

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

Date received
7/23/2014
REM #8576
Doc #1733767

Spill Complaint
Inspection NOAV

Tracking No:

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: _____	Contact Name and Telephone: _____
Name of Operator: _____	_____
Address: _____	No: _____
City: _____ State: _____ Zip: _____	Fax: _____
API Number: _____	County: _____
Facility Name: _____	Facility Number: _____
Well Name: _____	Well Number: _____
Location: (QtrQtr, Sec, Twp, Rng, Meridian): _____ Latitude: _____ Longitude: _____	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): _____

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): _____

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____

Potential receptors (water wells within 1/4 mi, surface waters, etc.): _____

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
Soils	_____	_____
Vegetation	_____	_____
Groundwater	_____	_____
Surface Water	_____	_____

REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:



REMEDIATION WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Four (4) monitoring wells will be installed downgradient and one (1) upgradient of the excavated area. It is anticipated that the total depth of each monitoring well will range between 15-20 feet below ground surface, depending on the water table which, during the excavation activities, has been determined to be approximately seven (7) feet. A map depicting the proposed location of the monitoring wells is included in Attachment A. A groundwater monitoring plan is included as Attachment B.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

The excavation will be backfilled after the cliff swallow nesting period is over (anticipate early August). The tanks will then be re-set, and the pad recontoured to its original grade. As the location is a working well pad, no additional reclamation activities are planned at the current time.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☒ Y ☐ N If yes, describe:

The samples location map and the laboratory analytical reports for the confirmation samples are included in the Attachment C.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

The impacted soil will be treated on-site with a bio-remediation product to reduce contaminant levels below COGCC Table 910-1 standards

IMPLEMENTATION SCHEDULE

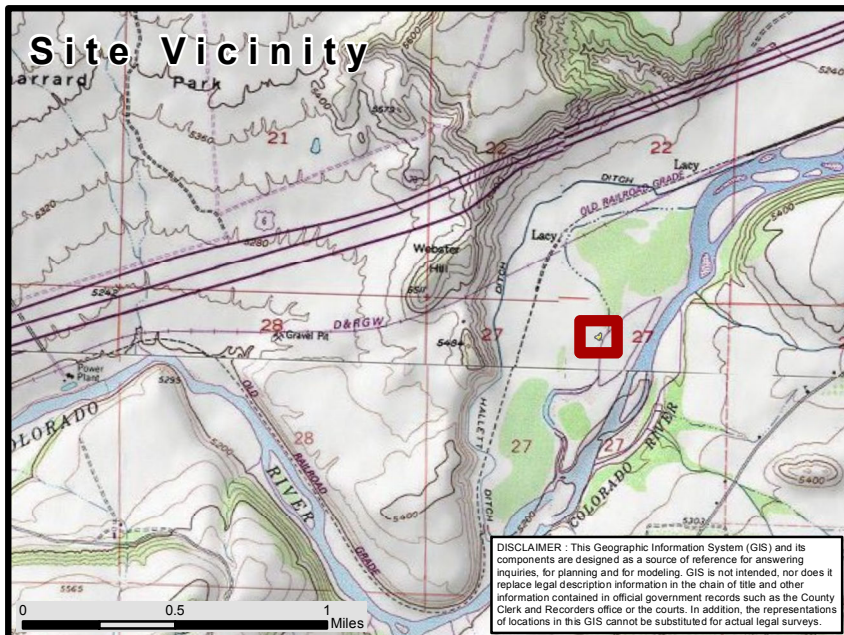
Date Site Investigation Began: 5/16/2014 Date Site Investigation Completed: 6/25/2014 Date Remediation Plan Submitted: 7/23/2014
Remediation Start Date: August, 2014 Anticipated Completion Date: TBD Actual Completion Date: TBD

I hereby certify that the statements made in this form are, to the best of my knowledge true, correct, and complete.

Print Name: Karolina Blaney Signed: Karolina Blaney
Title: Environmental Specialist Date: 7/23/2014

OGCC Approved: _____ Title: EPS Northwest Date: 7/23/14

Attachment A



Proposed Monitoring Well Locations

Location: GV 25-27

39.507060 -107.878716

WPX Energy

Proposed Upgradient Well

Proposed Downgradient Well

Excavated Area

PLSS

Township

Section

Transportation Features

Public Roads

Access Roads

Hydrographic Features

Perennial Stream

Intermittent Stream



HRL COMPLIANCE SOLUTIONS, INC.

Attachment B

Groundwater Monitoring, Sampling and Analysis Plan

GV 25-27 Well Pad
WPX Energy Rocky Mountain, LLC

Prepared for:



WPX Energy Rocky Mountain, LLC
1058 County Road 215
Parachute, Colorado 81635

Prepared: July 2014

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1.0 INTRODUCTION

WPX Energy Rocky Mountain, LLC (WPX) retained HRL Compliance Solutions, Inc. (HCSI) to conduct groundwater quality sampling at selected locations downgradient of the excavated area on the WPX GV 25-27 well pad. The Groundwater Monitoring and Sampling and Analysis Plan is being provided as a supplement to the Site Investigation and Remediation Workplan, Form 27.

This Groundwater Monitoring and Sampling and Analysis Plan is a guidance document that outlines the groundwater monitoring, sampling frequency, and sampling procedures in order to delineate the extent of localized groundwater contamination that was discovered during the remediation of a historical impact discovered on May 16, 2014 at the WPX GV 25-27 location.

2.0 BACKGROUND

The following sections report information regarding the site location and release summary for the GV 25-27 well pad.

2.1 Site Location

The WPX GV 25-27 well pad is located in the South Rulison Field located in Garfield County, Colorado. Specifically, the well pad is located in the NWNE of Section 27, Township 6 South Range 94 West of the 6th Primary Meridian. The well pad is situated on Quaternary age alluvial deposits consisting of loam, sand, and river cobbles at approximately 6 feet (See Attachment A for the Site Location Map).

2.2 Release Summary

The impacted soil was discovered when an earthen SPCC containment structure was being upgraded to a steel lined SPCC containment structure. When the condensate tank was removed historical impacts to the underlying soil were observed. The exact cause of the release is unknown. The impacted area was excavated to a depth of approximately seven feet where river cobble and groundwater was encountered making further excavation impractical. Seven confirmation samples were collected from the walls of the excavation and additional eleven potholes were excavated and sampled in the area adjacent to the excavation. Two water samples were collected from a pond located to the east of the excavation and one water sample was collected from the excavated area. All samples are in compliance with the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 cleanup standards. The analytical data is summarized in Table 1 and the laboratory reports along with the sample location map are attached with the Form 27 (Attachment C).

On June 30, 2014, permission was granted by the COGCC allowing the excavation to be backfilled with clean native material. A Form 27 was requested to address potential groundwater contamination downgradient of the excavated area.

3.0 GROUNDWATER MONITORING PLAN (PROPOSED)

The groundwater impacts at the GV 25-27 appears to be limited to the area beneath and adjacent to the former location of the production tanks. This area was excavated to a depth of approximately 7 feet bgs where impacted groundwater was encountered. A surface water sample collected from the bottom of the excavation met the COGCC 910-1 standards for BTEX in groundwater. The overall goal of the groundwater monitoring is to confirm that groundwater standards at this site are below the COGCC Table 910-1 requirements.

Four two inch monitoring wells will be installed downgradient and one two inch monitoring well will be installed upgradient of the excavated area. It is anticipated that the total depth of each monitoring well will range between 15- 20 feet below ground surface, depending on the water table which, during the excavation activities, has been determined to be approximately seven feet. During drilling activities, cuttings will be field screened using a photo ionization detector. If practical, soil samples will be collected at 2 foot intervals for lithology. Indication of hydrocarbon impacts will be noted and will determine the need and location of any additional monitoring wells. The monitoring wells will be developed after installation activities are complete. A map depicting the proposed location of the monitoring wells is included in Attachment A to the Form 27.

3.1 Quarterly Sampling

If groundwater contamination is discovered, the proposed monitoring wells be sampled for a period of one year on a quarterly basis to monitor the progress of the MNA.

4.0 SAMPLING AND ANALYSIS PLAN

Upon approval of the submitted Form 27, water samples will be collected from the proposed monitoring wells. All of the proposed monitoring wells will be surveyed utilizing a Trimble GeoXT GPS unit, for compliance with COGCC rule 215, and placed on the sample location map. Casing and ground elevations will be surveyed for permitting purposes and to prepare a potentiometric map of the area depicting groundwater flow directions. The following table identifies and explains the proposed monitoring well sample locations for the GV 25-27 well pad.

GV 25-27 Well Pad		
Proposed Sample ID	Matrix	Description
MW-1	Groundwater	Upgradient water sample to establish background concentration
MW-2	Groundwater	Downgradient water sample
MW-3	Groundwater	Downgradient water sample
MW-4	Groundwater	Downgradient water sample
MW-5	Groundwater	Downgradient water sample

5.0 SAMPLING PROCEDURES

Water samples will be collected and placed in laboratory supplied containers, placed on ice in a sample cooler and shipped overnight delivery to ALS Environmental, in Holland, Michigan. All samples will be shipped following laboratory chain-of-custody protocol. The samples will be analyzed for the following parameters using the indicated test method:

Water

• Benzene-Toluene-Ethylbenzene-Xylenes (BTEX).....	EPA Method SW8260
• Total Dissolved Solids	EPA E.160.1
• Chloride.....	EPA Method SW9056
• Sulfate	EPA Method SW9056
• Temperature	Field Measurement YSI
• Electrical Conductivity	Field Measurement YSI
• Resistivity	Field Measurement YSI
• Salinity	Field Measurement YSI
• Dissolved Oxygen	Field Measurement YSI
• pH.....	Field Measurement YSI
• Oxygen Reduction Potential	Field Measurement YSI

Due to the shallow depth to groundwater, samples will be collected utilizing a peristaltic pump. The wells will be purged and sampled in accordance with EPA Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures (EPA/540/S-95/504 April 1996, Revised 2010). Pump head tubing, as well as sample collection tubing, will be replaced between samples to ensure no potential for cross contamination. Water quality parameters, listed above, will be collected utilizing a YSI 556 MPS water quality meter.

6.0 DECONTAMINATION PROCEDURES

All equipment that comes into contact with potentially contaminated water will be decontaminated prior to re-use. Decontamination will consist of washing with a mixture of deionized (DI) water, Alconox soap and rinsing with DI water.

7.0 FIELD QUALITY CONTROL

- A single field duplicate sample will be collected once per quarter. The duplicate will be collected simultaneously with a standard sample from the same source under identical conditions into separate sample containers. The duplicate sample is used to assess laboratory performance through comparison of lab results.
- One trip blank will be prepared and shipped with each sample event when water is collected. The trip blank is used to assess any potential cross contamination during shipment.

- Field equipment will be calibrated prior to each sample event.

8.0 LABORATORY QUALITY CONTROL

The analytical laboratory will perform Quality Control (QC). The QC will consist of method blank results, laboratory control spikes and matrix spike results.

1. Method Blank Results – A method blank is a laboratory generated sample that assesses the degree to which laboratory operations and procedures cause false-positive analytical results. The method blank results associated with the samples will be included in the final lab report.
2. Laboratory Control Spike – A laboratory control spike is a sample that is spiked with known analyte concentrations and then analyzed at approximately 10 percent of the sample load in order to establish method specific control limits.
3. Matrix Spike Results – A matrix spike is a sample that is spiked with known analyte concentrations and analyzed at approximately 10 percent of the sample load in order to establish method specific control limits.
4. Trip Blank – A clean sample of a matrix that is taken from the laboratory to the sampling site and transported back to the laboratory without having been exposed to sampling procedures. A trip blank is typically analyzed for volatile compounds only. The trip blank assesses contamination introduced during shipping and field handling procedures.

9.0 FIELD NOTES

A field log book will be used to document the vital project and sample information. At a minimum the following sample information will be recorded.

- Sample ID
- Location (GPS)
- Date and Time
- Ambient temperature
- Field investigator will document all personnel on location, including both contractor and regulating agency personnel
- Any other field comments by field personnel

10.0 PHOTOGRAPHS

Photographs will be taken at the sample location and at surrounding areas. The photographs will verify information entered into the field log book. Each photograph taken will be documented in the field log book with the approximate time, location, and date.

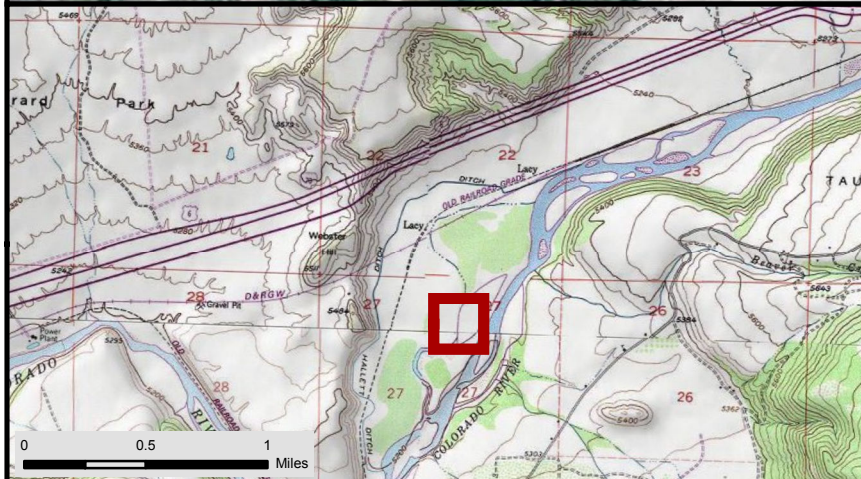
11.0 REPORTING

Following receipt of the final analytical report, HCSI staff will review, evaluate and summarize project data/information utilizing appropriate figures and tables. All sampling summary reports will be provided to COGCC as soon as practical

12.0 CONCLUSION

WPX Energy Rocky Mountain, LLC (WPX) retained HRL Compliance Solutions, Inc. (HCSI) to conduct water quality sampling at proposed locations downgradient of the WPX GV 25-27 well pad. The purpose of this proposed Groundwater Monitoring and Sampling and Analysis Plan is to outline the water quality sampling protocol for groundwater investigation at the WPX GV 25-27 well pad. WPX reserves the right to amend or update this proposed plan if merited by new findings at or near the site location. Any changes will be documented and sent to the COGCC via a Form 4.

Attachment C



WPXENERGY Sample Location Map: GV 25-27

39.501625 -107.872972
Section 27, Township 6 South, Range 94 West

● Pothole Location	Transportation	Hydrography
● Confirmation Sample	CO Highways	Ditch
● Water Samples	County Roads	Intermittent Stream
Excavated Area	Local Streets	Perennial Stream
	WPX Access	Waterbody
		Watershed



Author: B. Hall

Revision: 3

Date: 7/23/2014

Table 1

Soil Analytical Results
GV 25-27

Contaminant of Concern ↓	COGCC standards	Location →	Northeast Wall	Southeast Wall	South East	Northwest Wall	Below Wellhead	South West	Under Separator	PH4	PH5	PH7	PH8	PH9	PH11	PH15	PH16	PH17	PH18	PH19
		Date Sampled →	5/20/2014	5/20/2014	6/19/2014	5/20/2014	6/19/2014	6/19/2014	6/19/2014	6/19/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	5/22/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
Organic Compounds in Soil																				
TPH	500	mg/kg	ND	59	28	360	157	113	14	26	37	34	18	19	73	104	12	ND	18	13
DRO		mg/kg	<4.5	59	28	100	47	34	14	26	37	34	18	19	30	34	12	<4.9	18	13
GRO		mg/kg	<2.7	<2.7	<2.6	260	110	79	<3.0	<2.8	<2.8	<2.8	<2.8	<2.8	43	70	<2.7	<3	<2.9	<3.2
Benzene	0.17	mg/kg	<0.032	<0.032	<0.031	<0.03	<0.035	<0.032	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	<0.036	<0.033	<0.032	<0.036	<0.035	<0.038
Toluene	85	mg/kg	<0.032	<0.032	<0.031	<0.03	<0.035	<0.032	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	0.042	<0.033	<0.032	<0.036	<0.035	<0.038
Ethylbenzene	100	mg/kg	<0.032	<0.032	<0.031	0.28	0.51	0.042	<0.036	<0.033	<0.034	<0.033	<0.033	<0.034	0.09	<0.033	0.061	<0.036	<0.035	<0.038
Xylenes (Total)	175	mg/kg	<0.097	<0.097	0.1	4.5	8.4	5.2	<0.110	<0.100	<0.100	<0.100	<0.100	<0.100	0.32	0.89	0.2	<0.110	0.53	<0.110
Acenaphthene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Anthracene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(A)anthracene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(B)fluoranthene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(K)fluoranthene	2.2	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Benzo(A)pyrene	0.022	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Chrysene	22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Fluoranthene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Fluorene	1,000	mg/kg	<0.0072	<0.0072	<0.068	0.016	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Naphthalene	23	mg/kg	<0.0072	<0.0072	<0.068	0.053	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Pyrene	1,000	mg/kg	<0.0072	<0.0072	<0.068	<0.0067	<0.0076	<0.0071	<0.0078	<0.0073	<0.014	<0.0073	<0.0073	<0.075						
Inorganics in Soil																				
EC	<4 or 2 x background	mmhos/cm	5.8	2.5	3.2	0.46	1.3	2.7	4.2	2.9	2.9	3.5	6.4	3.5						
SAR	<12		8.1	6.1	7.5	1.4	5.4	4.2	2.6	9.4	4.5	5	7.6	7.3						
pH	6-9		8	8	8.3	8.4	7.9	7.8	7.8	9	8.4	8.4	8.4	9.1						
Metals in Soil																				
Arsenic	0.39	mg/kg	2.4	3.2	2.4	2.4	6.7	4.1	4.2	4	3.8	2.3	4	3.5						
Barium total	15,000	mg/kg	130	120	160	100	1000	290	290	220	820	100	330	650						
Cadmium	70	mg/kg	1.9	<0.83	<0.78	<0.76	7.4	2.9	2.2	2	1.1	<0.74	3.5	1.2						
Chromium (III)	120,000	mg/kg	7.5	6.6	8.9	8.4	7.8	7.3		9.3	7.5	7.2	6.8	9.1						
Chromium (VI)	23	mg/kg	<0.54	<0.53	<0.5	<0.5	<0.58	<0.53	<0.6	<0.55	<0.57	<0.54	<0.55	<0.55						
Copper	3,100	mg/kg	5.8	4.7	4.9	3.6	21	9.2	13	8.7	6.1	4.9	6.5	7.3						
Lead	400	mg/kg	47	6.5	24	7.8	380	170	120	110	45	8.8	52	69						
Mercury	23	mg/kg	0.015	<0.016	0.02	<0.013	0.047	0.018	0.051	0.024	0.018	<0.016	<0.018	0.026						
Nickel	1,600	mg/kg	8.2	7.2	8.4	7.7	13	7.8	11	10	7.9	7.6	8.2	9.7						
Selenium	390	mg/kg	<1.8	<2.1	<2.0	<1.9	2.2	<2.1	<1.9	<2	<1.9	<1.8	<1.9	<1.9						
Silver	390	mg/kg	<1.8	<2.1	<2.0	<1.9	<2.1	<2.1	<1.9	<2	<1.9	<1.8	<1.9	<1.9						
Zinc	23,000	mg/kg	160	25	65	36	840	280	220	180	94	32	95	140						

Over COGCC 910-1 limit

Water Analytical Results

GV 25-27

Contaminant of Concern ↓	COGCC standards	Location →	Pond Pt 1	Pond Pt 2	Excavation
		Date Sampled →	5/16/2014	5/16/2014	6/5/2014
Organic Compounds in Water					
Benzene	5	ug/L	<1.0	<1.0	<1.0
Toluene	560 to 1000	ug/L	<1.0	<1.0	<1.0
Ethylbenzene	700	ug/L	<1.0	<1.0	1.2
Xylene (total)	1400 to 10000	ug/L	<1.0	<1.0	13
Inorganics in Water					
Total Dissolved Solids	1.25 x bkgd	mg/L	2400	2400	3200
Sulfate	1.25 x bkgd	mg/L	1100	1100	1400
Chloride	1.25 x bkgd	mg/L	510	520	620



29-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.20.14**

Work Order: **14051070**

Dear Mark,

Revision: **1**

ALS Environmental received 3 samples on 21-May-2014 10:00 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 29.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051070

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>
14051070-01	Pot Hole #2	Soil		5/20/2014 15:10	5/21/2014 10:00	<input type="checkbox"/>
14051070-02	Southeast Wall	Soil		5/20/2014 15:20	5/21/2014 10:00	<input type="checkbox"/>
14051070-03	Northwest Wall	Soil		5/20/2014 15:30	5/21/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051070

Case Narrative

Batch 58868 sample 14051070-01 BTEX surrogate was above control limits due to matrix interference.

Batch 58883 samples 14051070-01, 14051071-02, and 14051070-03 each had one surrogate recovery that was out due to matrix interference.

Batch 58886 samples 14051070-01, 14051071-02, and 14051070-03 Metals reporting limits were elevated due to dilution for high concentrations of non-target analytes. The MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58944 sample Southeast Wall MS/MSD recoveries for Hexavalent Chromium were below control limits. The corresponding result in the parent sample may be biased low.

The sample IDs were changed at the client's request in this revised report sent 5/29/14.

<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: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Pot Hole #2
Collection Date: 5/20/2014 03:10 PM

Work Order: 14051070
Lab ID: 14051070-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
DRO (C10-C28)	120		9.0	mg/Kg-dry	1	5/22/2014 02:58 PM
Surr: 4-Terphenyl-d14	93.2		39-133	%REC	1	5/22/2014 02:58 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
GRO (C6-C10)	2,500		2.7	mg/Kg-dry	1	5/22/2014 03:34 PM
Surr: Toluene-d8	117		50-150	%REC	1	5/22/2014 03:34 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/22/14	Analyst: LR
Mercury	ND		0.015	mg/Kg-dry	1	5/22/2014 12:29 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	3.5		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Barium	81		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Cadmium	ND		0.84	mg/Kg-dry	5	5/22/2014 05:51 PM
Chromium	7.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Copper	4.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Lead	7.3		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Nickel	8.0		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Selenium	ND		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Silver	ND		2.1	mg/Kg-dry	5	5/22/2014 05:51 PM
Zinc	28		4.2	mg/Kg-dry	5	5/22/2014 05:51 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Calcium	120		10	mg/L	20	5/24/2014 10:58 AM
Magnesium	41		4.0	mg/L	20	5/24/2014 10:58 AM
Sodium	940		4.0	mg/L	20	5/24/2014 10:58 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Sodium Adsorption Ratio	19		0.010	none	1	5/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Acenaphthylene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(a)anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(a)pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(b)fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(g,h,i)perylene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Benzo(k)fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Chrysene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Pot Hole #2
Collection Date: 5/20/2014 03:10 PM

Work Order: 14051070
Lab ID: 14051070-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Fluoranthene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Fluorene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Indeno(1,2,3-cd)pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Naphthalene	47		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Pyrene	ND		14	µg/Kg-dry	1	5/22/2014 05:51 PM
Surr: 2-Fluorobiphenyl	31.5		12-100	%REC	1	5/22/2014 05:51 PM
Surr: 4-Terphenyl-d14	46.9		25-137	%REC	1	5/22/2014 05:51 PM
Surr: Nitrobenzene-d5	34.4	S	37-107	%REC	1	5/22/2014 05:51 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14		Analyst: BG
Benzene	580		33	µg/Kg-dry	1	5/22/2014 11:12 AM
Ethylbenzene	6,500		330	µg/Kg-dry	10	5/22/2014 12:04 PM
m,p-Xylene	100,000		660	µg/Kg-dry	10	5/22/2014 12:04 PM
o-Xylene	11,000		330	µg/Kg-dry	10	5/22/2014 12:04 PM
Toluene	55		33	µg/Kg-dry	1	5/22/2014 11:12 AM
Xylenes, Total	110,000		990	µg/Kg-dry	10	5/22/2014 12:04 PM
Surr: 1,2-Dichloroethane-d4	83.5		70-130	%REC	1	5/22/2014 11:12 AM
Surr: 1,2-Dichloroethane-d4	85.1		70-130	%REC	10	5/22/2014 12:04 PM
Surr: 4-Bromofluorobenzene	115		70-130	%REC	1	5/22/2014 11:12 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	10	5/22/2014 12:04 PM
Surr: Dibromofluoromethane	92.9		70-130	%REC	1	5/22/2014 11:12 AM
Surr: Dibromofluoromethane	93.9		70-130	%REC	10	5/22/2014 12:04 PM
Surr: Toluene-d8	203	S	70-130	%REC	1	5/22/2014 11:12 AM
Surr: Toluene-d8	106		70-130	%REC	10	5/22/2014 12:04 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14		Analyst: JB
Electrical Conductivity @ Saturation	6.0		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.0		0.55	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14		Analyst: MB
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	8.8		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14		Analyst: AT
pH	8.3			s.u.	1	5/22/2014 04:42 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Southeast Wall
Collection Date: 5/20/2014 03:20 PM

Work Order: 14051070
Lab ID: 14051070-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	59		SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>80.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 03:28 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>113</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 02:46 PM</i>
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/22/14	Analyst: LR
METALS BY ICP-MS						
Arsenic	3.2		SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Barium	120					
Cadmium	ND					
Chromium	6.6					
Copper	4.7					
Lead	6.5					
Nickel	7.2					
Selenium	ND					
Silver	ND					
Zinc	25					
SOLUBLE CATIONS FOR SAR						
Calcium	120		SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Magnesium	32					
Sodium	290					
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	6.1		USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthylene	ND					
Anthracene	ND					
Benzo(a)anthracene	ND					
Benzo(a)pyrene	ND					
Benzo(b)fluoranthene	ND					
Benzo(g,h,i)perylene	ND					
Benzo(k)fluoranthene	ND					
Chrysene	ND					

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Southeast Wall
Collection Date: 5/20/2014 03:20 PM

Work Order: 14051070
Lab ID: 14051070-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Fluorene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Naphthalene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Pyrene	ND		7.2	µg/Kg-dry	1	5/22/2014 06:12 PM
Surr: 2-Fluorobiphenyl	30.9		12-100	%REC	1	5/22/2014 06:12 PM
Surr: 4-Terphenyl-d14	42.0		25-137	%REC	1	5/22/2014 06:12 PM
Surr: Nitrobenzene-d5	33.1	S	37-107	%REC	1	5/22/2014 06:12 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14	Analyst: BG	
Benzene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
m,p-Xylene	ND		65	µg/Kg-dry	1	5/21/2014 05:17 PM
o-Xylene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Toluene	ND		32	µg/Kg-dry	1	5/21/2014 05:17 PM
Xylenes, Total	ND		97	µg/Kg-dry	1	5/21/2014 05:17 PM
Surr: 1,2-Dichloroethane-d4	84.8		70-130	%REC	1	5/21/2014 05:17 PM
Surr: 4-Bromofluorobenzene	96.8		70-130	%REC	1	5/21/2014 05:17 PM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	5/21/2014 05:17 PM
Surr: Toluene-d8	94.8		70-130	%REC	1	5/21/2014 05:17 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14	Analyst: JB	
Electrical Conductivity @ Saturation	2.5		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	6.6		0.54	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14	Analyst: MB	
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G	Analyst: AT		
Moisture	7.3		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14	Analyst: AT	
pH	8.0			s.u.	1	5/22/2014 04:42 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northwest Wall
Collection Date: 5/20/2014 03:30 PM

Work Order: 14051070
Lab ID: 14051070-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	100		SW8015M		Prep: SW3541 / 5/21/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>82.1</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 03:58 PM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	260		SW8015		Prep: SW5035 / 5/21/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>114</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>5/22/2014 03:09 PM</i>
MERCURY BY CVAA						
Mercury	ND		SW7471	mg/Kg-dry	Prep: SW7471 / 5/22/14	Analyst: LR
			0.013		1	5/22/2014 12:33 PM
METALS BY ICP-MS						
Arsenic	2.4		SW6020A	mg/Kg-dry	Prep: SW3050B / 5/22/14	Analyst: ML
Barium	100		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Cadmium	ND		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Chromium	8.4		0.76	mg/Kg-dry	5	5/22/2014 06:26 PM
Copper	3.6		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Lead	7.8		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Nickel	7.7		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Selenium	ND		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Silver	ND		1.9	mg/Kg-dry	5	5/22/2014 06:26 PM
Zinc	36		3.8	mg/Kg-dry	5	5/22/2014 06:26 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Calcium	38		10	mg/L	20	5/24/2014 11:10 AM
Magnesium	10		4.0	mg/L	20	5/24/2014 11:10 AM
Sodium	39		4.0	mg/L	20	5/24/2014 11:10 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/23/14	Analyst: RH
Sodium Adsorption Ratio	1.4		0.010	none	1	5/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/21/14	Analyst: RM
Acenaphthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Acenaphthylene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(a)anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(a)pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(b)fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(g,h,i)perylene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Benzo(k)fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Chrysene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northwest Wall
Collection Date: 5/20/2014 03:30 PM

Work Order: 14051070
Lab ID: 14051070-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Fluoranthene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Fluorene	16		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Indeno(1,2,3-cd)pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Naphthalene	53		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Pyrene	ND		6.7	µg/Kg-dry	1	5/22/2014 05:31 PM
Surr: 2-Fluorobiphenyl	30.5		12-100	%REC	1	5/22/2014 05:31 PM
Surr: 4-Terphenyl-d14	40.3		25-137	%REC	1	5/22/2014 05:31 PM
Surr: Nitrobenzene-d5	32.6	S	37-107	%REC	1	5/22/2014 05:31 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/21/14	Analyst: BG	
Benzene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Ethylbenzene	280		30	µg/Kg-dry	1	5/21/2014 05:43 PM
m,p-Xylene	4,500		61	µg/Kg-dry	1	5/21/2014 05:43 PM
o-Xylene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Toluene	ND		30	µg/Kg-dry	1	5/21/2014 05:43 PM
Xylenes, Total	4,500		91	µg/Kg-dry	1	5/21/2014 05:43 PM
Surr: 1,2-Dichloroethane-d4	84.0		70-130	%REC	1	5/21/2014 05:43 PM
Surr: 4-Bromofluorobenzene	86.4		70-130	%REC	1	5/21/2014 05:43 PM
Surr: Dibromofluoromethane	94.9		70-130	%REC	1	5/21/2014 05:43 PM
Surr: Toluene-d8	102		70-130	%REC	1	5/21/2014 05:43 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/23/14	Analyst: JB	
Electrical Conductivity @ Saturation	0.46		0.050	mmhos/cm @25	10	5/27/2014 07:00 AM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: JJG		
Chromium, Trivalent	8.4		0.51	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/21/14	Analyst: MB	
Chromium, Hexavalent	ND		0.50	mg/Kg-dry	1	5/22/2014 04:00 PM
MOISTURE			A2540 G	Analyst: AT		
Moisture	1.5		0.050	% of sample	1	5/21/2014 07:34 PM
PH			SW9045D	Prep: EXTRACT / 5/22/14	Analyst: AT	
pH	8.4		s.u.		1	5/22/2014 04:42 PM

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58861** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-58861-58861				Units: mg/Kg		Analysis Date: 5/22/2014 03:59 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775003		Prep Date: 5/21/2014		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	1.727	0	1.667	0	104	39-133	0			

LCS		Sample ID: DLCSS1-58861-58861				Units: mg/Kg		Analysis Date: 5/22/2014 04:29 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775004		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	143.8	4.2	166.7	0	86.3	61-109	0			
Surr: 4-Terphenyl-d14	1.494	0	1.667	0	89.6	39-133	0			

MS		Sample ID: 1405943-01A MS				Units: mg/Kg		Analysis Date: 5/22/2014 04:59 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775005		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	348.9	8.3	332	76.12	82.2	48-110	0			
Surr: 4-Terphenyl-d14	3.382	0	3.32	0	102	39-133	0			

MSD		Sample ID: 1405943-01A MSD				Units: mg/Kg		Analysis Date: 5/22/2014 05:29 AM		
Client ID:		Run ID: GC8_140521B				SeqNo: 2775006		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	304.7	7.8	313.2	76.12	73	48-110	348.9	13.5	30	
Surr: 4-Terphenyl-d14	2.789	0	3.132	0	89	39-133	3.382	19.2	30	

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58869** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-58869-58869				Units: µg/Kg		Analysis Date: 5/22/2014 02:20 PM		
Client ID:		Run ID: GC10_140522A				SeqNo: 2775952		Prep Date: 5/21/2014		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>	5532	0	5000	0	111	50-150	0			

LCS		Sample ID: LCS-58869-58869				Units: µg/Kg		Analysis Date: 5/22/2014 01:56 PM		
Client ID:		Run ID: GC10_140522A				SeqNo: 2775951		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	485000	2,500	500000	0	97	70-130	0			
<i>Surr: Toluene-d8</i>	5568	0	5000	0	111	50-150	0			

MS		Sample ID: 14051070-02A MS				Units: µg/Kg		Analysis Date: 5/22/2014 07:59 PM		
Client ID: Southeast Wall		Run ID: GC10_140522A				SeqNo: 2779968		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	443900	2,500	500000	0	88.8	70-130	0			
<i>Surr: Toluene-d8</i>	5492	0	5000	0	110	50-150	0			

MSD		Sample ID: 14051070-02A MSD				Units: µg/Kg		Analysis Date: 5/22/2014 08:23 PM		
Client ID: Southeast Wall		Run ID: GC10_140522A				SeqNo: 2779970		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	427500	2,500	500000	0	85.5	70-130	443900	3.76	30	
<i>Surr: Toluene-d8</i>	5416	0	5000	0	108	50-150	5492	1.39	30	

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC Page: 2 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58897** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-58897-58897					Units: mg/Kg		Analysis Date: 5/22/2014 11:36 AM		
Client ID:		Run ID: HG1_140522A			SeqNo: 2775167		Prep Date: 5/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury ND 0.020

LCS		Sample ID: LCS-58897-58897					Units: mg/Kg		Analysis Date: 5/22/2014 11:38 AM		
Client ID:			Run ID: HG1_140522A			SeqNo: 2775168		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1681 0.020 0.1665 0 101 80-120 0

MS		Sample ID: 1405940-01AMS					Units: mg/Kg		Analysis Date: 5/22/2014 11:45 AM		
Client ID:			Run ID: HG1_140522A			SeqNo: 2775231		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1322 0.015 0.1208 0.02488 88.8 75-125 0

MSD		Sample ID: 1405940-01AMSD					Units: mg/Kg		Analysis Date: 5/22/2014 11:47 AM		
Client ID:			Run ID: HG1_140522A			SeqNo: 2775232		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1333 0.014 0.1171 0.02488 92.6 75-125 0.1322 0.851 35

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC Page: 3 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58886** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58886-58886				Units: mg/Kg		Analysis Date: 5/22/2014 01:39 PM		
Client ID:		Run ID: ICPMS1_140522A				SeqNo: 2776457		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK		Sample ID: MBLK-58886-58886				Units: mg/Kg		Analysis Date: 5/23/2014 04:10 PM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778000		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	ND	0.25								

LCS		Sample ID: LCS-58886-58886				Units: mg/Kg		Analysis Date: 5/22/2014 01:45 PM		
Client ID:		Run ID: ICPMS1_140522A				SeqNo: 2776458		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.212	0.25	5	0	84.2	80-120	0			
Barium	4.72	0.25	5	0	94.4	80-120	0			
Cadmium	4.508	0.10	5	0	90.2	80-120	0			
Chromium	4.824	0.25	5	0	96.5	80-120	0			
Copper	4.624	0.25	5	0	92.5	80-120	0			
Lead	4.78	0.25	5	0	95.6	80-120	0			
Nickel	4.705	0.25	5	0	94.1	80-120	0			
Silver	4.718	0.25	5	0	94.4	80-120	0			
Zinc	4.002	0.50	5	0	80	80-120	0			

LCS		Sample ID: LCS-58886-58886				Units: mg/Kg		Analysis Date: 5/23/2014 04:17 PM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778001		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	4.198	0.25	5	0	84	80-120	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58886** Instrument ID **ICPMS1** Method: **SW6020A**

MS					Sample ID: 14051022-01CMS			Units: mg/Kg		Analysis Date: 5/22/2014 01:57 PM		
Client ID:			Run ID: ICPMS1_140522A			SeqNo: 2776460		Prep Date: 5/22/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Arsenic	13.7	2.0	8.197	5.944	94.6	75-125	0					
Barium	54.88	2.0	8.197	43.91	134	75-125	0			SO		
Cadmium	8.283	0.82	8.197	0.1025	99.8	75-125	0					
Chromium	27.61	2.0	8.197	16.71	133	75-125	0			S		
Copper	24	2.0	8.197	16.62	90.1	75-125	0					
Lead	17.41	2.0	8.197	9.252	99.5	75-125	0					
Nickel	29.57	2.0	8.197	22.92	81.2	75-125	0					
Silver	7.213	2.0	8.197	0.06626	87.2	75-125	0					
Zinc	129.7	4.1	8.197	39.64	1100	75-125	0			SO		

MS				Sample ID: 14051022-01CMS				Units: mg/Kg			Analysis Date: 5/23/2014 04:00 PM		
Client ID:			Run ID: ICPMS1_140523A				SeqNo: 2777999			Prep Date: 5/22/2014		DF: 50	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Selenium		9.148	20	8.197	-0.2826	115	75-125	0			J		

MSD				Sample ID: 14051022-01CMSD			Units: mg/Kg		Analysis Date: 5/22/2014 02:03 PM		
Client ID:			Run ID: ICPMS1_140522A			SeqNo: 2776461		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	13.33	2.1	8.224	5.944	89.8	75-125	13.7	2.71	25		
Barium	57.4	2.1	8.224	43.91	164	75-125	54.88	4.5	25	SO	
Cadmium	7.693	0.82	8.224	0.1025	92.3	75-125	8.283	7.38	25		
Chromium	27.5	2.1	8.224	16.71	131	75-125	27.61	0.372	25	S	
Copper	23.23	2.1	8.224	16.62	80.4	75-125	24	3.29	25		
Lead	16.5	2.1	8.224	9.252	88.2	75-125	17.41	5.34	25		
Nickel	30.93	2.1	8.224	22.92	97.4	75-125	29.57	4.48	25		
Silver	6.937	2.1	8.224	0.06626	83.5	75-125	7.213	3.91	25		
Zinc	45.31	4.1	8.224	39.64	69	75-125	129.7	96.4	25	SRO	

MSD				Sample ID: 14051022-01CMSD				Units: mg/Kg			Analysis Date: 5/23/2014 04:41 PM			
Client ID:				Run ID: ICPMS1_140523A				SeqNo: 2778720			Prep Date: 5/22/2014		DF: 50	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Selenium		10.31	21	8.224	-0.2826	129	75-125	9.148	0	25	JS			

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58938** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051070-03BDUP				Units: mg/L		Analysis Date: 5/24/2014 11:17 AM		
Client ID: Northwest Wall		Run ID: ICPMS2_140524A				SeqNo: 2779389		Prep Date: 5/23/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	51.56	10	0	0	0	0-0	38.44	29.2		
Magnesium	12.27	4.0	0	0	0	0-0	9.976	20.7		
Sodium	45.98	4.0	0	0	0	0-0	38.6	17.5		

DUP		Sample ID: 14051070-03BDUP				Units: none		Analysis Date: 5/24/2014		
Client ID: Northwest Wall		Run ID: SAR_140524A				SeqNo: 2781700		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.494	0.010	0	0	0		1.435	4.07	50	

The following samples were analyzed in this batch:

14051070-01B	14051070-02B	14051070-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

QC Page: 6 of 15

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBKLS1-58883-58883				Units: µg/Kg		Analysis Date: 5/22/2014 03:01 PM		
Client ID:		Run ID: SVMS8_140522A				SeqNo: 2777803		Prep Date: 5/21/2014		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>	1139	0	1667	0	68.4	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1586	0	1667	0	95.2	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1214	0	1667	0	72.9	37-107	0			

LCS		Sample ID: SLCSS1-58883-58883				Units: µg/Kg		Analysis Date: 5/22/2014 03:21 PM		
Client ID:		Run ID: SVMS8_140522A				SeqNo: 2777804		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	496.7	6.7	666.7	0	74.5	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	550.3	6.7	666.7	0	82.5	55-105	0			
Benzo(a)anthracene	574.3	6.7	666.7	0	86.1	50-110	0			
Benzo(a)pyrene	594.7	6.7	666.7	0	89.2	50-110	0			
Benzo(b)fluoranthene	606.7	6.7	666.7	0	91	45-115	0			
Benzo(g,h,i)perylene	546.7	6.7	666.7	0	82	40-125	0			
Benzo(k)fluoranthene	607.7	6.7	666.7	0	91.1	45-115	0			
Chrysene	579	6.7	666.7	0	86.8	55-110	0			
Dibenzo(a,h)anthracene	558	6.7	666.7	0	83.7	40-125	0			
Fluoranthene	563.3	6.7	666.7	0	84.5	55-115	0			
Fluorene	506	6.7	666.7	0	75.9	50-110	0			
Indeno(1,2,3-cd)pyrene	549.7	6.7	666.7	0	82.4	40-120	0			
Naphthalene	455.3	6.7	666.7	0	68.3	40-105	0			
Pyrene	593.3	6.7	666.7	0	89	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1138	0	1667	0	68.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1646	0	1667	0	98.8	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1277	0	1667	0	76.6	37-107	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 14051070-03A MS			Units: µg/Kg		Analysis Date: 5/22/2014 04:51 PM	
Client ID: Northwest Wall				Run ID: SVMS8_140522A			SeqNo: 2777807		Prep Date: 5/21/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	939.5	13	1280	0	73.4	45-110	0			
Acenaphthylene	969.6	13	1280	0	75.7	45-105	0			
Anthracene	1071	13	1280	4.625	83.3	55-105	0			
Benzo(a)anthracene	1060	13	1280	0	82.8	50-110	0			
Benzo(a)pyrene	1100	13	1280	0	85.9	50-110	0			
Benzo(b)fluoranthene	1082	13	1280	0	84.5	45-115	0			
Benzo(g,h,i)perylene	1020	13	1280	0	79.6	40-125	0			
Benzo(k)fluoranthene	1095	13	1280	0	85.5	45-115	0			
Chrysene	1037	13	1280	0	81	55-110	0			
Dibenzo(a,h)anthracene	1007	13	1280	0	78.6	40-125	0			
Fluoranthene	1064	13	1280	0	83.1	55-115	0			
Fluorene	1011	13	1280	15.86	77.7	50-110	0			
Indeno(1,2,3-cd)pyrene	997.1	13	1280	0	77.9	40-120	0			
Naphthalene	950.4	13	1280	52.52	70.1	40-105	0			
Pyrene	1077	13	1280	0	84.1	45-125	0			
Surr: 2-Fluorobiphenyl	2230	0	3200	0	69.7	12-100	0			
Surr: 4-Terphenyl-d14	2919	0	3200	0	91.2	25-137	0			
Surr: Nitrobenzene-d5	2524	0	3200	0	78.9	37-107	0			

MSD				Sample ID: 14051070-03A MSD			Units: µg/Kg		Analysis Date: 5/22/2014 05:11 PM	
Client ID: Northwest Wall				Run ID: SVMS8_140522A			SeqNo: 2777808		Prep Date: 5/21/2014	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	869	13	1311	0	66.3	45-110	939.5	7.8	30	
Acenaphthylene	879.5	13	1311	0	67.1	45-105	969.6	9.75	30	
Anthracene	1040	13	1311	4.625	79	55-105	1071	2.91	30	
Benzo(a)anthracene	1035	13	1311	0	79	50-110	1060	2.39	30	
Benzo(a)pyrene	1073	13	1311	0	81.8	50-110	1100	2.46	30	
Benzo(b)fluoranthene	1073	13	1311	0	81.8	45-115	1082	0.816	30	
Benzo(g,h,i)perylene	964.7	13	1311	0	73.6	40-125	1020	5.53	30	
Benzo(k)fluoranthene	1037	13	1311	0	79.1	45-115	1095	5.4	30	
Chrysene	1000	13	1311	0	76.3	55-110	1037	3.61	30	
Dibenzo(a,h)anthracene	954.2	13	1311	0	72.8	40-125	1007	5.36	30	
Fluoranthene	1033	13	1311	0	78.8	55-115	1064	2.88	30	
Fluorene	937.2	13	1311	15.86	70.3	50-110	1011	7.54	30	
Indeno(1,2,3-cd)pyrene	1002	13	1311	0	76.4	40-120	997.1	0.491	30	
Naphthalene	838.8	13	1311	52.52	60	40-105	950.4	12.5	30	
Pyrene	1037	13	1311	0	79.1	45-125	1077	3.75	30	
Surr: 2-Fluorobiphenyl	1971	0	3277	0	60.1	12-100	2230	12.3	40	
Surr: 4-Terphenyl-d14	2826	0	3277	0	86.2	25-137	2919	3.24	40	
Surr: Nitrobenzene-d5	2190	0	3277	0	66.8	37-107	2524	14.2	40	

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58883** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58868** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-58868-58868				Units: µg/Kg			Analysis Date: 5/21/2014 01:17 PM		
Client ID:			Run ID: VMS8_140521A				SeqNo: 2774919			Prep Date: 5/21/2014		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	964.5	0	1000	0	96.4	70-130		0					
Surr: 4-Bromofluorobenzene	977.5	0	1000	0	97.8	70-130		0					
Surr: Dibromofluoromethane	955.5	0	1000	0	95.6	70-130		0					
Surr: Toluene-d8	987.5	0	1000	0	98.8	70-130		0					

LCS				Sample ID: LCS-58868-58868			Units: µg/Kg		Analysis Date: 5/21/2014 10:47 AM		
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774914		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	961.5	30	1000	0	96.2	75-125	0				
Ethylbenzene	948	30	1000	0	94.8	75-125	0				
m,p-Xylene	1896	60	2000	0	94.8	80-125	0				
o-Xylene	961	30	1000	0	96.1	75-125	0				
Toluene	940.5	30	1000	0	94	70-125	0				
Xylenes, Total	2857	90	3000	0	95.2	75-125	0				
Surr: 1,2-Dichloroethane-d4	957	0	1000	0	95.7	70-130	0				
Surr: 4-Bromofluorobenzene	988.5	0	1000	0	98.8	70-130	0				
Surr: Dibromofluoromethane	981.5	0	1000	0	98.2	70-130	0				
Surr: Toluene-d8	981	0	1000	0	98.1	70-130	0				

MS					Sample ID: 14051022-01A MS		Units: µg/Kg		Analysis Date: 5/21/2014 07:04 PM		
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774923		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	948	30	1000		0	94.8	75-125		0		
Ethylbenzene	938	30	1000		0	93.8	75-125		0		
m,p-Xylene	1894	60	2000		0	94.7	80-125		0		
o-Xylene	949	30	1000		0	94.9	75-125		0		
Toluene	927	30	1000		0	92.7	70-125		0		
Xylenes, Total	2843	90	3000		0	94.8	75-125		0		
Surr: 1,2-Dichloroethane-d4	941.5	0	1000		0	94.2	70-130		0		
Surr: 4-Bromofluorobenzene	982.5	0	1000		0	98.2	70-130		0		
Surr: Dibromofluoromethane	979	0	1000		0	97.9	70-130		0		
Surr: Toluene-d8	970	0	1000		0	97	70-130		0		

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58868** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 14051022-01A MSD				Units: µg/Kg		Analysis Date: 5/21/2014 07:29 PM	
Client ID:			Run ID: VMS8_140521A			SeqNo: 2774928		Prep Date: 5/21/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	930.5	30	1000	0	93	75-125	948	1.86	30		
Ethylbenzene	954	30	1000	0	95.4	75-125	938	1.69	30		
m,p-Xylene	1896	60	2000	0	94.8	80-125	1894	0.132	30		
o-Xylene	959.5	30	1000	0	96	75-125	949	1.1	30		
Toluene	922.5	30	1000	0	92.2	70-125	927	0.487	30		
Xylenes, Total	2856	90	3000	0	95.2	75-125	2843	0.456	30		
Surr: 1,2-Dichloroethane-d4	956.5	0	1000	0	95.6	70-130	941.5	1.58	30		
Surr: 4-Bromofluorobenzene	997.5	0	1000	0	99.8	70-130	982.5	1.52	30		
Surr: Dibromofluoromethane	988	0	1000	0	98.8	70-130	979	0.915	30		
Surr: Toluene-d8	977	0	1000	0	97.7	70-130	970	0.719	30		

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58931** Instrument ID **WETCHEM** Method: **SW9045D**

LCS				Sample ID: LCS-58931-58931				Units: s.u.			Analysis Date: 5/22/2014 04:42 PM			
Client ID:				Run ID: WETCHEM_140522P				SeqNo: 2776037			Prep Date: 5/22/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH 3.99 0 4 0 99.8 90-110 0

DUP		Sample ID: 1405981-01B DUP					Units: s.u.		Analysis Date: 5/22/2014 04:42 PM		
Client ID:		Run ID: WETCHEM_140522P			SeqNo: 2776053		Prep Date: 5/22/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.33 0 0 0 0 0-0 8.27 0.723 20

DUP				Sample ID: 14051098-01C DUP				Units: s.u.			Analysis Date: 5/22/2014 04:42 PM			
Client ID:				Run ID: WETCHEM_140522P				SeqNo: 2776063			Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

pH 7.99 0 0 0 0 0-0 7.9 1.13 20 H

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58938** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14051070-03B DUP				Units: mmhos/cm @25°C		Analysis Date: 5/27/2014 07:00 AM		
Client ID: Northwest Wall		Run ID: WETCHEM_140527A				SeqNo: 2779739		Prep Date: 5/23/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.479	0.050	0	0	0		0.46	4.05	50	

The following samples were analyzed in this batch:

14051070-01B	14051070-02B	14051070-03B
--------------	--------------	--------------

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58944** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-58944-58944				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140522S				SeqNo: 2776285		Prep Date: 5/21/2014		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-58944-58944				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140522S				SeqNo: 2776284		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.856 0.50 2 0 92.8 80-120 0

MS		Sample ID: 14051070-02A MS				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776280		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.3 0.50 2 0.1294 58.5 75-125 0 S

MS		Sample ID: 14051070-02A MSI				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776282		Prep Date: 5/21/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1404 50 1603 0.1294 87.6 75-125 0

MSD		Sample ID: 14051070-02A MSD				Units: mg/Kg		Analysis Date: 5/22/2014 04:00 PM		
Client ID: Southeast Wall		Run ID: WETCHEM_140522S				SeqNo: 2776281		Prep Date: 5/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.036 0.50 1.984 0.1294 45.7 75-125 1.3 22.6 20 SR

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051070
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **R141230** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141230				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID:		Run ID: MOIST_140521A				SeqNo: 2774510		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-R141230				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID:		Run ID: MOIST_140521A				SeqNo: 2774509		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14051070-01A DUP				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID: Pot Hole #2		Run ID: MOIST_140521A				SeqNo: 2774500		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 8.67 0.050 0 0 0 0-0 8.81 1.6 20

DUP		Sample ID: 14051070-02A DUP				Units: % of sample		Analysis Date: 5/21/2014 07:34 PM		
Client ID: Southeast Wall		Run ID: MOIST_140521A				SeqNo: 2774502		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.66 0.050 0 0 0 0-0 7.27 5.22 20

The following samples were analyzed in this batch:

14051070-01A	14051070-02A	14051070-03A
--------------	--------------	--------------

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

Revision: 1



WORKORDER 14051070

Form 2020

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Reg. W. 10</i>	Reg. W. 10	6/24/14	4:45
RECEIVED BY	<i>N.M.</i>	N.M.	5/20/14	4:45
RELINQUISHED BY	<i>N.M.</i>	N.M.	5/20/14	4:50
RECEIVED BY	<i>D. E. Shaw</i>	Diane E. Shaw	5/21/14	1000
RELINQUISHED BY				
RECEIVED BY				

Chad Whelton

From: Mark Mumby <mmumby@hrlcomp.com>
Sent: Wednesday, May 28, 2014 6:58 PM
To: Chad Whelton
Cc: Blaney, Karolina (Karolina.Blaney@wpxenergy.com); Reed Wold; Ann Preston
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,

We are going to make some nomenclature names to this report as follows

1. The south wall needs renamed to the southeast wall
2. The north wall needs renamed to the northwest wall

We'll need to change one other as well I'll get that to you.

Mark E. Mumby, RPG
HRL Compliance Solutions, Inc.
2385 F ½ Road
Grand Junction, CO 81505
970-243-3271 office
970-260-1576 cell
970-243-3280 fax
mmumby@hrlcomp.com

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From: Chad Whelton [<mailto:Chad.Whelton@ALSGlobal.com>]
Sent: Tuesday, May 27, 2014 5:15 PM
To: Mark Mumby
Cc: Karolina.blaney@wpxenergy.com; Reed Wold
Subject: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Mark,

Results of the analyses for the above work order/project are attached. The project invoice is also attached. Hardcopies will not follow unless specifically requested.

Please contact us if we can be of any further assistance.

Thank you,

Chad

ANNOUNCEMENT: In order to better serve you, improvements to Webtrieve™ are coming soon!
Contact your Project Manager or Sales Representative for more information.

Take our short online customer [survey](#) for a chance to win a FREE iPad!

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-May-14 10:00**

Work Order: **14051070**

Received by: **DS**

Checklist completed by Diane Shaw 21-May-14
eSignature Date

Reviewed by: Ann Preston 21-May-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/21/2014 1:31:01 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:

Revision: 1

From: (810) 389-0070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 48424

Origin ID: GRRR

FedEx



Ship Date: 20MAY14
 Arrival: 04:15
 CAD: 2264849NET3400

Dim: 24 X 18 X 15 IN

SHIP TO: (810) 389-0070
 Sample Receiving
 ALS Laboratory Group
 3352 128TH AVE

HOLLAND, MI 48424

BILL NUMBER

Delivery Address Bar Code



Ref # 002014-2
 Invoice #
 PO # Parachute
 Dept #

WED - 21 MAY 10:30A
 PRIORITY OVERNIGHT

TMS# 7700 4513 8372

68 GRRR

49424
 MI-128
 GRR



K220 102007 220

After printing this label:

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ALS Parachute Custody Seal

Time 1700 Date 5-20

Name N. M.

69E



29-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.20.14**

Work Order: **14051124**

Dear Mark,

Revision: **1**

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

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

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

The total number of pages in this report is 24.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051124

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>
14051124-01	Northeast Wall	Soil		5/20/2014 11:50	5/22/2014 10:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Work Order: 14051124

Case Narrative

Batch 58945 sample 14051124-01 MS and MSD recovery was below the control limits for Hexavalent Chromium. The corresponding result in the parent sample may be biased low.

Batch 58934 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

The sample ID was changed to Northeast Wall at the client's request on 5/29/14.

<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: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northeast Wall
Collection Date: 5/20/2014 11:50 AM

Work Order: 14051124
Lab ID: 14051124-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 5/22/14	Analyst: IT
DRO (C10-C28)	ND		4.5	mg/Kg-dry	1	5/22/2014 10:13 PM
Surr: 4-Terphenyl-d14	82.8		39-133	%REC	1	5/22/2014 10:13 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 5/22/14	Analyst: IT
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	5/22/2014 09:08 PM
Surr: Toluene-d8	115		50-150	%REC	1	5/22/2014 09:08 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 5/23/14	Analyst: LR
Mercury	0.015		0.014	mg/Kg-dry	1	5/23/2014 04:46 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B / 5/22/14	Analyst: ML
Arsenic	2.4		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Barium	130		3.7	mg/Kg-dry	5	5/24/2014 03:46 AM
Cadmium	1.9		0.74	mg/Kg-dry	5	5/24/2014 03:46 AM
Chromium	7.9		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Copper	5.8		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Lead	47		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Nickel	8.2		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Selenium	ND		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Silver	ND		1.8	mg/Kg-dry	5	5/24/2014 03:46 AM
Zinc	160		3.7	mg/Kg-dry	5	5/26/2014 09:36 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Calcium	300		10	mg/L	20	5/28/2014 01:31 AM
Magnesium	75		4.0	mg/L	20	5/28/2014 01:31 AM
Sodium	610		4.0	mg/L	20	5/28/2014 01:31 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/27/14	Analyst: RH
Sodium Adsorption Ratio	8.1		0.010	none	1	5/27/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/22/14	Analyst: RM
Acenaphthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Acenaphthylene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(a)anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(a)pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(b)fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(g,h,i)perylene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Benzo(k)fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Chrysene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM

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

Revision: 1

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.20.14
Sample ID: Northeast Wall
Collection Date: 5/20/2014 11:50 AM

Work Order: 14051124
Lab ID: 14051124-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Fluoranthene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Fluorene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Indeno(1,2,3-cd)pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Naphthalene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Pyrene	ND		7.2	µg/Kg-dry	1	5/23/2014 02:43 PM
Surr: 2-Fluorobiphenyl	67.4		12-100	%REC	1	5/23/2014 02:43 PM
Surr: 4-Terphenyl-d14	90.1		25-137	%REC	1	5/23/2014 02:43 PM
Surr: Nitrobenzene-d5	71.2		37-107	%REC	1	5/23/2014 02:43 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/22/14		Analyst: BG
Benzene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Ethylbenzene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
m,p-Xylene	ND		65	µg/Kg-dry	1	5/22/2014 09:04 PM
o-Xylene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Toluene	ND		32	µg/Kg-dry	1	5/22/2014 09:04 PM
Xylenes, Total	ND		97	µg/Kg-dry	1	5/22/2014 09:04 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/22/2014 09:04 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/22/2014 09:04 PM
Surr: Dibromofluoromethane	92.2		70-130	%REC	1	5/22/2014 09:04 PM
Surr: Toluene-d8	101		70-130	%REC	1	5/22/2014 09:04 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/27/14		Analyst: JB
Electrical Conductivity @ Saturation	5.8		0.050	mmhos/cm @25	10	5/28/2014 12:15 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.5		0.54	mg/Kg-dry	1	5/27/2014 08:01 AM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/23/14		Analyst: JI
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/23/2014 12:00 PM
MOISTURE			A2540 G			Analyst: AT
Moisture	7.7		0.050	% of sample	1	5/22/2014 04:52 PM
PH			SW9045D	Prep: EXTRACT / 5/23/14		Analyst: AT
pH	8.0			s.u.	1	5/23/2014 03:00 PM

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58908** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-58908-58908				Units: mg/Kg		Analysis Date: 5/22/2014 05:43 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779846		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.701	0	1.667	0	102	39-133	0			

LCS		Sample ID: DLCSS1-58908-58908				Units: mg/Kg		Analysis Date: 5/22/2014 06:13 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779847		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	142.9	4.2	166.7	0	85.7	61-109	0			
Surr: 4-Terphenyl-d14	1.506	0	1.667	0	90.4	39-133	0			

MS		Sample ID: 14051082-05B MS				Units: mg/Kg		Analysis Date: 5/22/2014 06:43 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779848		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	315.3	8.2	327.7	43.37	83	48-110	0			
Surr: 4-Terphenyl-d14	3.322	0	3.277	0	101	39-133	0			

MSD		Sample ID: 14051082-05B MSD				Units: mg/Kg		Analysis Date: 5/22/2014 07:13 PM		
Client ID:		Run ID: GC8_140522A				SeqNo: 2779849		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.2	8.0	319	43.37	80.5	48-110	315.3	4.9	30	
Surr: 4-Terphenyl-d14	3.024	0	3.19	0	94.8	39-133	3.322	9.4	30	

The following samples were analyzed in this batch:

14051124-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

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

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

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

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

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

The following samples were analyzed in this batch:

14051124-01A

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58933** Instrument ID **HG1** Method: **SW7471**

MBLK				Sample ID: MBLK-58933-58933				Units: mg/Kg			Analysis Date: 5/23/2014 04:10 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778080			Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.002083	0.020								J				

LCS				Sample ID: LCS-58933-58933				Units: mg/Kg			Analysis Date: 5/23/2014 04:12 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778081			Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
Mercury	0.169	0.020	0.1665	0	102	80-120	0							

MS				Sample ID: 14051098-01CMS				Units: mg/Kg			Analysis Date: 5/23/2014 04:17 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778083			Prep Date: 5/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.156	0.015	0.1265	0.0214	106	75-125	0						

MSD				Sample ID: 14051098-01CMSD				Units: mg/Kg			Analysis Date: 5/23/2014 04:19 PM			
Client ID:				Run ID: HG1_140523A				SeqNo: 2778084			Prep Date: 5/23/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Mercury		0.1499	0.015	0.1229	0.0214	105	75-125	0.156	3.97	35				

The following samples were analyzed in this batch:

14051124-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:01 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778963		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	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	0.02773	0.50								J

MBLK		Sample ID: MBLK-58934-58934				Units: mg/Kg		Analysis Date: 5/25/2014 12:08 AM		
Client ID:		Run ID: ICPMS1_140524A				SeqNo: 2779617		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.1674	0.25								J

LCS		Sample ID: LCS-58934-58934				Units: mg/Kg		Analysis Date: 5/24/2014 01:08 AM		
Client ID:		Run ID: ICPMS1_140523A				SeqNo: 2778964		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.298	0.25	5	0	86	80-120	0			
Barium	5.05	0.25	5	0	101	80-120	0			B
Cadmium	4.58	0.10	5	0	91.6	80-120	0			
Chromium	5.04	0.25	5	0	101	80-120	0			
Copper	5.045	0.25	5	0	101	80-120	0			
Lead	4.854	0.25	5	0	97.1	80-120	0			
Nickel	5.05	0.25	5	0	101	80-120	0			
Selenium	4.074	0.25	5	0	81.5	80-120	0			
Silver	4.996	0.25	5	0	99.9	80-120	0			
Zinc	4.15	0.50	5	0	83	80-120	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

MS				Sample ID: 14051131-01AMS			Units: mg/Kg		Analysis Date: 5/24/2014 04:17 AM		
Client ID:			Run ID: ICPMS1_140523A			SeqNo: 2778992		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	11.67	1.8	7.112	5.756	83.2	75-125	0				
Barium	362.4	1.8	7.112	410.3	-673	75-125	0			BSO	
Cadmium	7.429	0.71	7.112	0.8057	93.1	75-125	0				
Chromium	19.16	1.8	7.112	10.6	120	75-125	0				
Copper	19.84	1.8	7.112	13.8	85	75-125	0				
Lead	28.97	1.8	7.112	23.21	80.9	75-125	0				
Nickel	17.65	1.8	7.112	11.21	90.6	75-125	0				
Selenium	8.08	1.8	7.112	1.994	85.6	75-125	0				
Silver	6.476	1.8	7.112	0.06483	90.1	75-125	0				

MS				Sample ID: 14051131-01AMS				Units: mg/Kg			Analysis Date: 5/26/2014 09:54 PM			
Client ID:				Run ID: ICPMS1_140526A				SeqNo: 2781092			Prep Date: 5/22/2014		DF: 5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Zinc		78.38	3.6	7.112	77.28	15.5	75-125	0			SO			

MSD				Sample ID: 14051131-01AMSD			Units: mg/Kg		Analysis Date: 5/24/2014 04:23 AM		
Client ID:			Run ID: ICPMS1_140523A			SeqNo: 2778993		Prep Date: 5/22/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	13.14	1.8	7.174	5.756	103	75-125	11.67	11.8	25		
Barium	373	1.8	7.174	410.3	-519	75-125	362.4	2.9	25	BSO	
Cadmium	7.837	0.72	7.174	0.8057	98	75-125	7.429	5.35	25		
Chromium	20.22	1.8	7.174	10.6	134	75-125	19.16	5.37	25	S	
Copper	20.45	1.8	7.174	13.8	92.7	75-125	19.84	3	25		
Lead	30.62	1.8	7.174	23.21	103	75-125	28.97	5.54	25		
Nickel	18.63	1.8	7.174	11.21	104	75-125	17.65	5.42	25		
Selenium	9.024	1.8	7.174	1.994	98	75-125	8.08	11	25		
Silver	6.775	1.8	7.174	0.06483	93.5	75-125	6.476	4.52	25		

MSD		Sample ID: 14051131-01AMSD					Units: mg/Kg		Analysis Date: 5/26/2014 11:37 PM		
Client ID:		Run ID: ICPMS1_140526A			SeqNo: 2781108		Prep Date: 5/22/2014		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Zinc	85.08	3.6	7.174	77.28	109	75-125	78.38	8.2	25	O	

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 5 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051131-03BDUP				Units: mg/L		Analysis Date: 5/28/2014 02:01 AM		
Client ID:		Run ID: ICPMS2_140527A				SeqNo: 2782400		Prep Date: 5/27/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	44.9	10	0	0	0	0-0	46.9	4.36		
Magnesium	11.67	4.0	0	0	0	0-0	12.4	6.02		
Sodium	47.98	4.0	0	0	0	0-0	57.48	18		

DUP		Sample ID: 14051131-03BDUP				Units: none		Analysis Date: 5/27/2014		
Client ID:		Run ID: SAR_140527A				SeqNo: 2782921		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	1.65	0.010	0	0	0		1.929	15.6	50	

The following samples were analyzed in this batch:

14051124-01C

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

MBLK		Sample ID: SBLKS1-58907-58907				Units: µg/Kg		Analysis Date: 5/23/2014 10:33 AM		
Client ID:		Run ID: SVMS7_140523A				SeqNo: 2781301		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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>	1148	0	1667	0	68.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1776	0	1667	0	107	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1221	0	1667	0	73.3	37-107	0			

LCS		Sample ID: SLCSS1-58907-58907				Units: µg/Kg		Analysis Date: 5/23/2014 10:12 AM		
Client ID:		Run ID: SVMS7_140523A				SeqNo: 2781300		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	538.7	6.7	666.7	0	80.8	45-110	0			
Acenaphthylene	490.7	6.7	666.7	0	73.6	45-105	0			
Anthracene	551.7	6.7	666.7	0	82.7	55-105	0			
Benzo(a)anthracene	606.7	6.7	666.7	0	91	50-110	0			
Benzo(a)pyrene	584.7	6.7	666.7	0	87.7	50-110	0			
Benzo(b)fluoranthene	627.7	6.7	666.7	0	94.1	45-115	0			
Benzo(g,h,i)perylene	629.3	6.7	666.7	0	94.4	40-125	0			
Benzo(k)fluoranthene	631	6.7	666.7	0	94.6	45-115	0			
Chrysene	601	6.7	666.7	0	90.1	55-110	0			
Dibenzo(a,h)anthracene	544	6.7	666.7	0	81.6	40-125	0			
Fluoranthene	585.3	6.7	666.7	0	87.8	55-115	0			
Fluorene	476.7	6.7	666.7	0	71.5	50-110	0			
Indeno(1,2,3-cd)pyrene	520.3	6.7	666.7	0	78	40-120	0			
Naphthalene	467	6.7	666.7	0	70	40-105	0			
Pyrene	651.3	6.7	666.7	0	97.7	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1168	0	1667	0	70.1	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	2038	0	1667	0	122	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1358	0	1667	0	81.5	37-107	0			

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

MS				Sample ID: 14051098-01C MS			Units: µg/Kg		Analysis Date: 5/23/2014 11:21 AM	
Client ID:		Run ID: SVMS8_140523A			SeqNo: 2781506		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1062	13	1284	0	82.7	45-110	0			
Acenaphthylene	1042	13	1284	0	81.2	45-105	0			
Anthracene	1146	13	1284	3.552	89	55-105	0			
Benzo(a)anthracene	1201	13	1284	12.59	92.6	50-110	0			
Benzo(a)pyrene	1240	13	1284	11.62	95.6	50-110	0			
Benzo(b)fluoranthene	1157	13	1284	13.56	89.1	45-115	0			
Benzo(g,h,i)perylene	1277	13	1284	22.28	97.8	40-125	0			
Benzo(k)fluoranthene	1142	13	1284	0	88.9	45-115	0			
Chrysene	1166	13	1284	26.8	88.8	55-110	0			
Dibenzo(a,h)anthracene	1206	13	1284	4.197	93.6	40-125	0			
Fluoranthene	1081	13	1284	17.44	82.8	55-115	0			
Fluorene	1063	13	1284	0	82.8	50-110	0			
Indeno(1,2,3-cd)pyrene	1317	13	1284	8.718	102	40-120	0			
Naphthalene	894.9	13	1284	0	69.7	40-105	0			
Pyrene	1297	13	1284	30.03	98.7	45-125	0			
Surr: 2-Fluorobiphenyl	2360	0	3210	0	73.5	12-100	0			
Surr: 4-Terphenyl-d14	3456	0	3210	0	108	25-137	0			
Surr: Nitrobenzene-d5	2441	0	3210	0	76	37-107	0			

MSD				Sample ID: 14051098-01C MSD			Units: µg/Kg		Analysis Date: 5/23/2014 11:41 AM	
Client ID:		Run ID: SVMS8_140523A			SeqNo: 2781507		Prep Date: 5/22/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1020	13	1305	0	78.1	45-110	1062	3.99	30	
Acenaphthylene	1001	13	1305	0	76.7	45-105	1042	4.04	30	
Anthracene	1177	13	1305	3.552	89.9	55-105	1146	2.61	30	
Benzo(a)anthracene	1242	13	1305	12.59	94.2	50-110	1201	3.36	30	
Benzo(a)pyrene	1271	13	1305	11.62	96.5	50-110	1240	2.49	30	
Benzo(b)fluoranthene	1189	13	1305	13.56	90.1	45-115	1157	2.71	30	
Benzo(g,h,i)perylene	1311	13	1305	22.28	98.7	40-125	1277	2.61	30	
Benzo(k)fluoranthene	1176	13	1305	0	90	45-115	1142	2.89	30	
Chrysene	1191	13	1305	26.8	89.1	55-110	1166	2.05	30	
Dibenzo(a,h)anthracene	1261	13	1305	4.197	96.3	40-125	1206	4.5	30	
Fluoranthene	1055	13	1305	17.44	79.5	55-115	1081	2.4	30	
Fluorene	1066	13	1305	0	81.6	50-110	1063	0.265	30	
Indeno(1,2,3-cd)pyrene	1370	13	1305	8.718	104	40-120	1317	3.98	30	
Naphthalene	810	13	1305	0	62	40-105	894.9	9.95	30	
Pyrene	1450	13	1305	30.03	109	45-125	1297	11.2	30	
Surr: 2-Fluorobiphenyl	2190	0	3264	0	67.1	12-100	2360	7.44	40	
Surr: 4-Terphenyl-d14	4032	0	3264	0	124	25-137	3456	15.4	40	
Surr: Nitrobenzene-d5	2283	0	3264	0	70	37-107	2441	6.67	40	

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58907** Instrument ID **SVMS7** Method: **SW8270**

The following samples were analyzed in this batch:

14051124- 01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58904** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-58904-58904				Units: µg/Kg		Analysis Date: 5/22/2014 03:54 PM		
Client ID:		Run ID: VMS6_140522A				SeqNo: 2777015		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1048</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>995.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.6</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>929</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>92.9</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>992</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.2</i>	<i>70-130</i>	<i>0</i>			

LCS		Sample ID: LCS-58904-58904				Units: µg/Kg		Analysis Date: 5/22/2014 02:36 PM		
Client ID:		Run ID: VMS6_140522A				SeqNo: 2777014		Prep Date: 5/22/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1022	30	1000	0	102	75-125	0			
Ethylbenzene	1030	30	1000	0	103	75-125	0			
m,p-Xylene	2038	60	2000	0	102	80-125	0			
o-Xylene	1003	30	1000	0	100	75-125	0			
Toluene	992	30	1000	0	99.2	70-125	0			
Xylenes, Total	3041	90	3000	0	101	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1018</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>1016</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>1004</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

14051124-01A

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

Revision: 1

QC Page: 10 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

Dup	Sample ID: 14051131-03B DUP					Units: mmhos/cm @25°C		Analysis Date: 5/28/2014 12:15 PM		
Client ID:	Run ID: WETCHEM_140528B				SeqNo: 2782946		Prep Date: 5/27/2014		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	0.564	0.050	0	0	0		0.606	7.18	50	

The following samples were analyzed in this batch:

14051124-01C

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

Revision: 1

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58945** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-58945-58945				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID:		Run ID: WETCHEM_140523A				SeqNo: 2777166		Prep Date: 5/23/2014		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-58945-58945				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID:		Run ID: WETCHEM_140523A				SeqNo: 2777167		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.701 0.50 1.992 0 85.4 80-120 0

MS		Sample ID: 14051124-01BMS				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777174		Prep Date: 5/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.808 0.50 2 0.336 73.6 75-125 0 S

MS		Sample ID: 14051124-01BMSI				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777176		Prep Date: 5/23/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 882 50 1043 0.336 84.5 75-125 0

MSD		Sample ID: 14051124-01BMSD				Units: mg/Kg		Analysis Date: 5/23/2014 12:00 PM		
Client ID: Northeast Wall		Run ID: WETCHEM_140523A				SeqNo: 2777175		Prep Date: 5/23/2014		DF: 1
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 0.336 71 75-125 1.808 2.92 20 S

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 12 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **58981** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-58981-58981					Units: s.u.			Analysis Date: 5/23/2014 03:00 PM				
Client ID:					Run ID: WETCHEM_140523L					SeqNo: 2778211			Prep Date: 5/23/2014			DF: 1	
Analyte					Result	PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH					4	0	4	0	100		90-110	0					

DUP					Sample ID: 14051124-01B DUP			Units: s.u.		Analysis Date: 5/23/2014 03:00 PM		
Client ID: Northeast Wall				Run ID: WETCHEM_140523L			SeqNo: 2778213		Prep Date: 5/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
pH	8.03	0	0	0	0	0-0	7.95	1	20			

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 13 of 14

Client: HRL Compliance Solutions, Inc
Work Order: 14051124
Project: WPX GV 25-27 Historical Spill 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141309					Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:			Run ID: MOIST_140522C			SeqNo: 2776941		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-R141309					Units: % of sample		Analysis Date: 5/22/2014 04:52 PM		
Client ID:			Run ID: MOIST_140522C			SeqNo: 2776940		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: 14051122-03B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM			
Client ID:				Run ID: MOIST_140522C				SeqNo: 2776923			Prep Date:		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 2.23 0.050 0 0 0 0-0 2.21 0.901 20

DUP				Sample ID: 14051122-10B DUP				Units: % of sample			Analysis Date: 5/22/2014 04:52 PM			
Client ID:				Run ID: MOIST_140522C				SeqNo: 2776932			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051124-01B

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

Revision: 1

QC Page: 14 of 14

ALS Laboratory Group

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

Chain-of-Custody

Form 2024-8

WORKORDER

14051124

PAGE

1 of 1


DISPOSAL

By Lab or Return to Client

[illegible]

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

For metals or anions, please detail analytes below.

Comments: Please send prelim ASAP, for organics. 24°C 	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	<i>Ryan W. L.</i>	<i>Ryan W. L.</i>	5/21/14	4:00
RECEIVED BY	<i>W. M.</i>	<i>W. M.</i>	5/21/14	7:02
RELINQUISHED BY	<i>W. M.</i>	<i>W. M.</i>	5/21/14	4:00
RECEIVED BY	<i>Diane F. Shew</i>	<i>Diane F. Shew</i>	5/22/14	1000
RELINQUISHED BY				
RECEIVED BY				

Chad Whelton

From: Blaney, Karolina <Karolina.Blaney@wpxenergy.com>
Sent: Thursday, May 29, 2014 10:58 AM
To: Mark Mumby; Chad Whelton
Cc: Reed Wold; Ann Preston
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,
I added one more revision to Mark's list – see below.
I apologize for this confusion.
Thank you for your help,

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

From: Mark Mumby [<mailto:mmumby@hrlcomp.com>]
Sent: Wednesday, May 28, 2014 4:58 PM
To: Chad Whelton
Cc: Blaney, Karolina; Reed Wold; Ann Preston (Ann.Preston@ALSGlobal.com)
Subject: RE: 14051070 WPX GV 25-27 Historical Spill 5.20.14

Chad,

We are going to make some nomenclature names to this report as follows

1. The south wall needs renamed to the southeast wall
2. The north wall needs renamed to the northwest wall
3. The east wall needs renamed to northeast wall

We'll need to change one other as well I'll get that to you.

Mark E. Mumby, RPG
HRL Compliance Solutions, Inc.
2385 F ½ Road
Grand Junction, CO 81505
970-243-3271 office
970-260-1576 cell
970-243-3280 fax
mmumby@hrlcomp.com

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Sample Receipt Checklist

Client Name: **HRL**

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

Work Order: **14051124**

Received by: **DS**

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

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

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/22/2014 11:26:44 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:

Revision: 1

From: (616) 399-6070
Sample Receiving
ALS Laboratory Group
3352 128th Avenue

Origin ID: GRRR



Ship Date: 21MAY14
Act/Wgt: 72.0 LB
CAD: 2284440WNET3480

Dim: 24 X 15 X 15 IN

Holland, MI 49424

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

BILL RENDER

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 052114-2
Invoice #
PO # Parachute
Dept #

THU - 22 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 7700 5970 9173
8291

68 GRRR

49424
MI US
GRR



2201405017200

After printing this label:

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30-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.22.14**

Work Order: **14051288**

Dear Mark,

ALS Environmental received 5 samples on 24-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 32.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Work Order: 14051288

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>
14051288-01	PH7	Soil		5/22/2014 08:00	5/24/2014 10:30	<input type="checkbox"/>
14051288-02	PH4	Soil		5/22/2014 08:10	5/24/2014 10:30	<input type="checkbox"/>
14051288-03	PH5	Soil		5/22/2014 08:20	5/24/2014 10:30	<input type="checkbox"/>
14051288-04	PH8	Soil		5/22/2014 08:30	5/24/2014 10:30	<input type="checkbox"/>
14051288-05	PH9	Soil		5/22/2014 08:40	5/24/2014 10:30	<input type="checkbox"/>

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Work Order: 14051288

Case Narrative

Batch 59024 sample PH7 MS/MSD recoveries and RPC for Barium were outside of the control limits; however, the result in the parent sample was greater than 4x the spiked amount. No qualification is required for Barium.

<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: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH7
Collection Date: 5/22/2014 08:00 AM

Work Order: 14051288
Lab ID: 14051288-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	34		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	85.9		4.6	mg/Kg-dry	1	5/27/2014 11:40 PM
			39-133	%REC	1	5/27/2014 11:40 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	124		2.8	mg/Kg-dry	1	5/27/2014 05:08 PM
			50-150	%REC	1	5/27/2014 05:08 PM
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.016	mg/Kg-dry	1	5/28/2014 04:00 PM
METALS BY ICP-MS						
Arsenic	2.3		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	100		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Cadmium	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Chromium	7.2		0.74	mg/Kg-dry	5	5/28/2014 04:32 AM
Copper	4.9		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Lead	8.8		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Nickel	7.6		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Selenium	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Silver	ND		1.8	mg/Kg-dry	5	5/28/2014 04:32 AM
Zinc	32		3.7	mg/Kg-dry	5	5/28/2014 09:47 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	210		10	mg/L	20	5/29/2014 05:56 PM
Magnesium	60		4.0	mg/L	20	5/29/2014 05:56 PM
Sodium	320		4.0	mg/L	20	5/29/2014 05:56 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	5.0		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH7
Collection Date: 5/22/2014 08:00 AM

Work Order: 14051288
Lab ID: 14051288-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:14 PM
Surr: 2-Fluorobiphenyl	70.1		12-100	%REC	1	5/28/2014 02:14 PM
Surr: 4-Terphenyl-d14	86.2		25-137	%REC	1	5/28/2014 02:14 PM
Surr: Nitrobenzene-d5	73.7		37-107	%REC	1	5/28/2014 02:14 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	5/27/2014 05:16 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 05:16 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 05:16 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/27/2014 05:16 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 05:16 PM
Surr: Dibromofluoromethane	97.4		70-130	%REC	1	5/27/2014 05:16 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	5/27/2014 05:16 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	3.5		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.2		0.55	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.54	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	9.8		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH4
Collection Date: 5/22/2014 08:10 AM

Work Order: 14051288
Lab ID: 14051288-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	26		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	75.4		4.6	mg/Kg-dry	1	5/28/2014 05:09 AM
			39-133	%REC	1	5/28/2014 05:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	117		2.8	mg/Kg-dry	1	5/27/2014 05:32 PM
			50-150	%REC	1	5/27/2014 05:32 PM
MERCURY BY CVAA						
Mercury	0.024		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.016	mg/Kg-dry	1	5/28/2014 04:02 PM
METALS BY ICP-MS						
Arsenic	4.0		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	220		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Cadmium	2.0		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Chromium	9.3		0.80	mg/Kg-dry	5	5/28/2014 05:15 AM
Copper	8.7		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Lead	110		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Nickel	10		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Selenium	ND		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Silver	ND		2.0	mg/Kg-dry	5	5/28/2014 05:15 AM
Zinc	180		4.0	mg/Kg-dry	5	5/28/2014 10:11 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	94		10	mg/L	20	5/29/2014 06:02 PM
Magnesium	20		4.0	mg/L	20	5/29/2014 06:02 PM
Sodium	390		4.0	mg/L	20	5/29/2014 06:02 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	9.4		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH4
Collection Date: 5/22/2014 08:10 AM

Work Order: 14051288
Lab ID: 14051288-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 02:35 PM
Surr: 2-Fluorobiphenyl	57.2		12-100	%REC	1	5/28/2014 02:35 PM
Surr: 4-Terphenyl-d14	78.2		25-137	%REC	1	5/28/2014 02:35 PM
Surr: Nitrobenzene-d5	57.9		37-107	%REC	1	5/28/2014 02:35 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 05:41 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 05:41 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 05:41 PM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	5/27/2014 05:41 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 05:41 PM
Surr: Dibromofluoromethane	96.7		70-130	%REC	1	5/27/2014 05:41 PM
Surr: Toluene-d8	97.6		70-130	%REC	1	5/27/2014 05:41 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.3		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	10		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	9.0			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH5
Collection Date: 5/22/2014 08:20 AM

Work Order: 14051288
Lab ID: 14051288-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	37		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	96.1		9.0	mg/Kg-dry	1	5/28/2014 05:39 AM
			39-133	%REC	1	5/28/2014 05:39 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	118		2.8	mg/Kg-dry	1	5/27/2014 05:56 PM
			50-150	%REC	1	5/27/2014 05:56 PM
MERCURY BY CVAA						
Mercury	0.018		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.012	mg/Kg-dry	1	5/28/2014 04:05 PM
METALS BY ICP-MS						
Arsenic	3.8		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	820		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Cadmium	1.1		19	mg/Kg-dry	50	5/28/2014 10:17 PM
Chromium	7.5		0.77	mg/Kg-dry	5	5/28/2014 05:21 AM
Copper	6.1		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Lead	45		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Nickel	7.9		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:21 AM
Zinc	94		39	mg/Kg-dry	50	5/28/2014 10:17 PM
SOLUBLE CATIONS FOR SAR						
Calcium	180		SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Magnesium	38		10	mg/L	20	5/29/2014 06:14 PM
Sodium	250		4.0	mg/L	20	5/29/2014 06:14 PM
			4.0	mg/L	20	5/29/2014 06:14 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	4.5		USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
			0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
Acenaphthene	ND		SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthylene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(a)anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(a)pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(b)fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(g,h,i)perylene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Benzo(k)fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Chrysene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH5
Collection Date: 5/22/2014 08:20 AM

Work Order: 14051288
Lab ID: 14051288-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Fluoranthene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Fluorene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Indeno(1,2,3-cd)pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Naphthalene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Pyrene	ND		14	µg/Kg-dry	1	5/28/2014 02:55 PM
Surr: 2-Fluorobiphenyl	73.8		12-100	%REC	1	5/28/2014 02:55 PM
Surr: 4-Terphenyl-d14	101		25-137	%REC	1	5/28/2014 02:55 PM
Surr: Nitrobenzene-d5	76.4		37-107	%REC	1	5/28/2014 02:55 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 06:06 PM
o-Xylene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Toluene	ND		34	µg/Kg-dry	1	5/27/2014 06:06 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:06 PM
Surr: 1,2-Dichloroethane-d4	100		70-130	%REC	1	5/27/2014 06:06 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 06:06 PM
Surr: Dibromofluoromethane	95.0		70-130	%REC	1	5/27/2014 06:06 PM
Surr: Toluene-d8	99.4		70-130	%REC	1	5/27/2014 06:06 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	2.9		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.5		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	11		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH8
Collection Date: 5/22/2014 08:30 AM

Work Order: 14051288
Lab ID: 14051288-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	18		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	83.2		4.6	mg/Kg-dry	1	5/28/2014 06:09 AM
			39-133	%REC	1	5/28/2014 06:09 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	118		2.8	mg/Kg-dry	1	5/27/2014 06:23 PM
			50-150	%REC	1	5/27/2014 06:23 PM
MERCURY BY CVAA						
Mercury	ND		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.018	mg/Kg-dry	1	5/28/2014 04:07 PM
METALS BY ICP-MS						
Arsenic	4.0		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	330		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Cadmium	3.5		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Chromium	6.8		0.76	mg/Kg-dry	5	5/28/2014 05:27 AM
Copper	6.5		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Lead	52		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Nickel	8.2		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:27 AM
Zinc	95		3.8	mg/Kg-dry	5	5/28/2014 10:42 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	340		10	mg/L	20	5/29/2014 06:20 PM
Magnesium	84		4.0	mg/L	20	5/29/2014 06:20 PM
Sodium	610		4.0	mg/L	20	5/29/2014 06:20 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	7.6		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Acenaphthylene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(a)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(a)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(b)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(g,h,i)perylene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Benzo(k)fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Chrysene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH8
Collection Date: 5/22/2014 08:30 AM

Work Order: 14051288
Lab ID: 14051288-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Fluoranthene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Fluorene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Indeno(1,2,3-cd)pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Naphthalene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Pyrene	ND		7.3	µg/Kg-dry	1	5/28/2014 03:16 PM
Surr: 2-Fluorobiphenyl	65.9		12-100	%REC	1	5/28/2014 03:16 PM
Surr: 4-Terphenyl-d14	82.6		25-137	%REC	1	5/28/2014 03:16 PM
Surr: Nitrobenzene-d5	67.6		37-107	%REC	1	5/28/2014 03:16 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Ethylbenzene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
m,p-Xylene	ND		66	µg/Kg-dry	1	5/27/2014 06:30 PM
o-Xylene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Toluene	ND		33	µg/Kg-dry	1	5/27/2014 06:30 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:30 PM
Surr: 1,2-Dichloroethane-d4	99.4		70-130	%REC	1	5/27/2014 06:30 PM
Surr: 4-Bromofluorobenzene	99.2		70-130	%REC	1	5/27/2014 06:30 PM
Surr: Dibromofluoromethane	95.6		70-130	%REC	1	5/27/2014 06:30 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	5/27/2014 06:30 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	6.4		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	6.8		0.55	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	9.7		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	8.4			s.u.	1	5/27/2014 04:00 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH9
Collection Date: 5/22/2014 08:40 AM

Work Order: 14051288
Lab ID: 14051288-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	19		SW8015M		Prep: SW3541 / 5/27/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	99.3		4.7	mg/Kg-dry	1	5/28/2014 06:39 AM
			39-133	%REC	1	5/28/2014 06:39 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 5/27/14	Analyst: IT
<i>Surr: Toluene-d8</i>	119		2.8	mg/Kg-dry	1	5/27/2014 06:46 PM
			50-150	%REC	1	5/27/2014 06:46 PM
MERCURY BY CVAA						
Mercury	0.026		SW7471		Prep: SW7471 / 5/27/14	Analyst: LR
			0.014	mg/Kg-dry	1	5/28/2014 04:09 PM
METALS BY ICP-MS						
Arsenic	3.5		SW6020A		Prep: SW3050B / 5/27/14	Analyst: ML
Barium	650		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Cadmium	1.2		19	mg/Kg-dry	50	5/28/2014 10:48 PM
Chromium	9.1		0.77	mg/Kg-dry	5	5/28/2014 05:33 AM
Copper	7.3		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Lead	69		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Nickel	9.7		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Selenium	ND		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Silver	ND		1.9	mg/Kg-dry	5	5/28/2014 05:33 AM
Zinc	140		39	mg/Kg-dry	50	5/28/2014 10:48 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 5/29/14	Analyst: ML
Calcium	150		10	mg/L	20	5/29/2014 06:26 PM
Magnesium	31		4.0	mg/L	20	5/29/2014 06:26 PM
Sodium	380		4.0	mg/L	20	5/29/2014 06:26 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 5/29/14	Analyst: RH
Sodium Adsorption Ratio	7.3		0.010	none	1	5/29/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 5/27/14	Analyst: RM
Acenaphthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Chrysene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM

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

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.22.14
Sample ID: PH9
Collection Date: 5/22/2014 08:40 AM

Work Order: 14051288
Lab ID: 14051288-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Fluorene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Naphthalene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Pyrene	ND		7.5	µg/Kg-dry	1	5/28/2014 03:36 PM
Surr: 2-Fluorobiphenyl	73.2		12-100	%REC	1	5/28/2014 03:36 PM
Surr: 4-Terphenyl-d14	90.4		25-137	%REC	1	5/28/2014 03:36 PM
Surr: Nitrobenzene-d5	79.0		37-107	%REC	1	5/28/2014 03:36 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 5/27/14		Analyst: AK
Benzene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Ethylbenzene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
m,p-Xylene	ND		67	µg/Kg-dry	1	5/27/2014 06:55 PM
o-Xylene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Toluene	ND		34	µg/Kg-dry	1	5/27/2014 06:55 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	5/27/2014 06:55 PM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	1	5/27/2014 06:55 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	5/27/2014 06:55 PM
Surr: Dibromofluoromethane	96.9		70-130	%REC	1	5/27/2014 06:55 PM
Surr: Toluene-d8	98.2		70-130	%REC	1	5/27/2014 06:55 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 5/29/14		Analyst: JB
Electrical Conductivity @ Saturation	3.5		0.050	mmhos/cm @25	10	5/29/2014 04:10 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	9.1		0.56	mg/Kg-dry	1	5/28/2014 03:06 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 5/27/14		Analyst: JI
Chromium, Hexavalent	ND		0.55	mg/Kg-dry	1	5/27/2014 04:00 PM
MOISTURE			A2540 G			Analyst: ED
Moisture	11		0.050	% of sample	1	5/26/2014 03:30 PM
PH			SW9045D	Prep: EXTRACT / 5/27/14		Analyst: AT
pH	9.1			s.u.	1	5/27/2014 04:00 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

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

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

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

MS		Sample ID: 14051288-01B MS				Units: mg/Kg		Analysis Date: 5/27/2014 10:40 PM		
Client ID: PH7		Run ID: GC8_140527A				SeqNo: 2782276		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	300.8	8.0	319.8	30.4	84.5	48-110	0			
Surr: 4-Terphenyl-d14	3.026	0	3.198	0	94.6	39-133	0			

MSD		Sample ID: 14051288-01B MSD				Units: mg/Kg		Analysis Date: 5/27/2014 11:10 PM		
Client ID: PH7		Run ID: GC8_140527A				SeqNo: 2782277		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	265.6	7.9	314	30.4	74.9	48-110	300.8	12.4	30	
Surr: 4-Terphenyl-d14	2.707	0	3.14	0	86.2	39-133	3.026	11.1	30	

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59027** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-59027-59027				Units: µg/Kg		Analysis Date: 5/27/2014 04:19 PM		
Client ID:		Run ID: GC10_140527A				SeqNo: 2783424		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	6304	0	5000	0	126	50-150	0			

LCS		Sample ID: LCS-59027-59027				Units: µg/Kg		Analysis Date: 5/27/2014 02:32 PM		
Client ID:		Run ID: GC10_140527A				SeqNo: 2783422		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	451900	2,500	500000	0	90.4	70-130	0			
<i>Surr: Toluene-d8</i>	5562	0	5000	0	111	50-150	0			

MS		Sample ID: 14051314-01A MS				Units: µg/Kg		Analysis Date: 5/28/2014 12:48 PM		
Client ID:		Run ID: GC10_140527A				SeqNo: 2783447		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	456300	2,500	500000	0	91.3	70-130	0			
<i>Surr: Toluene-d8</i>	5710	0	5000	0	114	50-150	0			

MSD		Sample ID: 14051314-01A MSD				Units: µg/Kg		Analysis Date: 5/28/2014 01:12 AM		
Client ID:		Run ID: GC10_140527A				SeqNo: 2783444		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	461300	2,500	500000	0	92.3	70-130	456300	1.1	30	
<i>Surr: Toluene-d8</i>	5624	0	5000	0	112	50-150	5710	1.53	30	

The following samples were analyzed in this batch:

14051288-01A	14051288-02A	14051288-03A
14051288-04A	14051288-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59040** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59040-59040					Units: mg/Kg		Analysis Date: 5/27/2014 06:57 PM		
Client ID:			Run ID: HG1_140527A				SeqNo: 2782041		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.001167 0.020 J

LCS		Sample ID: LCS-59040-59040					Units: mg/Kg		Analysis Date: 5/27/2014 07:00 PM		
Client ID:			Run ID: HG1_140527A			SeqNo: 2782042		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1636 0.020 0.1665 0 98.2 80-120 0

MS		Sample ID: 14051306-02BMS					Units: mg/Kg		Analysis Date: 5/28/2014 04:42 PM		
Client ID:			Run ID: HG1_140528B			SeqNo: 2784058		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Mercury 0.1298 0.014 0.1173 0.008509 103 75-125 0

MSD		Sample ID: 14051306-02BMSD				Units: mg/Kg		Analysis Date: 5/28/2014 04:44 PM		
Client ID:		Run ID: HG1_140528B			SeqNo: 2784059		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.138 0.014 0.1196 0.008509 108 75-125 0.1298 6.13 35

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59024** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-59024-59024				Units: mg/Kg		Analysis Date: 5/28/2014 12:35 AM		
Client ID:		Run ID: ICPMS1_140527A				SeqNo: 2782793		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	0.0351	0.25								J
Cadmium	ND	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	0.1312	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	0.151	0.50								J

MBLK		Sample ID: MBLK-59024-59024				Units: mg/Kg		Analysis Date: 5/28/2014 07:09 PM		
Client ID:		Run ID: ICPMS1_140528A				SeqNo: 2784720		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.01554	0.25								J

LCS		Sample ID: LCS-59024-59024				Units: mg/Kg		Analysis Date: 5/28/2014 01:00 AM		
Client ID:		Run ID: ICPMS1_140527A				SeqNo: 2782797		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.425	0.25	5	0	88.5	80-120	0			
Barium	4.786	0.25	5	0	95.7	80-120	0			
Cadmium	4.548	0.10	5	0	91	80-120	0			
Chromium	5.025	0.25	5	0	100	80-120	0			
Copper	4.938	0.25	5	0	98.8	80-120	0			
Nickel	4.96	0.25	5	0	99.2	80-120	0			
Selenium	4.238	0.25	5	0	84.8	80-120	0			
Silver	4.814	0.25	5	0	96.3	80-120	0			
Zinc	4.182	0.50	5	0	83.6	80-120	0			

LCS		Sample ID: LCS-59024-59024				Units: mg/Kg		Analysis Date: 5/28/2014 07:15 PM		
Client ID:		Run ID: ICPMS1_140528A				SeqNo: 2784721		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	4.871	0.25	5	0	97.4	80-120	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59024** Instrument ID **ICPMS1** Method: **SW6020A**

MS				Sample ID: 14051288-01BMS			Units: mg/Kg		Analysis Date: 5/28/2014 04:57 AM		
Client ID: PH7			Run ID: ICPMS1_140527A			SeqNo: 2782833		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	8.191	1.7	6.614	2.05	92.9	75-125	0				
Barium	135.9	1.7	6.614	90.77	682	75-125	0			SO	
Cadmium	6.19	0.66	6.614	0.186	90.8	75-125	0				
Chromium	14.12	1.7	6.614	6.513	115	75-125	0				
Copper	10.29	1.7	6.614	4.39	89.3	75-125	0				
Lead	15.11	1.7	6.614	7.937	108	75-125	0				
Nickel	13.25	1.7	6.614	6.843	96.9	75-125	0				
Selenium	6.825	1.7	6.614	1.393	82.1	75-125	0				
Silver	5.757	1.7	6.614	0.03523	86.5	75-125	0				

MS				Sample ID: 14051288-01BMS				Units: mg/Kg			Analysis Date: 5/28/2014 09:53 PM			
Client ID: PH7				Run ID: ICPMS1_140528A				SeqNo: 2784782			Prep Date: 5/27/2014		DF: 5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Zinc		36.08	3.3	6.614	28.88	109	75-125	0			O			

MSD				Sample ID: 14051288-01BMSD			Units: mg/Kg		Analysis Date: 5/28/2014 05:03 AM		
Client ID: PH7			Run ID: ICPMS1_140527A			SeqNo: 2782834		Prep Date: 5/27/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	7.788	1.6	6.545	2.05	87.7	75-125	8.191	5.05	25	SRO	
Barium	92.57	1.6	6.545	90.77	27.6	75-125	135.9	37.9	25		
Cadmium	6.234	0.65	6.545	0.186	92.4	75-125	6.19	0.695	25		
Chromium	13.58	1.6	6.545	6.513	108	75-125	14.12	3.88	25		
Copper	9.915	1.6	6.545	4.39	84.4	75-125	10.29	3.75	25		
Lead	14.84	1.6	6.545	7.937	105	75-125	15.11	1.82	25		
Nickel	13.68	1.6	6.545	6.843	104	75-125	13.25	3.2	25		
Selenium	7.16	1.6	6.545	1.393	88.1	75-125	6.825	4.78	25		
Silver	5.825	1.6	6.545	0.03523	88.5	75-125	5.757	1.16	25		

MSD				Sample ID: 14051288-01BMSD				Units: mg/Kg			Analysis Date: 5/28/2014 09:59 PM			
Client ID: PH7				Run ID: ICPMS1_140528A				SeqNo: 2784783			Prep Date: 5/27/2014		DF: 5	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Zinc		36.75	3.3	6.545	28.88	120	75-125	36.08	1.84	25	O			

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59070** Instrument ID **ICPMS2** Method: **SW6020A**

DUP		Sample ID: 14051288-02CDUP				Units: mg/L		Analysis Date: 5/29/2014 06:08 PM		
Client ID: PH4		Run ID: ICPMS2_140529A				SeqNo: 2786230		Prep Date: 5/29/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	105.2	10	0	0	0	0-0	93.78	11.4		
Magnesium	23.08	4.0	0	0	0	0-0	20.48	11.9		
Sodium	415	4.0	0	0	0	0-0	386.2	7.19		

DUP		Sample ID: 14051288-02CDUP				Units: none		Analysis Date: 5/29/2014		
Client ID: PH4		Run ID: SAR_140529A				SeqNo: 2787076		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
Sodium Adsorption Ratio	9.549	0.010	0	0	0		9.417	1.4	50	

The following samples were analyzed in this batch:

14051288-01C	14051288-02C	14051288-03C
14051288-04C	14051288-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: SBLKS1-59014-59014				Units: µg/Kg		Analysis Date: 5/28/2014 10:42 AM		
Client ID:		Run ID: SVMS8_140528A				SeqNo: 2783941		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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>	1295	0	1667	0	77.7	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1727	0	1667	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1369	0	1667	0	82.2	37-107	0			

LCS		Sample ID: SLCSS1-59014-59014				Units: µg/Kg		Analysis Date: 5/28/2014 11:03 AM		
Client ID:		Run ID: SVMS8_140528A				SeqNo: 2783942		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	546.7	6.7	666.7	0	82	45-110	0			
Acenaphthylene	540.3	6.7	666.7	0	81	45-105	0			
Anthracene	597.3	6.7	666.7	0	89.6	55-105	0			
Benzo(a)anthracene	612	6.7	666.7	0	91.8	50-110	0			
Benzo(a)pyrene	650.3	6.7	666.7	0	97.5	50-110	0			
Benzo(b)fluoranthene	627	6.7	666.7	0	94	45-115	0			
Benzo(g,h,i)perylene	572	6.7	666.7	0	85.8	40-125	0			
Benzo(k)fluoranthene	611.3	6.7	666.7	0	91.7	45-115	0			
Chrysene	601.3	6.7	666.7	0	90.2	55-110	0			
Dibenzo(a,h)anthracene	581.3	6.7	666.7	0	87.2	40-125	0			
Fluoranthene	608.7	6.7	666.7	0	91.3	55-115	0			
Fluorene	540.7	6.7	666.7	0	81.1	50-110	0			
Indeno(1,2,3-cd)pyrene	617.3	6.7	666.7	0	92.6	40-120	0			
Naphthalene	514.7	6.7	666.7	0	77.2	40-105	0			
Pyrene	617.3	6.7	666.7	0	92.6	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1281	0	1667	0	76.8	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1701	0	1667	0	102	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1474	0	1667	0	88.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

MS				Sample ID: 14051221-01A MS			Units: µg/Kg		Analysis Date: 5/28/2014 12:53 PM		
Client ID:		Run ID: SVMS8_140528A			SeqNo: 2783945		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1062	13	1272	0	83.5	45-110	0				
Acenaphthylene	1050	13	1272	0	82.5	45-105	0				
Anthracene	1166	13	1272	0	91.7	55-105	0				
Benzo(a)anthracene	1219	13	1272	10.53	95.1	50-110	0				
Benzo(a)pyrene	1265	13	1272	9.218	98.7	50-110	0				
Benzo(b)fluoranthene	1192	13	1272	10.21	92.9	45-115	0				
Benzo(g,h,i)perylene	1214	13	1272	8.889	94.7	40-125	0				
Benzo(k)fluoranthene	1236	13	1272	4.938	96.8	45-115	0				
Chrysene	1187	13	1272	6.584	92.8	55-110	0				
Dibenzo(a,h)anthracene	1188	13	1272	0	93.4	40-125	0				
Fluoranthene	1169	13	1272	13.17	90.9	55-115	0				
Fluorene	1035	13	1272	0	81.4	50-110	0				
Indeno(1,2,3-cd)pyrene	1244	13	1272	8.889	97.1	40-120	0				
Naphthalene	977.2	13	1272	0	76.8	40-105	0				
Pyrene	1252	13	1272	12.84	97.4	45-125	0				
Surr: 2-Fluorobiphenyl	2482	0	3179	0	78.1	12-100	0				
Surr: 4-Terphenyl-d14	3399	0	3179	0	107	25-137	0				
Surr: Nitrobenzene-d5	2748	0	3179	0	86.4	37-107	0				

MSD				Sample ID: 14051221-01A MSD			Units: µg/Kg		Analysis Date: 5/28/2014 01:13 PM		
Client ID:			Run ID: SVMS8_140528A			SeqNo: 2783946		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1083	13	1295	0	83.6	45-110	1062	1.95	30		
Acenaphthylene	1070	13	1295	0	82.6	45-105	1050	1.96	30		
Anthracene	1164	13	1295	0	89.8	55-105	1166	0.203	30		
Benzo(a)anthracene	1228	13	1295	10.53	94	50-110	1219	0.681	30		
Benzo(a)pyrene	1278	13	1295	9.218	98	50-110	1265	1.08	30		
Benzo(b)fluoranthene	1231	13	1295	10.21	94.3	45-115	1192	3.27	30		
Benzo(g,h,i)perylene	1222	13	1295	8.889	93.7	40-125	1214	0.676	30		
Benzo(k)fluoranthene	1208	13	1295	4.938	92.9	45-115	1236	2.31	30		
Chrysene	1178	13	1295	6.584	90.4	55-110	1187	0.769	30		
Dibenzo(a,h)anthracene	1276	13	1295	0	98.5	40-125	1188	7.1	30		
Fluoranthene	1173	13	1295	13.17	89.5	55-115	1169	0.355	30		
Fluorene	1074	13	1295	0	82.9	50-110	1035	3.72	30		
Indeno(1,2,3-cd)pyrene	1260	13	1295	8.889	96.6	40-120	1244	1.27	30		
Naphthalene	986.9	13	1295	0	76.2	40-105	977.2	0.986	30		
Pyrene	1256	13	1295	12.84	96	45-125	1252	0.3	30		
Surr: 2-Fluorobiphenyl	2573	0	3238	0	79.5	12-100	2482	3.59	40		
Surr: 4-Terphenyl-d14	3422	0	3238	0	106	25-137	3399	0.688	40		
Surr: Nitrobenzene-d5	2831	0	3238	0	87.4	37-107	2748	2.99	40		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59026** Instrument ID **VMS6** Method: **SW8260B**

MBLK				Sample ID: MBLK-59026-59026			Units: µg/Kg		Analysis Date: 5/27/2014 12:57 PM		
Client ID:			Run ID: VMS6_140527A			SeqNo: 2781317		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
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	1054	0	1000	0	105	70-130		0			
Surr: 4-Bromofluorobenzene	989	0	1000	0	98.9	70-130		0			
Surr: Dibromofluoromethane	949	0	1000	0	94.9	70-130		0			
Surr: Toluene-d8	975.5	0	1000	0	97.6	70-130		0			

LCS				Sample ID: LCS-59026-59026			Units: µg/Kg		Analysis Date: 5/27/2014 11:39 AM		
Client ID:			Run ID: VMS6_140527A			SeqNo: 2781316		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1082	30	1000	0	108	75-125	0				
Ethylbenzene	1088	30	1000	0	109	75-125	0				
m,p-Xylene	2160	60	2000	0	108	80-125	0				
o-Xylene	1056	30	1000	0	106	75-125	0				
Toluene	1060	30	1000	0	106	70-125	0				
Xylenes, Total	3217	90	3000	0	107	75-125	0				
Surr: 1,2-Dichloroethane-d4	1014	0	1000	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1024	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	1019	0	1000	0	102	70-130	0				
Surr: Toluene-d8	1001	0	1000	0	100	70-130	0				

MS				Sample ID: 14051203-05A MS			Units: µg/Kg		Analysis Date: 5/29/2014 08:57 PM		
Client ID:			Run ID: VMS8_140529A			SeqNo: 2786184		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	947.5	30	1000	0	94.8	75-125	0				
Ethylbenzene	996.5	30	1000	0	99.6	75-125	0				
m,p-Xylene	1940	60	2000	0	97	80-125	0				
o-Xylene	965.5	30	1000	0	96.6	75-125	0				
Toluene	969	30	1000	0	96.9	70-125	0				
Xylenes, Total	2906	90	3000	0	96.8	75-125	0				
Surr: 1,2-Dichloroethane-d4	1004	0	1000	0	100	70-130	0				
Surr: 4-Bromofluorobenzene	1014	0	1000	0	101	70-130	0				
Surr: Dibromofluoromethane	967.5	0	1000	0	96.8	70-130	0				
Surr: Toluene-d8	986	0	1000	0	98.6	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59026** Instrument ID **VMS6** Method: **SW8260B**

MSD				Sample ID: 14051203-05A MSD				Units: µg/Kg		Analysis Date: 5/29/2014 09:22 PM	
Client ID:			Run ID: VMS8_140529A			SeqNo: 2786185		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	937	30	1000	0	93.7	75-125	947.5	1.11	30		
Ethylbenzene	1004	30	1000	0	100	75-125	996.5	0.75	30		
m,p-Xylene	1935	60	2000	0	96.8	80-125	1940	0.258	30		
o-Xylene	968.5	30	1000	0	96.8	75-125	965.5	0.31	30		
Toluene	960	30	1000	0	96	70-125	969	0.933	30		
Xylenes, Total	2904	90	3000	0	96.8	75-125	2906	0.0689	30		
Surr: 1,2-Dichloroethane-d4	998	0	1000	0	99.8	70-130	1004	0.599	30		
Surr: 4-Bromofluorobenzene	1004	0	1000	0	100	70-130	1014	1.09	30		
Surr: Dibromofluoromethane	971.5	0	1000	0	97.2	70-130	967.5	0.413	30		
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	986	0.712	30		

The following samples were analyzed in this batch:

14051288-01A	14051288-02A	14051288-03A
14051288-04A	14051288-05A	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59057** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-59057-59057				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140527L				SeqNo: 2781911		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49

LCS		Sample ID: LCS-59057-59057				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140527L				SeqNo: 2781912		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.728 0.49 1.969 0 87.8 80-120 0

MS		Sample ID: 14051288-01BMS				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781915		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.598 0.50 1.992 0 80.2 75-125 0

MS		Sample ID: 14051288-01BMSI				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781917		Prep Date: 5/27/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1032 49 1336 0 77.2 75-125 0

MSD		Sample ID: 14051288-01BMSD				Units: mg/Kg		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH7		Run ID: WETCHEM_140527L				SeqNo: 2781916		Prep Date: 5/27/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.649 0.50 1.992 0 82.8 75-125 1.598 3.19 20

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59061** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-59061-59061					Units: s.u.		Analysis Date: 5/27/2014 04:00 PM		
Client ID:			Run ID: WETCHEM_140527K			SeqNo: 2781655		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 3.98 0 4 0 99.5 90-110 0

DUP		Sample ID: 14051255-01A DUP					Units: s.u.		Analysis Date: 5/27/2014 04:00 PM		
Client ID:		Run ID: WETCHEM_140527K			SeqNo: 2781659		Prep Date: 5/27/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.6 0 0 0 0 0-0 7.58 0.264 20

DUP		Sample ID: 14051288-05B DUP					Units: s.u.		Analysis Date: 5/27/2014 04:00 PM		
Client ID: PH9			Run ID: WETCHEM_140527K			SeqNo: 2781666		Prep Date: 5/27/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 9.05 0 0 0 0 0-0 9.06 0.11 20

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **59070** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14051288-02C DUP				Units: mmhos/cm @25°C		Analysis Date: 5/29/2014 04:10 PM		
Client ID: PH4		Run ID: WETCHEM_1405290				SeqNo: 2785867		Prep Date: 5/29/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	3.17	0.050	0	0	0		2.9	8.9	50	

The following samples were analyzed in this batch:

14051288-01C	14051288-02C	14051288-03C
14051288-04C	14051288-05C	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14051288
Project: WPX GV 25-27 Historical Spill 5.22.14

QC BATCH REPORT

Batch ID: **R141414** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R141414				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID:		Run ID: MOIST_140526A				SeqNo: 2780194		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-R141414				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID:		Run ID: MOIST_140526A				SeqNo: 2780192		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: 14051288-01B DUP				Units: % of sample		Analysis Date: 5/26/2014 03:30 PM		
Client ID: PH7		Run ID: MOIST_140526A				SeqNo: 2780172		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 9.09 0.050 0 0 0 0-0 9.77 7.21 20

The following samples were analyzed in this batch:

14051288-01B	14051288-02B	14051288-03B
14051288-04B	14051288-05B	

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



ALS Laboratory Group

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Chain-of-Custody

WORKORDER #

14051288

Form 2021

PROJECT NAME		WPX GM 25-27 Historical		SAMPLER		Reed Wold		DATE		5/22/14		PAGE		1 of 1	
PROJECT No.		SP:11		SITE ID		GM25-27		TURNAROUND		24HR		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL Compliance		EDD FORMAT											
SEND REPORT TO		Mark Mumby		PURCHASE ORDER											
ADDRESS		2385 F 1/2 Rd		BILL TO COMPANY		WPX									
CITY / STATE / ZIP		Grand Junction, CO 81506		INVOICE ATTN TO		Karolina Blaney									
PHONE		970-243-3271		ADDRESS		1058 Co Rd 215									
FAX		970-243-3280		CITY / STATE / ZIP		Parachute CO 81635									
E-MAIL		mmumby@hrlcomp.com rwold@hrlcomp.com		PHONE		970-883-2295									
				E-MAIL		Karolina.blaney@wpenergy.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
1	PH 7	So	5/22/14	8:00	3	8		X	X	X					
2	PH 4			8:10				X	X	X					
3	PH 5			8:20				X	X	X					
4	PH 8			8:30				X	X	X					
5	PH 9			8:40				+	X	+					

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

For metals or anions, please detail analytes below.

Comments:	Please Seal organic data ASAP. (Prelim)
	4.4.c
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-6035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	Reed Wold	5/22/14	2:30
RECEIVED BY	[Signature]	[Signature]	5-22-14	2:30
RELINQUISHED BY	[Signature]	[Signature]	5/22/14	2:35
RECEIVED BY	[Signature]	Diane E. Sher	5/24/14	1030
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **24-May-14 10:30**

Work Order: **14051288**

Received by: **DS**

Checklist completed by Diane Shaw 24-May-14
eSignature Date

Reviewed by: Chad Whelton 28-May-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/24/2014 12:17:54 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRR



Ship Date: 22MAY14
 ActWgt: 78.0 LB
 CAD: 2264840/NET3480
 Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



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

BILL SENDER

Ref # 052214-1
 Invoice #
 PO # Parachute
 Dept #

HOLLAND, MI 49424

FRI - 23 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 7422 6518

0281

49424
 MI-US
 GRR

68 GRRR

522014203F220

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.

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ALS Parachute Custody Seal

Time 1700

Date 5-23

Name WNA

112



27-Jun-2014

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

Re: **WPX GV 25-27 Historical Spill 6.19.14**

Work Order: **14061060**

Dear Mark,

ALS Environmental received 4 samples on 20-Jun-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 30.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

<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

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Work Order: 14061060

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>
14061060-01	South West	Soil		6/19/2014 15:00	6/20/2014 09:30	<input type="checkbox"/>
14061060-02	South East	Soil		6/19/2014 15:10	6/20/2014 09:30	<input type="checkbox"/>
14061060-03	Below Well Head	Soil		6/19/2014 15:20	6/20/2014 09:30	<input type="checkbox"/>
14061060-04	Under Separator	Soil		6/19/2014 15:30	6/20/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Work Order: 14061060

Case Narrative

Batch 59920 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 59932 sample South West MS/MSD recoveries for Hexavalent Chromium were below the control limit. The corresponding reporting limit in the parent sample may be biased low.

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South West
Collection Date: 6/19/2014 03:00 PM

Work Order: 14061060
Lab ID: 14061060-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	34		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.5</i>		<i>4.5</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/21/2014 05:13 AM
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	6/21/2014 05:13 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	79		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>121</i>		<i>2.7</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/20/2014 08:22 PM
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	6/20/2014 08:22 PM
MERCURY BY CVAA						
Mercury	0.018		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			<i>0.014</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/23/2014 03:50 PM
METALS BY ICP-MS						
Arsenic	4.1		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	290		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Cadmium	2.9		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Chromium	7.3		<i>0.85</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Copper	9.2		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Lead	170		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/25/2014 10:29 AM
Nickel	7.8		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Selenium	ND		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Silver	ND		<i>2.1</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
Zinc	280		<i>4.2</i>	<i>mg/Kg-dry</i>	<i>5</i>	6/24/2014 09:34 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	170		<i>10</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
Magnesium	31		<i>4.0</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
Sodium	220		<i>4.0</i>	<i>mg/L</i>	<i>20</i>	6/25/2014 04:46 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	4.2		<i>0.010</i>	<i>none</i>	<i>1</i>	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Acenaphthylene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Anthracene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(a)anthracene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(a)pyrene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(b)fluoranthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(g,h,i)perylene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Benzo(k)fluoranthene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM
Chrysene	ND		<i>7.1</i>	<i>µg/Kg-dry</i>	<i>1</i>	6/23/2014 11:18 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South West
Collection Date: 6/19/2014 03:00 PM

Work Order: 14061060
Lab ID: 14061060-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Fluoranthene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Fluorene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Indeno(1,2,3-cd)pyrene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Naphthalene	18		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Pyrene	ND		7.1	µg/Kg-dry	1	6/23/2014 11:18 AM
Surr: 2-Fluorobiphenyl	55.4		12-100	%REC	1	6/23/2014 11:18 AM
Surr: 4-Terphenyl-d14	77.6		25-137	%REC	1	6/23/2014 11:18 AM
Surr: Nitrobenzene-d5	47.0		37-107	%REC	1	6/23/2014 11:18 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Ethylbenzene	42		32	µg/Kg-dry	1	6/20/2014 05:18 PM
m,p-Xylene	5,200		64	µg/Kg-dry	1	6/20/2014 05:18 PM
o-Xylene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Toluene	ND		32	µg/Kg-dry	1	6/20/2014 05:18 PM
Xylenes, Total	5,200		97	µg/Kg-dry	1	6/20/2014 05:18 PM
Surr: 1,2-Dichloroethane-d4	96.3		70-130	%REC	1	6/20/2014 05:18 PM
Surr: 4-Bromofluorobenzene	91.5		70-130	%REC	1	6/20/2014 05:18 PM
Surr: Dibromofluoromethane	94.4		70-130	%REC	1	6/20/2014 05:18 PM
Surr: Toluene-d8	107		70-130	%REC	1	6/20/2014 05:18 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	2.7		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	7.3		0.54	mg/Kg-dry	1	6/24/2014 02:54 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.53	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	6.9		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	7.9			s.u.	1	6/23/2014 04:06 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South East
Collection Date: 6/19/2014 03:10 PM

Work Order: 14061060
Lab ID: 14061060-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	28		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.0</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>6/21/2014 02:13 AM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>103</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>6/20/2014 08:48 PM</i>
MERCURY BY CVAA						
Mercury	0.020		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.014	mg/Kg-dry	1	6/23/2014 03:30 PM
METALS BY ICP-MS						
Arsenic	2.4		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	160		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Cadmium	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Chromium	8.9		0.78	mg/Kg-dry	5	6/24/2014 09:40 AM
Copper	4.9		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Lead	24		2.0	mg/Kg-dry	5	6/25/2014 10:35 AM
Nickel	8.4		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Selenium	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Silver	ND		2.0	mg/Kg-dry	5	6/24/2014 09:40 AM
Zinc	65		3.9	mg/Kg-dry	5	6/24/2014 09:40 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	150		10	mg/L	20	6/25/2014 04:52 PM
Magnesium	29		4.0	mg/L	20	6/25/2014 04:52 PM
Sodium	380		4.0	mg/L	20	6/25/2014 04:52 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	7.5		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Acenaphthylene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(a)anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(a)pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(b)fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(g,h,i)perylene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Benzo(k)fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Chrysene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: South East
Collection Date: 6/19/2014 03:10 PM

Work Order: 14061060
Lab ID: 14061060-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Fluoranthene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Fluorene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Indeno(1,2,3-cd)pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Naphthalene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Pyrene	ND		6.8	µg/Kg-dry	1	6/23/2014 11:39 AM
Surr: 2-Fluorobiphenyl	60.9		12-100	%REC	1	6/23/2014 11:39 AM
Surr: 4-Terphenyl-d14	79.8		25-137	%REC	1	6/23/2014 11:39 AM
Surr: Nitrobenzene-d5	53.0		37-107	%REC	1	6/23/2014 11:39 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Ethylbenzene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
m,p-Xylene	100		62	µg/Kg-dry	1	6/20/2014 05:43 PM
o-Xylene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Toluene	ND		31	µg/Kg-dry	1	6/20/2014 05:43 PM
Xylenes, Total	100		93	µg/Kg-dry	1	6/20/2014 05:43 PM
Surr: 1,2-Dichloroethane-d4	98.5		70-130	%REC	1	6/20/2014 05:43 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	6/20/2014 05:43 PM
Surr: Dibromofluoromethane	96.2		70-130	%REC	1	6/20/2014 05:43 PM
Surr: Toluene-d8	101		70-130	%REC	1	6/20/2014 05:43 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	3.2		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JJG
Chromium, Trivalent	8.9		0.52	mg/Kg-dry	1	6/24/2014 02:54 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.50	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	3.2		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	8.3			s.u.	1	6/23/2014 04:06 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Below Well Head
Collection Date: 6/19/2014 03:20 PM

Work Order: 14061060
Lab ID: 14061060-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	47		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>72.0</i>		<i>4.8</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/21/2014 05:43 AM
			<i>39-133</i>	<i>%REC</i>	<i>1</i>	6/21/2014 05:43 AM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	110		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>122</i>		<i>2.9</i>	<i>mg/Kg-dry</i>	<i>1</i>	6/20/2014 09:14 PM
			<i>50-150</i>	<i>%REC</i>	<i>1</i>	6/20/2014 09:14 PM
MERCURY BY CVAA						
Mercury	0.047		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.017	mg/Kg-dry	1	6/23/2014 03:53 PM
METALS BY ICP-MS						
Arsenic	6.7		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	1,000		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Cadmium	7.4		21	mg/Kg-dry	50	6/25/2014 10:41 AM
Chromium	14		0.85	mg/Kg-dry	5	6/25/2014 10:47 AM
Copper	21		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Lead	380		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Nickel	13		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Selenium	2.2		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Silver	ND		2.1	mg/Kg-dry	5	6/25/2014 10:47 AM
Zinc	840		43	mg/Kg-dry	50	6/25/2014 10:41 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	53		10	mg/L	20	6/25/2014 05:16 PM
Magnesium	11		4.0	mg/L	20	6/25/2014 05:16 PM
Sodium	160		4.0	mg/L	20	6/25/2014 05:16 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	5.4		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Acenaphthylene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(a)anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(a)pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(b)fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(g,h,i)perylene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Benzo(k)fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Chrysene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Below Well Head
Collection Date: 6/19/2014 03:20 PM

Work Order: 14061060
Lab ID: 14061060-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Fluoranthene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Fluorene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Naphthalene	56		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Pyrene	ND		7.6	µg/Kg-dry	1	6/23/2014 11:59 AM
Surr: 2-Fluorobiphenyl	64.2		12-100	%REC	1	6/23/2014 11:59 AM
Surr: 4-Terphenyl-d14	90.0		25-137	%REC	1	6/23/2014 11:59 AM
Surr: Nitrobenzene-d5	54.7		37-107	%REC	1	6/23/2014 11:59 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Ethylbenzene	510		35	µg/Kg-dry	1	6/20/2014 06:07 PM
m,p-Xylene	8,400		69	µg/Kg-dry	1	6/20/2014 06:07 PM
o-Xylene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Toluene	ND		35	µg/Kg-dry	1	6/20/2014 06:07 PM
Xylenes, Total	8,400		100	µg/Kg-dry	1	6/20/2014 06:07 PM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	1	6/20/2014 06:07 PM
Surr: 4-Bromofluorobenzene	92.6		70-130	%REC	1	6/20/2014 06:07 PM
Surr: Dibromofluoromethane	94.6		70-130	%REC	1	6/20/2014 06:07 PM
Surr: Toluene-d8	108		70-130	%REC	1	6/20/2014 06:07 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	1.3		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: EE
Chromium, Trivalent	7.8		0.58	mg/Kg-dry	1	6/25/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	13		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	7.9			s.u.	1	6/23/2014 04:06 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Under Separator
Collection Date: 6/19/2014 03:30 PM

Work Order: 14061060
Lab ID: 14061060-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	14		SW8015M		Prep: SW3541 / 6/20/14	Analyst: IT
<i>Surr: 4-Terphenyl-d14</i>	<i>82.3</i>		<i>39-133</i>	<i>%REC</i>	<i>1</i>	<i>6/21/2014 06:13 AM</i>
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	ND		SW8015		Prep: SW5035 / 6/20/14	Analyst: IT
<i>Surr: Toluene-d8</i>	<i>97.1</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>6/20/2014 10:05 PM</i>
MERCURY BY CVAA						
Mercury	0.051		SW7471		Prep: SW7471 / 6/20/14	Analyst: LR
			0.015	mg/Kg-dry	1	6/23/2014 03:55 PM
METALS BY ICP-MS						
Arsenic	4.2		SW6020A		Prep: SW3050B / 6/20/14	Analyst: ML
Barium	290		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Cadmium	2.2		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Chromium	11		0.77	mg/Kg-dry	5	6/25/2014 10:52 AM
Copper	13		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Lead	120		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Nickel	11		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Selenium	ND		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Silver	ND		1.9	mg/Kg-dry	5	6/25/2014 10:52 AM
Zinc	220		3.9	mg/Kg-dry	5	6/25/2014 10:52 AM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Calcium	73		10	mg/L	20	6/25/2014 05:28 PM
Magnesium	13		4.0	mg/L	20	6/25/2014 05:28 PM
Sodium	91		4.0	mg/L	20	6/25/2014 05:28 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 6/24/14	Analyst: ML
Sodium Adsorption Ratio	2.6		0.010	none	1	6/24/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW8270		Prep: SW3541 / 6/20/14	Analyst: RM
Acenaphthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Chrysene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM

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

ALS Group USA, Corp

Date: 27-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 6.19.14
Sample ID: Under Separator
Collection Date: 6/19/2014 03:30 PM

Work Order: 14061060
Lab ID: 14061060-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Fluorene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Naphthalene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Pyrene	ND		7.8	µg/Kg-dry	1	6/23/2014 12:20 PM
Surr: 2-Fluorobiphenyl	62.5		12-100	%REC	1	6/23/2014 12:20 PM
Surr: 4-Terphenyl-d14	86.3		25-137	%REC	1	6/23/2014 12:20 PM
Surr: Nitrobenzene-d5	55.7		37-107	%REC	1	6/23/2014 12:20 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 6/20/14		Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	6/20/2014 06:32 PM
o-Xylene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Toluene	ND		36	µg/Kg-dry	1	6/20/2014 06:32 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/20/2014 06:32 PM
Surr: 1,2-Dichloroethane-d4	99.0		70-130	%REC	1	6/20/2014 06:32 PM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	6/20/2014 06:32 PM
Surr: Dibromofluoromethane	96.4		70-130	%REC	1	6/20/2014 06:32 PM
Surr: Toluene-d8	102		70-130	%REC	1	6/20/2014 06:32 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 6/24/14		Analyst: MELB
Electrical Conductivity @ Saturation	1.0		0.050	mmhos/cm @25	10	6/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: EE
Chromium, Trivalent	9.9		0.60	mg/Kg-dry	1	6/25/2014 04:15 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 6/21/14		Analyst: JI
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	6/21/2014 01:00 PM
MOISTURE			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/20/2014 03:35 PM
PH			SW9045D	Prep: EXTRACT / 6/23/14		Analyst: AT
pH	7.8			s.u.	1	6/23/2014 04:06 PM

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59919** Instrument ID **GC8** Method: **SW8015M**

MBLK				Sample ID: DBLKS1-59919-59919				Units: mg/Kg			Analysis Date: 6/21/2014 01:13 AM			
Client ID:				Run ID: GC8_140620A				SeqNo: 2819432			Prep Date: 6/20/2014		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		1.362	0	1.667	0	81.7	39-133	0						

LCS				Sample ID: DLCSS1-59919-59919				Units: mg/Kg			Analysis Date: 6/21/2014 01:43 AM			
Client ID:				Run ID: GC8_140620A				SeqNo: 2819433			Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
DRO (C10-C28)	121.2	4.2	166.7	0	72.7	61-109	0							
<i>Surr: 4-Terphenyl-d14</i>	1.303	0	1.667	0	78.2	39-133	0							

MS				Sample ID: 14061060-02B MS				Units: mg/Kg			Analysis Date: 6/21/2014 03:13 AM			
Client ID: South East				Run ID: GC8_140620A				SeqNo: 2819437			Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				
DRO (C10-C28)	258.7	8.2	326.4	27.22	70.9	48-110	0							
Surr: 4-Terphenyl-d14	2.576	0	3.264	0	78.9	39-133	0							

MSD				Sample ID: 14061060-02B MSD			Units: mg/Kg		Analysis Date: 6/21/2014 03:43 AM		
Client ID: South East			Run ID: GC8_140620A			SeqNo: 2819438		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	259.6	8.2	327.4	27.22	71	48-110	258.7	0.343	30		
Surr: 4-Terphenyl-d14	2.594	0	3.274	0	79.2	39-133	2.576	0.718	30		

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59906** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-59906-59906				Units: µg/Kg		Analysis Date: 6/20/2014 05:47 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819476		Prep Date: 6/20/2014		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>	5288	0	5000	0	106	50-150	0			

LCS		Sample ID: LCS-59906-59906				Units: µg/Kg		Analysis Date: 6/20/2014 05:22 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819475		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	536500	2,500	500000	0	107	70-130	0			
<i>Surr: Toluene-d8</i>	5372	0	5000	0	107	50-150	0			

MS		Sample ID: 14061051-01B MS				Units: µg/Kg		Analysis Date: 6/20/2014 06:39 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819478		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	496700	2,500	500000	30740	93.2	70-130	0			
<i>Surr: Toluene-d8</i>	5993	0	5000	0	120	50-150	0			

MSD		Sample ID: 14061051-01B MSD				Units: µg/Kg		Analysis Date: 6/20/2014 07:05 PM		
Client ID:		Run ID: GC9_140620A				SeqNo: 2819479		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	493900	2,500	500000	30740	92.6	70-130	496700	0.57	30	
<i>Surr: Toluene-d8</i>	5968	0	5000	0	119	50-150	5993	0.426	30	

The following samples were analyzed in this batch:

14061060-01A	14061060-02A	14061060-03A
14061060-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59916** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-59916-59916					Units: mg/Kg		Analysis Date: 6/23/2014 03:25 PM		
Client ID:			Run ID: HG1_140623A				SeqNo: 2820398		Prep Date: 6/20/2014		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-59916-59916				Units: mg/Kg		Analysis Date: 6/23/2014 03:27 PM		
Client ID:		Run ID: HG1_140623A				SeqNo: 2820399		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1732 0.020 0.1665 0 104 80-120 0

MS				Sample ID: 14061060-02BMS				Units: mg/Kg			Analysis Date: 6/23/2014 03:39 PM			
Client ID: South East				Run ID: HG1_140623A				SeqNo: 2820404			Prep Date: 6/20/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

Mercury 0.1525 0.014 0.1162 0.01941 115 75-125 0

MSD				Sample ID: 14061060-02BMSD				Units: mg/Kg			Analysis Date: 6/23/2014 03:41 PM			
Client ID: South East				Run ID: HG1_140623A				SeqNo: 2820405			Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Mercury 0.1364 0.014 0.1168 0.01941 100 75-125 0.1525 11.2 35

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59920** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: MBLK-59920-59920				Units: mg/Kg		Analysis Date: 6/24/2014 06:22 AM		
Client ID:		Run ID: ICPMS1_140623A				SeqNo: 2821342		Prep Date: 6/20/2014		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	0.04133	0.25								J
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-59920-59920				Units: mg/Kg		Analysis Date: 6/24/2014 06:28 AM		
Client ID:		Run ID: ICPMS1_140623A				SeqNo: 2821343		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.774	0.25	5	0	95.5	80-120	0			
Barium	4.782	0.25	5	0	95.6	80-120	0			
Cadmium	4.778	0.10	5	0	95.6	80-120	0			
Chromium	4.898	0.25	5	0	98	80-120	0			
Copper	4.884	0.25	5	0	97.7	80-120	0			
Lead	4.702	0.25	5	0	94	80-120	0			
Nickel	4.946	0.25	5	0	98.9	80-120	0			
Selenium	4.571	0.25	5	0	91.4	80-120	0			
Silver	4.683	0.25	5	0	93.7	80-120	0			
Zinc	4.883	0.50	5	0	97.7	80-120	0			

MS		Sample ID: 14061024-01BMS				Units: mg/Kg		Analysis Date: 6/24/2014 06:47 AM		
Client ID:		Run ID: ICPMS1_140623A				SeqNo: 2821346		Prep Date: 6/20/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.18	1.7	6.831	4.278	71.8	75-125	0			S
Barium	206.7	1.7	6.831	243.5	-538	75-125	0			SO
Cadmium	6.387	0.68	6.831	0.2233	90.2	75-125	0			
Chromium	23.92	1.7	6.831	17.49	94.1	75-125	0			
Copper	21.53	1.7	6.831	16.78	69.5	75-125	0			S
Lead	12.95	1.7	6.831	8.212	69.4	75-125	0			S
Nickel	40.03	1.7	6.831	32.18	115	75-125	0			O
Selenium	7.172	1.7	6.831	1.412	84.3	75-125	0			
Silver	5.693	1.7	6.831	0.06566	82.4	75-125	0			
Zinc	44.4	3.4	6.831	38.33	88.8	75-125	0			O

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59920** Instrument ID **ICPMS1** Method: **SW6020A**

MSD		Sample ID: 14061024-01BMSD				Units: mg/Kg		Analysis Date: 6/24/2014 06:53 AM		
Client ID:		Run ID: ICPMS1_140623A				SeqNo: 2821347		Prep Date: 6/20/2014		DF: 5
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.47	1.7	6.983	4.278	88.7	75-125	9.18	13.1	25	
Barium	256.8	1.7	6.983	243.5	191	75-125	206.7	21.6	25	SO
Cadmium	7.074	0.70	6.983	0.2233	98.1	75-125	6.387	10.2	25	
Chromium	27.29	1.7	6.983	17.49	140	75-125	23.92	13.2	25	S
Copper	27.95	1.7	6.983	16.78	160	75-125	21.53	25.9	25	SR
Lead	14.27	1.7	6.983	8.212	86.7	75-125	12.95	9.64	25	
Nickel	42.42	1.7	6.983	32.18	147	75-125	40.03	5.81	25	SO
Selenium	7.483	1.7	6.983	1.412	86.9	75-125	7.172	4.24	25	
Silver	6.243	1.7	6.983	0.06566	88.5	75-125	5.693	9.21	25	
Zinc	51.5	3.5	6.983	38.33	189	75-125	44.4	14.8	25	SO

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59927** Instrument ID **ICPMS1** Method: **SW6020A**

DUP		Sample ID: 14061060-03CDUP				Units: mg/L		Analysis Date: 6/25/2014 05:22 PM		
Client ID: Below Well Head		Run ID: ICPMS1_140624A				SeqNo: 2824971		Prep Date: 6/24/2014		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	68.8	10	0	0	0	0-0	52.54	26.8		
Magnesium	12.58	4.0	0	0	0	0-0	10.51	17.9		
Sodium	192.8	4.0	0	0	0	0-0	164.9	15.6		

DUP		Sample ID: 14061060-03CDUP				Units: none		Analysis Date: 6/24/2014		
Client ID: Below Well Head		Run ID: SAR_140624A				SeqNo: 2826464		Prep Date: 6/24/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	5.61	0.010	0	0	0		5.432	3.23	50	

The following samples were analyzed in this batch:

14061060-01C	14061060-02C	14061060-03C
14061060-04C		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID **SVMS6** Method: **SW8270**

MBLK		Sample ID: SBLKS1-59918-59918				Units: µg/Kg		Analysis Date: 6/23/2014 07:22 AM		
Client ID:		Run ID: SVMS6_140623A				SeqNo: 2820445		Prep Date: 6/20/2014		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>	996.7	0	1667	0	59.8	12-100	0			
<i>Surr: Nitrobenzene-d5</i>	833	0	1667	0	50	37-107	0			

LCS		Sample ID: SLCSS1-59918-59918				Units: µg/Kg		Analysis Date: 6/23/2014 07:43 AM		
Client ID:		Run ID: SVMS6_140623A				SeqNo: 2820446		Prep Date: 6/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	513.7	6.7	666.7	0	77	45-110	0			
Acenaphthylene	542	6.7	666.7	0	81.3	45-105	0			
Anthracene	627.3	6.7	666.7	0	94.1	55-105	0			
Benzo(a)anthracene	601.3	6.7	666.7	0	90.2	50-110	0			
Benzo(a)pyrene	604	6.7	666.7	0	90.6	50-110	0			
Benzo(b)fluoranthene	597.7	6.7	666.7	0	89.6	45-115	0			
Benzo(g,h,i)perylene	652.3	6.7	666.7	0	97.8	40-125	0			
Benzo(k)fluoranthene	621.3	6.7	666.7	0	93.2	45-115	0			
Chrysene	620.3	6.7	666.7	0	93	55-110	0			
Dibenzo(a,h)anthracene	625.3	6.7	666.7	0	93.8	40-125	0			
Fluoranthene	724.3	6.7	666.7	0	109	55-115	0			
Fluorene	578.3	6.7	666.7	0	86.7	50-110	0			
Indeno(1,2,3-cd)pyrene	640.7	6.7	666.7	0	96.1	40-120	0			
Naphthalene	484.3	6.7	666.7	0	72.6	40-105	0			
Pyrene	589.7	6.7	666.7	0	88.4	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	1142	0	1667	0	68.5	12-100	0			
<i>Surr: Nitrobenzene-d5</i>	1006	0	1667	0	60.4	37-107	0			

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID: **SVMS6** Method: **SW8270**

MS				Sample ID: 14061054-06B MS			Units: µg/Kg		Analysis Date: 6/23/2014 09:14 AM	
Client ID:		Run ID: SVMS6_140623A			SeqNo: 2820449		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	906.6	13	1281	0	70.8	45-110	0			
Acenaphthylene	952	13	1281	0	74.3	45-105	0			
Anthracene	1127	13	1281	0	88	55-105	0			
Benzo(a)anthracene	1133	13	1281	23.49	86.6	50-110	0			
Benzo(a)pyrene	1131	13	1281	48.29	84.6	50-110	0			
Benzo(b)fluoranthene	1135	13	1281	56.12	84.2	45-115	0			
Benzo(g,h,i)perylene	1265	13	1281	100.5	90.9	40-125	0			
Benzo(k)fluoranthene	1102	13	1281	28.39	83.8	45-115	0			
Chrysene	1106	13	1281	10.12	85.6	55-110	0			
Dibenzo(a,h)anthracene	1224	13	1281	42.42	92.3	40-125	0			
Fluoranthene	1333	13	1281	13.7	103	55-115	0			
Fluorene	1033	13	1281	0	80.7	50-110	0			
Indeno(1,2,3-cd)pyrene	1271	13	1281	92.34	92	40-120	0			
Naphthalene	802.2	13	1281	0	62.6	40-105	0			
Pyrene	1085	13	1281	11.42	83.9	45-125	0			
Surr: 2-Fluorobiphenyl	1973	0	3201	0	61.6	12-100	0			
Surr: Nitrobenzene-d5	1681	0	3201	0	52.5	37-107	0			

MSD				Sample ID: 14061054-06B MSD			Units: µg/Kg		Analysis Date: 6/23/2014 09:34 AM	
Client ID:		Run ID: SVMS6_140623A			SeqNo: 2820450		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	917.7	13	1311	0	70	45-110	906.6	1.22	30	
Acenaphthylene	971.4	13	1311	0	74.1	45-105	952	2.01	30	
Anthracene	1150	13	1311	0	87.7	55-105	1127	2.01	30	
Benzo(a)anthracene	1151	13	1311	23.49	86	50-110	1133	1.61	30	
Benzo(a)pyrene	1161	13	1311	48.29	84.9	50-110	1131	2.58	30	
Benzo(b)fluoranthene	1164	13	1311	56.12	84.5	45-115	1135	2.58	30	
Benzo(g,h,i)perylene	1407	13	1311	100.5	99.6	40-125	1265	10.6	30	
Benzo(k)fluoranthene	1083	13	1311	28.39	80.4	45-115	1102	1.74	30	
Chrysene	1132	13	1311	10.12	85.6	55-110	1106	2.29	30	
Dibenzo(a,h)anthracene	1306	13	1311	42.42	96.4	40-125	1224	6.45	30	
Fluoranthene	1404	13	1311	13.7	106	55-115	1333	5.19	30	
Fluorene	1073	13	1311	0	81.8	50-110	1033	3.77	30	
Indeno(1,2,3-cd)pyrene	1382	13	1311	92.34	98.4	40-120	1271	8.41	30	
Naphthalene	823.3	13	1311	0	62.8	40-105	802.2	2.59	30	
Pyrene	1055	13	1311	11.42	79.6	45-125	1085	2.86	30	
Surr: 2-Fluorobiphenyl	1969	0	3277	0	60.1	12-100	1973	0.212	40	
Surr: Nitrobenzene-d5	1708	0	3277	0	52.1	37-107	1681	1.63	40	

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59918** Instrument ID **SVMS6** Method: **SW8270**

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59917** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-59917-59917				Units: µg/Kg			Analysis Date: 6/20/2014 04:04 PM		
Client ID:			Run ID: VMS8_140620A				SeqNo: 2819377			Prep Date: 6/20/2014		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	943	0	1000	0	94.3	70-130		0					
Surr: 4-Bromofluorobenzene	1009	0	1000	0	101	70-130		0					
Surr: Dibromofluoromethane	960.5	0	1000	0	96	70-130		0					
Surr: Toluene-d8	974.5	0	1000	0	97.4	70-130		0					

LCS				Sample ID: LCS-59917-59917			Units: µg/Kg		Analysis Date: 6/20/2014 01:37 PM		
Client ID:		Run ID: VMS8_140620A			SeqNo: 2819376		Prep Date: 6/20/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1088	30	1000	0	109	75-125	0				
Ethylbenzene	1072	30	1000	0	107	75-125	0				
m,p-Xylene	2113	60	2000	0	106	80-125	0				
o-Xylene	1040	30	1000	0	104	75-125	0				
Toluene	1031	30	1000	0	103	70-125	0				
Xylenes, Total	3153	90	3000	0	105	75-125	0				
Surr: 1,2-Dichloroethane-d4	963	0	1000	0	96.3	70-130	0				
Surr: 4-Bromofluorobenzene	994.5	0	1000	0	99.4	70-130	0				
Surr: Dibromofluoromethane	991.5	0	1000	0	99.2	70-130	0				
Surr: Toluene-d8	967.5	0	1000	0	96.8	70-130	0				

MS				Sample ID: 14061051-02B MS				Units: µg/Kg			Analysis Date: 6/21/2014 11:14 AM		
Client ID:			Run ID: VMS8_140620B				SeqNo: 2819790			Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	1054	30	1000	0	105	75-125	0						
Ethylbenzene	1050	30	1000	0	105	75-125	0						
m,p-Xylene	2052	60	2000	0	103	80-125	0						
o-Xylene	1024	30	1000	0	102	75-125	0						
Toluene	996	30	1000	0	99.6	70-125	0						
Xylenes, Total	3076	90	3000	0	103	75-125	0						
Surr: 1,2-Dichloroethane-d4	934.5	0	1000	0	93.4	70-130	0						
Surr: 4-Bromofluorobenzene	1038	0	1000	0	104	70-130	0						
Surr: Dibromofluoromethane	959.5	0	1000	0	96	70-130	0						
Surr: Toluene-d8	997.5	0	1000	0	99.8	70-130	0						

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59917** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 14061051-02B MSD				Units: µg/Kg		Analysis Date: 6/21/2014 11:38 AM	
Client ID:			Run ID: VMS8_140620B			SeqNo: 2819791		Prep Date: 6/20/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1031	30	1000	0	103	75-125	1054	2.16	30		
Ethylbenzene	1010	30	1000	0	101	75-125	1050	3.88	30		
m,p-Xylene	1980	60	2000	0	99	80-125	2052	3.57	30		
o-Xylene	972	30	1000	0	97.2	75-125	1024	5.21	30		
Toluene	962	30	1000	0	96.2	70-125	996	3.47	30		
Xylenes, Total	2952	90	3000	0	98.4	75-125	3076	4.11	30		
Surr: 1,2-Dichloroethane-d4	942	0	1000	0	94.2	70-130	934.5	0.799	30		
Surr: 4-Bromofluorobenzene	1021	0	1000	0	102	70-130	1038	1.65	30		
Surr: Dibromofluoromethane	960.5	0	1000	0	96	70-130	959.5	0.104	30		
Surr: Toluene-d8	986.5	0	1000	0	98.6	70-130	997.5	1.11	30		

The following samples were analyzed in this batch:

14061060-01A	14061060-02A	14061060-03A
14061060-04A		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59927** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 14061060-03C DUP				Units: mmhos/cm @25°C		Analysis Date: 6/26/2014 12:00 PM		
Client ID: Below Well Head		Run ID: WETCHEM_140626B				SeqNo: 2825526		Prep Date: 6/24/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.583	0.050	0	0	0		1.28	21.2	50	

The following samples were analyzed in this batch:

14061060-01C	14061060-02C	14061060-03C
14061060-04C		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59932** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-59932-59932				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140621B				SeqNo: 2818493		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.49

LCS		Sample ID: LCS-59932-59932				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID:		Run ID: WETCHEM_140621B				SeqNo: 2818494		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.717 0.50 1.992 0 86.2 80-120 0

MS		Sample ID: 14061060-01B MS				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818495		Prep Date: 6/21/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.1294 0.49 1.961 0 6.6 75-125 0 JS

MS		Sample ID: 14061060-01B MSI				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818497		Prep Date: 6/21/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 453.5 49 981.9 0 46.2 75-125 0 S

MSD		Sample ID: 14061060-01B MSD				Units: mg/Kg		Analysis Date: 6/21/2014 01:00 PM		
Client ID: South West		Run ID: WETCHEM_140621B				SeqNo: 2818496		Prep Date: 6/21/2014		DF: 1
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 0.1294 0 20 JS

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **59978** Instrument ID **WETCHEM** Method: **SW9045D**

LCS			Sample ID: LCS-59978-59978				Units: s.u.			Analysis Date: 6/23/2014 04:06 PM		
Client ID:			Run ID: WETCHEM_140623M				SeqNo: 2820414		Prep Date: 6/23/2014		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

DUP		Sample ID: 14061008-01A DUP					Units: s.u.		Analysis Date: 6/23/2014 04:06 PM		
Client ID:		Run ID: WETCHEM_140623M			SeqNo: 2820416		Prep Date: 6/23/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 8.18 0 0 0 0 0-0 8.17 0.122 20

DUP		Sample ID: 14061088-01A DUP					Units: s.u.		Analysis Date: 6/23/2014 04:06 PM		
Client ID:			Run ID: WETCHEM_140623M			SeqNo: 2820429		Prep Date: 6/23/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

pH 7.05 0 0 0 0 0-0 7.08 0.425 20

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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

Client: HRL Compliance Solutions, Inc
Work Order: 14061060
Project: WPX GV 25-27 Historical Spill 6.19.14

QC BATCH REPORT

Batch ID: **R143149** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R143149				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819982		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS		Sample ID: LCS-R143149				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819981		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: 14061061-01A DUP				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819964		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.79	0.050	0	0	0	0-0	10.35	13	20	

DUP		Sample ID: 1406995-01A DUP				Units: % of sample		Analysis Date: 6/20/2014 03:35 PM		
Client ID:		Run ID: MOIST_140620B				SeqNo: 2819980		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.71	0.050	0	0	0	0-0	7.89	16.2	20	H

The following samples were analyzed in this batch:

14061060-01B	14061060-02B	14061060-03B
14061060-04B		

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



ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER #

14061060

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME

WPX GVS-27 H2S spill

SAMPLER

Reed Wold

DATE

6/19/14

TURNAROUND

24 HR

PROJECT No.

SITE ID

GVS-27

EDD FORMAT

PURCHASE ORDER

COMPANY NAME

HRL Compliance

BILL TO COMPANY

WPX

SEND REPORT TO

Mark Mumby

INVOICE ATTN TO

Karolina Blaney

ADDRESS

2385 F 1/2 Rd

ADDRESS

1058 Co Rd 215

CITY / STATE / ZIP

Grand Junction, CO 81506

CITY / STATE / ZIP

Parachute CO 81635

PHONE

970-243-3271

PHONE

970-883-2295

FAX

970-243-3280

FAX

E-MAIL

mmumby@hrlcomp.com
 rwold@hrlcomp.com

E-MAIL

Karolina.Blaney@wpxenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

1

South West

So

6/19/14

3:00

3

8

2

South East

↓

↓

3:10

3

8

3

Beldo Well Head

↓

↓

3:20

3

8

4

Under Separator

↓

↓

3:30

3

8

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

For metals or anions, please detail analytes below.

Comments:

3.02

QC PACKAGE (check below)

X LEVEL II (Standard QC)
 LEVEL III (Std QC + forms)
 LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Reed Wold

Reed Wold

6/19/14

4:00

RECEIVED BY

Wold

Wold

6-19-

4:00

RELINQUISHED BY

Wold

Wold

6-19

4:10

RECEIVED BY

Wold

Diane F. Shaw

6/20/14

0930

RELINQUISHED BY

Wold

Wold

Wold

Wold

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Jun-14 09:30**

Work Order: **14061060**

Received by: **DS**

Checklist completed by Diane Shaw 20-Jun-14
eSignature Date

Reviewed by: Ann Preston 20-Jun-14
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/20/2014 10:45:20 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) 263-5763

Origin ID: ROLA



Nick Martinez
ALS Environmental
127 E. 1st Street

PARACHUTE, CO 81635

Ship Date: 19 JUN 14
Acctg#: 65.0 LB
CAD: Z264640/NET3480

Dims: 14 X 28 X 15 IN

Delivery Address Bar Code



Ref # 001914-1
Invoice #
PO # Parachute
Dept #

SHIP TO: (916) 399-8870

BILL SENDER

sample receiving
ALS Laboratory Group
3352 128TH AVE

HOLLAND, MI 49424

2 of 3

FRJ - 20 JUN 10:30A
PRIORITY OVERNIGHT

NPM 7703 6392 7238

K253

Metric 7703 6392 7385

E291

49424

MI-US

GRR

XX GRRA

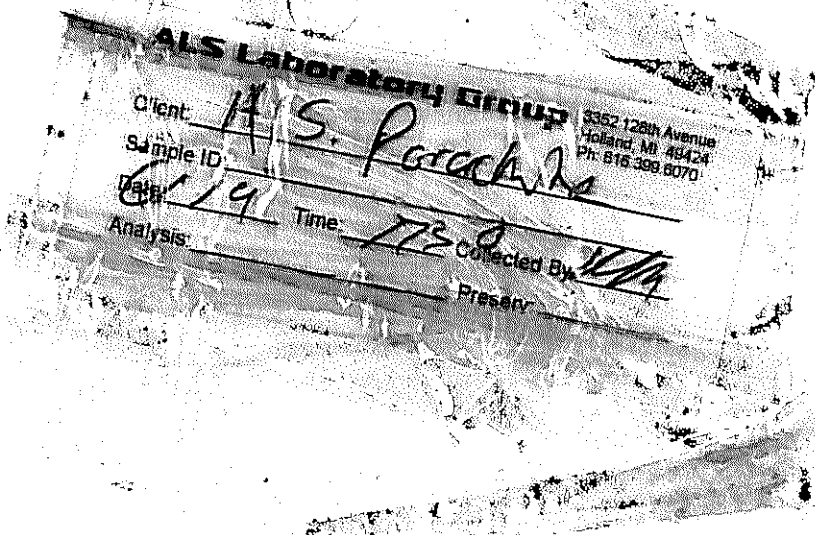
520548040723

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.

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13-Jun-2014

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

Re: **WPX GV 25-27 Historical Spill Potholes 6.5.14**

Work Order: **1406315**

Dear Mark,

ALS Environmental received 9 samples on 06-Jun-2014 09:30 AM for the analyses presented in the following report.

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

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

The total number of pages in this report is 22.

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.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Work Order: 1406315

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>
1406315-01	PH10	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-02	PH11	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-03	PH12	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-04	PH14	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-05	PH15	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-06	PH16	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-07	PH17	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-08	PH18	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>
1406315-09	PH19	Soil		6/5/2014	6/6/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
WorkOrder: 1406315

QUALIFIERS, ACRONYMS, UNITS

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

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

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH10
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	480		4.6	mg/Kg-dry	1	6/11/2014 11:26 AM
Surr: 4-Terphenyl-d14	105		39-133	%REC	1	6/11/2014 11:26 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,600		2.8	mg/Kg-dry	1	6/10/2014 01:56 PM
Surr: Toluene-d8	118		50-150	%REC	1	6/10/2014 01:56 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Ethylbenzene	1,100		340	µg/Kg-dry	10	6/11/2014 08:15 PM
m,p-Xylene	68,000		670	µg/Kg-dry	10	6/11/2014 08:15 PM
o-Xylene	500		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Toluene	460		340	µg/Kg-dry	10	6/11/2014 08:15 PM
Xylenes, Total	69,000		1,000	µg/Kg-dry	10	6/11/2014 08:15 PM
Surr: 1,2-Dichloroethane-d4	96.5		70-130	%REC	10	6/11/2014 08:15 PM
Surr: 4-Bromofluorobenzene	86.4		70-130	%REC	10	6/11/2014 08:15 PM
Surr: Dibromofluoromethane	92.6		70-130	%REC	10	6/11/2014 08:15 PM
Surr: Toluene-d8	116		70-130	%REC	10	6/11/2014 08:15 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	11		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH11
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-02
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	30		4.8	mg/Kg-dry	1	6/11/2014 11:56 AM
Surr: 4-Terphenyl-d14	64.1		39-133	%REC	1	6/11/2014 11:56 AM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	43		3.0	mg/Kg-dry	1	6/10/2014 02:20 PM
Surr: Toluene-d8	107		50-150	%REC	1	6/10/2014 02:20 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: RS
Benzene	ND		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Ethylbenzene	90		36	µg/Kg-dry	1	6/11/2014 05:33 AM
m,p-Xylene	240		71	µg/Kg-dry	1	6/11/2014 05:33 AM
o-Xylene	86		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Toluene	42		36	µg/Kg-dry	1	6/11/2014 05:33 AM
Xylenes, Total	320		110	µg/Kg-dry	1	6/11/2014 05:33 AM
Surr: 1,2-Dichloroethane-d4	99.2		70-130	%REC	1	6/11/2014 05:33 AM
Surr: 4-Bromofluorobenzene	88.9		70-130	%REC	1	6/11/2014 05:33 AM
Surr: Dibromofluoromethane	94.2		70-130	%REC	1	6/11/2014 05:33 AM
Surr: Toluene-d8	94.6		70-130	%REC	1	6/11/2014 05:33 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH12
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	330		9.6	mg/Kg-dry	1	6/11/2014 12:26 PM
Surr: 4-Terphenyl-d14	93.4		39-133	%REC	1	6/11/2014 12:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,400		3.0	mg/Kg-dry	1	6/10/2014 02:45 PM
Surr: Toluene-d8	114		50-150	%REC	1	6/10/2014 02:45 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	760		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Ethylbenzene	7,700		360	µg/Kg-dry	10	6/10/2014 07:16 AM
m,p-Xylene	110,000		1,400	µg/Kg-dry	20	6/11/2014 03:30 AM
o-Xylene	13,000		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Toluene	ND		360	µg/Kg-dry	10	6/10/2014 07:16 AM
Xylenes, Total	120,000		2,100	µg/Kg-dry	20	6/11/2014 03:30 AM
Surr: 1,2-Dichloroethane-d4	97.0		70-130	%REC	10	6/10/2014 07:16 AM
Surr: 1,2-Dichloroethane-d4	102		70-130	%REC	20	6/11/2014 03:30 AM
Surr: 4-Bromofluorobenzene	95.8		70-130	%REC	10	6/10/2014 07:16 AM
Surr: 4-Bromofluorobenzene	89.6		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Dibromofluoromethane	97.2		70-130	%REC	10	6/10/2014 07:16 AM
Surr: Dibromofluoromethane	96.0		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Toluene-d8	100		70-130	%REC	20	6/11/2014 03:30 AM
Surr: Toluene-d8	121		70-130	%REC	10	6/10/2014 07:16 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	16		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH14
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-04
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	290		9.1	mg/Kg-dry	1	6/11/2014 12:56 PM
Surr: 4-Terphenyl-d14	94.6		39-133	%REC	1	6/11/2014 12:56 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	2,200		2.8	mg/Kg-dry	1	6/10/2014 03:14 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 03:14 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Ethylbenzene	9,900		330	µg/Kg-dry	10	6/10/2014 06:51 AM
m,p-Xylene	140,000		2,700	µg/Kg-dry	40	6/11/2014 03:05 AM
o-Xylene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Toluene	ND		330	µg/Kg-dry	10	6/10/2014 06:51 AM
Xylenes, Total	140,000		4,000	µg/Kg-dry	40	6/11/2014 03:05 AM
Surr: 1,2-Dichloroethane-d4	95.6		70-130	%REC	10	6/10/2014 06:51 AM
Surr: 1,2-Dichloroethane-d4	108		70-130	%REC	40	6/11/2014 03:05 AM
Surr: 4-Bromofluorobenzene	100		70-130	%REC	10	6/10/2014 06:51 AM
Surr: 4-Bromofluorobenzene	89.6		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Dibromofluoromethane	95.9		70-130	%REC	10	6/10/2014 06:51 AM
Surr: Dibromofluoromethane	102		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Toluene-d8	95.8		70-130	%REC	40	6/11/2014 03:05 AM
Surr: Toluene-d8	138	S	70-130	%REC	10	6/10/2014 06:51 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	9.4		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH15
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-05
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	34		4.5	mg/Kg-dry	1	6/11/2014 01:26 PM
Surr: 4-Terphenyl-d14	83.4		39-133	%REC	1	6/11/2014 01:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	70		2.8	mg/Kg-dry	1	6/10/2014 03:38 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 03:38 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Ethylbenzene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
m,p-Xylene	870		67	µg/Kg-dry	1	6/10/2014 06:26 AM
o-Xylene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Toluene	ND		33	µg/Kg-dry	1	6/10/2014 06:26 AM
Xylenes, Total	890		100	µg/Kg-dry	1	6/10/2014 06:26 AM
Surr: 1,2-Dichloroethane-d4	96.6		70-130	%REC	1	6/10/2014 06:26 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	6/10/2014 06:26 AM
Surr: Dibromofluoromethane	94.9		70-130	%REC	1	6/10/2014 06:26 AM
Surr: Toluene-d8	98.0		70-130	%REC	1	6/10/2014 06:26 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	10		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH16
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	12		4.4	mg/Kg-dry	1	6/11/2014 01:56 PM
Surr: 4-Terphenyl-d14	83.9		39-133	%REC	1	6/11/2014 01:56 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		2.7	mg/Kg-dry	1	6/10/2014 04:03 PM
Surr: Toluene-d8	112		50-150	%REC	1	6/10/2014 04:03 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: RS
Benzene	ND		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Ethylbenzene	61		32	µg/Kg-dry	1	6/11/2014 05:58 AM
m,p-Xylene	140		64	µg/Kg-dry	1	6/11/2014 05:58 AM
o-Xylene	60		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Toluene	ND		32	µg/Kg-dry	1	6/11/2014 05:58 AM
Xylenes, Total	200		97	µg/Kg-dry	1	6/11/2014 05:58 AM
Surr: 1,2-Dichloroethane-d4	98.9		70-130	%REC	1	6/11/2014 05:58 AM
Surr: 4-Bromofluorobenzene	84.1		70-130	%REC	1	6/11/2014 05:58 AM
Surr: Dibromofluoromethane	93.6		70-130	%REC	1	6/11/2014 05:58 AM
Surr: Toluene-d8	94.9		70-130	%REC	1	6/11/2014 05:58 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	6.8		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH17
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-07
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	ND		4.9	mg/Kg-dry	1	6/11/2014 02:26 PM
Surr: 4-Terphenyl-d14	85.3		39-133	%REC	1	6/11/2014 02:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	6/10/2014 04:27 PM
Surr: Toluene-d8	111		50-150	%REC	1	6/10/2014 04:27 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Ethylbenzene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
m,p-Xylene	ND		72	µg/Kg-dry	1	6/10/2014 07:22 AM
o-Xylene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Toluene	ND		36	µg/Kg-dry	1	6/10/2014 07:22 AM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/10/2014 07:22 AM
Surr: 1,2-Dichloroethane-d4	94.0		70-130	%REC	1	6/10/2014 07:22 AM
Surr: 4-Bromofluorobenzene	93.3		70-130	%REC	1	6/10/2014 07:22 AM
Surr: Dibromofluoromethane	89.6		70-130	%REC	1	6/10/2014 07:22 AM
Surr: Toluene-d8	93.8		70-130	%REC	1	6/10/2014 07:22 AM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	17		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
 Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
 Sample ID: PH18
 Collection Date: 6/5/2014

Work Order: 1406315
 Lab ID: 1406315-08
 Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	18		4.8	mg/Kg-dry	1	6/11/2014 03:26 PM
Surr: 4-Terphenyl-d14	87.0		39-133	%REC	1	6/11/2014 03:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	6/10/2014 04:51 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 04:51 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
m,p-Xylene	520		71	µg/Kg-dry	1	6/11/2014 09:04 PM
o-Xylene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Toluene	ND		35	µg/Kg-dry	1	6/11/2014 09:04 PM
Xylenes, Total	530		110	µg/Kg-dry	1	6/11/2014 09:04 PM
Surr: 1,2-Dichloroethane-d4	92.4		70-130	%REC	1	6/11/2014 09:04 PM
Surr: 4-Bromofluorobenzene	95.2		70-130	%REC	1	6/11/2014 09:04 PM
Surr: Dibromofluoromethane	91.4		70-130	%REC	1	6/11/2014 09:04 PM
Surr: Toluene-d8	96.8		70-130	%REC	1	6/11/2014 09:04 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	15		0.050	% of sample	1	6/6/2014 04:44 PM

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

ALS Group USA, Corp

Date: 13-Jun-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14
Sample ID: PH19
Collection Date: 6/5/2014

Work Order: 1406315
Lab ID: 1406315-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 6/9/14	Analyst: IT
DRO (C10-C28)	13		5.2	mg/Kg-dry	1	6/11/2014 03:57 PM
Surr: 4-Terphenyl-d14	83.2		39-133	%REC	1	6/11/2014 03:57 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 6/9/14	Analyst: IT
GRO (C6-C10)	ND		3.2	mg/Kg-dry	1	6/10/2014 05:15 PM
Surr: Toluene-d8	109		50-150	%REC	1	6/10/2014 05:15 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260B		Prep: SW5035 / 6/9/14	Analyst: AK
Benzene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Ethylbenzene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
m,p-Xylene	88		76	µg/Kg-dry	1	6/11/2014 08:40 PM
o-Xylene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Toluene	ND		38	µg/Kg-dry	1	6/11/2014 08:40 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	6/11/2014 08:40 PM
Surr: 1,2-Dichloroethane-d4	93.2		70-130	%REC	1	6/11/2014 08:40 PM
Surr: 4-Bromofluorobenzene	93.0		70-130	%REC	1	6/11/2014 08:40 PM
Surr: Dibromofluoromethane	92.1		70-130	%REC	1	6/11/2014 08:40 PM
Surr: Toluene-d8	98.0		70-130	%REC	1	6/11/2014 08:40 PM
MOISTURE						
			A2540 G			Analyst: TM
Moisture	21		0.050	% of sample	1	6/6/2014 04:44 PM

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

Client: HRL Compliance Solutions, Inc

Work Order: 1406315

Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: 59460

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-59460-59460				Units: mg/Kg		Analysis Date: 6/11/2014 04:32 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803372		Prep Date: 6/9/2014		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	1.534	0	1.667	0	92.1	39-133	0			

LCS		Sample ID: DLCSS1-59460-59460				Units: mg/Kg		Analysis Date: 6/11/2014 05:02 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803377		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	158.5	4.2	166.7	0	95.1	61-109	0			
Surr: 4-Terphenyl-d14	1.413	0	1.667	0	84.8	39-133	0			

MS		Sample ID: 1406319-02A MS				Units: mg/Kg		Analysis Date: 6/11/2014 05:32 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803381		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	293.8	8.1	322.5	20.64	84.7	48-110	0			
Surr: 4-Terphenyl-d14	2.912	0	3.225	0	90.3	39-133	0			

MSD		Sample ID: 1406319-02A MSD				Units: mg/Kg		Analysis Date: 6/11/2014 06:02 AM		
Client ID:		Run ID: GC8_140610A				SeqNo: 2803384		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	278.9	8.2	326.4	20.64	79.1	48-110	293.8	5.17	30	
Surr: 4-Terphenyl-d14	2.641	0	3.264	0	80.9	39-133	2.912	9.75	30	

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59483** Instrument ID **GC10** Method: **SW8015**

MBLK		Sample ID: MBLK-59483-59483				Units: µg/Kg		Analysis Date: 6/10/2014 08:53 AM		
Client ID:		Run ID: GC10_140609A				SeqNo: 2801886		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	<i>5214</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>104</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: LCS-59483-59483				Units: µg/Kg		Analysis Date: 6/10/2014 08:29 AM		
Client ID:		Run ID: GC10_140609A				SeqNo: 2801885		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	491500	2,500	500000	0	98.3	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5868</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>117</i>	<i>50-150</i>	<i>0</i>			

MS		Sample ID: 1406049-01A MS				Units: µg/Kg		Analysis Date: 6/10/2014 06:04 PM		
Client ID:		Run ID: GC10_140610A				SeqNo: 2803510		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	463400	2,500	500000	0	92.7	70-130	0			
<i>Surr: Toluene-d8</i>	<i>6434</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>129</i>	<i>50-150</i>	<i>0</i>			

MSD		Sample ID: 1406049-01A MSD				Units: µg/Kg		Analysis Date: 6/10/2014 06:28 PM		
Client ID:		Run ID: GC10_140610A				SeqNo: 2803511		Prep Date: 6/9/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	453300	2,500	500000	0	90.7	70-130	463400	2.22	30	
<i>Surr: Toluene-d8</i>	<i>6328</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>127</i>	<i>50-150</i>	<i>6434</i>	<i>1.65</i>	<i>30</i>	

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59474** Instrument ID **VMS9** Method: **SW8260B**

MBLK				Sample ID: MBLK-59474-59474				Units: µg/Kg			Analysis Date: 6/9/2014 12:25 PM			
Client ID:				Run ID: VMS9_140609A				SeqNo: 2801653			Prep Date: 6/9/2014		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	1008	0	1000	0	101	70-130		0						
Surr: 4-Bromofluorobenzene	863.5	0	1000	0	86.4	70-130		0						
Surr: Dibromofluoromethane	940	0	1000	0	94	70-130		0						
Surr: Toluene-d8	934	0	1000	0	93.4	70-130		0						

LCS				Sample ID: LCS-59474-59474			Units: µg/Kg		Analysis Date: 6/9/2014 09:57 AM		
Client ID:		Run ID: VMS9_140609A			SeqNo: 2801651		Prep Date: 6/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1073	30	1000	0	107	75-125	0				
Ethylbenzene	1062	30	1000	0	106	75-125	0				
m,p-Xylene	2162	60	2000	0	108	80-125	0				
o-Xylene	1070	30	1000	0	107	75-125	0				
Toluene	1136	30	1000	0	114	70-125	0				
Xylenes, Total	3232	90	3000	0	108	75-125	0				
Surr: 1,2-Dichloroethane-d4	934.5	0	1000	0	93.4	70-130	0				
Surr: 4-Bromofluorobenzene	1023	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	920	0	1000	0	92	70-130	0				
Surr: Toluene-d8	1002	0	1000	0	100	70-130	0				

MS				Sample ID: 1406369-01A MS			Units: µg/Kg		Analysis Date: 6/10/2014 08:06 AM		
Client ID:			Run ID: VMS7_140609B			SeqNo: 2801864		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	986	30	1000	0	98.6	75-125	0				
Ethylbenzene	940.5	30	1000	0	94	75-125	0				
m,p-Xylene	1998	60	2000	13.5	99.2	80-125	0				
o-Xylene	943	30	1000	0	94.3	75-125	0				
Toluene	931	30	1000	0	93.1	70-125	0				
Xylenes, Total	2940	90	3000	0	98	75-125	0				
Surr: 1,2-Dichloroethane-d4	951.5	0	1000	0	95.2	70-130	0				
Surr: 4-Bromofluorobenzene	1020	0	1000	0	102	70-130	0				
Surr: Dibromofluoromethane	964	0	1000	0	96.4	70-130	0				
Surr: Toluene-d8	943.5	0	1000	0	94.4	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59474** Instrument ID **VMS9** Method: **SW8260B**

MSD				Sample ID: 1406369-01A MSD			Units: µg/Kg		Analysis Date: 6/10/2014 08:31 AM	
Client ID:				Run ID: VMS7_140609B			SeqNo: 2801865		Prep Date: 6/9/2014	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	973.5	30	1000	0	97.4	75-125	986	1.28	30	
Ethylbenzene	962	30	1000	0	96.2	75-125	940.5	2.26	30	
m,p-Xylene	1983	60	2000	13.5	98.5	80-125	1998	0.729	30	
o-Xylene	955	30	1000	0	95.5	75-125	943	1.26	30	
Toluene	949	30	1000	0	94.9	70-125	931	1.91	30	
Xylenes, Total	2938	90	3000	0	97.9	75-125	2940	0.0851	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>945.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>94.6</i>	<i>70-130</i>	<i>951.5</i>	<i>0.633</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1012</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>	<i>1020</i>	<i>0.689</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>973</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>97.3</i>	<i>70-130</i>	<i>964</i>	<i>0.929</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>968</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>96.8</i>	<i>70-130</i>	<i>943.5</i>	<i>2.56</i>	<i>30</i>	

The following samples were analyzed in this batch: 1406315-03A 1406315-04A 1406315-05A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59475** Instrument ID **VMS8** Method: **SW8260B**

MBLK				Sample ID: MBLK-59475-59475				Units: µg/Kg			Analysis Date: 6/9/2014 01:00 PM			
Client ID:				Run ID: VMS8_140609A				SeqNo: 2801374			Prep Date: 6/9/2014		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	840	0	1000	0	84	70-130	0							
Surr: 4-Bromofluorobenzene	885	0	1000	0	88.5	70-130	0							
Surr: Dibromofluoromethane	891	0	1000	0	89.1	70-130	0							
Surr: Toluene-d8	925.5	0	1000	0	92.6	70-130	0							

LCS				Sample ID: LCS-59475-59475				Units: µg/Kg		Analysis Date: 6/9/2014 10:31 AM	
Client ID:		Run ID: VMS8_140609A			SeqNo: 2801369		Prep Date: 6/9/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	949	30	1000	0	94.9	75-125	0				
Ethylbenzene	1072	30	1000	0	107	75-125	0				
m,p-Xylene	2128	60	2000	0	106	80-125	0				
o-Xylene	1066	30	1000	0	107	75-125	0				
Toluene	1044	30	1000	0	104	70-125	0				
Xylenes, Total	3193	90	3000	0	106	75-125	0				
Surr: 1,2-Dichloroethane-d4	856	0	1000	0	85.6	70-130	0				
Surr: 4-Bromofluorobenzene	908	0	1000	0	90.8	70-130	0				
Surr: Dibromofluoromethane	938.5	0	1000	0	93.8	70-130	0				
Surr: Toluene-d8	921.5	0	1000	0	92.2	70-130	0				

MS				Sample ID: 1406381-02A MS			Units: µg/Kg		Analysis Date: 6/10/2014 08:40 PM		
Client ID:			Run ID: VMS7_140610A			SeqNo: 2803581		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1006	30	1000	0	101	75-125	0				
Ethylbenzene	992.5	30	1000	0	99.2	75-125	0				
m,p-Xylene	2002	60	2000	0	100	80-125	0				
o-Xylene	979.5	30	1000	0	98	75-125	0				
Toluene	976	30	1000	0	97.6	70-125	0				
Xylenes, Total	2982	90	3000	0	99.4	75-125	0				
Surr: 1,2-Dichloroethane-d4	943	0	1000	0	94.3	70-130	0				
Surr: 4-Bromofluorobenzene	994	0	1000	0	99.4	70-130	0				
Surr: Dibromofluoromethane	965.5	0	1000	0	96.6	70-130	0				
Surr: Toluene-d8	949	0	1000	0	94.9	70-130	0				

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **59475** Instrument ID **VMS8** Method: **SW8260B**

MSD				Sample ID: 1406381-02A MSD				Units: µg/Kg		Analysis Date: 6/10/2014 09:06 PM	
Client ID:			Run ID: VMS7_140610A			SeqNo: 2803582		Prep Date: 6/9/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1006	30	1000	0	101	75-125	1006	0.0497	30		
Ethylbenzene	993.5	30	1000	0	99.4	75-125	992.5	0.101	30		
m,p-Xylene	2032	60	2000	0	102	80-125	2002	1.46	30		
o-Xylene	995.5	30	1000	0	99.6	75-125	979.5	1.62	30		
Toluene	977.5	30	1000	0	97.8	70-125	976	0.154	30		
Xylenes, Total	3027	90	3000	0	101	75-125	2982	1.51	30		
Surr: 1,2-Dichloroethane-d4	958	0	1000	0	95.8	70-130	943	1.58	30		
Surr: 4-Bromofluorobenzene	1016	0	1000	0	102	70-130	994	2.24	30		
Surr: Dibromofluoromethane	972.5	0	1000	0	97.2	70-130	965.5	0.722	30		
Surr: Toluene-d8	972	0	1000	0	97.2	70-130	949	2.39	30		

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1406315
Project: WPX GV 25-27 Historical Spill Potholes 6.5.14

QC BATCH REPORT

Batch ID: **R142271** Instrument ID **MOIST** Method: **A2540 G**

MBLK		Sample ID: WBLKS-R142271				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799711		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-R142271				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799710		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: 1406319-01A DUP				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799706		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 7.65 0.050 0 0 0 0-0 8.13 6.08 20

DUP		Sample ID: 1406319-02A DUP				Units: % of sample		Analysis Date: 6/6/2014 04:44 PM		
Client ID:		Run ID: MOIST_140606B				SeqNo: 2799708		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 10.23 0.050 0 0 0 0-0 10.3 0.682 20

The following samples were analyzed in this batch:

1406315-01A	1406315-02A	1406315-03A
1406315-04A	1406315-05A	1406315-06A
1406315-07A	1406315-08A	1406315-09A

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



ALS Laboratory Group

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

Chain-of-Custody

Form 2028

WORKORDER #

1406315

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME	WPX <i>GV25-27 Historical</i>	SAMPLER	Reed Wold	DATE	<i>6/5/14</i>	TURNAROUND	<i>5 Day</i>
PROJECT No.	<i>Spill & 465</i>	SITE ID	<i>GV25-27</i>				
COMPANY NAME	HRL Compliance	EDD FORMAT					
SEND REPORT TO	Mark Mumby	PURCHASE ORDER					
ADDRESS	2385 F 1/2 Rd	BILL TO COMPANY	WPX				
CITY / STATE / ZIP	Grand Junction, CO 81508	INVOICE ATTN TO	Karolina Blaney				
PHONE	970-243-3271	ADDRESS	1058 Co Rd 215				
FAX	970-243-3280	CITY / STATE / ZIP	Parachute CO 81635				
E-MAIL	<i>mmumby@hrlcomp.com</i> <i>rwold@hrlcomp.com</i>	PHONE	970-683-2295				
E-MAIL		FAX					
E-MAIL		E-MAIL	<i>Karolina.blaney@wpxenergy.com</i>				
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	<i>PH 10</i>	<i>SO</i>	<i>6/5/14</i>		<i>1</i>	<i>8</i>	
2	<i>PH 11</i>						
3	<i>PH 12</i>						
4	<i>PH 14</i>						
5	<i>PH 15</i>						
6	<i>PH 16</i>						
7	<i>PH 17</i>						
8	<i>PH 18</i>						
4	<i>PH 19</i>						

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

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
<i>4.2°C</i> <i>[Signature]</i>	<input checked="" type="checkbox"/> LEVEL II (Standard QC)
	<input type="checkbox"/> LEVEL III (Std QC + forms)
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)
	<input type="checkbox"/>
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Reed Wold</i>	<i>Reed Wold</i>	<i>6/5/14</i>	<i>3:20</i>
<i>N.M.</i>	<i>N.M.</i>	<i>6-5-14</i>	<i>3:55</i>
<i>N.M.</i>	<i>N.M.</i>	<i>6-5-14</i>	<i>4:00</i>
<i>[Signature]</i>	<i>Kevin Wierzena</i>	<i>6/6/14</i>	<i>0930</i>

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Jun-14 09:30**

Work Order: **1406315**

Received by: **KRW**

Checklist completed by <u>Keith Wurenga</u>	06-Jun-14	Reviewed by: <u>Ann Preston</u>	08-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>4.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>6/6/2014 12:55:11 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 225-5783
 Mark Merlecz
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RLA



Ship Date: 05 JUN 14
 ActWgt: 70.0 LB
 CAD: 22648404NET3480

Dim: 24 X 19 X 15 IN

SHIP TO: (810) 225-0070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL BENDER

HOLLAND, MI 49424

Delivery Address Bar Code



Ref # 060514-1
 Invoice #
 PO # Parachute
 Dept #

1 of 3

FRI - 06 JUN 10:30A
 PRIORITY OVERNIGHT

TRK# 7702 1453 2084

E291

MASTER

49424

MS-LS

GRR

XX GRR

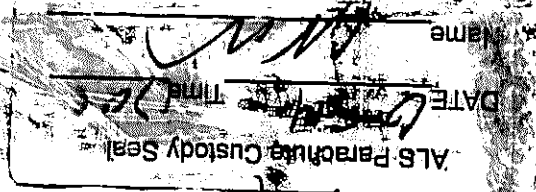
52010600700

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.

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





21-May-2014

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

Re: **WPX GV 25-27 Historical Spill 5.16.14**

Work Order: **1405895**

Dear Mark,

ALS Environmental received 2 samples on 17-May-2014 10:15 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 11.

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

Sincerely,

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

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

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

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

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.16.14
Work Order: 1405895

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>
1405895-01	Pond Pt 1	Water		5/16/2014 14:00	5/17/2014 10:15	<input type="checkbox"/>
1405895-02	Pond Pt 2	Water		5/16/2014 14:15	5/17/2014 10:15	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.16.14
WorkOrder: 1405895

QUALIFIERS, ACRONYMS, UNITS

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

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

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: 21-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.16.14
Sample ID: Pond Pt 1
Collection Date: 5/16/2014 02:00 PM

Work Order: 1405895
Lab ID: 1405895-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	5/19/2014 11:00 PM
Ethylbenzene	ND		1.0	µg/L	1	5/19/2014 11:00 PM
m,p-Xylene	ND		2.0	µg/L	1	5/19/2014 11:00 PM
o-Xylene	ND		1.0	µg/L	1	5/19/2014 11:00 PM
Toluene	ND		1.0	µg/L	1	5/19/2014 11:00 PM
Xylenes, Total	ND		3.0	µg/L	1	5/19/2014 11:00 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	5/19/2014 11:00 PM
Surr: 4-Bromofluorobenzene	101		80-110	%REC	1	5/19/2014 11:00 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	5/19/2014 11:00 PM
Surr: Toluene-d8	97.1		85-110	%REC	1	5/19/2014 11:00 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	510		40	mg/L	40	5/20/2014 11:29 AM
Sulfate	1,100		100	mg/L	100	5/20/2014 12:15 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 5/20/14	Analyst: YM
Total Dissolved Solids	2,400		20	mg/L	1	5/20/2014 08:30 AM

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

ALS Group USA, Corp

Date: 21-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX GV 25-27 Historical Spill 5.16.14
Sample ID: Pond Pt 2
Collection Date: 5/16/2014 02:15 PM

Work Order: 1405895
Lab ID: 1405895-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260			Analyst: AK
Benzene	ND		1.0	µg/L	1	5/19/2014 11:25 PM
Ethylbenzene	ND		1.0	µg/L	1	5/19/2014 11:25 PM
m,p-Xylene	ND		2.0	µg/L	1	5/19/2014 11:25 PM
o-Xylene	ND		1.0	µg/L	1	5/19/2014 11:25 PM
Toluene	ND		1.0	µg/L	1	5/19/2014 11:25 PM
Xylenes, Total	ND		3.0	µg/L	1	5/19/2014 11:25 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	5/19/2014 11:25 PM
Surr: 4-Bromofluorobenzene	101		80-110	%REC	1	5/19/2014 11:25 PM
Surr: Dibromofluoromethane	99.4		85-115	%REC	1	5/19/2014 11:25 PM
Surr: Toluene-d8	98.6		85-110	%REC	1	5/19/2014 11:25 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056			Analyst: ED
Chloride	520		40	mg/L	40	5/20/2014 11:49 AM
Sulfate	1,100		100	mg/L	100	5/20/2014 12:35 PM
TOTAL DISSOLVED SOLIDS			A2540 C-97		Prep: Water Ext. / 5/20/14	Analyst: YM
Total Dissolved Solids	2,400		20	mg/L	1	5/20/2014 08:30 AM

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

ALS Group USA, Corp

Date: 21-May-14

Client: HRL Compliance Solutions, Inc
Work Order: 1405895
Project: WPX GV 25-27 Historical Spill 5.16.14

QC BATCH REPORT

Batch ID: **R141039** Instrument ID **VMS7** Method: **SW8260**

MBLK		Sample ID: VBK2-140519-R141039				Units: µg/L		Analysis Date: 5/19/2014 10:09 PM		
Client ID:		Run ID: VMS7_140519A				SeqNo: 2770304		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	20.5	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.12	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.65	0	20	0	98.2	85-110	0			

LCS		Sample ID: VLCSW1-140519-R141039				Units: µg/L		Analysis Date: 5/19/2014 08:53 PM		
Client ID:		Run ID: VMS7_140519A				SeqNo: 2770303		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.79	1.0	20	0	104	85-125	0			
Ethylbenzene	20.53	1.0	20	0	103	85-125	0			
m,p-Xylene	40.13	2.0	40	0	100	75-130	0			
o-Xylene	19.96	1.0	20	0	99.8	80-125	0			
Toluene	18.41	1.0	20	0	92	85-125	0			
Xylenes, Total	60.09	3.0	60	0	100	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.49	0	20	0	97.4	75-120	0			
Surr: 4-Bromofluorobenzene	16.82	0	20	0	84.1	80-110	0			
Surr: Dibromofluoromethane	19.9	0	20	0	99.5	85-115	0			
Surr: Toluene-d8	17.81	0	20	0	89	85-110	0			

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

Client: HRL Compliance Solutions, Inc
 Work Order: 1405895
 Project: WPX GV 25-27 Historical Spill 5.16.14

QC BATCH REPORT

Batch ID: **R141039** Instrument ID **VMS7** Method: **SW8260**

MS				Sample ID: 1405894-02B MS			Units: µg/L		Analysis Date: 5/20/2014 07:01 AM	
Client ID:		Run ID: VMS7_140519A			SeqNo: 2770310		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.41	1.0	20	0.56	94.2	85-125	0			
Ethylbenzene	19.51	1.0	20	0.29	96.1	85-125	0			
m,p-Xylene	37.48	2.0	40	4.61	82.2	75-130	0			
o-Xylene	17.5	1.0	20	0.5	85	80-125	0			
Toluene	21.87	1.0	20	3.92	89.8	85-125	0			
Xylenes, Total	54.98	3.0	60	5.11	83.1	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.68	0	20	0	98.4	75-120	0			
Surr: 4-Bromofluorobenzene	18.58	0	20	0	92.9	80-110	0			
Surr: Dibromofluoromethane	21.31	0	20	0	107	85-115	0			
Surr: Toluene-d8	19.29	0	20	0	96.4	85-110	0			

MSD				Sample ID: 1405894-02B MSD			Units: µg/L		Analysis Date: 5/20/2014 07:26 AM	
Client ID:		Run ID: VMS7_140519A			SeqNo: 2770311		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.13	1.0	20	0.56	97.8	85-125	19.41	3.64	30	
Ethylbenzene	18.57	1.0	20	0.29	91.4	85-125	19.51	4.94	30	
m,p-Xylene	36.09	2.0	40	4.61	78.7	75-130	37.48	3.78	30	
o-Xylene	18.45	1.0	20	0.5	89.8	80-125	17.5	5.29	30	
Toluene	21.3	1.0	20	3.92	86.9	85-125	21.87	2.64	30	
Xylenes, Total	54.54	3.0	60	5.11	82.4	80-126	54.98	0.804	30	
Surr: 1,2-Dichloroethane-d4	20.57	0	20	0	103	75-120	19.68	4.42	30	
Surr: 4-Bromofluorobenzene	18.8	0	20	0	94	80-110	18.58	1.18	30	
Surr: Dibromofluoromethane	20.7	0	20	0	104	85-115	21.31	2.9	30	
Surr: Toluene-d8	20.01	0	20	0	100	85-110	19.29	3.66	30	

The following samples were analyzed in this batch:

1405895-01A 1405895-02A

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405895
Project: WPX GV 25-27 Historical Spill 5.16.14

QC BATCH REPORT

Batch ID: **58828** Instrument ID **TDS** Method: **A2540 C-97**

MBLK		Sample ID: MBLK-58828-58828				Units: mg/L		Analysis Date: 5/20/2014 08:30 AM		
Client ID:		Run ID: TDS_140520A				SeqNo: 2770432		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids ND 4.0

LCS		Sample ID: LCS-58828-58828				Units: mg/L		Analysis Date: 5/20/2014 08:30 AM		
Client ID:		Run ID: TDS_140520A				SeqNo: 2770431		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 464 10 495 0 93.7 80-120 0

DUP		Sample ID: 1405765-01A DUP				Units: mg/L		Analysis Date: 5/20/2014 08:30 AM		
Client ID:		Run ID: TDS_140520A				SeqNo: 2770412		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 1243 10 0 0 0 0-0 1232 0.889 20

DUP		Sample ID: 1405868-06A DUP				Units: mg/L		Analysis Date: 5/20/2014 08:30 AM		
Client ID:		Run ID: TDS_140520A				SeqNo: 2770422		Prep Date: 5/20/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids 406 20 0 0 0 0-0 392 3.51 20

The following samples were analyzed in this batch:

1405895-01B 1405895-02B

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

Client: HRL Compliance Solutions, Inc
Work Order: 1405895
Project: WPX GV 25-27 Historical Spill 5.16.14

QC BATCH REPORT

Batch ID: **R141146** Instrument ID **IC4** Method: **SW9056**

MBLK		Sample ID: CCB/MBLK-R141146				Units: mg/L		Analysis Date: 5/20/2014 07:40 AM		
Client ID:		Run ID: IC4_140520A				SeqNo: 2772552		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R141146				Units: mg/L		Analysis Date: 5/20/2014 08:00 AM		
Client ID:		Run ID: IC4_140520A				SeqNo: 2772553		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	10.25	1.0	10	0	102	88-107	0			
Sulfate	10.65	1.0	10	0	106	85-110	0			

MS		Sample ID: 1405895-02B MS				Units: mg/L		Analysis Date: 5/20/2014 12:55 PM		
Client ID: Pond Pt 2		Run ID: IC4_140520A				SeqNo: 2772561		Prep Date:		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	937.3	100	400	487.6	112	75-125	0			
Sulfate	1608	100	400	1135	118	75-125	0			

MSD		Sample ID: 1405895-02B MSD				Units: mg/L		Analysis Date: 5/20/2014 01:15 PM		
Client ID: Pond Pt 2		Run ID: IC4_140520A				SeqNo: 2772562		Prep Date:		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chloride	928.6	100	400	487.6	110	75-125	937.3	0.931	20	
Sulfate	1588	100	400	1135	113	75-125	1608	1.27	20	

The following samples were analyzed in this batch:

1405895-01B	1405895-02B
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ALS Laboratory Group

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

Chain-of-Custody

Form 202r8

WORKORDER #

1405895

PAGE

1 of 1

DISPOSAL

By Lab or Return to Client

PROJECT NAME WPX LV25-27 Historical

SAMPLER Reed Wold

DATE 5/16/14

TURNAROUND

24HR

PROJECT No.

Spill

EDD FORMAT

PURCHASE ORDER

COMPANY NAME HRL Compliance

BILL TO COMPANY WPX

SEND REPORT TO Mark Mumby

INVOICE ATTN TO Karolina Blaney

ADDRESS 2385 F 1/2 Rd

ADDRESS 1058 Co Rd 215

CITY / STATE / ZIP Grand Junction, CO 81506

CITY / STATE / ZIP Parachute CO 81635

PHONE 970-243-3271

PHONE 970-683-2295

FAX 970-243-3280

FAX

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

E-MAIL Karolina.blaney@wpenergy.com

Lab ID

Field ID

Matrix

Sample Date

Sample Time

Bottles

Pres.

QC

BTEX

TDS

Chlorides

Sulfates

1

Pond P#1

W

5/16/14

2:05

4

X

X

X

X

2

Pond P#2

W

5/16/14

2:15

4

X

X

X

X

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

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

X

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

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

SIGNATURE

PRINTED NAME

DATE

TIME

RELINQUISHED BY

Reed Wold

Reed Wold

5/16/14

3:00

RECEIVED BY

Nick M.

Nick M.

5-16-14

4:38

RELINQUISHED BY

Nick M.

Nick M.

5-16-14

5:00

RECEIVED BY

Keith L. KENNEDY

Keith L. KENNEDY

5/17/14

10:15

RECEIVED BY

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 17-May-14 10:15

Work Order: 1405895

Received by: KRW

Checklist completed by Keith Wurenga 17-May-14
eSignature Date

Reviewed by: Ann Preston 19-May-14
eSignature Date

Matrices: Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>5/17/2014 11:38:08 AM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: