

## Legend

- Sample Location
- Existing Road
- Existing Pad  
Limit of Disturbance

**NR 23-3**  
**Arsenic Background Sample Location Map**  
**T6S R94W, Section 3**

**July 9, 2014**





07-Jul-2014

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

Re: **WPX NR 23-3 Cuttings 6.30.14**

Work Order: **1407015**

Dear Mark,

ALS Environmental received 1 sample on 01-Jul-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: 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 

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

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Cuttings 6.30.14  
**Work Order:** 1407015

---

**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>
1407015-01	NR 23-3 Cuttings	Soil		6/30/2014 11:40	7/1/2014 09:30	<input type="checkbox"/>

---

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Cuttings 6.30.14  
**Work Order:** 1407015

---

**Case Narrative****QC Summary****Semi-Volatile Organic Compounds**

Batch 60218, Method 8270, Sample 1407015-01B: Surrogate out due to matrix interference.

**Chromium, Hexavalent**

Batch 60231, Method 7196, Sample 1407015-01BMS: The MS and/or MSD recovery was below the control limit. The corresponding result in the parent sample may be biased low.

# ALS Group USA, Corp

Date: 07-Jul-14

Client: HRL Compliance Solutions, Inc

Project: WPX NR 23-3 Cuttings 6.30.14

Sample ID: NR 23-3 Cuttings

Collection Date: 6/30/2014 11:40 AM

Work Order: 1407015

Lab ID: 1407015-01

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>23</b>		<b>SW8015M</b>		Prep: SW3541 / 7/1/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>79.1</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>7/2/2014 02:04 PM</i>
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 7/1/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	<i>104</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>7/1/2014 06:51 PM</i>
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.048</b>		<b>SW7471</b>		Prep: SW7471 / 7/1/14	Analyst: <b>LR</b>
			<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>7/2/2014 05:29 PM</b>
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>4.5</b>		<b>SW6020A</b>		Prep: SW3050B / 7/1/14	Analyst: <b>ML</b>
<b>Barium</b>	<b>4,300</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Cadmium</b>	<b>0.77</b>		<b>17</b>	<b>mg/Kg-dry</b>	<b>50</b>	<b>7/2/2014 07:10 PM</b>
<b>Chromium</b>	<b>10</b>		<b>0.67</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Copper</b>	<b>17</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Lead</b>	<b>12</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Nickel</b>	<b>15</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Selenium</b>	<b>ND</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Silver</b>	<b>ND</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>Zinc</b>	<b>55</b>		<b>3.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	<b>7/2/2014 03:51 AM</b>
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 7/3/14	Analyst: <b>ML</b>
<b>Calcium</b>	<b>51</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	<b>7/3/2014 01:12 PM</b>
<b>Magnesium</b>	<b>14</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>7/3/2014 01:12 PM</b>
<b>Sodium</b>	<b>800</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>7/3/2014 01:12 PM</b>
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 7/3/14	Analyst: <b>ML</b>
<b>Sodium Adsorption Ratio</b>	<b>26</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	<b>7/3/2014</b>
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 7/1/14	Analyst: <b>RM</b>
<b>Acenaphthene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Acenaphthylene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Anthracene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>
<b>Chrysene</b>	<b>ND</b>		<b>7.6</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>7/1/2014 11:30 PM</b>

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

# ALS Group USA, Corp

Date: 07-Jul-14

Client: HRL Compliance Solutions, Inc

Project: WPX NR 23-3 Cuttings 6.30.14

Sample ID: NR 23-3 Cuttings

Collection Date: 6/30/2014 11:40 AM

Work Order: 1407015

Lab ID: 1407015-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Fluoranthene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Fluorene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Naphthalene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Pyrene	ND		7.6	µg/Kg-dry	1	7/1/2014 11:30 PM
Surr: 2-Fluorobiphenyl	42.2		12-100	%REC	1	7/1/2014 11:30 PM
Surr: 4-Terphenyl-d14	103		25-137	%REC	1	7/1/2014 11:30 PM
Surr: Nitrobenzene-d5	36.7	S	37-107	%REC	1	7/1/2014 11:30 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 7/1/14	Analyst: <b>BG</b>	
Benzene	ND		34	µg/Kg-dry	1	7/1/2014 07:12 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	7/1/2014 07:12 PM
m,p-Xylene	ND		68	µg/Kg-dry	1	7/1/2014 07:12 PM
o-Xylene	ND		34	µg/Kg-dry	1	7/1/2014 07:12 PM
<b>Toluene</b>	<b>61</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	7/1/2014 07:12 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	7/1/2014 07:12 PM
Surr: 1,2-Dichloroethane-d4	91.0		70-130	%REC	1	7/1/2014 07:12 PM
Surr: 4-Bromofluorobenzene	97.5		70-130	%REC	1	7/1/2014 07:12 PM
Surr: Dibromofluoromethane	94.8		70-130	%REC	1	7/1/2014 07:12 PM
Surr: Toluene-d8	95.9		70-130	%REC	1	7/1/2014 07:12 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 7/3/14	Analyst: <b>JB</b>	
Electrical Conductivity @ Saturation	4.5		0.050	mmhos/cm @25	10	7/3/2014 01:15 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>EE</b>		
Chromium, Trivalent	10		0.57	mg/Kg-dry	1	7/2/2014 04:15 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 7/2/14	Analyst: <b>EE</b>	
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	7/2/2014 01:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>	Analyst: <b>TM</b>		
Moisture	12		0.050	% of sample	1	7/1/2014 03:06 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 7/2/14	Analyst: <b>AT</b>	
pH	9.3			s.u.	1	7/2/2014 04:19 PM

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

<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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

# QC BATCH REPORT

Batch ID: **60201** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>		Sample ID: <b>DBLKS1-60201-60201</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 10:13 AM</b>		
Client ID:		Run ID: <b>GC8_140702A</b>				SeqNo: <b>2834021</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	2.026	0	2	0	101	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-60201-60201</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 11:04 AM</b>		
Client ID:		Run ID: <b>GC8_140702A</b>				SeqNo: <b>2834022</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	174.5	5.0	200	0	87.2	61-109	0			
Surr: 4-Terphenyl-d14	1.687	0	2	0	84.4	39-133	0			

<b>MS</b>		Sample ID: <b>14061535-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 11:34 AM</b>		
Client ID:		Run ID: <b>GC8_140702A</b>				SeqNo: <b>2834023</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	947.6	7.9	317.8	715.2	73.1	48-110	0			
Surr: 4-Terphenyl-d14	3.197	0	3.178	0	101	39-133	0			

<b>MSD</b>		Sample ID: <b>14061535-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 12:04 PM</b>		
Client ID:		Run ID: <b>GC8_140702A</b>				SeqNo: <b>2834024</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	925.3	8.1	323.7	715.2	64.9	48-110	947.6	2.38	30	
Surr: 4-Terphenyl-d14	3.378	0	3.237	0	104	39-133	3.197	5.5	30	

The following samples were analyzed in this batch: | 1407015-01B |



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60214**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-60214-60214</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2014 04:41 PM</b>		
Client ID:		Run ID: <b>GC9_140701A</b>				SeqNo: <b>2832527</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5238	0	5000	0	105	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-60214-60214</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2014 04:14 PM</b>		
Client ID:		Run ID: <b>GC9_140701A</b>				SeqNo: <b>2832526</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	525800	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	4461	0	5000	0	89.2	50-150	0			

<b>MS</b>		Sample ID: <b>1407014-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2014 05:59 PM</b>		
Client ID:		Run ID: <b>GC9_140701A</b>				SeqNo: <b>2832529</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	543000	2,500	500000	0	109	70-130	0			
<i>Surr: Toluene-d8</i>	4750	0	5000	0	95	50-150	0			

<b>MS</b>		Sample ID: <b>1407014-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2014 06:25 PM</b>		
Client ID:		Run ID: <b>GC9_140701A</b>				SeqNo: <b>2832530</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	527200	2,500	500000	0	105	70-130	0			
<i>Surr: Toluene-d8</i>	4772	0	5000	0	95.4	50-150	0			

The following samples were analyzed in this batch:

1407015-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60220**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-60220-60220</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 04:42 PM</b>		
Client ID:		Run ID: <b>HG1_140702A</b>				SeqNo: <b>2834215</b>		Prep Date: <b>7/1/2014</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      0.016

<b>LCS</b>		Sample ID: <b>LCS-60220-60220</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 04:44 PM</b>		
Client ID:		Run ID: <b>HG1_140702A</b>				SeqNo: <b>2834216</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1454      0.017      0.138      0      105      80-120      0

<b>MS</b>		Sample ID: <b>1407049-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 05:43 PM</b>		
Client ID:		Run ID: <b>HG1_140702A</b>				SeqNo: <b>2834236</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1511      0.017      0.1386      0.01557      97.8      75-125      0

<b>MSD</b>		Sample ID: <b>1407049-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 05:45 PM</b>		
Client ID:		Run ID: <b>HG1_140702A</b>				SeqNo: <b>2834237</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1409      0.016      0.1363      0.01557      91.9      75-125      0.1511      7.02      35

The following samples were analyzed in this batch:

1407015-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60213**      Instrument ID **ICPMS1**      Method: **SW6020A**

MBLK				Sample ID: MBLK-60213-60213				Units: mg/Kg		Analysis Date: 7/2/2014 01:57 AM		
Client ID:			Run ID: ICPMS1_140701A			SeqNo: 2832165		Prep Date: 7/1/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Arsenic	ND	0.25										
Barium	0.0665	0.25								J		
Cadmium	ND	0.10										
Chromium	ND	0.25										
Copper	ND	0.25										
Lead	ND	0.25										
Nickel	ND	0.25										
Selenium	ND	0.25										
Silver	ND	0.25										
Zinc	0.03809	0.50								J		

LCS				Sample ID: LCS-60213-60213				Units: mg/Kg		Analysis Date: 7/2/2014 02:03 AM	
Client ID:			Run ID: ICPMS1_140701A			SeqNo: 2832167		Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	4.898	0.25	5	0	98	80-120	0				
Barium	4.974	0.25	5	0	99.5	80-120	0				
Cadmium	4.93	0.10	5	0	98.6	80-120	0				
Chromium	5.065	0.25	5	0	101	80-120	0				
Copper	4.92	0.25	5	0	98.4	80-120	0				
Lead	4.98	0.25	5	0	99.6	80-120	0				
Nickel	4.974	0.25	5	0	99.5	80-120	0				
Selenium	4.514	0.25	5	0	90.3	80-120	0				
Silver	4.88	0.25	5	0	97.6	80-120	0				
Zinc	4.974	0.50	5	0	99.5	80-120	0				

MS				Sample ID: 1407017-02AMS			Units: mg/Kg		Analysis Date: 7/2/2014 04:54 AM		
Client ID:			Run ID: ICPMS1_140701A			SeqNo: 2832234		Prep Date: 7/1/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	9.605	1.7	6.812	5.188	64.8	75-125	0			S	
Barium	118.7	1.7	6.812	105.7	191	75-125	0			SO	
Cadmium	7.136	0.68	6.812	0.8182	92.7	75-125	0				
Chromium	16.39	1.7	6.812	8.038	123	75-125	0				
Copper	17.9	1.7	6.812	12.63	77.4	75-125	0				
Lead	19.06	1.7	6.812	13.39	83.1	75-125	0				
Nickel	17.13	1.7	6.812	11.02	89.7	75-125	0				
Selenium	7.316	1.7	6.812	1.225	89.4	75-125	0				
Silver	6.039	1.7	6.812	0.04556	88	75-125	0				
Zinc	51.06	3.4	6.812	45.3	84.6	75-125	0			O	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60213** Instrument ID **ICPMS1** Method: **SW6020A**

MSD				Sample ID: 1407017-02AMSD			Units: mg/Kg		Analysis Date: 7/2/2014 05:01 AM		
Client ID:			Run ID: ICPMS1_140701A			SeqNo: 2832238		Prep Date: 7/1/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	9.441	1.7	6.775	5.188	62.8	75-125	9.605	1.72	25	S	
Barium	106.4	1.7	6.775	105.7	10.2	75-125	118.7	10.9	25	SO	
Cadmium	6.978	0.68	6.775	0.8182	90.9	75-125	7.136	2.23	25		
Chromium	16.54	1.7	6.775	8.038	125	75-125	16.39	0.901	25	S	
Copper	17.71	1.7	6.775	12.63	74.9	75-125	17.9	1.1	25	S	
Lead	18.83	1.7	6.775	13.39	80.3	75-125	19.06	1.19	25		
Nickel	17.25	1.7	6.775	11.02	91.9	75-125	17.13	0.682	25		
Selenium	7.652	1.7	6.775	1.225	94.9	75-125	7.316	4.49	25		
Silver	6.037	1.7	6.775	0.04556	88.4	75-125	6.039	0.0371	25		
Zinc	51.12	3.4	6.775	45.3	85.9	75-125	51.06	0.121	25	O	

The following samples were analyzed in this batch: 1407015-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60232** Instrument ID **ICPMS1** Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>1407085-01ADUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>7/3/2014 02:16 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140703A</b>				SeqNo: <b>2836867</b>		Prep Date: <b>7/3/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	531.4	10	0	0	0	0-0	479.8	10.2		
Magnesium	208	4.0	0	0	0	0-0	189.2	9.48		
Sodium	1811	4.0	0	0	0	0-0	1659	8.77		

<b>DUP</b>		Sample ID: <b>1407085-01ADUP</b>				Units: <b>none</b>		Analysis Date: <b>7/3/2014</b>		
Client ID:		Run ID: <b>SAR_140703A</b>				SeqNo: <b>2837131</b>		Prep Date: <b>7/3/2014</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	16.87	0.010	0	0	0		16.23	3.81	50	

The following samples were analyzed in this batch: | 1407015-01C |

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60218**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-60218-60218</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/1/2014 11:39 PM</b>		
Client ID:		Run ID: <b>SVMS8_140701A</b>				SeqNo: <b>2833656</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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>	1186	0	1667	0	71.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1666	0	1667	0	99.9	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1214	0	1667	0	72.8	37-107	0			

LCS		Sample ID: <b>SLCSS1-60218-60218</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>7/2/2014 12:01 AM</b>		
Client ID:		Run ID: <b>SVMS8_140701A</b>				SeqNo: <b>2833658</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	460.3	6.7	666.7	0	69	45-110	0			
Acenaphthylene	528.7	6.7	666.7	0	79.3	45-105	0			
Anthracene	551.7	6.7	666.7	0	82.7	55-105	0			
Benzo(a)anthracene	578.3	6.7	666.7	0	86.7	50-110	0			
Benzo(a)pyrene	641.7	6.7	666.7	0	96.2	50-110	0			
Benzo(b)fluoranthene	595	6.7	666.7	0	89.2	45-115	0			
Benzo(g,h,i)perylene	567.3	6.7	666.7	0	85.1	40-125	0			
Benzo(k)fluoranthene	546.7	6.7	666.7	0	82	45-115	0			
Chrysene	553	6.7	666.7	0	82.9	55-110	0			
Dibenzo(a,h)anthracene	645.3	6.7	666.7	0	96.8	40-125	0			
Fluoranthene	575	6.7	666.7	0	86.2	55-115	0			
Fluorene	496.3	6.7	666.7	0	74.4	50-110	0			
Indeno(1,2,3-cd)pyrene	696.3	6.7	666.7	0	104	40-120	0			
Naphthalene	454	6.7	666.7	0	68.1	40-105	0			
Pyrene	575	6.7	666.7	0	86.2	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1153	0	1667	0	69.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1558	0	1667	0	93.5	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:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

# QC BATCH REPORT

Batch ID: **60218**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: 1407016-02B MS			Units: µg/Kg		Analysis Date: 7/2/2014 01:00 AM	
Client ID:		Run ID: SVMS8_140701A			SeqNo: 2833665		Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	904.6	13	1323	0	68.4	45-110	0			
Acenaphthylene	1068	13	1323	0	80.7	45-105	0			
Anthracene	1126	13	1323	0	85.1	55-105	0			
Benzo(a)anthracene	1170	13	1323	0	88.4	50-110	0			
Benzo(a)pyrene	1275	13	1323	0	96.4	50-110	0			
Benzo(b)fluoranthene	1212	13	1323	0	91.6	45-115	0			
Benzo(g,h,i)perylene	1102	13	1323	0	83.3	40-125	0			
Benzo(k)fluoranthene	1105	13	1323	0	83.5	45-115	0			
Chrysene	1088	13	1323	0	82.2	55-110	0			
Dibenzo(a,h)anthracene	1277	13	1323	0	96.5	40-125	0			
Fluoranthene	1169	13	1323	0	88.4	55-115	0			
Fluorene	1011	13	1323	0	76.4	50-110	0			
Indeno(1,2,3-cd)pyrene	1383	13	1323	0	105	40-120	0			
Naphthalene	888.1	13	1323	0	67.1	40-105	0			
Pyrene	1133	13	1323	0	85.6	45-125	0			
Surr: 2-Fluorobiphenyl	2287	0	3307	0	69.2	12-100	0			
Surr: 4-Terphenyl-d14	3023	0	3307	0	91.4	25-137	0			
Surr: Nitrobenzene-d5	2453	0	3307	0	74.2	37-107	0			

MSD				Sample ID: 1407016-02B MSD			Units: µg/Kg		Analysis Date: 7/2/2014 01:21 AM	
Client ID:		Run ID: SVMS8_140701A			SeqNo: 2833667		Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	835.1	13	1295	0	64.5	45-110	904.6	7.99	30	
Acenaphthylene	980.8	13	1295	0	75.7	45-105	1068	8.51	30	
Anthracene	999.5	13	1295	0	77.2	55-105	1126	11.9	30	
Benzo(a)anthracene	1077	13	1295	0	83.1	50-110	1170	8.3	30	
Benzo(a)pyrene	1169	13	1295	0	90.2	50-110	1275	8.71	30	
Benzo(b)fluoranthene	1114	13	1295	0	86	45-115	1212	8.43	30	
Benzo(g,h,i)perylene	1016	13	1295	0	78.4	40-125	1102	8.12	30	
Benzo(k)fluoranthene	989.2	13	1295	0	76.4	45-115	1105	11.1	30	
Chrysene	1014	13	1295	0	78.3	55-110	1088	6.98	30	
Dibenzo(a,h)anthracene	1168	13	1295	0	90.2	40-125	1277	8.92	30	
Fluoranthene	1047	13	1295	0	80.9	55-115	1169	11	30	
Fluorene	918	13	1295	0	70.9	50-110	1011	9.66	30	
Indeno(1,2,3-cd)pyrene	1276	13	1295	0	98.5	40-120	1383	8.08	30	
Naphthalene	829.3	13	1295	0	64	40-105	888.1	6.85	30	
Pyrene	1041	13	1295	0	80.4	45-125	1133	8.45	30	
Surr: 2-Fluorobiphenyl	2187	0	3237	0	67.6	12-100	2287	4.47	40	
Surr: 4-Terphenyl-d14	2822	0	3237	0	87.2	25-137	3023	6.89	40	
Surr: Nitrobenzene-d5	2319	0	3237	0	71.6	37-107	2453	5.61	40	

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

---

Batch ID: **60218** Instrument ID **SVMS8** Method: **SW8270**

---

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

1407015-01B
-------------

---

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

# QC BATCH REPORT

Batch ID: **60207**      Instrument ID **VMS5**      Method: **SW8260B**

MBLK				Sample ID: MBLK-60207-60207				Units: µg/Kg			Analysis Date: 7/1/2014 02:41 PM			
Client ID:				Run ID: VMS5_140701A				SeqNo: 2832791			Prep Date: 7/1/2014		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	1041	0	1000	0	104	70-130		0						
Surr: 4-Bromofluorobenzene	967.5	0	1000	0	96.8	70-130		0						
Surr: Dibromofluoromethane	1010	0	1000	0	101	70-130		0						
Surr: Toluene-d8	953	0	1000	0	95.3	70-130		0						

LCS				Sample ID: LCS-60207-60207				Units: µg/Kg			Analysis Date: 7/1/2014 12:43 PM			
Client ID:				Run ID: VMS5_140701A				SeqNo: 2832790			Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Benzene	911.5	30	1000	0	91.2	75-125	0							
Ethylbenzene	919.5	30	1000	0	92	75-125	0							
m,p-Xylene	1848	60	2000	0	92.4	80-125	0							
o-Xylene	911	30	1000	0	91.1	75-125	0							
Toluene	935	30	1000	0	93.5	70-125	0							
Xylenes, Total	2759	90	3000	0	92	75-125	0							
Surr: 1,2-Dichloroethane-d4	1008	0	1000	0	101	70-130	0							
Surr: 4-Bromofluorobenzene	997.5	0	1000	0	99.8	70-130	0							
Surr: Dibromofluoromethane	996	0	1000	0	99.6	70-130	0							
Surr: Toluene-d8	968	0	1000	0	96.8	70-130	0							

MS				Sample ID: 1407001-03A MS				Units: µg/Kg		Analysis Date: 7/2/2014 01:00 PM	
Client ID:			Run ID: VMS6_140701B			SeqNo: 2833681		Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	883.5	30	1000	0	88.4	75-125	0				
Ethylbenzene	826.5	30	1000	0	82.6	75-125	0				
m,p-Xylene	1682	60	2000	0	84.1	80-125	0				
o-Xylene	850	30	1000	0	85	75-125	0				
Toluene	820	30	1000	0	82	70-125	0				
Xylenes, Total	2532	90	3000	0	84.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	904	0	1000	0	90.4	70-130	0				
Surr: 4-Bromofluorobenzene	997.5	0	1000	0	99.8	70-130	0				
Surr: Dibromofluoromethane	987.5	0	1000	0	98.8	70-130	0				
Surr: Toluene-d8	966	0	1000	0	96.6	70-130	0				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60207** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1407001-03A MSD			Units: µg/Kg		Analysis Date: 7/2/2014 01:26 PM		
Client ID:			Run ID: VMS6_140701B			SeqNo: 2833682		Prep Date: 7/1/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	810	30	1000	0	81	75-125	883.5	8.68	30	S	
Ethylbenzene	763.5	30	1000	0	76.4	75-125	826.5	7.92	30		
m,p-Xylene	1568	60	2000	0	78.4	80-125	1682	6.95	30		
o-Xylene	804.5	30	1000	0	80.4	75-125	850	5.5	30		
Toluene	770.5	30	1000	0	77	70-125	820	6.22	30		
Xylenes, Total	2373	90	3000	0	79.1	75-125	2532	6.46	30		
Surr: 1,2-Dichloroethane-d4	906.5	0	1000	0	90.6	70-130	904	0.276	30		
Surr: 4-Bromofluorobenzene	1007	0	1000	0	101	70-130	997.5	0.948	30		
Surr: Dibromofluoromethane	968.5	0	1000	0	96.8	70-130	987.5	1.94	30		
Surr: Toluene-d8	958	0	1000	0	95.8	70-130	966	0.832	30		

The following samples were analyzed in this batch: 1407015-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60231**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-60231-60231</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140702C</b>				SeqNo: <b>2833536</b>		Prep Date: <b>7/2/2014</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

<b>LCS</b>		Sample ID: <b>LCS-60231-60231</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140702C</b>				SeqNo: <b>2833537</b>		Prep Date: <b>7/2/2014</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      1.872      0.49      1.946      0      96.2      80-120      0

<b>MS</b>		Sample ID: <b>1407015-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:00 PM</b>		
Client ID: <b>NR 23-3 Cuttings</b>		Run ID: <b>WETCHEM_140702C</b>				SeqNo: <b>2833540</b>		Prep Date: <b>7/2/2014</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      1.016      0.49      1.976      0.03125      49.8      75-125      0      S

<b>MS</b>		Sample ID: <b>1407015-01BMSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:00 PM</b>		
Client ID: <b>NR 23-3 Cuttings</b>		Run ID: <b>WETCHEM_140702C</b>				SeqNo: <b>2833542</b>		Prep Date: <b>7/2/2014</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      1168      49      1242      0.03125      94      75-125      0

<b>MSD</b>		Sample ID: <b>1407015-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:00 PM</b>		
Client ID: <b>NR 23-3 Cuttings</b>		Run ID: <b>WETCHEM_140702C</b>				SeqNo: <b>2833541</b>		Prep Date: <b>7/2/2014</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      1.157      0.49      1.969      0.03125      57.2      75-125      1.016      13      20      S

The following samples were analyzed in this batch:

1407015-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60232** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1407085-01A DUP</b>				Units: <b>mmhos/cm @25°</b>		Analysis Date: <b>7/3/2014 01:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140703C</b>				SeqNo: <b>2835893</b>		Prep Date: <b>7/3/2014</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	13	0.050	0	0	0		12.77	1.79	50	

The following samples were analyzed in this batch:

1407015-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **60262**      Instrument ID **WETCHEM**      Method: **SW9045D**

LCS		Sample ID: LCS-60262-60262					Units: s.u.		Analysis Date: 7/2/2014 04:19 PM		
Client ID:		Run ID: WETCHEM_140702J				SeqNo: 2833896		Prep Date: 7/2/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      3.99      0      4      0      99.8      90-110      0

DUP		Sample ID: 14061537-03A DUP					Units: s.u.		Analysis Date: 7/2/2014 04:19 PM		
Client ID:		Run ID: WETCHEM_140702J					SeqNo: 2833902		Prep Date: 7/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      8.03      0      0      0      0      0-0      8.05      0.249      20

DUP		Sample ID: 1407016-02B DUP					Units: s.u.		Analysis Date: 7/2/2014 04:19 PM		
Client ID:			Run ID: WETCHEM_140702J			SeqNo: 2833909		Prep Date: 7/2/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH      8.47      0      0      0      0      0-0      8.48      0.118      20

The following samples were analyzed in this batch:

1407015-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407015  
**Project:** WPX NR 23-3 Cuttings 6.30.14

## QC BATCH REPORT

Batch ID: **R143748** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R143748</b>				Units: % of sample		Analysis Date: <b>7/1/2014 03:06 PM</b>		
Client ID:		Run ID: <b>MOIST_140701B</b>				SeqNo: <b>2833445</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-R143748</b>				Units: % of sample		Analysis Date: <b>7/1/2014 03:06 PM</b>		
Client ID:		Run ID: <b>MOIST_140701B</b>				SeqNo: <b>2833444</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>1407014-01B DUP</b>				Units: % of sample		Analysis Date: <b>7/1/2014 03:06 PM</b>		
Client ID:		Run ID: <b>MOIST_140701B</b>				SeqNo: <b>2833435</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 9.92 0.050 0 0 0 0-0 11.26 12.7 20

<b>DUP</b>		Sample ID: <b>1407017-02A DUP</b>				Units: % of sample		Analysis Date: <b>7/1/2014 03:06 PM</b>		
Client ID:		Run ID: <b>MOIST_140701B</b>				SeqNo: <b>2833443</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 0.42 0.050 0 0 0 0-0 0.43 2.35 20

The following samples were analyzed in this batch:

1407015-01B

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



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r4

WORKORDER #

1407015

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX NR 23-3 cuttings

SAMPLER Reed Wold

DATE

6/30/14

SITE ID

NR 23-3

TURNAROUND

24 HR

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HRL Compliance

BILL TO COMPANY WPX

SEND REPORT TO Mark Mumby

INVOICE ATTN TO Karolina Blaney

ADDRESS 2385 F 1/2 Rd

ADDRESS 1058 Co Rd 215

CITY / STATE / ZIP Grand Junction, CO 81506

CITY / STATE / ZIP Parachute CO 81635

PHONE 970-243-3271

PHONE 970-683-2295

FAX 970-243-3280

FAX

E-MAIL mmumby@hrlcomp.com  
rwold@hrlcomp.com

E-MAIL Karolina.blaney@wpxenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

# Bottles

Pres.

QC

1 NR 23-3 cuttings So 6/30/14 11:40 3 8 X X X

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

For metals or anions, please detail analytes below.

Comments:

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

Reed Wold

Reed Wold

6/30/14

2:50

RECEIVED BY

MM

MM

6-30

2:50

RELINQUISHED BY


D. J. Shaw

Diane F. Shaw

7/1/14

0930

RECEIVED BY

<b>From:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102	<b>Origin ID:</b> RLAA <b>FedEx</b> 	<b>To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102	<b>Service:</b> 50JUN14 AWC TLD LB CB 2596000673466	<b>Date:</b> 24 X 15 X 15 M
<b>Ship To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		<b>Ship From:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		
<b>Bill To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		<b>Ship To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		
<b>Ship To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		<b>Ship From:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		
<b>Ship To:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		<b>Ship From:</b> (970) 284-5753 Net Services ALS Environmental 127 E-1st Street ALBUQUERQUE, NM 87102		

**TUE - 01 JUL 10:30A**  
**PRIORITY OVERNIGHT**  
 2 of 3  
 7704 6908 7576  
 49424  
**XX GRRA**  
 49424  
 GRR



After printing this label:  
 1. Use the printer on this page to print your label to your target printer.  
 2. Fold the shipping pouch along the horizontal lines.  
 3. Place label in shipping pouch and affix to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.  
 Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misrouting, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limits found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including interest, profit, attorney's fees, costs and other forms of damages, whether direct or consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

**ALS Parachute Custody Seal**  
**DATE** 6-26-10 **TIME** 1:20  
**Name** [Signature]



Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **01-Jul-14 09:30**

Work Order: **1407015**

Received by: **DS**

Checklist completed by Diane Shaw  
eSignature

01-Jul-14  
Date

Reviewed by: Ann Preston  
eSignature

02-Jul-14  
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>7/1/2014 10:22:39 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:



14-Jun-2012

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **WPX NR 23-3 Well Blowout 6/1/12**

Work Order: **1206211**

Dear Mark,

ALS Environmental received 6 samples on 07-Jun-2012 10:30 AM for the analyses presented in the following report.

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

QC sample results for this data met 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 32.

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

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN331938

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

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

Environmental A small icon of the ALS Environmental logo, featuring a stylized flame inside a triangle.

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

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** WPX NR 23-3 Well Blowout 6/1/12  
**Work Order:** 1206211

## 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>
1206211-01	NR 23-3 Middle Sediment Trap	Soil		6/1/2012 13:00	6/7/2012 10:30	<input type="checkbox"/>
1206211-02	NR 23-3 Large Pond	Soil		6/1/2012 13:15	6/7/2012 10:30	<input type="checkbox"/>
1206211-03	NR 23-3 Pt Left Pad	Soil		6/1/2012 13:20	6/7/2012 10:30	<input type="checkbox"/>
1206211-04	NR 23-3 BKGD 1	Soil		6/1/2012 13:30	6/7/2012 10:30	<input type="checkbox"/>
1206211-05	NR 23-3 BKGD 2	Soil		6/1/2012 13:35	6/7/2012 10:30	<input type="checkbox"/>
1206211-06	NR 23-3 BKGD 3	Soil		6/1/2012 13:40	6/7/2012 10:30	<input type="checkbox"/>

## ALS Group USA, Corp

Date: 14-Jun-12

**Client:** HRL Compliance Solutions

**Project:** WPX NR 23-3 Well Blowout 6/1/12

**Work Order:** 1206211

**Sample ID:** NR 23-3 BKGD 1

**Lab ID:** 1206211-04

**Collection Date:** 6/1/2012 01:30 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/11/2012</b>	Analyst: <b>ML</b>
Arsenic	4.5		0.69	mg/Kg-dry	2	6/12/2012 06:20 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	1.1		0.050	% of sample	1	6/7/2012 02:47 PM

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

## ALS Group USA, Corp

Date: 14-Jun-12

**Client:** HRL Compliance Solutions

**Project:** WPX NR 23-3 Well Blowout 6/1/12

**Work Order:** 1206211

**Sample ID:** NR 23-3 BKGD 2

**Lab ID:** 1206211-05

**Collection Date:** 6/1/2012 01:35 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/11/2012</b>	Analyst: <b>ML</b>
Arsenic	3.7		0.64	mg/Kg-dry	2	6/12/2012 05:49 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	1.4		0.050	% of sample	1	6/7/2012 02:47 PM

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

**ALS Group USA, Corp**

Date: 14-Jun-12

Client: HRL Compliance Solutions

Project: WPX NR 23-3 Well Blowout 6/1/12

Work Order: 1206211

Sample ID: NR 23-3 BKGD 3

Lab ID: 1206211-06

Collection Date: 6/1/2012 01:40 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>						
Arsenic	3.6		SW6020A 0.71	mg/Kg-dry	Prep Date: 6/14/2012 2	Analyst: RH 6/14/2012 12:49 PM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 6/12/12		SUBCONTRACT as noted		1	Analyst: A&LGL 6/12/2012
<b>MOISTURE</b>						
Moisture	0.71		A2540 G 0.050	% of sample	1	Analyst: CG 6/7/2012 02:47 PM
<b>PH</b>						
pH	6.98	H	SW9045D	s.u.	1	Analyst: KV 6/7/2012 06:30 PM

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

Client: HRL Compliance Solutions

Work Order: 1206211

Project: WPX NR 23-3 Well Blowout 6/1/12

# QC BATCH REPORT

Batch ID: 41545

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-41545-41545</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:30 PM</b>		
Client ID:		Run ID: <b>GC8_120612A</b>				SeqNo: <b>1997997</b>		Prep Date: <b>6/11/2012</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

ORO (C28-C40)

ND

4.2

Surr: 4-Terphenyl-d14

1.778

0

1.667

0

107

39-115

0

<b>LCS</b>		Sample ID: <b>DLCSS1-41545-41545</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:30 PM</b>		
Client ID:		Run ID: <b>GC8_120612A</b>				SeqNo: <b>1998019</b>		Prep Date: <b>6/11/2012</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)

109.2

4.2

166.7

0

65.5

60-130

0

ORO (C28-C40)

146.4

4.2

166.7

0

87.8

60-130

0

Surr: 4-Terphenyl-d14

0.719

0

1.667

0

43.1

39-115

0

<b>MS</b>		Sample ID: <b>1206191-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:56 PM</b>		
Client ID:		Run ID: <b>GC8_120612A</b>				SeqNo: <b>1998021</b>		Prep Date: <b>6/11/2012</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)

217.4

8.1

324.9

3.319

65.9

60-130

0

ORO (C28-C40)

305.7

8.1

324.9

4360

-1250

60-130

0

SO

Surr: 4-Terphenyl-d14

1.777

0

3.249

0

54.7

39-115

0

<b>MSD</b>		Sample ID: <b>1206191-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:56 PM</b>		
Client ID:		Run ID: <b>GC8_120612A</b>				SeqNo: <b>1997998</b>		Prep Date: <b>6/11/2012</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)

215.7

8.2

329.7

3.319

64.4

60-130

217.4

0.771

30

ORO (C28-C40)

434.6

8.2

329.7

4360

-1190

60-130

305.7

34.8

30

SRO

Surr: 4-Terphenyl-d14

3.495

0

3.297

0

106

39-115

1.777

65.2

30

R

The following samples were analyzed in this batch:

1206211-01A

1206211-02A

1206211-03A

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **R105864**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MB-R105864-R105864</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/12/2012 02:48 PM</b>		
Client ID:	Run ID: <b>GC10_120612A</b>				SeqNo: <b>1996867</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
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>107</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>107</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>LCS-R105864-R105864</b>					Units: <b>µg/L</b>		Analysis Date: <b>6/12/2012 02:22 PM</b>		
Client ID:	Run ID: <b>GC10_120612A</b>				SeqNo: <b>1996868</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
GRO (C6-C10)	23860	200	25000	0	95.4	70-130	0			
<i>Surr: Toluene-d8</i>	<i>91.08</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>91.1</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>	Sample ID: <b>1206251-01A MS</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/12/2012 11:50 PM</b>		
Client ID:	Run ID: <b>GC10_120612A</b>				SeqNo: <b>1997936</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1592000	2,500	1250000	40830	124	70-130	0			
<i>Surr: Toluene-d8</i>	<i>4973</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>99.5</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1206251-01A MSD</b>					Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2012 12:15 PM</b>		
Client ID:	Run ID: <b>GC10_120612A</b>				SeqNo: <b>1997937</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1604000	2,500	1250000	40830	125	70-130	1592000	0.75	30	
<i>Surr: Toluene-d8</i>	<i>5144</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>50-150</i>	<i>4973</i>	<i>3.39</i>	<i>30</i>	

The following samples were analyzed in this batch:

1206211-01B	1206211-02B	1206211-03B
-------------	-------------	-------------

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41555**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-41555-41555</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 02:41 PM</b>		
Client ID:	Run ID: <b>HG1_120612A</b>				SeqNo: <b>1996779</b>		Prep Date: <b>6/12/2012</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.003417      0.020      J

<b>LCS</b>	Sample ID: <b>LCS-41555-41555</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2012 10:30 AM</b>		
Client ID:	Run ID: <b>HG1_120613A</b>				SeqNo: <b>1997519</b>		Prep Date: <b>6/12/2012</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1829      0.020      0.1665      0      110      80-120      0

<b>MS</b>	Sample ID: <b>1206197-03AMS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2012 01:16 PM</b>		
Client ID:	Run ID: <b>HG1_120613A</b>				SeqNo: <b>1998036</b>		Prep Date: <b>6/12/2012</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.4068      0.034      0.1417      0.2639      101      75-125      0

<b>MSD</b>	Sample ID: <b>1206197-03AMSD</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/13/2012 01:19 PM</b>		
Client ID:	Run ID: <b>HG1_120613A</b>				SeqNo: <b>1998039</b>		Prep Date: <b>6/12/2012</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.3857      0.034      0.1405      0.2639      86.7      75-125      0.4068      5.34      35

The following samples were analyzed in this batch:

1206211-01A	1206211-02A	1206211-03A
-------------	-------------	-------------

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41553**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-41553-41553</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 12:53 PM</b>		
Client ID:		Run ID: <b>ICPMS1_120612A</b>				SeqNo: <b>1996472</b>		Prep Date: <b>6/11/2012</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	0.1008	0.25								J
Cadmium	ND	0.10								
Chromium	0.01593	0.25								J
Copper	0.01639	0.25								J
Lead	0.01081	0.25								J
Nickel	ND	0.25								
Selenium	0.02008	0.25								J
Silver	ND	0.25								
Zinc	0.0774	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-41553-41553</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 12:59 PM</b>		
Client ID:		Run ID: <b>ICPMS1_120612A</b>				SeqNo: <b>1996473</b>		Prep Date: <b>6/11/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.65	0.25	5	0	93	80-120	0			
Barium	5.035	0.25	5	0	101	80-120	0			
Cadmium	5.075	0.10	5	0	102	80-120	0			
Chromium	4.899	0.25	5	0	98	80-120	0			
Copper	4.834	0.25	5	0	96.7	80-120	0			
Lead	4.98	0.25	5	0	99.6	80-120	0			
Nickel	4.812	0.25	5	0	96.2	80-120	0			
Selenium	4.344	0.25	5	0	86.9	80-120	0			
Silver	4.826	0.25	5	0	96.5	80-120	0			
Zinc	4.56	0.50	5	0	91.2	80-120	0			

<b>MS</b>		Sample ID: <b>1206211-04AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:33 PM</b>		
Client ID: <b>NR 23-3 BKGD 1</b>		Run ID: <b>ICPMS1_120612A</b>				SeqNo: <b>1997194</b>		Prep Date: <b>6/11/2012</b>		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.63	0.65	6.536	4.468	79	80-120	0			S
Barium	107.5	0.65	6.536	100.6	106	80-120	0			O
Cadmium	6.667	0.26	6.536	0.7008	91.3	80-120	0			
Chromium	16.63	0.65	6.536	12.26	66.8	80-120	0			S
Copper	16.37	0.65	6.536	11.71	71.3	80-120	0			S
Lead	17.16	0.65	6.536	11.43	87.7	80-120	0			
Nickel	17.07	0.65	6.536	12.64	67.8	80-120	0			S
Selenium	6.089	0.65	6.536	0.9851	78.1	80-120	0			S
Silver	5.327	0.65	6.536	0.05294	80.7	80-120	0			
Zinc	49.12	1.3	6.536	45.31	58.4	80-120	0			SO

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41553**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1206211-04AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/12/2012 06:39 PM</b>		
Client ID: <b>NR 23-3 BKGD 1</b>		Run ID: <b>ICPMS1_120612A</b>				SeqNo: <b>1997195</b>		Prep Date: <b>6/11/2012</b>		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.62	0.67	6.702	4.468	91.8	80-120	9.63	9.78	25	
Barium	107.9	0.67	6.702	100.6	109	80-120	107.5	0.388	25	O
Cadmium	7.444	0.27	6.702	0.7008	101	80-120	6.667	11	25	
Chromium	17.77	0.67	6.702	12.26	82.3	80-120	16.63	6.67	25	
Copper	17.36	0.67	6.702	11.71	84.4	80-120	16.37	5.89	25	
Lead	18.36	0.67	6.702	11.43	103	80-120	17.16	6.76	25	
Nickel	18.23	0.67	6.702	12.64	83.4	80-120	17.07	6.56	25	
Selenium	6.519	0.67	6.702	0.9851	82.6	80-120	6.089	6.82	25	
Silver	5.881	0.67	6.702	0.05294	87	80-120	5.327	9.88	25	
Zinc	51.13	1.3	6.702	45.31	86.8	80-120	49.12	3.99	25	O

The following samples were analyzed in this batch:

1206211-01A	1206211-02A	1206211-03A
1206211-04A	1206211-05A	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41619**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-41619-41619</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2012 12:38 PM</b>		
Client ID:		Run ID: <b>ICPMS2_120614A</b>				SeqNo: <b>1999431</b>		Prep Date: <b>6/14/2012</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-41619-41619</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2012 12:44 PM</b>		
Client ID:		Run ID: <b>ICPMS2_120614A</b>				SeqNo: <b>1999432</b>		Prep Date: <b>6/14/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      4.526      0.25      5      0      90.5      80-120      0

<b>MS</b>		Sample ID: <b>1206211-06AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2012 12:59 PM</b>		
Client ID: <b>NR 23-3 BKGD 3</b>		Run ID: <b>ICPMS2_120614A</b>				SeqNo: <b>1999435</b>		Prep Date: <b>6/14/2012</b>		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      9.175      0.71      7.102      3.542      79.3      80-120      0      S

<b>MSD</b>		Sample ID: <b>1206211-06AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/14/2012 01:04 PM</b>		
Client ID: <b>NR 23-3 BKGD 3</b>		Run ID: <b>ICPMS2_120614A</b>				SeqNo: <b>1999436</b>		Prep Date: <b>6/14/2012</b>		DF: <b>2</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      9.14      0.69      6.878      3.542      81.4      80-120      9.175      0.376      25

The following samples were analyzed in this batch:

1206211-06A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41544**      Instrument ID **SVMS7**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-41544-41544</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/11/2012 06:02 PM</b>		
Client ID:		Run ID: <b>SVMS7_120611A</b>				SeqNo: <b>1996574</b>		Prep Date: <b>6/11/2012</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	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
<i>Surr: 2-Fluorobiphenyl</i>	1009	0	1667	0	60.6	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1496	0	1667	0	89.7	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1231	0	1667	0	73.9	37-107	0			

LCS		Sample ID: <b>SLCSS1-41544-41544</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/11/2012 06:32 PM</b>		
Client ID:		Run ID: <b>SVMS7_120611A</b>				SeqNo: <b>1996575</b>		Prep Date: <b>6/11/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	550.7	30	666.7	0	82.6	45-110	0			
Anthracene	579	30	666.7	0	86.8	55-105	0			
Benzo(a)anthracene	575	30	666.7	0	86.2	50-110	0			
Benzo(a)pyrene	582	30	666.7	0	87.3	50-110	0			
Benzo(b)fluoranthene	582	30	666.7	0	87.3	45-115	0			
Benzo(g,h,i)perylene	605.3	30	666.7	0	90.8	40-125	0			
Benzo(k)fluoranthene	620.7	30	666.7	0	93.1	45-115	0			
Chrysene	598	30	666.7	0	89.7	55-110	0			
Dibenzo(a,h)anthracene	575.7	30	666.7	0	86.3	40-125	0			
Fluoranthene	630.7	30	666.7	0	94.6	55-115	0			
Fluorene	582	30	666.7	0	87.3	50-110	0			
Indeno(1,2,3-cd)pyrene	579	30	666.7	0	86.8	40-120	0			
Naphthalene	551.3	30	666.7	0	82.7	40-105	0			
Pyrene	624	30	666.7	0	93.6	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1025	0	1667	0	61.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1489	0	1667	0	89.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1211	0	1667	0	72.7	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41544**      Instrument ID **SVMS7**      Method: **SW8270**

MS				Sample ID: 1206191-01B MS			Units: µg/Kg		Analysis Date: 6/11/2012 07:02 PM		
Client ID:			Run ID: SVMS7_120611A			SeqNo: 1996576		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1138	57	1268	0	89.7	45-110	0				
Anthracene	1222	57	1268	0	96.3	55-105	0				
Benzo(a)anthracene	1202	57	1268	0	94.8	50-110	0				
Benzo(a)pyrene	1243	57	1268	0	98	50-110	0				
Benzo(b)fluoranthene	1260	57	1268	0	99.4	45-115	0				
Benzo(g,h,i)perylene	1297	57	1268	0	102	40-125	0				
Benzo(k)fluoranthene	1229	57	1268	0	96.9	45-115	0				
Chrysene	1226	57	1268	0	96.7	55-110	0				
Dibenzo(a,h)anthracene	1210	57	1268	0	95.4	40-125	0				
Fluoranthene	1276	57	1268	0	101	55-115	0				
Fluorene	1229	57	1268	0	96.9	50-110	0				
Indeno(1,2,3-cd)pyrene	1232	57	1268	0	97.1	40-120	0				
Naphthalene	1081	57	1268	0	85.2	40-105	0				
Pyrene	1279	57	1268	0	101	45-125	0				
Surr: 2-Fluorobiphenyl	1883	0	3170	0	59.4	12-100	0				
Surr: 4-Terphenyl-d14	3004	0	3170	0	94.8	25-137	0				
Surr: Nitrobenzene-d5	2266	0	3170	0	71.5	37-107	0				

MSD				Sample ID: 1206191-01B MSD			Units: µg/Kg		Analysis Date: 6/11/2012 07:32 PM		
Client ID:			Run ID: SVMS7_120611A			SeqNo: 1996577		Prep Date: 6/11/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1138	56	1250	0	91	45-110	1138	0.0468	30		
Anthracene	1218	56	1250	0	97.4	55-105	1222	0.307	30		
Benzo(a)anthracene	1183	56	1250	0	94.6	50-110	1202	1.6	30		
Benzo(a)pyrene	1230	56	1250	0	98.4	50-110	1243	1.03	30		
Benzo(b)fluoranthene	1182	56	1250	0	94.5	45-115	1260	6.39	30		
Benzo(g,h,i)perylene	1297	56	1250	0	104	40-125	1297	0.0321	30		
Benzo(k)fluoranthene	1295	56	1250	0	104	45-115	1229	5.29	30		
Chrysene	1221	56	1250	0	97.6	55-110	1226	0.414	30		
Dibenzo(a,h)anthracene	1209	56	1250	0	96.7	40-125	1210	0.0378	30		
Fluoranthene	1267	56	1250	0	101	55-115	1276	0.698	30		
Fluorene	1209	56	1250	0	96.6	50-110	1229	1.7	30		
Indeno(1,2,3-cd)pyrene	1230	56	1250	0	98.4	40-120	1232	0.113	30		
Naphthalene	1047	56	1250	0	83.7	40-105	1081	3.17	30		
Pyrene	1278	56	1250	0	102	45-125	1279	0.0616	30		
Surr: 2-Fluorobiphenyl	1941	0	3126	0	62.1	12-100	1883	3.05	40		
Surr: 4-Terphenyl-d14	3054	0	3126	0	97.7	25-137	3004	1.66	40		
Surr: Nitrobenzene-d5	2246	0	3126	0	71.9	37-107	2266	0.861	40		

The following samples were analyzed in this batch:      1206211-01A      1206211-02A      1206211-03A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41618**      Instrument ID **VMS5**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>MBLK-41618-41618</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2012 04:07 AM</b>		
Client ID:		Run ID: <b>VMS5_120612A</b>				SeqNo: <b>1998192</b>		Prep Date: <b>6/12/2012</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								
Surr: 1,2-Dichloroethane-d4	1000	0	1000	0	100	70-130	0			
Surr: 4-Bromofluorobenzene	983.5	0	1000	0	98.4	70-130	0			
Surr: Dibromofluoromethane	1013	0	1000	0	101	70-130	0			
Surr: Toluene-d8	1000	0	1000	0	100	70-130	0			

<b>MBLK</b>		Sample ID: <b>MBLK-41618-41618</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2012 08:00 PM</b>		
Client ID:		Run ID: <b>VMS8_120613A</b>				SeqNo: <b>1999411</b>		Prep Date: <b>6/12/2012</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								
Surr: 1,2-Dichloroethane-d4	975.5	0	1000	0	97.6	70-130	0			
Surr: 4-Bromofluorobenzene	986.5	0	1000	0	98.6	70-130	0			
Surr: Dibromofluoromethane	972	0	1000	0	97.2	70-130	0			
Surr: Toluene-d8	994	0	1000	0	99.4	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS-41618-41618</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/13/2012 03:17 AM</b>		
Client ID:		Run ID: <b>VMS5_120612A</b>				SeqNo: <b>1998191</b>		Prep Date: <b>6/12/2012</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	896.5	30	1000	0	89.6	75-125	0			
Ethylbenzene	907.5	30	1000	0	90.8	75-125	0			
m,p-Xylene	1830	60	2000	0	91.5	80-125	0			
o-Xylene	903.5	30	1000	0	90.4	75-125	0			
Toluene	890.5	30	1000	0	89	70-125	0			
Xylenes, Total	2734	90	3000	0	91.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	1020	0	1000	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	997	0	1000	0	99.7	70-130	0			
Surr: Dibromofluoromethane	1030	0	1000	0	103	70-130	0			
Surr: Toluene-d8	1008	0	1000	0	101	70-130	0			

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

Client: HRL Compliance Solutions  
 Work Order: 1206211  
 Project: WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: 41618 Instrument ID VMS5 Method: SW8260

LCS Sample ID: LCS-41618-41618				Units: µg/Kg		Analysis Date: 6/13/2012 07:10 PM				
Client ID:		Run ID: VMS8_120613A		SeqNo: 1999410		Prep Date: 6/12/2012		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	909	30	1000	0	90.9	75-125	0			
Ethylbenzene	980.5	30	1000	0	98	75-125	0			
m,p-Xylene	1920	60	2000	0	96	80-125	0			
o-Xylene	959.5	30	1000	0	96	75-125	0			
Toluene	925	30	1000	0	92.5	70-125	0			
Xylenes, Total	2880	90	3000	0	96	75-125	0			
Surr: 1,2-Dichloroethane-d4	1010	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	990	0	1000	0	99	70-130	0			
Surr: Dibromofluoromethane	1018	0	1000	0	102	70-130	0			
Surr: Toluene-d8	998	0	1000	0	99.8	70-130	0			

MS Sample ID: 1206263-07A MS				Units: µg/Kg		Analysis Date: 6/13/2012 12:59 PM				
Client ID:		Run ID: VMS5_120612A		SeqNo: 1998231		Prep Date: 6/12/2012		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1032	30	1000	411	62	75-125	0			S
Ethylbenzene	873.5	30	1000	18.5	85.5	75-125	0			
m,p-Xylene	1748	60	2000	86	83.1	80-125	0			
o-Xylene	874	30	1000	23.5	85	75-125	0			
Toluene	873	30	1000	159	71.4	70-125	0			
Xylenes, Total	2622	90	3000	110	83.7	75-125	0			
Surr: 1,2-Dichloroethane-d4	1022	0	1000	0	102	70-130	0			
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0			
Surr: Dibromofluoromethane	1015	0	1000	0	102	70-130	0			
Surr: Toluene-d8	954	0	1000	0	95.4	70-130	0			

MSD Sample ID: 1206263-07A MSD				Units: µg/Kg		Analysis Date: 6/13/2012 01:24 PM				
Client ID:		Run ID: VMS5_120612A		SeqNo: 1998232		Prep Date: 6/12/2012		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	996.5	30	1000	411	58.6	75-125	1032	3.45	30	S
Ethylbenzene	845.5	30	1000	18.5	82.7	75-125	873.5	3.26	30	
m,p-Xylene	1700	60	2000	86	80.7	80-125	1748	2.78	30	
o-Xylene	837	30	1000	23.5	81.4	75-125	874	4.32	30	
Toluene	851.5	30	1000	159	69.2	70-125	873	2.49	30	S
Xylenes, Total	2537	90	3000	110	80.9	75-125	2622	3.3	30	
Surr: 1,2-Dichloroethane-d4	1006	0	1000	0	101	70-130	1022	1.68	30	
Surr: 4-Bromofluorobenzene	1002	0	1000	0	100	70-130	1024	2.17	30	
Surr: Dibromofluoromethane	1022	0	1000	0	102	70-130	1015	0.736	30	
Surr: Toluene-d8	949.5	0	1000	0	95	70-130	954	0.473	30	

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

---

Batch ID: **41618**      Instrument ID **VMS5**      Method: **SW8260**

---

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

1206211-01B	1206211-02B	1206211-03B
-------------	-------------	-------------

---

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **41569**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-41569-41569</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/11/2012 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120611G</b>				SeqNo: <b>1995493</b>		Prep Date: <b>6/7/2012</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-41569-41569</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/11/2012 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120611G</b>				SeqNo: <b>1995494</b>		Prep Date: <b>6/7/2012</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      1.757      0.50      1.992      0      88.2      75-110      0

<b>MS</b>		Sample ID: <b>1206157-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/11/2012 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120611G</b>				SeqNo: <b>1995496</b>		Prep Date: <b>6/7/2012</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      1.282      0.49      1.961      0.296      50.3      60-130      0      S

<b>MSD</b>		Sample ID: <b>1206157-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/11/2012 02:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120611G</b>				SeqNo: <b>1995497</b>		Prep Date: <b>6/7/2012</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      1.091      0.49      1.969      0.296      40.4      60-130      1.282      16.2      30      S

The following samples were analyzed in this batch:

1206211-01A	1206211-02A	1206211-03A
-------------	-------------	-------------

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **R105704**      Instrument ID **WETCHEM**      Method: **SW9040**

<b>LCS</b>		Sample ID: <b>WLCSSW1-060712-R105704</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/7/2012 06:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120607L</b>				SeqNo: <b>1993769</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

pH      4.35      0      4.4      0      98.9      90-110      0

<b>LCS</b>		Sample ID: <b>WLCSS1-060712-R105704</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/7/2012 06:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120607L</b>				SeqNo: <b>1993788</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

pH      4.35      0      4.4      0      98.9      90-110      0

<b>DUP</b>		Sample ID: <b>1206208-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/7/2012 06:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120607L</b>				SeqNo: <b>1993778</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

pH      12.4      0      0      0      0      0-0      12.4      0      20

<b>DUP</b>		Sample ID: <b>1206216-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/7/2012 06:30 PM</b>		
Client ID:		Run ID: <b>WETCHEM_120607L</b>				SeqNo: <b>1993798</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

pH      9.68      0      0      0      0      0-0      9.68      0      20

The following samples were analyzed in this batch:

1206211-01A	1206211-02A	1206211-03A
1206211-06A		

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1206211  
**Project:** WPX NR 23-3 Well Blowout 6/1/12

## QC BATCH REPORT

Batch ID: **R105724**      Instrument ID **MOIST**      Method: **A2540 G**

MBLK	Sample ID: WBLKS1-R105724					Units: % of sample			Analysis Date: 6/7/2012 02:47 PM		
Client ID:		Run ID: MOIST_120607A				SeqNo: 1994144		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      ND      0.050

LCS		Sample ID: LCS-R105724					Units: % of sample		Analysis Date: 6/7/2012 02:47 PM		
Client ID:			Run ID: MOIST_120607A			SeqNo: 1994143		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      100      0.050      100      0      100      99.5-100.5      0

DUP		Sample ID: 1206191-02ADUP				Units: % of sample		Analysis Date: 6/7/2012 02:47 PM		
Client ID:		Run ID: MOIST_120607A				SeqNo: 1994123		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      1.65      0.050      0      0      0      0-0      1.69      2.4      20

DUP		Sample ID: 1206197-03ADUP				Units: % of sample		Analysis Date: 6/7/2012 02:47 PM		
Client ID:		Run ID: MOIST_120607A				SeqNo: 1994131		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      11.88      0.050      0      0      0      0-0      11.87      0.0842      20

The following samples were analyzed in this batch:

1206211-01A	1206211-02A	1206211-03A
1206211-04A	1206211-05A	1206211-06A

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





Environmental

**Subcontractor:**

A & L Great Lakes Agricultural La

3505 Conestoga Dr

TEL: (260) 483-4759

FAX: (260) 483-5274

Ft. Wayne, IN 46808

Acct #: 91000

Salesperson

**Bruce Schlatter**

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date: **07-Jun-12**

COC ID: **3689**

Due D **13-Jun-12**

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	1206211	A Subcontracted Analyses (SUBCONTRACT) <b>SAR-EC</b>												
Work Order		Project Number		B												
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C												
Send Report To	Ann Preston	Inv Attn	Accounts Payable	D												
Address	3352 128th Avenue	Address	3352 128th Avenue	E												
				F												
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G												
Phone	(616) 399-6070	Phone	(616) 399-6070	H												
Fax	(616) 399-6185	Fax	(616) 399-6185	I												
eMail Address	ann.preston@alsglobal.com	eMail CC		J												
ALS Sample ID	Client Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J		
1206211-01C	NR 23-33 Middle Sediment Trap	Soil	1/Jun/2012 13:00	(1) MISC	X											
1206211-02C	NR 23-33 Large Pond	Soil	1/Jun/2012 13:15	(1) MISC	X											
1206211-03C	NR 23-3 Pt Left Pad	Soil	1/Jun/2012 13:20	(1) MISC	X											
1206211-06B	NR 23-3 BKGD 3	Soil	1/Jun/2012 13:40	(1) MISC	X											

**Comments:**

Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by:

*[Signature]*

Date/Time

6/7/12

Received by:

*[Signature]*

Date/Time

Date/Time

Cooler IDs

Report/QC Level

Std

Relinquished by:

Date/Time

Received by:

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **07-Jun-12 10:30**

Work Order: **1206211**

Received by: **JB**

Checklist completed by Jessica Bacon  
eSignature

07-Jun-12  
Date

Reviewed by: Ann Preston  
eSignature

07-Jun-12  
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"/>	
Temperature(s)/Thermometer(s):	<u>5.6 C</u>		
Cooler(s)/Kit(s):			
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:

5.6°C

**QUALITY SEAL**

**SIGNATURE**

**QEC**

Quality Environmental Containers

800-255-8880 • 304-265-8880

**NEW Package US Airbill**      FedEx Tracking Number: **8008 9259 8800**      **0200**      **FedEx Retrieval Copy**

1 From **616112**      Date **6/16/12**

Sender's Name **Reed, D.C.**      Phone **770 243-3271**

Company **HCSF**

Address **744 Horizon Ct Ste 140**      Dept./Floor/Suite/Room

City **Grand Junction**      State **CO**      ZIP **81506**

2 Your Internal Billing Reference

3 To Recipient's Name **Sample Receiving**      Phone **616 399-6070**

Company **ALS Group**

Address **3350 128th Ave**      Dept./Floor/Suite/Room

Address **Holland**      State **MI**      ZIP **49424**

4 Express Package Service      To next location. NOTE: Service has changed. Please select carefully.

Next Business Day      2 or 3 Business Days

06 ☐ FedEx First Overnight      49 ☐ NEW FedEx 2Day AM  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. Second business morning. Saturday Delivery NOT available.

01 ☒ FedEx Priority Overnight      03 ☐ FedEx 2Day  
Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

05 ☐ FedEx Standard Overnight      20 ☐ FedEx Express Saver  
Next business afternoon. Saturday Delivery NOT available. Third business day. Saturday Delivery NOT available.

5 Packaging      \*Declared value limit \$500.

06 ☐ FedEx Envelope\*      02 ☐ FedEx Pak\*      03 ☐ FedEx Box      04 ☐ FedEx Tube      01 ☒ Other.

6 Special Handling and Delivery Signature Options

03 ☐ SATURDAY DELIVERY

☒ No Signature Required      10 ☐ Direct Signature      34 ☐ Indirect Signature  
Package may be left without obtaining a signature for delivery. Someone at recipient's address may sign for delivery. Fed applies. If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fed applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No 04 ☐ Yes      Yes      Shipper's Declaration not required.      06 ☐ Dry Ice      Dry Ice, 3, UN 1845      kg      ☐ Cargo Aircraft Only

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

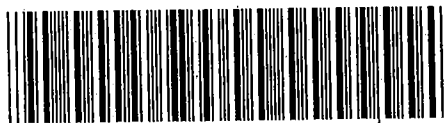
7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.      Obtain recip. Acct. No. ☐

1 ☐ Sender      2 ☒ Recipient      3 ☐ Third Party      4 ☐ Credit Card      5 ☐ Cash/Check

Total Packages **2**      Total Weight **91** lbs.      Credit Card Auth. **612**

\*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.



8008 9259 8800

fedex.com 1800.GoFedEx 1800.463.3339

fedex.com 1800.GoFedEx 1800.463.3339





02-Jul-2014

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

Re: **WPX NR 23-3 Backgrounds 6.30.14**

Work Order: **1407017**

Dear Mark,

ALS Environmental received 2 samples on 01-Jul-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 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 NR 23-3 Backgrounds 6.30.14  
**Work Order:** 1407017

**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>
1407017-01	BKGD 4	Soil		6/30/2014 12:35	7/1/2014 09:30	<input type="checkbox"/>
1407017-02	BKGD 5	Soil		6/30/2014 12:40	7/1/2014 09:30	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Backgrounds 6.30.14  
**Work Order:** 1407017

---

**Case Narrative**

Batch 60213 sample BKGD 5 MS/MSD recoveries for Arsenic were below control limits. The corresponding result in the parent sample may be biased low for Arsenic.

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Backgrounds 6.30.14  
**WorkOrder:** 1407017

## **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: 02-Jul-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Backgrounds 6.30.14  
**Sample ID:** BKGD 4  
**Collection Date:** 6/30/2014 12:35 PM

**Work Order:** 1407017  
**Lab ID:** 1407017-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 7/1/14	Analyst: <b>ML</b>
Arsenic	2.8		1.6	mg/Kg-dry	5	7/2/2014 04:42 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>TM</b>
Moisture	ND		0.050	% of sample	1	7/1/2014 03:06 PM

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

## ALS Group USA, Corp

Date: 02-Jul-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** WPX NR 23-3 Backgrounds 6.30.14  
**Sample ID:** BKGD 5  
**Collection Date:** 6/30/2014 12:40 PM

**Work Order:** 1407017  
**Lab ID:** 1407017-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 7/1/14	Analyst: <b>ML</b>
Arsenic	5.2		1.7	mg/Kg-dry	5	7/2/2014 04:48 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>TM</b>
Moisture	0.43		0.050	% of sample	1	7/1/2014 03:06 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407017  
**Project:** WPX NR 23-3 Backgrounds 6.30.14

**QC BATCH REPORT**

Batch ID: **60213** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-60213-60213</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 01:57 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140701A</b>				SeqNo: <b>2832165</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

<b>LCS</b>		Sample ID: <b>LCS-60213-60213</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 02:03 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140701A</b>				SeqNo: <b>2832167</b>		Prep Date: <b>7/1/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.898	0.25	5	0	98	80-120	0			

<b>MS</b>		Sample ID: <b>1407017-02AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 04:54 AM</b>		
Client ID: <b>BKGD 5</b>		Run ID: <b>ICPMS1_140701A</b>				SeqNo: <b>2832234</b>		Prep Date: <b>7/1/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.605	1.7	6.812	5.188	64.8	75-125	0			S

<b>MSD</b>		Sample ID: <b>1407017-02AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/2/2014 05:01 AM</b>		
Client ID: <b>BKGD 5</b>		Run ID: <b>ICPMS1_140701A</b>				SeqNo: <b>2832238</b>		Prep Date: <b>7/1/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.441	1.7	6.775	5.188	62.8	75-125	9.605	1.72	25	S

The following samples were analyzed in this batch:

1407017-01A 1407017-02A

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 1407017  
**Project:** WPX NR 23-3 Backgrounds 6.30.14

## QC BATCH REPORT

Batch ID: **R143748** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R143748					Units: % of sample		Analysis Date: 7/1/2014 03:06 PM		
Client ID:			Run ID: MOIST_140701B			SeqNo: 2833445		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.050

LCS		Sample ID: LCS-R143748					Units: % of sample		Analysis Date: 7/1/2014 03:06 PM		
Client ID:			Run ID: MOIST_140701B			SeqNo: 2833444		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1407014-01B DUP					Units: % of sample		Analysis Date: 7/1/2014 03:06 PM		
Client ID:			Run ID: MOIST_140701B			SeqNo: 2833435		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 9.92 0.050 0 0 0 0-0 11.26 12.7 20

<b>DUP</b>				Sample ID: <b>1407017-02A DUP</b>				Units: % of sample			Analysis Date: <b>7/1/2014 03:06 PM</b>			
Client ID: <b>BKGD 5</b>				Run ID: <b>MOIST_140701B</b>				SeqNo: <b>2833443</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 0.42 0.050 0 0 0 0-0 0.43 2.35 20

The following samples were analyzed in this batch:

1407017-01A 1407017-02A

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





1407017

Form 202r0

\*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.**

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

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>[Signature]</i>	<i>[Signature]</i>	6/3/14	2:50
RECEIVED BY	<i>[Signature]</i>	<i>[Signature]</i>	6-30	3:55
RELINQUISHED BY				
RECEIVED BY	<i>[Signature]</i>	Diane F. Shan	7/1/14	0930
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **01-Jul-14 09:30**

Work Order: **1407017**

Received by: **DS**

Checklist completed by Diane Shaw  
eSignature

01-Jul-14  
Date

Reviewed by: Ann Preston  
eSignature

02-Jul-14  
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>7/1/2014 10:29:09 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:

From: (878) 286-8783  
 Mark Marlowe  
 ALS Environmental  
 127 E-1st Street

PARACHUTE CO 81636

SHIP TO: (816) 398-8870  
 sample receiving  
 ALS Laboratory Group  
 3352 128TH AVE

HOLLAND, MI 49424

Origin ID: RLA

FedEx



Shipment: 30JUN14  
 Weight: 75.8 LB  
 CB: 225.44 INCHES

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



BILL NUMBER

Ref # 083014-1  
 Invoice #  
 PO #  
 Dept #

2 of 3

TUE - 01 JUL 10:30A  
 PRIORITY OVERNIGHT

MPN 7704 6860 7578

Met# 7704 6860 7440

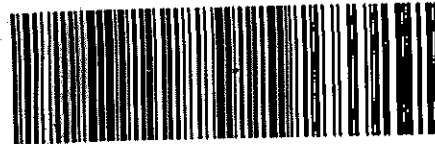
6291

49424

MI-US

GRR

XX GRRA



1224910-1720

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

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

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs and other forms of damage, whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; see current FedEx Service Guide.

ALS Parachute Custody Seal

DATE 6-30 Time 170

Name [Signature]