

Sample Location Map
Location: GM 42-1
 39.468578 -108.051459
 WPX Energy

- | | |
|-----------------|--------------------------------|
| Sample Location | Transportation Features |
| Excavated Area | Public Roads |
| PLSS | Access Roads |
| Township | Hydrographic Features |
| Section | Perennial Stream |
| | Intermittent Stream |





07-Feb-2014

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

Re: **WPX GM 42-1 Historical Spill 2.3.14**

Work Order: **1402058**

Dear Mark,

ALS Environmental received 3 samples on 04-Feb-2014 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 29.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental The ALS logo, a small blue triangle with a yellow flame-like shape inside.

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RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Work Order: 1402058

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>
1402058-01	Trench Pt. 1 Depth 4'	Soil		2/3/2014 11:30	2/4/2014 09:30	<input type="checkbox"/>
1402058-02	Trench Pt. 2 Depth 6'	Soil		2/3/2014 11:35	2/4/2014 09:30	<input type="checkbox"/>
1402058-03	Excavation Bottom Pt. 3 Depth 12'	Soil		2/3/2014 11:50	2/4/2014 09:30	<input type="checkbox"/>

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Work Order: 1402058

Case Narrative

Batch 55566 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
WorkOrder: 1402058

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Trench Pt. 1 Depth 4'
Collection Date: 2/3/2014 11:30 AM

Work Order: 1402058
Lab ID: 1402058-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep Date: 2/4/2014	Analyst: IT
DRO (C10-C28)	ND		9.5	mg/Kg-dry	1	2/4/2014 07:02 PM
Surr: 4-Terphenyl-d14	53.0		39-115	%REC	1	2/4/2014 07:02 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep Date: 2/4/2014	Analyst: IT
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	2/4/2014 09:11 PM
Surr: Toluene-d8	104		50-150	%REC	1	2/4/2014 09:11 PM
MERCURY BY CVAA						
			SW7471		Prep Date: 2/4/2014	Analyst: LR
Mercury	ND		0.017	mg/Kg-dry	1	2/4/2014 05:01 PM
METALS BY ICP-MS						
			SW6020A		Prep Date: 2/4/2014	Analyst: RH
Arsenic	6.0		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Barium	310		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Cadmium	ND		0.90	mg/Kg-dry	5	2/5/2014 05:48 PM
Chromium	18		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Copper	10		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Lead	15		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Nickel	22		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Selenium	ND		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Silver	ND		2.2	mg/Kg-dry	5	2/5/2014 05:48 PM
Zinc	77		4.5	mg/Kg-dry	5	2/5/2014 05:48 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep Date: 2/6/2014	Analyst: RH
Calcium	260		10	mg/L	20	2/6/2014 01:03 PM
Magnesium	60		4.0	mg/L	20	2/6/2014 01:03 PM
Sodium	290		4.0	mg/L	20	2/6/2014 01:03 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep Date: 2/6/2014	Analyst: RH
Sodium Adsorption Ratio	4.2		0.010	none	1	2/6/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep Date: 2/4/2014	Analyst: RM
Acenaphthene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Acenaphthylene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Anthracene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Benzo(a)anthracene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Benzo(a)pyrene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Benzo(b)fluoranthene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Benzo(g,h,i)perylene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Benzo(k)fluoranthene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Chrysene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Dibenzo(a,h)anthracene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Fluoranthene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Trench Pt. 1 Depth 4'
Collection Date: 2/3/2014 11:30 AM

Work Order: 1402058
Lab ID: 1402058-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Indeno(1,2,3-cd)pyrene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Naphthalene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Pyrene	ND		15	µg/Kg-dry	1	2/5/2014 02:00 PM
Surr: 2-Fluorobiphenyl	70.2		12-100	%REC	1	2/5/2014 02:00 PM
Surr: 4-Terphenyl-d14	88.2		25-137	%REC	1	2/5/2014 02:00 PM
Surr: Nitrobenzene-d5	63.7		37-107	%REC	1	2/5/2014 02:00 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep Date: 2/4/2014	Analyst: RS
Benzene	ND		38	µg/Kg-dry	1	2/4/2014 05:51 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/4/2014 05:51 PM
m,p-Xylene	ND		77	µg/Kg-dry	1	2/4/2014 05:51 PM
o-Xylene	ND		38	µg/Kg-dry	1	2/4/2014 05:51 PM
Toluene	ND		38	µg/Kg-dry	1	2/4/2014 05:51 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/4/2014 05:51 PM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	1	2/4/2014 05:51 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	2/4/2014 05:51 PM
Surr: Dibromofluoromethane	90.4		70-130	%REC	1	2/4/2014 05:51 PM
Surr: Toluene-d8	96.6		70-130	%REC	1	2/4/2014 05:51 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 2/6/2014	Analyst: MELB
Electrical Conductivity @ Saturation	3.6		0.050	mmhos/cm @25	10	2/6/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	18		0.64	mg/Kg-dry	1	2/7/2014 08:07 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 2/5/2014	Analyst: MB
Chromium, Hexavalent	ND		0.63	mg/Kg-dry	1	2/6/2014 02:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	22		0.050	% of sample	1	2/4/2014 01:46 PM
PH			SW9045D		Prep Date: 2/4/2014	Analyst: AT
pH	8.1			s.u.	1	2/4/2014 04:30 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Trench Pt. 2 Depth 6'
Collection Date: 2/3/2014 11:35 AM

Work Order: 1402058
Lab ID: 1402058-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep Date: 2/4/2014	Analyst: IT
DRO (C10-C28)	ND		10	mg/Kg-dry	1	2/4/2014 08:02 PM
Surr: 4-Terphenyl-d14	53.7		39-115	%REC	1	2/4/2014 08:02 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep Date: 2/4/2014	Analyst: IT
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	2/4/2014 09:35 PM
Surr: Toluene-d8	104		50-150	%REC	1	2/4/2014 09:35 PM
MERCURY BY CVAA						
			SW7471		Prep Date: 2/4/2014	Analyst: LR
Mercury	ND		0.020	mg/Kg-dry	1	2/4/2014 05:03 PM
METALS BY ICP-MS						
			SW6020A		Prep Date: 2/4/2014	Analyst: RH
Arsenic	6.8		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Barium	400		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Cadmium	ND		0.78	mg/Kg-dry	5	2/5/2014 05:55 PM
Chromium	19		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Copper	11		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Lead	16		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Nickel	24		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Selenium	ND		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Silver	ND		2.0	mg/Kg-dry	5	2/5/2014 05:55 PM
Zinc	79		3.9	mg/Kg-dry	5	2/5/2014 05:55 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep Date: 2/6/2014	Analyst: RH
Calcium	480		10	mg/L	20	2/6/2014 01:09 PM
Magnesium	85		4.0	mg/L	20	2/6/2014 01:09 PM
Sodium	390		4.0	mg/L	20	2/6/2014 01:09 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep Date: 2/6/2014	Analyst: RH
Sodium Adsorption Ratio	4.3		0.010	none	1	2/6/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep Date: 2/4/2014	Analyst: RM
Acenaphthene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Acenaphthylene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Benzo(a)anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Benzo(a)pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Benzo(b)fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Benzo(g,h,i)perylene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Benzo(k)fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Chrysene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Dibenzo(a,h)anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Trench Pt. 2 Depth 6'
Collection Date: 2/3/2014 11:35 AM

Work Order: 1402058
Lab ID: 1402058-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Indeno(1,2,3-cd)pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Naphthalene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:21 PM
Surr: 2-Fluorobiphenyl	70.4		12-100	%REC	1	2/5/2014 02:21 PM
Surr: 4-Terphenyl-d14	89.0		25-137	%REC	1	2/5/2014 02:21 PM
Surr: Nitrobenzene-d5	62.8		37-107	%REC	1	2/5/2014 02:21 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep Date: 2/4/2014	Analyst: RS
Benzene	ND		38	µg/Kg-dry	1	2/4/2014 06:16 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	2/4/2014 06:16 PM
m,p-Xylene	ND		76	µg/Kg-dry	1	2/4/2014 06:16 PM
o-Xylene	ND		38	µg/Kg-dry	1	2/4/2014 06:16 PM
Toluene	ND		38	µg/Kg-dry	1	2/4/2014 06:16 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	2/4/2014 06:16 PM
Surr: 1,2-Dichloroethane-d4	95.8		70-130	%REC	1	2/4/2014 06:16 PM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	2/4/2014 06:16 PM
Surr: Dibromofluoromethane	90.8		70-130	%REC	1	2/4/2014 06:16 PM
Surr: Toluene-d8	96.2		70-130	%REC	1	2/4/2014 06:16 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 2/6/2014	Analyst: MELB
Electrical Conductivity @ Saturation	5.5		0.050	mmhos/cm @25	10	2/6/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	19		0.63	mg/Kg-dry	1	2/7/2014 08:07 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 2/5/2014	Analyst: MB
Chromium, Hexavalent	ND		0.63	mg/Kg-dry	1	2/6/2014 02:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	21		0.050	% of sample	1	2/4/2014 01:46 PM
PH			SW9045D		Prep Date: 2/4/2014	Analyst: AT
pH	8.1			s.u.	1	2/4/2014 04:30 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Excavation Bottom Pt. 3 Depth 12'
Collection Date: 2/3/2014 11:50 AM

Work Order: 1402058
Lab ID: 1402058-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	170		10	mg/Kg-dry	1	2/4/2014 08:31 PM
Surr: 4-Terphenyl-d14	64.8		39-115	%REC	1	2/4/2014 08:31 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	240		3.2	mg/Kg-dry	1	2/4/2014 09:59 PM
Surr: Toluene-d8	99.9		50-150	%REC	1	2/4/2014 09:59 PM
MERCURY BY CVAA						
Mercury	0.024		0.018	mg/Kg-dry	1	2/4/2014 05:06 PM
METALS BY ICP-MS						
Arsenic	5.1		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Barium	340		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Cadmium	ND		0.90	mg/Kg-dry	5	2/5/2014 06:01 PM
Chromium	16		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Copper	9.6		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Lead	14		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Nickel	22		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Selenium	ND		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Silver	ND		2.2	mg/Kg-dry	5	2/5/2014 06:01 PM
Zinc	72		4.5	mg/Kg-dry	5	2/5/2014 06:01 PM
SOLUBLE CATIONS FOR SAR						
Calcium	520		10	mg/L	20	2/6/2014 01:20 PM
Magnesium	110		4.0	mg/L	20	2/6/2014 01:20 PM
Sodium	420		4.0	mg/L	20	2/6/2014 01:20 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	4.4		0.010	none	1	2/6/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Acenaphthylene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Benzo(a)anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Benzo(a)pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Benzo(b)fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Benzo(g,h,i)perylene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Benzo(k)fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Chrysene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Dibenzo(a,h)anthracene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Fluoranthene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions
Project: WPX GM 42-1 Historical Spill 2.3.14
Sample ID: Excavation Bottom Pt. 3 Depth 12'
Collection Date: 2/3/2014 11:50 AM

Work Order: 1402058
Lab ID: 1402058-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Indeno(1,2,3-cd)pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Naphthalene	120		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Pyrene	ND		17	µg/Kg-dry	1	2/5/2014 02:41 PM
Surr: 2-Fluorobiphenyl	77.5		12-100	%REC	1	2/5/2014 02:41 PM
Surr: 4-Terphenyl-d14	98.8		25-137	%REC	1	2/5/2014 02:41 PM
Surr: Nitrobenzene-d5	72.6		37-107	%REC	1	2/5/2014 02:41 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep Date: 2/4/2014	Analyst: RS
Benzene	ND		38	µg/Kg-dry	1	2/4/2014 06:42 PM
Ethylbenzene	270		38	µg/Kg-dry	1	2/4/2014 06:42 PM
m,p-Xylene	4,600		76	µg/Kg-dry	1	2/4/2014 06:42 PM
o-Xylene	490		38	µg/Kg-dry	1	2/4/2014 06:42 PM
Toluene	ND		38	µg/Kg-dry	1	2/4/2014 06:42 PM
Xylenes, Total	5,100		110	µg/Kg-dry	1	2/4/2014 06:42 PM
Surr: 1,2-Dichloroethane-d4	97.5		70-130	%REC	1	2/4/2014 06:42 PM
Surr: 4-Bromofluorobenzene	112		70-130	%REC	1	2/4/2014 06:42 PM
Surr: Dibromofluoromethane	92.2		70-130	%REC	1	2/4/2014 06:42 PM
Surr: Toluene-d8	115		70-130	%REC	1	2/4/2014 06:42 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep Date: 2/6/2014	Analyst: MELB
Electrical Conductivity @ Saturation	6.1		0.050	mmhos/cm @25	10	2/6/2014 02:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	16		0.64	mg/Kg-dry	1	2/7/2014 08:07 AM
CHROMIUM, HEXAVALENT			SW7196A		Prep Date: 2/5/2014	Analyst: MB
Chromium, Hexavalent	ND		0.62	mg/Kg-dry	1	2/6/2014 02:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	22		0.050	% of sample	1	2/4/2014 01:46 PM
PH			SW9045D		Prep Date: 2/4/2014	Analyst: AT
pH	7.6			s.u.	1	2/4/2014 04:30 PM

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

ALS Group USA, Corp

Date: 07-Feb-14

Client: HRL Compliance Solutions

Work Order: 1402058

Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55489**

Instrument ID **GC8**

Method: **SW8015M**

MBLK		Sample ID: DBLKS1-55489-55489				Units: mg/Kg		Analysis Date: 2/4/2014 05:02 PM		
Client ID:		Run ID: GC8_140204A				SeqNo: 2633152		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	0.8387	0	1.667	0	50.3	39-115	0			

LCS		Sample ID: DLCSS1-55489-55489				Units: mg/Kg		Analysis Date: 2/4/2014 05:32 PM		
Client ID:		Run ID: GC8_140204A				SeqNo: 2633153		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143	4.2	166.7	0	85.8	49-124	0			
Surr: 4-Terphenyl-d14	0.813	0	1.667	0	48.8	39-115	0			

MS		Sample ID: 1402058-01B MS				Units: mg/Kg		Analysis Date: 2/4/2014 06:02 PM		
Client ID: Trench Pt. 1 Depth 4'		Run ID: GC8_140204A				SeqNo: 2633154		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	251.9	8.2	326.4	0	77.2	49-130	0			
Surr: 4-Terphenyl-d14	1.445	0	3.264	0	44.3	39-115	0			

MSD		Sample ID: 1402058-01B MSD				Units: mg/Kg		Analysis Date: 2/4/2014 06:32 PM		
Client ID: Trench Pt. 1 Depth 4'		Run ID: GC8_140204A				SeqNo: 2633155		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	260.4	8.2	328.6	0	79.2	49-130	251.9	3.3	30	
Surr: 4-Terphenyl-d14	1.448	0	3.286	0	44.1	39-115	1.445	0.228	30	

The following samples were analyzed in this batch: | 1402058-01B | 1402058-02B | 1402058-03B |

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55479** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-55479-55479				Units: µg/Kg		Analysis Date: 2/4/2014 04:23 PM		
Client ID:		Run ID: GC10_140204A				SeqNo: 2633144		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5090	0	5000	0	102	50-150	0			

LCS		Sample ID: LCS-55479-55479				Units: µg/Kg		Analysis Date: 2/4/2014 03:11 PM		
Client ID:		Run ID: GC10_140204A				SeqNo: 2633143		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	540400	2,500	500000	0	108	70-130	0			
<i>Surr: Toluene-d8</i>	5290	0	5000	0	106	50-150	0			

MS		Sample ID: 1402058-01A MS				Units: µg/Kg		Analysis Date: 2/4/2014 11:12 PM		
Client ID: Trench Pt. 1 Depth 4'		Run ID: GC10_140204A				SeqNo: 2633150		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	467700	2,500	500000	0	93.5	70-130	0			
<i>Surr: Toluene-d8</i>	5362	0	5000	0	107	50-150	0			

MSD		Sample ID: 1402058-01A MSD				Units: µg/Kg		Analysis Date: 2/4/2014 11:36 PM		
Client ID: Trench Pt. 1 Depth 4'		Run ID: GC10_140204A				SeqNo: 2633151		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	447400	2,500	500000	0	89.5	70-130	467700	4.44	30	
<i>Surr: Toluene-d8</i>	5296	0	5000	0	106	50-150	5362	1.22	30	

The following samples were analyzed in this batch:

1402058-01A	1402058-02A	1402058-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55477** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-55477-55477				Units: mg/Kg		Analysis Date: 2/4/2014 03:42 PM		
Client ID:		Run ID: HG1_140204A				SeqNo: 2632766		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-55477-55477				Units: mg/Kg		Analysis Date: 2/4/2014 03:44 PM		
Client ID:		Run ID: HG1_140204A				SeqNo: 2632767		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1675 0.020 0.1665 0 101 80-120 0

MS		Sample ID: 14011256-01BMS				Units: mg/Kg		Analysis Date: 2/4/2014 04:17 PM		
Client ID:		Run ID: HG1_140204A				SeqNo: 2632901		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1392 0.014 0.1185 0.005765 113 75-125 0

MSD		Sample ID: 14011256-01BMSD				Units: mg/Kg		Analysis Date: 2/4/2014 04:19 PM		
Client ID:		Run ID: HG1_140204A				SeqNo: 2632902		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1296 0.014 0.1134 0.005765 109 75-125 0.1392 7.17 35

The following samples were analyzed in this batch:

1402058-01B	1402058-02B	1402058-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55494** Instrument ID **ICPMS1** Method: **SW6020A**

Sample ID: MBLK-55494-55494				Units: mg/Kg			Analysis Date: 2/5/2014 05:15 PM			
Client ID:		Run ID: ICPMS1_140205A			SeqNo: 2634298		Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.008655	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.002956	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.1032	0.50								J

LCS				Sample ID: LCS-55494-55494				Units: mg/Kg			Analysis Date: 2/5/2014 05:22 PM			
Client ID:				Run ID: ICPMS1_140205A				SeqNo: 2634299			Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.46	0.25	5	0	89.2	80-120	0							
Barium	4.75	0.25	5	0	95	80-120	0							
Cadmium	4.677	0.10	5	0	93.5	80-120	0							
Chromium	4.688	0.25	5	0	93.8	80-120	0							
Copper	4.737	0.25	5	0	94.7	80-120	0							
Lead	4.831	0.25	5	0	96.6	80-120	0							
Nickel	4.754	0.25	5	0	95.1	80-120	0							
Selenium	4.448	0.25	5	0	89	80-120	0							
Silver	4.724	0.25	5	0	94.5	80-120	0							
Zinc	4.78	0.50	5	0	95.6	80-120	0							

MS					Sample ID: 1402052-03BMS		Units: mg/Kg		Analysis Date: 2/5/2014 06:21 PM		
Client ID:			Run ID: ICPMS1_140205A			SeqNo: 2634308		Prep Date: 2/4/2014		DF: 4	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	10.73	1.4	6.878	10.43	4.45	75-125	0			S	
Barium	45.67	1.4	6.878	63.79	-264	75-125	0			SO	
Cadmium	5.615	0.55	6.878	0.2923	77.4	75-125	0				
Chromium	11.9	1.4	6.878	5.371	94.9	75-125	0				
Copper	17.22	1.4	6.878	21.63	-64.1	75-125	0			S	
Lead	10.89	1.4	6.878	6.92	57.7	75-125	0			S	
Nickel	12.54	1.4	6.878	6.549	87.1	75-125	0				
Selenium	6.305	1.4	6.878	0.8769	78.9	75-125	0				
Silver	5.323	1.4	6.878	-0.0002843	77.4	75-125	0				
Zinc	27.38	2.8	6.878	24.12	47.4	75-125	0			S	

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55494** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1402052-03BMSD				Units: mg/Kg		Analysis Date: 2/5/2014 06:27 PM		
Client ID:		Run ID: ICPMS1_140205A				SeqNo: 2634309		Prep Date: 2/4/2014		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.7	1.4	6.812	10.43	33.3	75-125	10.73	16.8	25	S
Barium	52.04	1.4	6.812	63.79	-172	75-125	45.67	13.1	25	SO
Cadmium	5.812	0.54	6.812	0.2923	81	75-125	5.615	3.45	25	
Chromium	12.19	1.4	6.812	5.371	100	75-125	11.9	2.36	25	
Copper	19.3	1.4	6.812	21.63	-34.1	75-125	17.22	11.4	25	S
Lead	11.43	1.4	6.812	6.92	66.2	75-125	10.89	4.83	25	S
Nickel	13.48	1.4	6.812	6.549	102	75-125	12.54	7.25	25	
Selenium	6.341	1.4	6.812	0.8769	80.2	75-125	6.305	0.557	25	
Silver	5.406	1.4	6.812	-0.0002843	79.4	75-125	5.323	1.54	25	
Zinc	29.35	2.7	6.812	24.12	76.7	75-125	27.38	6.93	25	

The following samples were analyzed in this batch: 1402058-01B 1402058-02B 1402058-03B

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55550** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 1402058-02CDUP				Units: mg/L		Analysis Date: 2/6/2014 01:14 PM		
Client ID: Trench Pt. 2 Depth 6'			Run ID: ICPMS2_140206A			SeqNo: 2635362		Prep Date: 2/6/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	540	10	0	0	0	0-0	476.8	12.4		
Magnesium	98.1	4.0	0	0	0	0-0	84.7	14.7		
Sodium	460.4	4.0	0	0	0	0-0	390	16.6		

The following samples were analyzed in this batch:

1402058-01C	1402058-02C	1402058-03C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55486** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-55486-55486				Units: µg/Kg		Analysis Date: 2/5/2014 12:19 PM		
Client ID:		Run ID: SVMS8_140205A				SeqNo: 2633864		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1112	0	1667	0	66.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1639	0	1667	0	98.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1028	0	1667	0	61.7	37-107	0			

LCS		Sample ID: SLCSS1-55486-55486				Units: µg/Kg		Analysis Date: 2/5/2014 12:39 PM		
Client ID:		Run ID: SVMS8_140205A				SeqNo: 2633865		Prep Date: 2/4/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	483	6.7	666.7	0	72.4	45-110	0			
Acenaphthylene	521.7	6.7	666.7	0	78.2	45-105	0			
Anthracene	616	6.7	666.7	0	92.4	55-105	0			
Benzo(a)anthracene	633.7	6.7	666.7	0	95	50-110	0			
Benzo(a)pyrene	678.7	6.7	666.7	0	102	50-110	0			
Benzo(b)fluoranthene	666.7	6.7	666.7	0	100	45-115	0			
Benzo(g,h,i)perylene	593	6.7	666.7	0	88.9	40-125	0			
Benzo(k)fluoranthene	668	6.7	666.7	0	100	45-115	0			
Chrysene	613.7	6.7	666.7	0	92	55-110	0			
Dibenzo(a,h)anthracene	615	6.7	666.7	0	92.2	40-125	0			
Fluoranthene	648	6.7	666.7	0	97.2	55-115	0			
Fluorene	567.3	6.7	666.7	0	85.1	50-110	0			
Indeno(1,2,3-cd)pyrene	781.7	6.7	666.7	0	117	40-120	0			
Naphthalene	492.3	6.7	666.7	0	73.8	40-105	0			
Pyrene	652	6.7	666.7	0	97.8	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1255	0	1667	0	75.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1787	0	1667	0	107	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1110	0	1667	0	66.6	37-107	0			

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55486** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 1402053-03B MS			Units: µg/Kg		Analysis Date: 2/5/2014 01:00 PM	
Client ID:				Run ID: SVMS8_140205A			SeqNo: 2633866		Prep Date: 2/4/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1334	19	1874	0	71.2	45-110	0			
Acenaphthylene	1405	19	1874	0	74.9	45-105	0			
Anthracene	1552	19	1874	0	82.8	55-105	0			
Benzo(a)anthracene	1577	19	1874	0	84.1	50-110	0			
Benzo(a)pyrene	1786	19	1874	0	95.3	50-110	0			
Benzo(b)fluoranthene	1794	19	1874	0	95.7	45-115	0			
Benzo(g,h,i)perylene	1786	19	1874	0	95.3	40-125	0			
Benzo(k)fluoranthene	1743	19	1874	0	93	45-115	0			
Chrysene	1515	19	1874	0	80.8	55-110	0			
Dibenzo(a,h)anthracene	1699	19	1874	0	90.6	40-125	0			
Fluoranthene	1604	19	1874	0	85.6	55-115	0			
Fluorene	1492	19	1874	0	79.6	50-110	0			
Indeno(1,2,3-cd)pyrene	1827	19	1874	0	97.5	40-120	0			
Naphthalene	1369	19	1874	0	73	40-105	0			
Pyrene	1599	19	1874	0	85.3	45-125	0			
Surr: 2-Fluorobiphenyl	3436	0	4685	0	73.3	12-100	0			
Surr: 4-Terphenyl-d14	4281	0	4685	0	91.4	25-137	0			
Surr: Nitrobenzene-d5	3093	0	4685	0	66	37-107	0			

MSD				Sample ID: 1402053-03B MSD			Units: µg/Kg		Analysis Date: 2/5/2014 01:20 PM	
Client ID:				Run ID: SVMS8_140205A			SeqNo: 2633867		Prep Date: 2/4/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1237	20	1963	0	63	45-110	1334	7.61	30	
Acenaphthylene	1337	20	1963	0	68.1	45-105	1405	4.96	30	
Anthracene	1491	20	1963	0	75.9	55-105	1552	4.01	30	
Benzo(a)anthracene	1536	20	1963	0	78.2	50-110	1577	2.65	30	
Benzo(a)pyrene	1650	20	1963	0	84	50-110	1786	7.94	30	
Benzo(b)fluoranthene	1566	20	1963	0	79.8	45-115	1794	13.6	30	
Benzo(g,h,i)perylene	1595	20	1963	0	81.2	40-125	1786	11.3	30	
Benzo(k)fluoranthene	1584	20	1963	0	80.7	45-115	1743	9.56	30	
Chrysene	1455	20	1963	0	74.1	55-110	1515	4.03	30	
Dibenzo(a,h)anthracene	1610	20	1963	0	82	40-125	1699	5.34	30	
Fluoranthene	1568	20	1963	0	79.9	55-115	1604	2.27	30	
Fluorene	1402	20	1963	0	71.4	50-110	1492	6.18	30	
Indeno(1,2,3-cd)pyrene	2030	20	1963	0	103	40-120	1827	10.5	30	
Naphthalene	1197	20	1963	0	61	40-105	1369	13.4	30	
Pyrene	1471	20	1963	0	74.9	45-125	1599	8.31	30	
Surr: 2-Fluorobiphenyl	3197	0	4907	0	65.2	12-100	3436	7.2	40	
Surr: 4-Terphenyl-d14	4075	0	4907	0	83	25-137	4281	4.95	40	
Surr: Nitrobenzene-d5	2749	0	4907	0	56	37-107	3093	11.8	40	

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55486** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

1402058-01B	1402058-02B	1402058-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55478** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-55478-55478				Units: µg/Kg			Analysis Date: 2/4/2014 04:03 PM		
Client ID:			Run ID: VMS5_140204A				SeqNo: 2633543			Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	966.5	0	1000	0	96.6	70-130		0					
Surr: 4-Bromofluorobenzene	985	0	1000	0	98.5	70-130		0					
Surr: Dibromofluoromethane	939	0	1000	0	93.9	70-130		0					
Surr: Toluene-d8	942	0	1000	0	94.2	70-130		0					

LCS				Sample ID: LCS-55478-55478				Units: µg/Kg			Analysis Date: 2/4/2014 01:52 PM		
Client ID:			Run ID: VMS5_140204A				SeqNo: 2633541			Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	1101	30	1000	0	110	75-125	0						
Ethylbenzene	1074	30	1000	0	107	75-125	0						
m,p-Xylene	2150	60	2000	0	108	80-125	0						
o-Xylene	1076	30	1000	0	108	75-125	0						
Toluene	1075	30	1000	0	108	70-125	0						
Xylenes, Total	3226	90	3000	0	108	75-125	0						
Surr: 1,2-Dichloroethane-d4	942.5	0	1000	0	94.2	70-130	0						
Surr: 4-Bromofluorobenzene	1026	0	1000	0	103	70-130	0						
Surr: Dibromofluoromethane	969.5	0	1000	0	97	70-130	0						
Surr: Toluene-d8	973.5	0	1000	0	97.4	70-130	0						

MS					Sample ID: 1402083-03A MS			Units: µg/Kg		Analysis Date: 2/4/2014 11:02 PM	
Client ID:			Run ID: VMS6_140204A			SeqNo: 2633668		Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	976	30	1000	0	97.6	75-125	0				
Ethylbenzene	968.5	30	1000	0	96.8	75-125	0				
m,p-Xylene	1933	60	2000	0	96.6	80-125	0				
o-Xylene	958.5	30	1000	0	95.8	75-125	0				
Toluene	969.5	30	1000	0	97	70-125	0				
Xylenes, Total	2892	90	3000	0	96.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	862.5	0	1000	0	86.2	70-130	0				
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	973.5	0	1000	0	97.4	70-130	0				
Surr: Toluene-d8	966	0	1000	0	96.6	70-130	0				

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55478** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1402083-03A MSD				Units: µg/Kg		Analysis Date: 2/4/2014 11:28 PM	
Client ID:			Run ID: VMS6_140204A			SeqNo: 2633676		Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	973.5	30	1000	0	97.4	75-125	976	0.256	30		
Ethylbenzene	931	30	1000	0	93.1	75-125	968.5	3.95	30		
m,p-Xylene	1853	60	2000	0	92.6	80-125	1933	4.23	30		
o-Xylene	934.5	30	1000	0	93.4	75-125	958.5	2.54	30		
Toluene	922.5	30	1000	0	92.2	70-125	969.5	4.97	30		
Xylenes, Total	2788	90	3000	0	92.9	75-125	2892	3.66	30		
Surr: 1,2-Dichloroethane-d4	866	0	1000	0	86.6	70-130	862.5	0.405	30		
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130	1014	0.842	30		
Surr: Dibromofluoromethane	968.5	0	1000	0	96.8	70-130	973.5	0.515	30		
Surr: Toluene-d8	962	0	1000	0	96.2	70-130	966	0.415	30		

The following samples were analyzed in this batch: 1402058-01A 1402058-02A 1402058-03A

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

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55487** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-55487-55487					Units: s.u.			Analysis Date: 2/4/2014 04:30 PM			
Client ID:					Run ID: WETCHEM_140204P					SeqNo: 2632788			Prep Date: 2/4/2014		DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					3.99	0	4	0	99.8		90-110	0				

DUP					Sample ID: 1402058-01B DUP		Units: s.u.		Analysis Date: 2/4/2014 04:30 PM		
Client ID: Trench Pt. 1 Depth 4'			Run ID: WETCHEM_140204P			SeqNo: 2632790		Prep Date: 2/4/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.04	0	0	0	0	0-0	8.13	1.11	20		

The following samples were analyzed in this batch:

1402058-01B	1402058-02B	1402058-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55550** Instrument ID **WETCHEM** Method: **USDA H60 Method**

MBLK		Sample ID: WBLKW1-140205-55550				Units: mmhos/cm @25°C		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_1402060				SeqNo: 2635662		Prep Date: 2/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation ND 0.0050

DUP		Sample ID: 1402058-03C DUP				Units: mmhos/cm @25°C		Analysis Date: 2/6/2014 02:00 PM		
Client ID: Excavation Bottom Pt. 3 Depth 12'		Run ID: WETCHEM_1402060				SeqNo: 2635667		Prep Date: 2/6/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 6.06 0.050 0 0 0 6.09 0.494 50

LCS1		Sample ID: WLCS1W1-140205-55550				Units: mmhos/cm @25°C		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_1402060				SeqNo: 2635668		Prep Date: 2/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 0.01353 0.0050 0.0149 0 90.8 85-107 0

LCS2		Sample ID: WLCS2W1-140205-55550				Units: mmhos/cm @25°C		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_1402060				SeqNo: 2635663		Prep Date: 2/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Electrical Conductivity @ Saturation 0.573 0.0050 0.592 0 96.8 85-107 0

The following samples were analyzed in this batch:

1402058-01C	1402058-02C	1402058-03C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1402058
Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **55566** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-55566-55566				Units: mg/Kg		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140206L				SeqNo: 2635588		Prep Date: 2/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-55566-55566				Units: mg/Kg		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140206L				SeqNo: 2635589		Prep Date: 2/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.768 0.50 2 0 88.4 80-120 0

MS		Sample ID: 1402092-09B MS				Units: mg/Kg		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140206L				SeqNo: 2635598		Prep Date: 2/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4484 0.50 1.984 0.08235 18.4 75-125 0 JS

MS		Sample ID: 1402092-09B MSI				Units: mg/Kg		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140206L				SeqNo: 2635600		Prep Date: 2/5/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 988.4 50 1115 0.08235 88.6 75-125 0

MSD		Sample ID: 1402092-09B MSD				Units: mg/Kg		Analysis Date: 2/6/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140206L				SeqNo: 2635599		Prep Date: 2/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4961 0.49 1.969 0.08235 21 75-125 0.4484 10.1 20 S

The following samples were analyzed in this batch:

1402058-01B	1402058-02B	1402058-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
 Work Order: 1402058
 Project: WPX GM 42-1 Historical Spill 2.3.14

QC BATCH REPORT

Batch ID: **R135128** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R135128				Units: % of sample		Analysis Date: 2/4/2014 01:46 PM		
Client ID:		Run ID: MOIST_140204A				SeqNo: 2633340		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R135128				Units: % of sample		Analysis Date: 2/4/2014 01:46 PM		
Client ID:		Run ID: MOIST_140204A				SeqNo: 2633339		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1402053-01B DUP				Units: % of sample		Analysis Date: 2/4/2014 01:46 PM		
Client ID:		Run ID: MOIST_140204A				SeqNo: 2633311		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 21.09 0.050 0 0 0 0-0 22.54 6.65 20

DUP		Sample ID: 1402058-01B DUP				Units: % of sample		Analysis Date: 2/4/2014 01:46 PM		
Client ID: Trench Pt. 1 Depth 4'		Run ID: MOIST_140204A				SeqNo: 2633331		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 22.1 0.050 0 0 0 0-0 21.68 1.92 20

The following samples were analyzed in this batch:

1402058-01B	1402058-02B	1402058-03B
-------------	-------------	-------------

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

Ann Preston

From: Blaney, Karolina [Karolina.Blaney@wpxenergy.com]
Sent: Friday, February 07, 2014 2:05 PM
To: Ann Preston
Cc: Mark Mumby
Subject: RE: 1402058 WPX GM 42-1 Glycol Spill 2.3.14

Ann,
Will you please change the name of this project to WPX GM 42-1 historical spill 2.3.14?
There is a separate report #1402055 with that same name and that report is correct.
Thank you,

Karolina Blaney

Environmental Specialist
WPX Energy
Office: (970) 683-2295
Cell: (970) 589-0743
Fax: (970) 285-9573
karolina.blaney@wpxenergy.com

From: Ann Preston [mailto:Ann.Preston@ALSGlobal.com]
Sent: Friday, February 07, 2014 8:34 AM
To: mmumby@hrlcomp.com
Cc: mlobato@hrlcomp.com; rwold@hrlcomp.com; Blaney, Karolina
Subject: 1402058 WPX GM 42-1 Glycol Spill 2.3.14

Dear Mark,
Analytical results for your soil samples we received on 02/4/14 are attached. This e-report is complete and no hardcopy report will follow. An electronic invoice will be sent separately to Leo with WPX.
Please call me if you have any questions.

Regards,

Ann

Take our short online customer survey for a chance to win a FREE iPad!

Ann L. Preston

Senior Project Manager
ALS Life Sciences Division | Environmental
3352 128th Avenue
Holland, MI 49424 USA

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T +1 616 399 6070 X525
M +1 616 218 5574
F +1 616 399 6185
<http://www.alsglobal.com/>

2/7/2014

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **04-Feb-14 00:00**

Work Order: **1402058**

Received by: **DS**

Checklist completed by Diane Shaw 04-Feb-14
eSignature Date

Reviewed by: Ann Preston 04-Feb-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>2/4/2014 10:42:39 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC
127 E First Street
PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 03FEB14
ActWgt: 51.0 LB
CAD: 103923490/NET3490
Dims: 24 X 14 X 14 IN

Delivery Address Bar Code



SHIP TO: (616) 399-6878
Sample receiving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

BILL RECIPIENT

Ref # 1001-020314-2
Invoice #
PO #
Dept #

TUE - 04 FEB AA
STANDARD OVERNIGHT

TRK# 7978 0159 4980
0201

XX GRRR

49424
MI-US
GRR



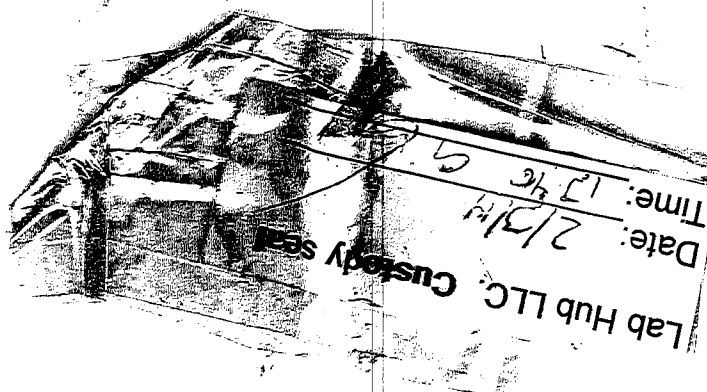
52261685F-F220

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13-Mar-2014

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

Re: **WPX GM 42-1 Backgrounds 3.5.14**

Work Order: **1403227**

Dear Mark,

ALS Environmental received 3 samples on 06-Mar-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 15.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
Work Order: 1403227

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>
1403227-01	GM 42-1-B-1	Soil		3/5/2014 09:50	3/6/2014 10:00	<input type="checkbox"/>
1403227-02	GM 42-1-B-2	Soil		3/5/2014 09:55	3/6/2014 10:00	<input type="checkbox"/>
1403227-03	GM 42-1-B-3	Soil		3/5/2014 10:00	3/6/2014 10:00	<input type="checkbox"/>

ALS Group USA, Corp

Date: 13-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
Work Order: 1403227

Case Narrative

Batch 56385 MS/MSD data for Arsenic is not related to this project's samples. No data requires qualification.

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
WorkOrder: 1403227

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp

Date: 13-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
Sample ID: GM 42-1-B-1
Collection Date: 3/5/2014 09:50 AM

Work Order: 1403227
Lab ID: 1403227-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 3/7/14	Analyst: ML
Arsenic	12		2.1	mg/Kg-dry	5	3/8/2014 03:28 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	15		0.050	% of sample	1	3/7/2014 01:50 PM

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

ALS Group USA, Corp

Date: 13-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
Sample ID: GM 42-1-B-2
Collection Date: 3/5/2014 09:55 AM

Work Order: 1403227
Lab ID: 1403227-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 3/7/14	Analyst: ML
Arsenic	8.6		2.2	mg/Kg-dry	5	3/8/2014 03:34 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	14		0.050	% of sample	1	3/7/2014 01:50 PM

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

ALS Group USA, Corp

Date: 13-Mar-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Backgrounds 3.5.14
Sample ID: GM 42-1-B-3
Collection Date: 3/5/2014 10:00 AM

Work Order: 1403227
Lab ID: 1403227-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 3/7/14	Analyst: ML
Arsenic	6.5		1.8	mg/Kg-dry	5	3/8/2014 03:41 AM
SOLUBLE CATIONS FOR SAR			SW6020A		Prep: USDA Method 20B / 3/12/14	Analyst: ML
Calcium	50		10	mg/L	20	3/12/2014 03:05 PM
Magnesium	ND		4.0	mg/L	20	3/12/2014 03:05 PM
Sodium	8.5		4.0	mg/L	20	3/12/2014 03:05 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 3/12/14	Analyst: ML
Sodium Adsorption Ratio	0.31		0.010	none	1	3/12/2014
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 3/12/14	Analyst: JB
Electrical Conductivity @ Saturation	0.36		0.050	mmhos/cm @25	10	3/13/2014 11:30 AM
MOISTURE			A2540 G			Analyst: AT
Moisture	11		0.050	% of sample	1	3/7/2014 01:50 PM
PH			SW9045D		Prep: EXTRACT / 3/7/14	Analyst: AT
pH	8.2			s.u.	1	3/7/2014 03:12 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 1403227
Project: WPX GM 42-1 Backgrounds 3.5.14

QC BATCH REPORT

Batch ID: **56385** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-56385-56385				Units: mg/Kg		Analysis Date: 3/8/2014 02:32 AM		
Client ID:		Run ID: ICPMS1_140307A				SeqNo: 2667588		Prep Date: 3/7/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-56385-56385				Units: mg/Kg		Analysis Date: 3/8/2014 02:39 AM		
Client ID:		Run ID: ICPMS1_140307A				SeqNo: 2667589		Prep Date: 3/7/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.564	0.25	5	0	91.3	80-120	0			

MS		Sample ID: 1403234-01BMS				Units: mg/Kg		Analysis Date: 3/10/2014 07:29 PM		
Client ID:		Run ID: ICPMS1_140310A				SeqNo: 2668779		Prep Date: 3/7/2014		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.32	1.3	6.702	5.997	64.4	75-125	0			S

MSD		Sample ID: 1403234-01BMSD				Units: mg/Kg		Analysis Date: 3/10/2014 07:35 PM		
Client ID:		Run ID: ICPMS1_140310A				SeqNo: 2668780		Prep Date: 3/7/2014		DF: 4
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.03	1.4	6.944	5.997	72.4	75-125	10.32	6.67	25	S

The following samples were analyzed in this batch:

1403227-01A	1403227-02A	1403227-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 1403227
Project: WPX GM 42-1 Backgrounds 3.5.14

QC BATCH REPORT

Batch ID: **56491** Instrument ID **ICPMS1** Method: **SW6020A**

DUP		Sample ID: 1403227-03BDUP				Units: mg/L		Analysis Date: 3/12/2014 03:11 PM		
Client ID: GM 42-1-B-3		Run ID: ICPMS1_140312A				SeqNo: 2670790		Prep Date: 3/12/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	54.62	10	0	0	0	0-0	50.24	8.35		
Magnesium	3.762	4.0	0	0	0	0-0	3.262	0		J
Sodium	9.344	4.0	0	0	0	0-0	8.526	9.16		

DUP		Sample ID: 1403227-03BDUP				Units: none		Analysis Date: 3/12/2014		
Client ID: GM 42-1-B-3		Run ID: SAR_140312A				SeqNo: 2670808		Prep Date: 3/12/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.3299	0.010	0	0	0		0.3148	4.69	50	

The following samples were analyzed in this batch: | 1403227-03B |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1403227
Project: WPX GM 42-1 Backgrounds 3.5.14

QC BATCH REPORT

Batch ID: **56388** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-56388-56388					Units: s.u.			Analysis Date: 3/7/2014 03:12 PM				
Client ID:					Run ID: WETCHEM_1403071					SeqNo: 2667275			Prep Date: 3/7/2014			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD		RPD Limit	Qual
pH					3.96		0	4	0	99		90-110	0				

DUP					Sample ID: 1403203-01B DUP					Units: s.u.		Analysis Date: 3/7/2014 03:12 PM		
Client ID:				Run ID: WETCHEM_1403071				SeqNo: 2667278		Prep Date: 3/7/2014		DF: 1		
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
pH		7.68	0	0	0	0	0-0	7.74	0.778	20				

The following samples were analyzed in this batch:

1403227-03A

Client: HRL Compliance Solutions, Inc
Work Order: 1403227
Project: WPX GM 42-1 Backgrounds 3.5.14

QC BATCH REPORT

Batch ID: **56491** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1403227-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 3/13/2014 11:30 AM		
Client ID: GM 42-1-B-3		Run ID: WETCHEM_140313D				SeqNo: 2671416		Prep Date: 3/12/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.381	0.050	0	0	0		0.365	4.29	50	

The following samples were analyzed in this batch:

1403227-03B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1403227
Project: WPX GM 42-1 Backgrounds 3.5.14

QC BATCH REPORT

Batch ID: **R136847** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R136847				Units: % of sample		Analysis Date: 3/7/2014 01:50 PM		
Client ID:		Run ID: MOIST_140307C				SeqNo: 2668171		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R136847				Units: % of sample		Analysis Date: 3/7/2014 01:50 PM		
Client ID:		Run ID: MOIST_140307C				SeqNo: 2668170		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1403202-05B DUP				Units: % of sample		Analysis Date: 3/7/2014 01:50 PM		
Client ID:		Run ID: MOIST_140307C				SeqNo: 2668153		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.76 0.050 0 0 0 0-0 19.6 0.813 20

DUP		Sample ID: 1403227-01A DUP				Units: % of sample		Analysis Date: 3/7/2014 01:50 PM		
Client ID: GM 42-1-B-1		Run ID: MOIST_140307C				SeqNo: 2668159		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 15.48 0.050 0 0 0 0-0 15.42 0.388 20

The following samples were analyzed in this batch:

1403227-01A	1403227-02A	1403227-03A
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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
#

1403227

PROJECT NAME		WPX <i>GM 42-1 Backgrounds</i>		SAMPLER		Reed Wold		DATE		3/5/14		PAGE		1 of 1	
PROJECT No.				SITE ID		GM 42-1		TURNAROUND		Standard		DISPOSAL		By Lab or Return to Client	
EDD FORMAT				PURCHASE ORDER											
COMPANY NAME		HRL Compliance		BILL TO COMPANY		WPX									
SEND REPORT TO		Mark Mumby		INVOICE ATTN TO		Karolina Blaney									
ADDRESS		2385 F 1/2 Rd		ADDRESS		1058 Co Rd 215									
CITY / STATE / ZIP		Grand Junction, CO 81506		CITY / STATE / ZIP		Parachure CO 81635									
PHONE		970-243-3271		PHONE		970-683-2295									
FAX		970-243-3280		FAX											
E-MAIL		mmumby@hrlcomp.com rwold@hrlcomp.com		E-MAIL		Karolina.blaney@wpenergy.com									
Lab ID		Field ID		Matrix		Sample Date		Sample Time		# Bottles		Pres.		QC	
1		GM 42-1-B-1		SO		3/5/14		9:50		1		8		X	
2		GM 42-1-B-2		↓		↓		9:55		1		↓		X	
3		GM 42-1-B-3		↓		↓		10:00		2		↓		X X	

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

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE	PRINTED NAME	DATE	TIME
<i>[Signature]</i>	Reed Wold	3/5/14	11:00
<i>[Signature]</i>	N.M.	3-5-14	11:00
<i>[Signature]</i>	Nick Martin	3-5-14	11:15
<i>[Signature]</i>	Diane F. Shero	3/6/14	1000
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 06-Mar-14 10:00

Work Order: 1403227

Received by: DS

Checklist completed by Diane Shaw
eSignature

06-Mar-14
Date

Reviewed by: Ann Preston
eSignature

06-Mar-14
Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>3/6/2014 2:30:54 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

Origin ID: RILA



Ship Date: 05MAR14
ActWgt: 50.0 LB
CAD: 12923490/NET3490

Dims: 25 X 14 X 15 IN

127 E First Street

PARACHUTE, CO 81635



Delivery Address Bar Code



SHIP TO: (616) 399-6870

Sample recieving

ALS Holland

3352 128TH AVE

HOLLAND, MI 49424

BILL RECEIPT

R of # 1001-030414-1

Invoice #

PO #

Dept #

THU - 06 MAR 10:30A

PRIORITY OVERNIGHT

TRK# 7981 2425 3203

0201

49424

MI-US

GRR

XX GRRA



522G1/CC4F/P220

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Lab Hub LLC Custody seal

Name: W. C. L. M. R.

Date: 3-5-14

Time: 10:30 AM

Lab Hub LLC Custody seal

Name: W. C. L. M. R.

Date: 3-5-14

Time: 10:30 AM



13-May-2014

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

Re: **WPX GM 42-1 Produced Water Spill 5.1.14**

Work Order: **1405098**

Dear Mark,

ALS Environmental received 1 sample on 02-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Produced Water Spill 5.1.14
Work Order: 1405098

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>
1405098-01	Batch 1	Soil		5/1/2014 11:15	5/2/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Produced Water Spill 5.1.14
Work Order: 1405098

Case Narrative

Batch 58315 sample 1405098-01 Metals' reporting limits were elevated due to dilution for high concentrations of non-target analytes. The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58327 sample Batch 1 MS/MSD recoveries for Hexavalent Chromium were below the control limit. The corresponding result in the parent sample may be biased low for Hexavalent Chromium.

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

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

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

ALS Group USA, Corp

Date: 13-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Produced Water Spill 5.1.14
Sample ID: Batch 1
Collection Date: 5/1/2014 11:15 AM

Work Order: 1405098
Lab ID: 1405098-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/5/14	Analyst: IT
DRO (C10-C28)	620		4.6	mg/Kg-dry	1	5/5/2014 11:38 PM
<i>Surr: 4-Terphenyl-d14</i>	93.2		39-133	%REC	1	5/5/2014 11:38 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/2/14	Analyst: IT
GRO (C6-C10)	44		2.8	mg/Kg-dry	1	5/2/2014 04:32 PM
<i>Surr: Toluene-d8</i>	122		50-150	%REC	1	5/2/2014 04:32 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/5/14	Analyst: RH
Mercury	0.021		0.019	mg/Kg-dry	1	5/5/2014 04:34 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/6/14	Analyst: ML
Arsenic	7.9		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Barium	440		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Cadmium	ND		0.94	mg/Kg-dry	5	5/6/2014 06:15 PM
Chromium	15		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Copper	9.5		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Lead	17		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Nickel	22		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Selenium	ND		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Silver	ND		2.3	mg/Kg-dry	5	5/6/2014 06:15 PM
Zinc	66		4.7	mg/Kg-dry	5	5/6/2014 06:15 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/9/14	Analyst: RH
Calcium	560		10	mg/L	20	5/10/2014 05:53 PM
Magnesium	130		4.0	mg/L	20	5/10/2014 05:53 PM
Sodium	530		4.0	mg/L	20	5/10/2014 05:53 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/9/14	Analyst: ML
Sodium Adsorption Ratio	5.2		0.010	none	1	5/10/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/5/14	Analyst: JG
Acenaphthene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Acenaphthylene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Anthracene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Benzo(a)anthracene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Benzo(a)pyrene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Benzo(b)fluoranthene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Benzo(g,h,i)perylene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Benzo(k)fluoranthene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Chrysene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM

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

ALS Group USA, Corp

Date: 13-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Produced Water Spill 5.1.14
Sample ID: Batch 1
Collection Date: 5/1/2014 11:15 AM

Work Order: 1405098
Lab ID: 1405098-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Fluoranthene	48		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Fluorene	52		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Indeno(1,2,3-cd)pyrene	ND		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Naphthalene	820		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Pyrene	22		7.4	µg/Kg-dry	1	5/6/2014 05:59 PM
Surr: 2-Fluorobiphenyl	71.4		12-100	%REC	1	5/6/2014 05:59 PM
Surr: 4-Terphenyl-d14	115		25-137	%REC	1	5/6/2014 05:59 PM
Surr: Nitrobenzene-d5	54.4		37-107	%REC	1	5/6/2014 05:59 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/2/14	Analyst: AK	
Benzene	ND		34	µg/Kg-dry	1	5/6/2014 07:37 AM
Ethylbenzene	37		34	µg/Kg-dry	1	5/6/2014 07:37 AM
m,p-Xylene	1,000		68	µg/Kg-dry	1	5/6/2014 07:37 AM
o-Xylene	58		34	µg/Kg-dry	1	5/6/2014 07:37 AM
Toluene	62		34	µg/Kg-dry	1	5/6/2014 07:37 AM
Xylenes, Total	1,100		100	µg/Kg-dry	1	5/6/2014 07:37 AM
Surr: 1,2-Dichloroethane-d4	104		70-130	%REC	1	5/6/2014 07:37 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	1	5/6/2014 07:37 AM
Surr: Dibromofluoromethane	97.6		70-130	%REC	1	5/6/2014 07:37 AM
Surr: Toluene-d8	98.2		70-130	%REC	1	5/6/2014 07:37 AM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/9/14	Analyst: JB	
Electrical Conductivity @ Saturation	7.1		0.050	mmhos/cm @25	10	5/9/2014 05:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	15		0.56	mg/Kg-dry	1	5/8/2014 07:56 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/6/14	Analyst: JI	
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	5/7/2014 10:00 AM
MOISTURE			A2540 G	Analyst: AT		
Moisture	11		0.050	% of sample	1	5/2/2014 01:07 PM
PH			SW9045D	Prep: EXTRACT / 5/2/14	Analyst: AT	
pH	7.9			s.u.	1	5/2/2014 04:58 PM

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

Client: HRL Compliance Solutions, Inc

QC BATCH REPORT

Work Order: 1405098

Project: WPX GM 42-1 Produced Water Spill 5.1.14

Batch ID: 58248

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-58248-58248				Units: mg/Kg		Analysis Date: 5/5/2014 08:08 PM		
Client ID:		Run ID: GC8_140505A				SeqNo: 2746282		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.455	0	1.667	0	87.3	39-133	0			

LCS		Sample ID: DLCSS1-58248-58248				Units: mg/Kg		Analysis Date: 5/5/2014 08:38 PM		
Client ID:		Run ID: GC8_140505A				SeqNo: 2746283		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	139.3	4.2	166.7	0	83.6	61-109	0			
Surr: 4-Terphenyl-d14	1.317	0	1.667	0	79	39-133	0			

MS		Sample ID: 1405099-01B MS				Units: mg/Kg		Analysis Date: 5/5/2014 09:08 PM		
Client ID:		Run ID: GC8_140505A				SeqNo: 2746284		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1248	7.9	630.6	572.7	107	48-110	0			
Surr: 4-Terphenyl-d14	2.848	0	3.153	0	90.3	39-133	0			

MSD		Sample ID: 1405099-01B MSD				Units: mg/Kg		Analysis Date: 5/5/2014 09:38 PM		
Client ID:		Run ID: GC8_140505A				SeqNo: 2746285		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1190	8.3	662	572.7	93.2	48-110	1248	4.78	30	
Surr: 4-Terphenyl-d14	2.917	0	3.31	0	88.1	39-133	2.848	2.41	30	

The following samples were analyzed in this batch: 1405098-01B

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58216** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-58216-58216				Units: µg/Kg		Analysis Date: 5/2/2014 04:07 PM		
Client ID:		Run ID: GC9_140502A				SeqNo: 2744679		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>4808</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>96.2</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-58216-58216				Units: µg/Kg		Analysis Date: 5/2/2014 02:50 PM		
Client ID:		Run ID: GC9_140502A				SeqNo: 2744677		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	462100	2,500	500000	0	92.4	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5470</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>109</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1405098-01A MS				Units: µg/Kg		Analysis Date: 5/2/2014 10:10 PM		
Client ID: Batch 1		Run ID: GC9_140502A				SeqNo: 2744692		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	652300	2,500	500000	39220	123	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5010</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>100</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1405098-01A MSD				Units: µg/Kg		Analysis Date: 5/2/2014 10:35 PM		
Client ID: Batch 1		Run ID: GC9_140502A				SeqNo: 2744693		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	644200	2,500	500000	39220	121	70-130	652300	1.26	30	
<i>Surr: Toluene-d8</i>	<i>5576</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>112</i>	<i>50-150</i>	<i>5010</i>	<i>10.7</i>	<i>30</i>	

The following samples were analyzed in this batch:

1405098-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58236** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-58236-58236					Units: mg/Kg		Analysis Date: 5/5/2014 03:26 PM		
Client ID:			Run ID: HG1_140505A				SeqNo: 2745490		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-58236-58236				Units: mg/Kg		Analysis Date: 5/5/2014 03:28 PM		
Client ID:		Run ID: HG1_140505A				SeqNo: 2745491		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1842 0.020 0.1665 0 111 80-120 0

MS		Sample ID: 1405106-08AMS					Units: mg/Kg		Analysis Date: 5/5/2014 03:37 PM		
Client ID:			Run ID: HG1_140505A			SeqNo: 2745495		Prep Date: 5/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.01853 0.0019 0.0154 0.003041 101 75-125 0

MSD		Sample ID: 1405106-08AMSD				Units: mg/Kg		Analysis Date: 5/5/2014 03:39 PM		
Client ID:		Run ID: HG1_140505A			SeqNo: 2745496		Prep Date: 5/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.01826 0.0019 0.01559 0.003041 97.6 75-125 0.01853 1.49 35

The following samples were analyzed in this batch:

1405098-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58286** Instrument ID **ICPMS1** Method: **SW6020A**

DUP		Sample ID: 1405095-03BDUP				Units: mg/L		Analysis Date: 5/10/2014 05:41 PM		
Client ID:		Run ID: ICPMS1_140510A				SeqNo: 2755248		Prep Date: 5/9/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	61.9	10	0	0	0	0-0	58.54	5.58		
Magnesium	8.46	4.0	0	0	0	0-0	7.914	6.67		
Sodium	4.712	4.0	0	0	0	0-0	5.016	6.25		

The following samples were analyzed in this batch:

1405098-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58315** Instrument ID **ICPMS1** Method: **SW6020A**

Sample ID: MBLK-58315-58315				Units: mg/Kg			Analysis Date: 5/6/2014 04:59 PM			
Client ID:		Run ID: ICPMS1_140506A			SeqNo: 2748724		Prep Date: 5/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.01431	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	0.001414	0.25								J
Zinc	0.4804	0.50								J

LCS				Sample ID: LCS-58315-58315				Units: mg/Kg			Analysis Date: 5/6/2014 05:09 PM		
Client ID:			Run ID: ICPMS1_140506A				SeqNo: 2748725		Prep Date: 5/6/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Arsenic	4.416	0.25	5	0	88.3	80-120	0						
Barium	4.752	0.25	5	0	95	80-120	0						
Cadmium	4.562	0.10	5	0	91.2	80-120	0						
Chromium	4.623	0.25	5	0	92.5	80-120	0						
Copper	4.562	0.25	5	0	91.2	80-120	0						
Lead	4.581	0.25	5	0	91.6	80-120	0						
Nickel	4.605	0.25	5	0	92.1	80-120	0						
Selenium	4.344	0.25	5	0	86.9	80-120	0						
Silver	4.334	0.25	5	0	86.7	80-120	0						
Zinc	4.295	0.50	5	0	85.9	80-120	0						

MS					Sample ID: 1405162-02BMS		Units: mg/Kg		Analysis Date: 5/6/2014 07:49 PM		
Client ID:			Run ID: ICPMS1_140506A			SeqNo: 2748792		Prep Date: 5/6/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	19.76	2.0	7.8	13.1	85.4	75-125	0				
Barium	35.2	2.0	7.8	26.74	108	75-125	0				
Cadmium	7.028	0.78	7.8	0.006685	90	75-125	0				
Chromium	21.47	2.0	7.8	14.16	93.7	75-125	0				
Copper	18.66	2.0	7.8	12.6	77.7	75-125	0				
Lead	15.06	2.0	7.8	8.158	88.5	75-125	0				
Nickel	30.45	2.0	7.8	23.93	83.6	75-125	0				
Selenium	7.625	2.0	7.8	1.527	78.2	75-125	0				
Silver	5.85	2.0	7.8	0.08855	73.9	75-125	0			S	
Zinc	55.3	3.9	7.8	48.55	86.7	75-125	0			O	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58315** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1405162-02BMSD				Units: mg/Kg		Analysis Date: 5/6/2014 07:55 PM		
Client ID:		Run ID: ICPMS1_140506A				SeqNo: 2748795		Prep Date: 5/6/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	19.7	1.9	7.508	13.1	87.8	75-125	19.76	0.335	25	
Barium	35.24	1.9	7.508	26.74	113	75-125	35.2	0.117	25	
Cadmium	6.854	0.75	7.508	0.006685	91.2	75-125	7.028	2.5	25	
Chromium	21.84	1.9	7.508	14.16	102	75-125	21.47	1.69	25	
Copper	18.93	1.9	7.508	12.6	84.4	75-125	18.66	1.45	25	
Lead	14.83	1.9	7.508	8.158	88.9	75-125	15.06	1.55	25	
Nickel	30.24	1.9	7.508	23.93	84.1	75-125	30.45	0.686	25	
Selenium	7.744	1.9	7.508	1.527	82.8	75-125	7.625	1.55	25	
Silver	5.815	1.9	7.508	0.08855	76.3	75-125	5.85	0.612	25	
Zinc	55.82	3.8	7.508	48.55	96.9	75-125	55.3	0.925	25	O

The following samples were analyzed in this batch: 1405098-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58247** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-58247-58247				Units: µg/Kg		Analysis Date: 5/6/2014 03:36 PM		
Client ID:		Run ID: SVMS8_140506A				SeqNo: 2749752		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1323	0	1667	0	79.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1922	0	1667	0	115	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1124	0	1667	0	67.5	37-107	0			

LCS		Sample ID: SLCSS1-58247-58247				Units: µg/Kg		Analysis Date: 5/6/2014 03:57 PM		
Client ID:		Run ID: SVMS8_140506A				SeqNo: 2749753		Prep Date: 5/5/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	484.3	6.7	666.7	0	72.6	45-110	0			
Acenaphthylene	507	6.7	666.7	0	76	45-105	0			
Anthracene	532	6.7	666.7	0	79.8	55-105	0			
Benzo(a)anthracene	598	6.7	666.7	0	89.7	50-110	0			
Benzo(a)pyrene	591	6.7	666.7	0	88.6	50-110	0			
Benzo(b)fluoranthene	610.3	6.7	666.7	0	91.5	45-115	0			
Benzo(g,h,i)perylene	515.3	6.7	666.7	0	77.3	40-125	0			
Benzo(k)fluoranthene	600.7	6.7	666.7	0	90.1	45-115	0			
Chrysene	590.7	6.7	666.7	0	88.6	55-110	0			
Dibenzo(a,h)anthracene	525.3	6.7	666.7	0	78.8	40-125	0			
Fluoranthene	572.3	6.7	666.7	0	85.8	55-115	0			
Fluorene	590	6.7	666.7	0	88.5	50-110	0			
Indeno(1,2,3-cd)pyrene	577.3	6.7	666.7	0	86.6	40-120	0			
Naphthalene	500.3	6.7	666.7	0	75	40-105	0			
Pyrene	604.7	6.7	666.7	0	90.7	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1375	0	1667	0	82.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1928	0	1667	0	116	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1242	0	1667	0	74.5	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58247** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 1405146-21D MS			Units: µg/Kg		Analysis Date: 5/6/2014 04:17 PM	
Client ID:		Run ID: SVMS8_140506A			SeqNo: 2749754		Prep Date: 5/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	940.7	13	1300	0	72.3	45-110	0			
Acenaphthylene	966.1	13	1300	39.75	71.2	45-105	0			
Anthracene	1133	13	1300	32.32	84.7	55-105	0			
Benzo(a)anthracene	1220	13	1300	98.57	86.2	50-110	0			
Benzo(a)pyrene	1232	13	1300	119.9	85.5	50-110	0			
Benzo(b)fluoranthene	1228	13	1300	139	83.8	45-115	0			
Benzo(g,h,i)perylene	1113	13	1300	86.62	78.9	40-125	0			
Benzo(k)fluoranthene	1211	13	1300	73.04	87.5	45-115	0			
Chrysene	1225	13	1300	80.8	88	55-110	0			
Dibenzo(a,h)anthracene	1099	13	1300	43.95	81.2	40-125	0			
Fluoranthene	1236	13	1300	133.5	84.8	55-115	0			
Fluorene	1183	13	1300	0	90.9	50-110	0			
Indeno(1,2,3-cd)pyrene	1251	13	1300	104.4	88.2	40-120	0			
Naphthalene	948.5	13	1300	0	72.9	40-105	0			
Pyrene	1284	13	1300	131.2	88.7	45-125	0			
Surr: 2-Fluorobiphenyl	2626	0	3251	0	80.8	12-100	0			
Surr: 4-Terphenyl-d14	4098	0	3251	0	126	25-137	0			
Surr: Nitrobenzene-d5	2378	0	3251	0	73.2	37-107	0			

MSD				Sample ID: 1405146-21D MSD			Units: µg/Kg		Analysis Date: 5/6/2014 04:37 PM	
Client ID:		Run ID: SVMS8_140506A			SeqNo: 2749755		Prep Date: 5/5/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	915.8	13	1274	0	71.9	45-110	940.7	2.68	30	
Acenaphthylene	951.5	13	1274	39.75	71.6	45-105	966.1	1.52	30	
Anthracene	1086	13	1274	32.32	82.7	55-105	1133	4.26	30	
Benzo(a)anthracene	1189	13	1274	98.57	85.6	50-110	1220	2.54	30	
Benzo(a)pyrene	1190	13	1274	119.9	84	50-110	1232	3.44	30	
Benzo(b)fluoranthene	1205	13	1274	139	83.7	45-115	1228	1.9	30	
Benzo(g,h,i)perylene	1105	13	1274	86.62	79.9	40-125	1113	0.724	30	
Benzo(k)fluoranthene	1145	13	1274	73.04	84.2	45-115	1211	5.61	30	
Chrysene	1201	13	1274	80.8	88	55-110	1225	2.01	30	
Dibenzo(a,h)anthracene	1077	13	1274	43.95	81.1	40-125	1099	2.06	30	
Fluoranthene	1155	13	1274	133.5	80.2	55-115	1236	6.8	30	
Fluorene	1145	13	1274	0	89.9	50-110	1183	3.22	30	
Indeno(1,2,3-cd)pyrene	1197	13	1274	104.4	85.7	40-120	1251	4.48	30	
Naphthalene	978.2	13	1274	0	76.8	40-105	948.5	3.08	30	
Pyrene	1234	13	1274	131.2	86.6	45-125	1284	3.95	30	
Surr: 2-Fluorobiphenyl	2657	0	3184	0	83.4	12-100	2626	1.18	40	
Surr: 4-Terphenyl-d14	3891	0	3184	0	122	25-137	4098	5.18	40	
Surr: Nitrobenzene-d5	2460	0	3184	0	77.3	37-107	2378	3.39	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58247** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

1405098-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58207** Instrument ID **VMS7** Method: **SW8260B**

MBLK				Sample ID: MBLK-58207-58207				Units: µg/Kg			Analysis Date: 5/2/2014 12:13 PM		
Client ID:			Run ID: VMS7_140502A				SeqNo: 2744074			Prep Date: 5/2/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	1000	0	1000	0	100	70-130	0						
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130	0						
Surr: Dibromofluoromethane	982	0	1000	0	98.2	70-130	0						
Surr: Toluene-d8	1015	0	1000	0	102	70-130	0						

LCS				Sample ID: LCS-58207-58207			Units: µg/Kg		Analysis Date: 5/2/2014 10:33 AM		
Client ID:			Run ID: VMS7_140502A			SeqNo: 2744073		Prep Date: 5/2/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1004	30	1000	0	100	75-125	0				
Ethylbenzene	1009	30	1000	0	101	75-125	0				
m,p-Xylene	2010	60	2000	0	101	80-125	0				
o-Xylene	986	30	1000	0	98.6	75-125	0				
Toluene	1046	30	1000	0	105	70-125	0				
Xylenes, Total	2996	90	3000	0	99.9	75-125	0				
Surr: 1,2-Dichloroethane-d4	993.5	0	1000	0	99.4	70-130	0				
Surr: 4-Bromofluorobenzene	957	0	1000	0	95.7	70-130	0				
Surr: Dibromofluoromethane	1008	0	1000	0	101	70-130	0				
Surr: Toluene-d8	1047	0	1000	0	105	70-130	0				

MS				Sample ID: 1405098-01A MS				Units: µg/Kg		Analysis Date: 5/6/2014 08:01 AM	
Client ID: Batch 1			Run ID: VMS8_140505B			SeqNo: 2746618		Prep Date: 5/2/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1044	30	1000	0	104	75-125	0				
Ethylbenzene	939.5	30	1000	33	90.6	75-125	0				
m,p-Xylene	2556	60	2000	903	82.7	80-125	0				
o-Xylene	933.5	30	1000	51	88.2	75-125	0				
Toluene	930	30	1000	55	87.5	70-125	0				
Xylenes, Total	3490	90	3000	951	84.6	75-125	0				
Surr: 1,2-Dichloroethane-d4	1063	0	1000	0	106	70-130	0				
Surr: 4-Bromofluorobenzene	1037	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	976	0	1000	0	97.6	70-130	0				
Surr: Toluene-d8	984.5	0	1000	0	98.4	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58207** Instrument ID **VMS7** Method: **SW8260B**

MSD				Sample ID: 1405098-01A MSD			Units: µg/Kg		Analysis Date: 5/6/2014 08:26 AM	
Client ID: Batch 1				Run ID: VMS8_140505B			SeqNo: 2746621		Prep Date: 5/2/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1061	30	1000	0	106	75-125	1044	1.62	30	
Ethylbenzene	948.5	30	1000	33	91.6	75-125	939.5	0.953	30	
m,p-Xylene	2598	60	2000	903	84.7	80-125	2556	1.59	30	
o-Xylene	948.5	30	1000	51	89.8	75-125	933.5	1.59	30	
Toluene	939.5	30	1000	55	88.4	70-125	930	1.02	30	
Xylenes, Total	3546	90	3000	951	86.5	75-125	3490	1.59	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1072</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>107</i>	<i>70-130</i>	<i>1063</i>	<i>0.89</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1002</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>1037</i>	<i>3.43</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>1005</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>976</i>	<i>2.93</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>982</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.2</i>	<i>70-130</i>	<i>984.5</i>	<i>0.254</i>	<i>30</i>	

The following samples were analyzed in this batch: | 1405098-01A |

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58232** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-58232-58232				Units: s.u.		Analysis Date: 5/2/2014 04:58 PM		
Client ID:		Run ID: WETCHEM_140502G				SeqNo: 2742833		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH	4.01	0	4	0	100	90-110	0			
----	------	---	---	---	-----	--------	---	--	--	--

DUP		Sample ID: 1405035-01B DUP				Units: s.u.		Analysis Date: 5/2/2014 04:58 PM		
Client ID:		Run ID: WETCHEM_140502G				SeqNo: 2742836		Prep Date: 5/2/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH	7.87	0	0	0	0	0-0	7.83	0.51	20	
----	------	---	---	---	---	-----	------	------	----	--

DUP		Sample ID: 1405108-02A DUP					Units: s.u.		Analysis Date: 5/2/2014 04:58 PM		
Client ID:		Run ID: WETCHEM_140502G			SeqNo: 2742845		Prep Date: 5/2/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	8.62	0	0	0	0	0-0	8.64	0.232	20	
----	------	---	---	---	---	-----	------	-------	----	--

The following samples were analyzed in this batch:

1405098-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58286** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1405095-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 5/9/2014 05:00 PM		
Client ID:		Run ID: WETCHEM_140509M				SeqNo: 2753988		Prep Date: 5/9/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.431	0.050	0	0	0		0.421	2.35	50	

The following samples were analyzed in this batch:

1405098-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **58327** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-58327-58327				Units: mg/Kg		Analysis Date: 5/7/2014 10:00 AM		
Client ID:		Run ID: WETCHEM_140507H				SeqNo: 2749292		Prep Date: 5/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49

LCS		Sample ID: LCS-58327-58327				Units: mg/Kg		Analysis Date: 5/7/2014 10:00 AM		
Client ID:		Run ID: WETCHEM_140507H				SeqNo: 2749293		Prep Date: 5/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.378 0.50 2.008 0 118 80-120 0

MS		Sample ID: 1405098-01BMS				Units: mg/Kg		Analysis Date: 5/7/2014 10:00 AM		
Client ID: Batch 1		Run ID: WETCHEM_140507H				SeqNo: 2749295		Prep Date: 5/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.2851 0.50 2.008 0.3373 -2.6 75-125 0 JS

MS		Sample ID: 1405098-01BMSI				Units: mg/Kg		Analysis Date: 5/7/2014 10:00 AM		
Client ID: Batch 1		Run ID: WETCHEM_140507H				SeqNo: 2749297		Prep Date: 5/6/2014		DF: 50
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 683.1 25 1386 0.3373 49.3 75-125 0 S

MSD		Sample ID: 1405098-01BMSD				Units: mg/Kg		Analysis Date: 5/7/2014 10:00 AM		
Client ID: Batch 1		Run ID: WETCHEM_140507H				SeqNo: 2749296		Prep Date: 5/6/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.3281 0.49 1.953 0.3373 -0.472 75-125 0.2851 0 20 JS

The following samples were analyzed in this batch:

1405098-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405098
Project: WPX GM 42-1 Produced Water Spill 5.1.14

QC BATCH REPORT

Batch ID: **R140127** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R140127				Units: % of sample		Analysis Date: 5/2/2014 01:07 PM		
Client ID:		Run ID: MOIST_140502A				SeqNo: 2744647		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS		Sample ID: LCS-R140127				Units: % of sample		Analysis Date: 5/2/2014 01:07 PM		
Client ID:		Run ID: MOIST_140502A				SeqNo: 2744646		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP		Sample ID: 1405096-03A DUP				Units: % of sample		Analysis Date: 5/2/2014 01:07 PM		
Client ID:		Run ID: MOIST_140502A				SeqNo: 2744639		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.16	0.050	0	0	0	0-0	12.6	3.55	20	

DUP		Sample ID: 1405099-01B DUP				Units: % of sample		Analysis Date: 5/2/2014 01:07 PM		
Client ID:		Run ID: MOIST_140502A				SeqNo: 2744643		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.49	0.050	0	0	0	0-0	12.64	1.19	20	

The following samples were analyzed in this batch:

1405098-01B

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



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 Tel: (800) 443-1511 Fax: (970) 490-1511 Fax: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER #

1405098

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

WPX GM 42-1 Produced

SAMPLER

Reed Wold

DATE

5/1/14

SITE ID

GM 42-1

TURNAROUND

Standard

PROJECT No.

Water Spill

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HRL Compliance

BILL TO COMPANY

WPX Energy

SEND REPORT TO

Mark Mumby

INVOICE ATTN TO

Karolina Blaney

ADDRESS

2385 F 1/2 Rd

ADDRESS

CITY / STATE / ZIP

Grand Junction, CO 81506

CITY / STATE / ZIP

PHONE

970-243-3271

PHONE

FAX

970-243-3280

FAX

E-MAIL

mmumby@hrlcomp.com
 rwold@hrlcomp.com

E-MAIL

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

BTEX 1620
 DRAPAC/Metals
 SAR/Env

1

Batch 1

SO

6/1/14

11:15

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:

3.2c

QC PACKAGE (check below)

X

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY

RECEIVED BY

RELINQUISHED BY	Reed Wold	PRINTED NAME	Reed Wold	DATE	5/1/14	TIME	2:00
RECEIVED BY	N. Martinez	PRINTED NAME	N. Martinez	DATE	5-1-14	TIME	2:00
RELINQUISHED BY	N. Martinez	PRINTED NAME	N. Martinez	DATE	5-1-14	TIME	2:10
RECEIVED BY	Diane F. Shaw	PRINTED NAME	Diane F. Shaw	DATE	5/2/14	TIME	1000
RELINQUISHED BY		PRINTED NAME		DATE		TIME	
RECEIVED BY		PRINTED NAME		DATE		TIME	

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **02-May-14 10:00**

Work Order: **1405098**

Received by: **DS**

Checklist completed by Diane Shaw
eSignature

02-May-14
Date

Reviewed by: Ann Preston
eSignature

05-May-14
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/2/2014 11:48:17 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: (816) 399-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue
Holland, MI 49424

Origin ID: GRRR



Ship Date: 01MAY14
ActWgt: 78.0 LB
CAD: 2264840/NET3400

Dim: 14 X 26 X 15 IN

Delivery Address Bar Code



Ref # 050114-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (816) 399-6070
sample receiving
ALS Laboratory Group
3352 128TH AVE
HOLLAND, MI 49424

BILL SENDER

FRI - 02 MAY AA
STANDARD OVERNIGHT

TRK# 7987 2861 0523
0261

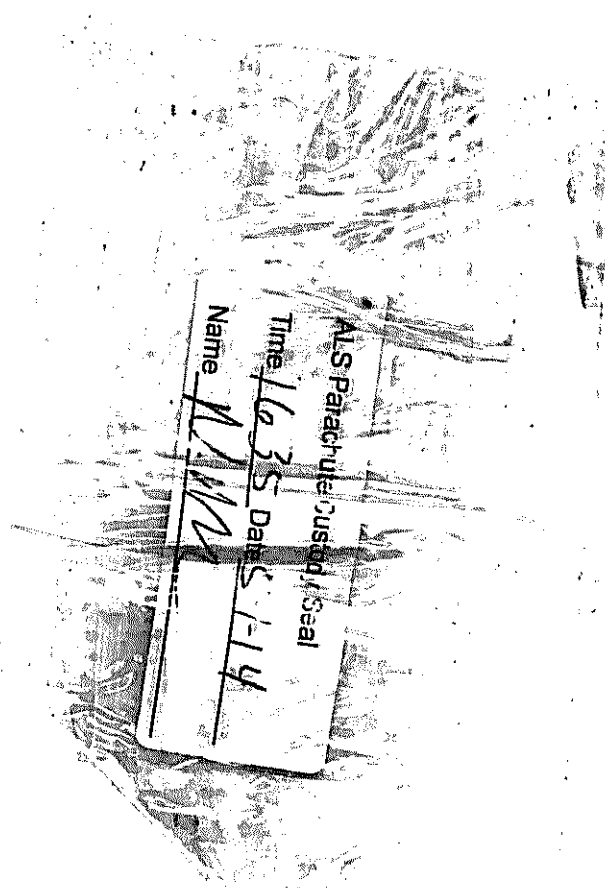
68 GRRR

49424
MI-US
GRR



5220 147600/F220

/templates/components/dotcom_label_contents/FoldInst/en/Folding_instructions.html loading...
/templates/components/dotcom_label_contents/WarningsOriginalLabel/en/Folding_warning.html loading...
/templates/components/dotcom_label_contents/TnCDom/us/en/TC_dom.html loading...





29-May-2014

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

Re: **WPX GM 42-1 Landfarm 5.21.14**

Work Order: **14051140**

Dear Mark,

ALS Environmental received 1 sample on 22-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 10.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Landfarm 5.21.14
Work Order: 14051140

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>
14051140-01	Batch 1	Soil		5/21/2014 11:45	5/22/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Landfarm 5.21.14
WorkOrder: 14051140

**QUALIFIERS,
ACRONYMS, UNITS**

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

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

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

ALS Group USA, Corp**Date:** 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 42-1 Landfarm 5.21.14
Sample ID: Batch 1
Collection Date: 5/21/2014 11:45 AM

Work Order: 14051140
Lab ID: 14051140-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
DRO (C10-C28)	30		4.7	mg/Kg-dry	1	5/28/2014 04:09 AM
<i>Surr: 4-Terphenyl-d14</i>	<i>79.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	5/28/2014 04:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/22/14	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	5/22/2014 09:34 PM
<i>Surr: Toluene-d8</i>	<i>112</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	5/22/2014 09:34 PM
MOISTURE						
			A2540 G			Analyst: AT
Moisture	13		0.050	% of sample	1	5/23/2014 01:06 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051140
Project: WPX GM 42-1 Landfarm 5.21.14

QC BATCH REPORT

Batch ID: **59015** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-59015-59015				Units: mg/Kg		Analysis Date: 5/27/2014 09:40 PM		
Client ID:		Run ID: GC8_140527A				SeqNo: 2782274		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.688	0	1.667	0	101	39-133	0			

LCS		Sample ID: DLCSS1-59015-59015				Units: mg/Kg		Analysis Date: 5/27/2014 10:10 PM		
Client ID:		Run ID: GC8_140527A				SeqNo: 2782275		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143	4.2	166.7	0	85.8	61-109	0			
Surr: 4-Terphenyl-d14	1.37	0	1.667	0	82.2	39-133	0			

MS		Sample ID: 14051288-01B MS				Units: mg/Kg		Analysis Date: 5/27/2014 10:40 PM		
Client ID:		Run ID: GC8_140527A				SeqNo: 2782276		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.8	8.0	319.8	30.4	84.5	48-110	0			
Surr: 4-Terphenyl-d14	3.026	0	3.198	0	94.6	39-133	0			

MSD		Sample ID: 14051288-01B MSD				Units: mg/Kg		Analysis Date: 5/27/2014 11:10 PM		
Client ID:		Run ID: GC8_140527A				SeqNo: 2782277		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	265.6	7.9	314	30.4	74.9	48-110	300.8	12.4	30	
Surr: 4-Terphenyl-d14	2.707	0	3.14	0	86.2	39-133	3.026	11.1	30	

The following samples were analyzed in this batch:

14051140-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14051140
Project: WPX GM 42-1 Landfarm 5.21.14

QC BATCH REPORT

Batch ID: **58905** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 05:19 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2776313		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5004</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>100</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-58905-58905				Units: µg/Kg		Analysis Date: 5/22/2014 04:03 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2776312		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	517200	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6152</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>123</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 14051082-01A MS				Units: µg/Kg		Analysis Date: 5/22/2014 09:59 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2779863		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	514200	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5673</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>113</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 14051082-01A MSD				Units: µg/Kg		Analysis Date: 5/22/2014 10:25 PM		
Client ID:		Run ID: GC9_140522A				SeqNo: 2779864		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	495900	2,500	500000	0	99.2	70-130	514200	3.62	30	
<i>Surr: Toluene-d8</i>	<i>5144</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>103</i>	<i>50-150</i>	<i>5673</i>	<i>9.78</i>	<i>30</i>	

The following samples were analyzed in this batch:

14051140-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051140
Project: WPX GM 42-1 Landfarm 5.21.14

QC BATCH REPORT

Batch ID: **R141402** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141402				Units: % of sample		Analysis Date: 5/23/2014 01:06 PM		
Client ID:		Run ID: MOIST_140523A				SeqNo: 2779996		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R141402				Units: % of sample		Analysis Date: 5/23/2014 01:06 PM		
Client ID:		Run ID: MOIST_140523A				SeqNo: 2779994		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14051101-13B DUP				Units: % of sample		Analysis Date: 5/23/2014 01:06 PM		
Client ID:		Run ID: MOIST_140523A				SeqNo: 2779965		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 3.61 0.050 0 0 0 0-0 3.58 0.834 20

DUP		Sample ID: 14051177-01A DUP				Units: % of sample		Analysis Date: 5/23/2014 01:06 PM		
Client ID:		Run ID: MOIST_140523A				SeqNo: 2779987		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.21 0.050 0 0 0 0-0 19.88 1.65 20

The following samples were analyzed in this batch:

14051140-01A

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 #

14051140

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

WPX 42-1 6M 24-1 land farm

SAMPLER

Reed Wold

DATE

5/21/14

SITE ID

6M 24-1

TURNAROUND

Standard

PROJECT No.

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HRL Compliance

BILL TO COMPANY

WPX

SEND REPORT TO

Mark Mumby

INVOICE ATTN TO

Karolina Blaney

ADDRESS

2385 F 1/2 Rd

ADDRESS

1058 Co Rd 215

CITY / STATE / ZIP

Grand Junction, CO 81506

CITY / STATE / ZIP

Parachute CO 81635

PHONE

970-243-3271

PHONE

970-683-2295

FAX

970-243-3280

FAX

E-MAIL

mmumby@hrlcomp.com
rwold@hrlcomp.com

E-MAIL

Karolina.blaney@wpxenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

1

Batch 1

SG

5/21/14

11:45

1

8

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:

2.0%

QC PACKAGE (check below)

X

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Reed Wold

5/21/14

2:35

RECEIVED BY

Wold

5-21-14

2:40

RELINQUISHED BY

Wold

5-21-14

2:45

RECEIVED BY

Diane F. Shaw

5/22/14

10:00

RELINQUISHED BY

RECEIVED BY

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-May-14 10:00**

Work Order: **14051140**

Received by: **DS**

Checklist completed by Diane Shaw 22-May-14
eSignature Date

Reviewed by: Ann Preston 22-May-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/22/2014 1:35:10 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (816) 398-6878
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRRA



Ship Date: 21 MAY 14
 Weight: 48.8 LB
 CAZ: 2254848NET3408

Dim: 24 X 18 X 15 IN

Delivery Address Bar Code



SHIP TO: (816) 398-6878
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL MENDER

Ref # 052114-1
 Invoice #
 PO # Parachute
 Dept #

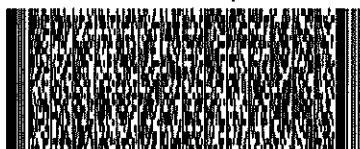
HOLLAND, MI 49424

THU - 22 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 5068 7048
 8291

68 GRRRA

49424
 MI-128
 GRR



820148207228

After printing this label:

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

Time 7:20 Date 5/21/14Name [Signature]

611