

## WPXENERGY Sample Location Map GM 268-3

39.466845 -108.091089  
Section 3, Township 7 South, Range 96 West

<ul style="list-style-type: none"> <li>Sample Location</li> <li>Impacted Area</li> </ul>	Transportation	Hydrography
	<ul style="list-style-type: none"> <li>CO Highways</li> <li>County Roads</li> <li>Local Streets</li> <li>WPX Access</li> </ul>	<ul style="list-style-type: none"> <li>Ditch</li> <li>Intermittent Stream</li> <li>Perennial Stream</li> <li>Waterbody</li> <li>Watershed</li> </ul>
<b>PLSS</b> <ul style="list-style-type: none"> <li>Township</li> <li>Section</li> </ul>		



Author: B. Hall  
Revision: 0  
Date: 6/4/2014



05-Jun-2014

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

Re: **GM 268-3 Produced Water Spill 5.27.14**

Work Order: **14051480**

Dear Mark,

ALS Environmental received 1 sample on 29-May-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 25.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

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

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

Environmental 

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

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Produced Water Spill 5.27.14  
**Work Order:** 14051480

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**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14051480-01	Impacted Area	Soil		5/27/2014 13:40	5/29/2014 10:30	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Produced Water Spill 5.27.14  
**Work Order:** 14051480

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**Case Narrative**

Batch 59160 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 59181 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

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

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

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

# ALS Group USA, Corp

Date: 05-Jun-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Produced Water Spill 5.27.14  
**Sample ID:** Impacted Area  
**Collection Date:** 5/27/2014 01:40 PM

**Work Order:** 14051480  
**Lab ID:** 14051480-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep: SW3541 / 5/30/14	Analyst: <b>IT</b>
<b>DRO (C10-C28)</b>	<b>140</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/2/2014 04:19 PM
Surr: 4-Terphenyl-d14	77.8		39-133	%REC	1	6/2/2014 04:19 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>		Prep: SW5035 / 5/30/14	Analyst: <b>IT</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>2.9</b>	<b>mg/Kg-dry</b>	<b>1</b>	5/30/2014 06:36 PM
Surr: Toluene-d8	118		50-150	%REC	1	5/30/2014 06:36 PM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep: SW7471 / 6/3/14	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.036</b>		<b>0.015</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/3/2014 08:51 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep: SW3050B / 5/30/14	Analyst: <b>ML</b>
<b>Arsenic</b>	<b>6.4</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>Barium</b>	<b>390</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
Cadmium	ND		0.90	mg/Kg-dry	5	5/30/2014 07:47 PM
<b>Chromium</b>	<b>15</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>Copper</b>	<b>20</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>Lead</b>	<b>15</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>Nickel</b>	<b>20</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>Selenium</b>	<b>2.5</b>		<b>2.2</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
Silver	ND		2.2	mg/Kg-dry	5	5/30/2014 07:47 PM
<b>Zinc</b>	<b>68</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	<b>5</b>	5/30/2014 07:47 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 6/2/14	Analyst: <b>RH</b>
<b>Calcium</b>	<b>770</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	6/3/2014 03:23 PM
<b>Magnesium</b>	<b>410</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	6/3/2014 03:23 PM
<b>Sodium</b>	<b>1,500</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	6/3/2014 03:23 PM
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/2/14	Analyst: <b>RH</b>
<b>Sodium Adsorption Ratio</b>	<b>11</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	6/3/2014
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep: SW3541 / 5/30/14	Analyst: <b>RM</b>
Acenaphthene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
<b>Anthracene</b>	<b>11</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/2/2014 01:19 AM
<b>Benzo(a)anthracene</b>	<b>11</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/2/2014 01:19 AM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Chrysene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM

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

# ALS Group USA, Corp

Date: 05-Jun-14

**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Produced Water Spill 5.27.14  
**Sample ID:** Impacted Area  
**Collection Date:** 5/27/2014 01:40 PM

**Work Order:** 14051480  
**Lab ID:** 14051480-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Fluoranthene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
<b>Fluorene</b>	<b>24</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	6/2/2014 01:19 AM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
<b>Naphthalene</b>	<b>28</b>		<b>7.5</b>	<b>µg/Kg-dry</b>	1	6/2/2014 01:19 AM
Pyrene	ND		7.5	µg/Kg-dry	1	6/2/2014 01:19 AM
Surr: 2-Fluorobiphenyl	64.9		12-100	%REC	1	6/2/2014 01:19 AM
Surr: 4-Terphenyl-d14	63.6		25-137	%REC	1	6/2/2014 01:19 AM
Surr: Nitrobenzene-d5	56.8		37-107	%REC	1	6/2/2014 01:19 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 5/30/14	Analyst: <b>BG</b>	
Benzene	ND		34	µg/Kg-dry	1	6/3/2014 10:07 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	6/3/2014 10:07 PM
<b>m,p-Xylene</b>	<b>180</b>		<b>69</b>	<b>µg/Kg-dry</b>	1	6/3/2014 10:07 PM
<b>o-Xylene</b>	<b>37</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/3/2014 10:07 PM
<b>Toluene</b>	<b>43</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/3/2014 10:07 PM
<b>Xylenes, Total</b>	<b>220</b>		<b>100</b>	<b>µg/Kg-dry</b>	1	6/3/2014 10:07 PM
Surr: 1,2-Dichloroethane-d4	99.3		70-130	%REC	1	6/3/2014 10:07 PM
Surr: 4-Bromofluorobenzene	96.4		70-130	%REC	1	6/3/2014 10:07 PM
Surr: Dibromofluoromethane	94.8		70-130	%REC	1	6/3/2014 10:07 PM
Surr: Toluene-d8	99.0		70-130	%REC	1	6/3/2014 10:07 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>	Prep: USDA Method 20B / 6/2/14	Analyst: <b>JB</b>	
Electrical Conductivity @ Saturation	15		0.050	mmhos/cm @25	10	6/2/2014 04:15 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>	Analyst: <b>EE</b>		
Chromium, Trivalent	15		0.57	mg/Kg-dry	1	6/2/2014 04:30 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 5/29/14	Analyst: <b>JI</b>	
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	5/30/2014 12:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>	Analyst: <b>AT</b>		
Moisture	13		0.050	% of sample	1	5/29/2014 04:03 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 5/29/14	Analyst: <b>AT</b>	
pH	7.7			s.u.	1	5/29/2014 04:00 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

**QC BATCH REPORT**

Batch ID: **59172** Instrument ID **GC8** Method: **SW8015C**

<b>MBLK</b>		Sample ID: <b>DBLKS1-59172-59172</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2014 12:19 PM</b>		
Client ID:		Run ID: <b>GC8_140602A</b>				SeqNo: <b>2789697</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.189	0	1.667	0	71.4	39-133	0			

<b>LCS</b>		Sample ID: <b>DLCSS1-59172-59172</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2014 12:49 PM</b>		
Client ID:		Run ID: <b>GC8_140602A</b>				SeqNo: <b>2789698</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	138.3	4.2	166.7	0	83	61-109	0			
Surr: 4-Terphenyl-d14	1.147	0	1.667	0	68.8	39-133	0			

<b>MS</b>		Sample ID: <b>14051187-01C MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2014 01:19 PM</b>		
Client ID:		Run ID: <b>GC8_140602A</b>				SeqNo: <b>2789699</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	324.5	8.0	319.5	36.74	90.1	48-110	0			
Surr: 4-Terphenyl-d14	2.404	0	3.195	0	75.3	39-133	0			

<b>MSD</b>		Sample ID: <b>14051187-01C MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2014 01:49 PM</b>		
Client ID:		Run ID: <b>GC8_140602A</b>				SeqNo: <b>2789700</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	390.7	8.2	328.8	36.74	108	48-110	324.5	18.5	30	
Surr: 4-Terphenyl-d14	2.581	0	3.288	0	78.5	39-133	2.404	7.08	30	

The following samples were analyzed in this batch:

14051480-01B



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59174**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-59174-59174</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2014 01:29 PM</b>		
Client ID:		Run ID: <b>GC9_140530A</b>				SeqNo: <b>2788045</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5098	0	5000	0	102	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-59174-59174</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2014 01:03 PM</b>		
Client ID:		Run ID: <b>GC9_140530A</b>				SeqNo: <b>2788044</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	468800	2,500	500000	0	93.8	70-130	0			
<i>Surr: Toluene-d8</i>	6376	0	5000	0	128	50-150	0			

<b>MS</b>		Sample ID: <b>14051422-05B MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2014 07:30 PM</b>		
Client ID:		Run ID: <b>GC9_140530A</b>				SeqNo: <b>2788364</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	534500	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	5943	0	5000	0	119	50-150	0			

<b>MSD</b>		Sample ID: <b>14051422-05B MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>5/30/2014 07:56 PM</b>		
Client ID:		Run ID: <b>GC9_140530A</b>				SeqNo: <b>2788365</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	504200	2,500	500000	0	101	70-130	534500	5.82	30	
<i>Surr: Toluene-d8</i>	5785	0	5000	0	116	50-150	5943	2.69	30	

The following samples were analyzed in this batch:

14051480-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59286**      Instrument ID **HG1**      Method: **SW7471**

MBLK		Sample ID: MBLK-59286-59286					Units: mg/Kg		Analysis Date: 6/3/2014 07:51 PM		
Client ID:		Run ID: HG1_140603A			SeqNo: 2792382		Prep Date: 6/3/2014		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-59286-59286					Units: mg/Kg		Analysis Date: 6/3/2014 07:53 PM		
Client ID:			Run ID: HG1_140603A			SeqNo: 2792383		Prep Date: 6/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1739      0.020      0.1665      0      104      80-120      0

MS		Sample ID: 14051337-09BMS					Units: mg/Kg		Analysis Date: 6/3/2014 08:04 PM		
Client ID:			Run ID: HG1_140603A			SeqNo: 2792387		Prep Date: 6/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1324      0.014      0.1175      0.001272      112      75-125      0

MSD		Sample ID: 14051337-09BMSD					Units: mg/Kg		Analysis Date: 6/3/2014 08:14 PM		
Client ID:			Run ID: HG1_140603A			SeqNo: 2792391		Prep Date: 6/3/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury      0.1225      0.014      0.1154      0.001272      105      75-125      0.1324      7.77      35

The following samples were analyzed in this batch:

14051480-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59181**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-59181-59181</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 05:16 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789009</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.1042	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.02504	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-59181-59181</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 05:22 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789010</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.236	0.25	5	0	84.7	80-120	0			
Barium	4.916	0.25	5	0	98.3	80-120	0			
Cadmium	4.594	0.10	5	0	91.9	80-120	0			
Chromium	4.653	0.25	5	0	93.1	80-120	0			
Lead	4.598	0.25	5	0	92	80-120	0			
Nickel	4.526	0.25	5	0	90.5	80-120	0			
Selenium	4.021	0.25	5	0	80.4	80-120	0			
Silver	4.512	0.25	5	0	90.2	80-120	0			
Zinc	4.21	0.50	5	0	84.2	80-120	0			

<b>LCS</b>		Sample ID: <b>LCS-59181-59181</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/1/2014 09:32 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140601A</b>				SeqNo: <b>2789114</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	4.82	0.25	5	0	96.4	80-120	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59181** Instrument ID **ICPMS1** Method: **SW6020A**

MS Sample ID: 14051482-02AMS				Units: mg/Kg		Analysis Date: 5/30/2014 08:45 PM				
Client ID:		Run ID: ICPMS1_140530A		SeqNo: 2789044		Prep Date: 5/30/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.7	1.9	7.776	6.638	65	75-125	0			S
Barium	134.9	1.9	7.776	136	-14.1	75-125	0			SO
Cadmium	7.03	0.78	7.776	0.5232	83.7	75-125	0			
Chromium	18.06	1.9	7.776	9.505	110	75-125	0			
Copper	17.85	1.9	7.776	14.12	47.9	75-125	0			S
Nickel	18.55	1.9	7.776	14.08	57.5	75-125	0			S
Silver	6.229	1.9	7.776	0.07245	79.2	75-125	0			
Zinc	52.14	3.9	7.776	51.39	9.61	75-125	0			SO

MS Sample ID: 14051482-02AMS				Units: mg/Kg		Analysis Date: 6/2/2014 01:02 AM				
Client ID:		Run ID: ICPMS1_140601A		SeqNo: 2789172		Prep Date: 5/30/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	7.932	1.9	7.776	2.456	70.4	75-125	0			S

MS Sample ID: 14051482-02AMS				Units: mg/Kg		Analysis Date: 6/2/2014 06:06 PM				
Client ID:		Run ID: ICPMS1_140602A		SeqNo: 2790031		Prep Date: 5/30/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	17.94	1.9	7.776	12.2	73.8	75-125	0			S

MSD Sample ID: 14051482-02AMSD				Units: mg/Kg		Analysis Date: 5/30/2014 08:51 PM				
Client ID:		Run ID: ICPMS1_140530A		SeqNo: 2789045		Prep Date: 5/30/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.28	1.9	7.704	6.638	73.2	75-125	11.7	4.85	25	S
Barium	148	1.9	7.704	136	156	75-125	134.9	9.27	25	SO
Cadmium	7.277	0.77	7.704	0.5232	87.7	75-125	7.03	3.45	25	
Chromium	19.58	1.9	7.704	9.505	131	75-125	18.06	8.12	25	S
Copper	18.94	1.9	7.704	14.12	62.6	75-125	17.85	5.97	25	S
Nickel	20.1	1.9	7.704	14.08	78.1	75-125	18.55	8.02	25	
Silver	6.514	1.9	7.704	0.07245	83.6	75-125	6.229	4.48	25	
Zinc	55.43	3.9	7.704	51.39	52.4	75-125	52.14	6.12	25	SO

MSD Sample ID: 14051482-02AMSD				Units: mg/Kg		Analysis Date: 6/2/2014 01:08 AM				
Client ID:		Run ID: ICPMS1_140601A		SeqNo: 2789173		Prep Date: 5/30/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	8.147	1.9	7.704	2.456	73.9	75-125	7.932	2.68	25	S

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59181** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MSD</b>		Sample ID: <b>14051482-02AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/2/2014 06:12 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140602A</b>				SeqNo: <b>2790032</b>		Prep Date: <b>5/30/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	19.04	1.9	7.704	12.2	88.8	75-125	17.94	5.96	25	

The following samples were analyzed in this batch:

14051480-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59205**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>14051479-01CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/3/2014 03:17 PM</b>		
Client ID:		Run ID: <b>ICPMS2_140603A</b>				SeqNo: <b>2791554</b>		Prep Date: <b>6/2/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	84	10	0	0	0	0-0	88.78	5.53		
Magnesium	26.2	4.0	0	0	0	0-0	27.68	5.49		
Sodium	40.22	4.0	0	0	0	0-0	41.58	3.33		

<b>DUP</b>		Sample ID: <b>14051479-01CDUP</b>				Units: <b>none</b>		Analysis Date: <b>6/3/2014</b>		
Client ID:		Run ID: <b>SAR_140603A</b>				SeqNo: <b>2791558</b>		Prep Date: <b>6/2/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.982	0.010	0	0	0		0.9876	0.565	50	

The following samples were analyzed in this batch:

14051480-01C

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

# QC BATCH REPORT

Batch ID: **59171**      Instrument ID **SVMS8**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-59171-59171</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/1/2014 01:21 PM</b>		
Client ID:		Run ID: <b>SVMS8_140601A</b>				SeqNo: <b>2789637</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1194	0	1667	0	71.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1619	0	1667	0	97.1	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1308	0	1667	0	78.5	37-107	0			

LCS		Sample ID: <b>SLCSS1-59171-59171</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/1/2014 01:41 PM</b>		
Client ID:		Run ID: <b>SVMS8_140601A</b>				SeqNo: <b>2789638</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	554.3	6.7	666.7	0	83.1	45-110	0			
Acenaphthylene	541	6.7	666.7	0	81.1	45-105	0			
Anthracene	624.3	6.7	666.7	0	93.6	55-105	0			
Benzo(a)anthracene	599.3	6.7	666.7	0	89.9	50-110	0			
Benzo(a)pyrene	627	6.7	666.7	0	94	50-110	0			
Benzo(b)fluoranthene	628.3	6.7	666.7	0	94.2	45-115	0			
Benzo(g,h,i)perylene	555	6.7	666.7	0	83.2	40-125	0			
Benzo(k)fluoranthene	634.3	6.7	666.7	0	95.1	45-115	0			
Chrysene	597.7	6.7	666.7	0	89.6	55-110	0			
Dibenzo(a,h)anthracene	580.3	6.7	666.7	0	87	40-125	0			
Fluoranthene	635	6.7	666.7	0	95.2	55-115	0			
Fluorene	572.3	6.7	666.7	0	85.8	50-110	0			
Indeno(1,2,3-cd)pyrene	537	6.7	666.7	0	80.5	40-120	0			
Naphthalene	479.3	6.7	666.7	0	71.9	40-105	0			
Pyrene	629.7	6.7	666.7	0	94.4	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1198	0	1667	0	71.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1628	0	1667	0	97.7	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1303	0	1667	0	78.2	37-107	0			

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59171**      Instrument ID **SVMS8**      Method: **SW8270**

MS				Sample ID: 14051337-10B MS			Units: µg/Kg		Analysis Date: 6/1/2014 04:12 PM		
Client ID:		Run ID: SVMS8_140601A			SeqNo: 2789644		Prep Date: 5/30/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1166	13	1320	0	88.3	45-110	0				
Acenaphthylene	1141	13	1320	0	86.4	45-105	0				
Anthracene	1233	13	1320	0	93.4	55-105	0				
Benzo(a)anthracene	1163	13	1320	0	88.1	50-110	0				
Benzo(a)pyrene	1205	13	1320	0	91.2	50-110	0				
Benzo(b)fluoranthene	1185	13	1320	0	89.7	45-115	0				
Benzo(g,h,i)perylene	1141	13	1320	0	86.4	40-125	0				
Benzo(k)fluoranthene	1224	13	1320	0	92.7	45-115	0				
Chrysene	1158	13	1320	0	87.7	55-110	0				
Dibenzo(a,h)anthracene	1146	13	1320	0	86.8	40-125	0				
Fluoranthene	1158	13	1320	0	87.7	55-115	0				
Fluorene	1123	13	1320	0	85	50-110	0				
Indeno(1,2,3-cd)pyrene	1086	13	1320	0	82.3	40-120	0				
Naphthalene	1058	13	1320	0	80.1	40-105	0				
Pyrene	1266	13	1320	0	95.9	45-125	0				
Surr: 2-Fluorobiphenyl	2618	0	3300	0	79.3	12-100	0				
Surr: 4-Terphenyl-d14	3233	0	3300	0	98	25-137	0				
Surr: Nitrobenzene-d5	2884	0	3300	0	87.4	37-107	0				

MSD				Sample ID: 14051337-10B MSD				Units: µg/Kg			Analysis Date: 6/1/2014 04:32 PM		
Client ID:			Run ID: SVMS8_140601A				SeqNo: 2789645		Prep Date: 5/30/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Acenaphthene	1178	13	1317	0	89.4	45-110	1166	0.98	30				
Acenaphthylene	1151	13	1317	0	87.4	45-105	1141	0.836	30				
Anthracene	1295	13	1317	0	98.3	55-105	1233	4.91	30				
Benzo(a)anthracene	1220	13	1317	0	92.6	50-110	1163	4.78	30				
Benzo(a)pyrene	1262	13	1317	0	95.8	50-110	1205	4.66	30				
Benzo(b)fluoranthene	1235	13	1317	0	93.8	45-115	1185	4.16	30				
Benzo(g,h,i)perylene	1203	13	1317	0	91.3	40-125	1141	5.25	30				
Benzo(k)fluoranthene	1270	13	1317	0	96.4	45-115	1224	3.71	30				
Chrysene	1186	13	1317	0	90.1	55-110	1158	2.39	30				
Dibenzo(a,h)anthracene	1198	13	1317	0	91	40-125	1146	4.47	30				
Fluoranthene	1194	13	1317	0	90.6	55-115	1158	2.99	30				
Fluorene	1138	13	1317	0	86.4	50-110	1123	1.38	30				
Indeno(1,2,3-cd)pyrene	1131	13	1317	0	85.9	40-120	1086	4.02	30				
Naphthalene	1079	13	1317	0	81.9	40-105	1058	1.96	30				
Pyrene	1334	13	1317	0	101	45-125	1266	5.22	30				
Surr: 2-Fluorobiphenyl	2620	0	3292	0	79.6	12-100	2618	0.0702	40				
Surr: 4-Terphenyl-d14	3439	0	3292	0	104	25-137	3233	6.17	40				
Surr: Nitrobenzene-d5	2978	0	3292	0	90.5	37-107	2884	3.21	40				

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

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Batch ID: **59171** Instrument ID **SVMS8** Method: **SW8270**

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

14051480- 01B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59178**      Instrument ID **VMS8**      Method: **SW8260B**

MBLK				Sample ID: MBLK-59178-59178				Units: µg/Kg			Analysis Date: 5/30/2014 02:49 PM			
Client ID:				Run ID: VMS8_140530A				SeqNo: 2788182			Prep Date: 5/30/2014		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	997.5	0	1000	0	99.8	70-130		0						
Surr: 4-Bromofluorobenzene	1018	0	1000	0	102	70-130		0						
Surr: Dibromofluoromethane	953.5	0	1000	0	95.4	70-130		0						
Surr: Toluene-d8	990.5	0	1000	0	99	70-130		0						

LCS				Sample ID: LCS-59178-59178			Units: µg/Kg		Analysis Date: 5/30/2014 12:22 PM		
Client ID:			Run ID: VMS8_140530A			SeqNo: 2788179		Prep Date: 5/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1058	30	1000	0	106	75-125	0				
Ethylbenzene	1125	30	1000	0	112	75-125	0				
m,p-Xylene	2196	60	2000	0	110	80-125	0				
o-Xylene	1090	30	1000	0	109	75-125	0				
Toluene	1084	30	1000	0	108	70-125	0				
Xylenes, Total	3285	90	3000	0	110	75-125	0				
Surr: 1,2-Dichloroethane-d4	964	0	1000	0	96.4	70-130	0				
Surr: 4-Bromofluorobenzene	998	0	1000	0	99.8	70-130	0				
Surr: Dibromofluoromethane	985	0	1000	0	98.5	70-130	0				
Surr: Toluene-d8	988	0	1000	0	98.8	70-130	0				

MS				Sample ID: 14051407-01A MS				Units: µg/Kg			Analysis Date: 6/2/2014 11:49 PM		
Client ID:			Run ID: VMS6_140602A				SeqNo: 2790621		Prep Date: 5/30/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	951.5	30	1000	0	95.2	75-125	0						
Ethylbenzene	1010	30	1000	0	101	75-125	0						
m,p-Xylene	2012	60	2000	0	101	80-125	0						
o-Xylene	986.5	30	1000	0	98.6	75-125	0						
Toluene	973.5	30	1000	0	97.4	70-125	0						
Xylenes, Total	2999	90	3000	0	100	75-125	0						
Surr: 1,2-Dichloroethane-d4	1040	0	1000	0	104	70-130	0						
Surr: 4-Bromofluorobenzene	967	0	1000	0	96.7	70-130	0						
Surr: Dibromofluoromethane	957.5	0	1000	0	95.8	70-130	0						
Surr: Toluene-d8	975.5	0	1000	0	97.6	70-130	0						

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59178**      Instrument ID **VMS8**      Method: **SW8260B**

MSD				Sample ID: 14051407-01A MSD				Units: µg/Kg		Analysis Date: 6/3/2014 12:15 PM	
Client ID:			Run ID: VMS6_140602A			SeqNo: 2790622		Prep Date: 5/30/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	888	30	1000	0	88.8	75-125	951.5	6.9	30		
Ethylbenzene	962.5	30	1000	0	96.2	75-125	1010	4.77	30		
m,p-Xylene	1888	60	2000	0	94.4	80-125	2012	6.36	30		
o-Xylene	942.5	30	1000	0	94.2	75-125	986.5	4.56	30		
Toluene	916.5	30	1000	0	91.6	70-125	973.5	6.03	30		
Xylenes, Total	2831	90	3000	0	94.4	75-125	2999	5.76	30		
Surr: 1,2-Dichloroethane-d4	1024	0	1000	0	102	70-130	1040	1.55	30		
Surr: 4-Bromofluorobenzene	978.5	0	1000	0	97.8	70-130	967	1.18	30		
Surr: Dibromofluoromethane	953.5	0	1000	0	95.4	70-130	957.5	0.419	30		
Surr: Toluene-d8	990	0	1000	0	99	70-130	975.5	1.48	30		

The following samples were analyzed in this batch:

14051480-01A

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59160**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-59160-59160</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140530Q</b>				SeqNo: <b>2787795</b>		Prep Date: <b>5/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      ND      0.50

<b>LCS</b>		Sample ID: <b>LCS-59160-59160</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140530Q</b>				SeqNo: <b>2787796</b>		Prep Date: <b>5/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      1.756      0.50      2      0      87.8      80-120      0

<b>MS</b>		Sample ID: <b>14051479-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140530Q</b>				SeqNo: <b>2787798</b>		Prep Date: <b>5/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.232      0.50      2      0      11.6      75-125      0      JS

<b>MS</b>		Sample ID: <b>14051479-01B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140530Q</b>				SeqNo: <b>2787800</b>		Prep Date: <b>5/29/2014</b>		DF: <b>100</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      754.9      49      1445      0      52.2      75-125      0      S

<b>MSD</b>		Sample ID: <b>14051479-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 12:00 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140530Q</b>				SeqNo: <b>2787799</b>		Prep Date: <b>5/29/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent      0.1299      0.49      1.969      0      6.6      75-125      0.232      0      20      JS

The following samples were analyzed in this batch:

14051480-01B

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



**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59163** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59163-59163				Units: s.u.		Analysis Date: 5/29/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140529R				SeqNo: 2786008		Prep Date: 5/29/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 3.98 0 4 0 99.5 90-110 0

DUP		Sample ID: 14051403-01A DUP					Units: s.u.		Analysis Date: 5/29/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140529R			SeqNo: 2786012		Prep Date: 5/29/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.03 0 0 0 0 0-0 7.04 0.142 20

DUP		Sample ID: 14051481-01A DUP					Units: s.u.		Analysis Date: 5/29/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140529R			SeqNo: 2786020		Prep Date: 5/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.12 0 0 0 0 0-0 8.13 0.123 20

The following samples were analyzed in this batch:

14051480-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **59205** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>14051479-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>6/2/2014 04:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140602L</b>				SeqNo: <b>2789851</b>		Prep Date: <b>6/2/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.854	0.050	0	0	0		0.924	7.87	50	

The following samples were analyzed in this batch:

14051480-01C

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051480  
**Project:** GM 268-3 Produced Water Spill 5.27.14

## QC BATCH REPORT

Batch ID: **R141687**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R141687</b>				Units: % of sample		Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786848</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R141687</b>				Units: % of sample		Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786847</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      100      0.050      100      0      100      99.5-100.5      0

<b>DUP</b>		Sample ID: <b>14051479-01B DUP</b>				Units: % of sample		Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786825</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      19.92      0.050      0      0      0      0-0      21.45      7.4      20

<b>DUP</b>		Sample ID: <b>14051482-01A DUP</b>				Units: % of sample		Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786836</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      6.43      0.050      0      0      0      0-0      6.76      5      20

The following samples were analyzed in this batch:

14051480-01B

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



COC ID: 13052

**Note:**

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **29-May-14 00:00**

Work Order: **14051480**

Received by: **DS**

Checklist completed by Diane Shaw 29-May-14  
eSignature Date

Reviewed by: Ann Preston 30-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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>4.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/29/2014 1:19:45 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: (616) 399-6070  
Sample Receiving  
ALS Laboratory Group  
3352 128th Avenue  
Holland, MI 49424

Origin ID: GRRA



Ship Date: 27MAY14  
ActWgt: 67.0 LB  
CAD: 2284640/NET3400

Dim: 24 X 15 X 15 IN

Delivery Address Bar Code



Ref # 052714-1  
Invoice #  
PO # Parachute  
Dept #

BHP TO: (616) 399-6070  
sample receiving  
ALS Laboratory Group  
3352 128TH AVE

BILL SENDER

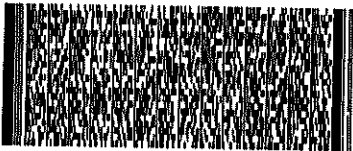
HOLLAND, MI 49424

WED - 28 MAY 10:30A  
PRIORITY OVERNIGHT

TRK# 7701 0783 4746  
6281

68 GRRA

49424  
MI-US  
GRR



52261462031F220

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*Handwritten:* A2  
B. AML - Cole





05-Jun-2014

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

Re: **GM 268-3 Background 5.27.14**

Work Order: **14051481**

Dear Mark,

ALS Environmental received 3 samples on 29-May-2014 10:30 AM for the analyses presented in the following report.

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

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

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Background 5.27.14  
**Work Order:** 14051481

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**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14051481-01	GM 268-3-B-1	Soil		5/27/2014 13:50	5/29/2014 10:30	<input type="checkbox"/>
14051481-02	GM 268-3-B-2	Soil		5/27/2014 13:55	5/29/2014 10:30	<input type="checkbox"/>
14051481-03	GM 268-3-B-3	Soil		5/27/2014 14:00	5/29/2014 10:30	<input type="checkbox"/>

---

## ALS Group USA, Corp

*Date: 05-Jun-14*

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**Client:** HRL Compliance Solutions, Inc  
**Project:** GM 268-3 Background 5.27.14  
**Work Order:** 14051481

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### Case Narrative

Batch 59181 MS/MSD data for Arsenic is not related to this project's samples. No data requires qualification.

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

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

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
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: 05-Jun-14

Client: HRL Compliance Solutions, Inc

Project: GM 268-3 Background 5.27.14

Sample ID: GM 268-3-B-1

Collection Date: 5/27/2014 01:50 PM

Work Order: 14051481

Lab ID: 14051481-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 5/30/14	Analyst: <b>ML</b>
Arsenic	11		2.3	mg/Kg-dry	5	5/30/2014 07:52 PM
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW6020A</b>		Prep: USDA Method 20B / 6/2/14	Analyst: <b>RH</b>
Calcium	89		10	mg/L	20	6/3/2014 03:29 PM
Magnesium	21		4.0	mg/L	20	6/3/2014 03:29 PM
Sodium	58		4.0	mg/L	20	6/3/2014 03:29 PM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/2/14	Analyst: <b>RH</b>
Sodium Adsorption Ratio	1.4		0.010	none	1	6/3/2014
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHO</b>		Prep: USDA Method 20B / 6/2/14	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	0.68		0.050	mmhos/cm @25	10	6/2/2014 04:15 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
Moisture	17		0.050	% of sample	1	5/29/2014 04:03 PM
<b>PH</b>			<b>SW9045D</b>		Prep: EXTRACT / 5/29/14	Analyst: <b>AT</b>
pH	8.1			s.u.	1	5/29/2014 04:00 PM

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

## ALS Group USA, Corp

Date: 05-Jun-14

**Client:** HRL Compliance Solutions, Inc

**Project:** GM 268-3 Background 5.27.14

**Sample ID:** GM 268-3-B-2

**Collection Date:** 5/27/2014 01:55 PM

**Work Order:** 14051481

**Lab ID:** 14051481-02

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 5/30/14	Analyst: <b>ML</b>
Arsenic	4.7		2.1	mg/Kg-dry	5	5/30/2014 07:58 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
Moisture	15		0.050	% of sample	1	5/29/2014 04:03 PM

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



## ALS Group USA, Corp

Date: 05-Jun-14

**Client:** HRL Compliance Solutions, Inc

**Project:** GM 268-3 Background 5.27.14

**Sample ID:** GM 268-3-B-3

**Collection Date:** 5/27/2014 02:00 PM

**Work Order:** 14051481

**Lab ID:** 14051481-03

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 5/30/14	Analyst: <b>ML</b>
Arsenic	5.9		2.4	mg/Kg-dry	5	5/30/2014 08:04 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
Moisture	20		0.050	% of sample	1	5/29/2014 04:03 PM

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051481  
**Project:** GM 268-3 Background 5.27.14

**QC BATCH REPORT**

Batch ID: **59181** Instrument ID **ICPMS1** Method: **SW6020A**

<b>MBLK</b>		Sample ID: <b>MBLK-59181-59181</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 05:16 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789009</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

<b>LCS</b>		Sample ID: <b>LCS-59181-59181</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 05:22 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789010</b>		Prep Date: <b>5/30/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.236	0.25	5	0	84.7	80-120	0			

<b>MS</b>		Sample ID: <b>14051482-02AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 08:45 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789044</b>		Prep Date: <b>5/30/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.7	1.9	7.776	6.638	65	75-125	0			S

<b>MSD</b>		Sample ID: <b>14051482-02AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>5/30/2014 08:51 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140530A</b>				SeqNo: <b>2789045</b>		Prep Date: <b>5/30/2014</b>		DF: <b>5</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.28	1.9	7.704	6.638	73.2	75-125	11.7	4.85	25	S

The following samples were analyzed in this batch:

14051481-01A	14051481-02A	14051481-03A
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**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051481  
**Project:** GM 268-3 Background 5.27.14

## QC BATCH REPORT

Batch ID: **59205**      Instrument ID **ICPMS2**      Method: **SW6020A**

<b>DUP</b>		Sample ID: <b>14051479-01CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/3/2014 03:17 PM</b>		
Client ID:		Run ID: <b>ICPMS2_140603A</b>				SeqNo: <b>2791554</b>		Prep Date: <b>6/2/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	84	10	0	0	0	0-0	88.78	5.53		
Magnesium	26.2	4.0	0	0	0	0-0	27.68	5.49		
Sodium	40.22	4.0	0	0	0	0-0	41.58	3.33		

<b>DUP</b>		Sample ID: <b>14051479-01CDUP</b>				Units: <b>none</b>		Analysis Date: <b>6/3/2014</b>		
Client ID:		Run ID: <b>SAR_140603A</b>				SeqNo: <b>2791558</b>		Prep Date: <b>6/2/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.982	0.010	0	0	0		0.9876	0.565	50	

The following samples were analyzed in this batch:

14051481-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051481  
**Project:** GM 268-3 Background 5.27.14

## QC BATCH REPORT

Batch ID: **59163** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59163-59163					Units: s.u.		Analysis Date: 5/29/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140529R			SeqNo: 2786008		Prep Date: 5/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	3.98	0	4	0	99.5	90-110	0			
----	------	---	---	---	------	--------	---	--	--	--

DUP		Sample ID: 14051403-01A DUP					Units: s.u.		Analysis Date: 5/29/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140529R			SeqNo: 2786012		Prep Date: 5/29/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH	7.03	0	0	0	0	0-0	7.04	0.142	20	
----	------	---	---	---	---	-----	------	-------	----	--

DUP				Sample ID: 14051481-01A DUP				Units: s.u.		Analysis Date: 5/29/2014 04:00 PM			
Client ID: GM 268-3-B-1				Run ID: WETCHEM_140529R				SeqNo: 2786020		Prep Date: 5/29/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH	8.12	0	0	0	0	0-0	8.13	0.123	20	
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The following samples were analyzed in this batch:

14051481-01A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051481  
**Project:** GM 268-3 Background 5.27.14

## QC BATCH REPORT

Batch ID: **59205** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>14051479-01C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>6/2/2014 04:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140602L</b>				SeqNo: <b>2789851</b>		Prep Date: <b>6/2/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.854	0.050	0	0	0		0.924	7.87	50	

The following samples were analyzed in this batch:

14051481-01B

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

**Client:** HRL Compliance Solutions, Inc  
**Work Order:** 14051481  
**Project:** GM 268-3 Background 5.27.14

## QC BATCH REPORT

Batch ID: **R141687**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R141687</b>				Units: % of sample			Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786848</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      ND      0.050

<b>LCS</b>		Sample ID: <b>LCS-R141687</b>				Units: % of sample			Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786847</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      100      0.050      100      0      100      99.5-100.5      0

<b>DUP</b>		Sample ID: <b>14051479-01B DUP</b>				Units: % of sample			Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786825</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      19.92      0.050      0      0      0      0-0      21.45      7.4      20

<b>DUP</b>		Sample ID: <b>14051482-01A DUP</b>				Units: % of sample			Analysis Date: <b>5/29/2014 04:03 PM</b>		
Client ID:		Run ID: <b>MOIST_140529C</b>				SeqNo: <b>2786836</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture      6.43      0.050      0      0      0      0-0      6.76      5      20

The following samples were analyzed in this batch:

14051481-01A	14051481-02A	14051481-03A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



Cincinnati, OH  
+1 513 733 5336

Fort Collins, CO  
+1 970 490 1511

Everett, WA  
+1 425 356 2600

Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 1 of 1

COC ID: 13051

Houston, TX  
+1 281 530 5656

Spring City, PA  
+1 610 948 4903

South Charleston, WV  
+1 304 356 3168

Middletown, PA  
+1 717 944 5541

Salt Lake City, UT  
+1 801 266 7700

York, PA  
+1 717 505 5280

Environmental

Customer Information		Project Information		ALS Project Manager: [Signature] ALS Work Order #: 14051481														
				Parameter/Method Request for Analysis														
Purchase Order		Project Name	GM 268-3 Background	A	Arsenic													
Work Order		Project Number		B	SAR/ELPH													
Company Name	HCTE	Bill To Company	HRL	C														
Send Report To	Mark Mumby	Invoice Attn	Mark Mumby	D														
Address		Address		E														
City/State/Zip		City/State/Zip		F														
Phone	970-243-3271	Phone		G														
Fax		Fax		H														
e-Mail Address	RMumby@HRL.com	e-Mail Address	Mumby@HRL.com	I														
				J														

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GM 268-3-B1	5/27/14	1:50	SO	8	2	X	X									
2	GM 268-3-B2		1:55			1	X										
3	GM 268-3-B3		2:00			1	X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box) <input type="checkbox"/> Other				Results Due Date:	
[Signature]				<input type="checkbox"/> STD 10 Wk Days <input checked="" type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour					
Relinquished by:	Date:	Time:	Received by:	Notes:					
[Signature]	5/27/14	3:00	[Signature]						
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp	QC Package: (Check One Box Below)			
[Signature]	5/27/14	16:00	[Signature]		4.6C	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	<input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV					
[Signature]	5/29/14	13:30	[Signature]	<input type="checkbox"/> Level IV SW846/CLP					
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035				<input type="checkbox"/> Other					

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **29-May-14 10:30**

Work Order: **14051481**

Received by: **DS**

Checklist completed by Diane Shaw 29-May-14  
eSignature Date

Reviewed by: Ann Preston 30-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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>4.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/29/2014 1:23:53 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:



Origin ID: GRFA



Ship Date: 27MAY14  
ActWgt: 67.0 LB  
CAD: 2264840/NET3490

**Dim: 24 X 15 X 15 IN**

Delivery Address Bar Code



Ref #	052714-1
Invoice #	
PO #	Parachute
Dept #	

**SHIP TO: (616) 399-6070**  
**sample receiving**  
**ALS Laboratory Group**  
**3352 128TH AVE**

HOLLAND, MI 49424

WED - 28 MAY 10:30A  
PRIORITY OVERNIGHT

TRK# 7701 0783 4746

## 68 G RRA

49424  
MI-US  
GRR



57263162D1E325

**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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~~A2~~  
B. AML - Cole

2001-11-15