



06-Jun-2013

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

Re: **WPX SP 32-14 Confirmation 5/28/13**

Work Order: **13051126**

Dear Mark,

ALS Environmental received 5 samples on 30-May-2013 08:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 30.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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Environmental 

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**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Work Order:** 13051126

**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
13051126-01	Terminus	Soil		5/28/2013 14:45	5/30/2013 08:30	<input type="checkbox"/>
13051126-02	Mid Point	Soil		5/28/2013 14:55	5/30/2013 08:30	<input type="checkbox"/>
13051126-03	BKGD1	Soil		5/28/2013 15:00	5/30/2013 08:30	<input type="checkbox"/>
13051126-04	BKGD2	Soil		5/28/2013 15:05	5/30/2013 08:30	<input type="checkbox"/>
13051126-05	BKGD3	Soil		5/28/2013 15:10	5/30/2013 08:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Work Order:** 13051126

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**Case Narrative**

Batch 48760 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 48775 MS/MSD data for PAHs is not related to this project's samples. No data requires qualification.

Batch 48813 sample BKGD2 MS/MSD recoveries for Barium and Zinc were outside of the control; however, the result in the parent sample is greater than 4x the spiked amount. No qualification is required for Barium and Zinc. The MSD recoveries for Chromium and Nickel were above control limits. However, the MS recoveries and the RPDs between the MS and MSD were in control. No qualification is required for Chromium and Zinc.

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**WorkOrder:** 13051126

## **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 detected below quantitation 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
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
TDL	Target Detection Limit
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
mmhos/cm @25°F	Microhms-Centimeter at 25 Degrees Fahrenheit
none	
s.u.	Standard Units

# ALS Group USA, Corp

Date: 06-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Sample ID:** Terminus  
**Collection Date:** 5/28/2013 02:45 PM

**Work Order:** 13051126  
**Lab ID:** 13051126-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>5/31/2013</b>	Analyst: <b>CW</b>
<b>DRO (C10-C28)</b>	<b>24</b>		<b>4.9</b>	<b>mg/Kg-dry</b>	1	6/3/2013 10:35 AM
Surr: 4-Terphenyl-d14	50.4		39-115	%REC	1	6/3/2013 10:35 AM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>CW</b>
GRO (C6-C10)	ND		2.9	mg/Kg-dry	50	6/3/2013 04:47 PM
Surr: Toluene-d8	110		50-150	%REC	50	6/3/2013 04:47 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>6/3/2013</b>	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.018</b>		<b>0.017</b>	<b>mg/Kg-dry</b>	1	6/3/2013 04:09 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>6/3/2013</b>	Analyst: <b>RH</b>
<b>Arsenic</b>	<b>4.0</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
<b>Barium</b>	<b>1,000</b>		<b>22</b>	<b>mg/Kg-dry</b>	50	6/5/2013 11:37 AM
Cadmium	ND		0.89	mg/Kg-dry	5	6/4/2013 04:58 AM
<b>Chromium</b>	<b>27</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
<b>Copper</b>	<b>26</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
<b>Lead</b>	<b>9.2</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
<b>Nickel</b>	<b>66</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
Selenium	ND		2.2	mg/Kg-dry	5	6/4/2013 04:58 AM
Silver	ND		2.2	mg/Kg-dry	5	6/4/2013 04:58 AM
<b>Zinc</b>	<b>56</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	5	6/4/2013 04:58 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>RH</b>
<b>Calcium</b>	<b>520</b>		<b>12</b>	<b>mg/L-dry</b>	20	6/3/2013 05:17 PM
<b>Magnesium</b>	<b>81</b>		<b>4.7</b>	<b>mg/L-dry</b>	20	6/3/2013 05:17 PM
<b>Sodium</b>	<b>2,900</b>		<b>4.7</b>	<b>mg/L-dry</b>	20	6/3/2013 05:17 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>ML</b>
<b>Sodium Adsorption Ratio</b>	<b>28</b>		<b>0.010</b>	<b>none</b>	1	6/3/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>5/31/2013</b>	Analyst: <b>HL</b>
Acenaphthene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Acenaphthylene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Anthracene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Benzo(a)anthracene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	6/3/2013 03:56 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	6/3/2013 03:56 PM
Benzo(g,h,i)perylene	ND		29	µg/Kg-dry	1	6/3/2013 03:56 PM
Benzo(k)fluoranthene	ND		20	µg/Kg-dry	1	6/3/2013 03:56 PM
Chrysene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	6/3/2013 03:56 PM
Fluoranthene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM

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

# ALS Group USA, Corp

Date: 06-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Sample ID:** Terminus  
**Collection Date:** 5/28/2013 02:45 PM

**Work Order:** 13051126  
**Lab ID:** 13051126-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Indeno(1,2,3-cd)pyrene	ND		24	µg/Kg-dry	1	6/3/2013 03:56 PM
Naphthalene	ND		18	µg/Kg-dry	1	6/3/2013 03:56 PM
Pyrene	ND		24	µg/Kg-dry	1	6/3/2013 03:56 PM
Surr: 2-Fluorobiphenyl	58.1		12-100	%REC	1	6/3/2013 03:56 PM
Surr: 4-Terphenyl-d14	121		25-137	%REC	1	6/3/2013 03:56 PM
Surr: Nitrobenzene-d5	56.9		37-107	%REC	1	6/3/2013 03:56 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Prep Date: 5/30/2013	Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	5/31/2013 12:08 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	5/31/2013 12:08 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	5/31/2013 12:08 PM
o-Xylene	ND		35	µg/Kg-dry	1	5/31/2013 12:08 PM
Toluene	ND		35	µg/Kg-dry	1	5/31/2013 12:08 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	5/31/2013 12:08 PM
Surr: 1,2-Dichloroethane-d4	97.1		70-130	%REC	1	5/31/2013 12:08 PM
Surr: 4-Bromofluorobenzene	96.5		70-130	%REC	1	5/31/2013 12:08 PM
Surr: Dibromofluoromethane	94.6		70-130	%REC	1	5/31/2013 12:08 PM
Surr: Toluene-d8	100		70-130	%REC	1	5/31/2013 12:08 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 5/30/2013	Analyst: JB
Electrical Conductivity @ Saturation	16		0.050	mmhos/cm @25	10	6/3/2013 01:50 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	27		0.59	mg/Kg-dry	1	6/5/2013 09:20 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 5/30/2013	Analyst: MB
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	5/31/2013 01:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: BD
Moisture	15		0.050	% of sample	1	5/30/2013 09:51 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: CH
pH	9.2			s.u.	1	5/30/2013 12:00 PM

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

# ALS Group USA, Corp

Date: 06-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Sample ID:** Mid Point  
**Collection Date:** 5/28/2013 02:55 PM

**Work Order:** 13051126  
**Lab ID:** 13051126-02  
**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>31</b>		<b>SW8015M</b>		Prep Date: <b>5/31/2013</b>	Analyst: <b>CW</b>
			<b>4.8</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/3/2013 01:06 PM
Surr: 4-Terphenyl-d14	50.5		39-115	%REC	1	6/3/2013 01:06 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>CW</b>
			<b>2.9</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/3/2013 05:11 PM
Surr: Toluene-d8	139		50-150	%REC	50	6/3/2013 05:11 PM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep Date: <b>6/3/2013</b>	Analyst: <b>LR</b>
			<b>0.017</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/3/2013 04:11 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>8.4</b>		<b>SW6020A</b>		Prep Date: <b>6/3/2013</b>	Analyst: <b>RH</b>
			<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
<b>Barium</b>	<b>510</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
Cadmium	ND		0.87	mg/Kg-dry	5	6/4/2013 05:03 AM
<b>Chromium</b>	<b>27</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
<b>Copper</b>	<b>26</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
<b>Lead</b>	<b>11</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
<b>Nickel</b>	<b>53</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
Selenium	ND		2.2	mg/Kg-dry	5	6/4/2013 05:03 AM
Silver	ND		2.2	mg/Kg-dry	5	6/4/2013 05:03 AM
<b>Zinc</b>	<b>120</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/4/2013 05:03 AM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>340</b>		<b>SW6020A</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>RH</b>
			<b>12</b>	<b>mg/L-dry</b>	<b>20</b>	6/3/2013 05:22 PM
<b>Magnesium</b>	<b>34</b>		<b>4.6</b>	<b>mg/L-dry</b>	<b>20</b>	6/3/2013 05:22 PM
<b>Sodium</b>	<b>1,900</b>		<b>4.6</b>	<b>mg/L-dry</b>	<b>20</b>	6/3/2013 05:22 PM
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	25		<b>USDA H60 METHO</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>ML</b>
			<b>0.010</b>	<b>none</b>	<b>1</b>	6/3/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>5/31/2013</b>	Analyst: <b>HL</b>
			<b>17</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/3/2013 04:16 PM
Acenaphthylene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Anthracene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Benzo(a)anthracene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	6/3/2013 04:16 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	6/3/2013 04:16 PM
Benzo(g,h,i)perylene	ND		29	µg/Kg-dry	1	6/3/2013 04:16 PM
Benzo(k)fluoranthene	ND		20	µg/Kg-dry	1	6/3/2013 04:16 PM
Chrysene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	6/3/2013 04:16 PM
Fluoranthene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM

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



# ALS Group USA, Corp

Date: 06-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Sample ID:** Mid Point  
**Collection Date:** 5/28/2013 02:55 PM

**Work Order:** 13051126  
**Lab ID:** 13051126-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	6/3/2013 04:16 PM
Naphthalene	ND		17	µg/Kg-dry	1	6/3/2013 04:16 PM
Pyrene	ND		23	µg/Kg-dry	1	6/3/2013 04:16 PM
Surr: 2-Fluorobiphenyl	55.1		12-100	%REC	1	6/3/2013 04:16 PM
Surr: 4-Terphenyl-d14	102		25-137	%REC	1	6/3/2013 04:16 PM
Surr: Nitrobenzene-d5	57.8		37-107	%REC	1	6/3/2013 04:16 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Prep Date: 5/30/2013	Analyst: BG
Benzene	ND		35	µg/Kg-dry	1	5/31/2013 12:31 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	5/31/2013 12:31 PM
m,p-Xylene	ND		69	µg/Kg-dry	1	5/31/2013 12:31 PM
o-Xylene	ND		35	µg/Kg-dry	1	5/31/2013 12:31 PM
Toluene	ND		35	µg/Kg-dry	1	5/31/2013 12:31 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/31/2013 12:31 PM
Surr: 1,2-Dichloroethane-d4	98.8		70-130	%REC	1	5/31/2013 12:31 PM
Surr: 4-Bromofluorobenzene	98.6		70-130	%REC	1	5/31/2013 12:31 PM
Surr: Dibromofluoromethane	96.0		70-130	%REC	1	5/31/2013 12:31 PM
Surr: Toluene-d8	101		70-130	%REC	1	5/31/2013 12:31 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 5/30/2013	Analyst: JB
Electrical Conductivity @ Saturation	11		0.050	mmhos/cm @25	10	6/3/2013 01:50 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: MB
Chromium, Trivalent	27		0.58	mg/Kg-dry	1	6/5/2013 09:20 AM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 5/30/2013	Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	5/31/2013 01:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: BD
Moisture	14		0.050	% of sample	1	5/30/2013 09:51 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: CH
pH	8.9			s.u.	1	5/30/2013 12:00 PM

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

# ALS Group USA, Corp

Date: 06-Jun-13

Client: HRL Compliance Solutions

Project: WPX SP 32-14 Confirmation 5/28/13

Sample ID: BKGD1

Collection Date: 5/28/2013 03:00 PM

Work Order: 13051126

Lab ID: 13051126-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/3/2013</b>	Analyst: <b>RH</b>
Arsenic	5.5		1.8	mg/Kg-dry	5	6/4/2013 04:12 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	2.6		0.050	% of sample	1	5/30/2013 09:51 AM

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

**ALS Group USA, Corp****Date:** 06-Jun-13**Client:** HRL Compliance Solutions**Project:** WPX SP 32-14 Confirmation 5/28/13**Work Order:** 13051126**Sample ID:** BKGD2**Lab ID:** 13051126-04**Collection Date:** 5/28/2013 03:05 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>6/3/2013</b>	Analyst: <b>RH</b>
Arsenic	5.0		2.0	mg/Kg-dry	5	6/4/2013 04:43 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	12		0.050	% of sample	1	5/30/2013 09:51 AM

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

**ALS Group USA, Corp**

Date: 06-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 5/28/13  
**Sample ID:** BKGD3  
**Collection Date:** 5/28/2013 03:10 PM

**Work Order:** 13051126  
**Lab ID:** 13051126-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>ML</b>
Arsenic	4.4		1.9	mg/Kg-dry	5	6/5/2013 03:18 PM
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW6020A</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>RH</b>
Calcium	110		10	mg/L-dry	20	6/3/2013 04:46 PM
Magnesium	17		4.1	mg/L-dry	20	6/3/2013 04:46 PM
Sodium	ND		4.1	mg/L-dry	20	6/3/2013 04:46 PM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHO</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>ML</b>
Sodium Adsorption Ratio	0.075		0.010	none	1	6/3/2013
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: <b>5/30/2013</b>	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	0.73		0.050	mmhos/cm @25	10	6/3/2013 01:50 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>BD</b>
Moisture	2.8		0.050	% of sample	1	5/30/2013 09:51 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>CH</b>
pH	7.9			s.u.	1	5/30/2013 12:00 PM

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

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 13051126

Project: WPX SP 32-14 Confirmation 5/28/13

Batch ID: 48776

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-48776-48776</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 08:35 AM</b>		
Client ID:		Run ID: <b>GC8_130603A</b>				SeqNo: <b>2337976</b>		Prep Date: <b>5/31/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.9337	0	1.667	0	56	39-115	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-48776-48776</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 09:05 AM</b>		
Client ID:		Run ID: <b>GC8_130603A</b>				SeqNo: <b>2337977</b>		Prep Date: <b>5/31/2013</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)	148.5	4.2	166.7	0	89.1	49-124	0			
Surr: 4-Terphenyl-d14	0.738	0	1.667	0	44.3	39-115	0			

<b>MS</b>		Sample ID: <b>13051126-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 09:35 AM</b>		
Client ID: <b>Terminus</b>		Run ID: <b>GC8_130603A</b>				SeqNo: <b>2337978</b>		Prep Date: <b>5/31/2013</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)	274.1	7.9	317.3	20.49	79.9	49-130	0			
Surr: 4-Terphenyl-d14	1.368	0	3.173	0	43.1	39-115	0			

<b>MSD</b>		Sample ID: <b>13051126-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 10:05 AM</b>		
Client ID: <b>Terminus</b>		Run ID: <b>GC8_130603A</b>				SeqNo: <b>2337979</b>		Prep Date: <b>5/31/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	293.3	8.1	323.1	20.49	84.4	49-130	274.1	6.76	30	
Surr: 4-Terphenyl-d14	1.446	0	3.231	0	44.8	39-115	1.368	5.53	30	

The following samples were analyzed in this batch:

13051126-01B	13051126-02B
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**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **R121680**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK1-130603-R121680</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/3/2013 01:28 PM</b>		
Client ID:		Run ID: <b>GC10_130603A</b>				SeqNo: <b>2338883</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>108.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>108</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS1-130603-R121680</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/3/2013 01:04 PM</b>		
Client ID:		Run ID: <b>GC10_130603A</b>				SeqNo: <b>2338882</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)	8390	200	10000	0	83.9	70-130	0			
<i>Surr: Toluene-d8</i>	<i>112.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>112</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>13051189-01A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/3/2013 08:53 PM</b>		
Client ID:		Run ID: <b>GC10_130603A</b>				SeqNo: <b>2338887</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)	8752	200	10000	0	87.5	70-130	0			
<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>MSD</b>		Sample ID: <b>13051189-01A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/3/2013 09:17 PM</b>		
Client ID:		Run ID: <b>GC10_130603A</b>				SeqNo: <b>2338888</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)	8648	200	10000	0	86.5	70-130	8752	1.19	30	
<i>Surr: Toluene-d8</i>	<i>109.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>110</i>	<i>70-130</i>	<i>107</i>	<i>2.56</i>	<i>30</i>	

The following samples were analyzed in this batch:

13051126-01A	13051126-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48812**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-48812-48812</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 04:05 PM</b>		
Client ID:		Run ID: <b>HG1_130603A</b>				SeqNo: <b>2338187</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.020

<b>LCS</b>		Sample ID: <b>LCS-48812-48812</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 04:07 PM</b>		
Client ID:		Run ID: <b>HG1_130603A</b>				SeqNo: <b>2338188</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1788      0.020      0.1665      0      107      80-120      0

<b>MS</b>		Sample ID: <b>13051126-02BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 04:13 PM</b>		
Client ID: <b>Mid Point</b>		Run ID: <b>HG1_130603A</b>				SeqNo: <b>2338191</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1468      0.015      0.1243      0.01405      107      75-125      0

<b>MSD</b>		Sample ID: <b>13051126-02BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/3/2013 04:15 PM</b>		
Client ID: <b>Mid Point</b>		Run ID: <b>HG1_130603A</b>				SeqNo: <b>2338192</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1476      0.015      0.1229      0.01405      109      75-125      0.1468      0.568      35

The following samples were analyzed in this batch:

13051126-01B	13051126-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48758** Instrument ID **ICPMS2** Method: **SW6020A (Dissolve)**

<b>DUP</b>		Sample ID: <b>13051126-05BDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/3/2013 04:51 PM</b>		
Client ID: <b>BKGD3</b>		Run ID: <b>ICPMS2_130603A</b>				SeqNo: <b>2338255</b>		Prep Date: <b>5/30/2013</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	116.7	10	0	0	0	0-0	111.3	4.67		
Magnesium	17.25	4.0	0	0	0	0-0	16.4	5.1		
Sodium	3.2	4.0	0	0	0	0-0	3.18	0		J

The following samples were analyzed in this batch:

13051126-01C	13051126-02C	13051126-05B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48813**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-48813-48813</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/4/2013 03:56 AM</b>		
Client ID:		Run ID: <b>ICPMS2_130603A</b>				SeqNo: <b>2338773</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Lead	0.003224	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>		Sample ID: <b>LCS-48813-48813</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/4/2013 04:01 AM</b>		
Client ID:		Run ID: <b>ICPMS2_130603A</b>				SeqNo: <b>2338774</b>		Prep Date: <b>6/3/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.598	0.25	5	0	92	80-120	0			
Barium	4.714	0.25	5	0	94.3	80-120	0			
Cadmium	4.658	0.10	5	0	93.2	80-120	0			
Chromium	4.675	0.25	5	0	93.5	80-120	0			
Lead	4.673	0.25	5	0	93.5	80-120	0			
Nickel	4.624	0.25	5	0	92.5	80-120	0			
Selenium	4.468	0.25	5	0	89.4	80-120	0			
Silver	4.822	0.25	5	0	96.4	80-120	0			
Zinc	4.505	0.50	5	0	90.1	80-120	0			

<b>MS</b>		Sample ID: <b>13051126-04AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/4/2013 04:48 AM</b>		
Client ID: <b>BKGD2</b>		Run ID: <b>ICPMS2_130603A</b>				SeqNo: <b>2338781</b>		Prep Date: <b>6/3/2013</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.21	1.7	6.993	4.351	83.8	75-125	0			
Barium	275	1.7	6.993	236.1	557	75-125	0			SO
Cadmium	7.059	0.70	6.993	0.4011	95.2	75-125	0			
Chromium	26.24	1.7	6.993	18.49	111	75-125	0			
Lead	18.4	1.7	6.993	11.84	93.8	75-125	0			
Nickel	30.27	1.7	6.993	22.25	115	75-125	0			
Selenium	6.598	1.7	6.993	0.6199	85.5	75-125	0			
Silver	6.189	1.7	6.993	0.04599	87.8	75-125	0			
Zinc	56.68	3.5	6.993	47.02	138	75-125	0			SO

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48813**      Instrument ID **ICPMS2**      Method: **SW6020A**

MSD		Sample ID: <b>13051126-04AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/4/2013 04:53 AM</b>		
Client ID: <b>BKGD2</b>		Run ID: <b>ICPMS2_130603A</b>				SeqNo: <b>2338782</b>		Prep Date: <b>6/3/2013</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.67	1.8	7.133	4.351	103	75-125	10.21	13.4	25	
Barium	294.1	1.8	7.133	236.1	813	75-125	275	6.69	25	SO
Cadmium	7.518	0.71	7.133	0.4011	99.8	75-125	7.059	6.29	25	
Chromium	28.55	1.8	7.133	18.49	141	75-125	26.24	8.45	25	S
Lead	19.93	1.8	7.133	11.84	113	75-125	18.4	7.97	25	
Nickel	34.19	1.8	7.133	22.25	167	75-125	30.27	12.2	25	S
Selenium	6.89	1.8	7.133	0.6199	87.9	75-125	6.598	4.33	25	
Silver	6.562	1.8	7.133	0.04599	91.4	75-125	6.189	5.85	25	
Zinc	62.16	3.6	7.133	47.02	212	75-125	56.68	9.23	25	SO

The following samples were analyzed in this batch:

13051126-01B	13051126-02B	13051126-03A
13051126-04A		

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48872**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-48872-48872</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:04 PM</b>		
Client ID:	Run ID: <b>ICPMS1_130605A</b>				SeqNo: <b>2340411</b>		Prep Date: <b>6/5/2013</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-48872-48872</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:10 PM</b>		
Client ID:	Run ID: <b>ICPMS1_130605A</b>				SeqNo: <b>2340414</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      4.489      0.25      5      0      89.8      80-120      0

<b>MS</b>	Sample ID: <b>1306106-04BMS</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 05:19 PM</b>		
Client ID:	Run ID: <b>ICPMS1_130605A</b>				SeqNo: <b>2340658</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      10.1      0.36      7.123      3.638      90.7      75-125      0

<b>MSD</b>	Sample ID: <b>1306106-04BMSD</b>					Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 05:25 PM</b>		
Client ID:	Run ID: <b>ICPMS1_130605A</b>				SeqNo: <b>2340659</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Arsenic      11.23      0.36      7.278      3.638      104      75-125      10.1      10.6      25

The following samples were analyzed in this batch:

13051126-05A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

# QC BATCH REPORT

Batch ID: **48775**      Instrument ID **SVMS4**      Method: **SW8270**

MBLK Sample ID: <b>SBLKS1-48775-48775</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/3/2013 11:22 AM</b>			
Client ID:		Run ID: <b>SVMS4_130603A</b>		SeqNo: <b>2337860</b>		Prep Date: <b>5/31/2013</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								
Acenaphthylene	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>	1273	0	1667	0	76.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1819	0	1667	0	109	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1243	0	1667	0	74.6	37-107	0			

LCS Sample ID: <b>SLCSS1-48775-48775</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/3/2013 10:45 AM</b>			
Client ID:		Run ID: <b>SVMS4_130603A</b>		SeqNo: <b>2337859</b>		Prep Date: <b>5/31/2013</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	552.7	30	666.7	0	82.9	45-110	0			
Acenaphthylene	552.3	30	666.7	0	82.8	45-105	0			
Anthracene	561.7	30	666.7	0	84.2	55-105	0			
Benzo(a)anthracene	601.7	30	666.7	0	90.2	50-110	0			
Benzo(a)pyrene	630.7	30	666.7	0	94.6	50-110	0			
Benzo(b)fluoranthene	599.7	30	666.7	0	89.9	45-115	0			
Benzo(g,h,i)perylene	585	30	666.7	0	87.7	40-125	0			
Benzo(k)fluoranthene	701.7	30	666.7	0	105	45-115	0			
Chrysene	676.7	30	666.7	0	101	55-110	0			
Dibenzo(a,h)anthracene	566.3	30	666.7	0	84.9	40-125	0			
Fluoranthene	589.3	30	666.7	0	88.4	55-115	0			
Fluorene	546.7	30	666.7	0	82	50-110	0			
Indeno(1,2,3-cd)pyrene	581.7	30	666.7	0	87.2	40-120	0			
Naphthalene	526.3	30	666.7	0	78.9	40-105	0			
Pyrene	639	30	666.7	0	95.8	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1253	0	1667	0	75.2	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1859	0	1667	0	112	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1248	0	1667	0	74.9	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48775**      Instrument ID **SVMS4**      Method: **SW8270**

MS				Units: µg/Kg			Analysis Date: 6/3/2013 05:24 PM			
Client ID:		Run ID: <b>SVMS4_130603A</b>		SeqNo: <b>2338769</b>		Prep Date: <b>5/31/2013</b>		DF: <b>20</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1361	1,200	1309	0	104	45-110	0			
Acenaphthylene	1466	1,200	1309	0	112	45-105	0			S
Anthracene	1400	1,200	1309	1530	-9.91	55-105	0			S
Benzo(a)anthracene	1413	1,200	1309	0	108	50-110	0			
Benzo(a)pyrene	1427	1,200	1309	0	109	50-110	0			
Benzo(b)fluoranthene	1466	1,200	1309	0	112	45-115	0			
Benzo(g,h,i)perylene	1021	1,200	1309	0	78	40-125	0			J
Benzo(k)fluoranthene	1492	1,200	1309	0	114	45-115	0			
Chrysene	1413	1,200	1309	0	108	55-110	0			
Dibenzo(a,h)anthracene	955.4	1,200	1309	0	73	40-125	0			J
Fluoranthene	1413	1,200	1309	0	108	55-115	0			
Fluorene	1871	1,200	1309	602.7	96.9	50-110	0			
Indeno(1,2,3-cd)pyrene	968.5	1,200	1309	0	74	40-120	0			J
Naphthalene	1126	1,200	1309	0	86	40-105	0			J
Pyrene	1427	1,200	1309	0	109	45-125	0			
Surr: 2-Fluorobiphenyl	2631	0	3272	0	80.4	12-100	0			
Surr: 4-Terphenyl-d14	3520	0	3272	0	108	25-137	0			
Surr: Nitrobenzene-d5	2421	0	3272	0	74	37-107	0			

MSD				Units: µg/Kg			Analysis Date: 6/3/2013 05:56 PM			
Client ID:		Run ID: <b>SVMS4_130603A</b>		SeqNo: <b>2338770</b>		Prep Date: <b>5/31/2013</b>		DF: <b>20</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1244	1,200	1283	0	97	45-110	1361	8.96	30	
Acenaphthylene	1450	1,200	1283	0	113	45-105	1466	1.11	30	S
Anthracene	1296	1,200	1283	1530	-18.3	55-105	1400	7.76	30	S
Benzo(a)anthracene	1257	1,200	1283	0	98	50-110	1413	11.7	30	
Benzo(a)pyrene	1155	1,200	1283	0	90	50-110	1427	0	30	J
Benzo(b)fluoranthene	1475	1,200	1283	0	115	45-115	1466	0.648	30	
Benzo(g,h,i)perylene	1013	1,200	1283	0	79	40-125	1021	0	30	J
Benzo(k)fluoranthene	1450	1,200	1283	0	113	45-115	1492	2.88	30	
Chrysene	1360	1,200	1283	0	106	55-110	1413	3.86	30	
Dibenzo(a,h)anthracene	949.3	1,200	1283	0	74	40-125	955.4	0	30	J
Fluoranthene	1334	1,200	1283	0	104	55-115	1413	5.77	30	
Fluorene	1732	1,200	1283	602.7	88	50-110	1871	7.75	30	
Indeno(1,2,3-cd)pyrene	962.2	1,200	1283	0	75	40-120	968.5	0	30	J
Naphthalene	1103	1,200	1283	0	86	40-105	1126	0	30	J
Pyrene	1475	1,200	1283	0	115	45-125	1427	3.36	30	
Surr: 2-Fluorobiphenyl	2489	0	3207	0	77.6	12-100	2631	5.54	40	
Surr: 4-Terphenyl-d14	3335	0	3207	0	104	25-137	3520	5.4	40	
Surr: Nitrobenzene-d5	2335	0	3207	0	72.8	37-107	2421	3.63	40	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

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Batch ID: **48775**      Instrument ID **SVMS4**      Method: **SW8270**

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The following samples were analyzed in this batch:

13051126-01B	13051126-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48749**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>MBLK-48749-48749</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2013 02:04 PM</b>		
Client ID:		Run ID: <b>VMS8_130530A</b>				SeqNo: <b>2336176</b>		Prep Date: <b>5/30/2013</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	1004	0	1000	0	100	70-130	0			
Surr: 4-Bromofluorobenzene	982.5	0	1000	0	98.2	70-130	0			
Surr: Dibromofluoromethane	983.5	0	1000	0	98.4	70-130	0			
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS1-48749-48749</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2013 12:29 PM</b>		
Client ID:		Run ID: <b>VMS8_130530A</b>				SeqNo: <b>2336175</b>		Prep Date: <b>5/30/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	995	30	1000	0	99.5	75-125	0			
Ethylbenzene	1004	30	1000	0	100	75-125	0			
m,p-Xylene	1976	60	2000	0	98.8	80-125	0			
o-Xylene	992	30	1000	0	99.2	75-125	0			
Toluene	946	30	1000	0	94.6	70-125	0			
Xylenes, Total	2968	90	3000	0	98.9	75-125	0			
Surr: 1,2-Dichloroethane-d4	994.5	0	1000	0	99.4	70-130	0			
Surr: 4-Bromofluorobenzene	989	0	1000	0	98.9	70-130	0			
Surr: Dibromofluoromethane	1013	0	1000	0	101	70-130	0			
Surr: Toluene-d8	993	0	1000	0	99.3	70-130	0			

<b>MS</b>		Sample ID: <b>13051125-04A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2013 09:38 PM</b>		
Client ID:		Run ID: <b>VMS8_130530A</b>				SeqNo: <b>2336180</b>		Prep Date: <b>5/30/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1014	30	1000	0	101	75-125	0			
Ethylbenzene	986	30	1000	0	98.6	75-125	0			
m,p-Xylene	1994	60	2000	0	99.7	80-125	0			
o-Xylene	999.5	30	1000	0	100	75-125	0			
Toluene	921.5	30	1000	0	92.2	70-125	0			
Xylenes, Total	2994	90	3000	0	99.8	75-125	0			
Surr: 1,2-Dichloroethane-d4	950.5	0	1000	0	95	70-130	0			
Surr: 4-Bromofluorobenzene	1000	0	1000	0	100	70-130	0			
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	70-130	0			
Surr: Toluene-d8	937	0	1000	0	93.7	70-130	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48749**      Instrument ID **VMS8**      Method: **SW8260**

MSD				Sample ID: <b>13051125-04A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2013 10:02 PM</b>	
Client ID:				Run ID: <b>VMS8_130530A</b>			SeqNo: <b>2336181</b>		Prep Date: <b>5/30/2013</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	997	30	1000	0	99.7	75-125	1014	1.64	30	
Ethylbenzene	1004	30	1000	0	100	75-125	986	1.81	30	
m,p-Xylene	2035	60	2000	0	102	80-125	1994	2.01	30	
o-Xylene	1023	30	1000	0	102	75-125	999.5	2.32	30	
Toluene	948.5	30	1000	0	94.8	70-125	921.5	2.89	30	
Xylenes, Total	3058	90	3000	0	102	75-125	2994	2.12	30	
Surr: 1,2-Dichloroethane-d4	944	0	1000	0	94.4	70-130	950.5	0.686	30	
Surr: 4-Bromofluorobenzene	1042	0	1000	0	104	70-130	1000	4.11	30	
Surr: Dibromofluoromethane	971.5	0	1000	0	97.2	70-130	967.5	0.413	30	
Surr: Toluene-d8	960.5	0	1000	0	96	70-130	937	2.48	30	

The following samples were analyzed in this batch:

13051126-01A	13051126-02A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48758** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>13051126-05B DUP</b>				Units: <b>mmhos/cm @25°F</b>		Analysis Date: <b>6/3/2013 01:50 PM</b>		
Client ID: <b>BKGD3</b>		Run ID: <b>WETCHEM_130603G</b>				SeqNo: <b>2338026</b>		Prep Date: <b>5/30/2013</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.764	0.050	0	0	0		0.731	4.41	50	

The following samples were analyzed in this batch:

13051126-01C	13051126-02C	13051126-05B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **48760**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-48760-48760</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/31/2013 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130531G</b>				SeqNo: <b>2336801</b>		Prep Date: <b>5/30/2013</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-48760-48760</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/31/2013 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130531G</b>				SeqNo: <b>2336800</b>		Prep Date: <b>5/30/2013</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      1.817      0.50      1.992      0      91.2      75-110      0

<b>MS</b>		Sample ID: <b>13051146-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/31/2013 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130531G</b>				SeqNo: <b>2336794</b>		Prep Date: <b>5/30/2013</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      2      0      0      60-130      0      S

<b>MSD</b>		Sample ID: <b>13051146-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/31/2013 01:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130531G</b>				SeqNo: <b>2336795</b>		Prep Date: <b>5/30/2013</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      2      0      0      60-130      0      0      30      S

The following samples were analyzed in this batch:

13051126-01B	13051126-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **R121509**      Instrument ID **WETCHEM**      Method: **SW9045D**

<b>LCS</b>		Sample ID: <b>WLCSS1-130530-R121509</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335870</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      4.43      0      4.4      0      101      90-110      0

<b>LCS</b>		Sample ID: <b>WLCSW1-130530-R121509</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335875</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      4.43      0      4.4      0      101      90-110      0

<b>LCS</b>		Sample ID: <b>WLCSW1-130530-R121509</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335896</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      4.43      0      4.4      0      101      90-110      0

<b>DUP</b>		Sample ID: <b>13051126-01B DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID: <b>Terminus</b>		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335872</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      9.17      0      0      0      0      0-0      9.17      0      20

<b>DUP</b>		Sample ID: <b>13051152-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335877</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      5.78      0      0      0      0      0-0      5.78      0      20

<b>DUP</b>		Sample ID: <b>13051130-02A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>5/30/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130530G</b>				SeqNo: <b>2335899</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      8.58      0      0      0      0      0-0      8.58      0      20      H

The following samples were analyzed in this batch:

13051126-01B	13051126-02B	13051126-05A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 13051126  
**Project:** WPX SP 32-14 Confirmation 5/28/13

## QC BATCH REPORT

Batch ID: **R121549**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R121549</b>				Units: % of sample			Analysis Date: <b>5/30/2013 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_130530A</b>				SeqNo: <b>2336309</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-R121549</b>				Units: % of sample			Analysis Date: <b>5/30/2013 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_130530A</b>				SeqNo: <b>2336308</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>13051099-01A DUP</b>				Units: % of sample			Analysis Date: <b>5/30/2013 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_130530A</b>				SeqNo: <b>2336289</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      10.68      0.050      0      0      0      0-0      11.15      4.31      20

<b>DUP</b>		Sample ID: <b>13051125-03B DUP</b>				Units: % of sample			Analysis Date: <b>5/30/2013 09:51 AM</b>		
Client ID:		Run ID: <b>MOIST_130530A</b>				SeqNo: <b>2336294</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      11.14      0.050      0      0      0      0-0      10.6      4.97      20

The following samples were analyzed in this batch:

13051126-01B	13051126-02B	13051126-03A
13051126-04A	13051126-05A	

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



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER #

13081126

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME	SP 32-14 Combustion	SAMPLER	Reed Wold	DATE	5/28/13
PROJECT No.	Sampling	SITE ID	SP 32-14	TURNAROUND	5 Day
COMPANY NAME	HRL Compliance Solutions Inc	EDD FORMAT			
SEND REPORT TO	Mark Murnby	PURCHASE ORDER			
ADDRESS	2385 F1/2 Rd	BILL TO COMPANY	WPX Energy		
CITY / STATE / ZIP	Grand Junction, CO 81505	INVOICE ATTN TO	Karolina Blaney; Leo Braun		
PHONE	970 243 3271	ADDRESS	1058 Co Rd 215		
FAX		CITY / STATE / ZIP	Parachure CO 81635		
E-MAIL	Murnby@HRLcomp.com	PHONE	970-683-2295		
	RWold@HRLcomp.com	FAX			
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles
1	Terminus	So	5/28/13	2:45	3
2	Mid Point	↓		2:55	3
3	BKGD1	↓		3:00	1
4	BKGD2	↓		3:05	1
5	BKGD3	↓		3:10	2

\*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)
5.8 = JM	<input checked="" type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>
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	RECEIVED BY: Karolina Blaney	5/28/13	5:00
RELINQUISHED BY: [Signature]	RECEIVED BY: [Signature]	5-28	5:00
RELINQUISHED BY: [Signature]	RECEIVED BY: Diane F Shaw	5/30/13	0830
RELINQUISHED BY:	RECEIVED BY:		

# ALS Group USA, Corp

## Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **30-May-13 08:30**

Work Order: **13051126**

Received by: **DS**

Checklist completed by *Diane Shaw* 30-May-13  
eSignature Date

Reviewed by: *Ann Preston* 02-Jun-13  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/30/2013 10:22:49 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: (970) 424-4749  
Lab Hub, LLC

127 E First Street

PARACHUTE, CO 81635

Origin ID: RILA

**FedEx**  
Express



J13111302120326

SHIP TO: (616) 399-6070

Sample receiving  
ALS Holland  
3352 128TH AVE

HOLLAND, MI 49424

BILL RECIPIENT

Ship Date: 28MAY13  
ActWgt: 55.0 LB  
CAD: 103923490/NET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code



Ref # 1001-052813-2  
Invoice #  
PO #  
Dept #

1 of 2

WED - 29 MAY 3:00P  
STANDARD OVERNIGHT

TRK# 7998 6441 8560

0201

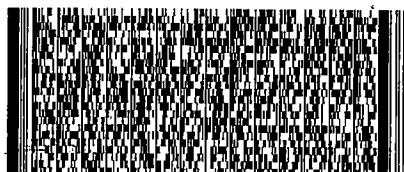
## MASTER ##

**XX GRRRA**

49424

MI-US

GRR



518G1D77783AB

**After printing this label:**

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

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

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Lab Hub LLC Custody seal

Date  
Time



13-Jun-2013

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

Re: **WPX SP 32-14 Confirmation 6/3/13**

Work Order: **1306063**

Dear Mark,

ALS Environmental received 1 sample on 04-Jun-2013 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 25.

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: 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 Group An ALS Limited Company

Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER



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**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 6/3/13  
**Work Order:** 1306063

**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>
1306063-01	Point of Origin	Soil		6/3/2013 14:30	6/4/2013 09:30	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 6/3/13  
**Work Order:** 1306063

---

**Case Narrative**

Batch 48849 MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

Batch 48899 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 6/3/13  
**WorkOrder:** 1306063

## **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 detected below quantitation 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
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
TDL	Target Detection Limit
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
mmhos/cm @25°F	Microhms-Centimeter at 25 Degrees Fahrenheit
none	
s.u.	Standard Units

# ALS Group USA, Corp

Date: 13-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 6/3/13  
**Sample ID:** Point of Origin  
**Collection Date:** 6/3/2013 02:30 PM

**Work Order:** 1306063  
**Lab ID:** 1306063-01  
**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>11</b>		<b>SW8015M</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>CW</b>
			<b>4.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/6/2013 12:27 PM
Surr: 4-Terphenyl-d14	60.1		39-115	%REC	1	6/6/2013 12:27 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>CW</b>
			<b>3.0</b>	<b>mg/Kg-dry</b>	<b>50</b>	6/5/2013 11:36 AM
Surr: Toluene-d8	104		50-150	%REC	50	6/5/2013 11:36 AM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>LR</b>
			<b>0.018</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/6/2013 03:47 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.0</b>		<b>SW6020A</b>		Prep Date: <b>6/6/2013</b>	Analyst: <b>ML</b>
			<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
<b>Barium</b>	<b>260</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
Cadmium	ND		0.87	mg/Kg-dry	5	6/6/2013 11:26 PM
<b>Chromium</b>	<b>21</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
<b>Copper</b>	<b>15</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
<b>Lead</b>	<b>9.2</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
<b>Nickel</b>	<b>35</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
Selenium	ND		2.2	mg/Kg-dry	5	6/6/2013 11:26 PM
Silver	ND		2.2	mg/Kg-dry	5	6/6/2013 11:26 PM
<b>Zinc</b>	<b>38</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>5</b>	6/6/2013 11:26 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>170</b>		<b>SW6020A</b>		Prep Date: <b>6/4/2013</b>	Analyst: <b>ML</b>
			<b>12</b>	<b>mg/L-dry</b>	<b>20</b>	6/7/2013 04:49 PM
<b>Magnesium</b>	<b>24</b>		<b>4.8</b>	<b>mg/L-dry</b>	<b>20</b>	6/7/2013 04:49 PM
<b>Sodium</b>	<b>960</b>		<b>4.8</b>	<b>mg/L-dry</b>	<b>20</b>	6/7/2013 04:49 PM
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	17		<b>USDA H60 METHO</b>		Prep Date: <b>6/4/2013</b>	Analyst: <b>ML</b>
			<b>0.010</b>	<b>none</b>	<b>1</b>	6/10/2013
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/5/2013</b>	Analyst: <b>HL</b>
			<b>17</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/6/2013 04:38 PM
Acenaphthylene	ND		35	µg/Kg-dry	1	6/6/2013 04:38 PM
Anthracene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM
Benzo(a)anthracene	ND		20	µg/Kg-dry	1	6/6/2013 04:38 PM
Benzo(a)pyrene	ND		20	µg/Kg-dry	1	6/6/2013 04:38 PM
Benzo(b)fluoranthene	ND		21	µg/Kg-dry	1	6/6/2013 04:38 PM
Benzo(g,h,i)perylene	ND		33	µg/Kg-dry	1	6/6/2013 04:38 PM
Benzo(k)fluoranthene	ND		21	µg/Kg-dry	1	6/6/2013 04:38 PM
Chrysene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM
Dibenzo(a,h)anthracene	ND		21	µg/Kg-dry	1	6/6/2013 04:38 PM
Fluoranthene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM

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

# ALS Group USA, Corp

Date: 13-Jun-13

**Client:** HRL Compliance Solutions  
**Project:** WPX SP 32-14 Confirmation 6/3/13  
**Sample ID:** Point of Origin  
**Collection Date:** 6/3/2013 02:30 PM

**Work Order:** 1306063  
**Lab ID:** 1306063-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM
Indeno(1,2,3-cd)pyrene	ND		23	µg/Kg-dry	1	6/6/2013 04:38 PM
Naphthalene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM
Pyrene	ND		17	µg/Kg-dry	1	6/6/2013 04:38 PM
Surr: 2-Fluorobiphenyl	69.9		12-100	%REC	1	6/6/2013 04:38 PM
Surr: 4-Terphenyl-d14	119		25-137	%REC	1	6/6/2013 04:38 PM
Surr: Nitrobenzene-d5	61.8		37-107	%REC	1	6/6/2013 04:38 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>		Prep Date: 6/4/2013	Analyst: RS
Benzene	ND		36	µg/Kg-dry	1	6/5/2013 06:09 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	6/5/2013 06:09 AM
m,p-Xylene	ND		72	µg/Kg-dry	1	6/5/2013 06:09 AM
o-Xylene	ND		36	µg/Kg-dry	1	6/5/2013 06:09 AM
Toluene	ND		36	µg/Kg-dry	1	6/5/2013 06:09 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/5/2013 06:09 AM
Surr: 1,2-Dichloroethane-d4	106		70-130	%REC	1	6/5/2013 06:09 AM
Surr: 4-Bromofluorobenzene	99.6		70-130	%REC	1	6/5/2013 06:09 AM
Surr: Dibromofluoromethane	104		70-130	%REC	1	6/5/2013 06:09 AM
Surr: Toluene-d8	98.0		70-130	%REC	1	6/5/2013 06:09 AM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep Date: 6/4/2013	Analyst: JB
Electrical Conductivity @ Saturation	1.4		0.050	mmhos/cm @25	10	6/7/2013 04:00 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: JJG
Chromium, Trivalent	21		0.60	mg/Kg-dry	1	6/10/2013 04:01 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: 6/6/2013	Analyst: MB
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	6/10/2013 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: BD
Moisture	16		0.050	% of sample	1	6/4/2013 01:47 PM
<b>PH</b>			<b>SW9045D</b>			Analyst: BD
pH	9.3			s.u.	1	6/4/2013 03:35 PM

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

Client: HRL Compliance Solutions

# QC BATCH REPORT

Work Order: 1306063

Project: WPX SP 32-14 Confirmation 6/3/13

Batch ID: 48866

Instrument ID GC8

Method: SW8015M

<b>MBLK</b>		Sample ID: <b>DBLKS1-48866-48866</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:26 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341615</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.252	0	2	0	62.6	39-115		0		

<b>LCS</b>		Sample ID: <b>DLCSS1-48866-48866</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 03:56 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341616</b>		Prep Date: <b>6/5/2013</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)	191.8	5.0	200	0	95.9	49-124		0		
Surr: 4-Terphenyl-d14	0.8156	0	2	0	40.8	39-115		0		

<b>MS</b>		Sample ID: <b>1306106-04B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 04:27 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341617</b>		Prep Date: <b>6/5/2013</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)	322.8	8.2	329.7	28.3	89.3	49-130		0		
Surr: 4-Terphenyl-d14	1.594	0	3.297	0	48.4	39-115		0		

<b>MSD</b>		Sample ID: <b>1306106-04B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/5/2013 04:57 PM</b>		
Client ID:		Run ID: <b>GC8_130605A</b>				SeqNo: <b>2341618</b>		Prep Date: <b>6/5/2013</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)	326.9	8.2	328.9	28.3	90.8	49-130	322.8	1.26	30	
Surr: 4-Terphenyl-d14	1.557	0	3.289	0	47.4	39-115	1.594	2.35	30	

The following samples were analyzed in this batch: 1306063-01B

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **R121770**      Instrument ID **GC10**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>GBLK2-130604-R121770</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 03:58 AM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340503</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>109.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>109</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>		Sample ID: <b>GLCS2-130604-R121770</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 03:34 AM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340502</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)	8316	200	10000	0	83.2	70-130	0			
<i>Surr: Toluene-d8</i>	<i>115.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>115</i>	<i>70-130</i>	<i>0</i>			

<b>MS</b>		Sample ID: <b>1306070-06A MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 12:49 PM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340514</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)	8081	200	10000	0	80.8	70-130	0			
<i>Surr: Toluene-d8</i>	<i>111.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>112</i>	<i>70-130</i>	<i>0</i>			

<b>MSD</b>		Sample ID: <b>1306070-06A MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/5/2013 01:24 PM</b>		
Client ID:		Run ID: <b>GC10_130604B</b>				SeqNo: <b>2340515</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)	8162	200	10000	0	81.6	70-130	8081	0.999	30	
<i>Surr: Toluene-d8</i>	<i>114.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>114</i>	<i>70-130</i>	<i>111.8</i>	<i>2</i>	<i>30</i>	

The following samples were analyzed in this batch:

1306063-01A

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48877**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>		Sample ID: <b>MBLK-48877-48877</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 03:04 PM</b>		
Client ID:		Run ID: <b>HG1_130606A</b>				SeqNo: <b>2341890</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      ND      0.020

<b>LCS</b>		Sample ID: <b>LCS-48877-48877</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 03:06 PM</b>		
Client ID:		Run ID: <b>HG1_130606A</b>				SeqNo: <b>2341892</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1742      0.020      0.1665      0      105      80-120      0

<b>MS</b>		Sample ID: <b>1306134-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 03:55 PM</b>		
Client ID:		Run ID: <b>HG1_130606A</b>				SeqNo: <b>2342121</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1378      0.015      0.1217      0.01277      103      75-125      0

<b>MSD</b>		Sample ID: <b>1306134-01BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 03:57 PM</b>		
Client ID:		Run ID: <b>HG1_130606A</b>				SeqNo: <b>2342122</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury      0.1378      0.014      0.1146      0.01277      109      75-125      0.1378      0.0202      35

The following samples were analyzed in this batch:

1306063-01B

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48852**      Instrument ID **ICPMS1**      Method: **SW6020A**      **(Dissolve)**

<b>DUP</b>		Sample ID: <b>1306060-04ADUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/7/2013 04:43 PM</b>		
Client ID:		Run ID: <b>ICPMS1_130607A</b>				SeqNo: <b>2343339</b>		Prep Date: <b>6/4/2013</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	1795	10	0	0	0	0-0	1689	6.09		
Magnesium	669.4	4.0	0	0	0	0-0	618.2	7.95		
Sodium	1936	4.0	0	0	0	0-0	1795	7.53		

<b>DUP</b>		Sample ID: <b>1306060-04ADUP</b>				Units: <b>none</b>		Analysis Date: <b>6/10/2013</b>		
Client ID:		Run ID: <b>SAR_130610A</b>				SeqNo: <b>2344608</b>		Prep Date: <b>6/4/2013</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	9.9	0.010	0	0	0		9.499	4.13	50	

The following samples were analyzed in this batch: | 1306063-01C |

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48899**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-48899-48899</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 10:50 PM</b>		
Client ID:		Run ID: <b>ICPMS1_130606A</b>				SeqNo: <b>2342493</b>		Prep Date: <b>6/6/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	0.05425	0.25								J
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.04384	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-48899-48899</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/6/2013 10:56 PM</b>		
Client ID:		Run ID: <b>ICPMS1_130606A</b>				SeqNo: <b>2342495</b>		Prep Date: <b>6/6/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.228	0.25	5	0	84.6	80-120	0			
Barium	4.772	0.25	5	0	95.4	80-120	0			
Cadmium	4.63	0.10	5	0	92.6	80-120	0			
Chromium	4.468	0.25	5	0	89.4	80-120	0			
Copper	4.476	0.25	5	0	89.5	80-120	0			
Lead	4.976	0.25	5	0	99.5	80-120	0			
Nickel	5.26	0.25	5	0	105	80-120	0			
Selenium	4.042	0.25	5	0	80.8	80-120	0			
Silver	4.964	0.25	5	0	99.3	80-120	0			
Zinc	4.346	0.50	5	0	86.9	80-120	0			

<b>MS</b>		Sample ID: <b>1306164-03AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/7/2013 01:24 AM</b>		
Client ID:		Run ID: <b>ICPMS1_130606A</b>				SeqNo: <b>2342527</b>		Prep Date: <b>6/6/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.897	0.36	7.225	1.985	81.8	75-125	0			
Barium	21.46	0.36	7.225	13.23	114	75-125	0			
Cadmium	6.422	0.14	7.225	0.03603	88.4	75-125	0			
Lead	10.91	0.36	7.225	3.523	102	75-125	0			
Selenium	5.685	0.36	7.225	0.2415	75.3	75-125	0			
Silver	6.228	0.36	7.225	0.00507	86.1	75-125	0			
Zinc	15.85	0.72	7.225	10.21	78.2	75-125	0			

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

Client: HRL Compliance Solutions  
 Work Order: 1306063  
 Project: WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: 48899 Instrument ID ICPMS1 Method: SW6020A

MS Sample ID: 1306164-03AMS				Units: mg/Kg			Analysis Date: 6/7/2013 03:49 PM			
Client ID:		Run ID: ICPMS1_130607A		SeqNo: 2343330		Prep Date: 6/6/2013		DF: 2		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	12.77	0.72	7.225	6.743	83.4	75-125	0			
Copper	9.994	0.72	7.225	3.811	85.6	75-125	0			
Lead	11.18	0.72	7.225	3.518	106	75-125	0			
Selenium	6.292	0.72	7.225	0.1682	84.8	75-125	0			
Silver	6.779	0.72	7.225	-0.0002513	93.8	75-125	0			

MSD Sample ID: 1306164-03AMSD				Units: mg/Kg			Analysis Date: 6/7/2013 01:30 AM			
Client ID:		Run ID: ICPMS1_130606A		SeqNo: 2342528		Prep Date: 6/6/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.681	0.37	7.407	1.985	76.9	75-125	7.897	2.77	25	
Barium	21.61	0.37	7.407	13.23	113	75-125	21.46	0.687	25	
Cadmium	6.522	0.15	7.407	0.03603	87.6	75-125	6.422	1.55	25	
Lead	10.98	0.37	7.407	3.523	101	75-125	10.91	0.616	25	
Selenium	5.591	0.37	7.407	0.2415	72.2	75-125	5.685	1.66	25	S
Silver	6.339	0.37	7.407	0.00507	85.5	75-125	6.228	1.77	25	
Zinc	15.57	0.74	7.407	10.21	72.4	75-125	15.85	1.8	25	S

MSD Sample ID: 1306164-03AMSD				Units: mg/Kg			Analysis Date: 6/7/2013 03:55 PM			
Client ID:		Run ID: ICPMS1_130607A		SeqNo: 2343331		Prep Date: 6/6/2013		DF: 2		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	11.98	0.74	7.407	6.743	70.7	75-125	12.77	6.37	25	S
Copper	9.784	0.74	7.407	3.811	80.6	75-125	9.994	2.13	25	
Lead	10.84	0.74	7.407	3.518	98.9	75-125	11.18	3.08	25	
Selenium	6.311	0.74	7.407	0.1682	82.9	75-125	6.292	0.305	25	
Silver	6.687	0.74	7.407	-0.0002513	90.3	75-125	6.779	1.36	25	

The following samples were analyzed in this batch:

1306063-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48865**      Instrument ID **SVMS6**      Method: **SW8270**

MBLK Sample ID: <b>SBLKS1-48865-48865</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/6/2013 09:24 AM</b>			
Client ID:		Run ID: <b>SVMS6_130606A</b>		SeqNo: <b>2341416</b>		Prep Date: <b>6/5/2013</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								
Acenaphthylene	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								
Surr: 2-Fluorobiphenyl	1272	0	1667	0	76.3	12-100	0			
Surr: 4-Terphenyl-d14	1949	0	1667	0	117	25-137	0			
Surr: Nitrobenzene-d5	1371	0	1667	0	82.2	37-107	0			

LCS Sample ID: <b>SLCSS1-48865-48865</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/6/2013 09:05 AM</b>			
Client ID:		Run ID: <b>SVMS6_130606A</b>		SeqNo: <b>2341415</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	491.7	30	666.7	0	73.7	45-110	0			
Acenaphthylene	504.3	30	666.7	0	75.6	45-105	0			
Anthracene	545.7	30	666.7	0	81.8	55-105	0			
Benzo(a)anthracene	535.7	30	666.7	0	80.3	50-110	0			
Benzo(a)pyrene	534.3	30	666.7	0	80.1	50-110	0			
Benzo(b)fluoranthene	561.7	30	666.7	0	84.2	45-115	0			
Benzo(g,h,i)perylene	489.3	30	666.7	0	73.4	40-125	0			
Benzo(k)fluoranthene	546.3	30	666.7	0	81.9	45-115	0			
Chrysene	562.7	30	666.7	0	84.4	55-110	0			
Dibenzo(a,h)anthracene	495	30	666.7	0	74.2	40-125	0			
Fluoranthene	613	30	666.7	0	91.9	55-115	0			
Fluorene	510.7	30	666.7	0	76.6	50-110	0			
Indeno(1,2,3-cd)pyrene	480	30	666.7	0	72	40-120	0			
Naphthalene	480	30	666.7	0	72	40-105	0			
Pyrene	594.3	30	666.7	0	89.1	45-125	0			
Surr: 2-Fluorobiphenyl	1264	0	1667	0	75.8	12-100	0			
Surr: 4-Terphenyl-d14	1849	0	1667	0	111	25-137	0			
Surr: Nitrobenzene-d5	1387	0	1667	0	83.2	37-107	0			

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48865**      Instrument ID **SVMS6**      Method: **SW8270**

MS Sample ID: <b>1306106-04B MS</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/6/2013 11:10 AM</b>			
Client ID:		Run ID: <b>SVMS6_130606A</b>		SeqNo: <b>2341848</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	902	57	1265	4.623	70.9	45-110		0		
Acenaphthylene	963.3	57	1265	32.69	73.6	45-105		0		
Anthracene	1037	57	1265	25.1	80	55-105		0		
Benzo(a)anthracene	1128	57	1265	142	77.9	50-110		0		
Benzo(a)pyrene	1145	57	1265	182.6	76.1	50-110		0		
Benzo(b)fluoranthene	1250	57	1265	275.1	77.1	45-115		0		
Benzo(g,h,i)perylene	1035	57	1265	174.3	68	40-125		0		
Benzo(k)fluoranthene	1133	57	1265	104.3	81.3	45-115		0		
Chrysene	1176	57	1265	157.2	80.5	55-110		0		
Dibenzo(a,h)anthracene	951.9	57	1265	64.39	70.2	40-125		0		
Fluoranthene	1218	57	1265	185.2	81.7	55-115		0		
Fluorene	934.2	57	1265	6.934	73.3	50-110		0		
Indeno(1,2,3-cd)pyrene	1071	57	1265	200.4	68.8	40-120		0		
Naphthalene	884.3	57	1265	53.82	65.6	40-105		0		
Pyrene	1356	57	1265	235.1	88.6	45-125		0		
Surr: 2-Fluorobiphenyl	2213	0	3163	0	70	12-100		0		
Surr: 4-Terphenyl-d14	3624	0	3163	0	115	25-137		0		
Surr: Nitrobenzene-d5	2454	0	3163	0	77.6	37-107		0		

MS Sample ID: <b>1306018-01B MS</b>				Units: <b>µg/Kg</b>			Analysis Date: <b>6/6/2013 11:49 AM</b>			
Client ID:		Run ID: <b>SVMS6_130606A</b>		SeqNo: <b>2341850</b>		Prep Date: <b>6/5/2013</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	996.9	59	1304	0	76.4	45-110		0		
Acenaphthylene	1026	59	1304	0	78.6	45-105		0		
Anthracene	1121	59	1304	0	85.9	55-105		0		
Benzo(a)anthracene	1116	59	1304	24.05	83.8	50-110		0		
Benzo(a)pyrene	1133	59	1304	0	86.8	50-110		0		
Benzo(b)fluoranthene	1153	59	1304	0	88.4	45-115		0		
Benzo(g,h,i)perylene	1020	59	1304	0	78.2	40-125		0		
Benzo(k)fluoranthene	1142	59	1304	0	87.5	45-115		0		
Chrysene	1156	59	1304	0	88.6	55-110		0		
Dibenzo(a,h)anthracene	1039	59	1304	0	79.7	40-125		0		
Fluoranthene	1219	59	1304	0	93.5	55-115		0		
Fluorene	1065	59	1304	0	81.7	50-110		0		
Indeno(1,2,3-cd)pyrene	1056	59	1304	0	81	40-120		0		
Naphthalene	935.6	59	1304	3.953	71.4	40-105		0		
Pyrene	1266	59	1304	6.588	96.6	45-125		0		
Surr: 2-Fluorobiphenyl	2428	0	3260	0	74.5	12-100		0		
Surr: 4-Terphenyl-d14	3791	0	3260	0	116	25-137		0		
Surr: Nitrobenzene-d5	2596	0	3260	0	79.6	37-107		0		

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

Client: HRL Compliance Solutions  
 Work Order: 1306063  
 Project: WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: 48865 Instrument ID SVMS6 Method: SW8270

MSD Sample ID: 1306106-04B MSD				Units: µg/Kg			Analysis Date: 6/6/2013 11:30 AM			
Client ID:		Run ID: SVMS6_130606A		SeqNo: 2341849		Prep Date: 6/5/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	783.7	57	1268	4.623	61.4	45-110	902	14	30	
Acenaphthylene	862.3	57	1268	32.69	65.4	45-105	963.3	11.1	30	
Anthracene	901	57	1268	25.1	69.1	55-105	1037	14.1	30	
Benzo(a)anthracene	1006	57	1268	142	68.1	50-110	1128	11.5	30	
Benzo(a)pyrene	1040	57	1268	182.6	67.6	50-110	1145	9.61	30	
Benzo(b)fluoranthene	1127	57	1268	275.1	67.2	45-115	1250	10.4	30	
Benzo(g,h,i)perylene	969.4	57	1268	174.3	62.7	40-125	1035	6.52	30	
Benzo(k)fluoranthene	999.9	57	1268	104.3	70.6	45-115	1133	12.5	30	
Chrysene	1040	57	1268	157.2	69.6	55-110	1176	12.3	30	
Dibenzo(a,h)anthracene	867.4	57	1268	64.39	63.3	40-125	951.9	9.3	30	
Fluoranthene	1047	57	1268	185.2	67.9	55-115	1218	15.1	30	
Fluorene	827.4	57	1268	6.934	64.7	50-110	934.2	12.1	30	
Indeno(1,2,3-cd)pyrene	993.5	57	1268	200.4	62.5	40-120	1071	7.49	30	
Naphthalene	776.7	57	1268	53.82	57	40-105	884.3	13	30	
Pyrene	1222	57	1268	235.1	77.9	45-125	1356	10.4	30	
Surr: 2-Fluorobiphenyl	2105	0	3170	0	66.4	12-100	2213	5.01	40	
Surr: 4-Terphenyl-d14	3365	0	3170	0	106	25-137	3624	7.42	40	
Surr: Nitrobenzene-d5	2335	0	3170	0	73.6	37-107	2454	4.97	40	

MSD Sample ID: 1306018-01B MSD				Units: µg/Kg			Analysis Date: 6/6/2013 12:09 PM			
Client ID:		Run ID: SVMS6_130606A		SeqNo: 2341851		Prep Date: 6/5/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	932.4	58	1292	0	72.1	45-110	996.9	6.69	30	
Acenaphthylene	955	58	1292	0	73.9	45-105	1026	7.13	30	
Anthracene	1045	58	1292	0	80.8	55-105	1121	7.02	30	
Benzo(a)anthracene	1104	58	1292	24.05	83.5	50-110	1116	1.14	30	
Benzo(a)pyrene	1090	58	1292	0	84.3	50-110	1133	3.82	30	
Benzo(b)fluoranthene	1122	58	1292	0	86.8	45-115	1153	2.73	30	
Benzo(g,h,i)perylene	1018	58	1292	0	78.8	40-125	1020	0.138	30	
Benzo(k)fluoranthene	1108	58	1292	0	85.7	45-115	1142	3.04	30	
Chrysene	1129	58	1292	0	87.4	55-110	1156	2.32	30	
Dibenzo(a,h)anthracene	1029	58	1292	0	79.6	40-125	1039	1.03	30	
Fluoranthene	1102	58	1292	0	85.2	55-115	1219	10.1	30	
Fluorene	981.5	58	1292	0	75.9	50-110	1065	8.2	30	
Indeno(1,2,3-cd)pyrene	1002	58	1292	0	77.5	40-120	1056	5.32	30	
Naphthalene	886.5	58	1292	3.953	68.3	40-105	935.6	5.39	30	
Pyrene	1341	58	1292	6.588	103	45-125	1266	5.72	30	
Surr: 2-Fluorobiphenyl	2358	0	3231	0	73	12-100	2428	2.91	40	
Surr: 4-Terphenyl-d14	4084	0	3231	0	126	25-137	3791	7.44	40	
Surr: Nitrobenzene-d5	2501	0	3231	0	77.4	37-107	2596	3.73	40	

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

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Batch ID: **48865** Instrument ID **SVMS6** Method: **SW8270**

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The following samples were analyzed in this batch:

1306063-01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48849**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>		Sample ID: <b>MBLK-48849-48849</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 04:42 PM</b>		
Client ID:		Run ID: <b>VMS8_130604A</b>				SeqNo: <b>2339694</b>		Prep Date: <b>6/4/2013</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	954.5	0	1000	0	95.4	70-130	0			
Surr: 4-Bromofluorobenzene	958	0	1000	0	95.8	70-130	0			
Surr: Dibromofluoromethane	984.5	0	1000	0	98.4	70-130	0			
Surr: Toluene-d8	975	0	1000	0	97.5	70-130	0			

<b>LCS</b>		Sample ID: <b>LCS1-48849-48849</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 02:42 PM</b>		
Client ID:		Run ID: <b>VMS8_130604A</b>				SeqNo: <b>2339693</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1012	30	1000	0	101	75-125	0			
Ethylbenzene	988	30	1000	0	98.8	75-125	0			
m,p-Xylene	1938	60	2000	0	96.9	80-125	0			
o-Xylene	986	30	1000	0	98.6	75-125	0			
Toluene	950	30	1000	0	95	70-125	0			
Xylenes, Total	2924	90	3000	0	97.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	953.5	0	1000	0	95.4	70-130	0			
Surr: 4-Bromofluorobenzene	963.5	0	1000	0	96.4	70-130	0			
Surr: Dibromofluoromethane	1012	0	1000	0	101	70-130	0			
Surr: Toluene-d8	990	0	1000	0	99	70-130	0			

<b>MS</b>		Sample ID: <b>1306058-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/4/2013 11:41 PM</b>		
Client ID:		Run ID: <b>VMS9_130604A</b>				SeqNo: <b>2339495</b>		Prep Date: <b>6/4/2013</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1102	30	1000	151	95	75-125	0			
Ethylbenzene	1272	30	1000	352	92	75-125	0			
m,p-Xylene	7039	60	2000	5412	81.3	80-125	0			
o-Xylene	2026	30	1000	1086	94	75-125	0			
Toluene	2512	30	1000	1660	85.2	70-125	0			
Xylenes, Total	9065	90	3000	6498	85.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	1044	0	1000	0	104	70-130	0			
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0			
Surr: Dibromofluoromethane	1043	0	1000	0	104	70-130	0			
Surr: Toluene-d8	1090	0	1000	0	109	70-130	0			

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



**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48849**      Instrument ID **VMS8**      Method: **SW8260**

MSD				Sample ID: 1306058-01A MSD			Units: µg/Kg		Analysis Date: 6/5/2013 12:02 PM		
Client ID:			Run ID: VMS9_130604A		SeqNo: 2339496		Prep Date: 6/4/2013		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1063	30	1000	151	91.2	75-125	1102	3.56	30	S	
Ethylbenzene	1258	30	1000	352	90.6	75-125	1272	1.11	30		
m,p-Xylene	6889	60	2000	5412	73.8	80-125	7039	2.15	30		
o-Xylene	2004	30	1000	1086	91.8	75-125	2026	1.09	30		
Toluene	2490	30	1000	1660	83	70-125	2512	0.86	30		
Xylenes, Total	8893	90	3000	6498	79.8	75-125	9065	1.92	30		
Surr: 1,2-Dichloroethane-d4	1033	0	1000	0	103	70-130	1044	1.06	30		
Surr: 4-Bromofluorobenzene	1017	0	1000	0	102	70-130	1024	0.637	30		
Surr: Dibromofluoromethane	1030	0	1000	0	103	70-130	1043	1.3	30		
Surr: Toluene-d8	1097	0	1000	0	110	70-130	1090	0.686	30		

The following samples were analyzed in this batch: | 1306063-01A |

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48852** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1306060-04A DUP</b>				Units: <b>mmhos/cm @25°F</b>		Analysis Date: <b>6/7/2013 04:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130607E</b>				SeqNo: <b>2343250</b>		Prep Date: <b>6/4/2013</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	7.33	0.050	0	0	0		7.26	0.96	50	

The following samples were analyzed in this batch:

1306063-01C

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **48898**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-48898-48898</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/10/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130610C</b>				SeqNo: <b>2344291</b>		Prep Date: <b>6/6/2013</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-48898-48898</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/10/2013 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130610C</b>				SeqNo: <b>2344290</b>		Prep Date: <b>6/6/2013</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      1.669      0.50      1.992      0      83.8      75-110      0

<b>MS</b>		Sample ID: <b>1306063-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/10/2013 12:00 PM</b>		
Client ID: <b>Point of Origin</b>		Run ID: <b>WETCHEM_130610C</b>				SeqNo: <b>2344287</b>		Prep Date: <b>6/6/2013</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      2.107      0.50      1.984      0.08627      102      60-130      0

<b>MSD</b>		Sample ID: <b>1306063-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/10/2013 12:00 PM</b>		
Client ID: <b>Point of Origin</b>		Run ID: <b>WETCHEM_130610C</b>				SeqNo: <b>2344288</b>		Prep Date: <b>6/6/2013</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      1.817      0.50      1.992      0.08627      86.9      60-130      2.107      14.8      30

The following samples were analyzed in this batch:

1306063-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **R121709** Instrument ID **WETCHEM** Method: **SW9045D**

<b>LCS</b>		Sample ID: <b>WLCSS1-130604-R121709</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/4/2013 03:35 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130604L</b>				SeqNo: <b>2339277</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	4.28	0	4.4	0	97.3	90-110	0			

<b>DUP</b>		Sample ID: <b>1306057-01C DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/4/2013 03:35 PM</b>		
Client ID:		Run ID: <b>WETCHEM_130604L</b>				SeqNo: <b>2339280</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	7.42	0	0	0	0	0-0	7.42	0	20	

The following samples were analyzed in this batch:

1306063-01B

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

**Client:** HRL Compliance Solutions  
**Work Order:** 1306063  
**Project:** WPX SP 32-14 Confirmation 6/3/13

## QC BATCH REPORT

Batch ID: **R121721**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R121721</b>				Units: % of sample			Analysis Date: <b>6/4/2013 01:47 PM</b>		
Client ID:		Run ID: <b>MOIST_130604A</b>				SeqNo: <b>2339644</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-R121721</b>				Units: % of sample			Analysis Date: <b>6/4/2013 01:47 PM</b>		
Client ID:		Run ID: <b>MOIST_130604A</b>				SeqNo: <b>2339643</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>1306053-03A DUP</b>				Units: % of sample			Analysis Date: <b>6/4/2013 01:47 PM</b>		
Client ID:		Run ID: <b>MOIST_130604A</b>				SeqNo: <b>2339626</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      17.41      0.050      0      0      0      0-0      18.34      5.2      20

<b>DUP</b>		Sample ID: <b>1306064-01B DUP</b>				Units: % of sample			Analysis Date: <b>6/4/2013 01:47 PM</b>		
Client ID:		Run ID: <b>MOIST_130604A</b>				SeqNo: <b>2339636</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      9.78      0.050      0      0      0      0-0      8.66      12.1      20

The following samples were analyzed in this batch:

1306063-01B

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



# ALS Laboratory Group

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

## Chain-of-Custody

Form 202r8

WORKORDER  
#

1306063

PROJECT NAME		SAMPLER	Reed Wood				DATE	6/3/13				PAGE	1 of 1			
PROJECT No.	SP 32-14 confirmation	SITE ID	SP 32-14				TURNAROUND	5 day				DISPOSAL	By Lab or Return to Client			
COMPANY NAME	HCSI	EDD FORMAT														
SEND REPORT TO	Mark Humby	PURCHASE ORDER														
ADDRESS	2385 F 1/2 Road	BILL TO COMPANY	WPX Energy													
CITY / STATE / ZIP	Grand Junction, CO. 81505	INVOICE ATTN TO	Karolina Blaney													
PHONE	970-243-3271	ADDRESS	1058 County Road 215													
FAX	970-243-3280	CITY / STATE / ZIP	Parachute, CO 81635													
E-MAIL	Mhumby@HCSInc.com	PHONE	970-683-2295													
	RWood@HCSInc.com	FAX	970-285-9573													
		E-MAIL														
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC									
1	Point of dig	So	6/3/13	2:30	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:	5.0%	QC PACKAGE (check below)
		<input checked="" type="checkbox"/> LEVEL II (Standard QC)
		<input type="checkbox"/> LEVEL III (Std QC + forms)
		<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE	PRINTED NAME	DATE	TIME
Reed Wood	Reed Wood	6/3/13	4:00
		6/3	4:00
		6-3-13	4:20
	Diane F. Shaw	6/4/13	0930

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 04-Jun-13 09:30

Work Order: 1306063

Received by: DS

Checklist completed by Diane Shaw 04-Jun-13  
eSignature Date

Reviewed by: Ann Preston 05-Jun-13  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/4/2013 11:54:31 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: (970) 424-4749  
Lab Hub, LLC  
127 E First Street  
PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 03JUN13  
Act/Wgt: 56.0 LB  
CAD: 103923490/INET3370

Dims: 25 X 14 X 15.1N

Delivery Address Bar Code



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

BILL RECIPIENT

Ref # 1001-960313-1  
Invoice #  
PO #  
Dept #

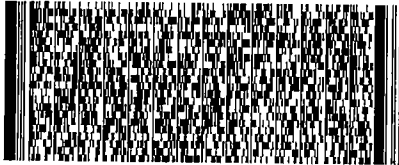
HOLLAND, MI 49424

TUE - 04 JUN 3:00P  
STANDARD OVERNIGHT

TRK# 7999 1035 5369  
0201

**XX GRRA**

49424  
MI-US  
GRR



518G1D77783AB

**After printing this label:**

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Lab Hub LLC. Custody seal

Date: 5-30  
Time: 10:30