



Legend

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

GM 32-4
Arsenic Background Sample Location Map
T7S R96W, Section 4

July 3, 2014





24-Jun-2014

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

Re: **WPX GM 32-4 Cuttings 6.12.14**

Work Order: **1406745**

Dear Mark,

ALS Environmental received 6 samples on 14-Jun-2014 09:15 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 28.

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, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Work Order: 1406745

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>
1406745-01	GM 32-4 Cuttings	Soil		6/12/2014 13:52	6/14/2014 09:15	<input type="checkbox"/>
1406745-02	GM 32-4-B-1	Soil		6/12/2014 13:57	6/14/2014 09:15	<input type="checkbox"/>
1406745-03	GM 32-4-B-2	Soil		6/12/2014 14:00	6/14/2014 09:15	<input type="checkbox"/>
1406745-04	GM 32-4-B-3	Soil		6/12/2014 14:05	6/14/2014 09:15	<input type="checkbox"/>
1406745-05	GM 32-4-B-4	Soil		6/12/2014 14:08	6/14/2014 09:15	<input type="checkbox"/>
1406745-06	GM 32-4-B-5	Soil		6/12/2014 14:12	6/14/2014 09:15	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Work Order: 1406745

Case Narrative

Batch 59722 MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

Batch 59788 MS/MSD data for Copper is not related to this project's samples. No data requires qualification.

Batch 59905 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

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

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

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Sample ID: GM 32-4 Cuttings
Collection Date: 6/12/2014 01:52 PM

Work Order: 1406745
Lab ID: 1406745-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	69		SW8015M		Prep: SW3541 / 6/17/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	83.4		4.4	mg/Kg-dry	1	6/19/2014 01:48 AM
			39-133	%REC	1	6/19/2014 01:48 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 6/16/14	Analyst: IT
<i>Surr: Toluene-d8</i>	94.7		2.7	mg/Kg-dry	1	6/16/2014 05:06 PM
			50-150	%REC	1	6/16/2014 05:06 PM
MERCURY BY CVAA						
Mercury	0.043		SW7471		Prep: SW7471 / 6/16/14	Analyst: LR
			0.015	mg/Kg-dry	1	6/17/2014 03:34 PM
METALS BY ICP-MS						
Arsenic	5.2		SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Barium	2,700		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Cadmium	ND		21	mg/Kg-dry	50	6/19/2014 10:32 PM
Chromium	13		0.85	mg/Kg-dry	5	6/19/2014 09:56 AM
Copper	24		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Lead	23		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Nickel	15		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Selenium	ND		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Silver	ND		2.1	mg/Kg-dry	5	6/19/2014 09:56 AM
Zinc	60		4.2	mg/Kg-dry	5	6/19/2014 09:56 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/18/14	Analyst: RH
Calcium	500		10	mg/L	20	6/19/2014 05:17 AM
Magnesium	240		4.0	mg/L	20	6/19/2014 05:17 AM
Sodium	1,700		4.0	mg/L	20	6/19/2014 05:17 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/18/14	Analyst: RH
Sodium Adsorption Ratio	16		0.010	none	1	6/18/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/17/14	Analyst: RM
Acenaphthene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Acenaphthylene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Anthracene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Benzo(a)anthracene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Benzo(a)pyrene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Benzo(b)fluoranthene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Benzo(g,h,i)perylene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Benzo(k)fluoranthene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Chrysene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Sample ID: GM 32-4 Cuttings
Collection Date: 6/12/2014 01:52 PM

Work Order: 1406745
Lab ID: 1406745-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Fluoranthene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Fluorene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Indeno(1,2,3-cd)pyrene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Naphthalene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Pyrene	ND		7.0	µg/Kg-dry	1	6/19/2014 04:35 AM
Surr: 2-Fluorobiphenyl	54.5		12-100	%REC	1	6/19/2014 04:35 AM
Surr: 4-Terphenyl-d14	73.7		25-137	%REC	1	6/19/2014 04:35 AM
Surr: Nitrobenzene-d5	58.7		37-107	%REC	1	6/19/2014 04:35 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/16/14		Analyst: RS
Benzene	ND		32	µg/Kg-dry	1	6/18/2014 06:07 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	6/18/2014 06:07 PM
m,p-Xylene	ND		64	µg/Kg-dry	1	6/18/2014 06:07 PM
o-Xylene	ND		32	µg/Kg-dry	1	6/18/2014 06:07 PM
Toluene	ND		32	µg/Kg-dry	1	6/18/2014 06:07 PM
Xylenes, Total	ND		97	µg/Kg-dry	1	6/18/2014 06:07 PM
Surr: 1,2-Dichloroethane-d4	97.4		70-130	%REC	1	6/18/2014 06:07 PM
Surr: 4-Bromofluorobenzene	92.8		70-130	%REC	1	6/18/2014 06:07 PM
Surr: Dibromofluoromethane	92.6		70-130	%REC	1	6/18/2014 06:07 PM
Surr: Toluene-d8	92.5		70-130	%REC	1	6/18/2014 06:07 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/18/14		Analyst: JB
Electrical Conductivity @ Saturation	14		0.050	mmhos/cm @25	10	6/18/2014 05:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	13		0.54	mg/Kg-dry	1	6/24/2014 08:33 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/19/14		Analyst: JI
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	6/20/2014 02:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	6.9		0.050	% of sample	1	6/16/2014 11:09 AM
PH			SW9045D	Prep: EXTRACT / 6/17/14		Analyst: AT
pH	8.0			s.u.	1	6/17/2014 04:13 PM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc

Project: WPX GM 32-4 Cuttings 6.12.14

Sample ID: GM 32-4-B-1

Collection Date: 6/12/2014 01:57 PM

Work Order: 1406745

Lab ID: 1406745-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Arsenic	7.2		1.9	mg/Kg-dry	5	6/19/2014 11:45 AM
MOISTURE			A2540 G			Analyst: TM
Moisture	7.3		0.050	% of sample	1	6/16/2014 11:09 AM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Sample ID: GM 32-4-B-2
Collection Date: 6/12/2014 02:00 PM

Work Order: 1406745
Lab ID: 1406745-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Arsenic	7.0		2.3	mg/Kg-dry	5	6/19/2014 11:51 AM
MOISTURE			A2540 G			Analyst: TM
Moisture	11		0.050	% of sample	1	6/16/2014 11:09 AM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc

Project: WPX GM 32-4 Cuttings 6.12.14

Sample ID: GM 32-4-B-3

Collection Date: 6/12/2014 02:05 PM

Work Order: 1406745

Lab ID: 1406745-04

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Arsenic	9.1		1.9	mg/Kg-dry	5	6/19/2014 11:57 AM
MOISTURE			A2540 G			Analyst: TM
Moisture	6.4		0.050	% of sample	1	6/16/2014 11:09 AM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Sample ID: GM 32-4-B-4
Collection Date: 6/12/2014 02:08 PM

Work Order: 1406745
Lab ID: 1406745-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Arsenic	7.1		1.8	mg/Kg-dry	5	6/19/2014 12:03 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	7.1		0.050	% of sample	1	6/16/2014 11:09 AM

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

ALS Group USA, Corp

Date: 24-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GM 32-4 Cuttings 6.12.14
Sample ID: GM 32-4-B-5
Collection Date: 6/12/2014 02:12 PM

Work Order: 1406745
Lab ID: 1406745-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS BY ICP-MS			SW6020A		Prep: SW3050B / 6/17/14	Analyst: ML
Arsenic	17		1.8	mg/Kg-dry	5	6/19/2014 12:09 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	14		0.050	% of sample	1	6/16/2014 11:09 AM

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

Client: HRL Compliance Solutions, Inc

Work Order: 1406745

Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: 59762

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-59762-59762				Units: mg/Kg		Analysis Date: 6/18/2014 04:49 PM		
Client ID:		Run ID: GC8_140618A				SeqNo: 2814969		Prep Date: 6/17/2014		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	1.577	0	1.667	0	94.6	39-133	0			

LCS		Sample ID: DLCSS1-59762-59762				Units: mg/Kg		Analysis Date: 6/18/2014 05:19 PM		
Client ID:		Run ID: GC8_140618A				SeqNo: 2814970		Prep Date: 6/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	144.3	4.2	166.7	0	86.6	61-109	0			
Surr: 4-Terphenyl-d14	1.416	0	1.667	0	85	39-133	0			

MS		Sample ID: 1406411-03B MS				Units: mg/Kg		Analysis Date: 6/18/2014 05:49 PM		
Client ID:		Run ID: GC8_140618A				SeqNo: 2814971		Prep Date: 6/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	370.5	8.2	326.9	101.9	82.1	48-110	0			
Surr: 4-Terphenyl-d14	3.181	0	3.269	0	97.3	39-133	0			

MSD		Sample ID: 1406411-03B MSD				Units: mg/Kg		Analysis Date: 6/18/2014 06:19 PM		
Client ID:		Run ID: GC8_140618A				SeqNo: 2814972		Prep Date: 6/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	386.1	7.8	313.5	101.9	90.6	48-110	370.5	4.12	30	
Surr: 4-Terphenyl-d14	3.14	0	3.135	0	100	39-133	3.181	1.29	30	

The following samples were analyzed in this batch: 1406745-01B

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59723** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-59723-59723				Units: µg/Kg		Analysis Date: 6/16/2014 03:48 PM		
Client ID:		Run ID: GC9_140616A				SeqNo: 2811060		Prep Date: 6/16/2014		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>	4957	0	5000	0	99.1	50-150	0			

LCS		Sample ID: LCS-59723-59723				Units: µg/Kg		Analysis Date: 6/16/2014 03:23 PM		
Client ID:		Run ID: GC9_140616A				SeqNo: 2811059		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	474500	2,500	500000	0	94.9	70-130	0			
<i>Surr: Toluene-d8</i>	5911	0	5000	0	118	50-150	0			

MS		Sample ID: 1406743-01A MS				Units: µg/Kg		Analysis Date: 6/16/2014 06:49 PM		
Client ID:		Run ID: GC9_140616A				SeqNo: 2811068		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	539600	2,500	500000	0	108	70-130	0			
<i>Surr: Toluene-d8</i>	6265	0	5000	0	125	50-150	0			

MSD		Sample ID: 1406743-01A MSD				Units: µg/Kg		Analysis Date: 6/16/2014 07:14 PM		
Client ID:		Run ID: GC9_140616A				SeqNo: 2811069		Prep Date: 6/16/2014		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	539600	14.3	30	
<i>Surr: Toluene-d8</i>	5544	0	5000	0	111	50-150	6265	12.2	30	

The following samples were analyzed in this batch:

1406745-01A

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59741** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59741-59741				Units: mg/Kg		Analysis Date: 6/16/2014 08:15 PM		
Client ID:		Run ID: HG1_140616A				SeqNo: 2811207		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.004917 0.020 J

LCS		Sample ID: LCS-59741-59741				Units: mg/Kg		Analysis Date: 6/16/2014 08:18 PM		
Client ID:		Run ID: HG1_140616A				SeqNo: 2811209		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1903 0.020 0.1665 0 114 80-120 0

MS		Sample ID: 1406681-05BMS				Units: mg/Kg		Analysis Date: 6/17/2014 02:47 PM		
Client ID:		Run ID: HG1_140617A				SeqNo: 2812758		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1287 0.013 0.1089 0.005501 113 75-125 0

MSD		Sample ID: 1406681-05BMSD				Units: mg/Kg		Analysis Date: 6/17/2014 02:49 PM		
Client ID:		Run ID: HG1_140617A				SeqNo: 2812759		Prep Date: 6/16/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1228 0.013 0.1063 0.005501 110 75-125 0.1287 4.7 35

The following samples were analyzed in this batch:

1406745-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59788** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK				Sample ID: MBLK-59788-59788				Units: mg/Kg		Analysis Date: 6/19/2014 05:52 AM	
Client ID:			Run ID: ICPMS1_140618A			SeqNo: 2815143		Prep Date: 6/17/2014		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	ND	0.25									
Nickel	ND	0.25									
Selenium	ND	0.25									
Silver	ND	0.25									
Zinc	ND	0.50									

LCS				Sample ID: LCS-59788-59788				Units: mg/Kg			Analysis Date: 6/19/2014 05:58 AM			
Client ID:				Run ID: ICPMS1_140618A				SeqNo: 2815144			Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Arsenic	4.403	0.25	5	0	88.1	80-120	0							
Barium	4.604	0.25	5	0	92.1	80-120	0							
Cadmium	4.64	0.10	5	0	92.8	80-120	0							
Chromium	4.863	0.25	5	0	97.3	80-120	0							
Copper	4.861	0.25	5	0	97.2	80-120	0							
Lead	4.59	0.25	5	0	91.8	80-120	0							
Nickel	4.95	0.25	5	0	99	80-120	0							
Selenium	4.774	0.25	5	0	95.5	80-120	0							
Silver	4.85	0.25	5	0	97	80-120	0							
Zinc	4.786	0.50	5	0	95.7	80-120	0							

MS					Sample ID: 1406681-05BMS		Units: mg/Kg		Analysis Date: 6/19/2014 06:35 AM		
Client ID:			Run ID: ICPMS1_140618A			SeqNo: 2815150		Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	7.041	0.33	6.649	1.47	83.8	75-125	0				
Barium	15.65	0.33	6.649	9.061	99.1	75-125	0				
Cadmium	6.189	0.13	6.649	0.08162	91.9	75-125	0				
Chromium	10.9	0.33	6.649	4.296	99.4	75-125	0				
Copper	10.56	0.33	6.649	5.837	71	75-125	0			S	
Lead	8.477	0.33	6.649	2.632	87.9	75-125	0				
Nickel	10.67	0.33	6.649	4.938	86.2	75-125	0				
Selenium	6.145	0.33	6.649	0.5453	84.2	75-125	0				
Silver	5.699	0.33	6.649	0.05089	85	75-125	0				
Zinc	19.95	0.66	6.649	13.01	104	75-125	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59788** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 1406681-05BMSD				Units: mg/Kg		Analysis Date: 6/19/2014 08:19 AM		
Client ID:		Run ID: ICPMS1_140618A				SeqNo: 2815166		Prep Date: 6/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.143	0.33	6.676	1.47	85	75-125	7.041	1.43	25	
Barium	16.09	0.33	6.676	9.061	105	75-125	15.65	2.79	25	
Cadmium	6.242	0.13	6.676	0.08162	92.3	75-125	6.189	0.861	25	
Chromium	11.17	0.33	6.676	4.296	103	75-125	10.9	2.39	25	
Copper	10.03	0.33	6.676	5.837	62.8	75-125	10.56	5.17	25	S
Lead	8.885	0.33	6.676	2.632	93.7	75-125	8.477	4.7	25	
Nickel	10.62	0.33	6.676	4.938	85.1	75-125	10.67	0.476	25	
Selenium	6.095	0.33	6.676	0.5453	83.1	75-125	6.145	0.82	25	
Silver	5.746	0.33	6.676	0.05089	85.3	75-125	5.699	0.807	25	
Zinc	18.58	0.67	6.676	13.01	83.5	75-125	19.95	7.07	25	

The following samples were analyzed in this batch:

1406745-01B	1406745-02A	1406745-03A
1406745-04A	1406745-05A	1406745-06A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59761** Instrument ID **SVMS6** Method: **SW8270**

MBLK		Sample ID: SBLKS1-59761-59761				Units: µg/Kg		Analysis Date: 6/18/2014 12:02 PM		
Client ID:		Run ID: SVMS6_140618A				SeqNo: 2815579		Prep Date: 6/17/2014		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>	1341	0	1667	0	80.5	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1757	0	1667	0	105	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1170	0	1667	0	70.2	37-107	0			

LCS		Sample ID: SLCSS1-59761-59761				Units: µg/Kg		Analysis Date: 6/18/2014 12:23 PM		
Client ID:		Run ID: SVMS6_140618A				SeqNo: 2815580		Prep Date: 6/17/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	533.3	6.7	666.7	0	80	45-110	0			
Acenaphthylene	550.3	6.7	666.7	0	82.5	45-105	0			
Anthracene	637.7	6.7	666.7	0	95.6	55-105	0			
Benzo(a)anthracene	624.7	6.7	666.7	0	93.7	50-110	0			
Benzo(a)pyrene	637	6.7	666.7	0	95.5	50-110	0			
Benzo(b)fluoranthene	632	6.7	666.7	0	94.8	45-115	0			
Benzo(g,h,i)perylene	633.7	6.7	666.7	0	95	40-125	0			
Benzo(k)fluoranthene	630.3	6.7	666.7	0	94.5	45-115	0			
Chrysene	614.3	6.7	666.7	0	92.1	55-110	0			
Dibenzo(a,h)anthracene	645.3	6.7	666.7	0	96.8	40-125	0			
Fluoranthene	688	6.7	666.7	0	103	55-115	0			
Fluorene	578	6.7	666.7	0	86.7	50-110	0			
Indeno(1,2,3-cd)pyrene	661	6.7	666.7	0	99.1	40-120	0			
Naphthalene	505	6.7	666.7	0	75.7	40-105	0			
Pyrene	648.7	6.7	666.7	0	97.3	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1299	0	1667	0	77.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1798	0	1667	0	108	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1159	0	1667	0	69.5	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59761** Instrument ID **SVMS6** Method: **SW8270**

MS				Sample ID: 1406411-03B MS			Units: µg/Kg		Analysis Date: 6/18/2014 02:15 PM	
Client ID:		Run ID: SVMS6_140618A			SeqNo: 2815581		Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1119	13	1265	37.9	85.4	45-110	0			
Acenaphthylene	1138	13	1265	0	90	45-105	0			
Anthracene	1291	13	1265	89.41	95	55-105	0			
Benzo(a)anthracene	1293	13	1265	130.9	91.8	50-110	0			
Benzo(a)pyrene	1264	13	1265	128.9	89.8	50-110	0			
Benzo(b)fluoranthene	1305	13	1265	168.5	89.8	45-115	0			
Benzo(g,h,i)perylene	1191	13	1265	91.03	86.9	40-125	0			
Benzo(k)fluoranthene	1193	13	1265	78.72	88.1	45-115	0			
Chrysene	1269	13	1265	160.7	87.6	55-110	0			
Dibenzo(a,h)anthracene	1148	13	1265	39.52	87.6	40-125	0			
Fluoranthene	1732	13	1265	487.2	98.4	55-115	0			
Fluorene	1209	13	1265	70.3	90	50-110	0			
Indeno(1,2,3-cd)pyrene	1252	13	1265	113.1	90.1	40-120	0			
Naphthalene	944.9	13	1265	9.395	74	40-105	0			
Pyrene	1499	13	1265	342.4	91.4	45-125	0			
Surr: 2-Fluorobiphenyl	2495	0	3162	0	78.9	12-100	0			
Surr: 4-Terphenyl-d14	3160	0	3162	0	99.9	25-137	0			
Surr: Nitrobenzene-d5	2132	0	3162	0	67.4	37-107	0			

MSD				Sample ID: 1406411-03B MSD			Units: µg/Kg		Analysis Date: 6/18/2014 02:36 PM	
Client ID:		Run ID: SVMS6_140618A			SeqNo: 2815582		Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1144	13	1318	37.9	83.9	45-110	1119	2.25	30	
Acenaphthylene	1182	13	1318	0	89.6	45-105	1138	3.74	30	
Anthracene	1347	13	1318	89.41	95.4	55-105	1291	4.23	30	
Benzo(a)anthracene	1366	13	1318	130.9	93.7	50-110	1293	5.49	30	
Benzo(a)pyrene	1317	13	1318	128.9	90.1	50-110	1264	4.08	30	
Benzo(b)fluoranthene	1366	13	1318	168.5	90.9	45-115	1305	4.61	30	
Benzo(g,h,i)perylene	1310	13	1318	91.03	92.5	40-125	1191	9.55	30	
Benzo(k)fluoranthene	1199	13	1318	78.72	85	45-115	1193	0.515	30	
Chrysene	1323	13	1318	160.7	88.2	55-110	1269	4.23	30	
Dibenzo(a,h)anthracene	1246	13	1318	39.52	91.5	40-125	1148	8.23	30	
Fluoranthene	1824	13	1318	487.2	101	55-115	1732	5.15	30	
Fluorene	1260	13	1318	70.3	90.2	50-110	1209	4.08	30	
Indeno(1,2,3-cd)pyrene	1366	13	1318	113.1	95.1	40-120	1252	8.72	30	
Naphthalene	974.2	13	1318	9.395	73.2	40-105	944.9	3.05	30	
Pyrene	1559	13	1318	342.4	92.3	45-125	1499	3.92	30	
Surr: 2-Fluorobiphenyl	2595	0	3296	0	78.7	12-100	2495	3.93	40	
Surr: 4-Terphenyl-d14	3264	0	3296	0	99	25-137	3160	3.25	40	
Surr: Nitrobenzene-d5	2217	0	3296	0	67.3	37-107	2132	3.92	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59761** Instrument ID **SVMS6** Method: **SW8270**

The following samples were analyzed in this batch:

1406745-01B

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59722** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-59722-59722				Units: µg/Kg			Analysis Date: 6/17/2014 02:18 PM			
Client ID:				Run ID: VMS9_140617A				SeqNo: 2813114			Prep Date: 6/16/2014		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	1048	0	1000	0	105	70-130		0						
Surr: 4-Bromofluorobenzene	879	0	1000	0	87.9	70-130		0						
Surr: Dibromofluoromethane	970	0	1000	0	97	70-130		0						
Surr: Toluene-d8	922	0	1000	0	92.2	70-130		0						

LCS				Sample ID: LCS-59722-59722			Units: µg/Kg		Analysis Date: 6/17/2014 11:50 AM		
Client ID:			Run ID: VMS9_140617A			SeqNo: 2813113		Prep Date: 6/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1142	30	1000	0	114	75-125	0				
Ethylbenzene	1056	30	1000	0	106	75-125	0				
m,p-Xylene	2172	60	2000	0	109	80-125	0				
o-Xylene	1054	30	1000	0	105	75-125	0				
Toluene	1147	30	1000	0	115	70-125	0				
Xylenes, Total	3226	90	3000	0	108	75-125	0				
Surr: 1,2-Dichloroethane-d4	955	0	1000	0	95.5	70-130	0				
Surr: 4-Bromofluorobenzene	1036	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	936	0	1000	0	93.6	70-130	0				
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	0				

MS				Sample ID: 1406681-40A MS				Units: µg/Kg		Analysis Date: 6/21/2014 04:03 AM	
Client ID:			Run ID: VMS6_140620A			SeqNo: 2819354		Prep Date: 6/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	830	30	1000	0	83	75-125	0				
Ethylbenzene	744.5	30	1000	0	74.4	75-125	0			S	
m,p-Xylene	1486	60	2000	0	74.3	80-125	0			S	
o-Xylene	731.5	30	1000	0	73.2	75-125	0			S	
Toluene	745.5	30	1000	0	74.6	70-125	0				
Xylenes, Total	2218	90	3000	0	73.9	75-125	0			S	
Surr: 1,2-Dichloroethane-d4	920	0	1000	0	92	70-130	0				
Surr: 4-Bromofluorobenzene	1034	0	1000	0	103	70-130	0				
Surr: Dibromofluoromethane	972.5	0	1000	0	97.2	70-130	0				
Surr: Toluene-d8	964.5	0	1000	0	96.4	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59722** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1406681-40A MSD				Units: µg/Kg		Analysis Date: 6/21/2014 04:29 AM	
Client ID:			Run ID: VMS6_140620A			SeqNo: 2819355		Prep Date: 6/16/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	780	30	1000	0	78	75-125	830	6.21	30		
Ethylbenzene	706.5	30	1000	0	70.6	75-125	744.5	5.24	30	S	
m,p-Xylene	1400	60	2000	0	70	80-125	1486	5.92	30	S	
o-Xylene	702.5	30	1000	0	70.2	75-125	731.5	4.04	30	S	
Toluene	695.5	30	1000	0	69.6	70-125	745.5	6.94	30	S	
Xylenes, Total	2103	90	3000	0	70.1	75-125	2218	5.3	30	S	
Surr: 1,2-Dichloroethane-d4	917	0	1000	0	91.7	70-130	920	0.327	30		
Surr: 4-Bromofluorobenzene	1018	0	1000	0	102	70-130	1034	1.56	30		
Surr: Dibromofluoromethane	985	0	1000	0	98.5	70-130	972.5	1.28	30		
Surr: Toluene-d8	939.5	0	1000	0	94	70-130	964.5	2.63	30		

The following samples were analyzed in this batch: 1406745-01A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59760** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1406758-11A DUP				Units: mmhos/cm @25°C		Analysis Date: 6/18/2014 05:15 PM		
Client ID:		Run ID: WETCHEM_1406180				SeqNo: 2814650		Prep Date: 6/18/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.323	0.050	0	0	0		1.247	5.91	50	

The following samples were analyzed in this batch:

1406745-01C

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59791** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59791-59791					Units: s.u.		Analysis Date: 6/17/2014 04:13 PM		
Client ID:			Run ID: WETCHEM_140617M			SeqNo: 2812723		Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.95	0	4	0	98.8	90-110	0			
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DUP		Sample ID: 1406749-01A DUP					Units: s.u.		Analysis Date: 6/17/2014 04:13 PM		
Client ID:		Run ID: WETCHEM_140617M			SeqNo: 2812729		Prep Date: 6/17/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	7.66	0	0	0	0	0-0	7.76	1.3	20	
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DUP		Sample ID: 1406750-01A DUP					Units: s.u.		Analysis Date: 6/17/2014 04:13 PM		
Client ID:			Run ID: WETCHEM_140617M			SeqNo: 2812731		Prep Date: 6/17/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	7.83	0	0	0	0	0-0	7.83	0	20	
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The following samples were analyzed in this batch:

1406745-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **59905** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-59905-59905				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818410		Prep Date: 6/19/2014		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-59905-59905				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818411		Prep Date: 6/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.824 0.50 2 0 91.2 80-120 0

MS		Sample ID: 1406920-01B MS				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818416		Prep Date: 6/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.51 2.024 0 0 75-125 0 S

MS		Sample ID: 1406920-01B MS2				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818417		Prep Date: 6/19/2014		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 1.984 0 0 75-125 0 S

MS		Sample ID: 1406920-01B MSI				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818420		Prep Date: 6/19/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 172.2 5.0 1310 0 13.1 75-125 0 S

MSD		Sample ID: 1406920-01B MSD				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818418		Prep Date: 6/19/2014		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 1.992 0 0 75-125 0 0 20 S

MSD		Sample ID: 1406920-01B MSD2				Units: mg/Kg		Analysis Date: 6/20/2014 02:00 PM		
Client ID:		Run ID: WETCHEM_140620N				SeqNo: 2818419		Prep Date: 6/19/2014		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 1.961 0 0 75-125 0 S

The following samples were analyzed in this batch: 1406745-01B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406745
Project: WPX GM 32-4 Cuttings 6.12.14

QC BATCH REPORT

Batch ID: **R142810** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R142810				Units: % of sample		Analysis Date: 6/16/2014 11:09 AM		
Client ID:		Run ID: MOIST_140616B				SeqNo: 2812135		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-R142810				Units: % of sample		Analysis Date: 6/16/2014 11:09 AM		
Client ID:		Run ID: MOIST_140616B				SeqNo: 2812134		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: 1406749-01A DUP				Units: % of sample		Analysis Date: 6/16/2014 11:09 AM		
Client ID:		Run ID: MOIST_140616B				SeqNo: 2812131		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 4.79 0.050 0 0 0 0-0 4.92 2.68 20

DUP		Sample ID: 1406750-01A DUP				Units: % of sample		Analysis Date: 6/16/2014 11:09 AM		
Client ID:		Run ID: MOIST_140616B				SeqNo: 2812133		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 5.76 0.050 0 0 0 0-0 5.69 1.22 20

The following samples were analyzed in this batch:

1406745-01B	1406745-02A	1406745-03A
1406745-04A	1406745-05A	1406745-06A

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



Environmental

Cincinnati, OH
+1 513 733 5336

Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: **13076**

Houston, TX
+1 281 530 5656

Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903

Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Customer Information			Project Information			ALS Project Manager: _____ ALS Work Order #: 406745												
Parameter/Method Request for Analysis																		
Purchase Order	Project Name	A COGCC Table 910-1																
Work Order	Project Number	B Arsenic																
Company Name	Bill To Company	C																
Send Report To	Invoice Attn	D																
Address	Address	E																
City/State/Zip	City/State/Zip	F																
Phone	Phone	G																
Fax	Fax	H																
e-Mail Address	e-Mail Address	I																
			J															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GM 32-4 Cuttings	6/12/14	1352	Soil	8	3	X										
2	GM 32-4-B-1		1357			1		X									
3	GM 32-4-B-2		1400			1		X									
4	GM 32-4-B-3		1405			1		X									
5	GM 32-4-B-4		1408			1		X									
6	GM 32-4-B-5		1412			1		X									
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign Mike Lobato		Shipment Method		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:	
Relinquished by: [Signature]		Date: 6/12/14	Time: 1530	Received by: [Signature]		Notes:			
Relinquished by: [Signature]		Date: 6/12/14	Time: 1530	Received by (Laboratory): [Signature]		Cooler ID	Cooler Temp	QC Package: (Check One Box Below)	
Logged by (Laboratory): [Signature]		Date: 6/16/14	Time: 0800	Checked by (Laboratory): [Signature]			5.82	<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> TRAP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRAP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035									

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **14-Jun-14 09:15**

Work Order: **1406745**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	16-Jun-14	Reviewed by: <u>Ann Preston</u>	16-Jun-14
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/16/2014 7:54:35 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) 285-5783
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RLA



J14101402070320

BILL SENDER

SHIP TO: (616) 389-6870
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 12 JUN 14
 ActWgt: 64.0 LB
 CAD: 2284040/NET3400

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 061214-1
 Invoice #
 PO # Parachute
 Dept #

FRI - 13 JUN 10:30A
 PRIORITY OVERNIGHT.

TRK# 7702 8931 7466
 0201

XX GRRR

49424
 MB-US
 GRR



5220508CAF220

After printing this label:

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

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

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ALS Parachute Custody Seal
 DATE 6/17/14 Time 1700
 Name [Signature]