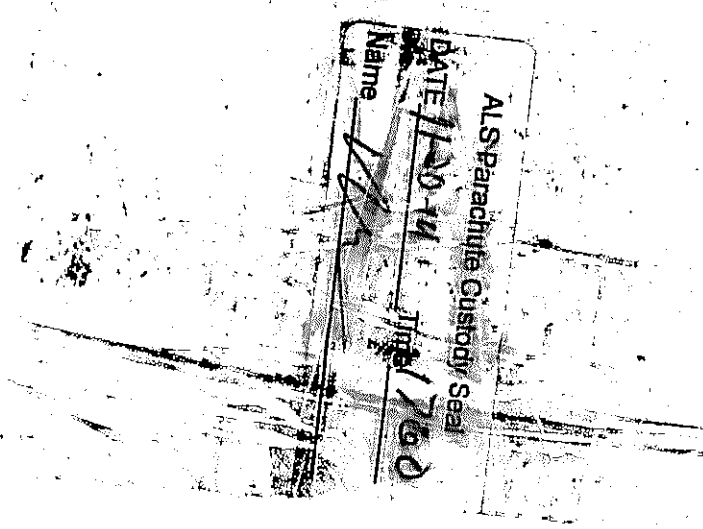
82048WCB401

After printing this label:

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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26-Nov-2014

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

Re: **WPX Juhan 14-26 Backgrounds 11.20.14**

Work Order: **14111151**

Dear Mark,

ALS Environmental received 3 samples on 21-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 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: Joseph Ribar

Ann Preston  
Project Manager



Certificate No: MN 532786

## Report of Laboratory Analysis

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

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

Environmental ALS

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

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14  
**Work Order:** 14111151

**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>
14111151-01	Juhan 14-26-BK-1	Soil		11/20/2014 11:55	11/21/2014 10:00	<input type="checkbox"/>
14111151-02	Juhan 14-26-BK-2	Soil		11/20/2014 12:00	11/21/2014 10:00	<input type="checkbox"/>
14111151-03	Juhan 14-26-BK-3	Soil		11/20/2014 12:05	11/21/2014 10:00	<input type="checkbox"/>

# ALS Group USA, Corp

Date: 26-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14  
**Sample ID:** Juhan 14-26-BK-1  
**Collection Date:** 11/20/2014 11:55 AM

**Work Order:** 14111151  
**Lab ID:** 14111151-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS ANALYSIS BY ICP</b>						
Arsenic	11		<b>SW846 6010C</b> 0.40	mg/Kg-dry	Prep: SW3050B / 11/24/14 1	Analyst: JEC 11/24/2014 12:40 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
Calcium	290		<b>SW846 6010C</b> 5.0	mg/L	Prep: USDA Method 20B / 11/26/14 10	Analyst: JEC 11/26/2014 11:49 AM
Magnesium	89		2.0	mg/L	10	11/26/2014 11:49 AM
Sodium	140		2.0	mg/L	10	11/26/2014 11:49 AM
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	1.8		<b>USDA H60 METHO</b> 0.010	none	Prep: USDA Method 20B / 11/26/14 1	Analyst: JEC 11/26/2014
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>						
Electrical Conductivity @ Saturation	3.0		<b>USDA H60 METHO</b> 0.050	mmhos/cm @2	Prep: USDA Method 20B / 11/26/14 10	Analyst: JB 11/26/2014 11:45 AM
<b>MOISTURE</b>						
Moisture	9.5		<b>A2540 G</b> 0.050	% of sample	1	Analyst: EVB 11/24/2014 04:45 PM
<b>PH</b>						
pH	8.3		<b>SW9045D</b>	s.u.	Prep: EXTRACT / 11/24/14 1	Analyst: STP 11/24/2014 02:15 PM

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

**ALS Group USA, Corp**

Date: 26-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14  
**Sample ID:** Juhan 14-26-BK-2  
**Collection Date:** 11/20/2014 12:00 PM

**Work Order:** 14111151  
**Lab ID:** 14111151-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS ANALYSIS BY ICP</b>			<b>SW846 6010C</b>	Prep: SW3050B / 11/24/14	Analyst: <b>JEC</b>	
Arsenic	9.8		0.40	mg/Kg-dry	1	11/24/2014 04:28 PM
<b>MOISTURE</b>			<b>A2540 G</b>	Analyst: <b>EVB</b>		
Moisture	9.4		0.050	% of sample	1	11/24/2014 04:45 PM

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

**ALS Group USA, Corp**

Date: 26-Nov-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14  
**Sample ID:** Juhan 14-26-BK-3  
**Collection Date:** 11/20/2014 12:05 PM

**Work Order:** 14111151  
**Lab ID:** 14111151-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS ANALYSIS BY ICP</b>			<b>SW846 6010C</b>	Prep: SW3050B / 11/24/14	Analyst: <b>JEC</b>	
Arsenic	10		0.40	mg/Kg-dry	1	11/24/2014 04:33 PM
<b>MOISTURE</b>			<b>A2540 G</b>		Analyst: <b>EVB</b>	
Moisture	9.6		0.050	% of sample	1	11/24/2014 04:45 PM

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

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

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

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111151  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14

**QC BATCH REPORT**

Batch ID: **65366** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 14111151-01BDUP				Units: mg/L		Analysis Date: 11/26/2014 11:55 A		
Client ID: Juhan 14-26-BK-1		Run ID: ICP2_141126A				SeqNo: 3054414		Prep Date: 11/26/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	265.1	5.0	0	0	0	0-0	290.8	9.25		
Magnesium	81.39	2.0	0	0	0	0-0	88.69	8.58		
Sodium	124.4	2.0	0	0	0	0-0	138.1	10.4		

DUP		Sample ID: 14111151-01BDUP				Units: none		Analysis Date: 11/26/2014		
Client ID: Juhan 14-26-BK-1		Run ID: SAR_141126A				SeqNo: 3054437		Prep Date: 11/26/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.714	0.010	0	0	0		1.819	5.94	50	

The following samples were analyzed in this batch:

14111151-01B
--------------

Client: HRL Compliance Solutions, Inc  
 Work Order: 14111151  
 Project: WPX Juhan 14-26 Backgrounds 11.20.14

# QC BATCH REPORT

Batch ID: **65367** Instrument ID **ICP2** Method: **SW846 6010C**

<b>MBLK</b>	Sample ID: <b>MBLK-65367-65367</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/24/2014 11:51 A</b>		
Client ID:	Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050136</b>		Prep Date: <b>11/24/2014</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>MBLK</b>	Sample ID: <b>MBLK-65367-65367</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/25/2014 03:48 PM</b>		
Client ID:	Run ID: <b>ICP2_141125A</b>			SeqNo: <b>3053809</b>		Prep Date: <b>11/24/2014</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-65367-65367</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/24/2014 12:00 PM</b>		
Client ID:	Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050137</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 4.688 0.25 5 0 93.8 80-120 0

<b>LCS</b>	Sample ID: <b>LCS-65367-65367</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/25/2014 03:53 PM</b>		
Client ID:	Run ID: <b>ICP2_141125A</b>			SeqNo: <b>3053810</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 4.645 0.25 5 0 92.9 80-120 0

<b>MS</b>	Sample ID: <b>14111151-01AMS</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/24/2014 12:46 PM</b>		
Client ID: <b>Juhan 14-26-BK-1</b>	Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050623</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 18.35 0.36 7.215 9.563 122 75-125 0

<b>MSD</b>	Sample ID: <b>14111151-01AMSD</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>11/24/2014 01:26 PM</b>		
Client ID: <b>Juhan 14-26-BK-1</b>	Run ID: <b>ICP2_141124A</b>			SeqNo: <b>3050637</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic 17.83 0.36 7.236 9.563 114 75-125 18.35 2.86 20

The following samples were analyzed in this batch:

14111151-01A	14111151-02A	14111151-03A
--------------	--------------	--------------

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111151  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14

# QC BATCH REPORT

Batch ID: **65366** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

<b>DUP</b>	Sample ID: <b>14111151-01B DUP</b>	Units: <b>mmhos/cm @25°</b>	Analysis Date: <b>11/26/2014 11:45 A</b>							
Client ID: <b>Juhan 14-26-BK-1</b>	Run ID: <b>WETCHEM_141126F</b>	SeqNo: <b>3054303</b>	Prep Date: <b>11/26/2014</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	3.12	0.050	0	0	0		3.01	3.59	50	

The following samples were analyzed in this batch:

14111151-01B
--------------

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111151  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14

# QC BATCH REPORT

Batch ID: **65386**      Instrument ID **WETCHEM**      Method: **SW9045D**

LCS		Sample ID: <b>LCS-R153135-65386</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/24/2014 02:15 PM</b>			
Client ID:		Run ID: <b>WETCHEM_141124I</b>		SeqNo: <b>3051066</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	4	0	4	0	100	90-110	0				

DUP		Sample ID: <b>14111073-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/24/2014 02:15 PM</b>			
Client ID:		Run ID: <b>WETCHEM_141124I</b>		SeqNo: <b>3051068</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	10.2	0	0	0	0	0-0	10.31	1.07	20		

DUP		Sample ID: <b>14111146-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>11/24/2014 02:15 PM</b>			
Client ID:		Run ID: <b>WETCHEM_141124I</b>		SeqNo: <b>3051078</b>		Prep Date: <b>11/24/2014</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	7.88	0	0	0	0	0-0	7.93	0.633	20		

The following samples were analyzed in this batch:

14111151-01A
--------------

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14111151  
**Project:** WPX Juhan 14-26 Backgrounds 11.20.14

# QC BATCH REPORT

Batch ID: **R153228**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS-R153228</b>				Units: % of sample			Analysis Date: <b>11/24/2014 04:45 PM</b>		
Client ID:	Run ID: <b>MOIST_141124B</b>			SeqNo: <b>3053295</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-R153228</b>				Units: % of sample			Analysis Date: <b>11/24/2014 04:45 PM</b>		
Client ID:	Run ID: <b>MOIST_141124B</b>			SeqNo: <b>3053293</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>14111154-05B DUP</b>				Units: % of sample			Analysis Date: <b>11/24/2014 04:45 PM</b>		
Client ID:	Run ID: <b>MOIST_141124B</b>			SeqNo: <b>3053274</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                                      8.65      0.050                      0                      0      0      0-0                      8.49      1.87      20

<b>DUP</b>	Sample ID: <b>14111175-01A DUP</b>				Units: % of sample			Analysis Date: <b>11/24/2014 04:45 PM</b>		
Client ID:	Run ID: <b>MOIST_141124B</b>			SeqNo: <b>3053283</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                                      20.55      0.050                      0                      0      0      0-0                      20.53      0.0974      20

**The following samples were analyzed in this batch:**      14111151-01A                      14111151-02A                      14111151-03A

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



**ALS Environmental**

3352 128<sup>th</sup> Avenue Holland, MI 49424  
 PH: (616) 399-6070

**Chain-of-Custody**

WORKORDER # 1411151  
 PAGE 1 of 1

PROJECT NAME: <u>Juhan 14-26 Backgrounds</u>		SAMPLER: <u>Mike Lobato</u>		DATE: <u>11/20/14</u>	Form 202a	TURNAROUND: <u>Standard 5 DAY</u>	DISPOSAL: <u>By Lab</u> or Return to Client					
PROJECT No.	SITE ID: <u>Juhan 14-26</u>	EDD FORMAT	AS SARI EC, PH									
COMPANY NAME: <u>HRL Compliance Solutions, Inc.</u>	BILL TO COMPANY: <u>WPX Energy</u>	PURCHASE ORDER										
SEND REPORT TO: <u>Mark Mumby</u>	INVOICE ATTN TO: <u>Karolina Blaney</u>											
ADDRESS: <u>2385 F 1/2 Road</u>	ADDRESS: <u>1058 Co. Rd. 215</u>											
CITY/STATE/ZIP: <u>Grand Junction, CO 81505</u>	CITY/STATE/ZIP: <u>Parachute, CO 81635</u>											
PHONE: <u>970-243-3271</u>	PHONE: <u>970-683-2295</u>											
FAX: <u>970-243-3280</u>	FAX:											
E-MAIL: <u>mmumby@hrlcomp.com; mlobato@hrlcomp.com</u>	E-MAIL: <u>Karolina.blaney@wpxenergy.com</u>											
Lab ID	Field ID	Matrix						Sample Date	Sample Time	# Bottles	Pres.	QC
1	<u>Juhan 14-26-BK-1</u>	<u>S</u>						<u>11/20/14</u>	<u>11:55</u>	<u>2</u>	<u>8</u>	<u>X</u>
2	<u>Juhan 14-26-BK-2</u>	<u>S</u>	<u>11/20/14</u>	<u>12:00</u>	<u>1</u>	<u>8</u>	<u>X</u>					
3	<u>Juhan 14-26-BK-3</u>	<u>S</u>	<u>11/20/14</u>	<u>12:05</u>	<u>1</u>	<u>8</u>	<u>X</u>					

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

For metals or anions, please detail analytes below.

Comments: 3.4 c

QC PACKAGE (check below)

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<u>Mike Lobato</u>	Mike Lobato	11/20/14	1423
RECEIVED BY	<u>MM</u>	MM	11/20/14	1425
RELINQUISHED BY	<u>MM</u>	MM	11-20	1500
RECEIVED BY	<u>Diane F. Sh</u>	Diane F. Sh	11/21/14	1000
RELINQUISHED BY				

From: (019) 394-9070  
Mkt Metrics  
ALS Environmental  
17 E. 1st Street  
PARACHUTE, CO 81853

Origin: RLA



SHIP TO: (019) 394-9070  
sample receiving  
ALS Laboratory Group  
3352 128TH AVE  
HOLLAND, MI 49424

MAIL BENDER  
JANUARY 2014

Ship Date: 20NOV14  
Actual: 23NOV14  
CAG: 2344444444444444

Delivery Address Bar Code



Ref # 112014-1  
Invoice #  
PO #  
Dept #

1 of 2  
FRI - 21 NOV 10:30A  
PRIORITY OVERNIGHT

TRK# 7719 4112 7110  
EORI

# MASTER # 49424  
**XX HLMA** MAUS  
GRR



822018828493

After printing this label:

1. Use the "Print" button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning! Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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ALS Parachute Guard Seal  
 DATE 11-20-14 Time 1760  
 Name [Signature]

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-Nov-14 10:00**

Work Order: **14111151**

Received by: **DS**

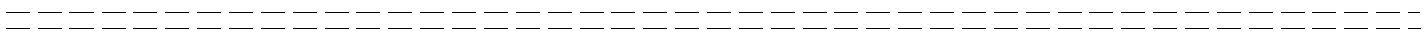
Checklist completed by Diane Shaw 21-Nov-14  
eSignature Date

Reviewed by: Ann Preston 21-Nov-14  
eSignature Date

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

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.4 c"/>		
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="11/21/2014 1:43:29 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:



Client Contacted: \_\_\_\_\_ Date Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted By: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments:

CorrectiveAction: